REAUTHORIZATION OF THE CHESAPEAKE BAY PROGRAM

(111–60)

HEARING

BEFORE THE

SUBCOMMITTEE ON
WATER RESOURCES AND ENVIRONMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

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September 18, 2009

SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Water Resources and Environment

FROM: Subcommittee on Water Resources and Environment Staff

SUBJECT: Hearing on the "Reauthorization of the Chesapeake Bay Program"

PURPOSE OF HEARING

The Subcommittee on Water Resources and Environment will meet on Tuesday, September 22, 2009, at 2:00 p.m., in room 2167 of the Rayburn House Office Building to receive testimony from representatives of the U.S. Environmental Protection Agency (EPA), the states of Maryland, Pennsylvania, and Virginia, the University of Maryland, and other stakeholder entities on the reauthorization of the Chesapeake Bay Program (the Bay Program).

BACKGROUND

This memorandum summarizes both the state of the Chesapeake Bay (the Bay), and efforts to protect and restore it through the Bay Program. In 1983, the states of Maryland, Pennsylvania, and Virginia, the District of Columbia, the Chesapeake Bay Commission (the Bay Commission),[1] and the EPA signed the first Chesapeake Bay Agreement (the Bay Agreement) with the aim of protecting and restoring the Bay. The Bay Agreement resulted in the creation of the Bay Program, a partnership that directs and conducts activities towards the restoration of the Bay. The Bay Program is authorized through section 117 of the Clean Water Act (33 U.S.C. § 1267). EPA's Chesapeake Bay Program Office, based in Annapolis, Maryland, provides support to the Bay Program.

[1] The Bay Commission is a tristate legislative commission representing Maryland, Pennsylvania, and Virginia.

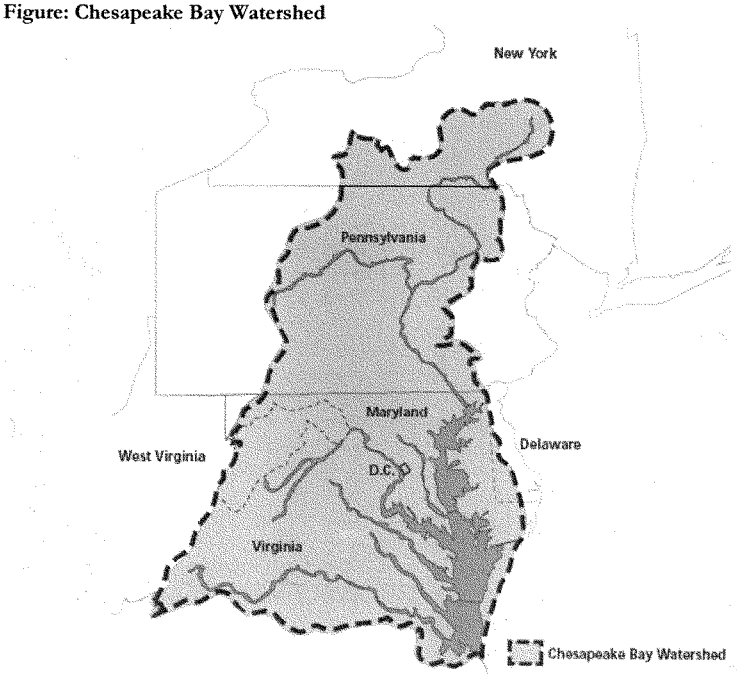
I. The Chesapeake Bay and the Chesapeake Bay Watershed

The Bay is the largest of the nation's estuaries. Largely located between Maryland and Virginia, it is nearly 200 miles long, 35 miles wide at its largest point, and covers more than 4,500 square miles. Having an average depth of only 21 feet, the Bay is relatively shallow.

Estuaries are bodies of water that receive both inflows from rivers and tidal inflows from the ocean. The Bay receives approximately half of its water from the Atlantic Ocean, and the other half is freshwater from the numerous rivers and streams that enter the Bay. The Susquehanna River is the largest source of freshwater entering the bay, providing approximately 50 percent.

The Chesapeake Bay watershed (the Bay watershed) is that geographic area from which water ultimately drains into the Bay (*see figure below*). The watershed includes the District of Columbia and parts of six states: Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia. It covers approximately 64,000 square miles.

Figure: Chesapeake Bay Watershed



Source: US EPA Office of Inspector General

The population of the Bay watershed has been steadily increasing since the mid-20th century. Between 1950 and 2000, the watershed's population nearly doubled from over eight million

to nearly 16 million individuals. The Government Accountability Office (GAO) estimates that the population of the Bay watershed will reach 18 million by 2020.

The Bay is a rich habitat for a wide variety of plants and animals. It is home to 3,700 species including blue crabs, ducks, herring, oysters, shad, and striped bass.

II. The State of Chesapeake Bay

State of the Chesapeake Bay: The Bay ecosystem, including water quality, is under stress. Sustained and excessive levels of pollution have resulted in water quality and habitat degradation, and have also contributed to the decline in populations of some species.

According to the Bay Program, the overall health of the bay did not improve in 2008. This is consistent with multiple decades of poor ecosystem health. Based off of an index developed by the Bay Program, comprised of water quality, habitat, and fish and shellfish population indicators, the health of the Bay averaged 38 percent – with a score of 100 percent representing a fully restored ecosystem, which is the goal.

Water quality is the most important measure of the Bay's health. The Bay Program measures water quality according to four parameters: dissolved oxygen,[2] water clarity,[3] chlorophyll *a*,[4] and chemical contaminants.[5] The index score for water quality across these factors is 21 percent. As a result, the Bay Program has determined that water quality in the Bay is very poor. From 2006 to 2008, water quality in the Bay decreased from 23.6 percent to 21.4 percent of all goals achieved.

According to the EPA, the key to restoring water quality in the Bay watershed is to achieve significant reductions in nitrogen, phosphorous, and sediment loads. In 2008, total estimated nitrogen and phosphorus loads from the watershed to the Bay were 311 million pounds and 19 million pounds, respectively. To meet water quality goals for the Bay, EPA has determined that nitrogen and phosphorus loads will have to be reduced by 44 percent and 27 percent respectively, despite expected population increases of 30 percent between 2000 and 2030.

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[2] Oxygen present in the water occurs in a dissolved form. Fish and shellfish require dissolved oxygen to survive. According to the Chesapeake Bay Program, between 1987 and 2008, dissolved oxygen goals increased from 14.7 percent to 16.4 percent.

[3] Good water clarity allows underwater grasses to grow. Underwater grasses provide important habitat for a number of aquatic species. Pollution can cause sediment and promote the growth of algae – both of which block sunlight, create cloudy water, and impede the growth of underwater grasses. According to the Bay Program, between 1985 and 2008, water clarity decreased from 37.5 percent to 13.7 percent.

[4] Chlorophyll *a* is found in algae and used to determine the presence and amount of algae in the Bay. Algae make up the base of the food chain and therefore help to support aquatic species found in the Bay, such as fish and oysters. According to the Bay Program, the scores necessary to achieve healthy levels of algae decreased from 47.6 percent in 1985 to 27.3 percent in 2008 of goals achieved for this performance measure.

[5] This measure consists of toxic chemicals that can be found in fish, sediment, or water. These constituents can impair both ecosystem and human health. The 2006 impaired water listings for Maryland, Virginia, and DC found 30 of 89 tidal tributary segments (33.7 percent) contained no impairment for chemical contaminants. The 2008 listings found that 25 of 89 segments (28.1 percent) contained no impairment for chemical contaminants.

The Bay Program found that its habitat measure was 45 percent in 2008, unchanged since 2007. The Bay Program measures habitat according to four parameters: bay grasses,[6] phytoplankton,[7] bottom habitat,[8] and tidal wetlands.[9] From 1996 to 2008, this measure has improved from 41 percent to 45.3 percent of goals achieved.

Fish and shellfish populations remain below desired levels. The Bay Program reported that 48 percent of the goals had been achieved in 2008. The fish and shellfish measure is composed of five parameters: the abundance of blue crabs,[10] native oysters,[11] striped bass,[12] shad,[13] and juvenile menhaden.[14] In 2000, the fish and shellfish measure was scored at 48.2 percent, similar to 2008.

Sources of Chesapeake Bay Pollution: The primary pollutants impairing the Bay are excess nutrients and sediment. These primarily consist of nitrogen, phosphorus, and sediment that come from throughout the Bay watershed. The sources of these pollutants consist of agricultural runoff, wastewater treatment facilities, land-use changes and urban stormwater, and atmospheric deposition.[15]

Agricultural runoff of nutrients and sediment is the largest source of pollutants into the Bay. The runoff of nutrients, such as nitrogen or phosphorus, into the Bay and its tributaries often occurs

---

[6] Underwater grasses serve a variety of important ecological functions, including serving as habitat, improving water clarity, adding oxygen to the water, and reducing shoreline erosion. A Bay-wide measure of underwater grasses found 76,861 acres in 2008 (41.5 percent of goals achieved), compared to 38,228 acres in 1984 (20.7 percent of goals achieved).

[7] Phytoplankton or algae are very sensitive to many water pollutants. Too much or the wrong kind of algae can be detrimental to the overall health of waters by decreasing oxygen, blocking sunlight, and harming aquatic life. In 2008, 53 percent of the phytoplankton goals had been achieved. According to the Bay Program water clarity is still too poor to support healthy phytoplankton communities. However, between 1986 and 2008, phytoplankton goals achieved did improve from 46.1 percent to 52.9 percent.

[8] The Bay Program takes samples of bottom sediments to determine the types, abundance, and health of bottom-dwelling organisms. According to the Bay Program, in 2008, 42 percent of the bottom of the Bay met bottom habitat goals. Low dissolved oxygen levels are the primary cause of degradation for bottom habitat. The health of the Bay's bottom habitat has decreased from 52.4 percent in 1996 to 41.5 percent in 2008.

[9] Tidal wetlands provide habitat, absorb rainwater runoff, and filter pollutants. The Bay Program reports that in 2005, there were approximately 283,946 acres of tidal wetlands in the Bay.

[10] Blue crabs rely on good water quality and healthy underwater habitats, especially underwater grasses. In 2008, the population of spawning age blue crabs was 120 million, or 60 percent of the goal. The goal achieved figure has decreased from 138 percent in 1990 to 60 percent in 2008.

[11] Overharvesting, water pollution, and diseases have resulted in drops in native oyster populations. In 1986, the biomass goal achieved was 10 percent. This subsequently decreased to 8.6 percent in 2007.

[12] The Bay is the primary spawning ground for striped bass on the east coast of the United States. While striped bass goals have been achieved, scientists remain concerned about disease – specifically mycobacteriosis. The female biomass goal for striped bass was 108 percent (89.6 million pounds) in 2006. This is an increase from 8.5 million pounds in 1982. According to the Bay Program, a fishing moratorium in the late 1980s and commercial quotas and recreational limits in the 1990s restored the stock.

[13] Shad are a central link in the food web between plankton and predatory fish. Shad populations have shrunk due to overfishing, pollutants, and artificial structures such as dams that obstruct their upstream spawning grounds. In 2007, the Bay Program reported that the abundance of shad was at 22 percent of the targeted goal.

[14] Juvenile menhaden serve important ecological roles by being prey for predator fish like striped bass, and by filtering water. Menhaden are used for fish oil, bait, and fish meal. Menhaden populations are healthy along the Atlantic coast, but low in the Chesapeake Bay. The percentage of times that fishery researchers have positively identified juvenile menhaden in their studies has dropped from 24 in 1959 to 18 in 2008.

[15] Atmospheric deposition is a process by which airborne pollutants settle directly onto the surface of a water body (direct deposition), or reach a water body indirectly through deposition onto land surfaces and subsequent run-off through wet weather events (indirect deposition).

as a result of over-application of fertilizer and following precipitation events. Sediment runoff from agricultural areas is also a source of impairment. According to the Bay Program, the implementation of practices to reduce agricultural runoff has resulted in a decrease in the amount of agricultural runoff – nutrients and sediments - that enters the Bay. These best management practices include planting winter cover crops, and planting vegetative buffers at the edge of tributaries or the Bay. The Bay Program reports that in 2008 the agricultural sector was responsible for 45 percent of total phosphorus loadings, 43 percent of total nitrogen loadings, and 60 percent of total sediment loadings.

Wastewater treatment facilities also contribute to nutrient loadings into the Bay and Bay tributaries. According to the Bay Program, these facilities contribute 19 percent of the nitrogen loadings, and 21 percent of the phosphorus loadings in 2008. In 2005, Bay jurisdictions began putting into place a new permitting approach that requires hundreds of wastewater treatment facilities to install a new generation of nutrient reduction technologies.

New land development (including urban and suburban development) is increasing nutrient and sediment loads at rates faster than restoration efforts are reducing them. Loadings from developed and developing lands include urban stormwater runoff, septic systems, and runoff from mixed open areas (golf courses and parks). Development often displaces natural, absorbent surfaces with hard impervious surfaces. Precipitation that may have been absorbed, instead hits a hard surface, like concrete, a building, or a road, in a developed area and is quickly channelized into streams or other waters. This results in increasing levels of water, nutrients, sediment, and other pollutants into these streams, causing further erosion and excess loadings.

In addition, increased population growth and development is associated with increased vehicle usage, resulting in higher levels of atmospheric deposition of pollutants.

Development in the Bay watershed often occurs on formerly agricultural or forested lands. Therefore, agricultural runoff may be displaced with urban stormwater runoff. Improvements in landscape design and stormwater management practices can decrease urban and developed land runoff issues. However, the Bay Program notes that "pollution increases with land development…have surpassed the gains achieved from improved landscape design and stormwater management practices." This, in combination with significant population increases, has resulted in increased adverse impacts from this source. The Bay Program reports that in 2008 urban and suburban development and runoff contributed to 31 percent of the phosphorus loadings, 16 percent of the nitrogen loadings, and 19 percent of the sediment loadings to the Bay.

Atmospheric deposition stems from emissions from vehicles, power plants, agriculture (ammonia from animal feeding operations), and industry. Pollutants from these emissions, including nitrogen and land directly on water bodies (direct deposition) or on land are ultimately carried into water bodies (indirect deposition). In 2008, the Bay Program determined that atmospheric deposition (direct and indirect) was responsible for 22 percent of the total nitrogen loadings to the Bay.

The Bay jurisdictions rely upon federal and state air pollution control programs to reduce atmospheric deposition loadings. EPA and the Bay Program had relied on the Clean Air Interstate Rule (CAIR) to reduce eight million pounds of nitrogen deposition by 2010. However, in early July 2008, the United States Court of Appeals for the District of Columbia Circuit struck down this rule.

Accordingly, neither EPA nor the Bay Program can expect to use this mechanism for nitrogen deposition reductions.

The figures provided in the appendix illustrate the relative sources for nitrogen, phosphorus, and sediment, according to the Bay Program's 2008 figures. These figures also include references to whether given sources are regulated or unregulated under the Clean Water Act.

While parts of six states and the District of Columbia comprise the Bay watershed, most of the pollutant loading comes from only three: Maryland, Pennsylvania, and Virginia. It is important to note that while each produces pollution from the same types of sources, the share of each of these loading sources is different, per state. This is a function of the types of economy, geography, and population centers. The significance of these differential loadings is that each state will require different approaches to decrease its respective loadings. In other words, each state will have to apply resources differently to cost effectively decrease its own loadings.

III. Efforts to Restore the Chesapeake Bay

The Chesapeake Bay Agreements: In the 1970s and early 1980s, EPA found that degradation of the Bay was taking place as a result of nutrient runoff, population increases, and discharges from wastewater treatment facilities. In response, in 1983, the states of Maryland, Pennsylvania, and Virginia, the District of Columbia, the Bay Commission, and the EPA signed the first Bay Agreement.

The Bay Agreement established the Chesapeake Executive Council (the Executive Council), and resulted in the Bay Program. The Executive Council meets annually and consists of the governors of Maryland, Pennsylvania, and Virginia, the EPA Administrator, the Mayor of the District of Columbia, and the Chair of the Bay Commission. Subsequent Bay Agreements were signed in 1987, 1992, and 2000.

The Bay Program is a partnership that directs and conducts the restoration of the Bay. It was authorized by section 117 of the Clean Water Act. It currently includes partners at the Federal, state, and local levels, as well as academic institutions, and nonprofit organizations.

EPA's Chesapeake Bay Program Office (CBPO) provides support to the Executive Council and the Bay Program. Among its responsibilities are the development and provision of information on the environmental quality and living resources of the Chesapeake Bay ecosystem. It also is responsible for coordinating EPA's activities with other federal agencies and state and local authorities participating in Chesapeake Bay restoration activities. The Bay Program produced an assessment of Bay health and restoration progress in April 2008: *Chesapeake Bay 2007 Health and Restoration Assessment: A Report to the Citizens of the Bay Region.*

Chesapeake 2000: The most recent Bay Agreement, *Chesapeake 2000*, is identified by the Bay Program as its strategic plan. In this agreement, the Bay partners agreed to improve water quality in the Bay and its tributaries so that these waters would be removed from EPA's impaired waters list by 2010. This result would mean avoiding a requirement to develop a Total Maximum Daily Load

(TMDL)[16] for the Bay. The non-signatory Bay watershed states of Delaware, New York, and West Virginia also agreed to the *Chesapeake 2000* water quality goals, and signed onto a six-state Memorandum of Understanding with EPA.

In 2006, senior EPA managers, and in 2007, the Executive Council, acknowledged that the *Chesapeake 2000* water quality goals would not be achieved. As a result, the Bay Program has committed to creating TMDLs for the Bay. A court-ordered deadline for the completion of these TMDLs is 2011. EPA and members of the Bay Program have committed, however, to completing the TMDL by the end of December, 2010.

The Chesapeake Action Plan: In December 2007, Congress passed the Consolidated Appropriations Act of 2008 (P.L.110-61) and directed EPA to implement all of the recommendations of a 2005 GAO report titled *Chesapeake Bay Program: Improved Strategies are Needed to Better Assess, Report, and Manage Restoration Progress* (GAO-06-09)[17] and to develop a Chesapeake Action Plan (CAP). The CAP would contain specified components that include realistic annual targets, actual activity reports, amounts and sources of funding, and a process to track and measure progress.

The Bay Program's Chesapeake Action Plan was released in July 2008 and titled, *Strengthening the Management, Coordination and Accountability of the Chesapeake Bay Program, Report to Congress.* The goal of the CAP was to improve and accelerate the coordination, integration, and implementation of efforts to protect and restore the Bay. The Bay Program and its partners envision the CAP as an adaptive management system that should be responsive to the complex, partner-driven Bay restoration system. The CAP includes four components:

1. A strategic framework unifying the Bay Program's existing planning documents and clarifying how Bay Program partners will pursue Bay restoration and protection goals;

2. An activity integration plan with data that identifies and catalogues Bay Program partners' implementation activities and corresponding resources;

3. Summaries of key information, including progress towards Chesapeake 2000 goals, summaries of actions and funding, and challenges and actions needed to expedite progress;

4. An adaptive management process to identify how information and analyses will provide input to Bay Program partners' actions, emphases, and future priorities.

2009 Obama Administration Executive Order 13508: On May 12, 2009, President Obama issued Executive Order (E.O.) 13508 to protect and restore the Bay watershed. The E.O. called the Bay a national treasure and directed the Federal Government to exercise greater leadership and actions to restore the Bay. It also established a Federal Leadership Committee. Comprised of senior representatives from the Departments of Interior, Defense, Commerce, Homeland Security, Agriculture, and Transportation, and chaired by EPA, the Federal Leadership Committee is charged

[16] A TMDL is a calculation of the maximum amount of a pollutant a waterbody can receive and still meet water quality standards, and an allocation (wasteload allocation) of that amount to the pollutant's sources.
[17] Mittal, Anu K., *Chesapeake Bay Program: Improved Strategies Are Needed to Better Assess, Report, and Manage Restoration Progress* (2006).

with compiling information from a series of draft reports to develop a single, integrated strategy defining actions to restore the Bay. This strategy is due on November 9, 2009.

In May 2009, the Federal Government, along with the District of Columbia and the six states in the Bay watershed agreed that by no later than 2025 they would have completed implementing the measures necessary to restore water quality in the Bay watershed.

On September 10, 2009, the Administration released a series of draft reports pursuant to E.O. 13508. These draft reports were authored by a variety of Federal agencies and make a series of recommendation across a variety of areas to improve the health of the Chesapeake Bay ecosystem. The draft reports consist of:

- Draft Report Section 202(a): Defines the next generation of tools and actions to restore water quality in the Bay. The draft report also describes the administrative changes that will be made to federal programs, policies, and regulations to implement these actions;

- Draft Report Section 202(b): Recommends how to target resources to better protect the Bay and its tributary waters. These include resources provided under authorities such as the Food Security Act of 1985, the Clean Water Act, and other Federal laws;

- Draft Report Section 202(c): Recommends strengthened stormwater practices at Federal facilities and on Federal lands in the Bay watershed. It also recommends developing a stormwater mitigation best practices guidance;

- Draft Report Section 202(d): Calls for an assessment of the impacts of climate change on the Bay and the development of a strategy for adapting natural resource program and public infrastructure to the impacts of climate change on water quality and living resources in the Bay watershed;

- Draft Report Section 202(e): Calls for an expansion of public access to the Bay, its tributaries, and open spaces from federal lands. Recommendations also include conserving landscapes and ecosystems in the Bay watershed;

- Draft Report Section 202(f): Calls for a strengthening of scientific support for decision-making for restoring the Bay and its watershed. This includes expanding environmental research and monitoring and observing systems; and

- Draft Report Section 202(g): Calls for the development of focused and coordinated habitat and research activities. These are intended to protect and restore living resources and water quality in the Chesapeake Bay and its watershed.

WITNESSES

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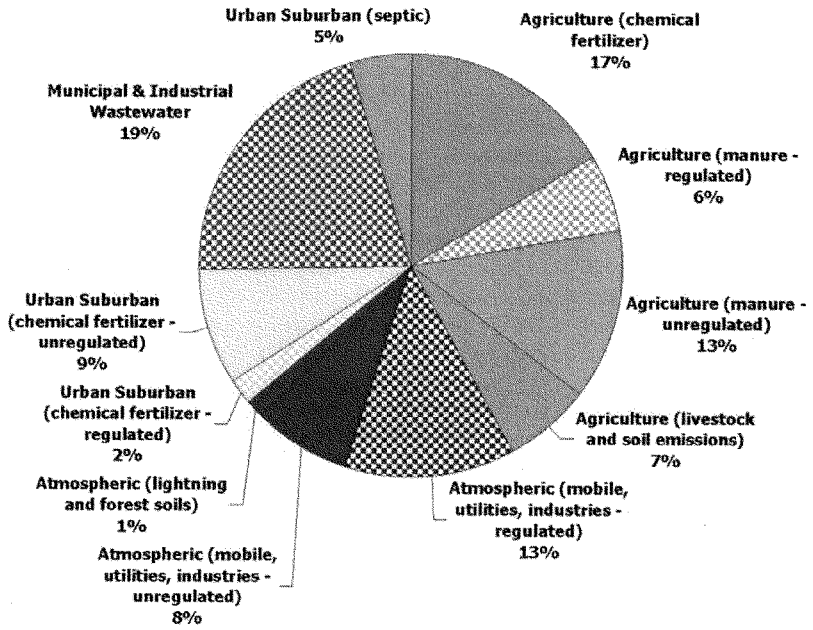
APPENDIX

Sources of and Federal Regulatory Status for Delivered Loads to the Bay: Nitrogen

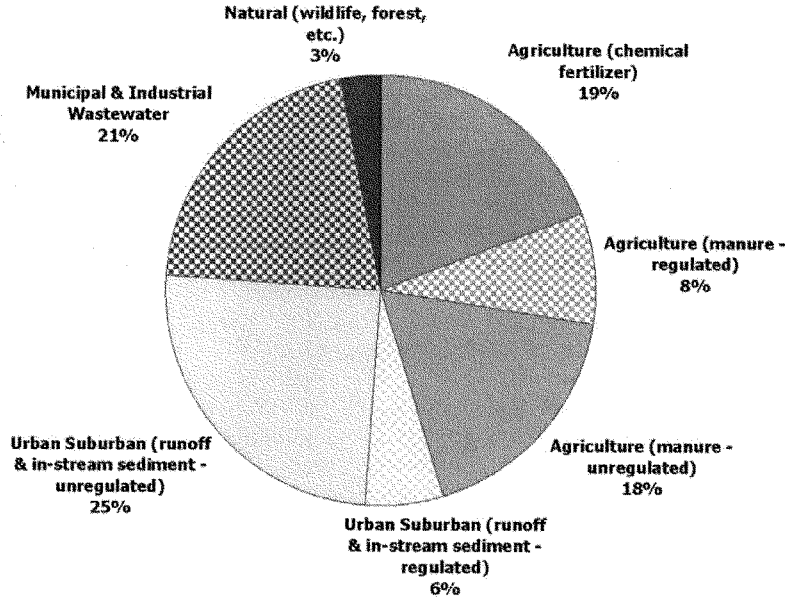


Federally regulated

60% of the total nitrogen load to the Chesapeake Bay is <u>not</u> subject to Federal regulation.

Source: Chesapeake Bay Program Phase 4.3 Watershed Model

Sources of and Federal Regulatory Status for Delivered Loads to the Bay: Phosphorus

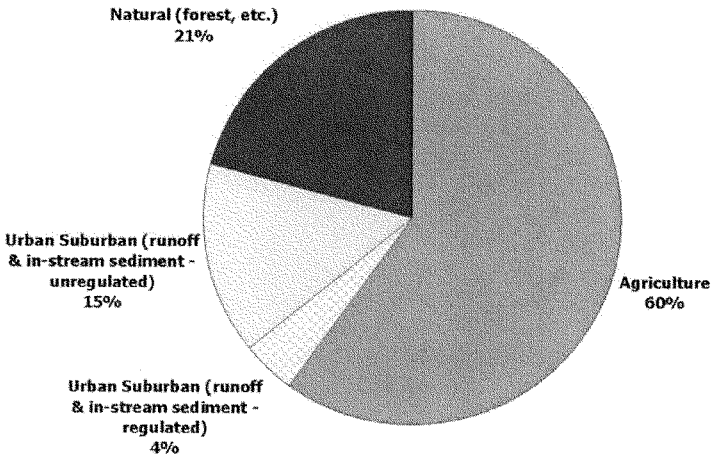


Federally regulated

65% of the total phosphorus load to the Chesapeake Bay is <u>not</u> subject to Federal regulation.

Source: Chesapeake Bay Program Phase 4.3 Watershed Model

Sources of and Federal Regulatory Status for Delivered Loads to the Bay: Sediment



Federally regulated

96% of the total sediment load to the Chesapeake Bay is <u>not</u> subject to Federal regulation.

Source: Chesapeake Bay Program Phase 4.3 Watershed Model

HEARING ON REAUTHORIZATION OF THE CHESAPEAKE BAY PROGRAM

Tuesday, September 22, 2009,

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:00 p.m. in room 2167, Rayburn House Office Building, the Honorable Eddie Bernice Johnson of Texas [Chair of the Subcommittee], presiding.

Present: Representatives Johnson of Texas, Boozman, Cao, Cummings, Edwards, Hare, Latta, Oberstar, Perriello, and Platts.

Ms. JOHNSON OF TEXAS. The Committee will come to order.

I would like to ask unanimous consent to enter two pieces of testimony into the record. The first is from the Chesapeake Bay Coalition and the second is from Ducks Unlimited.

[The referenced documents follow:]

Choose Clean Water

A Campaign for the Chesapeake and all of its Waters

September 22, 2009

The Honorable Eddie Bernice Johnson
Chairwoman
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
Rayburn HOB B-376
Washington, DC 20515

The Honorable John Boozman
Ranking Member
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
Rayburn HOB B-375
Washington, DC 20515

Dear Chairwoman Johnson and Ranking Member Boozman:

As your committee considers the reauthorization of the Chesapeake Bay Program during today's hearing, we urge you to follow Senator Ben Cardin's (D-MD) lead and draft strong reform legislation that restores clean water to the hundreds of rivers and streams that flow into the Chesapeake Bay. Senator Cardin's discussion draft, currently circulating, directly addresses the most pressing sources of pollution. Years of promises and goals have not moved us significantly closer to the goal of clean water. We must see policies and ideas that deliver results to protect and clean our streams and rivers throughout the region.

We are particularly supportive of the framework of Senator Cardin's legislation, which uses the Bay-wide Total Maximum Daily Load to "cap" pollutants coming off of the 64,000 square mile watershed. Additionally we support strong tributary implementation plans, federal oversight and enforcement, expanded monitoring grants to states, a citizen suit provision, and increased accountability for federal funds. We would also like to see stormwater pollution addressed and an independent evaluator provision to increase transparency and ensure that timely progress is happening on the ground.

Our cumulative failure to keep our rivers and streams clean is tragically reflected in the poor water quality of the Chesapeake Bay. The inadequacy of current policy is readily visible in the Bay, because that's where the pollution collects. It's simple, we are asking for strong but realistic pollution limits that will finally put an end to pollution of our waters.

Thank you for making the reauthorization of the EPA Chesapeake Bay Program a priority in the 111th Congress. Please consider including this letter on the hearing record. The Chesapeake Bay Watershed Coalition now represents more than 90 organizations who want increased federal leadership to restore the hundreds of rivers and streams that flow into the Chesapeake Bay. If you have any questions, your staff may contact the Coalition's Senior Manager, Hilary Harp Falk at falkh@nwf.org, 443-759-3406.

Sincerely,

Tony Caligiuri
National Wildlife Federation

Doug Siglin
Chesapeake Bay Foundation

Chris Miller
Piedmont Environmental Council

Co-chairs, Chesapeake Bay Watershed Coalition and *Choose Clean Water* Campaign

706 Giddings Avenue, Suite 2-B, Annapolis, MD 21401
443.759.3407 info@choosecleanwater.org

Chesapeake Bay Watershed Coalition
Members to Date

1000 Friends of Maryland
10000 Friends of Pennsylvania
Adkins Arboretum
American Rivers
Anacostia Riverkeeper
Anacostia Watershed Society
Audubon MD/DC
Audubon Naturalist Society
Audubon Society of Northern Virginia
Baltimore Harbor Waterkeeper
Baltimore Jewish Environmental Network
Bay Hundred Foundation
Bohemian River Association
Chapman Forest Foundation
Chesapeake Bay Foundation
Chesapeake Bay Maritime Museum
Chesapeake Wildlife Heritage
Chester River Association
Choptank River Eastern Bay Conservancy
Clean Water Action
Coalition for Smarter Growth
Corsica River Conservancy
Delaware Nature Society
Dorchester Citizens for Planned Growth
Ducks Unlimited
Eastern Shore Land Conservancy
Elizabeth River Project
Environment America
Environment Maryland
Environment Virginia
Environmental Defense Fund
Environmental Working Group
Float Fishermen of Virginia
Friends of Dyke Marsh
Friends of the Blue Ridge Mountains
Friends of the Chemung River Watershed
Friends of the North Fork of the Shenandoah River
Friends of the Rappahannock
Friends of the Rivers of Virginia
Growth Action Network of Anne Arundel County
Harriet Tubman Underground Railroad Byway
Herring Run Watershed Association
James River Association
Jones Falls Watershed Association
Lower Shore Land Trust
Lower Susquehanna Riverkeeper
Lynnhaven River NOW
Maryland Bass Federation Nation
Maryland League of Conservation Voters
Mattawoman Watershed Society
National Aquarium
National Parks Conservation Association
National Wildlife Federation
Natural Resources Defense Council
Nature Abounds
New York League of Conservation Voters
Partners for Open Space
PennFuture
PennEnvironment
Pennsylvania Council of Churches
Pennsylvania Farmers Union
Pennsylvania Interfaith Climate Change Campaign
Pennsylvania Organization for Watersheds and Rivers
Phillips Wharf Environmental Center
Piedmont Environmental Council
Potomac Conservancy
Potomac Riverkeeper
Presbyterian Citizens in Action
Restore America's Estuaries
Queen Annes Conservation Association
Sassafras River Association
Savage River Watershed Association
Severn Riverkeeper
Shenandoah Valley Network
South River Federation
Southern Environmental Law Center
St. Mary's River Watershed Association
Talbot Rivers Protection Association
Virginia Conservation Network
Virginia League of Conservation Voters
Virginia State Watermen's Association
West/Rhode Riverkeeper
Wetlands Watch
Wicomico Environmental Trust

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West/Rhode Riverkeeper
Wetlands Watch
Wicomico Environmental Trust

September 22, 2009

The Honorable James Oberstar
Chairman
House Committee on Transportation and Infrastructure
2165 Rayburn House Office Building
Washington, DC 20515

The Honorable John Mica
2163 Ranking Member
House Committee on Transportation and Infrastructure
Rayburn House Office Building
Washington, DC 20515

Dear Chairman Oberstar and Ranking Member Mica:

On behalf of more than one million supporters, thank you for allowing Ducks Unlimited the opportunity to submit written testimony in support of your Committee's efforts to reauthorize EPA's Chesapeake Bay Program. Ducks Unlimited is the world's largest and most effective private, nonprofit wetland and waterfowl conservation organization with more than 12 million acres of wetlands conserved in North America.

The Chesapeake Bay is world famous for its once abundant resources of waterfowl, fish, and shellfish populations. Unfortunately, the Bay has been severely impacted by land use alterations resulting in widespread degradation of water quality that has diminished the Bay's ecological health. To date, the Chesapeake Bay has lost more than 2.5 million acres of wetlands, and 50% of waterways lack buffers, resulting in unabated non-point source runoff of excess nutrients and sediments into the Bay. Additionally, the Bay area is becoming highly urbanized resulting in excessive point source pollution from the more than 16 million people who call the watershed home. This trend is expected to continue well into the future and without careful planning will accelerate a decline in Bay natural resources.

The combined impact of land use changes and growing human populations have degraded water quality, ultimately resulting in a drastic loss of submerged aquatic vegetation (SAV) in the Bay of up to 90 percent. This in turn has resulted in major declines of wintering waterfowl and other Bay resources. More than 2,700 plant and animal species live within the Bay watershed, including many federally endangered and threatened species. Because of the critical importance of the Chesapeake Bay for waterfowl and many other species, the area is designated as a high priority under Ducks Unlimited's International Conservation Plan. The goal of this plan is to deliver an integrated conservation initiative to accelerate habitat conservation, improve water quality, conduct applied research, educate citizens, and communicate these successes. Ducks Unlimited has taken dramatic steps to conserve hundreds of thousands of acres in the Bay watershed.

As a step toward implementing our plan, Ducks Unlimited partners with the Chesapeake Bay Program to achieve the Program's goal to restore 25,000 wetland acres to meet its Chesapeake 2000 wetland restoration commitment. Ducks Unlimited has conserved approximately 113,000 acres of habitat in Virginia, Maryland and Pennsylvania in the past 10 years, and therefore is ideally

positioned to continue to lead wetland restoration efforts in the Bay watershed. Ducks Unlimited serves as Co-Chairman of the Chesapeake Bay Program's Habitat Goal Implementation Team that oversees wetland restoration strategy in the Bay watershed. As Co-Chairman, we will transfer our leadership and experience in wetland conservation to the Program's efforts for the Bay.

As your Committee moves forward with the reauthorization of the Chesapeake Bay Program, Ducks Unlimited respectfully requests the Committee remember the importance of wetlands to the Bay watershed. Wetlands act as kidneys to the Bay filtering harmful nutrients and sediments that choke the life out of the Bay. Wetlands provide habitat for countless amphibians, birds, mammals, and shellfish. Finally, wetlands act as a barrier to protect the mainland from storm surges that can have devastating effects as we saw with Hurricane Isabel in 2003.

The Chesapeake 2000 agreement commits the Chesapeake Bay Program partnership to restore or create 25,000 acres of tidal and non-tidal wetlands in the watershed by 2010. The Program has accomplished over 50% of its wetlands goal. Ducks Unlimited stands ready to help the Chesapeake Bay Program achieve its 2010 goals, but this will be difficult to realize without enhanced federal resources. This farsighted wetland goal will help ensure the long term sustainability of the Chesapeake Bay while taking a major step toward Ducks Unlimited's vision of wetlands sufficient to fill the skies with waterfowl today, tomorrow, and forever.

The Chesapeake Bay Program is the federal government's best tool to fix this dying watershed President Obama recently called a "national treasure" in his Executive Order calling for increased coordination of the federal government's Bay restoration efforts. As you Committee moves forward, please increase the federal dollars going to waterfowl habitat restoration and enable state and local governments as well as non-profits to lead these on the ground restoration efforts. Further, please elevate these habitat restoration efforts so future generations of people and wildlife will enjoy our national treasure.

Finally, as your Committee reauthorizes the Program, please continue your efforts with complementary legislation, the Clean Water Restoration Act. Ducks Unlimited fully supports your Committee's efforts to restore the Clean Water Act to its original intent, protecting all of America's waters. In fact, DU has made restoring the Clean Water Act and protecting wetlands one of its top organization priorities for the past three years. DU will continue to work with the Committee in order to pass the Clean Water Restoration Act this year.

Once again, thank you for the opportunity to submit testimony to the Committee. Ducks Unlimited looks forward to the working with the Committee as it takes steps to ensure future generations enjoy the Chesapeake Bay. If you need assistance in the future, please do not hesitate to contact Bernie Marczyk, Governmental Affairs Representative, at 410-224-6620 or bmarczyk@ducks.org or Bart James, Director of Public Policy at 202-347-1530 or bjames@ducks.org.

Sincerely,

Bernie Marczyk
Governmental Affairs Representative

Barton James
Director of Public Policy

Ms. JOHNSON OF TEXAS. I also would like to request unanimous consent that Congressman Cummings be allowed to participate in this hearing of the Subcommittee on Water Resources and Environment. He should be here shortly.

Any objection? Hearing none.

Just over a year ago, this Subcommittee held a hearing on the Chesapeake Bay that highlighted its impairments and provided recommendations for its recovery. Today's hearing is the next step in restoring the estuary.

This afternoon, we will hear from a series of distinguished panelists on the reauthorization of the Chesapeake Bay Program. We are pleased that we also have the opportunity to hear from two of our distinguished colleagues from Virginia, Congressman Gerry Connolly and Congressman Robert Wittman. Their districts are, as you know, at the lower end of the watershed. They are literally downstream, as such. They can offer great clarity to the cloudy bay, and we will look forward to their comments and contributions to this discussion.

The combination of a new and committed Administration, an unhealthy watershed, and a dedication to solutions and accountability from both sides of the aisle illustrates that the time to act must be now.

But as we discuss the reauthorization of Section 117 of the Clean Water Act, and while we call for accountability, we must all set a goal of realizing a process for restoring the Bay that is characterized by equity and effectiveness. Speaking plainly, without these elements, the Chesapeake Bay will not be restored.

The primary pollutants in the Chesapeake Bay are nutrients and sediment. These pollutants come from a variety of sources, some regulated, others not. The only way we are going to be able to unlock the puzzle that is a dying Chesapeake is through the creation of a fair system whereby those that pollute the Bay are proportionately responsible for cleaning it up.

Renewing and, in some cases, installing a sense of accountability will not result in a healthy and restored bay. It is the right and just thing to do.

EPA tells us that 20 percent of the nitrogen loadings to the Bay come from wastewater treatment facilities; 21 percent comes from atmospheric deposition; and 16 percent from urban and suburban runoff; and 43 percent comes from agricultural sources.

The wastewater treatment community has long been regulated under the Clean Water Act. As such, publicly owned treatment works have been consistent partners with the States of the Bay watershed in reducing nutrient loadings. That said, a number of treatment works have nutrient permit limits that are in excess of the levels achievable by current technology. Through trading or technology these lagging facilities must be brought up to speed.

Resolving the issue of atmospheric deposition is a vexing problem. With environmental statutes that remain stovepiped, our ability to get at the fallout of nitrogen onto the waters and landscape of the Bay watershed is handicapped. Through implementation of pending Clean Air Act programs such as the Clean Air Interstate Rule, we can anticipate sizable reductions. Whether these will achieve the gains necessary will remain to be seen, as will the mat-

ter of whether there needs to be a closer linkage between the Clean Water and Clean Air Acts.

All levels of government, Federal, State and local, must do a better job with urban and suburban stormwater control and mitigation. This is the sole sector in which pollutant loadings are increasing. It is untenable that while 31 percent of the total loadings of phosphorus into the Bay are from urban and suburban sources, 6 percent are covered by stormwater permits.

11 percent of the total nitrogen loadings are from urban and suburban sources, and only 2 percent are covered by permits; and where 19 percent of all sediment loadings come from urban and suburban sources, only 4 percent of the sediment loadings are covered under permits.

Many of these stormwater inputs are point source discharges. As such, they must be better brought in under the manifold of the Clean Water Act. We have now held multiple hearings on the effectiveness of the green infrastructure. Given the cost effectiveness of many of these technologies, development should not be seen as a free pass to polluters.

Finally, agriculture is an area in which improvements can and must be made. While nutrient reductions have indeed occurred as a result of the incorporation of best management practices on farms and the application of regulations to industrial livestock operations, the fact remains that agriculture remains the largest single source of pollutants into the Bay. If we are to clean up the Bay, agriculture must bear responsibility for its proportionate share of watershed impairment.

The value of the Bay lies not just to the States of Maryland and Virginia. As a Member from Dallas, Texas, it is obvious that I live outside this watershed. Yet I know that restoring this estuary is a matter of great importance. The Bay is, as President Obama recently put it, a national treasure.

As such, I recognize that we all live downstream no matter where we, in fact, reside. The benefits of a cleaner Chesapeake Bay will, of course, accrue to the estuary itself, but these benefits are by no means limited to just the Bay proper. A cleaner bay necessarily means a cleaner Anacostia for the District and a cleaner Susquehanna for Pennsylvania, healthier headwater streams in Delaware, a more pristine south branch of the mighty Potomac River in West Virginia, and a more vibrant Oswego in New York.

More accountability, equity and effectiveness means both a healthier bay downstream and cleaner waters upstream in which all people of this watershed may better and more healthily drink, swim and fish.

I thank all of you for being here this afternoon, and I now yield to our Subcommittee Ranking Member, Mr. Boozman, for his opening statement.

Mr. BOOZMAN. Thank you very much, Madam Chair.

I certainly want to welcome everyone to our hearing today, and especially Mr. Wittman and Mr. Connolly. We look forward to your words of wisdom.

The Chesapeake Bay is certainly the largest estuary in the United States and is critical to the economy, environment and way of life for millions in the mid-Atlantic area. Covering some 64,000

square miles, the watershed spans parts of six States and the District of Columbia and is home to 16 million people. There are 150 major streams and tributaries in the Chesapeake Basin. The Bay is an important environmental feature in the region. It is home to millions of waterfowl and a vast array of fish, shellfish and other aquatic plants and animals.

For the human population, the Chesapeake Bay provides millions of pounds of seafood, a wide variety of recreational opportunities, and is a major shipping and commercial hub. Two of the Nation's largest ports are on the Chesapeake Bay: Baltimore, Maryland and Hampton Roads, Virginia.

Like many of our Nation's watersheds, the Chesapeake Bay is a working watershed, with multiple uses and increasing demands. Beginning with colonial settlement until today, land use activities and changes in the watershed have affected the health of the Chesapeake Bay. Public concerns about the health of the Bay have been raised since the 1930s.

The deterioration of the Chesapeake Bay can be seen in a decrease in water clarity, a decline in oyster and crab populations, and a lack of underwater grasses. There are even areas of the Bay that are dead zones where there is not enough oxygen in the water to sustain life.

The EPA says the major causes of the Bay's deterioration are excess nutrients and sediments coming from farmlands, wastewater treatment plants, and urban runoff. Septic systems and air deposition of emissions from power plants, cars and trucks also contribute to the degradation.

In the next 25 years, an additional 3.7 million people are expected to be living in the Chesapeake Bay watershed. As more concrete and asphalt replaces forests and open spaces, the runoff of nutrients and sediments into the Bay will increase. However, it is this same growth and development that provides the economic stability for the region. All producers, including farmers, foresters, fishermen, rely on the water from the Chesapeake Bay watershed for their operations.

Most farmers in the watershed have implemented conservation practices and nutrient management plans. If water quality goals are not being met, we have to be careful not to overburden producers with regulations that would yield little or no benefit. Before we create any additional mandatory programs, we have to ensure our producers remain competitive.

Again, moving the goalposts for farmers and producers without knowing if this will improve water quality may ultimately lead to these lands being used for activities other than agriculture or forest. Those in the production industry are some of the best stewards of the Chesapeake Bay watershed. Forcing producers off the land will merely lead to more concrete, more asphalt. We may just be replacing one source of pollution for another.

The Bay region must balance economic development with the need for clean water and a healthy environment. To do this, the region needs to be smart in how it grows in the future in order to minimize the impacts on the Bay.

The Chesapeake Bay Program was created many years ago to address the degradation of the Bay. In 1987, the program was author-

ized formally by Congress in the Clean Water Act. Today, the program is a partnership of States, local entities and the EPA that directs and conducts restoration of the Chesapeake Bay.

The Chesapeake 2000 Agreement set ambitious restoration goals to be met by 2010. These goals are now being rescheduled, but the States in the watershed are taking proactive steps to reduce nutrient loadings and increase enforcement. There have been some clear successes taking place in our efforts to improve conditions in the Bay. Billions of taxpayer dollars have already been devoted to bay cleanup. In some cases, this has improved wildlife habitat, bottom habitat, and the tideland wetlands.

The Administration recently issued an executive order to expand the role of the Federal Government within the Chesapeake Bay watershed. The executive order calls for the creation of total maximum daily load for the Chesapeake Bay to regulate the limits on pollutants into the Bay. In addition, the executive order calls for a new strategy for meeting the goals of a restored Chesapeake Bay ecosystem.

More still needs to be done. All of the program partners and stakeholders at the local, State and Federal levels need to make some hard decisions to realize a bay region that is both environmentally and economically sustainable.

Today, we have assembled an excellent group of expert witnesses to help us consider the Chesapeake Bay Program as it is now up for reauthorization. I look forward to hearing from each of the witnesses on how we can improve the performance of the Chesapeake Bay Program and increase the accountability of the program and its partners to achieve the Bay restoration goals.

And with that, I yield back, Madam Chair.

Ms. JOHNSON OF TEXAS. Thank you very much.

The Chair now recognizes Mr. Cummings.

Mr. CUMMINGS. Thank you very much, Madam Chairwoman Johnson. I thank you for holding this timely hearing. And I also thank you for giving me an opportunity to participate.

As a Representative of the Maryland Seventh Congressional District, I know what an extraordinary resource the Chesapeake Bay is to the State of Maryland, to the mid-Atlantic region, and indeed to this Nation.

In the Administration of President Barack Obama, we finally have a President who recognizes that the Bay is truly a national treasure and who has made the restoration of the Bay among his top environmental preservation goals.

On May 12, the President issued Executive Order 13508 which directs the Federal Government to significantly expand its leadership of the ongoing effort to restore the Bay. Earlier this month, the Federal Leadership Committee established by the executive order issued a series of reports, known as the Section 202 draft reports, that thoroughly reviewed the challenges faced by the Bay, as well as the steps needed to overcome these challenges as we work to renew the Bay.

The Section 202 draft report makes clear the Chesapeake Bay is one, if not the most studied bodies of water in the world. We know what is harming the Bay. We understand in great detail how nitrogen, phosphorus and sediments enter the Bay from the runoff that

flows across impervious surfaces, through eroding urban streams and aging storm sewers, across farm fields, from the discharges that are produced by wastewater treatment facilities, and that leach from septic systems and through atmospheric deposition.

We also understand how controlling and reducing this runoff and these discharges is critical to enabling the complex ecosystem if the Bay is to thrive again.

Finally, we also know that despite being informed by conclusive scientific evidence of what is wrong, the many voluntary agreements that have been signed with so much fanfare over the past quarter century have all failed to accomplish their shared objective of truly cleaning up the Bay.

The Section 202 reports provide a stunning assessment, despite all the agreements, despite all the promises, despite all the best efforts, heartfelt slogans and expenditure of billions of dollars, the Bay's water quality in 2008 was still very poor.

The Section 202(a) report is also clear about what must be done. It states "to meet water quality goals for the Bay, nitrogen and phosphorus pollution must be reduced by 44 percent and 27 percent respectively, despite expected population increases of 30 percent between 2000 and 2030."

Ladies and gentlemen, despite the best intentions of the States, the voluntary agreements that have failed in the past, are simply not going to achieve this level of pollutant reductions in the years to come. And we need to be very clear on that. We need to be honest with ourselves on that. It is evident that we must begin implementing more formal structures to control pollutant loadings.

However, it is also evident that current law does not provide all the authorities necessary to establish, implement and assess the results of such new control measures. As such, it is now critical that we in the Congress step up and provide the legal authorities the Environmental Protection Agency and the States need to take decisive action to restore the Bay.

Frankly, we must also hold these entities accountable for the results of their efforts, and under the leadership of President Obama, we have a once in a lifetime chance to enact legislation that can finally set us on the path to restoring the Bay, an achievement whose true benefits will accrue to our children and grandchildren and generations yet unborn.

I am honored to be working with Chairman Oberstar, Chairwoman Johnson and all of my colleagues on the Transportation Committee to craft such legislation. I look forward to today's hearing which will help inform the development of these provisions.

With that, Madam Chairlady, I thank you again and I yield back.

Ms. Johnson of Texas. Thank you very much.

The Chair now recognizes Mr. Perriello.

Mr. PERRIELLO. Thank you, Chairwoman, Ranking Member.

The Chesapeake Bay is an unbelievable treasure for our Country, for our region and certainly for the Commonwealth of Virginia. It is a treasure in terms of biodiversity, in terms of natural resources, and it's also a tremendous economic driver. But many of the sectors of our economy that help contribute to the problems in the Bay are also great treasures of ours and great economic drivers.

The challenge facing the Chesapeake Bay is not one that's solved by great platitudes or ideological debates. It is really down to the problem solvers. It is down to the people who can get into the details. And to be honest with ourselves, given some of the things that have made great strides in the past and some of the things that have fallen short, we need to start with a simple question: What solves the problem? And then have the follow-up: What is the most efficient way to get there?

What has been impressive in this debate across State lines, across county lines, is people who are deadly serious about solving this problem, who understand its importance not just to our environment, but to the long-term economic growth of our Commonwealth and beyond.

So I think we see today with this hearing and with the efforts that have gone into those who are speaking to us today, that we see a serious set of people trying to answer those questions. We have sectors of our economy affected by this that are already in very difficult times. We need to find ways to make sure that we are not putting an undue burden on them.

But we also know that there are certain biological issues that are not up for debate that need to be addressed, and without that, we will see these things fall apart.

So the help of our neighbors will always be a top priority and a strong consideration as we hear the witnesses today. And I commend the Chairwoman for calling this hearing and for all those who are part of it, and look forward to getting into the nuts and bolts of how we actually solve this problem together.

Thank you.

Ms. JOHNSON OF TEXAS. Thank you very much.

Ms. Edwards?

Ms. EDWARDS. Thank you, Madam Chairwoman, and to the Ranking Member as well.

I share both the expressions of concern that my colleagues have made today, as well as all of our shared responsibility and desire to meet our shared responsibility for the protection of the Bay, and to balance the multiple uses of the Chesapeake Bay.

I am someone who has, like many you know, fished, camped, hiked, and made recreational use of the Bay and its treasures. But I also recognize that we have many industrial and commercial sources that depend heavily on a healthy and thriving Chesapeake Bay and the entire watershed.

I live here in the Washington, D.C. metropolitan area, and what we recognize in this area is that for those of us who live along the Potomac, Patuxent, and Anacostia Rivers that there are things that we are doing in terms of our transportation and economic development policies that, although we are hours away and miles away from the Bay itself, add deep and harmful contributions that are contributing to the ill health of the Chesapeake Bay.

And so we have a responsibility in this region, but there is also a responsibility for industry. Along the Bay are agricultural and commercial industries that, while it is important for them to thrive, are contributing heavily to the agricultural runoff, for example, in the Bay that have led to its ill health.

And I think as my colleagues have shared, you know, we have been doing a lot of studying of the Chesapeake Bay. I have been an advocate on Bay issues for about the 25 years that I have lived in the region. And so we do know what the causes are. We do have to have shared agreements and responsibilities that we can all meet and live up to-- and that we are willing to live up to.

I think that it is really clear that despite all the resources that we have put into Chesapeake Bay protection and restoration, that we haven't been as successful as we would like to have been. And for the multiple States that share this bay as a resource and for this Nation, it is really imperative that we come together on a set of agreements that can be properly enforced and monitored so that, in fact, in 20 years we are talking about a really healthy Chesapeake Bay.

We know that there are greater efficiencies that can be achieved in wastewater treatment, in transportation policy, in economic development policy, some of which seem very local in nature, but in fact, because they impact a region and they impact the Nation's largest estuary, actually may require some Federal intervention that we might not undertake in other areas.

And so, Madam Chairwoman, I am grateful to be here today to listen to the testimony of so many of our experts, our colleagues who, like me, share responsibility for the Chesapeake Bay. And I look forward to us coming to some resolutions that will result in true health for the Bay and the maintenance of the Chesapeake Bay for future generations.

Thank you, Madam Chairwoman.

Ms. JOHNSON OF TEXAS. Thank you very much.

Mr. Hare?

Mr. HARE. Thank you, Madam Chair.

I want to thank Chairwoman Johnson and Ranking Member Boozman for holding this very important meeting.

The Chesapeake Bay is one of the Nation's most cherished natural resources. The Bay is the largest estuary in the Country. It is rich in wildlife and is home to over 3,700 species.

Over the past half century, the population of the Bay watershed has doubled. Increases in agricultural runoff, wastewater treatment facilities, new land development, and vehicle usage in the area have led to significantly high levels of pollutants such as excessive nutrients and sediment in the Bay. As a result, the Bay's water quality and ecosystems are under significant stress.

To address this, in 1983 the States of Maryland, Pennsylvania, and Virginia, the District of Columbia, the Chesapeake Bay Commission and the EPA signed the first Chesapeake Bay Agreement, with the aim of protecting and restoring the Bay. The Bay Agreement resulted in the creation of the Bay Program, a partnership that directs and conducts activities towards the restoration of the Bay.

Despite these coordinated efforts, the overall health of the Bay has been slow to improve, as indicated by the Bay Program in its assessment of the health of the Bay in 2008. It is clear that we have much more work to do.

Madam Chairwoman, I believe that the Bay Program and its stakeholders need to reconsider what has been done or not done in

the past and consider what it will do differently in the future to protect this vital natural resource. I look forward to hearing from our witnesses today and to learn how we can make improvements to carry out this mission.

Thank you, Madam Chairwoman. I look forward to the testimony.

Ms. JOHNSON OF TEXAS. Thank you very much.

Are there any other opening statements?

The Chair now recognizes Mr. Perriello for introductions.

Mr. PERRIELLO. Thank you, Madam Chair, for allowing me to do the introductions.

Our first witness today is Congressman Rob Wittman from the First District of Virginia: America's first district, home of Williamsburg and Yorktown. Mr. Wittman is a Member of the Armed Services Committee and has been a tremendous champion of our men and women in uniform, and particularly of the advancement of our naval fleet and other important priorities. He also serves on the Committee on Natural Resources.

He has been a long-time champion of the Chesapeake Bay's vital economic and environmental importance. He comes from a marine biologist background and brings a tremendous amount of both substantive research and policy expertise to the equation. He has many degrees, including ones from UNC and Virginia Tech, two ACC schools that still know how to win a football game.

And I, on a personal note, want to thank him for reaching out so much since I first got here in January. He extended a reach across party lines to work particularly on issues related to veterans and Virginia. It is a real pleasure to hear from him today.

He will be followed by Congressman Gerry Connolly from Virginia's 11th District, a Member of the House Budget Committee, the House Committee on Foreign Affairs, and the House Committee on Oversight and Government Reform. He is a previous Chair of the Board of Supervisors in Fairfax County. He is the current President of the freshman class and the past president of the Virginia Association of Counties. He really brings a particularly important perspective, having seen local, State and Federal interaction on these issues.

He has been a long-time advocate for children in the Commonwealth and across the country, and is an expert on foreign policy and other issues. So it is a pleasure to see his expertise here as well.

We welcome you both and, consistent with Subcommittee practice, this panel will be adjourned following their testimony.

That having been said, Congressman Wittman, please proceed.

Ms. JOHNSON OF TEXAS. Thank you very much.

TESTIMONY OF THE HONORABLE ROB WITTMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA; GERALD E. CONNOLLY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA

Mr. WITTMAN. Thank you, Madam Chairwoman, Ranking Member Boozman. It is an honor and a privilege to be before you today, and I really appreciate your allowing me to discuss the issues before us about the Chesapeake Bay.

As you know, the Bay is extraordinarily important to myself and to our constituents. It is an economic driver in Virginia and that is why I am glad to be here with you today.

I am also pleased to be joined by my colleague from Virginia, Congressman Connolly. Gerry is also very dedicated to preserving and restoring the Chesapeake Bay. He knows how important it is not just to the State, but to the Nation. And I am glad to have worked with him already on a number of bay issues. He and I have a chance many times to talk about what we can collectively do to get our bay cleaned up. And I look forward to continuing to work on those issues.

I would also like to recognize another colleague from the Commonwealth, Congressman Perriello, who has also been a true champion for the Bay, a real leader there, someone that reaches across the aisle and makes sure that we get things done in the best interests of the Commonwealth and the best interests of this Nation. I really appreciate your leadership and your efforts on behalf of the Chesapeake Bay.

I am fortunate to represent Virginia's First District, which stretches from the exurbs of Washington, D.C. down to Hampton Roads. The First District includes many of the major tributaries of the Bay: the Potomac, the Rappahannock, the York and James Rivers. Just as the Bay has shaped the lives and livelihood of Virginia residents for centuries, the Bay continues to be a central part of life in our region.

As the largest estuary in the United Stats, the Chesapeake Bay watershed is home to over 16 million people. The scope of the watershed is hard to imagine. The watershed encompasses six States and the District of Columbia, well over 1,000 local governments, 150 major tributaries, 100,000 streams and rivers, and over 11,600 miles of shoreline, plus thousands of plants and animal species.

The Bay accounts for billions of dollars in economic and recreational revenue, not to mention it is the site of major ports and military bases.

I believe that there is a deep sense of frustration in the Chesapeake Bay watershed about the progress we have made to restore the Bay. Yes, we have had successes. However, with all the Federal, State, local and private partner investment, we would all like to see more accomplishments.

With that said, I am encouraged by the renewed attention and dedication towards restoring the Chesapeake Bay. The Chesapeake Bay Action Plan, ongoing State efforts, and the Administration's Chesapeake Bay Executive Order all see to improve bay cleanup efforts, and I applaud those efforts. They are long overdue and the time is now.

Across the Bay, these efforts are shaping and will continue to shape restoration efforts. Today's focus on the reauthorization of the Chesapeake Bay Program is another important component of this complex environmental restoration effort. I would like to outline some of the key principles that I would like to encourage the Committee to consider as Congress continues to evaluate and plan for ongoing restoration activities in the Chesapeake Bay.

First, there must be performance-based measures to assure that dollars currently spent on bay restoration activities are producing

results, and that efforts are being monitored and adapted to meet bay goals.

I encourage the Committee to consider incorporating H.R. 1053, the Chesapeake Bay Accountability and Recovery Act, legislation I have authored into any bay program reauthorization. H.R. 1053 would implement and strengthen management techniques like cross cut budgeting and adaptive management to ensure we get more bang for our buck and continue to make progress in bay restoration efforts.

Both techniques will ensure that we are coordinating how restoration dollars are spent and making sure that everyone understands how individual projects fit into the bigger picture. And in that way, we are not duplicating efforts, neither are we spending money in a duplicative way, nor do we need to be looking at issues that are at cross purposes. So this will allow us to make sure that we are avoiding that duplication in those efforts that cross purposes.

The Chesapeake Bay Accountability and Recovery Act would require the Office of Management and Budget, in coordination with State and Federal agencies involved in the Bay, to report to Congress on the status of Chesapeake Bay restoration efforts. That way, Congress is kept up to date on an annual basis, and just like anything else, we can make changes accordingly.

My bill would also require the EPA to develop and implement an adaptive management plan for Chesapeake Bay restoration activities. Adaptive management relies on rigorous scientific monitoring, testing and evaluation and the flexibility to modify current management policies and strategies based on changing conditions. Just like a business plan, as the environment around you changes, your business plan changes. This would allow our plan to clean up the Bay to also change.

Cross cut budgeting and adaptive management should be key components of the complex restoration activities involved in the Chesapeake Bay restoration effort.

Second, I would also like to encourage the Committee to consider alternative options and incentives that don't force top down regulatory requirements. I recognize that we need both carrots and sticks to make complex environmental projects work, and I realize that the command and control approach does have a place. But as a former small-town mayor, I know that localities often struggle to meet State and Federal mandates with inadequate financial and technical resources. We should continue to look for ways to create incentives and provide the resources for States and localities to meet bay restoration goals.

Additionally, I believe we should encourage innovative and out of the box solutions to cleaning up the Bay. New technology and cutting edge research should be encouraged to meet the Bay's pressing needs.

For example, promising technology exists that could turn chicken litter into energy and reduce one of the Bay's most significant pollutants. This is just one of many technological innovations that could improve the Bay.

In addition to technologies, we should also embrace other innovative solutions. In the Rappahannock River basin, a group of my

constituents is developing a private sector-led marketplace for environmentally friendly products that will help to protect and restore the Bay. I would encourage the Committee to help localities and embrace technology and innovation to clean up the Bay.

Finally, I want to mention two things that I don't believe belong in legislation reauthorizing the Chesapeake Bay Program. I would encourage the Committee not to include language that would impose any additional regulations or restrictions on non-native oysters or commercial menhaden harvests. I am opposed and would be very concerned about any language that would undermine the Army Corps of Engineers' final environmental impact statement on oyster restoration, and I am also strongly opposed to any language that would prohibit commercial fishing of menhaden.

Peer-reviewed Atlantic States Marine Fisheries Commission scientific stock assessments are very clear and the Atlantic menhaden populations are healthy and they are not being over-fished. We want to resist the temptation to replace fishery science with politics.

In my mind, reauthorization of the Bay Program is not the appropriate venue to address fisheries management policy decisions. We ought to make sure that we use the existing avenues for that in both the Atlantic States Marine Fisheries Commission and the Mid-Atlantic Councils.

Thank you again, Chairwoman Johnson and Ranking Member Boozman, for the opportunity for me to testify today, and I stand ready and willing and able to support and work with you to continue efforts to restore our national treasure, the Chesapeake Bay.

Ms. JOHNSON OF TEXAS. Thank you very much.

Mr. Connolly?

Mr. CONNOLLY. Thank you so much, Chairwoman Johnson and Ranking Member Boozman, and thank you for your thoughtful statements, coming from Texas and Arkansas. I really appreciate what you both had to say about the importance of the Chesapeake Bay as the number one estuary in all of the United States.

Frankly, what we do here, as Mr. Perriello indicated in his gracious opening remarks, what we do here in the Bay has implications for lots of other important watersheds throughout the United States-- so hopefully we can get it right.

And I want to thank, in particular my friend, Elijah Cummings, for his leadership. I know he is getting ready to introduce a companion bill to the Senate bill, and I look forward to working with him on that.

There are three main sources of pollution for the Bay: sewage treatment plants, agriculture and stormwater runoff from impervious surfaces, largely generated from urban and suburban communities.

Over the past 30 years, we have made remarkable progress reducing pollution from two of those three sources. We are retrofitting sewage treatment plants in my county, for example, that will only have three milligrams per liter of nitrogen, a six-fold decrease from the 18 milligrams per liter in the 1970s when algae blooms decimated large swaths of the Potomac and Occoquan Rivers.

We have reduced nitrogen pollution from the agricultural sector, from 150 million pounds in 1985 to 99 million pounds today. This is thanks largely to Congress' investment in the Natural Resource Conservation Service and other farm conservation programs.

Despite these achievements, however costly, the overall health of the Bay, as has been noted, has not markedly improved, and it is only at 28 percent of its colonial health, according to the Chesapeake Bay Foundation. According to the Environmental Protection Agency, runoff from impervious surface areas is the only pollution source going into the Bay that is increasing.

We have made progress. We haven't solved the problem, but we have made progress on agriculture. We have made progress on wastewater treatment. We have actually lost ground on the third source of pollution, impervious surface stormwater.

Between 1990 and 2000, population in the Bay grew 8 percent. You talked about this, Mr. Boozman. But impervious surface at that same time grew 41 percent. So if we in fact grow by as much as you predict, Mr. Boozman, of 3.5 million additional souls in the watershed, the impervious surface growth is going to be many multiples of that.

This dramatic growth in impervious surface led to a 25 percent increase in nitrogen pollution from stormwater runoff, a 9.1 million pound annual increase. If we have made substantial reductions in two of the three sources of pollution, and the third source is growing, and the Bay's health is not improving, one might and maybe must deduce that bay recovery is contingent on finally reducing the third major source of pollution: stormwater from impervious surfaces.

H.R. 3265, the Chesapeake Bay Restoration Act, would reduce this pollution from stormwater runoff by establishing bay-wide performance standards for stormwater management. It would require that greenfield development, sites that are 5 percent impervious or less, maintain pre-development hydrology by infiltrating evaporation or reusing 95 percent of stormwater runoff. These are techniques deployed in the watershed today, but not uniformly.

This is the same standard that Federal facilities must meet already, under the 2007 Energy Independence and Security Act. So we are not asking anybody to do anything more than we already require of ourselves as a Federal Government.

This standard would be implemented under the existing municipal separate storm sewer system, MS-4 permit, which is already administered by the EPA. It would extend MS-4 permits to all localities in the Bay watershed so there is a level playing field. This would ensure that we do not inadvertently encourage sprawl by having higher standards in urban areas than suburban areas.

It would provide funding for localities to help administer these MS-4 permits and create 75 percent matching grants for localities to construct what is called low impact development strategies and techniques. I have one here today. This is a pervious block of concrete, allowing water to flow through it. We also have pervious pavers, for example: bricks that do the same thing. There are lots of techniques we can use under the rubric LID that can make a difference, and I am very cognizant, as somebody who spent 14 years in local government, of what my friend Rob Wittman said: we don't

want to put undue burdens on localities. That is why under H.R. 3265 the federal matching grant program would pay up to 75 percent.

This bill would also require Federal facilities to develop plans to maximize forest cover, which would dramatically reduce, of course, stormwater runoff. The Federal Government owns 7 percent of the entire land in the watershed, so we can have a significant impact in terms of Federal policies in trying to address this issue.

I am pleased to say that the legislation has been endorsed by the Coalition for Smarter Growth, the Metropolitan Washington Council of Governments, American Rivers, Journey Through Hallowed Ground Partnership, the Land Trust of Virginia, the Choose Clean Water Coalition, including the Chesapeake Bay Foundation, the National Wildlife Federation, the Piedmont Environmental Council, and over 80 other environmental groups from the watershed.

Senator Cardin's discussion draft of the Chesapeake Bay Reauthorization incorporates much of the language in my bill, H.R. 3265, and I am very pleased about that. I look forward again to working with Elijah Cummings and doing the same here in the House.

I encourage the Subcommittee to incorporate these provisions in your Chesapeake Bay reauthorization legislation for the reasons I have stated. And I thank you so much again for caring about the Bay and for holding this important hearing.

Ms. JOHNSON OF TEXAS. Thank you very much.

You have reminded me that I should make sure that everyone knows to try to stay within five minutes.

I feel the passion and I thank you very much for coming. We are loaded with passion on this Committee for the Chesapeake.

Our distinguished Chairman of the Full Committee has come in. Thank you for testifying. You can be excused. We don't ask our Members questions.

Mr. OBERSTAR. Not quite so quickly, Madam Chair. I would like to thank Representative Wittman for carrying through on a conversation we had during the State Revolving Loan Fund legislation. The gentleman offered an amendment with a little perfecting language, which we accepted, relating to the Chesapeake Bay, and I invited him, Madam Chair, to become more engaged in the issue. He was a new Member, a new energy, and he has followed through, and I appreciate that.

And Representative Connolly, who's got a long history of engagement in local government and understands the issues and has a commitment to the Chesapeake Bay, it is very commendable that both of you stand shoulder to shoulder on this issue.

This is not just an issue, though, for Virginia, Maryland, Delaware. It is for Virginia, Maryland, Delaware, West Virginia, Pennsylvania, the District of Columbia, New York State, the whole area watershed that contributes to this bay, its water and its pollution. The problems are many-faceted and of many origins.

In a roundtable that I organized and that Ms. Johnson, Mr. Cummings, Ms. Edwards, Republican Members of the Committee participated in, we heard that upstate New Yorkers are likely to say, what is the Chesapeake Bay to me? I don't go there. I don't fish there. I don't collect oysters from the Bay, or crabs. But the

migratory waterfowl that come from the inland reaches of the watershed use that bay. And the nitrogen that is put on the lawns in upstate Pennsylvania and upstate New York and in West Virginia all makes its way into that watershed, and from the watershed into the Bay.

And this is the most important estuary in the world. Estuaries are those unique meeting places of salt and fresh water where new life forms are created. And by the destruction of the water quality, we are inhibiting and limiting and preventing creation of new life forms and the evolution that this rare ecosystem provides.

It is the common heritage of all Americans, this, Puget Sound, and the Great Lakes and the coastal area in the New Orleans, Texas, Mississippi region. All those Gulf of Mexico states, the pollution they experience comes from 11 States. It is going to take all those States engaged to protect and preserve the Mississippi and its delta. It is the same for the Chesapeake Bay. At this roundtable gathering, I asked Mr. Cummings, who was here a moment ago, but I asked him to coordinate an ad hoc group of Members from both sides of the aisle of our Committee, and from beyond the Committee, to develop a real action plan. We have studies stacked 10 feet high on the Chesapeake Bay. It is action time now. That is the purpose of this hearing to find out what the actions are that we need to take.

I agree with the gentleman from Virginia, Mr. Wittman, who said fisheries regulation should not be the subject of such legislation. We have fisheries councils up the Eastern seaboard, in the New England area, fisheries councils in the Pacific Northwest, fisheries councils in the Southeast, that take are of those issues.

And the fisheries management of the Chesapeake Bay is similar. There are mechanisms to deal with that. But if we don't get the pollution out of the contributing tributary waters, there won't be any fisheries to manage or to regulate. We will simply have red scum and green scum and a lifeless bay.

Now, I want to see this bay revived, and I want those life forms, like crabs, oysters, and fish, to thrive, not just survive. So we all need to work together and heed the concerns that both of you have reflected, and Mr. Connolly in particular, the impervious surfaces.

The U.S. Coast and Geodetic Survey, 35 years ago, did an analysis in California for the State. The survey was pursuing the issue of why were we having so much rainfall? Why was there so much flooding in our ditches, and in our stream beds? And the Coast and Geodetic Survey sent a team of researchers out to measure rainfall and found it was the same in the '70s as it was in the '30s. The amount of rainfall hadn't changed. What had changed was impervious surface. The runoff from parking lots and roadways had increased the runoff into streams and therefore increased the flooding problem.

So those are things that we have to do. We have to preserve our wetlands, which are the shock troops against pollution. They filter the waters of their harmful forms. So this is a beginning, one of several, but I intend this, and I know that Chairwoman Johnson does as well, and Mr. Boozman, to be a serious sustained and successful effort.

Mr. CONNOLLY. Thank you, Chairman Oberstar, and thank you for your passion.

Ms. JOHNSON OF TEXAS. Thank you very much.

Mr. WITTMAN. Thank you, Mr. Chairman. Thank you very much.

Ms. JOHNSON OF TEXAS. On our second panel, the starting witness will be Mr. Fox, because I know he has to leave early. He is EPA's Senior Advisor to the Administrator, for the Chesapeake.

Our second witness is Maryland's Secretary of the Environment, Ms. Shari Wilson. Welcome back to our Subcommittee, Ms. Wilson.

Following her is Secretary Preston Bryant from Virginia's Department of Natural Resources.

And our fourth witness is Director George Hawkins from the District of Columbia Department of the Environment. And I understand that you will be joining the D.C. Water and Sewer Authority shortly, so good luck with your new position. I don't know which is better for you, but we will enjoy working with you in that capacity nevertheless.

Our next witness today is Pennsylvania State Representative, Mr. Michael Sturla.

And our final witness on this panel is Virginia Delegate John Cosgrove. Mr. Cosgrove is also Chair of the Chesapeake Bay Commission.

We are looking forward to your testimony. Your full statements will be placed in the record, and we ask that you try to limit your testimony to five minutes, if possible, as a courtesy to others.

Mr. Fox, you may proceed.

TESTIMONY OF J. CHARLES FOX, SENIOR ADVISOR TO THE ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; SHARI WILSON, SECRETARY, MARYLAND DEPARTMENT OF THE ENVIRONMENT; L. PRESTON BRYANT, JR., SECRETARY, OFFICE OF THE SECRETARY OF NATURAL RESOURCES, OFFICE OF VIRGINIA GOVERNOR TIMOTHY M. KAINE; GEORGE S. HAWKINS, DIRECTOR, DISTRICT OF COLUMBIA DEPARTMENT OF THE ENVIRONMENT; P. MICHAEL STURLA, REPRESENTATIVE, PENNSYLVANIA HOUSE OF REPRESENTATIVES; JOHN A. COSGROVE, DELEGATE, VIRGINIA HOUSE OF DELEGATES, AND CHAIR, CHESAPEAKE BAY COMMISSION

Ms. FOX. Thank you, Madam Chairwoman.

This is quite a pleasure to be here today in a room filled with so many Chairs and Chairwomen. It is quite an impressive turnout. And to all the Members of the Chesapeake Bay delegation, thank you very much for all your leadership here.

President Obama and Administrator Jackson are committed to a new era of Federal leadership, one that is characterized by increased accountability and performance to help protect and restore Chesapeake Bay and its tributaries to a healthy condition.

On May 12, President Obama signed Executive Order 13508 creating a Federal Leadership Committee to strengthen and align the capabilities of all Federal agencies. The order directed us to prepare seven draft reports within 120 days addressing key challenges affecting the Chesapeake Bay. Last week, two weeks ago, the Fed-

eral Leadership Committee received the seven draft reports for review.

The executive order's draft report on water quality may be of greatest interest for today's hearing. It defined three principal mechanisms to achieving water quality objectives in Chesapeake Bay and its tributaries: first, to create a new accountability program to guide Federal and State water quality efforts; second, to initiate new Federal rulemakings and other actions under the Clean Water Act and other authorities; and third, to establish an enhanced partnership between USDA and EPA to implement a Healthy Bay Thriving Agriculture Initiative.

The proposed new accountability program builds on existing Clean Water Act authorities to set new expectations for State and Federal programs for reducing nutrient and sediment pollution, including EPA's intention to rely heavily upon enforceable or otherwise binding programs in approving State implementation plans.

We have also proposed to identify a number of potential consequences that we may use in the event that jurisdictions do not implement effective restoration programs.

The draft water quality report also cites potential changes in regulations under the Clean Water Act to reduce pollution from concentrated animal feeding operations, municipal stormwater pollution, and from new growth.

With these rulemakings, EPA would significantly strengthen or clarify Federal requirements that would further limit nutrient and sediment discharges to the Chesapeake Bay.

In addition to the rulemakings, the draft water quality report contains recommendations for implementing a compliance and enforcement strategy, as well as a joint partnership initiative with USDA.

The six other reports focus on conserving landscapes, reducing pollution from Federal facilities, targeting Federal financial assistance and technical assistance, adapting to climate change, improving science and monitoring, and improving protection of living resources.

Over the next 60 days, the Federal Leadership Committee will evaluate the recommendations and consult with the States and the District of Columbia. We are in the process of developing a draft strategy which, along with the seven reports, will be formally presented for public comment later this fall.

I would like now to turn to the issue of reauthorizing the Chesapeake Bay Program under Section 117. In general, we look forward to working very closely with you to improve the protection of the restoration programs for the Bay and its tributaries, and the Administration strongly supports your efforts in this regard.

We are hopeful that any reauthorization of the program will be supportive of and consistent with the goals of the executive order, as well as those of the Chesapeake Bay Executive Council, specifically, the no later than 2025 end date for getting practices in place that will protect water quality.

As you know, the fundamental challenge for the Bay's water quality is reducing runoff pollution from urban and suburban and agricultural lands. The latter is responsible for roughly half the nitrogen, phosphorus and sediment flow into the Bay. The former is

a smaller, but both significant and growing source of the Bay's pollution.

Our Nation's modern history includes several successful examples of pollution control from similarly diffuse sources. The Clean Air Act is probably the best example. It has produced significant improvements in air quality, despite sizable growth in population, energy consumption, and vehicle miles traveled. As we think about ways to further protect the Bay, we might want to look at a range of accountability mechanisms, including many similar to those available in the Clean Air Act.

We look forward to working with you in the days and months ahead. Thank you very much for this opportunity, and I appreciate greatly your respect for my unique schedule today.

Ms. JOHNSON OF TEXAS. Thank you very much. We will be in touch.

Mr. FOX. Thank you, Madam Chair.

Ms. JOHNSON OF TEXAS. Secretary Shari Wilson, Maryland Department of Environment, Baltimore.

Ms. WILSON. Good afternoon, Chairwoman Johnson, Ranking Member Boozman, Chairman Oberstar, and Members of the Subcommittee. It is a pleasure to be here, and we can't thank you enough for the time you are devoting to this important topic.

I also want to thank Congresswoman Edwards for her continued advocacy for the Chesapeake Bay, and in particular for your efforts to make sure that environmental protection and public health protection extend to all Marylanders.

And to Congressman Cummings, you are the most forceful and articulate advocate for connecting the health of the Chesapeake Bay to all of Maryland, and we greatly appreciate it, sir.

The State of Maryland is greatly encouraged by President Obama's executive order. The level of priority and the Federal cooperation called for in that executive order is simply unprecedented. And it was stated earlier that we have a unique opportunity, a once in a lifetime chance, and in fact that is the case, we believe.

In Maryland, under Governor O'Malley's leadership over the past two and a half years, we have increased our environmental enforcement actions by 34 percent, that is from 2007 to 2008. For new development, we have increased and improved controls for stormwater. In other words, for new development we require controls now that will basically have runoff equate to woods in good condition, a very high bar.

For our larger municipal areas, we have initiated a new round of permitting that has an unprecedented level of retrofit requirements, in other words, retrofitting impervious areas that were developed long before modern stormwater controls were put in place. For the first time ever, we have requirements in place for the management of poultry litter. As you all well know, we have plans underway to upgrade 67 of the wastewater treatment plants in Maryland, accounting for 95 percent of the flow, with state of the art enhanced nutrient removal technology, and that is completely paid for by Maryland citizens as they pay a fee on their monthly water and sewer bill.

All of that follows the 2006 Healthy Air Act, which is one of the most progressive controls for power plants in the Country, including for nitrogen reduction, and almost a decade earlier, a requirement that Maryland farmers use nutrient management plans.

These actions were all difficult. They have all been controversial, and yet they are essential for the Bay's restoration. Even with those actions, we know more is needed. In May, Governor O'Malley, along with other governors in the watershed, committed to more than doubling nutrient reduction efforts. And as you consider reauthorizing the Chesapeake Bay Program, we would respectfully offer the following for your consideration.

First, as has been mentioned, it is essential that we get a firm deadline in place that is required by statute. It is necessary to have this and it has been missing with the Bay restoration for some time.

Second, we believe it is very important to have binding and enforceable implementation plans and ramifications if those plans are not either effective or they do not reach their goal. Chuck Fox referred to the Clean Air Act. That provides a model that has shown us that it can be successful as evidenced by ozone reductions in Maryland, for example. It is a planning process so that everybody knows the rules of the road, and the plan ahead, and it has worked effectively. So we would respectfully suggest that that model be considered.

Third, funding for both the Bay Program and the regulatory programs under the Clean Water Act. We understand that the funding level for the Chesapeake Bay Program has been approximately $20 million annually, although a $40 million authorization is in place. And we would respectfully urge increasing the funding to the authorized level.

We also have the regulatory programs in place at the State level to implement these new measures that are needed. But quite candidly, the strength of those programs has been crumbling around us over the past several years, and that is before the current fiscal situation that we find ourselves in. It is essential that these regulatory programs be adequately staffed so that we can tackle the job at hand.

Fourth, it was mentioned earlier the need for effective management. In Maryland, we have used Governor O'Malley's BayStat process. It is essentially a real-time management tool aimed at redirecting resources to the places where the scientists tell us that we will get the best return on nutrient reduction for each dollar invested. It has been very effective for us. For example, we have redirected funding for cover crops for farmers, and we suggest that we all need to partake in a similar kind of effort.

And last, it is hard to talk about the Bay restoration without mentioning and putting in a plug for the one action, the single largest action we can take for the Bay restoration, and that is the upgrade of the Blue Plains Wastewater Treatment Plant. It currently discharges 5.5 million pounds of nitrogen into the Bay annually, and that can be reduced by at least 4 million pounds.

In conclusion, we are very pleased that you are holding this hearing today, and we look forward to working with you in your future

endeavors, and would be pleased, of course, to answer any questions that you may have.

Thank you very much.

Ms. JOHNSON OF TEXAS. Thank you very much.

Secretary L. Preston Bryant, Jr., the Office of the Secretary of Natural Resources, Office of Virginia Governor Timothy Kaine.

Mr. BRYANT. Madam Chairman, Mr. Boozman, Chairman Oberstar, on behalf of Governor Kaine, thank you for holding this hearing and thank you for your leadership on the Bay challenges. It is clear from your opening remarks you have a good grasp of the challenges facing those of us at the State level.

My remarks that have been submitted give a brief history of some of the most recent investments that Virginia has made, so I won't go into those other than to say that like Maryland, we have invested just in the last four years more than $1 billion of State resources, principally into wastewater treatment plants, more than 60 facilities, and in record investments with our agricultural community. That $1 billion does not include what the local governments have added as their contribution or what our agricultural community has done to step up their efforts as well.

I would like to address sort of three things this morning: one, to tell of some recent actions by the Chesapeake Bay Executive Council; second, to say a word about the importance, as we see it, of the Federal Government being actively involved in a partnership with us; and then third, the items that you will see in my remarks, I have 10 items that should be considered, we believe, in the reauthorization bill.

First, the Chesapeake Bay Executive Council is comprised of the Governors of Virginia, Maryland and Pennsylvania, the EPA Administrator, the D.C. Mayor and the Chairman of the Chesapeake Bay Commission. Governor Kaine of Virginia currently chairs the Council.

A year ago, the Council did something fairly unique, if not even impressive, and that is they admitted failure. They admitted failure on some fronts, while certainly acknowledging that we have made great progress over the last three decades. We also had to acknowledge that there have been three or four multi-state compacts with targets that we have failed to meet many of them, the most recent being some of our 2010 deadlines.

Governor Kaine, Governor O'Malley, Governor Rendell and others acknowledged that we can do getter. As such, what they did is they changed approach. Instead of drafting long-term 10-year plans and not knowing until the very end whether you are successful, they changed approach and said we are going to target two-year milestones at a time, culminating in an end date.

It is much more transparent and it is much more accountable. The stakeholders watching will know immediately how we are doing. So I will say more about that shortly.

Let me also say that we acknowledge as well that there is a new day dawning for the Chesapeake Bay, kicked off principally by President Obama's executive order. It is historic, and we welcome that partnership. And Chuck Fox with the EPA has been a real leader in helping us.

In terms of the bill that is before us, there are 10 items, the Bay authorization bill, there are 10 items that you will see in my remarks that I recommend you consider to be included.

First, this financial assistance. Again, a State-Federal partnership. The current draft has $1.5 billion principally for urban and suburban runoff. And while we acknowledge that is certainly important, we also must acknowledge that the jurisdictions making up the watershed, some are rural, others are urban in nature, and perhaps we need to look more broadly at that very, very significant investment.

Second, we hope that the bill will define what we call @@reasonable insurance." As the EPA is holding States increasingly accountable, the EPA is also asking that we reasonably assure them that we have the necessary tools and resources and capacity to meet the targets. What has been a challenge, however, and all jurisdictions would agree to this, is properly defining "reasonable assurance." And so we would seek your leadership in helping us, working with us cooperatively, to help further define "reasonable assurance."

Third, we hope that the bill will recognize what the Chesapeake Bay Executive Council has adopted as a new methodology. That is, instead of long-term goals, recognize the value of the short-term milestone approach. Again, we think it is much more accountable and transparent, and that is a consensus among the jurisdictions in the watershed.

Fourth, we necessarily recognize that should there be increased Federal funds, that there also ought to be some consequences should we fail. If we fail to meet the targets expected of us, we expect there to be some consequences coming from the EPA.

At the same time, we also trust there will be some flexibility built in to those consequences. For example, there are certainly unforeseen circumstances. No one would have predicted five or even two years ago that our robust economy would be teetering on collapse. So we must take into consideration some of the unforeseen circumstances as you hold us accountable.

We also recognize that there are many sectors, as has been mentioned this morning, that are at play. Wastewater, agriculture, air, homeowners all need to be part and parcel of this. I would echo Secretary Wilson and Governor O'Malley that there should be a deadline. As we are working on two-year milestones, culminating in a deadline, I would suggest that the watershed jurisdictions have consensus on what that deadline should be. They have agreed that it should be "no later than 2025." Certainly, that language doesn't preclude earlier success, so we hope the reauthorization bill will reflect that language.

And then I will also, my time is running out, but you will see that there are other recommendations as well, and I will just finish on one, and that is some expanded authority. A large portion of the nutrient sediment pollution that is currently entering the waters originates from sources that really aren't currently regulated. That is air, some urban runoff, and then also some areas of agriculture. So again, following that all sectors should be at the table, we hope that you will help us on that respect as well.

So with that, Madam Chairman, I will commit my remaining remarks to you and the staff, and we thank you for holding this hearing.

Ms. JOHNSON OF TEXAS. Thank you very much.

I want to announce that Congresswoman Norton sent word that she had a conflict in her schedule and could not make it today, and that Director George Hawkins from the District of Columbia, Department of the Environment, will very capably represent her views today.

Mr. Hawkins?

Mr. HAWKINS. Thank you. Good afternoon, Chairwoman Johnson, Mr. Boozman, Chair Oberstar.

I am delighted to be here today to speak about the Chesapeake Bay. I am the Director of the District Department of the Environment. I want to offer greetings from the Mayor of Washington, D.C., Adrian Fenty. I am delighted to speak on behalf of Congressman Norton, who is a great friend and ally as well.

And I want to directly answer the question you asked, Mr. Oberstar, at the beginning, which is: Why would someone in New York or Pennsylvania want to undertake some of these steps if they are not near the Bay? Because the answer to that question is the same answer why Mayor Fenty I so committed to protecting here in Washington, DC.

Of course, we are closer to the Chesapeake than many people in New York and Pennsylvania, but that is not fundamentally why Washington, D.C. is committed to this. The Anacostia, the Rock Creek and the Potomac run through the middle of our city. We know that every step that needs to be taken to protect the rivers in our city for the welfare and benefit of all of us who live and reside here are the same steps that will also protect the Chesapeake.

But we do not sit here primarily about the Chesapeake as much as much as we are completely committed. It is the rivers in our jurisdiction where our people live that we are concerned about. And we believe exactly these steps will secure the health and welfare of those water bodies here in the District, as well as the Chesapeake Bay, and that goes the same for New York, Pennsylvania, West Virginia, Maryland, Virginia and all the jurisdictions.

We are organizing our comments today with respect to the Senate bill. Obviously, the House will be doing what your good judgment suggests, but we have used that to organize our thoughts, what we favor, some questions we have, as well as some improvements that we might suggest you consider.

Fundamentally, Chair Oberstar you will remember, and Mr. Cummings, I have two primary points that I have made every time I have testified. Both of those aspects are in the Senate draft. One is the SIP plan from the Clean Air Act, which is now called the tributary implementation plan, a TIP, instead of a SIP. It would be a bubble demonstrating how much a jurisdiction would need to reach. There would be flexibility to reach goals within it. That is a good idea and should be maintained.

That piece, along with a second, which is bottom line stormwater standards that must be applied across jurisdictions, working together, is exactly some of the best pieces of environmental legislation today. Those are two primary issues that we are concerned

about, along, of course, with funding capability to make sure the work can be done at hand.

Very specifically, those pieces that we support in the draft, we like codifying the Chesapeake Bay executive order, a bay-wide TMDL, and the tributary implementation plan, as I have just mentioned. Those are very strong.

Second, we are very much in favor of the inclusion of agriculture and animal feedlot operations and the watershed permit approach; air deposition, which is up to one-third of the deposition for nitrogen. Both of those are included in the draft we support.

We are thrilled to see $1.5 billion authorized for urban and suburban stormwater. There is no question that that is an area that needs significant consequence. And because of the cost of retrofitting existing development, you need look no farther than outside the doors of this building. We know that without that funding, we are likely not to succeed.

And of course we support stewardship grants for States. Really, so much of this work is going to local governments who will be implementing improvements to their building codes and their development plans in order to implement the nuts and bolts of these proposals.

Some questions we have in the second category. In the draft, there is a cap and trade proposal for nitrogen and phosphorus. We are very curious to see more about that idea. It is in Section 10. It is very short at the moment. Is that optional? Is it mandatory? How would it work? We do like the idea that if someone is in significant noncompliance, they not be eligible for trade or that you cannot cap and trade if you are in an area where a trade would cause a water quality problem, but that, I believe, needs to be more fleshed out.

A second point we would like to find out more about. We are glad that the USGS and NOAA and various river basin commissions are involved in monitoring under the draft proposal. We do also support that it is divided between title and non-title monitoring.

The question we have is up until now, the Chesapeake Bay Program has provided critical monitoring and modeling for us at the State level to do this work, which will be even more important with two-year milestones. That is not clearly spelled out and we would like to see it be so.

The third area of where we might look for some strengthening of the draft bill. One I have mentioned before, you did note that I will be joining the Washington, D.C. Water and Sewer Authority shortly. I also want to note that Jerry Johnson, my predecessor, is here in the room. I very admire greatly what he has done in his capacity and is now working at WSSC, so we will be hand in hand in the days ahead, but he deserves congratulations for the extraordinary work he did on our behalf at WASA.

But there is no question that, as my comrade Secretary Wilson mentioned, that funding for the largest point source to the Chesapeake Bay is a fundamental issue. It is $2.2 billion to reduce combined sewer overflows; $800 million plus for advanced nitrogen. That is $3 billion right there for the largest point source. Certainly, we will all participate. There is a great partnership here, but the Federal Government, I believe, because of the wide benefits, as well

as consequence to this question, would behoove to continue supporting that effort.

Second, we would like to see the MS-4 provisions in the draft, which are already strong, strengthened to include bottom line standards for certain kinds of stormwater development. At the moment, each jurisdiction will have to battle out that issue independently. I actually believe it saves money at the local level if you don't need to re-battle that issue every single place, but establish on a bottom line basis those standards which would comply with Chesapeake efforts. You don't have to do that in every place over and over and over for the same kind of development.

Last, I think the section in the draft would be strengthened if we focused on transportation and Federal highways and the stormwater standards for Federal highways.

So I am delighted to be here today once again to testify before you, and will be prepared to answer questions.

Thank you.

Ms. JOHNSON OF TEXAS. Thank you very much.

The Honorable P. Michael Sturla, Pennsylvania House of Representatives, Harrisburg.

Mr. STURLA. Thank you, Chairwoman Johnson, Ranking Member Boozman, Chairman Oberstar, Members of the Subcommittee, especially Representative Platts, who is a former colleague of mine in the Pennsylvania House of Representatives. Thank you for the opportunity to testify here today.

My name is Mike Sturla and I am a Member of the Pennsylvania House of Representatives, where I serve in the 96th District representing the City of Lancaster, which for those of you who aren't familiar with it, has about 60,000 people in four square miles, not what you think of when you think of Lancaster County. I represent a densely urban area. A mile outside of my district are farms that have been farmed for 250 years, but I have an urban district.

I am also Chairman of the Majority Policy Committee in the House of Representatives, and I have recently be reappointed as a member of the Chesapeake Bay Commission. The last time I served as a member of the Chesapeake Bay Commission was in 1993 and 1994. Unfortunately, in the 15 years since I last served on the Commission, not much has changed. It is true that we do have new funding mechanisms and regulations that have been put in place by watershed States to control both point source and non-point sources of pollution. And in Pennsylvania alone, we have doubled our annual average nitrogen reduction so that we now reduce between 1.3 million and 1.5 million pounds of nitrogen for the Bay each year. Unfortunately, however, we still have 30 million pounds to go.

Bay-wide, the tidal waters are still impaired and we continue to face the challenges of a growing population. The current Bay Program has allowed us to make progress and we have, and it has resulted in some of the best science in the world related to estuaries and their watersheds. But as Representative Cummings pointed out earlier, we know what we have to do to achieve water quality. What has been missing, and I think this is the critical part, is our ability to hold ourselves accountable to that goal despite all our good faith efforts.

This hearing and your consideration of the reauthorization of the Bay Program is a welcome opportunity to build on the past by ensuring that our efforts will indeed result in a clean bay. The Bay Program's history has featured a series of agreements with long-term water quality goals supplemented along the way with programs or regulations enacted to address individual nutrient and sediment sources.

We now recognize that long-term goals are not sufficient in a world of two-year election cycles and annual budgeting. So we, as a Bay Program partnership, have recently agreed to set two-year milestones within the long-term goal of 2025 for full implementation of everything we will need to do to achieve a restored bay. And I believe, as was pointed out earlier, that this is critical to success.

In addition, we recognize that everything that we will need to do includes almost everything that we can ask from any and all sectors, wastewater treatment plants, agriculture, stormwater and air. While it is true throughout the watershed that it is important to remember that a mix of sources and conditions varies from State to State, and there is no one size fits all solution, States should be given the flexibility to determine the most cost-effective way to achieve those load reductions within their jurisdictions.

At the same time, merely planning a strategy is not enough. The strategy must ultimately be implemented and we look to be held accountable for achieving what we say we will achieve. Within the framework of sources, subjects subject to permits such as wastewater treatment plants, urban stormwater and concentrated animal feeding operations, this is relatively easy. Within the realm of sources not subject to permits such as small farms and other non-point sources, the job is more complex.

The responsibility for non-point source performance is at the State level, and has traditionally focused on voluntary incentive-based programs. Regulatory programs also exist, but they are not consistently enforced. And as a urban legislator, I frequently hear from constituents who receive higher sewer rates because of their mandated sewer upgrades, and well we should. We dump raw sewage into the Conestoga, which runs past my city, 90 days out of the year.

They also express their frustration that they can see farmers continue to apply manure on snow-covered ground or allow cows full access to a stream without any consequence. I am not suggesting that the answer is to let sewer systems off the hook and to shift the burden entirely to agriculture. But the amount of reductions that we must achieve means that we need all sectors to be responsible for their fair share of the loads. We must do a better job at the State level of putting the programs in place to get these loads, even from non-point sources.

In a perfect world, we could write a law and the problem would be fixed. We don't live in a perfect world and practices and technology cost money. Regulatory enforcement is an important tool that we can and should be willing to use. However, the ultimate goal of enforcement is compliance, and compliance costs money.

Federal funds such as the Farm Bill conservation dollars, 319 Program funds, the Clean Water State Revolving Fund, and the

Clean Water Act Programs are critical in helping us achieve compliance for both point source and non-point sources.

In closing, I guess I want to emphasize the importance of allowing us the flexibility in how we achieve the goals, but remaining absolute on the insistence that we do achieve the goal of clean water throughout the watershed.

Thank you for the opportunity to testify.

Ms. JOHNSON OF TEXAS. Thank you very much.

The Honorable John Cosgrove, Virginia House of Delegates, and also Chair of the Chesapeake Bay Commission, Annapolis, Maryland.

Mr. COSGROVE. Thank you very much, Chairman Johnson. I really appreciate the opportunity to be here.

Chairman Oberstar, thank you so much, and Ranking Member Boozman, thank you.

Members of the Committee, I am here to testify in support of reauthorization of the Chesapeake Bay Program. And I must state at the forefront that the role of the Federal Government is critical to the success of the Bay restoration project. For this effort to succeed, that role must grow stronger.

I am here today as a Virginian, as Chairman of the Chesapeake Bay Commission, and as a proud Republican to tell you that we need Federal Government to play a strong and more targeted role in bay restoration. The Clean Water Act must provide new authorities and accountability measures that complement our State efforts in order to minimize pollution from all sources.

We believe that restoring our Nation's largest estuary is a shared responsibility, not just of State and local governments and the private sector, but of the Federal Government as well. Back in February of 2008, the Commission published a report containing a full sweep of recommendations for Federal legislation and funding to advance the Bay's restoration from 2008 to 2010.

Included within that report were recommendations that the EPA Chesapeake Bay Program be reauthorized, with a heightened focus on new authorities, increased implementation and accountability. The bottom line: since we have more to do with less, we need to do a better job choosing what is regulated, what is incentivized, and where these programs more strategically are applied.

Now, I have been a member of the Chesapeake Bay Commission for five years, and I have the honor of being the Chairman of the Commission this year. In the past five years, I can say that we have seen a huge increase in State and local government investments in the Bay.

In Virginia, through the State Water Quality Improvement Fund, we have invested well over a half billion dollars to upgrade our wastewater treatment plants within the Chesapeake Bay watershed. And our local governments have stepped up their commitments to utilizing the Clean Water Revolving Loan Fund to help shoulder the burden to cover the remaining costs of the upgrades.

Now, recently, Federal funding to the Clean Water Revolving Loan Fund has increased and we thank you very much for that. Other States in the Bay are also using this fund and making good progress in tackling their point sources of pollution to the Bay.

So thanks in large part to increased State and Federal funding, and existing regulatory permit authority within the Clean Water Act, hundreds of sewer treatment plants throughout the watershed have been upgrade with new technologies to reduce nutrient loads to our bay.

The Federal Government is, however, making slow progress in upgrading its own wastewater treatment plant, Blue Plains, located within the District. As the largest point source in the entire watershed, almost four million pounds of nitrogen stands to be reduced from the Bay's nutrient load from this one facility alone.

Madam Chairwoman, funding from the Federal level is essential for this key action to reducing nitrogen pollution in the Bay. We ask that you please actively support efforts to achieve this immense task and get Blue Plains upgraded with additional Federal funding.

And while the States have been making significant progress overall with our point sources, we have not been as successful with reducing other diffuse sources of nutrient pollution entering the Bay. For our non-point sources of pollution, we have good established Federal and State partnerships, but we lack the necessary funding and the regulatory authority to get the job done.

In reauthorizing the Chesapeake Bay Program, we have the opportunity to capitalize on additional Federal and State efforts underway to make real progress in cleaning up the Bay. First, the Bay States have agreed to chart out and implement two-year restoration milestones. Second, EPA is involving a bay-wide TMDL. And third, the President issued an executive order directing Federal agencies to coordinate their restoration efforts and prioritize the Chesapeake as a national treasure.

Currently, the Clean Water Act applies to all point sources of pollution. However, many sources of pollution fall outside the scope of the Clean Water Act. To protect a system like the Chesapeake where the majority of nutrient pollution comes from non-point sources, we must be sure that all sources are controlled in a meaningful and accountable way.

We have seen such leadership exhibited by the U.S. Navy within Virginia. The Navy is a model on how to develop their lands, and they have committed to use low-impact development techniques to ensure reduced water runoff from their facilities. It would be great to see this impressive initiative expanded across all Federal lands, including Federal highways.

We need to build on existing partnerships to increase our accountability and to increase our rate of success. So far, all the tools have included strong intergovernmental partnerships and clear regulatory authority.

Madam Chairwoman, the waters of the Chesapeake Bay are the same passages that brought Christopher Newport and Captain John Smith to the new world. These waters captured the imagination of Lord Calvert and brought him and his descendants to establish what is now the State of Maryland. These waters were where this great Nation was conceived. And Madam Chairwoman, these great waters brought the descendants of a fellow named Sam Houston, who was a Virginian, who had a little bit to do with the establishment of the Republic of Texas and where you live now.

[Laughter.]

Mr. COSGROVE. Madam Chairwoman, I actually lived in Dallas for three years. I am familiar with Lake Lewisville, Lake Ray Hubbard, Lake Grapevine. They are gorgeous bodies of water, and you love them. I know you do. We love our bay.

What we are asking you, Madam Chairwoman and Mr. Chairman, is to look at the Chesapeake Bay. Help us restore our bay. Help us restore this beautiful, beautiful national treasure so that not only us, but our children and our grandchildren, and I will have one of those pretty soon, are going to be able to enjoy that beautiful waterway, to play in the water, enjoy the crabs, the oysters, and just the sunsets on the Chesapeake Bay. We need your help and thank you for the opportunity to be here today.

Ms. JOHNSON OF TEXAS. Thank you very much.

If you come back and see that Cowboy stadium, you would not want to come back to Maryland.

[Laughter.]

Ms. JOHNSON OF TEXAS. We will start the first round of questions.

My question is to Ms. Wilson. In your testimony, you noted that the Clean Air Act is a good model for which to pattern the amendments to the Clean Water Act, and I would like you to expand on that a little bit. That is, what similar elements could be included in the Clean Water Act for the State's failure to act or produce desired results? And how could these penalties be structured where they would be an effective incentive, and therefore never actually implemented, hopefully?

Ms. WILSON. Thank you for the question. We have looked at a number of different possibilities, and concluded that the Clean Air Act provided the best model because it is an iterative planning process, but there are two distinct features of it. There is a deadline and there is a sanction if the plan is not adequate. And of course, as you know, that sanction under Federal law is the withholding of transportation funds, which has never been fully exercised. So in that sense, it has also been effective in that it prompts compliance and the development of these plans.

That has been lacking in the Chesapeake Bay restoration effort. As has been mentioned earlier, we have had voluntary commitments, and despite tremendous progress, really in the face of tremendous development in the Bay watershed, we still haven't gotten there.

So when you are looking at what seems to be missing from the current system, it is the planning process, but a planning process that can be enforced and that has consequences for failing to meet it that seems to be missing.

In terms of whether we would advocate, for example, for the withholding of Federal transportation funds for lack of developing an adequate water quality improvement plan or failure to meet the deadline, we have made other suggestions that might be appropriate, and those would include some of the withholding of funds such as revolving loan funds. You could put in place requirements for the offsets of new development so that you are not always behind the game, so to speak.

So there are a range of options, but I think really the critical piece is to have a consequence to not either submitting or having in place and implementing a plan that meets the deadline that we collectively set that is meaningful, and what is what we really need.

Ms. JOHNSON OF TEXAS. Thank you very much.

I will now ask our Ranking Member for any questions he might have.

Mr. BOOZMAN. Thank you, Madam Chair.

I guess the question I would have, and again, even though I am Arkansan, we are in the middle of the Country. We have a lot of water, and we have a lot of water going to other States, and because of that I am very, very familiar with water problems from living it, and then also being in the position that I am in now, but this has been going on for a while.

Mr. Cosgrove said, you know, that you lacked the regulatory authority that you needed. I think that was kind of the theme. You just mentioned some things, Ms. Wilson. Can you guys kind of go through and just tell me if you could snap your fingers what those regulatory authorities would be?

Mr. Sturla?

Mr. STURLA. Well, if I could, I think one of the things we need is somebody perhaps with a slightly larger hammer than we do to hold over some people's heads. And in addition, as I pointed out in my testimony, we also need to be able to help people with that compliance.

As an example, I recently introduced legislation to require any farm or forest land in the State that is under our Clean and Green Program, which gives them tax breaks, to actually have a conservation plan. The hue and cry I heard was that they couldn't find enough technical consultants to get those plans done so we had to phase it in over a five-year period.

So even the idea that they should be not polluting in order to get tax credits, I only have enough dollars and enough manpower to let that happen within five years, if I can get that law passed, and I don't have that.

If the Federal Government says, I am sorry, you have to do that, then I suddenly sit up and start to comply, particularly if there is some sticks that are held out there, because I am frustrated, as a member of the Chesapeake Bay Commission, knowing that I have asked for voluntary compliance for years and years and years, and everybody says, yes, I will get around to it, and 15 years later, no one has still gotten around to it.

Mr. BOOZMAN. Director Hawkins?

Mr. HAWKINS. Thank you for asking the question. I have a very direct response, because I believe this debate has been addressed in this body years before, in both the Clean Air Act and the Clean Water Act. The question is how do we impose across a large area multi-State, multi-jurisdiction standards that we know will reduce pollutants to the Chesapeake. At the moment, each jurisdiction—and we heard there are more than 1,000 of them—are individually seeking to answer that question as best they can, using local authorities that can be a challenge in every single jurisdiction at every single moment. The sheer level of local work that goes into

it, often which is overturned, the fights are brutal and the consequence, as we have seen, has not been strong.

What we also can do—and this is what you just heard Secretary Wilson mention—under the Clean Air Act, you have a SIT plan. Not only does it have a very specific end deadline, there are numbers that the plan must meet based on the best model that you can put in place.

Now, in Washington, D.C. we were thinking of decentralizing air mission control for cars. The model shows that your air pollute reductions decrease if you decentralize, because gas stations can do a little more hanky panky than a centralized system can. As a result, if we wanted to implement that under our very clear SIT plan, we would define measurable results immediately in some alternative before it would be approved. So there is an immediate need to have consequence on any change we made on how we operate our city. That is a very firm system, and we can do that for water discharges the way we have done for air.

The second—so the bubble notion, flexibility within it, but a clear date and level of reductions, combined with the minimum standards. It doesn't mean that every jurisdiction shouldn't decide. If we have an open plot of land down at the old Convention Center at H Street, it is D.C.'s decision whether or not to build on that site. That is a local decision. But if you are going to build on that site, there should be a minimum set of stormwater standards that, again, every one of 1,000 jurisdictions doesn't have to refigure out.

You can always do more, but if you are going to do it, whether you have a rain barrel, whether you have a rain garden, whether you put a green roof on, the low impact development strategies, there is a bottom line that is common throughout the jurisdictions that are implemented everywhere that still allows for local flexibility, that allows how you would apply it on the site, but it means a certain level of performance can be guaranteed within your bubble and at a standard. That would be connected to two things, one is a funding source, which the Senate bill at least authorizes, and, second, consequence if you don't, which I agree with Secretary Wilson should mean withdrawing funds connected to the same topic; and there is the revolving funds, there are the funds that are noted here. There are plenty of tools that can be used by the Federal Government both to give encouragement to do the right thing and also to do a disincentive not to do the right thing that are immediate.

Mr. BRYANT. Just a quick answer as well. We were quick to note that there are many sectors involved—wastewater treatment plants, agriculture, urban, suburban, homeowners, etcetera. When I suggested that there are expanded authority, the most frequently cited example is agriculture. For example, the EPA has estimated that less than 20 percent, less than 20 percent of the nutrient sediment runoffs from agricultural lands is currently captured, is currently under some type of regulation. With this bill, the reauthorization bill, as drafted, authorizes an expansion of State permitting authority, under Section 402 of the Clean Water Act, that will allow States to address any pollution, any contributor, and therefore capture some of the areas that are not being captured now from a regulatory perspective.

And I want to be quick to add that there have been great advances and great work with our agricultural community. I cited that as an example. We can cite the same similar imbalances in urban runoff and in air deposition as well. But look at Section 402 of the bill, Section 402 of the Clean Water Act for some expanded State permitting authority.

Mr. BOOZMAN. Ms. Wilson?

Ms. WILSON. Thank you for the question. I think that you are hearing a couple of themes come through, and I would agree with those, and that is a planning process with deadlines and requirements for meeting standards, the notion of standardized thresholds, minimum thresholds throughout the watershed. I like the idea that was raised about the fact that having that minimum threshold would actually be more efficient than the process we currently have with each of the jurisdictions implementing different standards, and it would also sort of level the playing field, if you would. So I agree with all the suggestions that have been made.

Mr. BOOZMAN. So you think it would be better than for the Federal Government, for us to dictate, versus you all forming some sort of a compact? I guess the problem with this, the reality is, you know, you talked about agriculture. You know, that is an expanse. The point source is going from one part to point one in phosphorus. You are talking about many, many millions of dollars, and the ratepayers are going to have to pay that. I mean, the vast majority of that is going to be picked up by the individual ratepayer.

So where I see we get in trouble is that we look at that not as kind of a one size fits all situation, you just look at it versus the local circumstance; and I think that really is a big problem. I think that it is going to cost a tremendous amount of money.

Ms. WILSON. If I may respond, I agree with your points, and I think what we are advocating for is minimum technical standards so that we get some consistency. Historically, each of the States have developed their own approach and we are still doing the same, actually, because each State has a different plan for accelerating the restoration plans. If you were to have a water quality planning process and each jurisdiction were to develop its own plan for how it was going to get its nutrient reductions, that jurisdiction could then determine whether they wanted to shift the expense to ratepayers, for example, through wastewater treatment plant upgrades or to do it in a different way.

So acknowledging what you are saying, I think we are looking for something that has some minimum level of standards, but still has a planning process that is tight and that we have to meet, but allows for some flexibility.

Mr. HAWKINS. And a comment that I would offer, I think your point is very well taken. I have spent a lot of my career doing local government support. What I found with developers is that, in fact, when you have every jurisdiction—and in many places it is town by town—there is a different set of standards. In fact, the amount of engineering and legal time you have to spend figuring out each individual set of technical specifications is far more expensive if there is a simplified bottom that everybody knows applies. And, in fact, every time I put on a roof, it is the same kind of roof. Your fixed costs actually go down, not go up, because you know exactly

what you have to do; you can prepare the materials, the design engineering and architecture becomes more simplified, and, in fact, you can save. It is still totally a local decision; is it a large building, is it a small building, is it on that corner or is it on this corner, the basic specifications of how we make sure stormwater. Plus, you can cut your specifications into specific categories. It is not for all homes; you can divide it up in a rural area, in a suburban area, and have different grades of protections based on how specific you become.

Ms. JOHNSON OF TEXAS. Mr. Cummings.

Mr. CUMMINGS. Thank you very much, Madam Chair.

I am sitting here and I am trying to get through this, and I think what things are boiling down to and I think the Chairwoman's question and Mr. Boozman's questions go to two issues, equity and accountability. I want you all to go on record saying that you agree that there should be consequences. You know, they say you can keep doing what you have been doing, and you are probably going to get the same results; or you can do things differently.

So I guess I heard what you said, Secretary Wilson, and I heard what you all just said about basically reviewing this whole thing—Secretary Bryant talking about this idea of every two years or whatever, having these shorter benchmarks. I can't think of anything else to call them. I think that is a great idea.

I guess what I am trying to figure out is at what point is a part of the benchmark not only about putting in the mechanisms we want to leave in place to get to the final goal? Or is it also saying, okay, this is where we want to be by 2012, this is what we want to do by 2016, as far as reductions and the kinds of stuff we want to see and this is what we need to have in place. It just seems like something is missing here under the current approach.

The other thing is that I want to know, when you consider Virginia, with Governor Kaine, he only has one term, so I want you all to go on record saying that you think that there should be consequences and I want you all to define this thing a little bit better, Secretary Bryant, this whole issue of flexibility, because flexibility is important, I think. If you have an economic situation like we find ourselves in, that is one thing, but you also know that flexibility can create some loopholes, and it actually could fly in the face of the very thing we are trying to accomplish.

So I guess I go back to what I said from the very beginning, that we have got to ask ourselves, okay, are we going to grab this thing and deal with it right now; are we going to make our environment, the Chesapeake Bay, better than—the environment in the Chesapeake Bay better than when we found it when we came along; or are we going to leave something worse off for our children and generations yet unborn? I mean, that is the real deal. This is our watch, so we have to ask whether flexibility is a word for passing it on to another generation?

I know that is not what you are trying to say, but I want—I mean, as I listen to your discussion, I think that is where, again, the issue of equity and accountability, those two things play an important role. I would like to hear you all go on record to say you agree that there should be consequences and that this whole thing of flexibility would almost have to be something extraordinary like

the economy going just kaput. So I hope that—so I would like to just go down the line. I will start with my secretary, if you don't mind, from Maryland, Secretary Wilson, then we will go down the line, if you don't mind. Thank you.

Ms. WILSON. Congressman, thank you for the excellent question. Yes, Maryland supports consequences, as you know. And I think I led everybody astray, and I didn't mean to. The process that we have under the Clean Air Act is an incremental planning process, so you take a chunk of time, you have a standard that you need to meet at the end of that period of time, and you have to put in place or put forward a plan that shows you, piece by piece, how you are going to get to that end standard and in what time frame. EPA reviews it and says that is good, we agree; that is no good, and unless you fix it these consequences are going to come into play.

So that sort of combines both having a deadline with consequences with the flexibility to tailor your plan to your situation that we were talking about earlier. So you have stated it far better than I ever could. We do have a choice now, and we have the opportunity, with this Executive Order and President Obama's leadership, to put in place a plan that will get us there by a date certain. Maryland is advocating for 2020; other States are advocating for 2025. But I think the most important thing is that we put that end date in place and get this mandatory planning process, with some consequence if you don't fully implement it, in place as soon as possible.

Mr. CUMMINGS. All right.

Ms. WILSON. Thank you.

Mr. CUMMINGS. Thank you.

Mr. BRYANT. Mr. Cummings, my remarks earlier on acknowledging that there must be consequences were actually reflective of what Governor Kaine himself has said. As Chairman of the Chesapeake Executive Council with his colleagues, again, they acknowledged a year ago that not only have the States collectively failed to meet a number of targets in several multi-State compacts heretofore over the last 30 years, but the most recent one being that we are not going to meet some of our targets or many of our targets, most of our targets, for our 2010 deadline. Some individual targets will be met, for example, Virginia will meet our 2010 deadlines for sewage treatment plants; but we will miss many others, as will the other States.

So Governor Kaine has said, yes, there must be consequences. If we are to be seeking, on the one hand, more Federal assistance and being grateful for the Federal organization and assistance that is outlined in the Executive Order, if we are to be seeking, say, $1.5 billion here, we acknowledge that, on the other hand, there must be consequences if we fail to meet the expectations imbedded in them. In these two-year milestones, adopting these two-year benchmarks, that is a new methodology. Out with the old of 10-year long-term goals that you don't know if you are meeting them until the very end, and in with the new, meaning short two-year milestones, much more transparent, much more accountable. There are many, many stakeholders who are looking over our shoulders and watching us. They will know immediately if we have failed and,

therefore, puts the pressure on us on the next set of two-year milestones. It will be cumulative.

You mentioned that, in Virginia, we are the only State where the governor can't succeed himself. I am a former legislator and budget writer, and I can tell you, as I have said previously in other forums, that I admit it is not every day that a State official comes here before you and says show me your teeth and pick up a hammer and do something to me if I fail. But we are at that point. We all know that the Chesapeake Bay is at a very significant point, and I can tell you, as I have said before, that budget writers at the State level, they don't necessarily fear the EPA. There hasn't been that level—in this respect: there hasn't been that level of consequence exacted upon us in days past. And, as such, when budget writers have to make significant appropriations decisions, it falls to the bottom of the list because they are not necessarily as concerned as they should be, and they should be.

So, yes, we are on record saying there should be consequences.

Ms. EDWARDS. [Presiding] Mr. Cummings, perhaps we could hear from Mr. Hawkins and Mr. Sturla so that we can move on. Thank you.

Director Hawkins?

Mr. HAWKINS. Yes. I want to be clear and very straight.

Mr. CUMMINGS. You all can be brief.

Mr. HAWKINS. The District of Columbia supports very clear standards. By flexibility we mean if you have to reduce your nitrogen reductions by 10 percent in two years, we will give you flexibility in how you achieve that 10 percent, whichever is best for your city, but you better achieve it or there will be consequence. And we agree with that system with one addition, which is our presentation that there should be some bottom-line standards for development that, no matter what else you do, you must incorporate those. So there is inflexibility on certain pieces that you must implement.

I would add that is exactly the system that industrial facilities have faced for the last 20 years. You give them an end of point discharge that they must meet. What they do in their facility to meet that is their job. But at the end of the day, they have to meet the number and, if they don't, there is a violation and a consequence. That is the same system.

Mr. CUMMINGS. Thank you.

Ms. EDWARDS. Thank you.

Mr. Sturla?

Mr. STURLA. Thank you. Yes, we do support consequences and, as was pointed out, we do want some flexibility in how we get to our goal, but we do want somebody to say that there are consequences if we never get to our goal or if we don't meet those goals. Part of what we face is those debates within our State, rural agriculture versus urban sewer stormwater plants that are combined systems, stormwater and sewer, that are 200 years old and suburban areas that have a lot of big box runoff. We are all competing with each other as to who needs to do what. So when I end up with a diluted plan at the end of it and I go back to the Chesapeake Bay Commission and say, well, we didn't quite get to where we wanted to in Pennsylvania, but, guess what, you didn't get to

where you wanted to in Virginia either, and you didn't get to where you wanted to in Maryland, and we know that New York and West Virginia and Delaware, which aren't even members, surely didn't get to where they are, and, by the way, there is Blue Plains, so we can lay all the blame on them. There is always somebody else that you can blame and point the finger at, and unless there is somebody at the top saying you all have to comply and there are going to be consequences for everyone unless you comply, we will always be able to point fingers and do the blame game and escape what we believe is something that maybe we should do, but we will get there eventually.

Mr. CUMMINGS. Thank you, Madam Chair.

Ms. EDWARDS. Thank you, Mr. Cummings.

Mr. Platts.

Mr. PLATTS. Thank you, Madam Chair. I first want to thank all of our witnesses for your testimony. I am sorry I had to step out for some of it.

Mike, especially, good to see you. Thanks for coming down.

My question for all of you to address, but starting with Mike and specific to Pennsylvania, then broadening it, in some proposed legislation there is the idea of expanding to having a nutrient trading program for the entire watershed, for the entire region, all six States, using Pennsylvania as a model.

So, Mike, I was wondering if you would be able to expand a little bit on what Pennsylvania has done and how you have seen it work, specifically in Lancaster County, because I think in your opening remarks you captured, in Lancaster County, what really embodies this whole region, because your district, the 96, is a very tight urban district, but you have the suburbs around you and then you have those great Amish farms beyond that, and it encompasses the differences throughout this region.

And then for all of you, your sentiments on the idea of a regional trading program, and should it be a Federal mandate that we do it or should it be left to the discretion of the various States to enter into agreements to do that across State borders, as opposed to us establishing it through some Federal legislation.

Mr. STURLA. Yes. We do support nutrient caps and the trading program, and only if there are caps does a nutrient trading program actually work. It is only when you create that demand that a farmer can say if I put certain practices into place, I can take some of that cap, I can sell that, I can become profitable by doing good farming practices and by being good stewards of land and eat up some of those credits.

It has to, though, be in place in a sort of forceful, effective way for it to be successful. If it is just sort of an open market, no cap on it, just willy-nilly, you want to buy some credits, there is nothing to buy if I am not being forced. If the EPA never says we are going to impose penalties on you, if I keep getting the pass because I am trying and I am going to do it next year, it will never be as effective as it should be.

Mr. HAWKINS. On behalf of the District, we are interested with the idea of cap-and-trade essentially for these nutrient. The challenge that we see, and looked at this issue in other jurisdictions I have worked in, and is in the draft legislation, the two big issues:

if you are going to trade from one place to another, how do you make sure the place that is buying credits and, therefore, polluting more than they would have otherwise, that there is not a risk to that water body? That is such a resource and information-specific decision on every one of the trades that I am not—we are completely open to it. I am not confident that the transaction costs won't be more than what you can do if it is done on a very broad scale.

Second, there are some cases when you won't want to trade at all, if the parties trading have significant compliance issues.

So we are certainly still open to that idea, but want to learn much more.

Mr. BRYANT. Four or five years ago, Virginia actually instituted a comprehensive nutrient credit trading program for nitrogen and phosphorus, principally for wastewater treatment plants. What we found is we had 2010 deadlines for more than 100 wastewater treatment plants in Virginia that needed to be upgraded. Maryland had roughly 60. So just in the two neighboring States there were 160 wastewater treatment facilities that were all going to be competing for labor, materials in a very short period of time, and we knew the costs were going to go up. So we implemented a nutrient credit trading program. I believe, if I remember correctly, there were only two such programs in the Country, a small one around Cape Fear, North Carolina, and a fairly small one in the Long Island Sound.

In Virginia, we constructed one that is broad and comprehensive, and the EPA estimated that it would achieve something like $200 million in savings against the conventional everybody doing their own thing and upgrading to state-of-the-art technology. So ours is going well. We have also expanded it recently to make provisions for non-point sources to also be a part of that trading system.

Ms. WILSON. Maryland supports a cap-and-trade program if it has the appropriate controls on it. And we know from our participation in other cap-and-trade programs that it is essential that regulating the environment so that there is consistency and parity between the trades, if you will, is essential to making it work.

To your question about whether it should be mandated in Federal legislation, our experience in Maryland, as you know, a fairly small State, is that it would be much more effective if it were on a wider scale because you get a critical mass so that you can have effective trades between the sectors, in particular. So if that is what it took to get a regional trading program in place, we would say yes. But, again, it is all contingent on having the proper controls for the trades.

Mr. PLATTS. And the controls and what the cap is, if you are doing it regionally, how we set the cap for the whole region versus individual States. I mean, there are a lot of variables that would have to play out to make sure it is effective, fair, and doesn't result in lack of focus on local degradation, that we abandon some areas, in essence, just by buying credits, instead of trying to still fix those problems.

So I appreciate each of your insights and, again, for all your testimony. I appreciate your making the effort here today. The timing was maybe a little ideal; my seventh grader at Yorksboro Middle

School, this week's test was on estuaries and the Chesapeake Bay watershed and these issues, so I think I got prepared for the hearing versus helping him study for his exams.

Thank you, Madam Chair. I yield back.

Ms. EDWARDS. Thank you, Mr. Platts. I think there are several of us who can attest to having gone through a test or two on the Chesapeake Bay.

My question actually originally started with Mr. Cosgrove and Mr. Fox, both of whom have left, so I will give you all an opportunity.

Secretary Wilson, it is always good to see you and to hear about what our great State is doing with your partners in the other States. I wonder if you could—you have all talked to what sounds to me like disharmony in terms of the regulatory structures in each of the jurisdictions and implementation of programs in those jurisdictions, and, very surprisingly, each of you also has spoken to the idea that you want additional Federal regulation, which is not something that we often hear from States.

But speaking to that disharmony, it does occur to me that some of the challenges that EPA has outlined are actually things over which they don't have any control or authority right now, and I am concerned that, under current standards, the EPA is really not going to be able to achieve the kinds of reductions that have been identified as necessary unless they have some additional regulatory authority. So without speaking to what each of your States or jurisdictions is doing, I wonder if you could talk very specifically about where it is that EPA needs the greatest amount of authority over the region and the watershed.

Ms. WILSON. Thank you for that question, which is a good one. To our way of thinking, in addition to the mandatory planning process and the deadline and the consequences that we have already talked about, that is an authority that is not in place for the watershed. So that would be one area. You rightfully point out that a lot of the activity for nutrient reduction that needs to take place is local, and the local sources are varied, from small municipalities to agriculture; and I think that that is the advantage of this planning process, wherein a State could be given a target and then figure out for its jurisdiction what is the best way to get there.

So, in answer to your question, I think it is the mandatory planning process and the deadline and the consequences that will incorporate all of those issues.

Ms. EDWARDS. And let me just interrupt here, because with the exception of the District of Columbia, it is also true that even in a State like Maryland, you have local jurisdictions that have broad authority over economic development policies and strategies and their local road systems that are also contributing to runoff. So even in your individual States it does seem to me that the EPA still would lack what it needs to do to enforce a watershed-wide policy for the kinds of reductions we need to see.

Any thoughts about that? I can imagine if we had our counties here, they would cringe if we thought about impeding their planning and development processes.

Ms. WILSON. And these are challenges that we currently deal with and that local governments are currently dealing with. So, for

example, if you take the area of wastewater treatment plant upgrades, there is State funding available, but those are local projects as well. So there is a system, if you will, in place where the State will set standards. For example, with stormwater we set a minimum standard and now all the counties will adopt that.

So there is this flow of authority, if you will, from the Feds to the State to the local governments, and I think if we were to put in place the—and I feel like I am repeating myself, and I apologize if I am; I am just not articulating it well. If we were to put in place this mandatory planning process, where we had to meet certain water quality goals, we would then figure out what the State could do and work with the local governments to figure out what they could do, you know, work with agriculture to figure out what they could do. But you are right, it is a mix of activities that need to occur in terms of the nutrient reductions.

Ms. EDWARDS. And I want to just go on to the next witness because our Chairman is here, and I know that he has questions as well. But first, I want to just go to this issue—it seems the most anxiety has been raised by farmers and homebuilders. I understand the challenges faced, but I wonder, particularly from Pennsylvania and Virginia, obviously, Maryland,—we have farmers as well, quite a number of them on the shore,—if you could address for me where you believe the EPA needs to have broader authority that would assist us in getting the reductions in, say, nitrogen and phosphorus levels, but still enable the kind of commercial and agricultural activity that many of our States depend upon.

Mr. Sturla?

Mr. STURLA. Well, I will talk a little bit about enforcement, but I would also like to talk a little bit about grants, because part of our testimony also said we needed some money to go along with this.

And, as an example, I will use my community, the City of Lancaster. In Pennsylvania, we don't do a county-wide government overview of all this, we do municipality by municipality, and there are over 2500 different municipalities. Mine has 60,000 in about a four square mile area and our combined stormwater and sewer system, which was built over 200 years ago, every day that it rains dumps raw sewage into the stream. That is 90 days out of the year. EPA has put us on notice saying we better get things cleaned up, and we are looking at, because we can't separate the systems quickly—that will take 20 years and hundreds of millions of dollars—we are looking at our short-term solution of building a $30 million holding tank so that we can capture that effluent on those 90 days and process it in the off days when it is dry.

We have 60,000 constituents and a $30 million holding tank we need. I mean, you do the math. It gets overwhelming for small municipalities like that. And we are pretty good about it. There are smaller municipalities that are in even worse shape.

On the agricultural end of things, you will always see, in Pennsylvania, anyway, them talk about what are called legacy sediments, because there used to be a mill dam every mile or so down the road where there was a grist mill, and they built a dam and all the sediments backed up behind that dam for years, and now all those dams are gone because they are hazardous risks and all

that silt is continuing to move down the stream every time we have a major storm event. So the farmers say don't blame me, blame the guy who farmed 100 years ago. We need to get that legacy sediment cleaned up also. That is not an easy process and that is not something that the farmers view as their responsibility, but we have to figure out how to get to it.

Ms. EDWARDS. Thank you.

Secretary Bryant?

Mr. BRYANT. Yes, ma'am. First, I must say agriculture and forestry is still the number one industry in Virginia. As Governor Kaine frequently says, there is not even a close second. The Virginia way has always been to work in a very voluntary and incentive-based way through cost share programs with EPA and others to incentivize our agricultural community to step up, and many have; we have made great progress.

I hesitate to speak for Mr. Fox, who has left, but I believe he has said a number of times that he thinks that, in his reading of the Clean Water Act, there may be sufficient power within existing law. However, he also has noted that there should be perhaps some more attention paid to large animal feeding operations that are great sources of pollution. As I have noted previously, the EPA estimates that less than 20 percent of the agricultural runoff is currently regulated. So probably focusing on some agricultural areas may be where some improvements need to be made.

Let me also say this, however. Working very closely with the Virginia agricultural community, they have brought it to our attention and they contend that there may be much better and much more good stuff going on than they are properly being given credit for. There are many voluntary actions being undertaken by Virginia farmers that are not being tracked and properly accounted. So we are exploring whether or not there are ways that we can get additional information from USDA to be shared in the aggregate for privacy reasons with EPA so that we can give the agricultural community proper credit and accounting where we may not be giving them credit for right now. So we would like to keep that in balance.

Ms. EDWARDS. Thank you, Mr. Secretary.

I am going to—we have just been—well, I have additional questions, but I am going to defer to my Chairman, and I will come back.

Thank you, Mr. Chairman.

Mr. OBERSTAR. Again, I appreciate all of you participating and sharing with us your wisdom, your thoughts, your energy, and your passion for protecting the Chesapeake. I said earlier it is the Chesapeake, it is Puget Sound, it is the New England fisheries, it is the Gulf Coast fisheries, it is the Great Lakes, where we are beleaguered by invasive species and the residue of hundreds of industrial plants and a century or more of industrial discharges that are still there on the bottom, sediment being taken up through the food chain. We have to deal with all of those things. We have to walk and chew gum at the same time.

Your idea of a holding tank, Mr. Sturla, do you know how old that is? Thirty years. Thirty years ago the first project was initiated here in the District of Columbia at the urging of my predecessor, John Blatnik, who worked with the then Federal Water Pol-

lution Control Administration and some innovative researchers who said, you know, we have these huge storms, there isn't enough money to separate storm sewer and sanitary sewers, and it would be best if we tried channeling all of that into big holding facilities, neoprene bladders that would hold a million gallons of runoff. And an experiment was undertaken and they were built in the Potomac and the Patuxent and it worked.

But then came the Reagan Administration and they abolished all those funding ideas and the money went away, and we converted from an 80 percent Federal grant program to a loan program, just at the time that the smallest communities in this Country, who were next in line to get the big load of Federal grant funds. Then, as you described, the small town in Lancaster, Pennsylvania, like many in my district and elsewhere around the Country, they had to go hat in hand for a loan, to be repaid with interest. That was the wrong thing to do at the right time. The right time was back then. We were going to deal with all these small issues, having dealt with large waste streams. So that is still our problem all over this Country, but especially in this watershed.

Now, we are coming back to this idea of holding tanks—I just want to finish that thought off—at the headwaters of the Great Lakes in Duluth, in my district, and Superior. They are building three of these holding tanks. A lot less expensive than going back digging up all the sewers and separating the combined storm and sanitary. Build these holding tanks, hold the material until the storm has passed, pump it back through the system, treat it properly at far less cost. But we ought to reinstate the grant program to do these things.

But the question, among many, that I wanted to ask Mr. Fox, but I know he had a medical appointment to attend. But, you are good surrogates, all of you, to discuss concentrated animal feeding operations. We know what they are, but what about those entities like Perdue Farms that get around pollution control programs by having a central facility, whereby they have all these little satellite growers who are not point sources, and then they send their chickens into the central processing plant? How do you get at those? Do we need to change the definition of CAFOs? Do we need to restructure the law, or is there enough authority within existing law to get at them?

Ms. WILSON. Mr. Chair, I will take a stab at that one. In Maryland, I mentioned in our testimony that we recently put in place a new set of requirements for manure management for poultry operations, and it was basically an expanded group of poultry operators above a certain size threshold, because they were not previously regulated. So that was a very controversial undertaking. We got a lot of very good input from the farming community about how to make the requirements more efficient and more likely to be implemented properly, and made adjustments accordingly. The EPA has recently changed its interpretation of a definition and now the Federal rule will encompass most of the facilities that Maryland is regulating.

So a long way of saying, to some extent, some of those facilities are currently being regulated. And I would not speak for Mr. Fox, but in draft reports that EPA has recently issued, there is discus-

sion of expanding the universe of what would be covered under those sorts of requirements, and I think the discussion that we all need to have is what would that expansion be and what would it entail. And there is obviously a tremendous amount of interest in the answers to those questions.

Mr. OBERSTAR. Thank you. There are probably 100 questions I would love to ask. We can have that in a smaller setting, in a different setting. But a common theme running through your testimony and through the roundtable we had a couple months ago or so, was the need for finding enforceable implementation plans. This was repeated again today in this setting, and the commitment of all the States was clear—New York was a part of that, Pennsylvania, West Virginia, the District was very enthusiastic. Director Hawkins, I remember your forceful presentation for a Chesapeake watershed management plan. And all the elements are there for it; all the pieces have been studied. The documents are this high, maybe higher. We don't need a newly funded study; people are fed up with studies. We want an action plan, we want a watershed management action plan.

Mr. Cummings is receiving information as the formal head of our task force that I have charged him with undertaking. When are you going to get this information to him and when is he going to be able to come back to this Committee in time for the reauthorization? We need to have a really strong watershed plan so that, as you said in that roundtable, there are Chesapeake standards that we are all adhering to, New York as well as Virginia as well as the District—all adhering to Chesapeake standards.

Mr. HAWKINS. A quick comment, and this connects to the question you raised before about the jurisdiction of EPA under the Clean Water Act. I fundamentally believe the Clean Water Act has plenty of authority to establish standards for discharges and the total maximum daily loads, which can be a waste allocation or a load allocation, which is to point or non-point sources. In the District, we are currently negotiating a MS-4 permit with EPA that will have operational consequence in how we build the buildings of this city, just like virtually every jurisdiction in the Country. What has been missing from the Clean Water Act, as everybody knows, is not the authority to set the standard or to be prepared at what the numbers ought to be, it is the implementation plan that goes with it in parallel so you know what must be done, where, and how.

Our fear in the District—of course we want development in the city. The mayor is fully committed to both, a green city and a vibrant city. We know we will have to have a very high set of standards under a federally issued permit for development in an MS-4 context. What we would like to see is that not price developers out of the city out to farm fields, because there would be standards there as well. So it is an even playing field. We will step up, and are, as the mayor wants both vibrant economics, as well as a green city.

Having a common playing field means that is true across the Chesapeake Bay with Chesapeake standards. The authority to set the numbers are there. The challenge has been, for the last 20 years, what are the definable implementation plans, which, in the

draft, is the tributary implementation plan as the main implementation scheme. That is a great addition and something that we need.

Mr. OBERSTAR. Well, I look forward to seeing that, and I think that is the key element. As discussed in the roundtable and as it runs as a theme throughout all your testimony, we need to have watershed-wide standards that all are going to adhere to and we have an enforceable program. We also have to put some money up for this thing. However, we are always asked how much is it going to cost? What is the cost of not acting? What is the cost? Maybe you give a bushel of oysters to everybody up in New York who says, look, we don't use the Bay. But if you restore that Bay there will be enough oysters for the whole watershed to give a bushel to every household. That Bay used to be filtered in a week by the oysters; now it is a year.

That is not sustainable. It is not about fisheries management, it is about water management, about the water quality management and about doing it across the whole watershed. And, in that theme, I am developing a watershed plan for the whole Country to get this whole thing going in the right direction.

All right, Madam Chair, I will desist.

Ms. EDWARDS. Thank you, Mr. Chairman.

Mr. Boozman, do you have additional questions?

Mr. BOOZMAN. No, ma'am.

Ms. EDWARDS. If I could just ask two more questions, then I promise we will let you go.

Mr. Hawkins, a number of us on the Transportation Committee actually signed onto a letter making a request through our Chairman and our Ranking Member that the transportation infrastructure surface transportation reauthorization include a clear policy, standard, and guidance to reduce or eliminate stormwater discharges from new or major highway retrofits; and you have already indicated, of course, the problems with our local suburban and urban runoff problems. How can we best, if you would just—and I am asking this on behalf of Ms. Norton, who couldn't be here today, so I think she just wants to make sure it is on the record. How can the Federal Government best approach the problem?

Mr. HAWKINS. That is a great question and it is one, again, for example, in the city roads, DDOT, that we do here in the District, that is also subject to the MS-4 permit negotiation, which I just mentioned. There will be EPA negotiated requirements, coming from a Federal mandate, of how we design the roads in the city, and we are going to be implementing more of what is called a low-impact design development standard to allow rainwater to be retained, water that is raining down the road to go in to support street trees and the greenery that we want in our city for a whole bunch of reasons. But it also reduces stormwater and improves water quality.

Now, obviously, outside, the Federal has the major Federal highways and so much money is spent, and this is a design specification issue. I have regularly heard from developers, yes, it is an additional cost, but to me this is like a plumbing code or an electrical code. Once you set the bottom line for how all roads are designed, that now becomes built into the cost of every road and you get a

benefit of an enormous range of—huge expenditures are made on an annual basis, and once on a per unit basis it becomes the design standard. The cost drops dramatically when you get economies of scale. The technology and the techniques all become similar.

That has been true every step of the way when we have imposed higher standards on industry. At first it seems insurmountable and will be too expensive, and a few years later, as long as it is common, so that a metal finishing plant in Vermont has the same standard as the metal finishing plant in Montana, so they are all doing the same and the technology and the expertise and the consultants. We can do exactly the same for roads, with the single biggest buyer being the Federal Government.

Ms. EDWARDS. Great. Thank you. I appreciate that and I know that Ms. Norton will appreciate that being part of the record as we consider our surface transportation reauthorization.

Then, lastly, and any on the panel, and it doesn't have to be each of you because time is wasting, but I wonder if you could speak to the role of green infrastructure in addressing the problems of the Bay runoff and nutrient problem. We talk to the particular problems of farmers and agriculture and commercial sources, but we need to really look at the development question, our commercial buildings, our homes. There is a lot of pressure for development throughout the watershed, particularly in the urbanized areas. I just wonder if any of you could speak to the issue of how we incentivize green infrastructure and green building for infrastructure as a mechanism and an incentive, if you will, to contribute to the health and strength of our Bay.

Mr. HAWKINS. I think that is a great question and I will try to be brief; I know we have been with you a long while.

I would say there are several things. It is a wonderful question. There is no question to us in the District that incorporating green design standards, the low impact development in every kind of structure is one of the fundamental step forwards that every jurisdiction in the Country should be looking at. It not only is a water quality management issue, reducing the amount of stormwater because it is retained on site, the stormwater is cleansed of many of the nutrients that are the problem. It also helps cool buildings, it provides ecology and habitat. There are jobs connected with the ongoing upgrade and maintenance of these amenities. And you walk down a city street on a hot day and you are underneath a tree canopy of a street with trees, and you know what a benefit it is to have greenery as part of the quality of life of a place.

There are so many multiple benefits to building green into the system. What we are doing in the District, to answer the questions that you have raised, is, one, we are increasing the building standards, the same thing we are all talking about. If you are going to build in the District, what you must do to manage stormwater is becoming more stringent. So the rules of the game are getting tougher. We are also providing incentive grants to help incentivize and provide subsidies for green roofs, for example, for the production of those products. We have both incentives on one side and regulatory requirements on the other. The third is that there is a fee charge in the District for how much stormwater you generate, and our intention is to have a fee that is scaled. If you do better

at your site, so you hold more stormwater on your site, less is draining out into the pipe, you pay less of a fee. So you have a financial incentive because you are generating less stormwater; our pipes may need to be less big. Maybe if we do enough of it, our bladders under the grown can be a little smaller and we can save.

It is $200 million, I think you said, in the District. Jerry Johnson knows this. It is a $2.2 billion project here in the District to build those underground caverns to hold that stormwater. If we are retaining more on the surface for all these benefits, maybe, if we do it at enough scale, we can downsize those underground caverns and save some money on the other side.

Ms. EDWARDS. Thank you.

I believe Mr. Cummings has one additional question.

Mr. CUMMINGS. Thank you, Madam Chair.

Secretary Wilson, one of the things that I—we, in trying to pull this all together, one of the strongest groups that seemed to be concerned about all that we are trying to do is our agriculture community. In Maryland, would—you know, the farming community in Maryland would need, I think, additional aid to implement additional pollution control measures, at least that is what they are saying. If so, what level would they be needing, particularly given the challenges that the agricultural community is facing now? They are extremely sensitive about all of this and I think Mr. Boozman sort of referred to some of the issues with the agriculture community. That is where we are hearing it.

Ms. WILSON. Yes, and you raise a very good point, and we are hearing the same. In fact, I have mentioned a couple of times these new standards for manure management for poultry operations that we have just put in place, and I failed to mention that those were coupled with some financial assistance programs to assist with the cost. As we know, many of our farmers are particularly hit hard by the economic challenges that the Country is facing.

So I don't have an answer for you in terms of the dollar amount, but I would be happy to work with our Department of Agriculture and get that information not you. Suffice it to say it is a topic every single day and we are hearing the exact same thing.

Mr. CUMMINGS. Thank you.

Thank you, Madam Chair.

Ms. EDWARDS. Thank you. I know that you will be grateful to know that this panel is dismissed. Thank you very much for your testimony and your perseverance, and that goes particularly to panel three as you join us.

Today we are joined on panel three by Council Member Cathy Drzyzgula from Gaithersburg, Maryland, testifying on behalf of the Metropolitan Washington Council of Governments.

Next is Mr. Jerry Johnson. Mr. Johnson is the General Manager of the Washington Suburban Sanitary Commission. It is a point of privilege welcoming you because you serve so many of the constituents of the 4th Congressional District in Maryland and our metropolitan area.

Our third witness on this panel is Dr. Russell Brinsfield from the University of Maryland; and following him, Ms. Molly Pugh will testify. Ms. Pugh is the Executive Director of the Virginia Grains Producers Association. Then our final witness today is Mr. Peter

Hughes. Mr. Hughes is the President of Red Barn Consulting, based in Lancaster, Pennsylvania.

Thank you all and, again, thank you for your patience, and we look forward to your testimony.

Council Member Drzyzgula, good to see you today. Please turn on your microphone.

TESTIMONY OF COUNCIL MEMBER CATHY DRZYZGULA, CITY OF GAITHERSBURG, GAITHERSBURG, MARYLAND, TESTIFYING ON BEHALF OF METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS; JERRY JOHNSON, GENERAL MANAGER, WASHINGTON SUBURBAN SANITARY COMMISSION, LAUREL, MARYLAND; DR. RUSSELL B. BRINSFIELD, UNIVERSITY OF MARYLAND, QUEENSTOWN, MARYLAND; MOLLY PUGH, EXECUTIVE DIRECTOR, VIRGINIA GRAIN PRODUCERS ASSOCIATION, CHESAPEAKE, VIRGINIA; AND PETER HUGHES, PRESIDENT, RED BARN CONSULTING, INC., LANCASTER, PENNSYLVANIA

Ms. DRZYZGULA. Good afternoon, Representative Edwards and Ranking Member Boozman, Members of the Subcommittee. I am pleased to be here today. I thank Chairwoman Johnson for inviting me to testify about Chesapeake Bay restoration activities within the context of reauthorization of Section 117 of the Clean Water Act. I am Cathy Drzyzgula, a member of the Gaithersburg, Maryland City Council, and also Chair of the Chesapeake Bay and Water Resources Policy Committee of the Metropolitan Washington Council of Governments, commonly known as COG. COG is a regional association of 21 local governments in the Washington Metropolitan region whose combined population represents more than one quarter of the population of the entire watershed.

COG and its Bay Policy Committee have a long record of support for the Bay restoration effort. Members of the Committee serve on the Chesapeake Bay Program's Local Government Advisory Committee and served on the Chesapeake Bay Blue Ribbon Financing Panel. COG's Board of Directors recently revised its longstanding policy principles to guide local government involvement in the Bay restoration effort. The principles, which highlight the need for equity, sound science, and local government input in setting Bay policy, serve as the basis for my comments today. A complete description of COG's policy principles is included in my written testimony to the Committee.

As you begin to consider what new regulations and programs should be included in reauthorization legislation, please consider the following comments, which were distilled from many discussions of these issues among our members over the past weeks and months.

EPA and its Bay Program partners are already working to issue regulations by December 2010 for a series of Bay-wide Total Maximum Daily Loads to achieve the needed reduction in nutrients and sediment to achieve Bay water quality standards. The standards will include implementation plans, measures for assuring progress, and consequences for lack of progress. This is arguably the most complex regulatory process ever undertaken under the Clean Water Act. In response, COG's member governments will need to imple-

ment new programs and practices to meet more stringent regulatory targets. COG recently hosted a meeting of EPA Bay Program and State staff to explore some of the many questions that this process has raised. A list of questions from that meeting is included in my written comments and provides an illustration of the challenges we face. For instance, it is not yet clear how to best align the geographic scope and overlapping timetables of the TMDLs themselves, their watershed implementation plans, and the two-year State milestones.

COG's member governments are concerned about efforts to prescribe in great detail new regulatory requirements in the Bay watershed. Because of its existing authority under the Clean Water Act, EPA, together with the States, already regulates municipal wastewater plants and municipal separate storm sewer conveyance systems, MS-4s. All of COG's members are subject to MS-4 regulation. Prescribing specific penalties for non-compliance may limit EPA's flexibility and lead to an unproductive use of limited municipal resources.

Additional regulatory measures for restoring the Bay, whether crafted by EPA under its existing authority or prescribed in the statute, should recognize the variability and economic conditions, geography, and other factors throughout the 64,000 square mile Bay watershed. This is particularly true of requirements aimed at reducing the water quality impacts of stormwater runoff from urban areas. Baseline performance requirements should not specify the technology to be used to achieve them.

Similarly, our experience underscores the importance of making a distinction between new development and redevelopment in meeting performance standards. Baseline performance requirements for urban stormwater control should make a distinction between new development and redevelopment sites, and any redevelopment requirements should be balanced by the critical need to encourage infield development and smart growth.

A Federal stormwater performance standard, if established, should extend beyond the areas currently subject to MS-4 permits. This is important both for the sake of equity and to ensure that more stringent stormwater regulations do not wind up pushing sprawling growth into areas where the requirements do not apply.

Overall cost and cost efficiency cannot be ignored in crafting implementation plans and new regulatory approaches for restoring the Bay. It is common sense to pursue the most cost-effective measures for reducing nitrogen, phosphorus, and sediment pollution first. Most of these measures involve agriculture, as was documented in the December 2004 report Cost Effective Strategies for the Bay by the Chesapeake Bay Commission. By contrast, achieving significant nutrient reductions in stormwater runoff from older urban areas, those built before the mid-1980s, and the advent of modern stormwater management technology is extremely costly.

The Washington region's experience with funding improvements in wastewater treatment demonstrates that water quality progress is best achieved by sharing costs across levels of government. This has not been the case for municipal stormwater management programs, which, alone among the major sources of pollution to the Bay, lack a significant dedicated source of Federal or State cost-

share funds. Toward that end, it is encouraging that the Chesapeake Bay Restoration Act of 2009, which we heard about earlier from Representative Connolly, includes a provision to authorize up to $1.5 billion in Federal cost-share funds for local government stormwater management efforts. Cost-sharing funding for stormwater management is a critically important component of successful restoration of the bay.

I will conclude my statement by emphasizing the continuing commitment of local governments in the Metropolitan Washington region to the Bay restoration effort. We look forward to working with you to ensure that new congressional legislation complements ongoing efforts and builds upon the work that has already been done.

Thank you, Representative Edwards, Chairman Johnson, Ranking Member Boozman, and Members of the Subcommittee for allowing me to testify on behalf of COG today. I would be pleased to answer questions.

Ms. EDWARDS. Thank you.

Mr. Johnson?

Mr. JOHNSON. Thank you. Good afternoon, Congresswoman Edwards, Ranking Member Boozman, and Congressman Cummings, and other Members of the Committee. I am Jerry Johnson, General Manager of the Washington Suburban Sanitary Commission, and I am honored today to speak to you on behalf of WSSC and the 1.8 million residents we serve in Maryland to testify on the reauthorization of the Chesapeake Bay Program and share recommendations to protect the national treasure that we call the Chesapeake Bay.

By way of background for the Subcommittee, WSSC is a public utility. It is the eighth largest combined water and sewer utility in the Nation, with over 1,000 square miles in our sanitary district. In addition to the 1.8 million residents served, WSSC directly serves nearly 30 Federal facilities, including Andrews Air Force Base, NASA Goddard Space Flight Center, the National Institutes of Health, and the Food and Drug Administration, to name a few.

Restoring and maintaining the health of the Bay is the linchpin from which we can ensure protection of the region's waterways and ecosystems. The WSSC has played an important role in reducing pollutant loading to the Bay from its wastewater treatment plants, designing and deploying technologies that are at the limit of technology. However, we can never address the multitude of challenges facing the health of the Bay without equitably sharing the burden among all sources of water quality impairment which impact the Bay. To move forward in a meaningful way will require a comprehensive approach that allocates Federal, State, local, and nongovernmental resources efficiently, and mandates equality to maximize pollution reduction from all remaining sources.

It is time that Congress, the States, the regulators, Chesapeake Bay Commission, non-government organizations such as the Chesapeake Bay Foundation, and others work in concert to take a serious look at addressing all sources of pollution, and not just point sources. This means taking an aggressive step or taking very aggressive steps to address agriculture, development, stormwater runoff sources in a manner that is not only equitable to all, but enforceable as well. The WSSC and the wastewater industry as a

whole have invested heavily in infrastructure and programs to reduce pollutant loadings.

Now I believe it is time to acknowledge that the Clean Water Act, and the reauthorization of the Bay Program as a part of it, must be updated to recognize the critical remaining challenges. First, we need to consider a holistic approach to addressing multi-jurisdictional challenges like the Bay by creating flexibility for watershed-based solutions. Second, we need to restore a strong financial partnership with the Federal Government to replace our aging infrastructure. Third, the Clean Water Act must be renewed to ensure that we target limited resources to the most important challenges. And while I am certainly appreciative of the House of Representatives in passing H.R. 1262 to renew the State Revolving Loan Fund and increase the funding levels, I am concerned that those funding levels don't quite meet the task of renewing the infrastructure that we have to repair. Currently, as a Nation, we face a $500 billion gap in the spending for wastewater facilities. I look forward to working with this Committee to make important revisions to the Clean Water Act and SRF funding.

WSSC is doing its part to address the single largest remaining impairment, nutrient loading. We are moving to the limits of technology and we are doing the most anyone knows how to do in the scientific universe to reduce the amount of nutrients that are discharged into the Bay's tributaries, but we cannot, by our own actions, solve the problems. As previously stated, a watershed approach with a truly equitable regional and inter-regional approach is the only path to success for the Bay. The Federal role in this effort needs to include more meaningful regulatory initiatives that address non-point source pollutants as robustly as they have addressed point source pollutants. It is critical that we abandon the silo approaches that have existed since 1987, when the Clean Water Act amendments moved to a comprehensive approach that includes all sources to the Bay. Let's address the worst problem first.

I have provided a series of recommendations in my written testimony that include funding for E&R upgrades to wastewater treatment plants, providing equitable regulatory framework in the Clean Water Act, reauthorization based on actual threats to water quality, increasing funding for SRF program, direct grants for specific projects under the Chesapeake Bay Program, adopting a comprehensive grant program within the climate change legislation that is pending before Congress, and to allow water and wastewater utilities access to critical resources and ensuring robust program for Federal grants.

Ms. Edwards, let me conclude by saying that I believe that we can all agree that the Chesapeake Bay is a national treasure. The Bay supports an incredibly diverse ecosystem. It is in a place where people come from all across the Country to swim, fish, boat, and enjoy its national beauty. For those who live in its shadows, it enriches our very existence. The Chesapeake Bay touches too many lives and impacts our environment too greatly for everyone in the region not to work towards improving its health. But this will only occur with a balanced and effective program that targets today's water quality impairments, non-point solutions.

That concludes my testimony, and I would be pleased to respond to any questions that you might have.

Ms. EDWARDS. Thank you, Mr. Johnson.

Dr. Brinsfield?

Dr. BRINSFIELD. Thank you, ma'am. It is an honor to be here. I appreciate the opportunity to testify on this important legislation. My name is Russell Brinsfield. I am a scientist with the University of Maryland and actually the mayor of a small community on the eastern shore of Maryland as well.

Despite more than two decades of efforts to restore this beautiful Chesapeake Bay, very little verifiable progress has been made towards reducing nutrient losses from agriculture. This is especially apparent where watersheds are predominantly agriculture and the major land use are row crops, animals, including poultry, that are the dominant commodities that are produced. For example, to date, there is very little evidence that water quality at the USGS monitoring station in the Upper Choptank is going down. In fact, data suggests that is from a predominantly ag watershed that nitrogen levels are actually still increasing.

Likewise, phosphorus transport in watersheds dominated by agriculture are even less clear than those for nitrogen. Although manufacturers determine phosphorus losses in the long term, soil phosphorus levels are the best available indicator towards progress in meeting the phosphorus reduction goals. To date, there is very little evidence that soil phosphorus levels are decreasing.

Currently, progress towards meeting the nutrient reduction goals result mainly from estimates using the Chesapeake Bay watershed model. Unfortunately, these efforts have proven to be of little value for predicting the effects of implementing agricultural best management practices on delivered loads of nutrients from agriculture-dominated watersheds. This lack of verifiable progress has created doubt as to whether the current strategies will even achieve the reductions needed to restore the Bay. This doubt has created pressure for more regulatory approaches and support for more funding for cost-share programs. However, before adjustments are made, it is important that methods be developed that would allow the assessment of the actual changes in nutrient losses resulting from the current strategies. Without reliable tools for tracking progress, it would be difficult to determine if policy adjustments are needed or if we just need more time to demonstrate that the current policies are in fact working. Reliable strategies for tracking progress are also necessary to develop efficient regulatory and incentive-based programs that do not put undue burden on our farmers.

These hearings on the reauthorization of the Chesapeake Bay Program provide a unique opportunity not only to evaluate our current strategies for nutrient reduction from agriculture, but to integrate the latest science into future strategies. The following set of recommendations, performance-based recommendations, I want to emphasize, is submitted to help move agriculture closer to meeting its responsibilities as outlined in the Chesapeake Bay restoration goals. These recommendations should be viewed as a framework to begin a broader dialogue to develop a consensus for a future strategy.

Recommendation 1: We need to better target funding both geographically and programmatically. We need to identify those locations geographically—based on things like salt type, slope, distance to streams, cropping systems—that are contributing disproportionately large parts of a load and implement strategies to maximize those reductions.

Recommendation 2: We need to improve our nutrient management process through a series of practice and program changes that include: making sure that the long-term goal for phosphorus-based nutrient management planning is to reduce soil phosphorus levels to those needed for optimum crop production. The current strategy under certain conditions, using the site index, allows farmers to increase soil phosphorus levels beyond those needed for optimum crop production.

Number two under nutrient management planning, develop a GIS-based system that allows the tracking of soil phosphorus levels at the watershed scale over time. Currently, there is no way to quantify field, farm, or watershed phosphorus levels to evaluate the effectiveness of our current strategy.

Next, provide incentives to eliminate the surface application of all inorganic and organic nutrients. Recent research at our center and others have demonstrated that applying nutrients to the soil surface without some incorporation increases the probability of higher levels of nutrients in our surface water runoff. We also need to have a goal to eliminate the application of nutrients during the fall and winter months, and I might suggest that that also should include our urban lawns.

Recommendation number three: Maximize the use of winter cereal cover crops. Research at our center and others have shown that winter cereal cover crops planted in the fall have been shown to significantly reduce nitrogen losses to groundwater during our fall and winter recharge period.

Recommendation number 4: Establish buffers around all ditches, streams, tributaries, and surface waters of the Chesapeake Bay. While we have incentives now for tributaries and streams, we need to expand those opportunities for buffers to be installed around ditches located in farmers' fields to keep farmers from spreading nutrients directly in those fields. Now, obviously, there has to be some compensation for the farmer for having a setback or whatever.

And, number 5, we need to develop several watershed monitoring programs throughout the Chesapeake Bay region at a scale large enough to determine the effectiveness of our current nutrient management plans. There are no watershed monitoring programs in place around the Bay region that allows us to discern and to tease out the trends related to the practices that we are implementing, and the scale of the current monitoring program, for example, the Choptank River, is at such a broad scale it is hard to tease out those signals.

In closing, implementation of these recommendations will result in major changes in the way we manage our working landscapes throughout the Chesapeake Bay watershed. However, based on 25 years of experience working on these issues, I believe that while our current strategies are important, collectively, they will not re-

sult in achieving the nutrient reduction goals needed to meet our Bay goals.

Finally, we need to work more closely with the farming community to implement these recommendations in a way that minimizes their financial burden and should promote the economic viability and the environmental sustainability for our working landscapes and for our farmers and future generations.

Thank you, ma'am.

Ms. EDWARDS. Thank you, Dr. Brinsfield.

Ms. Pugh?

Ms. PUGH. Thank you, Congresswoman Edwards, for letting me share comments with you today. We would also like to thank Representative Perriello for his leadership on this issue.

My name is Molly Pugh, and I serve as Executive Director for the Virginia Grain Producers Association. We represent Virginia's corn and small grain growers, and make up about 800,000 acres of crop land in the Commonwealth of Virginia. Virginia's ag and forestry makes up about $79 billion of the Commonwealth's annual income and about 10.3 percent of the State's employment.

When you look at the Bay Program and challenges to Bay restoration, we would assert that there is one first and foremost challenge that must be addressed, and that is complete and accurate data. In 2003, six years ago, Virginia Tech, which is Virginia's land grant university, did a survey of growers in Virginia's Coastal Plain region, and in that survey they found that there were 75,630 acres currently in conservation practices, but only 5,630 of those acres were currently being implemented through incentive-based voluntary programs. So, in other words, 70,000 acres in the Coastal Plain of Virginia were not being counted or given credit in the Chesapeake Bay model, because, as you see, unless a grower is being paid to implement a practice, that practice is not being counted in the Chesapeake Bay model.

Without accurate info, one, our growers are certainly not getting credit for what they are currently doing and the results that come out of the program may be inaccurate; and, two, without a comprehensive reporting system to track acres, we will never be able to meet a milestone or complete Bay restoration goals.

We have heard a lot about accountability today, and I will suggest that that goes both ways. Growers need to give us information, but we need to commit to protect that information. So we would suggest that any organization outside of USDA receive aggregate data only in tracking these practices.

Looking at the Executive Order, Section 202, Report 202(a) defines reasonable assurance as enforceable or otherwise binding programs to be enforced by the State to achieve set goals. That also impacts the definition of a comprehensible plan as addressed in Section 117. As interpreted by Virginia Governor Kaine, this means, in some cases, mandatory programs. One of his initial proposals is mandatory nutrient management plans for all farms and all growers in Virginia.

Certainly, Virginia grain producers are not opposed to nutrient management plans or those practices, but mandatory does become problematic. For example, if we were to acquire mandatory nutrient management plans today, there would not be nearly enough

certified plan writers to even write the plans for farmers to implement. Mandatory plans should be considered only after that practice is proven to deliver significant water quality benefit on every acre in every type of operation. Virginia farming is extremely diverse and there is no one size fits all approach that will work.

Another danger of mandatory programs is creating unfunded mandates. Grain farmers pay between $3 and $6 per acre to have a certified nutrient management plan written, and with a mandatory plan they have no assurance of cost-share assistance. This equates to burdensome regulations for our producers, on top of 85 percent of Virginia's grain producers already implementing best management practices, which include nutrient management plans.

Looking at the Chesapeake Bay Program specifically, we ask you to remember that the model with which they adhere is that, it is just a model. It is not necessarily reflective of reality or real farming scenarios, although it is based on scientific information and assumptions. The Bay Program and its model needs to be more transparent. We ask that a peer review process be created to allow for scientific review period for recommended changes to the Chesapeake Bay Program's model.

After the scientific review, we ask for a comment period to be set to allow stakeholders to review changes and to issue necessary feedback. Inside funding, we ask that EPA should give the State as much authority and flexibility as possible, establish adequate funding for technical assistance and production research, certainly not suggesting that we expand State agency infrastructure, but tools like private crop consultants, private writers, Web-based programs, et cetera.

In closing, environmental goals must meet with farm profitability. To borrow a phrase, a well managed farm is the Bay's best friend. Supporting one grain farmer that manages 2,000 acres is much easier and cost-effective than dealing with 2,000 homeowners that could inhabit that land if farm profitability fails. Acre for acre, agriculture is the preferred land use in the Bay watershed. By effectively supporting production agriculture, we deliver the most efficient, cost-effective water quality benefits to the Bay and our region's waters.

Thank you very much.

Ms. EDWARDS. Thank you, Ms. Pugh.

Mr. Hughes.

Mr. HUGHES. Congresswoman Edwards, Madam Chairwoman Johnson, Representative Boozman, and Representative Cummings, I thank you for this opportunity to testify in support of the reauthorization of the Chesapeake Bay Program. I believe the role of the Federal Government is critical to the success of the Bay restoration effort. I am here today to lend a voice from an agricultural perspective; more specifically, an animal agricultural perspective from the neighboring Chesapeake Bay State of Pennsylvania.

Although I grew up on a dry land wheat farm in Washington State, I have lived in Lancaster, Pennsylvania for the last 10 years. Eight years ago, I started an agricultural consulting and engineering company called Red Barn Consulting. Red Barn has grown over the years and currently 10 employees work with approximately 650 farm clients within the Pennsylvania Chesapeake Bay.

Most of our farm clients are third and fourth generation farmers, and they certainly wouldn't recognize me today if they saw me in a coat and tie. Red Barn is a niche consulting business solely focused on agriculture, tasked with guiding our farmers through the environmental stewardship and compliance. We serve the gamut of Pennsylvania agriculture, from the 30-head Amish dairy to the 2,500-head dairy CAFO located on the Mason Dixon Line.

As you know, 50 percent of the fresh water flowing into the Chesapeake Bay comes from the Commonwealth of Pennsylvania. With over 83,000 miles of streams and rivers, and an estimated 80 trillion gallons of groundwater, Pennsylvania is truly a blessed water-rich State. I would like to sit here and look you in the eye and tell you that Pennsylvania's nitrogen and phosphorus loading problems are only because of the 164 waste treatment plants and urban and suburban stormwater runoff. But this statement is simply not true. Depending on what pie chart you use, the largest contributor to nitrogen and phosphorus and sediment to the Chesapeake Bay is from agricultural activities.

One does not have to go far to read about the issues surrounding the depletion of the blue crab populations or the dead zones that plague the largest freshwater estuary. Even though we had the scientific modeling and the statistics to support the degradation of the Chesapeake Bay, we are crippled by the sociological and geographical connection to the Bay. Seventy-three percent of all Pennsylvanians have never seen or will ever visit the Chesapeake Bay. That is why it is important for agriculture to change its rhetoric and mind-set about what the Bay means to its future sustainability.

Although we may not have the mental connection to the Bay itself, I do not know a single farmer who does not have a direct relationship with a stream that runs through his or her property. We must think of the Chesapeake Bay as our report card for environmental stewardship, but focus on the streams that run through those local lands. There are a myriad of regulations backed by the Clean Water Act for the protection of those local streams and watersheds. If we are to meet and exceed the expectations of the Executive Order of the Chesapeake Bay Protection and Restoration, we in the agricultural industry must first and foremost focus on our local water bodies.

It is my contention that agriculture not only has the will but the ultimate ability to meet these reductions in nitrogen, phosphorus, and sediment. In order to meet these challenges and raise the bar of environmental stewardship, agriculture does need the technical and educational tools provided under the reauthorization of the Bay initiative. I believe we already have the laws and statutes within Pennsylvania to guide compliance, but we need to muster the political will to enforce these regulations.

Enforcement of regulations under the Clean Water Act is only one tool in the toolbox of the Chesapeake Bay restoration. A boots on the ground local effort needs to be sorted through the strengthening of technical assistance of the public and private sectors. Agriculture desperately needs the leadership of technical assistance provided by soil conservation districts, natural resource conserva-

tion service, crop consultants, and the Land Grand University extension agents.

We have seen a dramatic cut in personnel and budgetary constraints over the last three years, at a time when the knowledge of soil and water conservation are needed the most. The Chesapeake Bay reauthorization needs to provide significant resources for technical assistance, outreach and education to enable and guide the agricultural community.

The private sector is also ready to meet the agricultural challenge, but many depend on grant and funding and Federal dollars to support agricultural conservation practices. Red Barn has received Federal stimulus money in the form of ARRA. I know the private sector will be fiscally responsible with this money as it is applied to agricultural operations and new ingenuity. Pennsylvania has become a national model for a nutrient cap-and-trade free market systems that farmers have embraces. Due to low commodity prices, especially milk prices, farmer are more than ever seeking ecosystem services to bring new revenue streams onto their farm through the acres that they own.

Three years ago, Pennsylvania Department of Environmental Protection put forth a nutrient credit trading policy to foster the development between the point sources and the non-point sources. Red Barn is a certifier of nutrient credits, and we started a sister company called Red Barn Trading to aid in the pounds of reduction and phosphorus through various forms of best management practices. We conducted the first point to non-point credit trade with a local municipal authority two years ago and continue to sign contracts with developers in waste treatment plans so they are able to meet their NPDES permits.

Since the Chesapeake Bay does not recognize the State and geographical boundaries drawn on a map, it is my contention that, for a cap-and-trade system to truly work, we need a robust interstate trading framework. This will bolster the fledgling credit trading market and allow for economic and environmental sustainability.

Ms. EDWARDS. Mr. Hughes, if you could wrap up.

Mr. HUGHES. You bet.

Ms. EDWARDS. I know my colleagues have a number of questions.

Mr. HUGHES. Sure.

Agriculture is willing to do its part for restoration. We need to have a level playing field and we need to have the laws set in place to make sure that we are all following the same laws.

It has been an honor for me to give and share my views with you. I cordially invite each of you to put on your boots and support the Chesapeake Bay initiative by keeping our farms sustainable and environmentally responsible. Thank you.

Ms. EDWARDS. Thank you, Mr. Hughes.

I will go to Ranking Member Boozman.

Mr. BOOZMAN. Thank you, Madam Chair.

Dr. Brinsfield, you testified that we don't have adequate or very little, if any, watershed monitoring stations. Ms. Pugh lamented the fact that she didn't feel like we were getting accurate information either. What is the reason for that?

Dr. BRINSFIELD. Well, part of the problem could be the scale at which we are monitoring. The data that I referred to at the USGS

monitoring station in Greensboro drains about 50,000 to 60,000 acres of land, so part of it could be, even if practices were implemented, there hasn't been enough time for that signal, that reduction signal to move its way through the system.

The other possibility is, with regard to groundwater, there is a huge lag time between when we implement a practice and we get a reduction in groundwater in a field before we see that reflected downstream in a gaging station. In some cases, that could be decades.

So it could be a lag time between implementation and monitoring, or it could be the lack of effectiveness of the strategies that we are currently implementing. But the problem is we don't know whether it is one or the other or a combination of the two.

Mr. BOOZMAN. In the Bay area we have seen a tremendous increase in population. We have seen a shrinking of agricultural land and we have seen the growth of cities. That is the normal progression.

What is your model for what is causing the problem? Is it that agricultural practices now are much more restricted in the area compared to how they were 50 years ago when this area was much more agricultural? If it were pure agriculture then you would think that there would be more pollution then than there is now. See what I am saying? Tell me the model as to how it works.

Dr. BRINSFIELD. First of all, I don't want to suggest at all that agriculture is not trying to do its part.

Mr. BOOZMAN. No, I understand.

Dr. BRINSFIELD. But the truth of the matter is that the suggestion that the progress we have made in agriculture is being offset by urban is why you are not seeing a change, that may be true in some cases. However, in the watersheds that my colleagues and I are monitoring like the Choptank, it is 95 percent agriculture. Development pressures are certainly not there. The gauging stations where we monitor are above the two major towns that are on the Choptank. Those would be Easton and Cambridge, Maryland. So it is easy to say that it is being offset, and some of that is probably true, but it still is not clear from my point of view as a scientist.

It is not that the farmers aren't implementing what we are asking them to. The question is how effective are the components of the plans that we are asking farmers to implement.

Mr. BOOZMAN. I guess what I am wondering is that 40 years ago, that was agriculture then?

Dr. BRINSFIELD. Yes, it has always been agriculture.

Mr. BOOZMAN. Why is it more polluted now than it was 40 years ago with it still being agriculture? What is the difference now?

Dr. BRINSFIELD. Well, it is more intense agriculture now. For example, when I was a kid, I am a farm guy and still farm, we were diversified. We had a dairy farm but back then the number of animals that you had on your farm was sized specifically to the acres that you had. I remember we had one and a half cow/calf units per acre of ground. Our stocking density was dependent on that.

What you have now are more concentrated animal operations. You have, particularly on the eastern shore, more poultry. So the manure that is generated from poultry is increasing even though, say, dairy farming and others are decreasing. And it is much more

difficult to manage, from a water quality point of view, nutrients that come from organic sources, whether it be poultry, animal waste, and/or sludge.

Mr. BOOZMAN. I think Mr. Hughes said that in his area in his State he felt that—I will let you comment, too—there were many statutes on the books and this and that that take care of a lot of this stuff. What percentage are we enforcing?

The gentleman testified earlier that 90 days out of the year they are sending raw sewage into the river. That obviously, under the Clean Water Act, shouldn't be happening.

What percentage are we enforcing? What aren't we enforcing?

Dr. BRINSFIELD. With agriculture?

Mr. BOOZMAN. No, just with everything. Like I say, that was a good example. It shouldn't be happening but it happens all the time.

Dr. BRINSFIELD. It is a small percentage that is being monitored closely.

Mr. BOOZMAN. You are the Mayor of your city. What is the phosphorus of your sewage treatment plant?

Dr. BRINSFIELD. What is what, sir?

Mr. BOOZMAN. The phosphorus level of your treatment plant.

Dr. BRINSFIELD. We meet the advanced discharge requirements for the State of Maryland.

Mr. BOOZMAN. What is that?

Dr. BRINSFIELD. I don't know what it is for phosphorus. I think it is four parts per million for nitrogen. But I don't have that on the tip of my tongue.

Mr. BOOZMAN. Okay, very good. Thank you.

Ms. EDWARDS. Thank you, Mr. Boozman.

I just have a couple of questions, first from Mr. Hughes. Your testimony was very fascinating. In your testimony, you note that due to low commodity prices, especially milk prices, farmers are more than ever seeking ecosystem services to bring new revenue streams onto the farm through the acres they own. I wonder if you could expand on this? Are you actually saying that a farmer could make money while at the same time adding BMPs and reducing agricultural runoff?

Then I wonder if you could comment more specifically on the kinds of technical assistance you referenced. We know that resources are needed, but what specific kinds of technical assistance do you think that farmers need so that they can both farm and stay in business, and maybe even get ahead of the curve, but also meet their responsibilities for protecting the ecosystem?

Mr. HUGHES. I appreciate the question. As you can see by my testimony, I could probably talk about this all day. You bring up a really good point.

First and foremost, it needs to be shown that in order for a farm to participate in ecosystem services such as generating nitrogen credits, phosphorus credits, or carbon credits, they first must meet a baseline level of compliance. They must have a conservation plan. They must be applying those nutrients in a way that is not overloading the streams. If we are going to get above and beyond any type of nitrogen, phosphorus, and sediment to the Bay, they first and foremost have to be meeting compliance. Then the type of inno-

vation of what they can do above and beyond compliance is where we can get the reductions of nitrogen and phosphorus that we need.

This is not rocket science. Everything about cap and trade is to incentivize a sector to do more so that we can have the environmental benefit for a sector where it is too cost prohibitive. We have that within agriculture. We have that with the way they till the soil, with the way that manure is spread. These are very simple practices with technical services from outside professionals or with technical services from the Natural Resources Conservation Service. We have these in place.

We need to get the word out. We need to have those farmers know where those grant and funding opportunities come from. They will go for it.

Ms. EDWARDS. I hear what you are saying.

I guess I wondered, Dr. Brinsfield, if you might comment on this notion of a mandatory set of standards? It seems that is in slight contradiction to Ms. Pugh's testimony that you have some kind of a baseline for compliance and provide some set of technical assistance. We want to incentivize doing it, but farmers have to know what it is that we want. We also need to then impose whatever sanctions on non-compliance. Dr. Brinsfield?

Dr. BRINSFIELD. Thank you for the opportunity to comment. I certainly agree that there needs to be a base level of standards that farmers have to comply with before they would be eligible for the incentive programs that Mr. Hughes was talking about.

On the question of regulation, in Maryland every farmer is required to have a nutrient management plan. That plan has to be certified by the State by the Maryland Department of Agriculture. There are random checks. I know as a farmer I am subject to on a random call having my nutrient management plan verified, to having a consultant come out, sit down with me, and go through that plan.

Having every farmer in the watershed have that baseline I think is a good thing. I think a regulatory framework that requires a reasonable nutrient management plan for every farmer is not an unreasonable thing to do. That ought to be the minimum standard from which a farmer then could be eligible for these ecosystem services that were being discussed.

Ms. EDWARDS. But that is actually not true throughout the watershed, though. There is, as I described earlier, this disharmony among the States in the entire watershed in terms of this kind of baseline standard. So that might be a role for the Federal Government or for this Committee to look at in terms of setting that.

Again, for incentives and the kind of technical assistance that farmers need to comply, since you are a farmer, Dr. Brinsfield, how much financial stress do you think that places on the agricultural community to proportionally implement your share of nutrient reductions?

Dr. BRINSFIELD. For a nutrient management plan itself, what I have learned as a farmer is that the savings resulting from the reductions in nutrients that I am applying and the timing for applying those nutrients actually pays for itself.

Let me give you one example of a technology that is emerging that is pretty well used at least across Maryland and I think across the watershed. For farmers growing corn, we love for farmers to split their nitrogen application. In other words, don't put all the nitrogen on when you plant the crop. Wait until the corn comes up and then put some more nitrogen on to try to match the supply of nitrogen with the demand by the crop. Up until recently, that was guesswork for how much additional nitrogen the farmer would need to apply to meet his optimum yield.

Now there is a test called a pre-sidedress nitrogen test, a PSNT test. You can go in when the corn is knee high, pull a sample, and within 24 hours a consultant can calculate for you the amount of nitrogen that is available in the roots. By subtraction you can determine the amount needed to grow the corn to where you are not way over-applying.

That in and of itself, the savings from that plan or that strategy way offset the cost of the consultant that I hire privately to develop the plan and to do that test for me. My point is that nutrient management planning, I think for the most part, saves farmers money and also helps protect the Bay because we are matching the demand of the nutrient with the growth stage of the crops. That way you don't have a large amount of nitrogen sitting in the roots that could be leeched out if you have a rainstorm event before the crop could take that nitrogen up.

Ms. EDWARDS. Thank you very much. That is very helpful to know because nutrient planning is good farming, good business, and at the same time goes to the preferences that we have about a thriving Bay.

My last question is really directed to Mr. Johnson. Again, thank you very much for being here as well. Publicly owned treatment works have long been regulated under the Clean Water Act. Is it your view that improvements can still be made by your sector under the Clean Water Act?

Mr. JOHNSON. Well, I think as science and technology advance there is always some room for improvement in doing the kinds of things that we are doing to protect the ecosystem, the environment, and public health. But the things that we are doing now, especially with respect to nitrogen and phosphorus removal, are to the limits of technology. We are pushing these systems as far and as hard as we can with all the science we are aware of out there.

But I might take a step further. I realize that this is not the question that you posed but I think that it has implications. I view the fact as that we have reached a time when perhaps the Clean Water Act has outlived its usefulness in its present form. The Clean Water Act has made some tremendous accomplishments and has done some wonderful things as we have progressed through the years and improved our wastewater treatment systems and the like across the Country. But now that we have taken these regulations, a lot of them are being implemented in silos.

There is one regulation that relates to the CSO control. There is another regulation that relates to nutrient removal and something that comes on the permit with that on that side. Just taking those two examples, what has happened is that if you implement those as separate free-standing regulations, the cost and your ability to

apply certain new technologies and different approaches to operate and optimize the operation of wastewater treatment plants simply can't be done.

The example is right here in the District of Columbia where we save some $500 million by working closely with the EPA to convince them that we needed to look at both a CSO long-term control plan and nutrient reduction as a single wet weather phenomenon. Just by doing that and by accomplishing that, we save $500 million and will have a better effluent going into the receiving water.

There needs to be a look at that so we move to more of a watershed-based approach for dealing with these problems and impairments in our water body so that we are actually addressing the worst problem first, not the first regulation that we come to. We function in silos. How can we take all of these things and blend them, look at the problem and the most critical impairment, and look at the most viable solution for addressing that?

I think that there are examples of that. I think we are ripe for that right here in this region with the water bodies that we have. We have to look at it from a watershed-based approach.

I think that Mr. Hawkins, earlier in his comments when he talked about having sort of the same approach for some of the regulatory standards, makes a great deal of sense. If we took that approach, then we could look at working across boundaries and borders and not having these thousands of different plans and approaches for dealing with the pollutants.

Ms. EDWARDS. Thank you for your comments, Mr. Johnson. I think that you probably speak to less how the Clean Water Act has outlived its usefulness than how the Clean Water Act and our ability to implement it may need some more expansive thinking in terms of coordination. Thank you very much.

I know that Chairman Oberstar has some questions for this panel.

Mr. OBERSTAR. I am glad you made that clarification with the help of Ms. Edwards. I would take issue that the Clean Water Act has, in a broad, sweeping statement, outlived its usefulness. It has not been implemented in the way it should have been. It has not been carried out the way it was intended. It has not been funded to the extent that it should have been. And the funding was dealt a severe blow in 1981 in the Reagan Reconciliation Bill when the $6 billion sewage treatment plant construction grant program was whittled down to $2 billion for the balance of that fiscal year and then converted to a loan program the next year.

Those jurisdictions that were in greatest need of funding support, those of under 50,000 in population, had to go into the marketplace and borrow money. And the larger facilities still hadn't completed addressing the needs of the biggest waste streams.

So we have been hobbling along on funding of the Clean Water program for 20 some years. We need to turn this around.

Mr. JOHNSON. I agree. I think that what has happened is that there is a fundamental misalignment, if you would, with the way that we are going about implementing it and the resources that are available and the demands that are placed on various communities for the work that needs to be done.

Mr. OBERSTAR. Not to mention the torpedo that the Supreme Court fired, two of them, at the Clean Water program. It blew a hole in its operation, the effects of which we are still trying to cure, in saying Congress really didn't mean what it wrote in the opening paragraph of the Clean Water Act of 1972.

I was in this Committee room where we held a lot of the conferences between the House and the Senate. I was Chief of Staff for the Committee at the time. We didn't spend 10 months shaping the future of the Clean Water program to be told by the Supreme Court that we didn't mean what we said. We meant what we said.

The purpose of this Act is to establish and maintain the chemical, physical, and biological integrity of the Nation's waters. We did not mean little water streams here and there, not just the Mississippi, the Ohio, the Illinois, or the Columbia that are navigable waters where ships can move. We meant all the waters on a watershed basis. That is what we need to do. That is what we need to restore. The Chesapeake is emblematic of this need for a watershed approach.

Dr. Brinsfield, you have addressed some very interesting new developments, relatively new, with the nutrient management plans you described. I think that is a good watershed approach principle. Not only does it have the ability to lessen the pollution load on the receiving waters but it also has benefits for farmers. They are not going to spend as much money or throw money away over-fertilizing or under-fertilizing but doing it progressively throughout.

We have had that experience in my district. In several years there was low moisture with near drought conditions. Farmers put the fertilizer on the fields and the little bit of moisture we did have drained some of that nitrogen and phosphorus down into the groundwater and poisoned the wells. Then there were years of abundant moisture and crops grew well beyond because there was so much nutrient in the land.

More effective management will save money, save the land, and save the water as well.

But I dispute those who say we need to study this issue more. The studies are measured in feet and pounds, maybe in hundreds of pounds. They are good for the pulp and paper industry in my district but not good for management. We need to get on with the management plan. There is enough known about all these waste loads from the sources throughout this watershed that we need now the political will and the participatory will of those in the watershed to deal with it.

Dr. BRINSFIELD. Can I comment, sir?

Mr. OBERSTAR. Yes.

Dr. BRINSFIELD. I don't disagree at all. However, one of my recommendations as a scientist I need to reiterate. I know you don't want to talk about spending money on research so we will call it monitoring. We simply don't have the data that we need to substantiate in an agricultural setting whether the suite of BMPs and nutrient management plans that farmers are implementing are working or not.

The reason that is frustrating to me is because it is my opinion that it is not because farmers aren't implementing those plans. They have every reason to implement those plans, particularly

when they can save money and save fertilizer through better timing, better genetics with crops, and all of the above.

However, because we don't see a signal at a large scale that what farmers are doing is working, there are more and more calls for regulation to enforce the plans. I would argue that that may not be the case. It may be because of the scale of monitoring or it could be that the effectiveness of the elements of the plan are not getting the reductions that we thought they would as a science community early on. So some specific allocation for monitoring at, say, a 5,000 to 10,000 acre watershed that is predominantly agricultural where the suite of BMPs is implemented is critically important to tease out whether or not our strategies collectively are working and, if they are not, what it is we need to do to make them more effective.

Mr. OBERSTAR. I don't disagree with that. I think you make a good point. I don't want farmers, of whom I have a great number in my district, to feel beleaguered or feel that this Chesapeake Bay restoration is solely aimed at them.

It is the land owners, the property and home owners who are pouring on unnecessary amounts of fertilizer that is then running off into the streets and gutters. They spray the fertilizer on the sidewalks and in the streets so it doesn't go into the lawn at all. There is no scientific application for them. There is much more science applied on farms than there is on the back and front yards of these grassy expanses we have. That is all running off directly into the gutters, creeks, streams, and into the Potomac, the Chesapeake, and elsewhere all throughout this watershed.

But the point is that we know enough that we need to get an overall comprehensive plan and have Chesapeake standards, as I discussed with the previous panel, to apply to the management of this watershed. We need to get on with the things that we know can be done.

Dr. BRINSFIELD. I agree.

Mr. OBERSTAR. Mr. Johnson, I think that is what you were headed toward.

Mr. JOHNSON. That is what I was trying to say, sir.

[Laughter.]

Mr. OBERSTAR. I am glad you were.

Mr. JOHNSON. Though very unartfully.

Mr. OBERSTAR. We are going to come out of this with a good bill.

[Laughter.]

Mr. OBERSTAR. If we put one tenth of the money into Clean Water that we are putting into the TARP program and the bailing out of banks—there is more money going into bonuses for bank moguls than there is for cleaning up the pollution of this Country—it would be a whole hell of a lot better for America than where it is going now. So that is my speech and I am sticking to it.

[Laughter.]

Ms. JOHNSON OF TEXAS. [Presiding] Thank you, Mr. Chairman.

Mr. Boozman, I believe you have one question?

Mr. BOOZMAN. Very quickly, you mentioned that it is more concentrated with poultry and things like that, animal waste. I am familiar with what they do with that in Arkansas in the sense that I represent a district that has Tyson and a lot of stuff like that going on. In this part of the Country, what do you do with the

waste? Again, anybody that wants to answer can. Mr. Hughes? Dr. Brinsfield?

Mr. HUGHES. Yes, sadly I do know that. Most of it is land applied. We have got broken nutrient budgets. We have all of that feed coming from the Midwest feeding the birds and that manure stays here within the Chesapeake Bay. We do have nutrient management plans but there is no way of disposal.

Mr. BOOZMAN. They are not burning it? They are really not doing anything creative to get rid of it?

Mr. HUGHES. No, that is just now starting.

Mr. BOOZMAN. Okay. That is something, again, I think that we need to look at. There really are a lot of creative ways to use it where it can be beneficial.

Dr. Brinsfield?

Dr. BRINSFIELD. Yes, I have to come to the defense of my farming community on this. The poultry manure is a huge resource for the farming community, particularly since nitrogen and phosphorus prices went through the roof. I would argue that it is not so much the use or overuse of the poultry manure. It is the methods that we apply, the timing of when we are applying it, how we are storing it, and the distance that we are allowing it to be spread from streams. I would argue that with good nutrient management planning, particularly a phosphorus-based planning, we can use that manure as a resource.

But we are going to have to make sure that we don't apply that in the fall and the winter. We need to apply it in the spring. We are going to have to have some tillage to get that manure under the soil surface because our runoff losses are far greater when we don't incorporate that manure. We are going to have to have setbacks from our ditches on our farms, as well as from our streams and tributaries.

So I think there is a suite of things that we have learned in the last decade as a science community that has not been fully implemented in the farming arena that would allow the use of these organic wastes in a way that is much more sustainable and much more friendly to the Chesapeake Bay. I would argue that we need incentives to get farmers to do those things.

Let me give you an example. In Europe they have developed equipment where a farmer can drive along a ditch and he has a shield on the manure spreader that stops the manure from being spread directly in the stream. We need that kind of technology. Or we need to say to a farmer you have got to have a 25 foot setback from the stream from where you spread your manure but we will incentivize you for planting, say, switchgrass. Maybe that switchgrass could emerge as a biofuel for direct combustion or for cellulosic ethanol. That way the farmer could get some return on his investment that he has lost because he has had to provide that setback.

I think there are all kinds of creative ways that we have not tapped very well because of a sort of disconnect, maybe, sometimes between the science and the implementation. You may or may not have had a chance to look at those recommendations that I submitted. They were developed not by me but by a broad consensus of scientists, farmers, and environmentalists as key steps to move

ourselves much farther towards meeting the agricultural Bay reduction goals and keeping agriculture economically viable. That is the key.

I agree that we never see farms go from farming back to forest. They go from farms to urban/suburban development. I have just one other point. Agriculture is the largest contributor because it is the largest land use. But if you look at it on a per acre basis, it is not necessarily the largest contributor. So we need to keep that in context as well.

Mr. BOOZMAN. I think that is a very, very good point.

Thank you Madam Chair. Thank all of you for being here. I have really enjoyed the testimony. You were very, very helpful. It has been a good hearing.

Ms. JOHNSON OF TEXAS. Thank you.

Thank you again for your testimony and for your patience. It has been a learning experience, I think, for all of us. We appreciate it. It still tells us that we have a little bit more work to do.

We stand adjourned.

[Whereupon, at 5:30 p.m., the Subcommittee was adjourned.]

OPENING STATEMENT OF
THE HONORABLE RUSS CARNAHAN (MO-03)
HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
WATER RESOURCES AND ENVIRONMENT SUBCOMMITTEE

Hearing on
Reauthorization of the Chesapeake Bay Program
Tuesday, September 22, 2009
2167 Rayburn House Office Building

Thank you, Chairwoman Johnson and Ranking Member Boozman for holding this important hearing on reauthorization of Chesapeake Bay Program.

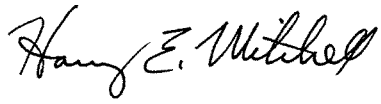
Over twenty-five years ago the first Chesapeake Bay Agreement was signed by Maryland, Pennsylvania, Virginia, and the District of Columbia with the goal of protecting and restoring the Chesapeake Bay. Although progress has been made data collected by the Chesapeake Bay Program (Bay Program) make it clear more must be done to improve the overall health of the Bay.

Water quality, an important indicator of the health of Bay, is very poor according to the Bay Program. In fact over the past few years the water quality of the Bay has consistently decreased from one year to the next.

The main cause of increasing pollutants is agriculture runoff of nutrients and sediments. I am glad to see that practices have been implemented to reduce agriculture runoff and have resulted in a decrease in the amount of agricultural runoff that enters the Bay. However, as we move forward to with reauthorization of the Chesapeake Bay Program, I believe it is critical to ensure all parties take equal responsibility for cleaning it up.

In closing, I would like to thank our witnesses for joining us today and I look forward to hearing their testimony.

Russ Carnahan



Statement of Rep. Harry Mitchell
House Transportation and Infrastructure Committee
Subcommittee on Water Resources and Environment
9/22/09

--Thank you Madam Chairwoman.

--The Chesapeake Bay is our nation's largest estuary.

--Sadly, despite a lot of work and some major investments in protection and restoration, the ecosystem continues to experience poor health.

-- According to the Chesapeake Bay Program, the overall health of the bay did not improve last year.

--From 2006 to 2008, water quality decreased from 23.6 percent to 21.4 percent of its goals, and last year only 48 percent of the goals for fish and shellfish populations had been achieved.

--I look forward to hearing from our witnesses today about what can be done to improve the Bay's health. At this time I yield back.

Testimony: Reauthorization of the Chesapeake Bay Program

U.S. House of Representatives Committee on Transportation and Infrastructure

Subcommittee on Water Resources and the Environment

Tuesday, September 22, 2009
Rayburn House Office Building, Room B-376

Testimony of Russell Brinsfield
College of Agriculture and Natural Resources
University of Maryland
Wye Research and Education Center
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Despite more than two decades of efforts to restore the Chesapeake Bay, very little verifiable progress has been made toward reducing nutrient loss from agriculture. This problem is especially apparent in the watersheds where agriculture is the major land use and where row crops and animals, including poultry, are the dominant commodities produced. The dominant role of groundwater flow in delivering nitrogen to the Bay, coupled with lag times in some cases being decades, has made progress especially difficult to quantify. For example, to date, tidal water quality monitoring efforts at the USGS gauging station at Greensboro, Maryland in the Upper Choptank River indicate no downward trends in nitrogen concentrations. In fact, data at Greensboro shows that nitrogen trends actually increased through the first 15 years of the Chesapeake Bay restoration effort.

Likewise, phosphorus transport patterns in watersheds dominated by agriculture are even less clear than those for nitrogen since direct measurement of loads require detailed flow data and volume-based sampling of storm events, both of which are logistically difficult and very expensive. The lack of comprehensive data sets for phosphorus discharge rates suggest that other approaches will be needed to evaluate progress. Although many factors determine phosphorus losses in the short term, soil phosphorus levels are the best available indicator of progress towards meeting phosphorus reduction goals. To date, progress towards meeting the nitrogen and phosphorus reduction goals has been estimates using the Chesapeake Bay Program watershed model. Unfortunately, this effort has proven to be of little value for predicting the effects of implementing agricultural BMP's on delivered loads of nitrogen and phosphorus from agricultural dominated watersheds.

This lack of verifiable progress towards meeting the nitrogen and phosphorus reduction goals has created doubt as to whether the current nutrient reduction strategies will even achieve the levels needed to restore the Chesapeake Bay. This doubt has created more pressure for regulatory approaches to managing nutrients in agricultural systems and support for more funding for cost share incentive programs to reduce nutrient losses. However before adjustments are made, it is important that methods be developed that allow assessment of actual changes in nutrient losses resulting from the current strategies. Without reliable strategies for tracking progress, it will be difficult to determine if policy adjustments are necessary or if we just need more time to demonstrate that the current policies are working. Reliable strategies for tracking progress are also necessary to develop efficient regulatory and incentive-based programs that do not put undue burdens on farmers.

These hearings on the reauthorization of the Chesapeake Bay Programs provide a unique opportunity to not only evaluate our current strategies for nutrient reduction from agriculture, but to integrate the latest science into future strategies. The following set of recommendations is submitted to help move agriculture closer to meeting its responsibilities as outlined in the Chesapeake Bay restoration goals. These recommendations should be viewed as a framework to begin a broader dialog to develop a consensus for a future strategy.

Recommendation 1. Target funding both geographically and programmatically. Identify locations geographically (based on soil type, slope, distance to streams, cropping systems et al.) that are contributing the greatest nutrient and sediment loads and then strategically implement a suite of practices to maximize reductions.

Recommendation 2. Improve nutrient management planning through a series of practice/program changes including:

- Make the long-term goal of phosphorus based nutrient management planning to reduce soil phosphorus levels to those needed for optimum crop production. The current strategy under certain conditions allows farmers to increase soil phosphorus levels beyond those needed for optimum crop production.
- Develop a GIS system that allows tracking soil phosphorus levels at a watershed scale over time. Currently, there is no way to quantify field, farm, or watershed phosphorus trends to evaluate the effectiveness of the current strategy.
- Provide incentives to eliminate surface application of all inorganic and organic nutrients. Recent research shows that applying nutrients to the soil surface without some incorporation increases the probability of higher levels of nutrients in surface water runoff. Also eliminate the application of nutrients during fall and winter months.

Recommendation 3. Maximize the use of winter cereal cover crops. Cover crops planted in the fall have been shown to significantly reduce nitrogen losses to groundwater during the winter recharge period.

Recommendation 4. Establish buffers around all ditches, streams, tributaries and surface waters of the Chesapeake Bay. As a part of this effort, provide incentives to farmers to gain experience in growing switchgrass for the emerging biofuels market (ethanol and direct combustion). Long-term contracts could provide carbon sequestration and water quality benefits and provide extra income for farmers.

Recommendation 5. Develop several watershed monitoring programs throughout the Chesapeake Bay region at a scale large enough to determine the effectiveness of current nutrient management plans and agricultural BMP's.

Implementation of these recommendations will result in major changes in the way we manage our working landscapes throughout the Bay watershed. However, based on 25 years of experience working on these issues, I believe that while our current strategies are an important first step, collectively they will not result in achieving the nutrient reductions needed to meet our Bay goals.

Finally, we will need to work with the farming communities to implement these recommendations in a way that minimizes their financial burden. Our goal should be to promote economic viability and environmental sustainability for our working landscapes.

COMMONWEALTH OF VIRGINIA
Office of the Governor

Testimony of
L. Preston Bryant, Jr.
Secretary of Natural Resources
Commonwealth of Virginia

Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
U.S. House of Representatives

September 22, 2009

Madame Chair and Members of the Subcommittee:

Thank you for inviting me to testify before the Subcommittee today. I express on behalf of Governor Kaine the Commonwealth of Virginia's appreciation of your leadership in addressing matters affecting the Chesapeake Bay. As you know, restoring the Bay – improving its water quality well beyond what it is now – has been a longstanding priority of numerous Virginia governors, and the Virginia General Assembly has worked in a bi-partisan way in recent years with governors to make record investments in wastewater treatment plant upgrades and agricultural best management practices to control animal and fertilizer runoff.

I am here today to address principally the reauthorization of the U.S. Environmental Protection Agency's (EPA) Chesapeake Bay Program. However, as you know, no congressional testimony from a state official is complete without a bit of state bragging. So permit me to do so as I discuss some efforts by Virginia to improve the Bay's health. Such a prelude is relevant, I believe, for you to undertake in proper context the Chesapeake Bay Program's reauthorization.

Over the last four years, Virginia has invested more than $1.1 billion in Bay clean-up efforts. This includes a record $200 million cash deposit in our state's Water Quality Improvement Fund (WQIF) by former governor Mark Warner and a $250 million bond initiative by Governor Tim Kaine.

This record funding in Virginia has principally allowed us to work with local governments to upgrade more than sixty locally-owned wastewater treatment plants that discharge into Bay

tributaries as well as invest heavily in cost-share programs with farmers to install agricultural best management practices to reduce farm-related runoff, whether from animals or crop fields.

The WQIF is used principally to help local governments pay for nutrient-removal technologies from sewage treatment plants. Our legislature has supported both of these executive branch efforts. As a result, Governor Kaine was able to announce in December 2007 that Virginia will indeed meet its commitment in a multi-state Bay agreement to upgrade wastewater treatment plants in the watershed by 2010.

Additionally, I would say that on top of the hundreds of millions of dollars being allocated to improving sewage treatment plants, Virginia put in place a handful of years ago what I believe to be the most comprehensive – and successful – nutrient credit trading program in the nation. It played a critical role in helping accelerate the pace of sewage treatment plant upgrades, thus enabling Virginia to meet the 2010 deadline. Without the trading program, I am confident that Virginia would have failed to meet the deadline. The EPA has praised the success of our nitrogen and phosphorus market-based trading system. The Virginia Department of Environmental Quality regularly receives inquiries from other states seeking to learn more about this trading program.

Part of the state Water Quality Improvement Fund can be used to support a cost-share program with Virginia farmers to install agricultural best management practices. Over the last several, we have provided nearly $60 million to fund in partnership with participating farmers what we have determined to be the five most effective best management practices: fencing livestock out of streams; adopting low- or no-till practices; establishing vegetative buffers between fertilized fields and nearby streams; crafting nutrient management plans for fields; and planting cover crops to absorb nutrients.

Additionally, Governor Kaine has embarked upon a land-conservation initiative that may well be the most aggressive such program in the nation's history. Within three months of taking office, Governor Kaine set a goal of placing into permanent conservation an additional 400,000 acres of land over his four-year term. To put that in perspective, such an amount of land is twice the size of the Shenandoah National Park; it is equivalent to the whole of Fairfax County and almost all of neighboring Loudoun County; or, it equals almost all the land on Virginia's Eastern Shore. Preserving land preserves local water quality. I am happy to report that we are on track to meet this aggressive 400,000-acre goal within the remaining four months left in Governor Kaine's term. The funding that has made this land conservation initiative a success is wholly separate from the $1.1 billion that has been spent on water quality improvement initiatives I mentioned a moment ago.

As much as our governors and legislature have done, however, we have a long way to go to realize a restored Chesapeake Bay. And I also want to recognize great efforts by other Bay watershed jurisdictions who have taken Bay restoration seriously. Again, we have made progress in reducing nitrogen and phosphorus pollution to the Bay. No one can deny that. But

so much more needs to be done, and it will take the combined efforts of the federal and state governments, building and agricultural interests, and homeowners.

I would like to address three general topics this afternoon.

First, I would like to say a word about the Chesapeake Bay Executive Council, because over the last year this group of leaders has made tough decisions – including admissions of collective failure over decades past – and charted a new approach for Bay clean-up efforts that center on greater transparency and accountability.

Second, I want to speak about the importance of the federal government's role in working with states to restore the Bay's health.

And third, I want to provide a list of specific suggestions that I believe should be in any legislation to reauthorize the Chesapeake Bay Program.

The Chesapeake Bay Executive Council – Requiring Greater Transparency and Accountability

Governor Kaine of Virginia is currently chair of the Chesapeake Bay Executive Council, which is comprised of the governors of Virginia, Maryland, and Pennsylvania, the mayor of the District of Columbia, the administrator of the U.S. Environmental Protection Agency (EPA), and the chair of the Chesapeake Bay Commission. As the Virginia governor is chair of the Chesapeake Bay Executive Council, I, as Virginia secretary of natural resources, chair the Executive Council's Principals' Staff Committee (PSC).

Governor Kaine has worked especially closely with his Executive Council colleagues, and I accordingly have worked closely with my counterparts. Together, the Executive Council has acknowledged that several decades of effort to restore the Bay – effort governed principally by several successive multi-state agreements – have not gotten us to the level of restoration desired. Yes, progress has been made, but not to the extent many citizens in the 64,000 square mile watershed had hoped to see by now.

With this acknowledgement, Governor Kaine and the Executive Council have sought not only more from themselves, but also more from the federal government. I will note in my remarks how both the federal government and the states are stepping up efforts. Many Bay watershed jurisdictions also are asking more of local governments, developers, farmers, and homeowners through greater voluntary efforts, public-private partnerships, more stringent regulations, and public-awareness campaigns.

Last year, Governor Kaine and the Executive Council acknowledged that we would not meet the 2010 restoration goals set forth in the Chesapeake 2000 Agreement. They were applauded by many for saying so. The Executive Council decided to take a different approach, one more accountable and transparent to the public. They also were applauded by many for this.

In short, the Executive Council said, instead of setting very long-term goals – the Chesapeake 2000 Agreement set one for 2010 – they would set water quality improvement goals and targets within smaller, more measurable two-year periods. No longer would we set a goal and wait a decade or longer to assess it and determine success or failure. Instead, with short, two-year milestones, it would become readily apparent to watchful Bay stakeholders whether we were making progress or not. If measures after two years showed progress and measures met, great; if measure after two years showed failure, the public would immediately know it, likely demand changes, and policymakers could make strategic changes to get Bay restoration back on track. This new approach has been widely acknowledged as an improvement.

Currently, the seven jurisdictions that make up the Bay watershed – Virginia, Maryland, Pennsylvania, West Virginia, Delaware, New York, and the District of Columbia – are at work setting water quality improvement goals that will comprise their first set of two-year milestones. Setting these individual state milestones involves a great deal of assistance from the EPA's Chesapeake Bay Program, which is based in Annapolis, Maryland, and is charged with developing a very sophisticated computer model that helps inform each state what it must do to reduce millions of pounds of nitrogen, phosphorus, and sediment from polluting the Bay.

Preliminary calculations suggest that we need to reduce nitrogen pollution by an additional 136 million pounds and phosphorus by another 5 million pounds. Needed sediment reductions are still being calculated. Generally speaking, each individual state is free to determine the strategy that works best to achieve a state's share of pollution reduction. Each state will be held accountable under the two-year milestone approach for meeting its reduction targets.

Significantly, the Chesapeake Bay Executive Council agreed that "no later than 2025," the six Bay jurisdictions should have in place all policies and funding mechanisms that – according to the best data and modeling available – should allow the Bay's natural system to take it from there and restore itself to acceptable health. That acceptable health is defined as all of the waters of the Bay and tidal rivers having adequate levels of oxygen, water clarity and chlorophyll (i.e. algae levels). Of course, the "no later than" language means that jurisdictions could act more aggressively and meet restoration goals earlier.

Importance of the Federal Government's Role in Restoring the Chesapeake Bay

Now, let me speak on the importance of the federal government's role in Bay restoration efforts that will complement what Bay watershed jurisdictions are doing.

In doing so, I must first say this: the federal government has done very little in recent years to pull its share of the load. In fact, I might even say that the federal government has harmed efforts. While states like Virginia have been increasing funds from our own treasuries for Bay clean-up initiatives, the federal government has been cutting funding to states that

could be put toward local water quality improvement and Bay restoration. For example, federal allocations have been cut for such programs as the NOAA Chesapeake Bay office, oyster restoration, and the Clean Water State Revolving Loan Fund (SRF). To highlight, at the same time that Virginia was investing record amounts of funds to upgrade sewage treatment plants, federal appropriations to the SRF fell by approximately fifty percent. However, I must note one significant bright spot in federal funding – the significant funds that were authorized to the Bay states via reauthorization of the Farm Bill. We are extremely grateful for that support.

That said, I speak for many when I say that I believe a new day has dawned when it comes to federal support for Chesapeake Bay restoration. We are very pleased to see an unprecedented amount of federal attention being paid to the Chesapeake Bay.

This unprecedented level of federal attention has been spurred by the first-ever Presidential Executive Order on the Bay, which President Obama signed on May 12, 2009. Integral to the issuance of this historic Executive Order was the work of EPA Administrator Lisa Jackson and her advisor on Chesapeake Bay matters, Chuck Fox.

The Executive Order called for quick action – namely, the drafting of seven specific reports within 120 days by various executive branch agencies that collectively would define stepped-up federal leadership and redefine the federal government's partnership with Bay states. These reports – currently in draft form – were released about two weeks ago. We are now in a public-comment phase, during which stakeholders are assessing the reports and the EPA is reaching out to the states to gain critical feedback. After the public and states have reviewed and commented on the reports, the EPA will proceed in preparing an implementation strategy to improve local water quality and the Bay's health – address such things as determining what new water quality improvement tools might be needed, placing greater emphasis on stormwater management, supporting better scientific research, and re-emphasizing habitat and fisheries, to name a few.

There can be little question that this Presidential Executive Order and the resulting federal and state actions open up a new era and create a renewed sense of optimism for returning the Bay to better health. The work ahead should be more comprehensive and aggressive than ever before, it should be more coordinated and planned between federal and state actions, and the work should be more easily measured and transparent.

Ten Critical Actions to Move Us Toward a Cleaner Chesapeake Bay

So, Madame Chair, with all of this said – including a bit of state bragging and deserved praise for an obvious new level of federal interest in the Chesapeake Bay – what is it that I believe are the most important action items that will move us all toward a healthier Bay? I have ten. And they all should be addressed as part of any legislation to reauthorize the EPA's Chesapeake Bay Program.

(1) *Provide federal financial assistance.* I list this first because, quite frankly, the resources do not exist, nor will they exist, solely at the state level. I noted earlier in my remarks that while Bay jurisdictions have been increasing funding to Bay restoration, the federal government has been cutting funds that would aid restoration. Funding must be a part of legislation to reauthorize the Chesapeake Bay Program – and it should not be cast in terms of costs, but in terms of investment. A fully restored Bay would provide a significant economic boom to all Bay jurisdictions.

The Bay is a "national treasure," as it was declared in President Obama's Executive Order. Its restoration should be a federal-state partnership. And that means both parties must significantly contribute to clean-up efforts.

I have had the opportunity to review a draft reauthorization bill from Senator Cardin of Maryland. In that legislation, he proposes authorizing $1.5 billion in grants to localities to address suburban and urban pollution run-off. While such funding would be greatly appreciated, I suggest that the use of such funds should be made available to restoration efforts beyond what would mostly be suburban and urban stormwater management. In Virginia, for example, we estimate that if agricultural conservation practices were to be well funded and aggressively implemented, we could achieve a full 60% reduction in all nonpoint source pollution. Getting that 60% reduction, and maintaining it, would require that we invest an estimated $100 million per year in Virginia. There is no dispute that agricultural conservation practices are among the most cost-effective means to achieving nonpoint source pollution reductions. So why would we not apply stepped-up federal funding toward it?

As I am proposing increased federal funding, however, I must note a few questions that have been raised relative to it. For example, if a state proposes aggressive restoration actions based on the presumption that federal financial assistance will be available, will the state be expected to complete those actions? And, if the state does not due to unrealized federal support, will that state be found by EPA to be in non-compliance? Would consequences be enacted as a result of such "non-compliance" under these circumstances? Obviously, states are willing to step up and be aggressive – after all, states have even as the federal government has not. However, we do not want to be unjustly penalized for circumstances beyond our control.

(2) *Define "reasonable assurance."* The six states and the District of Columbia in the 64,000 square mile watershed are moving forward with EPA to develop a Total Maximum Daily Load (TMDL) for the Bay. As you might imagine, this is a mammoth undertaking. A key point of discussion among all jurisdictions and many stakeholders has been to define "reasonable assurance." That is, EPA demands that the states and DC be able to demonstrate reasonable assurance that the jurisdictions have the necessary tools, resources, and capacity to implement actions proposed in jurisdictional implementation plans. This is the key component that will assure EPA that the states and DC can be held accountable and that real, measurable restoration progress is achieved.

It is critical that any Chesapeake Bay Program reauthorization legislation clearly define what is needed to meet the "reasonable assurance" test. Not only is this clarity needed so that each jurisdiction can adequately develop its implementation plan, but also that a level playing field is created and that each jurisdiction is held to the same expectations. I can assure you that all six states and DC agree on the need for this to be addressed in the legislation.

(3) *Require short-term implementation plans.* You will recall that I said earlier in my remarks with some pride that Governor Kaine and his colleagues on the Chesapeake Bay Executive Council have adopted a new strategy that is more transparent and accountable – they decided to proceed incrementally and set water quality improvement targets within successive two-year periods that can be measured and publicly reported on along the way toward their 2025 restoration end date. This two-year milestone strategy should be used in future years to explain – in detail – the actions that will be taken, the existing and anticipated resources to be made available to support the actions, and the pollution reductions to be achieved as a result of them. These two-year milestones should be the primary tool by which EPA judges accountability, reasonable assurance, and progress. Any Chesapeake Bay Program reauthorization should reflect this two-year milestone strategy.

(4) *Impose consequences for failure.* First, let me say that it is not common for me to suggest to the federal government that it bring its wrath upon states, especially my own. But we are at a critical point in our efforts to restore the Bay when assessed against the tremendous population and commercial growth that is occurring in the Bay watershed. One only needs to look at the pace of impervious surface to understand that.

I cannot ask the federal government to increase funding to the states and DC by billions of dollars and not expect consequences when states fail to meet their nutrient and sediment reduction targets. On the contrary, I indeed should expect consequence. As a members of a governor's cabinet and as a former state legislator, I can assure you that without certain EPA-imposed consequences for failure to meet pollution reduction targets in the two-year milestones, states (governors and legislatures) will not take EPA seriously, and the states will not take the necessary actions, including committing resources, to clean up the Bay.

That said, I also must say that the federal government should not be without blessed grace. For example, several years ago, no one would have predicted that our nation's robust economy would move to the brink of total collapse. While I ask for swift and certain consequences for failure, I also say that consequences should not be imposed irrationally, especially when circumstances beyond a state's control are at play. The congress must decide in any reauthorization legislation when and under what circumstances to impose consequences. The legislation also should clearly state the

criteria and decision-making process on determining how consequences will be imposed.

(5) *Ensure equity.* An equitable distribution of responsibility among the Bay watershed's jurisdictions and pollution sectors is a very important component of a successful restoration strategy. All Bay partners are currently working through this issue as we develop a Bay TMDL.

I want to stress two key issues regarding equity. First, we will not restore the Bay without every sector – wastewater, suburban and urban stormwater, agriculture, air, and individual homeowners – doing their part. Pollution reduction from every sector must be significant. No one can be excused from sharing in this restoration effort. Second, flexibility with regard to equity should be left up to the individual jurisdictions, who can address it in their TMDL implementation plans and two-year milestones. If there are to be sufficient consequences exacted upon jurisdictions for failure to meet pollution reduction targets, then jurisdictions should be given the flexibility to determine how each sector should optimally be involved. For example, from a cursory review of Virginia's first 2-year milestone, it could be interpreted that we are relying on agriculture to carry a disproportional share of the pollution reductions and that equity has not been established. More accurately, what we have done is rely upon very cost-effective agricultural practices to achieve significant near-term reductions, while we finalize other administrative actions (e.g. significantly revised stormwater regulations) that will achieve reductions from the urban sector in our next 2-year milestone. In hindsight, had we developed milestones several years ago, one could have made the claim that we were disproportionately relying on the point source discharges to shoulder the largest portion of the workload. In summary, any measures to define equity must not be myopic in nature and should apply over the long-term.

(6) *Establish a Chesapeake Bay restoration deadline.* I said earlier in my remarks that Governor Kaine and his Chesapeake Bay Executive Council partners have agreed upon a Bay restoration end date – it is to be "no later than 2025." Just as it is important to show continued progress, it is equally important to set an ultimate end by which all restoration actions will have been put into place.

The 2025 end date (actually, no later than 2025) is only 16 years away. That necessitates aggressive action by the six Bay watershed states and DC and all other stakeholders – local governments, developers, farmers, and homeowners.

Senator Cardin's legislation proposes an end date of May 12, 2020, for each jurisdiction to have fully implemented its restoration plan. (This specific date keys off of the date President Obama signed the Chesapeake Bay Executive Order this year.) While I fully support the need for each state to fully implement its plans as soon as possible, I do not think doing so by 2020 is possible given the magnitude of the challenge, especially from a funding perspective. I, therefore, hope that any Chesapeake Bay Program

reauthorization legislation will reflect the "no later than 2025" end date that has been endorsed by the governors of Virginia, Maryland, West Virginia, Pennsylvania, Delaware, and Pennsylvania as well as the mayor of the District of Columbia, the EPA administrator, and the chairman of the Chesapeake Bay Commission.

(7) *Expand authority.* A large portion of the nutrient and sediment pollution that currently enters our waters originates from sources that are currently not under any state or federal regulatory requirements. The most frequently cited example of this is agriculture. It is true that some forms of agriculture are currently subject to regulation – such as large animal operations or farms that land-apply a certain amount of animal manure – but EPA estimates that less than 20% of the nutrient and sediment run-off from agricultural lands in the Bay watershed are currently governed by federal regulations. Similar but lesser imbalances can be cited in the urban and air pollution sectors.

It is our hope in Virginia that we can continue to make substantial progress in evening out these kinds of imbalances through incentive-based programs. However, given the need to provide "reasonable assurance" that we have the necessary tools and ability to enact our implementation plan, it is critical that we be granted regulatory authority in the event additional oversight is needed at the state level. Such additional authority should be outlined in reauthorization legislation. The draft reauthorization bill from Senator Cardin proposes expanding the state's permitting authority, under section 402 of the Clean Water Act, to any pollution source if necessary for a state to achieve the pollution reductions required in their tributary implementation plans. Again it is my hope that such tools will not be needed, but they should made available.

(8) *Provide for better tracking and accounting of agricultural nutrient reduction actions.* As we accelerate the pace of restoration, it is very important that all pollution-contributing sectors be included. Equally, it is important that all sectors have their good works accurately tracked and recorded – whether those good works are from voluntary actions, through incentive-based programs, or as a result of regulations.

Virginia's agricultural community has informed us that there are potentially far more agricultural conservation practices in place – and keeping nutrient pollution from local waters and the Bay – than previously thought. If this is the case, then we need to know about it, as it could lessen the burden on farmers. Pollution reductions achieved on agricultural lands through voluntary actions are neither tracked nor accounted for in the existing Chesapeake Bay Program structure. In the name of fairness, this should be changed. We need better coordination and data-sharing between federal and state agricultural service agencies to ensure that all conservation practices are adequately counted.

(9) *Establish innovative tools.* As I bragged early in my remarks, Virginia has achieved significant progress in meeting pollution reductions targets from wastewater treatment

plants because we were able to establish a nutrient credit trading program for point-source facilities. That trading program was put into place about five years ago. Now, new or expanding point sources can obtain nutrient offsets through implementation of agricultural practices. We have recently finalized guidelines to help localities navigate that process. Further, just this year, the General Assembly expanded the trading program to include the use of off-site nutrient credits, thus allowing development projects to better meet stringent pollution run-off standards. Given the high level of pollution reductions that are needed from all sectors throughout the Bay watershed, it is imperative that states are empowered to use create and deploy innovative tools that can be shown to be effective. Trading and offset programs are just examples.

(10) *Avoid redundancy.* The challenge to restore the Chesapeake Bay is a significant one. It does not need to be made more difficult by our own bureaucratic bumbling. Federal and state regulators should not duplicate each other's efforts. States are already subject to numerous reporting requirements that can be amended or revised to fulfill any additional state reporting requirements.

If you adopt in any Chesapeake Bay Program reauthorization legislation the provision for two-year milestones, as I have suggested, the success or failure of pollution reduction goals as reported from those milestone strategies should acceptable reporting for other federal requirements. Also, in Virginia, our state law requires the executive branch to submit to the General Assembly an annual clean-up plan for the Bay and other Virginia waters. That report to our state legislature also should be acceptable in meeting certain other federal reporting requirements. Thus, I ask that reauthorization legislation provide the maximum amount of flexibility possible to jurisdictions for the purpose of meeting federal reporting requirements.

Conclusion

Madame Chair and members of the Subcommittee, this concludes my testimony. I again thank you for inviting me to appear before you, and I speak for many in the Chesapeake Bay watershed who are grateful for your interest and support in our beloved Chesapeake Bay.

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Testimony before the Water Resources and Environment Subcommittee

House Transportation and Infrastructure Committee

Congressman Gerald E. Connolly, VA-11

September 22nd, 2009

Thank you, Chairwoman Johnson, for convening this hearing on reauthorization of section 117 of the Clean Water Act. As you know, the health of the Chesapeake Bay has failed to improve despite the investment of billions of dollars in sewage treatment plant upgrades. Although subaquatic vegetation has recovered somewhat, oysters and fisheries have continued to decline. Despite laudable achievements in sewage treatment plant upgrades and combined sewage overflow capacity enhancements, and unprecedented investments in conservation through the 2008 Farm Bill, it is clear that we must reduce impervious surface areas in the Chesapeake Bay watershed in order to reach overall Bay restoration objectives.

Between 1990 and 2000, population in the Bay watershed grew 8%, while impervious surface area grew 41%, covering an additional 250,000 acres in our region. According to the federal Woods Hole Research Center, 'developed area' in the Bay watershed increased 61% from 1990 to 2000. Those impervious surfaces increased the volumes of nitrogen and phosphorus entering the Bay, while wreaking havoc on stream channels and causing increased erosion and sedimentation. As documented by the Chesapeake Bay Program and the Woods Hole Research Center, the increase in impervious surface area is a major contributor to sediment and nutrient loading in the Bay. The Chesapeake Bay Foundation summarizes these findings in its citizens' guide to stormwater management: "While runoff from farms is decreasing with improved agricultural practices, urban runoff is increasing as more forest and agricultural land is developed." I have introduced legislation, cosponsored by Representatives Eleanor Holmes-Norton, Jim Moran, and Bobby Scott, entitled the Chesapeake Bay Restoration Act (H.R. 3265). This bill which would eliminate the additional runoff that greenfield development has too often created. Senator Cardin has incorporated this legislation in his Chesapeake Bay reauthorization bill, and I hope that it will be incorporated in House reauthorization bill as well.

The Chesapeake Bay Restoration Act would require that greenfield development (not redevelopment) maintain predevelopment hydrologic performance, based on standards established for federal facilities by the Energy Independence and Security Act. This is an important standard because alterations to hydrologic performance cause streambank erosion, and increased phosphorus and nitrogen loading. The EPA's draft response to President Obama's Chesapeake Bay Executive Order prominently featured predevelopment hydrology because of widespread recognition that we must reduce stormwater runoff pollution in order to save the Bay. Maintaining predevelopment hydrologic performance simply means that no more water

runs off a site after development than it did before. We know from experience that this is an attainable goal. Predevelopment hydrologic performance formed the basis of recent EPA Municipal Separate Storm Sewer System (MS-4) permits for Montgomery County, Maryland and part of West Virginia. Predevelopment hydrologic standards are being considered for incorporation in new stormwater management standards for Virginia. In fact, many local governments already have experience working to manage stormwater volume and maintain predevelopment hydrology to the maximum extent possible. When writing the Chesapeake Bay Restoration Act, I tried to build upon my experience as a local government official, because whatever legislation we pass to regulate stormwater will be implemented principally by local governments.

I represent parts of Fairfax and Prince William Counties, the two most populous jurisdictions in Virginia. These counties have grown dramatically over the past 50 years and are predominantly suburban in character. Prior to the 1970s, there were no requirements for stormwater detention or treatment. Our older neighborhoods, particularly in eastern Fairfax and southern Prince William, have storm drains that lead directly to streams. This method of stormwater management—get it off site as quickly as possible—destroyed stream channels in older neighborhoods throughout Fairfax County. Streams such as Holmes Run, Pimmit Run, and Accotink Creek are severely channelized, and erosion of their streambanks has resulted in increased volumes of sediment being transported both to local ponds and the Chesapeake Bay.

In the 1970s and 1980s, the state and Fairfax County began to require stormwater detention for new development. Typically developers built stormwater detention ponds that are sometimes known as Best Management Practices, or BMPs. While these grassy ponds detain some stormwater, they do little to remove nitrogen or phosphorus from runoff, and do not sufficiently account for the increasing impervious surface areas that they are supposed to mitigate.

Prior to my election to Congress, I served as a district Supervisor and as Chairman of the Fairfax County Board of Supervisors. I was elected Supervisor in 1995 and Chairman in 2003. In my race for Chairman, I pledged to enact an aggressive environmental agenda that would address, among other things, stormwater management and stream health. Prior to my election, there was no source of dedicated funding for stormwater management or watershed restoration. During my first term as Chairman, I initiated a successful effort to dedicate the value of a penny on the real estate tax rate to stormwater management. This revenue stream generated $17 to $23 million annually, and for the first time enabled the County to take some corrective actions to infiltrate stormwater and repair damaged streams.

We used that penny to fund a baseline stream health assessment for the County's watersheds. Not surprisingly, we found that stream health in older neighborhoods was very poor. Streams located in watersheds with impervious surface areas in excess of 10% suffer from poor health of benthic macroinvertebrates and poor diversity of fish species. These local

findings echo Chesapeake Bay Program findings that imperviousness in excess of 10-15% is causing significant problems in terms of nutrient loading, sedimentation, and altered hydrologic performance of streams. Benthic macroinvertebrates like stoneflies, caddisflies, and crayfish are excellent indicators of stream health. Some benthic macroinvertebrates are highly sensitive to factors such as chemical pollution, sedimentation, and water temperatures, whereas others are more tolerant of these disturbances. Similarly, some species of fish, such as trout, are highly sensitive to stream temperature, pollution, and sedimentation. The last known native trout perished in Fairfax County streams sometime in the early 1990s, due to sediment loads and increased stream temperatures resulting from increasing impervious cover.

Fairfax streams with high levels of imperviousness, ranging from 15-40% of the watershed, have very poor fish diversity and few of the benthic macroinvertebrates that generally form the foundation of the stream's food pyramid. In contrast, streams such as Kane Creek on Mason Neck, which has almost no impervious cover, have maintained high levels of benthic macroinvertebrate and fish species diversity. We have seen that there is a spectrum of stream health, from undisturbed areas on Mason Neck to very low density rural watersheds in the Occoquan watershed to highly impervious areas inside the Beltway. An examination of the stream baseline data suggests that there is a strong negative correlation between impervious surface cover and stream health.

Following completion of the stream baseline assessment, we used the penny fund to pay for watershed management plans for all 30 watersheds in Fairfax County. These plans identified the investments that would be necessary to return the streams to good health, with projects ranging from rain gardens to regional stormwater management ponds. These watershed management plans have proven to be very useful because they demonstrate just how much damage has been done and precisely what level of investment would be necessary to restore our streams' health. Using the resources from the penny fund, we have funded numerous water quality restoration projects identified in the watershed management plans. For example, in Fiscal Year 2008 the County completed fourteen projects to infiltrate or detain stormwater, including construction of a green roof, rain gardens, infiltration trenches, and a major stormwater management pond. We also used that funding to plant vegetation in existing stormwater management ponds, which reduces the amount of nitrogen and phosphorus entering the Bay. In the same year, we completed 2,085 linear feet of streambank and riparian buffer restoration.

In addition to creating a dedicated revenue stream to assess and restore watersheds, we enhanced the County's stormwater management regulations. In Fairfax, the Public Facilities Manual (PFM) establishes minimum criteria for new development. In order to reduce stormwater runoff, the County revised the PFM by creating stricter "adequate outfall" requirements. Adequate outfall refers to the volume of stormwater leaving a site during a storm. By lowering the maximum volumes of stormwater runoff that is acceptable, we required developers to either reduce impervious surface area or enhance on-site detention.

The Board of Supervisors also amended the Public Facilities Manual (PFM) to allow for the use of Low Impact Development techniques (LIDs) in new construction. Since we amended the PFM to allow LIDs, developers have incorporated rain gardens, tree box filters, green roofs, infiltration trenches, pervious pavement, and other LIDs in projects throughout the County. These LIDs dramatically reduce the volume of stormwater entering our streams and the Bay, and play an important role reducing the volume of nitrogen, phosphorus, and sediments that are preventing the Bay from recovering. Using revenue from the dedicated penny fund, County staff studied the efficacy of these LID techniques and found that green roofs and rain gardens can infiltrate in excess of a one inch of rain, which represents a significant storm.

When I left the Board of Supervisors in January of 2009 to come to Congress, we were working on adoption of a Comprehensive Plan amendment for Tysons Corner, which is the economic engine of Northern Virginia. With over 1,600 acres, Tysons Corner is larger than downtown Boston. If overlaid on Washington DC, it would stretch from Georgetown to the Anacostia River. Because most of Tysons Corner was developed prior to stormwater management regulations, 70% of it has no stormwater management. As a result, streams such as Old Courthouse Branch and Scotts Run are nearly devoid of life, and have suffered severe streambank erosion. Fortunately, we have a plan to restore these waterways. Following three and one half years of deliberation, a task force composed of citizens, landowners, developers, and affordable housing advocates recommended a set of Comprehensive Plan amendments that included restoring hydrology at Tysons Corner to pre-development forested conditions while quintupling the supply of housing units and converting strip malls into office towers and mixed use developments. This aggressive goal had the support of environmentalists and developer representatives on the Tysons Task Force. If adopted by the Board of Supervisors, it will set a new standard for stormwater management and watershed restoration. This is an important local example because it demonstrates that restoration of our streams, and ultimately the Bay, is compatible with continued economic growth in our region.

The key is to condition new growth on meeting new standards for stormwater management. Our standards for new development and for transportation infrastructure are insufficient to protect the Bay. The Chesapeake Bay Restoration Act would achieve this objective if incorporated into the broader Chesapeake Bay reauthorization bill. I believe it represents a consensus approach, which is why groups as diverse as American Rivers, the Chesapeake Bay Foundation, and the Metropolitan Washington Council of Governments have expressed their support for it. I would emphasize that there is bipartisan support for this kind of action to clean up the Bay. My Republican colleague John Cosgrove, a state Delegate from Virginia who chairs the Chesapeake Bay Commission, recently offered this testimony at a Senate hearing on reauthorization of the Chesapeake Bay Program:

> The other sector of non-point source pollution that must be addressed is stormwater runoff from urban and suburban lands. Here we are actually losing ground. Polluted runoff from the land is actually escalating because of increased development across the

Bay watershed. As the states tackle this challenging problem, we need the Federal government to continue to be a strong partner in this effort. As a large landowner of property throughout the watershed, the Federal government, as called for the in the Presidential Executive Order, should be a leader in addressing these issues. We have seen such leadership exhibited by the U.S. Navy within Virginia. The Navy has committed to use low-impact development techniques to ensure reduced runoff from their facilities within the region. It would be great to see this impressive initiative expanded across all Federal lands, including Federal highways. We need stronger Federal, state and local government partnerships and increased regulatory authority to restore this 64,000 square mile watershed that is degraded by a diverse range of nonpoint sources of pollution. We must act now to reverse the growing volume of pollutants from urban and suburban runoff, in a manner that protects local governments' land use planning prerogatives and our region's continued ability to grow. I believe the Chesapeake Bay Restoration Act represents this balanced, measured approach, which is based on experience at the local level.

Finally, let me thank Chairman Oberstar and his staff for making this bill a priority, and Representative Cummings for shepherding the bill through Committee. With their great breadth of experience, they know that we cannot continue to do the same thing and expect different results. Bay restoration will take a concerted effort, and must be much more far reaching than in the past. I am proud to be part of an institution whose leadership is willing to make bold plans to save America's largest estuary, and I offer my full support and assistance in this effort.

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TRANSPORTATION
SCIENCE & TECHNOLOGY

Testimony Before the Subcommittee on Water Resources and Environment
Transportation and Infrastructure Committee

Reauthorization of the Chesapeake Bay Program

Tuesday, September 22, 2009

Thank you, Chairman Oberstar, Chairwoman Johnson and Members of the Committee for this opportunity to testify in support of the reauthorization of the Chesapeake Bay Program, Section 117 of the Clean Water Act. I must state at the forefront that the role of the Federal government is critical to the success of the Bay restoration. For the effort to succeed, that role must grow stronger. I am here today, as a Virginian, as the Chairman of the Chesapeake Bay Commission, and as a proud Republican, to tell you that we need the Federal government to play a stronger and more targeted role in Bay restoration. The Clean Water Act must provide new authorities and accountability measures that complement our state efforts in order to minimize pollution from all sources.

Let me begin with a brief explanation of the Chesapeake Bay Commission. The Chesapeake Bay Commission is a tri-state legislative commission established in 1980 to coordinate Bay-related policy across state lines in Virginia, Maryland and Pennsylvania. Our focus is to develop shared solutions for the region. The Commission serves as the legislative arm of the Chesapeake Bay Program and as such has signed every agreement and directive since the Program's start. There is hardly a piece of state or Federal Bay-related legislation that the Commission has not been involved in, and we continue to promote policy initiatives on a full spectrum of Bay issues: from living resources protection and land conservation, to water quality restoration. Important to today's meeting, the Commission also acts as the liaison to Congress on all issues of concern to the health and resources of Chesapeake Bay. I am here today to stress the importance of enhanced Federal participation in the Bay restoration via the reauthorization of Section 117. We believe that restoring our nation's largest estuary is a shared responsibility -- not just of state and local governments and the private sector, but of the Federal government as well.

Along these lines, in February, 2008, the Commission developed and broadly distributed a report containing a full suite of recommendations for Federal legislation and funding to advance the Bay's restoration over the three year period 2008 to 2010. Included within that report were recommendations that the EPA Chesapeake Bay Program be reauthorized with a heightened focus on new authorities, increased implementation and accountability. Bottom line: Since we

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have to do more with less, we need to do a better job choosing what is regulated, what is incentivized, and where these programs are more strategically applied.

I have been a member of the Commission for five years and have had the honor of Chairing the Commission in 2009. In the past five years, I can say that we have seen a huge increase in state and local government investments in the Bay. In Virginia, through the state Water Quality Improvement Fund we have invested well over a half a billion dollars to upgrade our wastewater treatment plants within the Bay watershed. Our local governments have stepped up their commitments and are utilizing the Clean Water Revolving Loan Fund to help shoulder their burden to cover the remaining costs of the upgrades. Recently, Federal funding to the Clean Water Revolving Loan Fund has increased and we thank you very much for that. Other states in the Bay are also using this fund and making good progress in tackling their point sources of pollution to the Bay.

So, thanks, in large part to increased state and Federal funding and existing regulatory permit authority within the Clean Water Act, we are reducing point sources of pollution delivered to the Bay. Hundreds of sewage treatment plants throughout the watershed are being upgraded with new technologies to reduce nutrient loads. In Virginia alone we have already cut over one million pounds of nitrogen from our wastewater treatment plants and we are expected to slash the amount of nitrogen by another two million pounds. Bay-wide we expect to reduce nitrogen loads by over 12 million pounds from 2005 levels. Because of this successful Federal, state and local government partnership we are achieving real results in cleaning up the Bay

The Federal government is however making slow progress in upgrading its own wastewater treatment plant, Blue Plains, located within the District. As the largest point source in the entire watershed almost four million pounds of nitrogen stands to be reduced from the Bay's nutrient load from this one facility alone. Mr. Chairman, securing Federal funding is essential for this key action to reducing nitrogen pollution to the Bay. We ask that you please actively support efforts to achieve this immense task.

While the states have been making significant progress overall with our point sources, we have not been as successful with reducing other diffuse sources of nutrient pollution entering the Bay. For our non-point sources of pollution we have good established Federal and state partnerships but we lack the necessary funding and the regulatory authority to get the job done.

Nearly one-quarter of the Bay watershed's land area is devoted to agricultural production. Through the Federal Farm Bill we now have a program targeting funding to the Chesapeake Bay watershed for the first time ever. This, together with state funding, provides an important new tool to reach new farmers and increase farmer participation in on the ground conservation practices. But the enrollment levels are not close to where we need them to be.

The other sector of non-point source pollution that must be addressed is stormwater runoff from urban and suburban lands. Here we are actually losing ground. Polluted runoff from the land is actually escalating because of increased development across the Bay watershed. As the states tackle this challenging problem, we need the Federal government to continue to be a strong partner in this effort. As a large landowner of property throughout the watershed, the Federal

government, as called for the in the Presidential Executive Order, should be a leader in addressing these issues. We have seen such leadership exhibited by the U.S. Navy within Virginia. The Navy has committed to use low-impact development techniques to ensure reduced runoff from their facilities within the region. It would be great to see this impressive initiative expanded across all Federal lands, including Federal highways. We need stronger Federal, state and local government partnerships and increased regulatory authority to restore this 64,000 square mile watershed that is degraded by a diverse range of nonpoint sources of pollution.

In reauthorizing the Chesapeake Bay Program we have the opportunity to capitalize on additional Federal and state efforts underway to make real progress in cleaning up the Chesapeake. First, the Bay states have agreed to chart-out and implement two-year restoration milestones. Second, EPA is developing a Bay-wide TMDL. And third, the President issued an Executive Order directing Federal Agencies to coordinate their restoration efforts and prioritize the Chesapeake as a National Treasure.

Because of these current efforts and the previous three decades of restoration invested in the Chesapeake, we believe that the Bay's TMDL should be a model for the nation. We ask that you codify the Bay TMDL within the reauthorization of Section 117 of the Clean Water Act and set the highest standards for the region. Strengthen language within the Clean Water Act to better ensure an effective and enforceable TMDL will achieve the necessary nutrient and sediment reductions for the Bay. If we are to achieve the goal of a clean Bay within our lifetimes, we must have more accountability and more Federal authority to get the job done. We must also keep in mind that while restoring the Chesapeake Bay is our ultimate goal, much of the land within the watershed is private property. And as such, it is critically important to remember private property rights so that the owners can get full enjoyment and value from their investments.

Currently, the Clean Water Act applies to all point sources of pollution. However, many sources of pollution fall outside the scope of the Clean Water Act. To protect a system like the Chesapeake, where the majority of the nutrient pollution comes from nonpoint sources, we must be sure that all sources are controlled in a meaningful and highly accountable way.

If we are to learn from what has worked in the past and what continues to work in the present, the Clean Air Act offers some useful models for success. The Clean Air Act utilizes State Implementation Plans, or SIPs, and time schedules giving states discretion to develop state-specific means to attain air quality standards within a region by a certain date. The watershed-based approach of the Bay-wide TMDL would benefit from a similar regulatory approach. States would be provided with the flexibility to develop and implement their own plans to meet their share of a watershed goal. The Clean Air Act also contains noncompliance sanctions that work as incentives for expeditious and effective state programs. Enhancing this approach with the already agreed upon two-year state milestones would help to ensure progress continues throughout the restoration process- not only with our point sources but also with our multitude of non-point sources of pollution.

We need to build on our existing partnerships to increase our accountability and to increase our rate of success. By reassessing what is working to clean up the Bay and building on those examples we can continue to make progress. However, we need to make sure we have the right

tools. So far those tools have included strong intergovernmental partnerships and clear regulatory authority.

Mr. Chairman, this concludes my testimony. Thank you very much for the opportunity to appear before your subcommittee this afternoon.

WRITTEN STATEMENT OF THE HONORABLE CATHY DRZYZGULA
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before the

HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
SUBCOMMITTEE ON WATER RESOURCES AND THE ENVIRONMENT

Sept. 22, 2008

Good afternoon Chairwoman Johnson, Ranking Member Boozman and members of the Subcommittee. I am pleased to be here today and would like to thank Chairwoman Johnson for inviting me to testify about Chesapeake Bay restoration activities within the context of reauthorization of Section 117 of the Clean Water Act. I'm Cathy Drzyzgula, a member of the Gaithersburg, Md., City Council and Chair of the Chesapeake Bay Policy Committee of the Metropolitan Washington Council of Governments (COG). COG is a regional association of 21 local governments in the Washington metropolitan region, whose combined population represents more then one-quarter of the population of the entire Bay watershed.

COG and its Bay Policy Committee have a long record of support for the Bay restoration effort. Members of the committee serve on the Chesapeake Bay Program's Local Government Advisory Committee and served on the Chesapeake Bay Blue Ribbon Financing Panel. COG's Board of Directors recently revised its longstanding policy principles to guide local government involvement in the Bay restoration effort. The principles, which highlight the need for equity, sound science and local government input in setting Bay policy, serve as the basis for my comments today. In full, they are:

I. **Holistic Requirements –** Programs and policies to restore and protect the Chesapeake Bay and its tributaries, whether regulatory or not, shall reflect a holistic, multi-sector analysis of environmental benefits, technical feasibility and costs before being established.
II. **Equitable Responsibility –** Programs and policies to restore and protect the Chesapeake Bay and its tributaries shall strive for equity and cost-effectiveness in allocating responsibilities among regions, counties and municipalities and among the different sources of pollution.
III. **Sound Science** – Programs and policies to restore and protect the Chesapeake Bay and its tributaries shall rely on a sound scientific foundation and shall be revised as needed, reflecting advances in that foundation.
IV. **Communication and Voice** - Programs and polices to restore and protect the Chesapeake Bay and its tributaries, whether regulatory or not, should be developed through a cooperative process among stakeholders including local governments and wastewater utilities. Given their implementation responsibilities, local governments and wastewater utilities shall be engaged at the earliest stages of these development processes.

For more than 20 years, COG's member governments have been leaders in implementing nutrient reduction technology at municipal wastewater plants and through stormwater management practices to achieve both local and Chesapeake Bay clean water goals. While we have accomplished a lot, we

recognize that we need to do even more to help meet the great challenges facing the Bay and our local streams.

As you begin to consider what new regulations and programs should be included in reauthorization legislation, please consider the following comments, which were distilled from many discussions of these issues among our members over the past weeks and months.

- EPA and its Bay Program partners are already working to issue regulations -- by December 2010 -- for a series of Bay-wide Total Maximum Daily Loads to achieve the needed reduction in nutrients and sediment to achieve Bay water quality standards. The standards will include implementation plans, measures for assuring progress and consequences for lack of progress. This is arguably the most complex regulatory process ever undertaken under the Clean Water Act. In response, COG's member governments will need to implement new programs and practices to meet more stringent regulatory targets. COG recently hosted a meeting of EPA Bay Program and state staff to explore some of the many questions that this process has raised; a list of questions from that meeting is attached and provides an illustration of the challenges we face. For instance, it is not yet clear how best to align the geographic scope and overlapping timetables of the TMDLs themselves, their watershed implementation plans and the 2-year state milestones.

  There are not yet definitive answers to many of the questions on this list, yet under existing deadlines for the TMDL, the states must have draft implementation plans completed by May 2010. Deadlines for completing the first set of two-year milestones for restoring the Bay announced by the Bay Program partner jurisdictions at the Executive Council meeting in May 2009 is just December 2011. To the extent that both the plans and actual implementation requires actions by local governments, I note that local governments will need several years to change ordinances, work with stakeholders and determine how to pay for new stormwater management program responsibilities.

  Recognizing these complexities, we have suggested using a regional planning approach for developing implementation plans, as allowed under Section 208 of the federal Clean Water Act. We believe this could be a highly effective approach for protecting water quality, promoting stakeholder involvement and ensuring that water quality permits conform to newly developed implementation plans.

- COG's member governments are concerned about efforts to prescribe in great detail new regulatory requirements in the Bay watershed. Through its existing authority under the Clean Water Act, EPA, together with the states, already regulates municipal wastewater plants and municipal separate storm sewer conveyance systems (MS4s). All of COG's members are subject to MS4 regulation, either as Phase I or Phase II permittees. Prescribing specific penalties for non-compliance may limit EPA's flexibility and lead to an unproductive use of limited municipal resources.

- In addition, we are concerned that relying on further regulation of these sectors alone will not get us to a clean Bay. Because agricultural operations, both those subject to CAFO regulation and those that are not, are the largest source of nutrients and sediment to the Bay, it is unlikely that the Bay's water quality goals can be met without substantial new progress from this sector and from other nonpoint sources currently outside of federal regulation.

- Additional regulatory measures for restoring the Bay, whether crafted by EPA under its existing authority or prescribed in statute, should recognize the variability in economic conditions, geography and other factors throughout the 64,000-square-mile Bay watershed. This is particularly true of requirements aimed at reducing the water quality impacts of stormwater runoff from urban areas. COG's member governments have administered stormwater management programs under state and federal regulations for the past 20 years. We have learned that there is no single solution for managing urban stormwater and a great need for flexibility. Baseline performance requirements should not specify the technology to be used to achieve them.

- Similarly, our experience underscores the importance of making a distinction between new development and redevelopment in meeting performance standards. Although it is appropriate for both types of projects to strive to meet the runoff characteristics that existed before development occurred, it is often much harder and more costly to meet those requirements at redevelopment sites because of various constraints.

  Regulation should encourage the use of environmental site design and low-impact development techniques -- as is now being done in Maryland, Virginia and the District of Columbia -- but it should not prescribe that only these techniques be used. It is important to note that developers and localities are only starting to implement ESD/LID practices on a large-scale basis. The jury is still out on a number of issues regarding their performance, such as the relationship between maintenance and long-term performance efficiency. Local governments are concerned about the challenges of administering inspection and maintenance programs for practices that will be widely distributed throughout the urban landscape and that may be located on individual residential lots. It is also important to note that based on the experience of COG's stormwater program managers to date, such practices are not necessarily cheaper to install than more conventional stormwater management technology.

- Baseline performance requirements for urban stormwater control should make a distinction between new development and redevelopment sites, and any redevelopment requirements should be balanced by the critical need to encourage infill development and smart growth. In addition, baseline performance standards should include an allowance for offsets or other measures that would permit certain projects to go forward that cannot meet all of the runoff standards on site. This is particularly important for redevelopment sites, which typically face many more constraints than new development sites. To be truly effective, offset provisions and trading programs must be crafted at the state-local level and allow flexibility in implementation. This is not a provision that an overall federal standard should seek to detail.

  My experience in Gaithersburg has been that is enormously difficult in the present economic climate and in the face of any number of state and local requirements, both environmental and otherwise, to get redevelopment to happen. If stormwater requirements are too stringent, these projects just won't be built.

- A federal stormwater performance standard, if established, should extend beyond the current areas subject to MS4 permits. This is important both for the sake of equity and to ensure that more stringent stormwater regulations do not wind up encouraging sprawling growth in areas where the requirements do not apply.

- Overall cost and cost efficiency cannot be ignored in crafting implementation plans and new regulatory approaches for restoring the Bay. It is common sense to pursue the most cost-effective measures for reducing nitrogen, phosphorus and sediment pollution first. Most of these measures involve agriculture, as was documented in the December 2004 report "Cost Effective Strategies for the Bay" by the Chesapeake Bay Commission. Just as urban areas must do more to capture nutrients and sediment in runoff, we must find ways to increase progress by agriculture, the single largest source of these pollutants to the Bay.

  The one non-agricultural practice among the six-most cost effective measures noted in the Bay Commission report was to further improve nutrient removal technology at wastewater treatment plants. This enhanced nutrient removal is now being implemented throughout the Washington metropolitan region and being paid for primarily by ratepayers. By contrast, achieving significant nutrient reductions in stormwater runoff from older urban areas – those built before the mid-1980s and the advent of modern stormwater management technology – is extremely costly.

  EPA, for instance, in its just-released Section 202A water quality report in response to the President's Executive Order on the Bay, estimates that achieving a 36-percent reduction in nutrients and sediment through these stormwater retrofits would cost $7.9 billion a year over a 20-year period. The same report estimates a cost per pound of nitrogen, phosphorus and sediment saved from reaching the Bay by the implementation of stormwater retrofits. These costs are significantly higher than the per-pound cost estimates for a variety of other measures and, in the case of nitrogen and phosphorus, several orders of magnitude higher.

- The Washington region's experience with funding improvements in wastewater treatment demonstrates that water quality progress is best achieved by sharing costs across levels of government. For example, since the early 1970s, the phosphorus discharged by wastewater plants in the Washington region has decreased 96 percent. Since the 1990s, area wastewater plants have reduced nitrogen discharges by more than 45 percent. When enhanced nutrient reduction technology is fully implemented in a few years, wastewater plants in the region will have lowered their nitrogen discharges by an additional 50 percent. All of these technology upgrades have been paid for by a combination of local, state and federal funds. (A report documenting these achievements is included in these comments as Attachment 2.)

  This has not been the case for municipal stormwater management programs, which, alone among the major sources of pollution to the Bay, lack a significant dedicated source of federal or state cost-share funds. Toward that end, it is encouraging that the "Chesapeake Bay Restoration Act of 2009," as introduced by Rep. Gerald Connolly, includes a provision to authorize up to $1.5 billion in federal cost-share funds for local government stormwater management efforts. Cost-share funding for stormwater management is a critically important component of successful restoration of the Bay.

I will conclude my statement by emphasizing the continuing commitment of local governments in the Metropolitan Washington region to the Bay restoration effort. We look forward to working with you to ensure that new congressional legislation complements ongoing efforts and builds upon the work that has already been done. Thank you Chairwoman Johnson, Ranking Member Boozman and members of the Subcommittee for allowing me to testify on behalf of COG today. I would be pleased to answer any questions you may have.

List of attachments:

Att. 1	Questions from COG's Water Resources Technical Committee Roundtable Discussion on Watershed Implementation Plans, Sept. 10, 2009
Att. 2	COG Water Quality - Wastewater Treatment Plant Fact Sheet

Attachment 1

COG Roundtable Discussion on Watershed Implementation Plans (WIPs)
September 10, 2009

KEY QUESTIONS & DISCUSSION SCHEDULE	
Notes: *These questions have been identified as key questions that COG's members wish to have addressed. They represent a preliminary list of questions; organized, to the extent possible, into four key Issue Areas.*	
A. Process, Schedule & Regulatory Basis – Ted Graham **(11:00 – 11:15 a.m.)** **The first three questions are to be addressed at the Roundtable Discussion**	
1.	**What is the status of WIP development, by MD, VA & DC? Are the plans subject to EPA approval either formally or informally?**
2.	**What are the connections between the WIPs and the Bay TMDLs and the 2-Year Milestones, in terms of timing and scope?**
3.	**What provisions are there for consultation with those responsible for implementation (e.g., local governments and wastewater utilities) as the WIPs are developed? Would the states consider periodic worksessions (quarterly?) in the COG region to ensure WIP coordination?**
4.	EPA will be issuing the TMDLs while the States will be issuing the WIPs. What public review process is envisioned for the WIPs?
5.	What are the consequences for states that fail to develop a WIP or fail to comply with the general requirements of a WIP? Is there consideration for: (a) Withholding SRF funding? (b) Withholding clean water planning grants? (c) Refusing to issue NPDES permits to new sources? (d) Requiring new sources to offset loads?
6.	Stage 1 and Stage 2 as depicted in the PSC presentation needs to be better explained. Is it envisioned that the WIPs are to be revised periodically, e.g., with each 2-Year Milestone?
7.	The Clean Air Act (CAA) has been referred to as a good model for the new Chesapeake Bay WIPs. What parallels with the CAA SIPs, if any, are envisioned?
8.	The federal TMDL statute does not require the development of implementation plans. What is the legislative and regulatory authority for the WIPs?

KEY QUESTIONS & DISCUSSION SCHEDULE	
Notes: *These questions have been identified as key questions that COG's members wish to have addressed. They represent a preliminary list of questions; organized, to the extent possible, into four key Issue Areas.*	
9.	What are the implications for delegated state water pollution control programs given that the Bay TMDLs will be developed and issued by EPA?
B. Geographic Specificity - Karl Berger **(11:15 – 11:30 a.m.)** **The first two questions are to be addressed at the Roundtable Discussion**	
1.	**What is the geographic scale expected for actions listed in the WIPs (e.g., state-watershed segment / county / other)? Will the WIP geographic scale be identical to the scale of the Bay TMDLs? Will all WIPs use a consistent geographic scale?**
2.	**Will the state WIPs for Maryland, Virginia and the District be coordinated across the multi-jurisdictional watershed of the Potomac River, particularly in the Washington metropolitan area? How might COG play a role in assisting with such coordination?**
3.	What methodology and modeling tools will be used to develop load targets at the county level?
4.	Will there be distinct WLAs for each MS4, as is the case for each WWTP, as well as for non-municipal MS4 permittees, such as state highway departments? Will there be distinct WLAs for combined animal feeding operations (CAFOs) that have NPDES permits?
5.	Will there be jurisdiction-specific allocations for MS4 general permittees, e.g., for construction and for Phase II communities?
6.	In general, how will the WIPs address sources that don't have permits, such as most agricultural operations, sources of air emissions and septic systems? How will reasonable assurance be formulated for these sources?
C. Implementation – Tanya Spano **(11:30 – 11:45 a.m.)** **The first three questions are to be addressed at the Roundtable Discussion**	

1.	**How will the WIPs (and the governing TMDLs) address growth? (EPA indicates that the WIPs are to "account for growth by setting aside allocations or specifying how (growth) will (be) offset" -- one or more specific examples – for wastewater and stormwater -- would be helpful.)**
2.	**What are the implications of the WIPs for MS4 NPDES permittees? If load allocation caps are included as permit conditions, how will they be enforced?**
3.	**For wastewater plants whose service areas include parts of more than one jurisdiction, how will the WIPs reconcile the differences between facility loads and county-level load allocations? (In the case of Blue Plains, will the WIPs take account of existing sewage agreements governing flow?)**
4.	How will the 5-year time frame associated with NPDES permits be reconciled with restoration goals on a longer time horizon?
5.	COG regional forecasts indicate substantial increases in population, households and employment, with the region's population projected to reach 6.6 million in 2030. What flexibility will be available for local governments to manage their net load (i.e., evaluate their stormwater, wastewater, air, and agricultural sources) to best manage collective growth needs?
6.	In general, major WWTPs have received a WLA and are proceeding with expensive design and construction projects to achieve limit of technology treatment. How will the WIPs be structured and the 2-Year Milestones be integrated so that WWTPs are assured of "regulatory stability" as described in EPA Region III's letter?
7.	Smart Growth and infill development will concentrate stormwater and sewage loads into urban areas while the WIPs will establish nutrient/sediment reductions that will need to be achieved and maintained in those same areas. How do the states envision reconciling those competing demands and influencing local growth/development decisions given the load caps?
8.	What provisions will there be for tracking progress and adapting to changed conditions (i.e., how will adaptive management concepts actually be applied)?
D. Feasibility and Cost – Steve Bieber **(11:45 a.m. – 12:00 p.m.)** **The first three questions are to be addressed at the Roundtable Discussion**	
1.	**How and when will localities and other stakeholders be providing an opportunity to provide input on the feasibility of implementation and the cost of implementation for the various WIP elements that impact their jurisdiction/organization?**

2.	**Assuming costs will be part of the WIPs, will cost per pound of pollutants reduced be used to help prioritize projects for implementation?**
3.	**In lieu of conducting a formal Use Attainability Analysis under the TMDL (which EPA has ruled out for now), there has been discussion of developing an "affordability analysis" (AA). What is the status of AA development and will information from such an analysis be used in the development of the WIPs?**
4.	Assuming that the WIPs are expressed at the county level, will implementation costs – both capital and operating - be expressed in per capita or similar units so that budgetary impacts can be assessed?
5.	Will uniform BMP efficiencies be applied by all of the jurisdictions developing WIPs? (Historically, different regulatory agencies and the Bay Program have accorded different efficiencies to the same stormwater management practices, and the efficiencies continually change over time.)
6.	Will the WIPs recognize opportunities for watershed-based trading? Will that include the ability to utilize interstate trading in the Potomac River Watershed? And if so, what sectors and at what scale can those trades be applied?
7.	Will the WIPs contain contingency plans in case some management actions fail to achieve the expected results?

Potomac River Water Quality and Municipal Wastewater Treatment

July 28, 2009

About COG

The Metropolitan Washington Council of Governments (COG) is a regional organization composed of 21 local governments surrounding our nation's capital, plus area members of the Maryland and Virginia legislatures, the U.S. Senate, and the U.S. House of Representatives.

COG provides a focus for action and develops sound regional responses to such issues as the environment, affordable housing, economic development, health and family concerns, human services, population growth, public safety, and transportation.

Founded in 1957, COG is an independent, nonprofit association. It is supported by financial contributions from its participating local governments, federal and state grants and contracts, and donations from foundations and the private sector. Policies are set by the full membership acting through its board of directors, which meets monthly to discuss area issues.

The National Capital Region

The National Capital Region consists of 21 Washington area local governments and comprises the single largest urban area in the Chesapeake Bay watershed – about 4.9 million people – more than 25% of people living in the Bay watershed and 80% of the people living in the Potomac River watershed. Within the National Capital Region there are twenty-four municipal wastewater treatment plants (WWTPs) operated by COG's local governments or wastewater utilities. Seventeen of these are considered major plants (i.e., greater than 2 MGD) with a combined treatment capacity of 753 Million Gallons/Day (MGD); including Blue Plains (370 MGD) – which is the largest treatment plant in the entire Chesapeake Bay watershed. Consequently, municipal point sources are the largest source of nutrient loadings from the region.

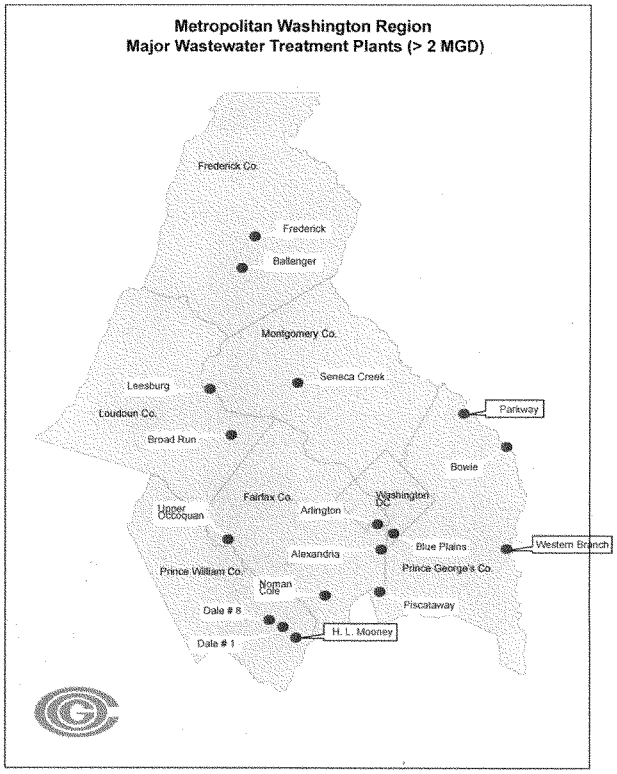
The tidal section of the Potomac River, a central feature of the region, is affected by many sources of pollution, primarily from non-point source runoff at the fall line (i.e., river flows below Great Falls) and effluent discharges from wastewater treatment plants in the National Capital Region. With rapid population growth in the National Capital Region over the past century, the Potomac River has faced water quality problems such as bacterial contamination, low dissolved oxygen, and nuisance algal blooms. The implementation of secondary and advanced wastewater treatment in the National Capital Region has resulted in significant improvements in water quality and ecological conditions in the Potomac Estuary, including healthy dissolved oxygen levels, reduced nuisance algal blooms, and the return of important living resources such as large mouth bass and submerged aquatic vegetation (SAV). The reductions in wastewater pollutant loadings and improvements in water quality and ecological conditions in the Potomac Estuary represent a major environmental success story.

Wastewater Treatment Leads the Way

In the National Capital Region, fourteen of the major municipal WWTPs discharge treated wastewater effluent into the Potomac Estuary. (The other three major plants discharge to the Patuxent River.) These fourteen Potomac facilities serve more than 4 million people and currently discharge approximately 500 MGD (2008 data). At 370 MGD, the Blue Plains WWTP is the largest advanced WWTP of its type in the world and comprises almost half of the total effluent discharged to the Potomac Estuary from the COG region.

COG Region Major Wastewater Plants Capacity (MGD)

- Alexandria – 54
- Arlington – 40
- Ballenger Creek - 6
- Bowie – 3.3
- Blue Plains – 370
- Broad Run – 10
- Dale City #1 – 4
- Dale City #8 – 4
- Frederick – 8
- H.L. Mooney – 18
- Leesburg – 5
- Noman Cole – 67
- Parkway - 30
- Piscataway – 30
- Seneca Creek – 20
- UOSA – 54
- Western Branch - 30
- **TOTAL – 753**



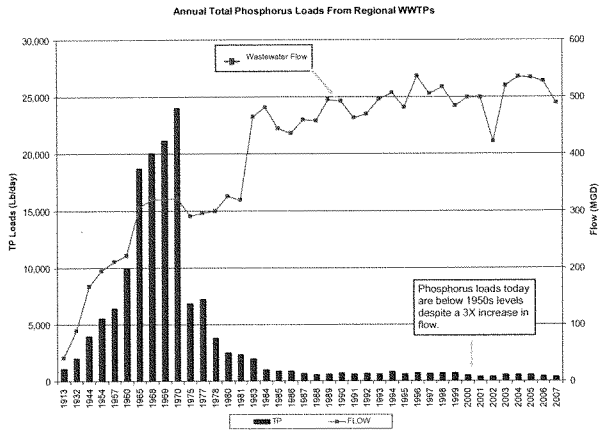
Major pollution reduction efforts from wastewater treatment plants began in 1959 with the implementation of secondary treatment at Blue Plains and at other COG region WWTPs from 1960 to 1980. Since the early 1970s, WWTP phosphorus loadings have been reduced approximately 96% as limit of technology phosphorus controls (i.e., to achieve 0.1 milligram/liter (mg/l) total phosphorus) were implemented at all of the major wastewater facilities in the region to reduce nuisance algal blooms, increase oxygen levels, and alleviate other eutrophication problems in the Potomac Estuary. Since the 1990s, technologies to achieve advanced levels of nitrogen removal (i.e., to achieve 8 mg/l of total nitrogen) have also been implemented to address the downstream water quality impacts of nitrogen on the lower Potomac River and the Chesapeake Bay. This has reduced WWTP total nitrogen loads from the COG region's WWTPs to the Potomac River by approximately 44%. Similar loading reductions have also occurred from the COG region's WWTPs in the Patuxent River.

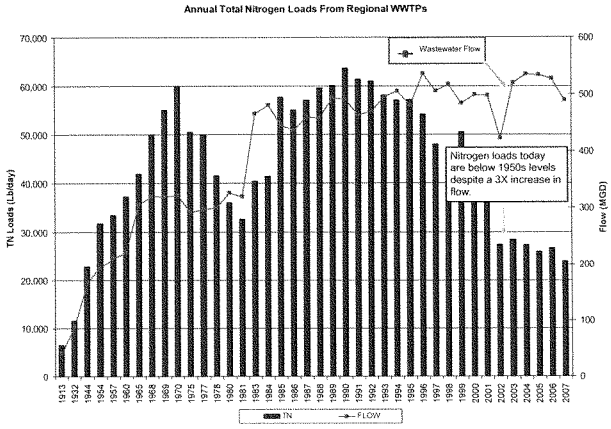
Enhanced Nutrient Removal

Presently, all of the major wastewater treatment plants in the National Capital Region use a variety of advanced treatment processes equivalent to Biological Nutrient Removal (BNR) to achieve approximately 8 mg/l total nitrogen levels. In the mid-1970's though, it was clear that additional nutrient (phosphorus and nitrogen) reductions would be needed throughout the Chesapeake Bay watershed to address low dissolved oxygen and other water quality impairments in the Bay and its tributaries (e.g., the Potomac River). The COG region's wastewater plants were already treating phosphorus to levels of technology, and by the late 1990's had begun to reduce their nitrogen loads - but it was recognized that additional levels of nitrogen reductions at wastewater treatment plants would be needed to address downstream water quality impacts and help Bay restoration efforts.

The Chesapeake Bay Program, under the US Environmental Protection Agency (EPA), is currently quantifying the necessary load reduction levels that will be required from all loading sources to the Bay and its tributaries (i.e., agriculture – animal and crop, stormwater, air, septic, and wastewater treatment plants). These reduction requirements will be defined as Total Maximum Daily Load (TMDL) allocations for each state/major river/basin (e.g. Potomac River). These TMDLs (92 in total) will be issued by no later than May 2011. Those allocations will then be sub-allocated through State Implementation Plans (SIPs) (i.e., analogous to Tributary Strategies) and will include specific allocations for all source sectors – including wastewater treatment plants. The nutrient allocations for wastewater plants will be regulated loading caps that cannot be exceeded. As a result, once these caps are reached options such as trading and/or implementation of new even more advanced treatment technologies will be needed in order to allow WWTPs to increase their treatment capacity beyond current levels.

Recognizing the need to achieve these additional nitrogen reductions, COG's local governments and wastewater utilities are moving forward with upgrades to the region's major wastewater treatment plants to implement what is generally referred to as enhanced nutrient removal (ENR) technologies. Using ENR technologies, these plants are expected to reduce nitrogen in their effluents down to about 3 to 4 mg/l total nitrogen - approximately a 50% reduction of already low discharge levels. The cost of these upgrades is estimated to be at least $1.5 billion.





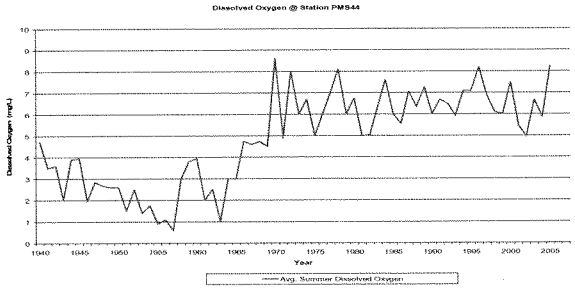
Ecological Benefits of Advanced Treatment

Water quality and biological resource data from the Potomac Estuary clearly show a link between significant reductions in wastewater loadings of nutrients and other pollutants, and improvements in the river. Dissolved oxygen, needed by fish and crabs to survive, has historically been depleted by excess nutrients. However, as pollutant loads from the COG region's WWTPs have declined, dissolved oxygen levels in the river have increased to

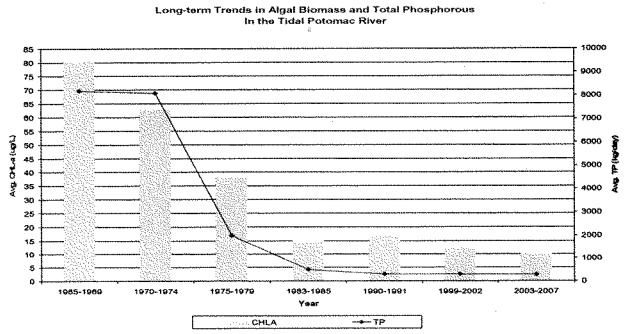
levels that allow the Potomac's aquatic creatures to thrive. For example, the Potomac Estuary now supports one of the top largemouth bass fisheries in the country.

Long-term trends in summer DO levels on the Potomac River near the Wilson Bridge (mile PMS-44).

*Data for 1940-1981 is averaged for June-September from USEPA (STORET) data. Data from 1982-2007 is averaged for July-September from MWCOG.



Long-term trends in Algal Biomass and Total Phosphorus in the Tidal Potomac River



Source: MWCOG, 2005; USEPA, 1992.

Observed concentrations of nitrogen have decreased significantly and algal blooms do not have the intensity or the magnitude they once had, primarily because of large phosphorus reductions. A resurgence of submerged aquatic vegetation in the Potomac starting in the 1980s has been directly related to improvements in water clarity resulting from reductions in nutrient and suspended solids loadings from the COG region's WWTPs, and subsequent reductions in ambient algae, phosphorus, and nitrogen (Carter and Rybicki, 1990 and 1994).

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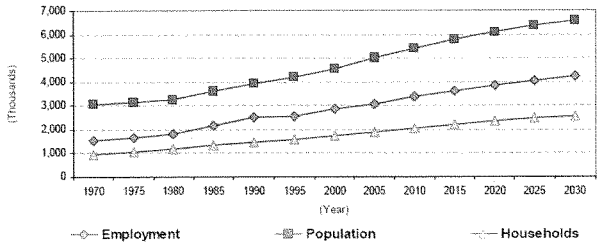
Population Trends & Implications

From the 1940s to 2005, the region's population nearly quadrupled with the population reaching an estimated 4.9 million residents. Regional forecasts (as of Round 7.1 data) reveal dramatic increases in employment, households, and population by 2030. Under the intermediate scenario, regional employment would increase 39% from 2005 to 2030. Also, under this scenario, more than 657,000 households would be added during the period 2005 to 2030. Regional population is forecast to increase by about 64,000 persons a year, reaching nearly 6.6 million in 2030. From 2000 to 2030, more than 2 million people will have been added to the region, which are half a million more people than were added during the previous 30-year period. COG's local governments and utilities have made tremendous efforts over the years to reduce water consumption and wastewater flows through the use of water conservation programs, the wide-spread use of water saving appliances and plumbing fixtures, and extensive sewer system rehabilitation projects. Despite these efforts, wastewater flows are expected to increase (although at a somewhat reduced level) as the region's population grows. This will place an even greater demand on the COG region's WWTPs to reduce nutrients and maintain water quality. The Bay TMDLs and its associated loading caps for wastewater plants will also present a clear challenge to growth in the region.

Historic and Forecast Growth
Washington DC-MD-VA MSA[1]



Source: Round 7.1 Cooperative Forecasts
[1]Based on the 1993 definition of the Washington Metropolitan Statistical Area (MSA)

TESTIMONY OF J. CHARLES FOX
SENIOR ADVISOR TO ADMINISTRATOR LISA P. JACKSON
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES

September 22, 2009

Madame Chairwoman and members of the Subcommittee, I am J. Charles Fox, Senior Advisor to Administrator Lisa P. Jackson at the U.S. Environmental Protection Agency (EPA). Thank you for the invitation to speak today on reauthorizing the Chesapeake Bay Program. We appreciate greatly the leadership of this Subcommittee on the Chesapeake and we look forward to working closely with you in the weeks and months ahead.

Our testimony will describe the actions of EPA and other federal agencies in implementing President Obama's Executive Order on Chesapeake Bay Protection and Restoration. Collectively, the federal family is committed to a new generation of federal leadership which is characterized by new levels of accountability, performance, partnership and innovation to help protect and restore the Bay and its tributaries to a healthy condition.

The Scope and Complexity of the Watershed and Bay

The Chesapeake Bay watershed encompasses 64,000 square miles, parts of six States and the District of Columbia. Nearly 17 million people live in the watershed. The land mass of the Bay watershed is sixteen times the size of the Bay, a ratio higher than any other estuary in the world. This means that our actions on the land have a profound impact on our local streams, rivers and, ultimately the Bay.

The Chesapeake Bay is the largest estuary in North America and is ecologically, economically and culturally critical to the region and the country. It is home to more than 3,600 species of fish, plants and animals. For more than 300 years, the Bay and its tributaries have sustained the region's economy and defined its traditions and culture. The economic value of the Bay is estimated at more than $1 trillion[1] and two of the five largest Atlantic ports (Baltimore and Norfolk) are located in the Bay.

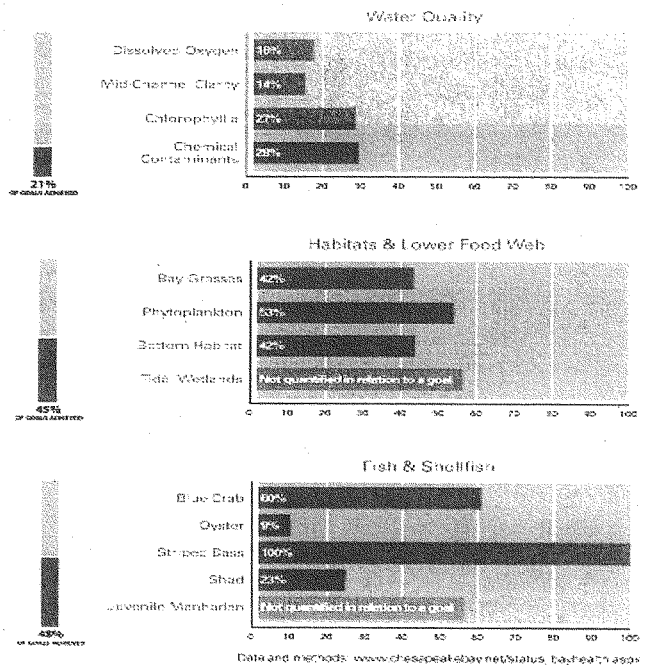
The Health of the Bay

In March 2009, the Chesapeake Bay Program issued its annual Health and Restoration Assessment of the Chesapeake Bay and Watershed, also referred to as the "Bay Barometer." A copy of the Executive Summary has been provided to the Chair and Members of the Subcommittee.

[1] *Saving a National Treasure: Financing the Cleanup of the Chesapeake Bay*, A Report to the Chesapeake Bay Executive Council, Chesapeake Bay Blue Ribbon Finance Panel, October 27, 2004

The Bay Barometer affirms what we all know. Despite the impressive restoration work done by the array of partners, the health of the Bay and watershed remains severely degraded. The data included in this report are sobering. Virtually all of the 13 measures which comprise Bay health show very limited progress (water quality, habitats and lower food web and fish and shellfish) (see Figure 1). There have been positive improvements in the population of striped bass, which is generally attributed to the actions by Maryland, Virginia and other east coast states to limit harvest pressure years ago, although this population has been stressed in recent years by a high incidence of mycobacteriosis.

Figure 1. Chesapeake Bay Measures of Health Progress (2008)



In general, the Bay Program partners have made some important – but not sufficient -- progress to reduce nutrient pollution from agriculture and wastewater treatment plants. Agriculture is the single largest source of nutrient and sediment pollution to the Bay, with about half of that load directly related to animal manure. However, the pollution from urban and suburban stormwater has an increasingly large impact on the Bay's water quality.

The negative trend in nutrient and sediment pollution from stormwater is directly linked to the rise in population and land use patterns in the watershed. Since 1950, the number of residents has doubled. Experts predict that population will continue to rise through the next three decades, topping 19 million in 2020.

Impervious surfaces, such as roads and rooftops, increased by 41% compared to an 8% increase in population from 1990-2000. Low density, disconnected development -- commonly referred to as sprawl -- has been the predominant form of development in the Bay watershed for the past several decades. New development that is spread-out, far from existing communities, schools, wastewater treatment facilities, shopping, and jobs explains the disparity between the rate of population growth and the increase in impervious surfaces.

Impervious surfaces do not allow water to filter into the ground. Instead, rainfall runs off, picking up pollution and quickly carrying it into waterways. Projections through

2030 show continued population growth, which could result in the loss of natural areas if we continue the development patterns of recent decades. People are coming to the Chesapeake Bay watershed. Where and how these people are accommodated will have a profound influence on the health of the Bay.

Executive Order 13508

On May 12, 2009, President Obama presented all citizens who cherish the Chesapeake with an historic opportunity when he signed an Executive Order on Chesapeake Bay Protection and Restoration, directing a new era of federal leadership on the Chesapeake Bay. The Executive Order acknowledged that the efforts of the past 25 years to reduce pollution and clean up the Bay and its tributaries have yielded some progress. However, it concluded that the poor health of the Chesapeake remains one of our nation's most significant environmental challenges. Indeed, Administrator Jackson has emphasized repeatedly that communities in the Chesapeake Bay watershed expect and deserve rivers and streams that are healthy and thriving.

The Executive Order created a Federal Leadership Committee, chaired by EPA, to strengthen the role of the federal government in the Bay restoration and align the capabilities of EPA, and Departments of the Interior, Commerce, Agricultural, Defense, Homeland Security, and Transportation. The Order directed federal agencies to prepare seven draft reports within 120 days addressing key challenges to the Chesapeake Bay, ranging from improving water quality to expanding public access to the Bay and its

tributaries. Last week, the Federal Leadership Committee received the seven draft reports for review. The draft reports focus on a number of recommendations that include:

- **Define the next generation of tools and actions to restore water quality** in the Chesapeake Bay and describe changes to be made to regulations, programs and policies to implement these actions (led by EPA).
- **Target resources** to better protect the Chesapeake Bay and its rivers (led by USDA).
- **Strengthen storm water management practices** at federal facilities and on federal lands within the Chesapeake Bay watershed and develop storm water best practices guidance (led by DOD).
- **Assess the impacts of climate change** and develop a strategy for adapting to those impacts on water quality and living resources (led by DOI and NOAA).
- **Expand public access** to waters and open spaces of the Bay and its tributaries (led by DOI).
- **Strengthen monitoring** and decision support for ecosystem management (led by DOI and NOAA).
- Focus and coordinate habitat and research activities that **protect and restore living resources** and water quality (led by DOI and NOAA).

The draft reports are available online at: http://executiveorder.chesapeakebay.net

The reports outline four broad tenets of new federal leadership:

1. Increasing accountability and performance from pollution control, habitat protection and land conservation programs at all levels of government;
2. Expanding use of regulatory authorities to assure reductions in nitrogen, phosphorus and sediment pollution to the Bay and its tributaries;
3. Expanding targeting of technical and financial resources to improve efficiency and secure better outcomes; and,

4. Harnessing technological innovations and making these tools accessible and meaningful to the states, D.C. and local communities whose decisions are fundamental to protection and restoration of the Bay.

Draft 202(a) Report on Water Quality

The Executive Order's draft report on water quality, which was prepared by EPA, defined three principal mechanisms to achieving water quality objectives in Chesapeake Bay and its tributaries:

1. Create a new accountability program to guide federal and state water quality efforts;
2. Initiate new federal rulemakings and other actions under the Clean Water Act and other authorities; and,
3. Establish an enhanced partnership between USDA and EPA to implement a "Healthy Bay – Thriving Agriculture" Initiative.

The proposed new accountability framework builds on Sections 117(g) and the "Total Maximum Daily Load" (TMDL) provisions under section 303(d) of the Clean Water Act to set new "expectations" to guide state and federal efforts for reducing nutrient and sediment pollution. Specifically, EPA proposes to define more precisely the criteria it would use to approve implementation strategies, including its intention to rely heavily upon enforceable or otherwise binding programs.

The proposed accountability framework also proposes that EPA would identify a number of potential "consequences" that it may use in the event that jurisdictions do not commit to establish and implement effective restoration programs or do not achieve interim milestones. These consequences would include, but are not limited to:

- Revising the draft or final pollutant reduction allocations in the Bay TMDL that EPA will establish in December 2010 to assign more stringent pollutant reduction responsibilities to point and non-point sources of nutrient and sediment pollution;
- Objecting to state-issued CWA National Pollutant Discharge Elimination System (NPDES) permits;
- Acting to limit or prohibit new or expanded discharges of nutrients and sediments;
- Withholding, conditioning, or reallocating federal grant funds; and,
- Taking other actions as appropriate.

The draft water quality report also cites potential changes in regulations under the Clean Water Act to reduce pollution from concentrated animal feeding operations (CAFOs), stormwater, and new or expanding discharges of nutrients and sediment. With these rulemakings, EPA would significantly strengthen or clarify federal requirements that would further limit nutrient and sediment discharges to the Bay.

In a rulemaking for CAFOs, EPA would consider a number of potential changes including regulating more animal feeding operations as CAFOs. EPA would also consider revising minimum nutrient management planning elements in the current CAFO rule to better define agricultural practices essential for load reductions based on sound science and adaptive management principles.

To deal with storm water – a growing and urgent issue – EPA would consider revising its stormwater regulations to include additional high-growth areas and establish stronger minimum performance standards in stormwater permits.

EPA would also consider a rulemaking to clarify, at a minimum, how permitting authorities can authorize new or increased discharges related to population growth and development in the context of managing overall pollutant loads into impaired waters. Such a rule could address how high priority point source load increases can be managed so that the resultant load will be protective of water quality standards and achieve the goals of the President's Chesapeake Bay Executive Order.

In addition to rulemakings, the draft water quality report contains recommendations for implementing a compliance and enforcement strategy focusing on four key sectors: concentrated animal feeding operations, stormwater discharges, wastewater treatment plants and air deposition sources of nitrogen regulated under the CAA, including power plants. Further, we will address pollutants from Superfund sites

and RCRA facilities that are impacting the Bay where we are performing removal, remedial and corrective action activities. EPA would also ensure that states adhere to their schedules for installing nutrient removal technology at significant wastewater treatment plants throughout the watershed; develop and promote model state septic tank control programs and ensure states meet their commitment to reduce septic tank loadings to the Bay; and pursue an ambitious regulatory agenda that would significantly reduce atmospheric deposition of nitrogen to the Bay.

EPA and USDA would also develop and implement a "Healthy Bay-Thriving Agriculture Initiative" that would include:

- An intensive and strategic effort to expand the use of key conservation practices in the high priority watersheds in the Bay
- Coordination with other federal and state partners on the development of next generation nutrient management planning tools;
- Establishment of centerpiece projects in each of the Bay states to demonstrate benefits of significant and innovative conservation approaches to addressing key issues in the region; and
- Implementation of a targeted, collaborative initiative using USDA and EPA funds to support development of critically needed tools and technologies that can create new market and revenue streams that support the adoption of conservation measures.

All of these recommendations are part of new leadership on the Bay. Working closely with our partner agencies, we will fulfill President Obama's goal to restore this unique ecological, economic, and cultural resource.

Key Challenge Reports and Coordinated Strategy

The other reports called for under Section 202 of the Order provide the lead agencies' recommendations to address the additional key challenges identified in the Order:

- Targeting conservation practices
- Strengthening storm water management at Federal facilities
- Adapting to impacts of a changing climate
- Conserving landscapes
- Strengthening science for decision making
- Conducting habitat and research activities to improve outcomes for living resources.

In the next 60 days, the Federal Leadership Committee will evaluate the recommendations and consult with states and the District of Columbia. The Committee will revise, refine, and prioritize the recommendations, and develop the best plan for meeting key challenges. Later this fall, the Federal Leadership Committee will release, for public comment, a draft strategy that integrates the seven reports. All of this will culminate in a final strategy targeted for release on May 12, 2010 – one year after the President issued the Executive Order.

Let me stress that this is not the beginning and the end of our work on the Chesapeake. We will not just be reviewing reports for the next eight months. Federal agencies are continuing to implement important actions for restoration and protection

and will continue to look for ways to move forward in implementing policies and programs before the strategy becomes final.

Chesapeake Bay Program Reauthorization

We applaud the Committee's leadership and look forward to offering you technical assistance to improve the performance and accountability of the Chesapeake Bay Program. EPA strongly supports reauthorization of the Chesapeake Bay Program and the opportunity to work with the Committee to make restoration and protection of the Bay happen more effectively and efficiently.

The Clean Water Act, Section 117, the Chesapeake Bay, was last authorized in 2000. It expired in 2005. This action by Congress was helpful in supporting the Chesapeake Bay Program and the Agreement adopted by the partners in 2000. But as we know now, the 2010 goals of that Agreement are not going to be achieved. Indeed, the goals of the original 1983 Agreement, which was the basis for the 1987 inclusion of Section 117, have not yet been achieved. We are hopeful that any reauthorization of the program will be supportive of and consistent with steps taken to date through our work to address the goals of the EO, and can put within our reach the goals of these agreements. This may necessitate significant changes to the program.

As noted earlier, the fundamental challenge for the Bay's water quality is reducing runoff pollution from urban, suburban and agricultural lands. In fact, urban

and suburban runoff pollution to the Chesapeake is increasing, while agricultural pollution is not declining nearly enough as needed to restore the Bay. Presently, we have a range of tools that we are implementing to tackle these problems, and through our work to address the goals of the EO we have found potential ways to increase the number and effectiveness of the tools available to us. However, as we continue to think about Bay restoration and protection, we are also examining changes to our program's authorization that may provide even better results.

Our nation's modern history includes several successful models of pollution control. The Clean Air Act (CAA), for example, has produced significant improvements in air quality, despite sizable growth in population, energy consumption, and vehicle miles travelled. As we think about ways to further protect the bay, we are looking at a range of accountability mechanisms including provisions similar to those available in the Clean Air Act.

We look forward to working with the Subcommittee and other Members of Congress to explore these issues in the months ahead. A reauthorization of the Chesapeake Bay Program presents all of us with a unique opportunity to redefine our future, and we greatly appreciate the Subcommittee's leadership in this regard.

Closing

Across the Chesapeake Bay watershed, there have been important actions over the past 25 years - by farmers to implement nutrient management practices and install buffer strips and fences; by homeowners to reduce energy consumption and runoff pollution; by localities to upgrade wastewater treatment plants and to reduce stormwater pollution; by developers to implement sediment and erosion control plans and implement smart growth practices; by states to expand land conservation and strengthen their water quality protection programs. However these good efforts are simply not sufficient.

The straightforward conclusion is that the Chesapeake Bay ecosystem remains severely degraded, despite the concerted efforts by many for more than 25 years. However, all of these challenging conclusions are tempered by a strong sense of optimism we all share for the future. Scientists have learned much about the Bay and that knowledge is being used by managers to help plan and evaluate new policies and practices. Our region's elected officials are engaged as never before. At EPA and partner federal agencies, we have clear direction from the President to provide the leadership necessary to protect and restore the Bay.

Thank you again Chairwoman Johnson, and Members of the Subcommittee, for the opportunity to appear before you today. In the coming months, we look forward to working with you on reauthorization amendments for the Chesapeake Bay Program that meet our shared goals for protecting and restoring this national treasure.

HOUSE HEARING

A RENEWED COMMITMENT TO PROTECTING THE CHESAPEAKE BAY: REAUTHORIZING THE CHESAPEAKE BAY PROGRAM

U.S. HOUSE OF REPRESENTATIVES

Committee on Transportation & Infrastructure:
Subcommittee on Water Resources & the Environment

TESTIMONY OF GEORGE S. HAWKINS, ESQ.
DIRECTOR, DISTRICT DEPARTMENT OF THE ENVIRONMENT
51 N STREET, NE WASHINGTON, DC 20002
202-535-2600

TUESDAY SEPTEMBER 22, 2009, 2:00 P.M.
Room 2167 of the Rayburn House Office Building

Good afternoon, Chairwoman Johnson and members of the Subcommittee on Water Resources and the Environment. I am George Hawkins, Director of the District Department of the Environment (DDOE). Thank you for the opportunity to present testimony at this hearing on the reauthorization of the Chesapeake Bay Program.

I want to reaffirm the District's profound commitment to cleaning up the Chesapeake Bay, primarily by cleaning up the area's rivers that flow into the Bay, the Anacostia and Potomac.

The District is very supportive of the Senate's Bill entitled *Chesapeake Bay Ecosystem Restoration Act of 2009* (the Bill). We appreciate the hard work involved to get the Bill this far, and it captures many critical activities that will be needed to accelerate restoration of the Bay. My remarks about the Bill on Chesapeake Bay reauthorization will address the following:

- areas of the Bill that the District supports
- areas in which the District seeks additional clarification
- additional provisions to strengthen the Bill

I am particularly happy to see incorporated into the Bill some of the actions I proposed in previous Senate testimony. In particular, I am glad to see the inclusion of Tributary Implementation Plans to be developed by each state (including headwater states). This is similar to the Clean Air Act's State Implementation Plan concept, which has worked quite well in giving states both a framework and flexibility in trying to achieve certain standards. I am also glad to see that some elements of a Bay-wide standard for stormwater control are included in the Bill.

I would like to point out that the District has not only met, but also exceeded the 1985 goal of reducing the levels of nitrogen and phosphorous discharged into our waters by 40%. The District accomplished this major achievement ahead of schedule, and is on track to continue making further pollutant reductions ahead of schedule. We feel we can meet the Bill's recommended 50% nutrient reductions by the second half of 2014, and meet the District's load allocations by 2020.

- The District is pleased that the Bill will codify President Obama's Chesapeake Bay Executive Order, a Baywide TMDL, and Tributary Implementation Plan requirements.

- Other aspects of the Bill that we favor are: the inclusion of Agriculture and CAFOs (animal feedlot operations) in a watershed wide permit approach; acknowledgement that air deposition contributes 1/3 of nitrogen to the Bay, which historically has not received the attention it deserves; and, the bill's ban on phosphates.

- The District is also thrilled that the Bill significantly expands federal grants – especially a new $1.5 billion grants program to control urban stormwater; and also doubles the Bay implementation grant authorization to $80 million.

- Finally, we support the Stewardship Grants for states, local governments, and academic institutions, as locally based protection and restoration programs or projects within a watershed will complement the State tributary implementation plans.

While supporting the Bill, there are some areas that the District would suggest be clarified:

- The District would welcome additional clarification on what is normally a voluntary credit nitrogen and phosphorous (N+P) trading program; specifically whether the bill recommends the cap and trade program as mandatory or optional? We support the concept of prohibiting the purchase of credits from any entity that is in significant noncompliance.

- The District is glad that USGS and NOAA along with the various River Basin Commissions would be given roles in planning the monitoring programs. We wonder if this means there would be federal grant sources to implement state level monitoring? We agree that monitoring program should be divided into freshwater and estuarine, and wonder about a formula for the grants? We would like clarification on who performs the computer modeling to demonstrate the projected reductions in nitrogen, phosphorus, and sediment loads associated with each 2-year period. Currently, the District looks to EPA's Chesapeake Bay Program to conduct the very useful computer modeling.

In addition to the items the District supports and our clarifying questions, the District also believes that three provisions should be added to the current Bill to strengthen our cleanup of the Bay and the Anacostia River:

- First, the Bill should ensure adequate funding for Blue Plains Wastewater Treatment Plant. The District is faced with the obligation to maintain a vigorous program to reduce levels of nutrients in the area's waterways. This effort will require significant fiscal resources, and the $2.2 billion price tag for the Long Term Control Plan (for CSOs) is far beyond the amount that can be borne by the District's ratepayers, alone. Since the federal government is a principal contributor to the combined sewer system, it might be prudent for them to contribute to the system by supporting implementation of the Long Term Control Plan. Because Blue Plains serves Maryland, Virginia and the federal government, there is a clear region-wide, multi-jurisdictional benefit to keeping Blue Plains fully funded wherein all states (and federal partners) benefit mutually.

- Second, with regard to the MS4 Permit terms in the Bill, the District applauds the approach of strengthening stormwater controls on development activity via existing MS4 permits, as this would go a long way toward standardizing these controls throughout the Chesapeake basin. However, we encourage you to go further by mandating that EPA develop basin-wide standards for *all* states that would apply proactively, rather than at a state's discretion (specifically, when a municipality fails to meet pollutant reductions). Bay states could be compelled to adopt these standards by making them a pre-condition of the state's Chesapeake Bay Implementation Grants.

- Third, the Bill should utilize this opportunity (reauthorizing CWA §117) to incorporate stormwater requirements/improvement for impervious federal roadways and highways. Recognizing that a high percentage of polluted runoff originates from roads and highways, DC is working to reduce this stormwater impact by undertaking a multi-faceted approach of using a variety of best management practices. The District is

modifying roadway imperviousness on DC roads at every opportunity. It would be ideal if new federal roadway construction throughout the Bay watershed could also utilize similar types of alternative and corrective methods. I see this as an ideal opportunity to include stronger stormwater provisions (including calling for the use of standards and guidance from USDOT and EPA, to ensure that new construction and significant reconstruction of federal aid roadways mitigate the impacts of stormwater runoff).

Conclusion

Thank you for undertaking this critical task of reauthorizing the Bay Program and Section 117 overall – it will have far reaching impacts on the Bay's health and the rate of restoration. For our part, the District is fully committed to the Anacostia River and Chesapeake Bay restoration. Together with increased federal leadership, funding, and programmatic support, the Bay states will be better positioned to increase the rate of restoration and go beyond business as usual for the Anacostia and the Bay.

I thank you again for the opportunity to testify, and look forward to answering any questions the Subcommittee may have.

TESTIMONY

Presented to

Subcommittee on Water Resources
Transportation and Infrastructure Committee
United States House of Representatives

Submitted by

Peter Hughes
President, Red Barn Consulting, Inc
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Chairwoman Johnson, Chairman Obestar, and members of the Subcommittee. I thank you for this opportunity to testify in support of the reauthorization of the Chesapeake Bay Program, Section 117 of the Clean Water Act. I believe the role of the Federal Government is critical to the success of the Bay restoration effort. I am here today to lend a voice from an agricultural perspective, more specifically an animal agriculture perspective from a neighboring Chesapeake Bay state, Pennsylvania.

Although I grew up on a dry-land wheat farm in Washington State, I have lived in Lancaster, Pennsylvania for the past ten years. Eight years ago I started an agricultural consulting and engineering company called Red Barn Consulting. Red Barn has grown over the years, and currently ten employees work with approximately 650 farm clients within Pennsylvania's Chesapeake Bay Watershed. Most of our farm clients are third and fourth generation farmers, and they certainly wouldn't recognize me today if they saw me in a suit and tie. Red Barn is a niche consulting business solely focused on agriculture, tasked with guiding our farmers through environmental stewardship and compliance. We serve the gamut of Pennsylvania agriculture, from the thirty (30) head Amish dairy to the two thousand five hundred (2,500) head dairy CAFO located on the Mason Dixon Line.

As you know, fifty percent of the fresh water flowing into the Chesapeake Bay comes from the Commonwealth of Pennsylvania. With over 83 thousand miles of streams and rivers, and an estimated eighty trillion gallons of ground water, Pennsylvania is truly a blessed water-rich state. I would like to sit here and look you in the eye and tell you that the Pennsylvania's nitrogen and phosphorous loading problems to the Chesapeake Bay are only because of the 164 waste treatment plants and urban and suburban stormwater runoff. But this statement is simply not true. Depending on what pie chart you use, the largest contributor of nitrogen, phosphorous, and sediment to the Chesapeake Bay is from agricultural activities.

One does not have to go far to read about the issues surrounding the depletion of the blue crab populations or the dead zones that plague our largest fresh water estuary. Even though we have the scientific modeling and the statistics to support the degradation of the Chesapeake Bay, we are crippled by the sociological and geographical connectivity to the Bay. Seventy three percent of all Pennsylvanians have never seen nor will ever visit the Chesapeake Bay. That is why it is important for agriculture to change its rhetoric and mindset about what the Bay means to its future sustainability.

Although we may not have a mental connection to the Chesapeake Bay itself, I do not know a single farmer who does not have a direct relationship with the stream that runs through his or her land. We must think of the Chesapeake Bay as our report card for environmental compliance and focus our stewardship efforts on the localized streams and rivers that ultimately flow into the Bay. There are a myriad of regulations backed by the Clean Water Act for the protection of these local streams and watersheds. If we are to meet and exceed the expectations of the Executive Order of Chesapeake Bay Protection and Restoration, we in the agricultural industry must first and foremost focus on our local bodies of water.

It is my contention that agriculture not only has the will but the ultimate ability to meet these reductions in nitrogen, phosphorous, and sediment. In order to meet this challenge and raise the bar of environmental stewardship, agriculture does need the technical and educational tools provided under the reauthorization of the Chesapeake Bay Initiative. I believe that we already

have the laws and statutes within Pennsylvania to guide compliance, but we have to muster the political will to enforce these regulations.

Enforcement of regulations under the Clean Water Act is only one tool in the toolbox for Chesapeake Bay restoration. A "boots on the ground" local effort needs to be supported through strengthening the technical assistance of the public and private sectors. Agriculture desperately needs the leadership and technical assistance provided by soil conservation districts, natural resource conservation districts, crop consultants, and Land Grant University extension agents. We have seen a dramatic cut in personnel and budgetary constraints over the last three years at a time when the knowledge of soil and water conservation are needed the most. The Chesapeake Bay reauthorization needs to provide significant resources for technical assistance, outreach, and education to enable and guide the agricultural community.

The private sector is also ready to meet the agricultural challenge, but many depend on grant funding and federal dollars to support agricultural conservation practices. Red Barn has received Federal Stimulus money in the form of AARA; I know the private sector will be fiscally responsible with this money as it is applied to agricultural operations and new ingenuity. Pennsylvania has become a national model for a nutrient cap and trade free market system that the agricultural community has embraced. Due to low commodity prices, especially milk prices, farmers are more than ever seeking ecosystem services to bring new revenue streams onto the farm through the acres they own .

Three years ago Pennsylvania's Department of Environmental protection put forth a nutrient credit trading policy to foster the relationship between point sources and non point sources. Red Barn Consulting formed a sister company, Red Barn Trading, to serve as an aggregator and certifier of nutrient credits, or quite simply to aid in the reduction of pounds nitrogen and phosphorous through various farm best management practices. We conducted the first point to non-point credit trade with a local municipal authority two years ago and continue to sign contracts with developers and waste treatment plants so that they are able to meet NPDES permit requirements. A geographically based cap and trade system is a vehicle for sound economic environmental compliance.

Since the Chesapeake Bay does not recognize the state geographical boundaries drawn on a map, it is my contention that for a cap and trade system to truly work we need a robust intrastate trading framework. This will bolster the fledgling credit trading market and allow for economic and environmental sustainability. The Chesapeake Bay will reap the benefits of a intrastate trading system as long as it is constructed at a local level and local stream impairment is not given up for the greater cause.

Agriculture is willing to do its part for the restoration of the Bay provided that farmers have real and factual clarity of what is expected of them. Agriculture will go above and beyond compliance through creative and innovative practices, but it can only obtain this goal if there is reason and clarity of the process. Grants to local governments and localities need to look beyond stormwater and provide real resources for working lands. Congress has been generous with USDA funding for the Chesapeake Bay Watershed Initiative and other Farm Bill Funding, but more is needed, in particular for people who deliver financial assistance.

It has been an honor for me to have the opportunity to share my views with you in regard to the responsibilities of the agricultural community and the Chesapeake Bay. I cordially invite each of you to put on your boots and support the Chesapeake Bay Initiative by keeping our farms sustainable and environmentally responsible.

Washington Suburban Sanitary Commission

Testimony of Jerry N. Johnson, General Manager
Washington Suburban Sanitary Commission

Before the U.S. House of Representatives Subcommittee on Water Resources and Environment
Honorable Eddie Bernice Johnson, Chairwoman

Reauthorization of the Chesapeake Bay Program

Tuesday, September 22, 2009

Introduction

Good afternoon Chairwoman Johnson, Ranking Member Boozman, and members of the Subcommittee. I am Jerry N. Johnson, General Manager of the Washington Suburban Sanitary Commission. I am honored today to speak to you on behalf of the WSSC and the 1.8 million residents we serve in Maryland to testify on the reauthorization of the Chesapeake Bay Program and share our recommendations to protect the national treasure we call the Chesapeake Bay. After well over 20 years of professional experience in the water and wastewater industries including Richmond, Virginia and my previous position as General Manager at DC-WASA, I believe my perspective on this issue is a unique one and I appreciate the opportunity to testify today.

By way of background for the Subcommittee, the WSSC is a public utility that has been a leader in the industry since 1918. We are the 8th largest combined water and wastewater utility in the nation with over 1,000 square miles in our sanitary district and a network of more than 5,500 miles of fresh water pipeline and nearly 5,400 miles of sewer pipeline. In addition to the 1.8 million residents served, WSSC directly serves nearly 30 federal facilities including Andrews Air Force Base, NASA Goddard Space Flight Center, the National Institutes of Health and the U.S. Food and Drug Administration. The WSSC operates 2 water filtration plants and 6 wastewater treatment plants. Our wastewater treatment plants treat approximately 198 million gallons per day (MGD), with approximately 63 MGD treated at WSSC and 132 MGD at the Blue Plains Advanced Wastewater Treatment Plant. This represents significant and measurable effluent reaching the Chesapeake Bay.

Restoring and maintaining the health of the Bay is the linchpin from which we can ensure protection of the region's waterways and ecosystem needs. The WSSC has played an important role in reducing pollutant loading to the Bay from its wastewater treatment plants, designing and deploying technologies that are at their limits. However, we can never address the multitude of challenges facing the health of the Bay without equitably sharing the burdens among all sources of water quality impairment which impact the Bay. To move forward in a meaningful way will require a comprehensive approach that allocates federal, state, local and nongovernmental resources efficiently and mandates equitably to maximize pollution reductions from all remaining sources.

It is time that Congress, the states, regulators, the Chesapeake Bay Commission, non-governmental organizations such as the Chesapeake Bay Foundation, and others work in concert to take a serious look at addressing all sources of pollution, and not just point sources. This means taking aggressive steps to address agriculture, development and stormwater run-off pollution sources in a manner that is equitable to all and enforceable. The WSSC and the wastewater industry as a whole have invested heavily in infrastructure and programs to reduce pollutant loadings. As municipal and industrial wastewater is currently only 19% of delivered nitrogen loads and 21% of delivered

phosphorus loads to the Bay, it is safe to say that we are pushing wastewater treatment technology to its limits and our successes are measurable. (Source: Chesapeake Bay Program data)

Now I believe it is time to acknowledge that the Clean Water Act must be updated to recognize the critical remaining challenges. First, we need to consider a holistic approach to address multi-jurisdictional challenges like the Bay by creating flexibility for watershed based solutions. Second, we need to restore a strong financial partnership with the federal government to replace our aging infrastructure. Third, the Clean Water Act must be renewed to ensure we target our limited federal, state, and local resources to the most important challenges. While I am appreciative that the House of Representatives has passed H.R. 1262 to renew the State Revolving Loan Fund (SRF) program at increased funding levels, I am concerned that the funding levels do not address the enormous needs required to truly solve the infrastructure and pollution problems at hand. According to the Water Infrastructure Network, the nation faces a $500 billion gap for wastewater treatment facilities. I look forward to working with the committee to make important revisions to the Clean Water Act and the SRF funding levels that will strengthen the partnership between all stakeholders to address the remaining threats to water quality.

Publicly Owned Treatment Works Are Extensively Regulated under Existing State and Federal Authorities

A. Clean Water Act

The primary vehicle for publicly owned treatment works to meet the fishable and swimmable goals of the Clean Water Act is through the National Pollution Discharge Elimination System (NPDES) program. WSSC's six wastewater treatment facilities are closely monitored under the NPDES program, whereby federal and state authorities collaborate to produce, monitor and enforce NPDES permits and standards. Compliance with these regulations comes at a cost. WSSC's FY09 wastewater total operational treatment costs (including direct and indirect expenses) was $96.789 million, with $51.098 million paid to Blue Plains. Additionally, 37% of WSSC's adopted FYS 2010-2015 CIP was allocated for environmental state and federal regulations. That represents $447.172 million in capital expenditures.

WSSC permits already incorporate nutrient load goals that reflect a 3 mg/l nitrogen and a 0.3 mg/l phosphorus limit (the Piscataway facility has a phosphorous limit of 0.18 mg/l) with a total annual nutrient load goal based on the facility design flow. As the NPDES permits are renewed, firm schedules for completion of facility upgrades to achieve Enhanced Nutrient Removal (ENR) will be incorporated in the permits and the current annual nutrient load goal will be become a firm load limit when the ENR upgrades are completed. WSSC is now in the process of designing those upgrades for all of our major wastewater treatment facilities. The current cost estimate for the ENR upgrades at the five

WSSC facilities with a flow of greater than 500,000 gpd that discharge directly to Maryland waters is $68.2 million. WSSC must also pay an additional $401 million for our flow based proportional share of the ENR upgrade of the Blue Plains facility in the District since flow from a significant portion of our collection system is treated at that facility.

B. Chesapeake Bay Program

When Congress passed the Chesapeake Bay Program in 1985, a primary goal was to establish standards for the entire Chesapeake Bay watershed and a comprehensive approach to control all sources of pollution to the Bay. By acknowledging that one stakeholder alone cannot solve this problem, a long-term commitment and collaboration among the states (Maryland, Virginia, Delaware, Pennsylvania, New York, West Virginia, and the District of Columbia) was required to affect any meaningful improvement in water quality. This critical goal has not yet been realized.

WSSC is doing its part to address the single largest remaining impairment — nutrient loading. (Source: EPA Bay Program) Utilities, including the WSSC, are upgrading wastewater treatment facilities using the best of technologies available. We are moving to the limits of technology and we are doing the most anyone knows how to do in the scientific universe to reduce the amount of nutrients that are discharged into the Bay's tributaries. But we cannot by our own actions solve the problem. Therefore, in 2005, the seven Bay jurisdictions began implementing a new permitting process. This process limits the level of nitrogen and phosphorous that the Bay's 483 major wastewater treatment plants discharge.

Many states are using the process of Biological Nutrient Removal (BNR), which uses microorganisms to remove nitrogen and phosphorous from wastewater during treatment. In Maryland, the state's 66 major wastewater treatment plants that have permitted discharges into the Bay are in the process of implementing ENR.

I would anecdotally point out that during the severe drought of 2000 the health of the Bay realized an improvement. According to U.S. Geological Survey data, the level of nutrient loadings to the Bay decreases during times of drought resulting in a healthier Bay. Because point source discharges generally remain static, this data reinforces the belief that nonpoint source discharges are contributing a significant load to the Bay. Any approach to restore the Bay must ensure that nonpoint sources are subject to equitable control mandates.

Clearly, we need to focus on nonpoint source pollution if we want to reverse the decline of the Bay as increased runoff from storm events directly exacerbates pollution from both stormwater runoff and agricultural lands. We need to achieve a similar comprehensive approach with nonpoint sources as well. Expanded

control over stormwater through the EPA MS-4 permit program is critical to further reduce both sediment and nutrients from the land development sector and major expenditures of funding will be required to achieve those improvements. On agricultural lands, current permitting controls are limited to the now developing federal program for concentrated animal feeding operations (CAFOs) and EPA may need to establish additional performance standards beyond those now being developed. Similarly, best management land use controls on agricultural crop land to reduce nutrient and sediment runoff will be required.

C. Original Load Reductions Goal

The 1987 Chesapeake Bay Agreement by the Bay signatories established a goal of implementing a basin wide strategy that would achieve at least a 40% reduction of nitrogen and phosphorus entering the Bay by 2000 based on an agreed upon 1985 point source loads and on nonpoint sources loads in an average rainfall year. DC-WASA, with the financial commitment of WSSC as WSSC retains 160 MGD capacity at Blue Plains, was the only utility to meet that goal for both nitrogen and phosphorus reductions.

D. Consent Decree

As a result of working with a number of stakeholders to develop an agreement WSSC entered into a Consent Decree in July 2005 with the U.S. Environmental Protection Agency, the State of Maryland and four conservation groups on a 12-year action plan to significantly minimize, and eliminate where possible, sanitary sewer overflows. This includes enhancing existing nitrogen reduction efforts in colder months (October 15 to March 30) at our Western Branch Wastewater Treatment Facility. While this has a direct benefit to the Bay, it also has a real cost to the WSSC ratepayers. By the end of this 12 year commitment, the WSSC ratepayers will have invested $350 million in operating and capital expenditures on the Consent Decree alone to enhance our wastewater collection systems.

WSSC Efforts to Save the Bay

WSSC takes its role as a steward of the environment very seriously and we have worked diligently to reduce our carbon foot print. According to the EPA, the WSSC is the #1 local government direct purchaser of wind power in the nation thanks in large part to an innovative agreement with Constellation Energy that will result in nearly a $20 million savings to WSSC ratepayers. With the support of the Maryland Congressional Delegation, WSSC is also exploring anaerobic digestion combined with fuel cell technology at two of our wastewater treatment plants. Should this project prove feasible, we believe it will allow us to capture and utilize energy produced during the wastewater treatment process thus saving ratepayers money and lessoning our impact on the environment.

Last year alone, WSSC treated approximately 63 billion gallons of wastewater and removed 20 million pounds of nitrogen and phosphorous. Over the past 15 years, WSSC has reduced nitrogen discharges by 51% while wastewater flows have increased 22%. The vast expenditures for BNR upgrades have proven successful for nutrient loads to the Bay in that even though daily flows increased to our wastewater treatment plants. We successfully reduced the effluent concentration from an average of just over 10 mg/l down to a range of 6 - 4 mg/l.

WSSC recently completed work on a $70 million expansion of the Seneca wastewater treatment plant that includes a new 20 MGD facility that replaces the pre-existing 5 MGD plant. The new Seneca plant uses state-of-the-art biological and chemical processes that remove 64 percent more nitrogen and 77 percent more phosphorous than the original plant.

In 2004, the Chesapeake Bay Foundation recognized WSSC for significantly reducing nitrogen levels enter the Bay through the use of an innovative process at its Piscataway facility in southern Prince George's County.

Pursuant to meeting the statewide goal, WSSC is in the process of installing ENR at Western Branch, a wastewater facility on the Patuxent River with a design flow of 30 MGD. This is a critical component of reducing nutrient loads discharged to the Patuxent River. the only river watershed located entirely within the State of Maryland.

Upgrading wastewater treatment facilities is not cheap. BNR upgrades for the WSSC have totaled $151.075 million, with $101.887 million of that paid by WSSC ratepayers and the remainder paid by grants. The current cost estimate for all WSSC ENR upgrades is $469.2 million, of which $401 million is for Blue Plains. As population in the Bay watershed increases, there will be a need for additional advanced wastewater treatment to keep wastewater loadings from increasing. This necessary upgrade poses a tremendous additional cost burden on our ratepayers. I will address this point further in my list of recommendations below.

The Nonpoint Source Problem

As previously stated, a watershed approach with a truly equitable regional and interregional approach is the only path to success for the Bay. The Federal role in this effort needs to include more meaningful regulatory initiatives that address nonpoint source pollutants as robustly as regulatory mandates placed on point source dischargers. It is critical we abandon the silo approaches that have existed since the 1987 Clean Water Act amendments and move to a comprehensive approach that includes all sources to the Bay. Let's address the worst problems first.

The breakthrough of the 1972 Clean Water Act was that it moved the water pollution program from a program based "solely" on water quality standards to one based on technology-based standards for point sources *and* water quality standards -- Sec. 402 and 303 respectively. The technology-based standards were to be upgraded as time

passed and technology developed. The water quality standards were to be upgraded every three years as the primary tool to regulate nonpoint sources including agriculture, urban runoff and other pathways to the receiving waters. However, the water quality standards tools for nonpoint sources have lagged behind the point source tools leaving many contributors unregulated or under regulated. More tools and more regulatory initiatives are needed.

For example, although the Clean Water Act requires that EPA and the states to establish water quality standards and develop and implement total maximum daily loads (TMDLs) for watersheds, this goal has yet to be met for the Bay. This fact was acknowledged by the court ordered 2011 deadline for the completion of TMDLs. This is just one example of many powerful tools necessary to restore the health of the Bay.

Clearly, point source reductions have been successful in reducing impairments. However, reductions in agriculture runoff, both crops and animals feeding operations, urban runoff from impervious surfaces and, storm water are necessary as well. While nonpoint source tools such as the development of catchment basins, additional regulations of animal feeding operations (CAFO's), winter plantings that reduce nutrient runoff to groundwater and then to the Bay, have been helpful, these tools need to be aggressively deployed through enforceable mechanisms. We cannot predicate the Bay's future health solely on the basis of point source controls. Said another way, we are recognizing that increasing amounts of resources are now being spent to curtail end of pipe discharges, but a proportionate return on investment is not being seen in improved water quality.

Although I am new to the WSSC I have extensive professional industry experience and I can attest to the critical role of regional solutions. It is vital that we have regional and interregional solutions that ensure we target our resources to deliver the most effective benefits to the Bay. While the Clean Water Act clearly outlined the regulatory framework for point sources, a similar framework was not provided for nonpoint sources. Because of this historic regulatory focus on point sources, nonpoint sources are now responsible for more impaired water bodies than point sources. The Bay's health reflects this situation.

Recommendations

- Bay restoration funds are insufficient to cover the costs of ENR upgrades, which are only one component of what is required to operate wastewater treatment plants on a 24/7 basis. The state of Maryland's Bay Restoration Fund for ENR upgrades is inadequate to cover all of the projected needs. While alternative funding mechanisms are being investigated at the state level, there is a need for federal funding to supplement available state funding if the ENR upgrades are to be completed by 2014 as scheduled. Under current projections, ENR upgrades in Maryland will cost in excess of $1 billion and the current fund can only be leveraged through a special tax that will still leave a projected shortfall of at least $250 million in 2004 dollars for facilities that serve Maryland.

- Congress should renew the Clean Water Act's regulatory framework to address the disparity in the treatment between point and nonpoint sources based on the actual threats to water quality.
- Congress should pass a reauthorization of the Clean Water Act and provide the flexibility required for a comprehensive watershed management approach that has been lacking until now. Additionally, Congress should fully fund the investment needs through the SRF program. These efforts would represent strong steps towards renewing the federal government's role in working with states and localities to addressing vital clean water infrastructure needs. Passage of this bill will help us to return clean water to the environment to protect human health and our communities.
- In the Chesapeake Bay Program reauthorization, Congress should ensure direct grants are available for specific projects that apply to all regional partners to generate the greatest immediate reduction in nutrient or sediment loadings. Grants should not be limited to nonprofit organizations, State and local governments, colleges, universities and interstate agencies. (Section 117(d) of the CWA.)
- WSSC is concerned about the impacts of climate change on our water and wastewater systems. The combination of warmer waters and nutrient pollution will likely continue, further stimulating higher nutrient concentrations and the growth of harmful algal blooms that threaten the Bay. Therefore, as Congress continues to develop comprehensive climate change legislation, we urge the adoption of a competitive grant program that would allow water and wastewater utilities to compete for funding to help them adapt to water resources challenges posed by climate change.
- Congress should ensure a robust program of federal grants assistance to close the gap in affordability spending and the documented need for point and nonpoint sources as part of a renewed program. Such assistance is vital if we are to construct the critical infrastructure demanded by the goals and objects of the Act. The costs of such investments given their benefits to the state, region and state of the Bay cannot be borne alone by ratepayers like those of the WSSC.

Conclusion

Madam Chair, let me conclude by stating that I believe we can all agree the Chesapeake Bay is a national treasure. The Bay supports an incredibly diverse ecosystem. It is a place where people come from all across the region to swim, fish, boat and enjoy its natural beauty. For those who live in its shadow it enriches our very existence. The Chesapeake Bay touches too many lives and impacts our environment too greatly for everyone in the region not to work towards improving its health. But this will only occur with a balanced and effective program that targets today's water quality impairments — nonpoint sources. This concludes my formal testimony. I would be pleased to respond to any questions.

Statement of the

Virginia Grain Producers Association
Molly P. Pugh,
Executive Director

To the House Transportation and Infrastructure Subcommittee on Water Resources and Environment

"Reauthorization of the Chesapeake Bay Program"

Tuesday, September 22, 2009
2167 Rayburn House Office Building

Thank you for the opportunity to represent Virginia's corn and small grain growers before the Subcommittee on Water Resources and Environment. My name is Molly Pugh and I am the Executive Director of the Virginia Grain Producers Association (VGPA). The subject matter before you is one of great importance to our growers and industry. VGPA has committed to working with all our partners including environment and government partners to achieve our region's environmental goals and long-term farm profitability. Our growers are committed to environmental stewardship and making their operations as efficient as possible. Reducing soil erosion, improving field efficiency of nutrient use and improving water quality are all goals that make our growers more profitable and improve the quality of the land on which they depend. Inside the Bay watershed, the Chesapeake Bay Program has direct impact on the daily operations of our growers and operations. While we believe the Bay Program is an important tool in achieving Bay restoration, it is vital that your committees understand inherent challenges with the Bay Program while considering Section 117 of the Clean Water Act.

Since the May 12, 2009 announcement of President Obama's Executive Order (EO) concerning Bay restoration, the production agriculture community has been actively engaged in each step. We believe Section 117 of the Clean Water Act must be considered in the context of other current efforts such as the Executive Order (EO), Chesapeake Bay two-year Milestones and the Bay mandated Total Maximum Daily Loads (TMDL) to fully understand its ramifications particularly, on production agriculture. In Virginia, agriculture and forestry is the number one economic sector bringing in an estimated $79 Billion annually and providing 10.3 percent of state employment. Virginia is also fifth in the U.S. production of turkeys. Over half of the employees associated with the poultry sector work handling grain for feed. The grain and livestock sectors in Virginia are very much combined; and so, an impact on one impacts the other.

The first and foremost issue regarding the Chesapeake Bay Program is accountability and reporting. As acknowledged by Environmental Protection Agency (EPA), United States Department of Agriculture (USDA) and Virginia state agencies, a full reporting system designed to capture all conservation practices does not exist. Today's reporting system that tracks agricultural acres and conservation practices implemented is incomplete and in our opinion, the current largest obstacle to Bay restoration. Unless a grower is currently receiving payment or cost-share to implement a conservation practice (also called Best Management Practices) that meets all criteria, that practice and/or acres are not reported or counted in the Chesapeake Bay Program Model. For example, in 2003 Virginia's land grant university, Virginia Tech conducted a survey of growers in the Coast Plain region. That survey showed that out of 75,630 cropland acres currently in conservation practices, only 5,630 of those were supported through an incentive based government program. In other words, 70,000 acres in Virginia's Coastal Plain region alone, were not counted nor reported in the Chesapeake Bay Program Model. Common conservation practices found on Virginia's grain operations include continuous no-till, nutrient management plans, winter cover crops and buffer strips. As a follow up to this same survey, Virginia Tech released in 2007 that there were 443,426 verifiable acres of continuous no-till across 56 counties across Virginia. That is over 50 percent of all grain acres in Virginia and is a significantly higher number of acres than those reported by any state or federal agency. We are highly concerned that the obvious lack of complete data about current implementation of conservation practices significantly skews water quality reports and publishes misleading pollution load reduction assignments for any one sector.

At the Chesapeake Bay Commission on September 11, 2009, Dana York of USDA, Senior Advisor to the Chief, reported that USDA's water quality model Conservation Effects Assessment Program (CEAP) was used to inform some of the 202b recommendations. Early

results from the Upper Mississippi River Basin CEAP indicates that 80 percent of the nutrient and sediment issues come from the most vulnerable soils in that watershed or 20 percent on what watershed. NRCS feels that similar results may be found in the Chesapeake Bay Watershed which is the next report to be released by CEAP. This report also found that there were more conservation on the land than was in the databases of current conservation practices on the ground for that region. USDA is recommending in the Chesapeake Bay 202b report that a common partnership database be created, where we can account for all the practices installed through, federal, state and voluntary efforts. Until the Chesapeake Bay Program and EPA can construct in partnership with other federal and state agencies a much-improved, full reporting system, predicting what is the real amount of conservation on Agriculture lands, and therefore creating accurate milestones -- achieving any appropriate Bay restoration goals will be nearly impossible.

EPA's responsibilities in Section 117 of the Clean Water Act include "coordinate Federal and state efforts to improve water quality of the Bay," and to "determine impact of sediment" and of "man-induced environmental changes." We suggest it is impossible for EPA to determine such impacts without a complete reporting system to track the practices implemented designed to reduce pollution loads. The EPA and Chesapeake Bay Program must accept the responsibility of gathering and reporting all possible aggregate data on current conservation practices before issuing reports on any further actions targeted at achieving water quality goals.

In this process, it is crucial that individual farmer confidentiality be protected. Any group or program outside of USDA should only have access to aggregate data, not individual records. Specifically, for non-point sources in the Bay watershed, EPA must partner closely with state and federal agencies such as USDA (including Farm Services Agency and National Resource and Conservation Services) and state agencies to obtain this aggregate data. Without a considerable effort to ascertain exactly what acres and practices exist today, funding will be wasted and needless regulations will be imposed that negatively impact the most economically valuable industry inside the Bay watershed: production agriculture. In asking farmers to relinquish more and more information about their daily business procedures, we must commit to protecting both the farmer and his/her operation.

Because of the reductions needed as reported by the Chesapeake Bay Program, the Chesapeake Bay Program Executive Council announced in May of this year two-year milestones with the overwhelming majority of pound reduction load assigned to production agriculture. One of the proposals made by EPA in Section 202A Report, is "enforceable or otherwise binding" programs enforced by the Bay states to accomplish these goals. As interpreted by Virginia's Governor Kaine, these reduction assignments will most certainly turn into new regulations and mandatory programs such as mandatory nutrient management programs. Based on an internal survey, VGPA believes that over 85 percent of our producer members currently implement conservation practices. Those results also show that over 90 percent of our producers implement nutrient management plans. However, what remains unknown is the actual water quality benefit from a nutrient management plan in a given area for a given operation. While our members are not opposed to nutrient management programs, many have moved beyond its technology and provisions. For example, the majority of our producers use split-applications of nitrogen for their crop. This type of efficient practice is not required in most Nutrient Management Plans. However, current agronomic science shows a clear economic and environmental benefit from this application method. We fear that making programs such as these mandatory will not actually achieve desired water quality goals. Thus, burdening our producers with costly regulations and still not achieving water quality benefits. We believe that before any discussions take place about mandatory permits or regulations on

Virginia's farms, we must first assess that practice's water quality impact on all soils and farming operations using research-based agronomic science.

Another consideration before implementing mandatory programs is economic impact. As the committee is certainly aware, managed farmland is a much preferred land use in the Bay watershed versus developed properties. An average Nutrient Management Plan for a Virginia grain operation costs between $3 and $6 per acre. For a 2000 acre grain farm, that could cost up to $12,000. Once a program becomes mandatory, producers have no recourse if cost-share assistance is no longer provided for that requirement. Additionally, any program considered mandatory must be assessed for its application inside the industry. For example, a 10 acre horse pasture would not require the same nutrient management guidelines as 2000 acre grain operation or as a 500 acre vegetable operation. Virginia is fortunate to have such diverse agriculture and certainly, no practice or plan is "one size fits all" for our farmers.

The Chesapeake Bay Program is currently revising its water quality model. This fall, we understand a new version will be released with altered efficiencies for all best management practices (BMPs). Many efficiency factors, such as those for continuous no-till, have been significantly reduced. Transparency of the process used in implementing these changes and outside review of proposed changes should be included in the process before made final. We further request that comment periods be instated prior to any major modeling changes taking effect. While modeling is a good tool to use, it should never be used as the sole source from which to determine regulations or policy.

While the Chesapeake Bay Program may not directly make policy or issue new regulations, regulations and programs are based from its results. We believe this raises the Chesapeake Bay Program to an elevated level of responsibility to gather complete and accurate data, assess water quality impact of all practices for all operations and to use sound, practical science as the basis for all modeling activities. While the Bay Program may assert sound science is being used, we contest their current process does not reflect real farming situations inside the Bay watershed. We further request that the Chesapeake Bay Program be subject to peer review processes from all sectors impacted by its modeling. For example, if the USDA-developed water quality model suggests targeted attention to 20 percent of the land could address 80 percent of the pollution loads, the Chesapeake Bay Program should be required to address those results and findings within their own model.

As proposed, Section 117 of the Clean Water Act grants EPA Administrator authority to grant funds at the request of an affected state Governor with submission of a comprehensive plan. We once again request that the definition of a comprehensive plan be based on sound, field science using updated data of current implemented practices. In order to qualify as a "comprehensive plan" states must complete and report to EPA on a comment period opened to all stakeholders. The broad nature of Section 117(b)(2) language grants EPA and its Administrator much authority over states and its programs. As each state has its different challenges and opportunities, we request defined limitations on the Administrator's discretion over any one affected state. For example, if Virginia deems the programs set forth in their comprehensive plan to be scientifically- based and adequate in achieving water quality goals, EPA Administrator should not have oversight to revise those state programs or withhold funding. Once again, we request that before any "enforceable or otherwise binding" regulations are considered, complete data must be acquired on current level of BMP implementation.

In regards to funding granted, it is vitally important to ensure that full and adequate funding be provided in each program for technical assistance and research science. For example, if

Virginia were to require mandatory nutrient management plans today, there would not be nearly enough certified nutrient management plan writers through which our farmers could obtain assistance. While Administrative Costs (Section 117 (b)(4)) state no funds "shall exceed in any one fiscal year 10 percent of the annual Federal grant" this limitation should not include needed technical assistance or research based needs. Especially when dealing with production agriculture, sound agronomic science must be first and foremost. Science clearly takes time to replicate, educate and finally, implement. As pressure builds to take strong action in Bay restoration efforts, we must allow science to answer our questions so each decision is make with the most complete and updated information possible. This requires strong support of our Bay watershed research science programs.

In summary, Virginia Grain Producers Association believes that farmers are strongly committed to innovation and implementation in achieving water quality goals. They are in the business of providing the worlds' safest, most abundant food, fiber, feed and fuel sources while providing environmental benefits to an entire region. As we continue to ask more from their operations, a commitment must be made to provide clear and reasonable programs through which long-term farm profitability can still be achieved. Decisive commitments to better data collection, dedicated funding and a more transparent, accountable regulatory system will move us much closer towards higher level of practice implementation, viable farms and a healthy Chesapeake Bay. For your convenience, an itemized list of suggested actions is outlined below.

Suggestions for Action:

1. Partner with USDA and state agencies to develop full reporting system of all incentive-based and voluntary best management practices
2. Engage USDA in data collection for farm best management practices so FOIA protection can be maintained for individual farmers and aggregate data can be passed Chesapeake Bay Program
3. Full funding for implementation of Chesapeake Bay restoration programs is crucial.
4. Establish adequate funding for research science to assess impact of practices and proposals on water quality and farming operations
5. Establish adequate funding inside each program for technical assistance – researchers, State Soil and Water Conservation Districts, certified nutrient management plan writers, crop consultants – to assist farms in implementing more practices
6. Create peer review process for Chesapeake Bay Program Model and reports
7. Allow for a scientific review period for recommended changes to Chesapeake Bay Model Program to include stakeholders in science based contributions
8. Establish a comment period for changes to Chesapeake Bay Program Model changes such as changes in Best Management Practices Efficiencies
9. Define state comprehensive plan to include comment period and restrict EPA Administrator's authority to make arbitrary changes to that state comprehensive plan

Should you need access to any documents or resources referenced in this testimony, those are available upon request. Once again, thank you for the opportunity to represent Virginia's corn and small grain growers before the Subcommittee on Water Resources and Environment. Please feel free to contact me with any questions or for additional information. Thank you for your careful consideration of Section 117 of the Clean Water Act and its impact on Virginia's production agriculture community.

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HOUSE OF REPRESENTATIVES
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Testimony of Representative P. Michael Sturla
Pennsylvania House of Representatives
before the
Subcommittee on Water Resources and the Environment
Committee on Transportation and Infrastructure
United States House of Representatives

Tuesday, September 22, 2009

Chairwoman Johnson, Ranking Member Boozman, members of the Subcommittee:
Thank you for the opportunity to testify before you today regarding the reauthorization of the Chesapeake Bay Program.

My name is Mike Sturla. I am a member of the Pennsylvania House of Representatives, representing the 96th District, which includes the City of Lancaster. I currently serve as Chairman of the Majority Policy Committee in the House, and am a member of the Chesapeake Bay Commission, a re-appointment I accepted in 2008 after having previously served on the Commission from 1993 to 1994.

In the 15 years since I last served on the Commission, not much has changed. True, new funding mechanisms and regulations have been put in place by watershed states to control both point and non-point sources of pollution. In Pennsylvania alone, we have doubled our annual average nitrogen reductions so that we now reduce between 1.3 and 1.5 million pounds of nitrogen from the Bay every year. Unfortunately, we still have 30 million pounds to go. Bay-wide, the tidal waters are still impaired, and we continue to face the challenges of a growing population.

The current Bay Program has allowed us to make the progress we have, and it has resulted in some of the best science in the world related to estuaries and their watersheds. We know what we have to do to achieve water quality. What has been missing is the ability to hold ourselves accountable to that goal, despite our good faith efforts. This hearing and your consideration of the reauthorization of the Bay Program is a welcome opportunity to build on the work of the past by ensuring that our efforts will indeed result in a clean Bay.

The Bay Program's history has featured a series of agreements with long-term water quality goals, supplemented along the way with programs or regulations enacted to address individual nutrient and sediment sources. We now recognize that long-term goals are not sufficient in a world of two-year election cycles and annual budgeting, so we as a Bay Program partnership have recently agreed to set two-year milestones within a long-term goal of 2025 for full implementation of everything we will need to do to achieve a restored Bay. In addition, we recognize that "everything we will need to do" includes almost everything we can ask from all sectors – wastewater treatment plants, agriculture, stormwater, and air.

While this is true throughout the watershed, it is important to remember that the mix of sources and conditions varies from state to state, and there is no one-size-fits-all solution. States should be given the flexibility to determine the most cost-effective way to achieve those load reductions within their jurisdiction.

At the same time, merely planning a strategy is not enough. The strategy must ultimately be implemented and we should be held accountable for achieving what we say we will achieve. Within the framework of sources subject to permits such as wastewater treatment plants, urban stormwater and concentrated animal feeding operations (CAFOs), this is relatively easy. Within the realm of sources not subject to permits, such as small farms and other non-point sources, the job is more complex.

The responsibility for non-point performance is at the state level, and has traditionally focused on voluntary incentive-based programs. Regulatory programs also exist, but they are not consistently enforced. As an urban legislator, I hear frequently from constituents who will now receive higher sewer rates because of mandated sewer upgrades and they express their frustration that they can see farmers continue to apply manure on snow-covered ground or allow cows full access to a stream without consequence.

Unfortunately, the answer is not to let sewer systems off the hook and shift the burden entirely to agriculture. The amount of reductions that we must achieve means that we need all sectors to be responsible for their fair share of the loads. We must instead do a better job at the state level of putting the programs in place to get all of those loads, even from non-point sources. I've found over my 19 years as a legislator that responsibility is more easily accepted when a group feels that the burdens are equitably shared and that they are not being singled out.

Regardless, we cannot merely regulate our way to a clean Bay. In a perfect world we could write a law and the problem would be fixed. We don't live in a perfect world. Practices and technology cost money. Regulatory enforcement is an important tool that we can and should be willing to use. However, the ultimate goal of enforcement is compliance and compliance costs money. Federal funds such as Farm Bill conservation dollars, 319 Program funds, the

Clean Water State Revolving Fund and other Clean Water Act programs are critical to helping us achieve compliance for both point and non-point sources. Even with these funds, important gaps still remain for the funding of technical assistance and outreach – people on the ground who can work with farmers and local governments to help put the necessary practices in place.

The reauthorization of Section 117 presents us with an opportunity to recognize local governments as the important partners that they are. Local government is where the land use decisions are made, and local officials know the local landscape, its residents and where the challenges and opportunities lie. Local government is also where we begin to address the issue of water quality as a community.

In Lancaster County we have formed a Chesapeake Bay Task Force. There are more than 50 members of the Task Force representing a diverse group of stakeholders – municipalities, farmers, builders, and other businesses who are committed to achieving our water quality goals in a way that makes economic sense for the community. The members of the Task Force realize that restoring the Chesapeake Bay is the right thing to do and that it is something that we will do. However, they also realize that this will be economically challenging and that it is in their interest to be a part of the solution. At the same time, our County Planning Commission is developing its "Greenscapes" initiative which recognizes the economic and quality of life benefits to all of our residents when we have sustainable working landscapes and are protective of natural resources.

The Task Force and the dialogue it has generated would not have been nearly as successful without the nutrient trading program that is available in Pennsylvania. Nutrient trading is an important tool that provides municipalities and businesses with a choice on how to achieve reductions most cost-effectively. It is also an incentive for farmers to invest in practices that have the potential to generate credits. Finally, it provides a mechanism for growth to occur, even when nutrient and sediment cap loads are in place. In fact, it is the presence of a cap that actually leads to an active and robust trading program.

Thank you again for the opportunity to testify. I will be happy to answer any questions you may have.

Testimony of Shari T. Wilson
Secretary of the Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230
410-537-8400
Committee on Transportation and Infrastructure
Subcommittee on Water Resources and Environment
Tuesday, September 22, 2009

"Reauthorization of the Chesapeake Bay Program"

Chairwoman Johnson, Ranking Member Boozman, and members of the Subcommittee, thank you for the invitation to appear before you today. On behalf of the Administration of Governor Martin O'Malley, I appreciate having the opportunity to testify about the protection and restoration of the Chesapeake Bay.

The Chesapeake Bay is an unparalleled resource — possibly the most productive and fragile ecosystem on the planet. Years ago, the states of Maryland, Pennsylvania, Virginia and Washington D.C. and the Federal Government acknowledged that they could wait no longer to preserve this great resource. The leaders of these jurisdictions recognized that the Bay's problems could not be solved by acting alone, so they resolved to act together. It was their belief then, and it is our belief now, that without leadership from all levels of government — federal, state, and local — we will not realize our goal of restoring and protecting this vital resource. Without substantive intergovernmental cooperation and credible accountability, restoring the Bay will not be possible.

We share your sense of urgency for a renewed effort to restore the Chesapeake Bay at the federal, state and local level. Twenty-five years have passed since the first Chesapeake Bay Agreement. Through the recent leadership of Governor Martin O'Malley and the Maryland's BayStat process, Maryland has a road map of actions necessary and how to most efficiently target resources to meet water quality objectives. Most of the programs needed are in place at federal, state and local government levels. What we need is a deadline, accountability and process to measure our progress along the way.

We are very encouraged by President Obama's Executive Order on the Chesapeake Bay and the unprecedented level of federal cooperation and leadership it calls for. We are equally encouraged by the draft implementation reports flowing from that Executive Order released earlier this month. In Maryland, we have committed to a significant acceleration of the Bay restoration effort. That commitment represents a 138 percent increase in our rate of nitrogen reduction and over a 500 percent increase in the rate of phosphorus reduction. These reductions put Maryland on pace to meet our Bay Restoration Goals by 2020.

Over the past two years in Maryland, we have increased environmental enforcement by 34 percent from 2007 to 2008; we have put in place standards that require the runoff from new development to mimic the runoff from woods in good condition – state of the art

stormwater controls; we have, for large municipal jurisdictions, initiated a new round of upgraded permits for stormwater control requiring unprecedented levels of retrofits and trash reduction; we have for the first time, put in place manure management requirements for the poultry industry; we are also implementing some of the most stringent nitrogen reduction controls for coal fired power plants in the country; and Marylanders pay a monthly water and sewer fee to pay for state-of-the-art upgrades at our 67 largest wastewater treatment plants to decrease nitrogen and phosphorous discharges to the Chesapeake Bay. None of this has been without controversy. Yet, we know we must do more.

While the path ahead will not be easy, cheap or without controversy, we are at a pivotal moment for the future of the Bay. I respectfully request that this Subcommittee and the Congress play a catalytic role for action in the region and consider the following ideas in the reauthorization of the Chesapeake Bay Program.

Establish a Restoration Deadline

We recommend the reauthorization of Section 117 of the Clean Water Act require a deadline to meet the nutrient reduction goals of the Chesapeake Bay Agreement. Such a statutory deadline will allow us to place a stake in the ground as to where our restoration efforts are headed. Maryland's efforts are aimed at a deadline of 2020.

Require Binding and Enforceable Implementation Plans

Very importantly, there is a need to ensure that Total Maximum Daily Load – the pollution budget – for the Chesapeake is implemented through plans with short term deadlines designed to ultimately achieve nutrient and sediment reduction goals. These plans must be binding and enforceable. The Administrator of EPA needs the clear authority to require and enforce the implementation of these plans and identify appropriate consequences if they are not successfully implemented.

The Clean Air Act is a good model upon which to pattern amendments to the Clean Water Act. During the period from 1990 to 2008, the Clean Air Act successfully reduced ozone levels in Maryland by 40 percent. The Clean Air Act uses many of the same permitting and planning tools that are prevalent in the Clean Water Act, but there is one critical difference between the two environmental statutes. If a state fails to produce an air quality control plan that demonstrates the state's ability to achieve attainment with federal ambient air quality standards, the Clean Air Act imposes meaningful sanctions on the state, including loss of transportation and other federal funding, more stringent permit requirements on new and modified regulated facilities in the non-attainment area and limits on initiation of new transportation projects.

It is less clear what the ramifications are for failure to meet Clean Water Act standards, or to have a credible plan to do so. We urge the Subcommittee to establish clear requirements on the states to develop implementation plans subject to approval and enforcement by EPA if plans are not approved or satisfactorily implemented. These

sanctions might include withholding of federal funds or additional requirements to offset pollution loads from development.

Provide Adequate Funding

While most of the needed programs are in place, it is clear they are not structured at the capacity levels needed to accomplish these goals. It is critical to assure adequate funding for this Program is authorized. Our understanding is that Bay Program funding has remained steady at approximately $20 million for well over a decade, while the authorized spending level is $40 million. The Program should be fully funded at the authorized level of $40 million, with the increases provided to the States through implementation grants. We also recommend that increases in funding to States be proportional to the nutrient allocations.

In addition to the Chesapeake Bay Program, it is a fact that over the past eight years the core water programs implemented by the States have been crumbling around us. You have heard many times that mandates for States have increased while funding to states from EPA has decreased. This is reaching a critical tipping point in what we call the core water programs – NPDES permitting, stormwater, wastewater and others. At a time when the Bay jurisdictions are accelerating efforts on top of already depleted programs, this is becoming more critical to our success. Restoring EPA funding through increases in the CWA Section 106 and other program support grants is critical to our future success, as well as that of the EPA, in restoration efforts.

Blue Plains Wastewater Treatment Plant

The single largest action that can be taken to restore the Bay is to complete the upgrade of the Blue Plains Wastewater Treatment Plant, the Plant that serves the Nation's Capitol. That project will also significantly assist with water quality in the Anacostia and Potomac Rivers by correcting Combined Sewer Overflows (CSOs) from the District and Sanitary Sewer Overflows (SSOs) from suburban areas in Prince Georges and Montgomery Counties. A major federal funding commitment to match the local shares of funding is needed to make this upgrade a reality.

Create Greater Accountability

Bay related agencies in Maryland have come to appreciate the value and importance of Governor O'Malley's BayStat Process. BayStat is a real time management tool that advances accountability and coordination among key government agencies to evaluate state Bay initiatives to ensure resources are efficiently targeted. We monitor progress against established benchmarks and make adjustments where necessary. Over the past two and a half years, BayStat has focused Maryland's Bay restoration decisions to:

- Be based on the best available science;
- Target resources to get the biggest return one ach dollar invested; and
- Increase transparency and accountability to Maryland citizens.

We in Maryland are very heartened that President Obama and EPA Administrator Jackson have elevated the BayStat concept regionally in the new Presidential Executive Order.

We also recommend that the National Academy of Sciences serve as an independent scientific and programmatic evaluator of the Bay Program and its partners as was called for by Congress to ensure timely and successful restoration of the Everglades.

With these changes, we can all make the Chesapeake Bay Restoration our shared reality. Madame Chairwoman, Maryland appreciates the opportunity to testify on such an important matter. We respectfully urge your Subcommittee to fully explore opportunities to strengthen the restoration effort and the mechanisms by which all of the watershed States and all levels of government will be held accountable for accelerating restoration as you consider the reauthorization of the Chesapeake Bay Program.

Reauthorization of the Chesapeake Bay Program

Prepared Remarks of Robert J. Wittman
2:00 p.m., 2167 Rayburn House Office Building
September 22, 2009
Subcommittee on Water Resources and Environment
Eddie Bernice Johnson, Texas, Chairwoman
John Boozman, Ranking Republican

Thank you for allowing me to be here today to discuss an issue important to me and my constituents, the Chesapeake Bay. I am grateful for increased attention and focus on restoring the Chesapeake Bay.

I am pleased to join my college from Virginia, Congressman Connolly. Gerry is very dedicated to preserving and restoring the Chesapeake Bay. I am glad to have worked with him already on Bay related efforts and look forward to continuing to do so.

I'd also like to recognize another of my colleagues from the Commonwealth, Tom Perriello a member of this committee. Tom, thank you for your work on this committee and for your attention to the Bay.

I'm fortunate to represent Virginia's First District which stretches from the exurbs of Washington D.C. down to Hampton Roads. The First District includes many of the major tributaries of the Bay, the Potomac, Rappahannock, York and James Rivers. Just as the Bay has shaped the lives and livelihood of Virginia residents for centuries, the bay continues to be a central player in our region.

As the largest estuary in the United States the Chesapeake Bay watershed is home to 16 million people. The scope of the watershed is hard to imagine, the watershed encompasses six states and the District of Columbia, well over 1,000 local governments, 150 major tributaries, 100,000 streams and rivers and over 11,600 miles of shoreline, plus thousands of plant and animal species. The bay accounts for billions of dollars in economic and recreational revenue, not to mention it's the site of major ports and military bases.

I believe there is a sense of frustration in the Chesapeake Bay watershed about the progress we've made to restore the Bay. Yes, there have been successes. However, with all of the federal, state, local and private partner investment we would all like to see more accomplishments.

With that said, I am encouraged by the renewed attention and dedication towards restoring the Chesapeake Bay. The Chesapeake Action Plan, ongoing state efforts and the Administration's Chesapeake Bay Executive Order all seek to improve Bay clean-up efforts. Across the Bay these efforts are shaping and will continue to shape restoration efforts. Today's focus on the reauthorization of the Chesapeake Bay Program is another important component of this complex environmental restoration effort.

I would like to outline some of the key principals that I would like to encourage the Committee to consider as Congress continues to evaluate and plan for ongoing restoration activities in the Chesapeake Bay.

First, there must be performance based measures to assure that dollars currently spent on Bay restoration activities are producing results and that efforts are being monitored and adapted to meet Bay goals.

I would encourage the committee to consider incorporating H.R. 1053, the Chesapeake Bay Accountability and Recovery Act, legislation I've authored into any Bay Program Reauthorization. H.R. 1053 would implement and strengthen management techniques like crosscut budgeting and adaptive management –to ensure we get more bang for our buck and continue to make progress in Bay restoration efforts.

Both techniques will ensure that we're coordinating how restoration dollars are spent and making sure that everyone understands how individual projects fit into the bigger picture. That way, we're not duplicating efforts, spending money we don't need to or, worse, working at cross purposes.

The Chesapeake Bay Accountability and Recovery Act would require OMB in coordination with state and federal agencies involved in the Bay to report to Congress on the status of Chesapeake Bay restoration activities.

My bill would also require EPA to develop and implement an adaptive management plan for Chesapeake Bay restoration activates. Adaptive management relies on rigorous scientific monitoring, testing and evaluating; and the flexibility to modify management policies and strategies based on changing conditions. Crosscut budgeting and adaptive management should be key components for the complex restoration activity in the Chesapeake Bay.

Second, I would encourage the Committee to consider alternative options and incentives that doesn't force "top-down" regulatory requirements. I recognize that we need both carrots and sticks to make complex environmental projects work. As a former small town mayor, I know that localities often struggle to meet state and federal mandates with inadequate financial and technical resources. We should continue to look for ways to create incentives and provide the resources for states and localities to meet Bay restoration goals.

Additionally, I believe we should encourage innovative and "out of the box" solutions to cleaning up the Bay. New technology and cutting edge research should be encouraged to meet the Bay's pressing needs. For example, promising technology exists that could turn chicken litter into energy, and reduce one of the Bay's pollutants. This is just one of the many technological innovations that could improve the Bay. In addition to technology, we should embrace other innovative solutions. In the Rappahannock River Basin a group of my constituents is developing a private sector led market place for environmentally friendly products that with help to protect and restore the Bay. I would encourage the committee to help localities and embrace technology and innovation to clean up the Bay.

Finally, I want to mention two things that I don't believe belong in legislation reauthorizing the Bay program. I would encourage the Committee not include language that would impose any additional regulations or restrictions on non-native oysters or commercial menhaden harvest.

I am opposed and would be very concerned about any language that would undermine the Army Corps of Engineer Final PEIS for oyster restoration. I am also strongly opposed to any language

that would prohibit the commercial fishing of menhaden. Peer reviewed Atlantic States Marine Fisheries Commission scientific stock assessments are clear, the Atlantic menhaden populations are healthy and they are not being overfished. In my mind reauthorization of the Bay program is not the appropriate venue to address fisheries management policy.

Thank you again Chairwoman Johnson and Ranking Member Boozeman for allowing me to testify today. I stand ready and willing to support and work with you to continue efforts to restore the Chesapeake Bay.

ENVIRONMENTAL WORKING GROUP www.ewg.org

September 25, 2009

The Honorable Eddie Bernice Johnson
Chair, House Subcommittee on Water Resources and Environment
2165 Rayburn House Office Building
Washington DC, 20515

The Honorable John Boozman
Ranking Member, House Subcommittee on Water Resources and Environment
2165 Rayburn House Office Building
Washington DC, 20515

Dear Chairwoman Johnson and Ranking Member Boozman,

The Environmental Working Group requests inclusion of our new report "Facing Facts in the Chesapeake Bay" in the public record of the Hearing (Reauthorization of the Chesapeake Bay Program) held by the House Subcommittee on Water Resources and Environment on September 22, 2009.

Despite a quarter of a century of effort by farmers, citizens, environmentalists, and government officials to address pollution in the streams, rivers and waterways of the Chesapeake Bay region, agricultural fertilizers, animal manure and soil erosion remain the watershed's largest sources of pollution. Without an ambitious effort to fairly but effectively regulate pollution coming from farm fields throughout the watershed there is simply no chance that the Chesapeake Bay will recover.

Our report:

a) Analyzes the failure of the voluntary policy approach to reduce agricultural nutrient and sediment pollution;
b) Identifies the holes in the current federal and state agricultural regulatory frameworks;
c) Suggests how states can position themselves to provide real "Reasonable Assurance" that they can achieve the agricultural component of the upcoming Bay TMDL; and
d) Begins the discussion of what a fair and effective regulatory framework for achieving agricultural pollution reductions might look like.

EWG examined the reach of existing federal and state regulatory programs aimed at water pollution from agriculture in the six Bay states (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia). Taken as a whole, it is a regulatory framework shaped by political expediencies and more notable for its gaps than its coverage:

- Just one state (Pennsylvania) has regulations addressing soil erosion and sediment pollution on all of the cropland within the state.
- Just 35 percent of the livestock animals (dairy, beef, and swine) in the 5 Bay states with permitting programs are estimated to be under clean water permits while nearly 80 percent of the poultry animals (broiler meat chickens and egg laying hens) are estimated to be permitted or about to be permitted. West Virginia is the only state that does not have an animal permitting program.

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- Just two states (Maryland and Delaware) have regulations addressing manure application on land by farms generating the manure and by farms using the manure.
- Just two states (Maryland and Delaware) have regulations addressing the use of agricultural chemical fertilizers.

As the Subcommittee members were shown in your staff's September 18, 2009 Summary of Subject Matter Memo, the federal regulatory reach over pollution sources to the Bay is limited to just 40 percent of the total nitrogen load to the Chesapeake Bay, 35 percent of the total phosphorus load, and 4 percent of the total sediment load.

Thus, the work being done by the House Subcommittee on Water Resources and Environment and the Senate Committee on Environment and Public Works to reauthorize the Chesapeake Bay Program is critical to giving the Environmental Protection Agency the necessary powers to compel the Chesapeake Bay states to fairly and effectively regulate the 60 to 96 percent of the problem that is outside the federal government's jurisdiction.

In addition, it is vital that Congress makes the achievement of the upcoming Clean Water Act Total Maximum Daily Load Program (TMDL) in the Chesapeake Bay enforceable and binding. This will provide the states with the necessary pressure to develop, in collaboration with the federal government, a fair and sensible regulatory framework to achieve the largest pollution reductions in the TMDLs: the agricultural point source Waste Load Allocations and agricultural non point source Load Allocations.

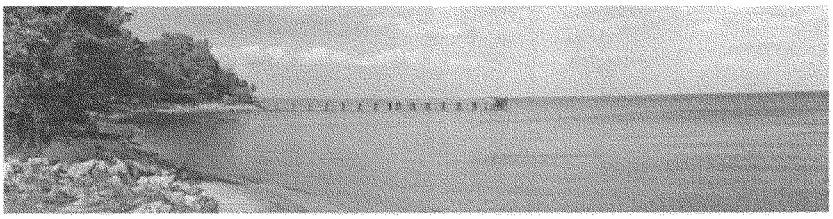
This regulatory framework could be prescriptive (mandating adoption of specific cost-effective practices in the highest priority locations) or performance-based (individual farms are given specific pollution reduction goals that when achieved and aggregated will fulfill each TMDL pollution budget).

Critical to an effective regulatory framework is cost-effective use of the heretofore insufficient federal and state voluntary cost-share funds. These funds should be rationed in innovative ways including but not limited to geographic priority areas, problem priorities, practice priorities or economic priorities (to alleviate significant economic hardship caused by compliance costs).

I hope we can work together to develop this fair and effective regulatory framework. Please don't hesitate to contact me to discuss these ideas further at 202-939-9151 or michelle@ewg.org.

Sincerely,

Michelle R. Perez, MPP
Senior Analyst, Agriculture and Natural Resources



FACING FACTS IN THE CHESAPEAKE BAY

By Michelle Perez, principal author and
Craig Cox and Ken Cook, contributing authors
Environmental Working Group

EXECUTIVE SUMMARY

Without an ambitious effort to fairly but effectively regulate pollution coming from farm fields throughout the watershed, there is simply no chance that the Chesapeake Bay will recover. The time has come to solve the primary obstacle to cleaner water in the region's streams, rivers, and Bay: reliance on a failed voluntary approach to agricultural pollution and inadequate regulatory backstops.

For the better part of a generation, tens of thousands of farmers, along with thousands of conservation professionals at every level of government and in the nonprofit community, have worked diligently to reduce agriculture's heavy if unintended damage to the Bay. Without question the Bay would be far worse off today if not for those efforts.

But despite that commitment and hard work, along with billions of taxpayers' dollars spent to study and combat the Chesapeake's pollution problems, the Bay as a living ecosystem remains on the brink. Each of the previous three major clean up deadlines that politicians have set themselves has been missed by a wide margin. The impending 2010 restoration goals will be no different, and throughout, agriculture has been the primary reason.

Today, farming still loads an estimated 39 percent of the nitrogen pollution and 45 percent of the phosphorus pollution into the Bay, turning it into an oxygen-starved dead zone for many keystone species. Some 60 percent of the sediment that suffocates the Chesapeake's fabled underwater grasses and vulnerable aquatic nurseries comes from farm fields.

Furthermore, due to the relative cost-effectiveness of pollution reduction from farm practices compared to other sources, such as sewage treatment plant upgrades or

suburban storm water management systems, the six states draining into the Bay watershed continue to look to the agricultural sector for two-thirds of the nutrient reductions needed to restore water quality.

Evidence of the Bay's grim prospects can be found in decades' worth of scientific measurements of poor water quality, but even on paper, the official strategy for dealing with the Chesapeake's farm pollution problems is strikingly implausible.

The Environmental Working Group's (EWG) ongoing review of current state and federal policies for the Bay, of which this report is a part, makes clear that the patchwork of federal and state policies and programs that guide agriculture pollution control around the watershed cannot and will not come close to solving the problem. It's time for a new chapter in our collective efforts to save the Chesapeake.

EWG examined the reach of existing federal and state regulatory programs aimed at water pollution from agriculture in the Bay States. Taken as a whole, it is a regulatory framework shaped by political expediencies and more notable for its gaps than its coverage.

- Just one state has regulations addressing soil erosion and sediment pollution on all of the cropland within the state.
- Just 35 percent of the livestock animals (dairy, beef, swine) in the 5 Bay states with permitting programs are under clean water permits while nearly 80 percent of the poultry animals (broiler meat chickens and egg laying hens) are permitted or about to be permitted.
- Just two states have regulations addressing manure application on land by farms generating the manure and by farms using the manure.
- Just two states have regulations addressing the use of agricultural chemical fertilizers.

At the core of the current strategy for Bay clean up is the notion that the farmers responsible for much of the pollution will volunteer to control it by applying the right conservation practices to the right fields, with financial help, if they choose to accept it, made available under various state and US Department of Agriculture (USDA) conservation programs. Further, it is assumed that those programs will use government money to cover 75 percent or more of the cost of implementing farm conservation practices, year after year, with no end to the taxpayers' obligations in sight.

We found two basic reasons why the voluntary approach to implementing farm pollution control practices has achieved less than 50 percent of the overall Bay goals as set forth in each state's strategy. First, those farmers whose actions are indisputably causing pollution, such as farms that allow cows in streams resulting in streambank erosion and manure deposition, often do not participate in voluntary programs, even though taxpayers shoulder nearly all of the cost. Second, funding for the voluntary cost-share programs is perennially a fraction of the amount needed to achieve pollution prevention goals and agencies fail to target the funds they have to those geographic areas and agricultural operations responsible for most of the pollutant load.

Along with farm organizations, environmental groups, EWG included, have embraced this voluntary system. We have pressed hard on Congress and in statehouses—much harder, in fact, than agriculture interests have—to put sufficient money in government conservation programs to help farmers solve their pollution problem without having to resort to regulation. No serious student of the Bay ecosystem disputes that progress has been made. But the prevailing view among experts, at least privately, was expressed by a distinguished group of Bay scientists and policy makers in September 2008:

> *"We have concluded that after 25 years of effort, the formal Bay Program and the restoration efforts under the voluntary, collaborative approach currently in place have not worked.... We must transition...to a more comprehensive regulatory program that would establish mandatory, enforceable measures for meeting the nutrient, sediment, and toxic chemical reductions needed to remove all Bay waters from the Clean Water Act impaired waters list...."*

These experts further posited an "axiom" for Bay restoration: "*Require mandatory controls and increased accountability to reduce agricultural pollutants, including enhanced nutrient management and better manure management.*"

We agree.

Expanding the reach of federal and state regulations designed to reduce agricultural pollution—and ensuring those regulations are well-targeted, effective, and sensible—must be part of any new strategy to restore and protect the Bay, even as we continue to press for adequate funding farm conservation programs at all levels of government.

President Obama's May 12, 2009 Executive Order on the Chesapeake Bay calls for seven federal agencies to update and improve their strategies for the ecosystem. As this EWG review is released (September, 2009), the Obama administration is preparing to announce what promises to be an ambitious overhaul of federal policies aimed at Bay restoration.

We commend the President for his leadership and urge him to ensure his Executive Order proves to be an important first step toward getting the federal house in order through badly needed initiatives to strengthen federal regulations and improve the targeting and effectiveness of federal voluntary programs.

Senator Cardin's (D-Maryland) effort to reauthorize the EPA Chesapeake Bay Program in the Clean Water Act is an important second step towards a cleaner Bay. The Senator's bill gives the Environmental Protection Agency: (1) the regulatory power to compel states to submit and implement plans that will meet their obligations to reduce pollution and (2) punitive powers if states fail to act.

These efforts to get the federal house in order are laudable and encouraging, but federal action alone will not save the Bay. The Chesapeake Bay States must take the third step

and develop a complementary effort to upgrade and strengthen their regulatory and voluntary programs. The reach of state regulatory programs must be expanded to close the gaping holes in the current programs that leave the most important agricultural sources of pollution unregulated. Moreover, state regulatory programs must make cost-effective use of the available but limited cost-share funds. These funds should be targeted in innovative ways, including but not limited to geographic priority areas, practice priorities, or economic priorities such as assisting farms that demonstrate significant economic hardship from compliance with the new regulatory framework.

INTRODUCTION

The Bay is important and it is in trouble

Seventeen million people reside within the 64,000 square mile Chesapeake Bay watershed that spans the District of Columbia and six states (Maryland, Virginia, Pennsylvania, Delaware, West Virginia, and New York). People rely on the streams, rivers, and lakes within the watershed and the Bay for their livelihood, recreational activities, and clean drinking water. President Obama recognized the Chesapeake Bay as a "a national treasure."[1]

However, the Bay and its tributaries remain so polluted that water quality is rated as a 29 out 100;[2] 98 percent of the oyster population has been wiped out;[3] blue crabs are down 70 percent;[4] and a third of the drinking water wells on the Delmarva Peninsula (75 percent of the Peninsula drains into the Bay) exceed safety standards for nitrate pollution.[5]

Agriculture is a major source of pollution to the Bay.

According to estimates by the EPA Chesapeake Bay Program, agricultural fertilizers, livestock waste, and topsoil remain responsible for an estimated 39 percent of the nitrogen, 45 percent of the phosphorus, and 60 percent of the sediment pollution harming the Bay.[6] Other major sources include sewage treatment plans, as well as urban and suburban stormwater runoff.

Scientists have identified two primary sources of the agricultural nutrient (nitrogen and phosphorus) pollution problem. Bay-wide, animal manure and chemical fertilizers are about equally responsible for the nitrogen problem from the agricultural sector. Using long-term average hydrology simulations, the EPA Chesapeake Bay Program estimates that the agricultural sector contributes 39 percent of the nitrogen load to the Bay – 17 percent from manure, 15 percent from commercial fertilizer, and 6 percent via atmospheric deposition to the watershed from agricultural sources.[7]

Bay-wide, animal manure is a much larger source of phosphorus to the Bay than agricultural chemical fertilizers. Agriculture contributes an estimated 45 percent of the phosphorus load to the Bay – 26 percent coming from manure and 19 percent form chemical fertilizers.[8]

We can't protect the Bay unless agricultural practices improve

The Bay states are counting on agriculture to achieve their Tributary Strategy goals because it remains the largest source of the problem and because policy experts consider pollution reduction from the agricultural sector as the most cost-effective approach.[9]

According to the 2008 EPA Chesapeake Action Plan, "The six Chesapeake Bay watershed states are calling for getting two-thirds of the nutrient reductions needed to restore Bay water quality from the agricultural sector."[10]

Facing facts—Regulation is needed to drive improvement

The Bay states have acknowledged that they will miss the 2010 deadline to clean up the Chesapeake. As a result, the EPA has begun developing what's known as a Total Maximum Daily Load (TMDL), a pollution budget for the Bay. The Clean Water Act calls for states to develop such pollution budgets, which establish how much nitrogen, phosphorus, and sediment pollution can still enter a polluted water body, yet enable the water body to become healthy again. Consequently, the TMDL specifies how much pollution reduction needs to occur to achieve the "TMDL cap" on the pollution load.

The TMDL will likely be broken up into 92 sub-TMDL budgets and then again divided further by political jurisdiction. Each TMDL will spell out how much pollution from point sources (e.g. sewage treatment plants and permitted concentrated animal feeding operations (CAFOs)) and from nonpoint sources (e.g. agricultural cropland and pastureland and urban/suburban runoff) can continue to enter the Bay and how much pollution needs to be reduced to achieve cleaner water and a restored Bay. Each state will have to develop watershed implementation plans that will spell out how they will accomplish the numerous TMDL pollution budgets in their state.

According to the scientists, the TMDLs will set even greater pollution reduction goals for agriculture, wastewater treatment plants, and from urban and suburban development than were set under the Tributary Strategies.

And unlike the existing, failed voluntary policy approach, the TMDL will be mandatory for the states and the federal government to achieve.

However, the regulatory power of the Clean Water Act only affects point sources of pollution such as sewage treatment plants, industrial facilities, and CAFOs. Nonpoint source agricultural pollution is exempted under the Clean Water Act. Thus, it is reasonable to question how the Bay TMDL will change the current failed policy approach and help reduce additional pollution from the agricultural sector. Since the late 1990s, some 35,000 TMDLs[11] have been written for impaired streams and lakes across the country with little evidence of reduction in agricultural pollution.

To achieve the agricultural and other nonpoint source pollution reductions in the Bay TMDL, the Clean Water Act requires states to provide what's called Reasonable Assurance that their voluntary and regulatory programs will be able to deliver those pollution solutions. Because the upcoming Chesapeake Bay TMDL, like the existing Tributary Strategies, will continue to rely on most of the pollution reductions from agriculture and because of the failure of the voluntary programs, EWG surveyed the Bay states to assess whether their regulatory programs, at least on paper, are up to the task. Our conclusion: they are not.

WHAT WE DID

The upcoming TMDL development process will spawn policy discussions about alternatives to the current voluntary cost-share program approach for implementing best management practices for all pollution sectors. These policy discussions will likely include policy proposals for a) new ways to allocate the limited cost-share funding, b) nutrient trading programs, c) expanded federal and state regulations, and d) new federal and state regulations.

President Obama's Executive Order calls on the EPA to identify and enhance existing federal regulatory authorities to accelerate restoration of the Bay. On September 9th, the EPA plans to release a draft report outlining how the federal government can do more with its current regulatory framework to lower pollution from all major sources (farms, sewage plants, urban and suburban runoff) to clean up the Bay.[12] However, since the federal reach over agricultural water pollution is restricted to the point sources at concentrated animal feeding operations, cleaning up the Bay will require new policies from the states addressing the nonpoint sources of farm pollution from crop- and pastureland and from animal farms too small to be permitted.

For each state, EWG sought tried to determine if there were regulatory programs being implemented to address agricultural nutrient and sediment pollution. We analyzed what types of agricultural production were affected by the regulations (i.e. animal agriculture versus crop production and concentrated animal operations versus grazing animal operations). We identified the regulatory requirements that might reduce the unintended nutrient and sediment pollution from farms. We also tried to estimate how much of a reach these regulations had by estimating how many animals and acres were currently affected by the regulations and what proportion of animals and acres were under a regulatory framework.

Thus, we reviewed state regulations addressing agricultural soil erosion and sediment pollution; manure management and manure use as fertilizer; and chemical fertilizer use. We also reviewed the regulatory scope of the federal Concentrated Animal Feeding Operation (CAFO) National Pollutant Discharge Elimination System (NPDES) permit program and state permit programs for CAFOs.

Given that this was an initial review of the presence or absence of agricultural water pollution regulations, EWG did not attempt to assess how well these regulatory programs were designed, implemented, enforced, or working to reduce agricultural nutrient and sediment pollution. In addition, EWG did not attempt to evaluate the a) quality of the regulatory requirements or b) the quantity, age and quality of the nutrient management plans or soil conservation plans required by some of the regulations.

Finally, EWG reviewed the primary approach to reducing agricultural pollution in the Chesapeake Bay: the voluntary agricultural conservation cost-share approach. We

surveyed reports, news articles, policy statements by politicians, policy statements by scientists, and conducted interviews with various stakeholders in the Bay, which helped us formulate an assessment of why the voluntary policy approach has failed.

FINDINGS

SUMMARY OF THE HOLES IN THE REGULATORY FRAMEWORK

Table 1. Huge holes in the existing regulatory framework to address agricultural nutrient and sediment pollution

Regulations addressing	Maryland	Virginia	Pennsylvania	Delaware	West Virginia	New York
Cropland erosion and sediment pollution on all acres			✔			
Permits for concentrated animal feeding operations	✔	✔	✔	✔		✔
Manure use by all farms	✔			✔		
Chemical fertilizer use by all farms	✔			✔		
Adoption of all practices listed in the Tributary Strategies						

Note: Checks represent presence of a regulation addressing water pollution sources and reach of the regulations and regulations requiring specific requirements. See state-by-state descriptions of these regulations in the report text for full detail.

- **Just one state (Pennsylvania) has regulations addressing soil erosion and sediment pollution on all of the cropland within the state.**

Despite the fact that 60 percent of the sediment pollution load to the Bay comes from agriculture and that the voluntary policy approach is clearly not adequate to address the problem, five of the six Bay states have very little regulatory oversight over this significant problem.

Federal regulations do not address agricultural soil erosion and sediment pollution on most cropland or pastureland but do require a permit for construction of agricultural structures (barns, chicken houses, etc.) that disturb more than one acre of soil. In addition, farmers that operate cropland designated as "Highly Erodible Land" (HEL) are required to obtain and follow a soil conservation plan under the federal "Conservation Compliance" program in order to be eligible to receive federal crop subsidies. The HEL designation was designed to protect fragile, erosion-prone land. It was not designed to reduce sediment damage to streams, lakes, rivers, or Bays by preventing erosion from

fields adjacent to water bodies.

Using state-level data from the 2003 National Resources Inventory for each of the six Bay states, EWG found that nearly half (47 percent) of the total cropland in the Bay states is designated as Highly Erodible (see Appendix).[13] More importantly, from a soil fertility perspective, a quarter (26 percent) of the total cropland in these six states is eroding at an unsustainable rate, resulting in long-term soil productivity loss. Because program managers at the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) do not tally the number of acres that are HEL-designated and operated by farms that receive farm subsidies, it is difficult to know the reach of Conservation Compliance.[14]

The USDA Natural Resources Conservation Service (NRCS) staff aims to review only one percent of farm tracts subject to Conservation Compliance per year. Using NRCS data, EWG estimated that only 63,000 acres have been reviewed each year over the last five years in the six Bay states.[15] Altogether, 63,000 acres represents less than one half of one percent of the 15.2 million total acres of cropland in the six states. Thus, the federal Conservation Compliance program is very limited in its annual review effort.

Conservation District offices in each of the six states work voluntarily with farmers and other landowners to develop voluntary soil and water conservation plans. The state program managers were unable to tell us how many farmers had voluntary or Conservation Compliance plans, how many acres are under such plans, when the plans were written, how effectively the plans are being implemented or how well they are working to reduce soil erosion and sediment pollution.

- **Of the five Bay states (MD, PA, NY, DE, and VA) that implement federal or state animal feeding operation permits, only about 35 percent of all major livestock animals (dairy, swine, and beef animals on concentrated and grazing farms) are under permits while 80 percent of all poultry animals (broilers and layers) are permitted or on the verge of being officially permitted.**

Three of the Bay states (MD, PA, NY) implement the federal CAFO NPDES permit program while Delaware and Virginia implement a state AFO permit. West Virginia does not currently have a permit program for animal feeding operations.

The reach of the federal and state animal permitting programs is currently limited in addressing manure pollution from animals. First, the permits affect only concentrated animal feeding operations that raise animals under a roof for the majority of the animal's lifetime and ignore farms where animals mostly graze outdoors. Only the largest concentrated operations are required to obtain a permit, leaving unpermitted thousands of farms that have too few animals to meet the size threshold. Collectively, these few animals at thousands of farms amount to the majority of animals in some states. Most importantly, a major loophole exists in the regulatory framework in many states that do not have regulations to address manure use by "end-user" farms that take manure from

the permitted animal farm and apply it to land as fertilizer.

Estimating the numbers and percentages of operations and animals permitted by either the federal or the state permitting programs is very difficult. EWG was surprised to learn that program managers at the state permitting authorities did not know the number of operations or animals that are eligible to be permitted let alone the numbers of operations or animals located in their state. EWG was also surprised that these state program managers and even managers at the EPA CAFO program and managers at the USDA Census had trouble understanding how to interpret the 13 EPA CAFO Animal Categories. Furthermore, these managers found it difficult to correlate the EPA CAFO Animal Categories with animal data in the USDA Agriculture Census. For example, managers did not know what "cattle and cow/calf pairs" or "mature dairy cattle" CAFO animal sectors meant or which Census table and column of data best represented those animal sectors.

These managers concurred that there are many limitations to their having to rely on the USDA Census data for their estimates of a) the universe of *all* operations and animals in their state or b) the universe of *eligible* operations an animals in their state, such as: the Census does not distinguish between concentrated versus grazing operations; Census disclosure rules hide data for the few largest operations in the state because this might compromise the identity of the farm; and the CAFO Animal Categories come with weight and manure handling criteria but there is no such distinguishing data in the Census.

- **Just two states (Maryland and Delaware) have regulations addressing all manure management and manure use in their states. Both states regulate a) the manure-generating farms *and* the "end-user" farms and b) the application of animal manure on all types of farmland (cropland *and* pastureland).**

Despite the fact that an estimated 19 percent of the nitrogen problem and 26 percent of the phosphorus problem ailing the Bay comes from agricultural manure,[16] only two states have regulations in place that may be able to better address this problem.

- **Just two states (Maryland and Delaware) regulate application of chemical fertilizer on cropland and pastureland.**

Despite the fact that an estimated 17 percent of the nitrogen load and 19 percent of the phosphorus load to the Bay is from agricultural chemical fertilizers,[17] only two states have regulatory programs in place that may able to address this problem. There are no federal regulations addressing use of agricultural chemical fertilizers.

STATE-BY-STATE REVIEW OF THE HOLES IN THE REGULATORY FRAMEWORK

1. Just one state (Pennsylvania) has regulations addressing soil erosion and sediment pollution on all of the cropland within the state.

- Pennsylvania requires a written Erosion and Sediment Control Plan and implementation of best management practices on all land engaged in "agricultural plowing or tilling activities" if disturbing more than 5,000 square feet (about 1/10th of an acre). For all agricultural construction activities (e.g. barns, silos, chicken houses) disturbing more than 5,000 square feet, an Erosion and Sediment Control Plan is required. On less than 5,000 square feet of agricultural construction activities, persons must implement and maintain erosion and sediment control best management practices (BMPs). If the construction disturbance has the potential to discharge to "High Quality or Exceptional" water, an additional five "Special Protection BMPs" are required.[18] Thus, Pennsylvania has regulations that address soil erosion and sediment pollution on all of its 4.9 million acres of cropland but not on any of its 1.3 million acres of pastureland.

- New York's soil erosion rules apply only to construction activities, such as barns and silos, or to large scale structural best management practices, like terraces or grassed waterways, but not to normal field practices like crop production. Thus, almost all of New York's 4.3 million acres of cropland and 1.2 million acres of pastureland likely are unaffected by NY's soil erosion construction and storm water permit requirements.[19]

- Delaware's Sediment and Stormwater Regulations exempt
  > "...agricultural land management practices unless the local Conservation District or the Department determines that the land requires a new or updated soil and water conservation plan and the owner or operator of the land has refused either to apply to a Conservation District for the development of such a plan, or to implement a plan developed by a Conservation District."[20]

  State program managers do not tally the number of farms that possess voluntary or mandatory soil and water conservation plans nor do they estimate what proportion the 433,000-cropland acres or 18,000 pastureland acres in Delaware are covered by these plans.

- West Virginia exempts "Any introduction of pollutants from non-point source agricultural and silvicultural activities, including runoff from orchards, cultivated crops, pastures, range lands, and forest lands, but not discharges from concentrated animal feeding operations" from needing a State NPDES permit. Agricultural construction activities that disturb more than one acre, such as chicken houses,

barns, and access roads require permit coverage. EWG was unable to determine how many of West Virginia's 942,000 cropland acres or 1.75 million acres of pastureland have regulatory oversight.[21]

- Maryland's regulations addressing soil erosion, sediment pollution, or stormwater apply only to agricultural construction activities and exempt normal field practices like crop production or livestock grazing.[22] Within the state's Critical Areas (defined as within 1,000 feet of the high water line of tidal waters or tidal wetlands of the Chesapeake Bay), Maryland's "Chesapeake Bay Critical Area Law" requires a soil conservation plan for both crop and pastureland.[23] The Critical Areas Commission estimates there are 680,000 acres of land within the Critical Areas.[24] The Department of Agriculture estimates that farms, which have a portion of their land within the Critical Areas, have soil conservation plans covering 580,000 acres including acreage outside of the Critical Areas.[25] Maryland requires stormwater management plans for construction activities that disturb more than 5,000 square feet of soil. Because the regulations do not specifically mention or exempt agricultural construction activities, and because implementation of agricultural soil conservation efforts is conducted by the Soil Conservation Districts, program staff at the Department of the Environment were uncertain whether this requirement has been carried out.[26] As of July 13, 2009, construction permits are needed for agricultural construction activities disturbing one or more acres of soil, which may entail a soil erosion and sediment control plan and a stormwater management plan.[27] However, if agricultural land or practices allegedly "emit soil or sediment into waters of the State,"[28] the state can impose penalties unless farmers can prove they have implemented a voluntary "soil conservation and water quality plan" (SCWQP).[29] Thus, except for the 580,000 acres under mandatory soil conservation plans, most (65 percent) of Maryland's 1.4 million acres of cropland and 254,000 acres of pastureland operate without mandatory soil conservation plans.

- Virginia has been implementing the "Chesapeake Bay Preservation Act" since 1988.[30] The agricultural component of the Act requires all agricultural land (cropland, pastureland, and feedlot operations) within "Chesapeake Bay preservation areas" to have a "soil and water quality conservation assessment" conducted evaluating

  > "...the effectiveness of existing practices pertaining to soil erosion and sediment control, nutrient management, and management of pesticides and, where necessary, results in a plan outlining additional necessary practices needed to ensure water quality protection..."

  Funding for such assessments and plans resulting from those assessments ceased in 2002. When funding was available from FY 1992 through FY 2002 approximately 5,800 Soil & Water Quality Conservation Plans were developed, covering roughly 282,000 acres of agricultural land, primarily in the "Resource Protection Areas" in the Tidewater region of Virginia.[31] The Act does not affect all of Virginia's Chesapeake Bay watershed but only the Tidewater area in the eastern part of the State. In addition, it is likely that this law is actually voluntary in nature because it does not require farmers or landowners to pay for the assessments themselves but relies on

state funds to pay the Conservation District employees to conduct the assessments. State program managers did not know how many of Virginia's 3.3 million acres of cropland and 3.1 million acres of pastureland are located in the Tidewater area and thus would be required to receive an "assessment" should funding be restored to this quasi-regulatory requirement.

Recent or proposed regulatory changes to state soil erosion and sediment control regulations:

EWG learned that two states in the Chesapeake Bay watershed are in the process of releasing proposed changes to their soil erosion and sediment pollution regulatory framework affecting agriculture:

- Pennsylvania released a proposal on August 29, 2009 to extend its Erosion and Sediment Control permit to "animal heavy use areas" on the farm where animals congregate and are at risk for soil erosion and sediment pollution, e.g. mud holing areas near feeding troughs, watering systems, milking barns.[32]

- Delaware is in the process of finalizing a proposal to require poultry operations that are building new chicken houses and disturbing more than one acre of soil to obtain a state Sediment and Stormwater Construction permit.[33]

2. **Within the five Bay states (MD, PA, NY, DE, and VA) that implement federal or state animal feeding operation permits, only about 35 percent of all major livestock animals (dairy, swine, and beef animals on confined and grazing farms) are covered by permits while 80 percent of all poultry animals (broilers and layers) are permitted or on the verge of being officially permitted.**

- Pennsylvania permits about 34 percent of the major livestock animals and 70 percent of the poultry (broiler chickens for meat and layer chickens for eggs) in the Bay watershed through the federal CAFO NPDES program.[34] Only 6 percent of its dairy cows and 1 percent of its beef cattle are permitted and 58 percent of its pigs are permitted. (See tables in the Appendix.)

- New York permits 58 percent of its major livestock animals and 92 percent of its poultry statewide through its federally designated CAFO NDPES program.[35] Eighty-three percent of the dairy cows, 71 percent of the pigs and just 5 percent of the beef cattle are permitted. (See tables in the Appendix.)

- Maryland permits just 14 percent of its major livestock animals through its federally designated CAFO NPDES program. Twenty-eight percent of the dairy cows, 10 percent of the pigs, and 6 percent of the beef cattle are permitted in Maryland. None of the state's poultry operations (either broiler or layer) are officially permitted, but

broiler farms raising 84 percent of the broiler chickens in the state have filed "Notice of Intent" forms as of February 2009 to obtain a federal CAFO permit. The EPA is currently reviewing Maryland's poultry CAFO NPDES permit program.[36] (See tables in the Appendix.)

- Delaware does not participate in the federal CAFO NPDES program but implements a state level permit program. Delaware's state CAFO program permits 75 percent of their major livestock animals. Thirty-six percent of the dairy cows, 20 percent of the pigs, and 28 percent of the beef cattle are permitted in Delaware. Like Maryland, Delaware recently encouraged its broiler and layer farms to file "Notice of Intent" forms to obtain a federal CAFO permit. Chicken farms raising 42 percent of the broiler and layer chickens in the state have filed those forms. The EPA is currently reviewing Delaware's poultry CAFO permit program.[37] (See tables in the Appendix.)

- Virginia does not currently operate a federal CAFO NPDES program but implements a state-level permit program called the Virginia Pollution Abatement (VPA) Permit Program.[38] Just 23 percent of Virginia's major livestock animals are covered by the VPA permit. Nearly 40 percent of the dairy cows, 96 percent of the pigs, and less than one percent of the beef cattle in the state are permitted. Using EWG's estimation methods, 109 percent of Virginia's poultry animals seem to be covered by the VPA permit. This may be because Virginia collects "maximum capacity" information from the permitted facilities while the USDA Census asks farmers how many animals are on their farm at a specific point in time. See tables in the Appendix.)

- West Virginia does not implement either a federal or a state animal feeding operation permit. Beginning in 1993, West Virginia's Groundwater Protection Rules required concentrated animal feeding operations with greater than 1,000 animal units (about 833 beef cows or 333,333 broiler chickens)[39] to obtain and follow a certified Nutrient Management Plan.[40] However, West Virginia chose to implement the program voluntarily by encouraging 30 CAFOs to obtain voluntary nutrient management plans.[41]

Recent or proposed regulatory changes to animal permitting program regulations

EWG learned that several states in the Chesapeake Bay watershed have recently made changes, proposed changes, or are working on changing their animal operation permitting framework:

- West Virginia, in consultation with EPA Region 3, is developing a federal CAFO NPDES Permit. The regulatory program will be introduced in the state legislature in 2010. This will be the first animal permit program in the state.

- New York began a state-level permit for concentrated animal operations on July 1, 2009. New York decided to develop a state-level permit out of concern that some Large and Medium-sized CAFOs that currently have a federal CAFO permit will seek

to be removed from permit coverage by stating that they "do not discharge or propose to discharge manure or stormwater or have animals in contact with waters." The Final 2008 CAFO Rule concluded that the size of a concentrated animal operation is not sufficient to require permit coverage but the state has to prove that the operation "discharges or proposes to discharge" if it is a Medium-sized facility or it is a "significant contributor of pollutants" if it is a Small-sized facility. Thus, any operation that seeks to remove its federal permit will be required to obtain a New York state permit.[42]

- Virginia released a proposal June 22, 2009 to extend some nutrient management requirements beyond the permitted animal operations to the "end-users" – farms that use manure generated by the permitted animal farms. These end-user farms will be given four options for obtaining an appropriate land-application rate for manure. One of the four options is a site-specific certified nutrient management plan.[43]

- Virginia is currently working with EPA Region 3 to bring its federal CAFO NPDES permit program up to date to meet the 2008 Final CAFO Rule.[44] Currently, there are no animal feeding operations with permit coverage under the Virginia Pollutant Discharge Elimination System Permit (VPDES) for CAFOs.[45]

- Maryland's new CAFO permit regulations took effect January 2009. The regulations update the state's existing livestock CAFO permit program, include a new poultry CAFO permit program, and include provisions to regulate Maryland Animal Feeding Operations (MAFOs), which are large farms that do not discharge to surface waters. However, the permit is not yet in effect for MAFOs or CAFOs, as it awaits the results of a legal challenge and EPA approval of the CAFO permit. [46]

3. Just two states (Maryland and Delaware) have regulations addressing all manure management and manure use in their states. Both states regulate a) the manure-generating farms *and* the "end-user" farms and b) the application of animal manure on all types of farmland (cropland *and* pastureland).

- Maryland regulates the use of manure on virtually all crop and pastureland in the state. The Maryland Nutrient Management Law requires that farm operations with more than 10 acres or $2,500 in farm sales obtain and follow a certified Nutrient Management Plan prescribing the rate of manure use allowed on cropland and pastureland. Thus, Maryland regulates manure management and use by virtually all animal farms, regardless of their being confined or grazing systems; manure use by all end-users; and manure application on both crop and pastureland.[47]

- Delaware also regulates the use of manure on virtually all crop and pastureland in the state. The Delaware Nutrient Management Law requires individuals with more than eight Animal units (about 6 dairy cows or 2,666 broiler chickens)[48] or who apply

nutrients to more than 10 acres of land to obtain and follow a certified Nutrient Management Plan prescribing the rate of manure allowed on cropland and pastureland. Thus, like Maryland, Delaware regulates manure management and use by virtually all confined or grazing animal farms, manure use by all end-users, and manure application on both crop and pastureland.[49]

- Pennsylvania regulates only the manure use by some confined animal farms leaving unregulated a) the manure transferred off these farms and b) the manure generated at the unregulated animal farms. State program managers report there are 334 federally permitted CAFO operations in Pennsylvania (including 10 duck and 2 turkey operations) that have a mandatory Nutrient Management Plans. However, because some farms raise more than one type of animal, Pennsylvania sent to EWG permitting data with counts for each animal type (see Appendix) showing 465 permit counts instead of just 334 permits. For example if a farm raises dairy cows and chickens, that farm would receive one permit but also be counted as having two sets of animals. In addition to the CAFO program, about 695 additional concentrated animal operations ("CAOs" that are not also CAFOs) comply with Pennsylvania's Nutrient Management Law representing 976 sets of animals.[50] Thus, roughly 1,029 farms raising 1,441 sets of animals in Pennsylvania are required to obtain and follow a certified Nutrient Management Plan. The plans apply only to these few regulated farms and do not regulate manure use that is transferred off the generating farm to other farmers who are "end-users" of the manure other than to require the end-use farm to obtain a Nutrient Balance Sheet (but not a certified Nutrient Management Plan). Pennsylvania does have a Clean Streams Law that requires all animal operations to develop and follow a Manure Management Plan.[51] However, the state does not have to approve those plans nor does it systematically check these plans and the standards to prepare the plan are not as rigorous as the modern and certified nutrient management plans required in Maryland and Delaware.[52]

- New York only regulates the manure use by some of its confined animal farms, leaving end-users and unregulated animal farms without any regulatory oversight. There are 540 concentrated animal operations raising the major livestock and poultry animals under the federal CAFO NPDES permit in New York who are required to follow a certified Nutrient Management Plan when using their manure as fertilizer on their own farms.

- Virginia only regulates the management and use of manure by some of its confined animal farms, leaving end-users of the manure and all other animal farms in the state unregulated. There are 793 confined animal operations raising the major livestock and poultry animals regulated under a state permit called the Virginia Pollution Abatement (VPA) permit. Virginia permits an additional 262 turkey operations. Virginia does not implement the federal CAFO program but the VPA permit regulates more confined animal operations than would be regulated under the federal program by size criteria alone.

- West Virginia does not regulate the manure use by any of its confined animal farms, unconfined animal farms or end-user farms.

4. Just two states (Maryland and Delaware) regulate application of chemical fertilizer on cropland and pastureland.

- Maryland's Nutrient Management Law, as mentioned earlier, requires farmers to obtain and follow nutrient management plans that prescribe manure and chemical fertilizer application rates on virtually all cropland and pastureland in the state.
- Delaware's Nutrient Management Law, like Maryland's, requires farmers to obtain and follow nutrient management plans that prescribe manure and chemical fertilizer application rates on virtually all cropland and pastureland in the state.
- Virginia's 1,055 confined animal operations with the state VPA permit have nutrient management plans that prescribe the rate of application of chemical fertilizers. Thus, chemical fertilizers applied on cropland operated by these farms are regulated.
- Pennsylvania, New York, and West Virginia do not have any state laws specifically addressing chemical fertilizers on cropland or pastureland. Only the animal operations permitted in Pennsylvania and New York have to develop nutrient management plans, which specify chemical fertilizer application rates.

THE VOLUNTARY PROGRAM APPROACH

Voluntary approaches have failed to clean up the Bay

Maryland, Virginia, and Pennsylvania – the three so called, "Signatory States" to the Chesapeake Bay Agreements have been trying to clean up the Bay since the 1970s. These three states have repeated their commitment to a cleaner Bay four times (in 1983, 1987, 1992, and 2000) via a regional voluntary partnership approach. Four times the states have missed their goals. New York, West Virginia, and Delaware joined the Bay Agreement as "Partner States" in 2003 and 2004.

In 2000, the states signed the historic "Chesapeake Bay Agreement 2000" (also know as "C2K") outlining "Tributary Strategies" plans that identified the types and numbers of best management practices (BMPs) that each major source sector (agriculture, sewage treatment plans, urban and suburban runoff, etc) would voluntarily implement by 2010.

According to the best available science at the time, if the states achieved implementation of these Tributary Strategy practices, the Bay's health would recover and the EPA could remove the Chesapeake from its "Dirty Waters List". If the Bay states failed to achieve this goal by 2010, the federal EPA would have the opportunity to

rescind the authority it gave the states to implement the Clean Water Act programs and could take over implementation of those programs itself.

Two years shy of their 2010 deadline, the Bay states acknowledged that they would not achieve their Tributary Strategy goals in time.[53]

This led many in the scientific and policy community to conclude in December 2008 that the 25-year voluntary partnership to clean up the Chesapeake Bay has failed.[54] However, an indication that the voluntary approach would be inadequate came as early as 1983 when the first Bay Agreement was signed. Shortly after the Agreement, the Chesapeake Bay Commission (a Secretariat for the Governor's of the three Signatory States) questioned whether a voluntary approach to reducing farm runoff would be adequate.[55]

For the agricultural portion of the Tributary Strategies, the Bay states have failed to achieve the clean-up goals because of the continued reliance on the voluntary program approach. Most states pay farmers who come forward voluntarily to participate in their state and federal cost-share programs between 75 and 87.5 percent the cost of installing and maintaining environmentally protective practices. However, literally hundreds of thousands of acres of annual practices like cover crops and nutrient management planning and hundreds of one-time, permanent structures like manure sheds and soil erosion terraces are called for in each state's Tributary Strategies to reduce agricultural pollution.[56]

According to the EPA 2009 Bay Barometer report, after more than two decades of effort (1985 to 2008) to voluntarily reduce pollution from agriculture in the entire Bay watershed, approximately half of the pollution reductions called for in the agricultural Tributary Strategies have been accomplished (50 percent of the farm nitrogen goal, 49 percent of the farm phosphorus goal, and 48 percent of the farm sediment goal).

EWG has concluded there are three fundamental reasons why the voluntary approach to cleaning up the Chesapeake Bay has failed and in particular, why the voluntary agricultural Tributary Strategies approach has failed: lack of funding, lack of participation in the program regardless of funding, and lack of motivation to undertake pollution reductions without public funds.

1. Lack of Money

Governments in the six Bay states have never chosen to allocate sufficient taxpayer resources to pay for all the agricultural practices, waster water facility upgrades, septic tank upgrades or replacements, and urban and suburban stormwater practices called for in the states' Tributary Strategies. More importantly, efforts to estimate a) the costs of implementing the Strategies, b) the availability of public funds, and c) the funding shortfall have come only recently in the 25-year effort to restore the Bay.

A 2005 report by the Chesapeake Bay Commission called "2007 Federal Farm Bill Concepts for Conservation Reform in the Chesapeake Bay Region" estimated that an additional $700 million per year over existing funding levels was needed to implement

all the agricultural practices called for in each state's Tributary Strategies by 2010. The report assumed an average cost-share rate with farmers of 75 percent, leaving a $525 million per year tab for taxpayers to pick up.

Many cost-shared best management practices for constructing manure storage structures or fences to keep livestock out of streams involve one-time contracts. Other practices must be contracted every single year because the practices must be done annually: planting cover crops in the fall, using conservation tillage every time a crop is planted, and developing or updating nutrient management plans that optimize fertilizer and manure use to grow crops while reducing loss of nutrients to the environment.

Given that the cover crops, conservation tillage, and nutrient management plans ideally must be implemented or developed and followed every single year, the current voluntary program approach essentially commits public funds to cost-sharing annual practices *forever*. Some will argue that whatever the cost and whatever the duration of funding obligation from the State coffers, the Bay is worth it. Others will maintain that payments should be time-limited and that the pollution controls should become the sole financial responsibility of the polluter. The Bay can be regarded as invaluable but the failed approach of the past 25 years is not going to clean it up.

To put into perspective the funding requirements and fiscal obligations necessary to achieve the Tributary Strategies through a cost-shared voluntary approach, let us consider one best management practice – cover crops – and one state - Maryland.

The annual acreage of cover crops needed to achieve Maryland's Tributary Strategy goals is 750,000 acres per year. Thus, 57 percent of the state's 1.4 million acres of cropland must be planted with cover crops every year *ad infinitum.*

Maryland provides $25 to $85 per acre for cover crops depending on when the crops are planted (the earlier the better), what kind of crops are planted (rye is ideal), and other factors. If we assume an average rate of $45 per acre, cover cropping will cost the state roughly $34 million per year.

To put that figure into perspective, $34 million for just one practice represents 1.4 times more than Maryland's federal and state funding in 2007 for all of its Tributary Strategy practices ($24 million).[57]

Thus, with the new infusion of $9 million in to Maryland's "Chesapeake Bay Trust Funds" and $4 million from the Farm Bill Chesapeake Initiative funds, Maryland has roughly $37 million - enough to pay for one year of this single annual practice but insufficient to pay for the thousands of acres of other annual practices or hundreds of permanent, structural practices.

How much and for how long should taxpayers be expected to pay for most of the cost to reduce Bay pollution from agriculture?

Furthermore, all of the annual practices mentioned above generate economic benefits for the individual farm operation. Cover crops improve organic matter, conservation tillage reduces fuel costs and saves topsoil, and nutrient management plans can save money by reducing excess manure or chemical fertilizer purchases. For these reasons,

many farmers profess to planting cover crops, using conservation tillage, and obtaining nutrient management plans without cost-share funds.

2. Lack of Participation

The second fundamental factor explaining why the voluntary approach has failed is closely tied to lack of funding: lack of participation.

Even with exceedingly high cost-share rates for planting economically and environmentally beneficial cover crops, farmers have not joined in a voluntary paired watershed study. The Maryland Department of Natural Resource's Corsica River Paired Watershed Study has not officially started, according to an interview with MDNR program manager, because they cannot get the necessary number of farmers to agree to enroll in the voluntary program to plant the requisite number of cover crops in the treatment watershed. The study managers are surprised at this low rate of participation because they are offering $85 per acre to farmers to plant cover crops. Customarily, cover crop cost-share rates are on the order of $25 to $45 per acre.

3. The Voluntary Approach Doesn't Motivate

The third basic factor explaining why the voluntary approach has failed lies at the heart of the approach: it's voluntary.

A voluntary program that a) offers cost-share rates below what would motivate behavior change and b) lacks sufficient funding to cover all farmers who must participate is inherently doomed to fail. The voluntary approach lacks sufficient legal or economic signals to motivate individuals to change their behavior.

University of Maryland economics professor Dennis M. King explained in 2007 why Maryland's largest river, the Patuxent, remains polluted after decades of voluntary effort to clean it up:

> "Economic theory predicts and the evidence shows that without credible enforcement and meaningful penalties, many private decision-makers will not only ignore appeals for voluntary environmental restraints, but will also ignore environmental laws."[58]

As early as 1999, the EPA argued that the voluntary approach to implementing the state Tributary Strategies would not guarantee sufficient adoption of the necessary best management practices. The EPA said, "There is no requirement associated with the Chesapeake Bay Program that would require point and nonpoint sources to participate at a level necessary to achieve the water quality standards."[59]

According to Naval Academy political scientist Howard Ernst, "And after three decades of stressing collaboration and voluntary programs, the Bay Program has been left with agreements instead of necessary laws, goals instead of legally binding pollution limits, endless committees instead of action—and a severely impaired Chesapeake Bay."[60]

CONCLUSION

The last 25 years of effort have made it clear that the voluntary approach won't save the Bay. Our review of the current regulatory framework reveals that the existing regulatory approach is not up to the task either.

The voluntary programs have failed because there isn't enough money in the programs, participation rates are not high enough even at exorbitant cost-share rates, and voluntary programs send too weak of a signal to farmers to make the necessary behavior changes.

The regulatory framework is frayed because most the important sources of pollution ailing the Chesapeake Bay remain unregulated.

Furthermore, none of the regulations appear to be designed to specifically achieve the Tributary Strategies goals. That is, none of the regulations seem set up to implement a specific number of practices called for in each state's Tributary Strategies.

For example, many of the states' Tributary Strategies call for thousands of acres of cover crops to be planted and thousands of acres of "off-stream watering systems with fencing" to keep livestock out of streams. None of the regulations we reviewed specifically require that cover crops be planted or that streams be free of livestock.

Alternatively, none of the regulations we reviewed were developed to achieve a specific pollution reduction goal for nitrogen, phosphorus, or sediment pollution.

Finally, none of the regulations we reviewed were developed to actually clean up agricultural nutrient or sediment pollution in a specific body of water (a specific creek, river, lake, or the Chesapeake Bay).

Even the new state animal permit in New York and the recent proposals to expand state nutrient and sediment regulations do not appear to be developed within the context of a larger strategy for cleaning up the Chesapeake Bay. Plus, these proposed changes are unlikely to result in significant additional pollution reduction from agriculture.

These are serious shortcomings and lost opportunities for the existing regulations.

Furthermore, because this report intended to provide an initial review of the presence or absence of regulations addressing agricultural water pollution, the next step is to conduct an evaluation of the performance of the existing regulations. We identified the gaps in the regulatory framework, but what we'd really like to know is if the federal and state regulations are making a difference.

For example, does permitting animal feeding operations really produce pollution control? Are farmers following mandatory nutrient management plans? Have the plans lowered chemical fertilizer and manure use on farms? Are soil conservation plans being

implemented and are they solving soil erosion and sediment pollution? Furthermore, we'd like to know if the regulations are a major drain on profit margins or they are helping farmers become more productive. We encourage an independent evaluation of each of these state and federal agricultural regulations.

The upcoming Chesapeake Bay TMDL is scheduled to provide 92 numeric pollution reduction goals for the Bay states to achieve. Under the current Tributary Strategies, two-thirds of the nutrient reductions needed to restore Bay water quality are assigned to agriculture.

If the new TMDLs continue to rely heavily on pollution reductions from agriculture, the only chance that states and the federal government will have at achieving the agricultural portion of the 92 pollution budgets is to achieve implementation of the necessary farm best management practices.

To achieve that end, the six Chesapeake Bay states and the federal government must develop an effective regulatory framework to specifically implement the necessary farm best management practices.

EWG suggests a three-step approach to cleaning up the Chesapeake is materializing. First, the President is leading the way with Executive Order Reports that identify ways to expand existing regulatory authority over agricultural pollution and improve the cost-effectiveness of existing voluntary cost-share funds. Second, Senator Cardin (D-Maryland) is leading the way to reauthorize the EPA Chesapeake Bay Program in the Clean Water Act to give EPA a) the regulatory power to compel states to submit and implement plans that will achieve clean-up of their portions of the TMDL and b) punitive powers if states fail to act. The third step has not yet begun. The third step is for state legislatures to promulgate laws that will establish a regulatory framework to achieve the agricultural pollution reductions over which the federal government does not have jurisdiction.

President Obama's May 12, 2009 Executive Order on the Chesapeake Bay calls for seven federal agencies to update and improve their strategies for the Chesapeake Bay. We commend the President for his leadership and support to this decade's long cause and are hopeful that the Executive Order reports will provide critical new regulatory and voluntary policy changes that will help accelerate Bay clean up.

However, as this report discusses, the federal government's regulatory programs fall short of what is needed to attain cleaner water, the federal voluntary agricultural programs lack funds and participation. Given the limited federal reach (over only concentrated animal feeding operations), it is clear that upgrades to the federal regulatory framework will be insufficient to deal with this major source of Bay pollution.

We commend Senator Cardin for his leadership on reauthorizing the EPA Chesapeake Bay Program, and we are hopeful that the Senate and House Committees that are drafting this legislation give EPA the necessary regulatory authority. Without a strong

reauthorization bill, EPA will be unable to compel the states to submit meaningful implementation plans to get the job done.

Finally, with or without the federal authorities contained in the Cardin bill, the states must pick up the torch. We suggest that the only option left to states seeking to provide *real* "Reasonable Assurance" that they are capable of achieving the agricultural pollution reductions in the new TMDL is if the states can ensure implementation of the necessary best management practices. And the only way it appears that the states and the federal government can ensure the implementation of those practices is to develop an effective – and shared – regulatory framework.

The states and the federal government must deliberate on what an effective regulatory framework would entail. At the very least, an effective framework will require tailoring existing state and federal agricultural regulations, developing new state and federal regulations, and using the voluntary cost-share funds to help farmers implement the regulatory framework.

Then, many additional options must be considered. For example, the regulatory framework could apply statewide, be limited to within the Bay watershed or limited to particular TMDL watersheds. The regulatory framework could be prescriptive, mandating adoption of the specific number and types of practices that equate to a reduction in agricultural nitrogen, phosphorus, and sediment pollution in each TMDL. The regulatory framework could be performance based, wherein each farm is assessed for its pollution load and then allowed the flexibility to determine how it will achieve a specific pollution reduction goal that when aggregated across all farms within each TMDL watershed will achieve each TMDL goal.

The regulatory framework should make cost-effective use of the available but limited cost-share funds. These funds should be rationed in innovative ways, including but not limited to geographic priority areas, practice priorities, or economic priorities such as assisting farms that demonstrate significant economic hardship from compliance with the new regulatory framework.

EPILOGUE

Dr. Oliver Houck, law professor at Tulane University and one of the country's preeminent TMDL experts concludes:

> "Reasonable assurances" are not provided by existing water quality standards, which set goals but do not by themselves abate pollution; nor by programs that are educational or voluntary and, in effect, penalize the good actor; nor by financial incentives that are subject to budgetary constraints. Clean Water Act assurances should be met through specific and mandatory best practices, as for all other water dischargers, industrial and municipal. Blueprints for these practices, by activity, are already developed in government publications and studies; they do not need to be invented. These requirements can be supplemented, but not replaced, by fee systems based either on the use of polluting materials (e.g. fertilizers, manure) and/or by rebates for practices that exceed regulatory requirements.[61]

APPENDIX

Table 1. Half the Cropland in the Bay States is "Highly Erodible" (HEL) and a Quarter of the Cropland is Eroding at Unsustainable Rates

Categories of land and erosion severity	MD	VA	PA	DE	WV	NY	Total
HEL Cropland Eroding AT OR BELOW Soil Loss Tolerance Rates*	218,000	971,400	1,768,100	no data	391,600	1,019,800	4,368,900
HEL Cropland Eroding ABOVE Soil Loss Tolerance Rates	298,600	341,900	1,329,300	14,900	76,600	656,500	2,717,800
Total HEL Cropland	516,600	1,313,300	3,097,400	17,600	468,200	1,676,300	7,089,400
Non-HEL Cropland eroding ABOVE Soil Loss Tolerance Rates	87,800	421,700	225,100	35,100	no data	426,000	1,195,700
Total cropland in each state	1,405,442	3,274,137	4,870,287	432,733	942,132	4,314,954	15,239,685
Percentage of cropland that is Highly Erodible **	37%	40%	64%	4%	50%	39%	**47%**
Percentage of cropland (HEL + non-HEL) that is eroding ABOVE Soil Loss Tolerance Rates	27%	23%	32%	12%	no data	25%	**26%**

Source: 2003 Annual NRI - State Report and USDA 2007 Agricultural Census. Data is in acres and is statewide.

*Soil Loss Tolerance Rates (SLTR) represents a soil fertility indicator rather than an environmental indicator. SLTR represents the maximum annual soil erosion rate that can be sustained with no long-term loss in soil productivity. Soils ABOVE the SLTR are losing soil fertility at an unsustainable level.

**Percentage of cropland in each state that is Highly Erodible and may be subject to Conservation Compliance if the landowner is receiving federal farm subsidies. The U.S. Department of Agriculture does not keep track of the number of cropland acres in each state that are subject to Conservation Compliance.[62]

Table 2. OPERATIONS - Total Livestock Operations in 5 States with Federal or State Animal Feeding Operation Permits

	Permitted	Unpermitted	Total	Percent Permitted
Total Operations:	1,060	65,835	66,895	**1.6%**
Virginia Operations	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	84	1,070	1,154	7%
Swine	63	1,177	1,240	5%
Beef	7	21,900	21,907	0%
Total	154	24,147	24,301	**1%**
New York Operations	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	499	5,184	5,683	9%
Swine	19	1,852	1,871	1%
Beef	12	6,791	6,803	0%
Total	530	13,827	14,357	**4%**
Maryland Operations	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	10	653	663	2%
Swine	1	411	412	0%
Beef	2	2,524	2,526	0%
Total	13	3,588	3,601	**0%**
Pennsylvania Operations	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	89	8,244	8,333	1%
Swine	170	3,467	3,637	5%
Beef	92	12,161	12,253	1%
Total	351	23,872	24,223	**1%**
Delaware Operations	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	10	73	83	12%
Swine	1	76	77	1%
Beef	1	252	253	0%
Total	12	401	413	**3%**

Note: Data is statewide. State program managers provided EWG with the number of permitted operations and animals covered by the federal CAFO program (MD, PA, and NY) and the state confined animal operation programs (VA and DE). The number of unpermitted operations and animals was estimated by subtracting the number of total operations and animals from the number of permitted operations and animals. The total number of operations and animals in each animal sector in each state was estimated using the 2007 Agriculture Census because state program managers were unaware of the total operations and animals in their respective states or how many operations were eligible for a permit. The number of dairy farms in each state was estimated from the state Census Table 17. Milk Cow Herd Size by Inventory and Sales: 2007: Total/Farms/Total. The number of dairy animals was estimated from Milk Cows/Number/Total. The number of swine farms was estimated from the state Census Table 19. Hogs and Pigs – Inventory: 2007 and 2002: 2007/Farms/Total hogs and pigs. The number of swine animals was estimated from 2007/Number/Total hogs and pigs. (We used Maryland's database query to find 33,000 swine in the state due to the disclosure problem with Census table data) The number of beef

farms was estimated from the state Census Table 16. Beef Cow Herd Size by Inventory and Sales: 2007 – Total/Farms/Total. Number of beef animals was estimated from Total/Number/Total.

Table 3. ANIMALS - Total Livestock Animals in 5 States with Federal or State Animal Feeding Operation Permits

	Permitted	Unpermitted	Total	Percent Permitted
Total Animals:	1,746,761	3,290,008	5,036,769	**35%**
Virginia Animals	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	39,384	59,533	98,917	40%
Swine	358,198	12,978	371,176	97%
Beef	7,760	1,258,820	1,266,580	1%
Total	405,342	1,331,331	1,736,673	**23%**
New York Animals	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	521,111	105,344	626,455	83%
Swine	60,577	25,164	85,741	71%
Beef	14,125	291,325	305,450	5%
Total	595,813	421,833	1,017,646	**59%**
Maryland Animals	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	15,785	41,387	57,172	28%
Swine	3,300	29,700	33,000	10%
Beef	4,300	73,590	77,890	6%
Total	23,385	144,677	168,062	**14%**
Pennsylvania Animals	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	33,853	519,468	553,321	6%
Swine	677,625	489,824	1,167,449	58%
Beef	4,625	366,374	370,999	1%
Total	716,103	1,375,666	2,091,769	**34%**
Delaware Animals	**Permitted**	**Unpermitted**	**Total**	**Percent Permitted**
Dairy	2,318	4,208	6,526	36%
Swine	1,800	7,155	8,955	20%
Beef	2,000	5,138	7,138	28%
Total	6,118	16,501	22,619	**27%**

Note: See note from Table 2.

Table 4. Estimates of Chicken (Broilers + Layers) Operations and Animals in Chesapeake Bay States with Federal or State Animal Feeding Operation Permits (data are state-wide)

CHICKEN OPERATIONS				
State	Permitted	Unpermitted	Total	Percent Permitted
New York	10	4,632	4,642	0%
Pennsylvania	102	9,001	9,103	1%
Delaware (NOI)	341	601	942	36%
Maryland (NOI)	450	1,562	2,012	22%
Virginia	639	3,553	4,192	15%
Total	1,542	19,349	20,891	**7%**
CHICKEN ANIMALS				
State	Permitted	Unpermitted	Total	Percent Permitted
New York	4,078,774	343,144	4,421,918	92%
Pennsylvania	34,790,982	14,700,157	49,491,139	70%
Delaware (NOI)	28,521,466	22,619,738	51,141,204	56%
Maryland (NOI)	57,300,000	10,866,264	68,166,264	84%
Virginia*	51,208,430	-4,254,879	46,953,551	109%
Total	175,899,652	44,274,424	220,174,076	**80%**

* Virginia's permitted broiler and layer chickens exceed the total number of broiler and layer chickens reported in the 2007 Agriculture Census. Possible explanations for this include that Virginia's DEQ records the maximum capacity of animals allowed in each chicken house and each farm covered by the permit while the Census asks farmers to report the number of animals on their farm on December 31 (an actual snapshot at a given point in time).

Note: States provided EWG with the number of permitted operations and animals covered by the federal CAFO program (MD, PA, and NY) and the state confined animal operation program (VA and DE). The numbers of unpermitted operations and animals were estimated by subtracting the number of Total operations and animals from the number of permitted operations and animals. The total number of poultry farms (broilers + layers) in each state was estimated using the 2007 Agriculture Census because state program managers were unaware of the total chicken operations and chickens in their respective states or how many operations were eligible for a permit. The number of chicken operations in each state was estimate from the state Census Table 27. Poultry – Inventory and Number Sold: 2007 and 2002: 2007/Farms/Layer inventory + 2007/Farms/Broilers and other meat-type chickens inventory. The number of chicken animals was estimated from 2007/Number/ Layer inventory + 2007/Number/Broilers and other meat-type chickens inventory.

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SEP 2 2 2009

Honorable Eddie Bernice Johnson
Chairwoman
Subcommittee on Water Resources and Environment
United States House of Representatives
B-376 Rayburn House Office Building
Washington, DC 20515-6262

Dear Chairwoman Johnson:

Enclosed for the record please find the comments of the New York State Department of Environmental Conservation on Reauthorization of the Chesapeake Bay Program. These comments are essentially similar to the testimony which the Department presented before the United States Senate Subcommittee on Water and Wildlife in August, 2009.

Thank you for this opportunity to submit DEC's comments for the record.

Sincerely,

Alexander B. Grannis

Enclosure

Testimony of the New York State Department of Environmental Conservation

United States House of Representative Transportation and Infrastructure Committee
Water Resource and Environment Subcommittee
"Reauthorization of the Chesapeake Bay Program"
September 22, 2009

Chairwoman Johnson, and members of the Water Resource and Environment Subcommittee, below please find the comments of the New York State Department of Environmental Conservation for the record of the September 22, 2009 hearing on the reauthorization of the Chesapeake Bay Program. These comments provide New York State's perspective on the effectiveness of the Chesapeake Bay Program to date, and on additional measures the federal government should take to protect and restore water quality and living resources of the Chesapeake Bay and Basin.

New York: An Up-Basin State

New York is an "up-basin" state with areas in the Susquehanna and Chemung River watersheds that ultimately feed into the Chesapeake Bay. This region of New York includes 13% of the state, and extends up to 440 miles from the Bay. The area is about 70% forested, with intermixed agricultural areas consisting of mainly small, financially troubled, dairy farms. In short, the area is predominantly rural and lower income. Wastewater treatment plants located in the Susquehanna/Chemung region contribute an estimated 1% to Chesapeake Bay's pollutant load. Recent estimates are that New York provides about 10% of the Bay's water but somewhere less than 5% of the pollutants.

New York State's efforts to protect water quality in this region have contributed to decreased impairments of Chesapeake Bay. We estimate that if water quality in the Bay had the nitrogen, phosphorus and sediment concentrations of the water leaving New York, the Chesapeake would probably not violate federal water quality standards. There are very few, and very localized, violations of water quality standards within New York's portion of the Chesapeake Basin.

Funding and Supporting a Watershed Basins Approach

A comprehensive environmental agenda for New York State is a critical component of Governor David A. Paterson's vision for the state's future. Our efforts include flood hazard planning and mitigation; stream restoration; flood plain mapping and management; drinking water source protection; primary aquifer mapping and protection; climate change adaptation, and wetland protection and creation. A key aspect of the Governor's program is a robust New York State action plan for the Chesapeake Basin, known as the "Tributary Strategy."

For New York to succeed in these and other efforts, strong federal leadership and financial support is vital. Given the low-income, poor and distant communities of the Susquehanna/Chemung region of New York State, federal assistance is needed to ensure that we continue to protect the water quality of this area and, going beyond New York's borders, assist in the efforts being made by the federal government and other states to attain the national goal of restoring Chesapeake Bay.

We support a "watershed basin" approach to reducing pollution loadings at the source and protecting the natural resources that, in turn, protect water quality. Under a true watershed basin program, stabilized streambanks or wetlands constructed to mitigate flooding up in Sidney, New York, would be equally important as stabilized shorelines or marshes constructed to reduce nutrient and sediment discharged in Baltimore, Maryland. This approach will meet local needs while building the full partnerships that will better ensure the restoration of Chesapeake Bay. Congress needs to direct the U.S. Environmental Protection Agency (EPA) and the states to undertake a comprehensive Chesapeake *Basin*, not simply Chesapeake Bay, program. This should be reflected in any reauthorization Congressional oversight. One basic measure to consider in reauthorizing the Chesapeake Bay Program, therefore, is to have less of a distinction between "signatories" and headwater states. This would better ensure funding equity.

Refocusing Existing Chesapeake Bay Efforts: Stronger National Standards

Some express support for the geographical targeting of all federal resources to places where the most pollutant reduction from the existing built environment will be gained for the Bay. While it may look like more "bang for the buck," this strategy rewards areas that experienced massive over development in the face of known water quality impairment, fails to address water quality issues of local import in up-basin areas, and does not operate to protect the high quality water resources that already exist in the basin. Clearly, areas of poor water quality should improve and receive equitable funding. They also may be the appropriate focus of the enforcement authority granted to EPA by the Clean Water Act – so as to not simply reward past sprawl with public money.

One clear path forward to protect water quality is to facilitate the reversion of land uses near waterways to better mimic natural conditions. Many tools already exist to further this goal, the simplest of which are wetland construction, stream bank and floodplain restoration and public ownership of riparian corridors. New York encourages Congress to direct the Chesapeake Bay Program to provide significant funding to accomplish this broad goal.

The EPA and the other Chesapeake Basin states also have tended to focus attention on particular problems in individual rivers, estuaries and watersheds. Such an approach fails to recognize, however, that many of the Basin's water bodies suffer from the same abuses from our ever expanding development footprint, including nutrient enrichment and bioaccumulation.

It is highly work intensive to address each individual waterway within the present Total Maximum Daily Load protocol. Since the Clean Water Act was enacted in 1972, great strides

have been made to achieve the state-of-the-art treatment at the time, the "secondary treatment" standard. Thirty-seven years later, basic treatment technologies and understandings of runoff impact have increased dramatically, so that additional research is not needed. Now is the time to raise the national floor of technical standards and effluent limitations. We need to ensure that national standards are consistent with existing technology, especially for nutrients. An EPA focus on standard setting will allow the states to focus on their strengths: implementing programs; assessing localized problems, and developing local solutions.

Given the magnitude of nutrient and sediment reduction needed to restore Chesapeake Bay and the cost to implement innumerable nonpoint source management practices and wastewater treatment improvements, it is imperative that pollutants first be controlled at their sources, before being managed on the landscape or removed by end-of-pipe treatments or edge-of-field controls. End-of-pipe treatments in particular, while relatively effective, are typically energy intensive and do not help us to meet policies necessary to address climate change. Opportunities exist to reduce pollutants at the source, including air emissions of NOx, phosphorus waste from dishwashing detergent, lawn fertilizers, domestic animal access to streams and manure spreading on frozen ground. While states can enact policies, rules and regulations, federal leadership is needed for consistency and sufficient regional scope.

New York State's Commitment to the Chesapeake Basin

As a relatively new player in the formal Chesapeake Bay Program, New York remains steadfast in its commitment to aggressively pursue implementation of its Tributary Strategy, which can be found our web site at http://www.dec.ny.gov/lands/33279.html. This strategy was formally adopted in 2007 and, from a non-point source control perspective in particular, is a detailed grass roots plan with realistic levels of individual implementation of control practices, provided that enough time, money and staff are available.

Since 2007, New York has fenced animals out of several thousand streamside acres, constructed several hundred acres of wetlands and riparian buffers and upgraded the largest wastewater treatment plant within the New York portion of the Basin, which makes up about 25 percent of the total wastewater volume from New York. Heightened permit conditions have ben place on 27 smaller waste water plants. And, New York's stormwater general permits are far more stringent than the national minimum.

New York's Concentrated Animal Feeding Operation (CAFO) program covers farms as small as 200 mature dairy animals (or animal equivalents). It is a binding clean water permit program administered by New York State DEC. In place since 1999, New York's CAFO program requires implementation of comprehensive nutrient management plans developed and modified by certified planners, as well as the implementation of structural and non-structural pollutant controls. Active monitoring and enforcement programs are maintained. New York's CAFO program covers approximately 40% of the entire dairy herd in the basin. There are 88 covered and permitted CAFOs. It is estimated that only two of these CAFOs would be permitted under EPA's recently enacted program – thus, New York's CAFO program goes well beyond the level

of environmental protection that would be required by the federal government.

For this and other programs, New York has been and will continue to be accountable for its commitments and actions taken. As you may recall, New York has not been a party to the recent series of congressional inquiries and criticisms of Chesapeake Bay Program progress and accountability.

New York's record of environmental stewardship is demonstrated by the paucity of water quality problems in the Susquehanna basin and the strength of its water and air regulatory programs (including year round NOx controls on major air emissions and mandatory post-construction stormwater controls). That essential factor, coupled with the lack of growth and related economic stimulus in the State's Susquehanna Region, clearly warrants additional federal investment. Investments in New York activities are good investments in water quality protection.

New York State Models for Action

On a smaller scale, the New York City Drinking Water Watershed Program is an example of a successful basin program where plans and commitments, coupled with sufficient funding necessary for implementation, have led to significant protection of water quality. The cost of constructing water filtration for over nine million users is projected to be at upwards of $10 billion. New York State and New York City together have made significant yet far smaller water quality investments which are successfully protecting this Watershed. Land acquisition and wastewater treatment improvement are among the key cornerstones of this protection program.

Similarly, the Long Island Sound region which New York shares with our neighbors in Connecticut faced tremendous environmental impairments. Through a Long Island Sound program which the two states are implementing, this interstate water is receiving the attention that it deserves, and is slowly recovering from manmade environmental impairments. The TMDL for nitrogen in Long Island Sound, developed in 2000, required a 58.5% total nitrogen load reduction. The first phase of implementing this TMDL focused on incorporating nitrogen control technology in 102 sewage treatment plants in New York and Connecticut, using a combination of state, federal and local funds. DEC's implementation of this program has been rigorous, and does not allow for slippage.

Programs such as the New York City Watershed and the Long Island Sound Study serve as models for how the Chesapeake Basin Program can more cost effectively serve the needs of all the people and natural resources within its borders.

The Need for Congressional Action

Through existing federal programs, such as the National Pollutant Discharge Elimination System; nonpoint source controls; State Implementation Plans to address air pollution, and many

other tools, EPA already has the ability to achieve many of the pollutant reductions needed in the Chesapeake Basin. Through the efforts of the 111th Congress, DEC hopes that additional tools will become available to benefit this region and the nation as a whole.

For example, swift Congressional passage of the Clean Water Restoration Act (S. 787) will ensure that EPA and the Army Corps of Engineers have the clear authority needed to protect America's rivers, lakes, streams and wetlands. The Water Quality Investment Act (H.R. 1262), as approved by the House of Representatives in March, 2009, authorizes the funds that states need for wastewater infrastructure, sewer overflows, watershed pilot projects and other water quality efforts. New York appreciates the Subcommittee's continuing commitment to protecting our nation's water quality, which has taken on a heightened interest in the wake of the series of articles in the New York Times on the implementation of federal water quality standards.

In any Congressional action specifically designed to revamp the Chesapeake Bay Program, in addition to the above legislation, it is imperative for New York to retain state priorities and flexibility in its approach to pollution reduction. A brief example of the potential disconnects that we face: there is one relatively large, 1,200 acre reservoir in New York that is listed as impaired from nutrients primarily from agriculture, yet in the 2007 Farm Bill this reservoir is not a priority watershed for implementation because it acts as a nutrient "sink" with less nutrient export to the Bay than from other larger river segments. This is an example of how State priorities need to be considered for federal attention and funding.

Conclusion

New York is optimistic about the future of Chesapeake Bay and the entire watershed that supports it. New York intends to heighten its attention to specific actions over the short term that can be undertaken to reduce phosphorus, nitrogen and sediment dischargers in the Susquehanna River Basin and encourages the federal government to pursue similar goals. If we look too far ahead we may lose sight of what we should be doing. DEC respectfully urges Congress to look beyond the Bay to enact and update federal programs and standards that will assist water resource protection efforts across the country. Think big!

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