HEARING TO REVIEW THE REGULATORY AND LEGISLATIVE STRATEGIES IN THE CHESAPEAKE BAY WATERSHED

HEARING

BEFORE THE

SUBCOMMITTEE ON CONSERVATION, CREDIT, ENERGY, AND RESEARCH

OF THE

COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

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CONTENTS

WITNESSES

SUBMITTED MATERIAL

HEARING TO REVIEW THE REGULATORY AND LEGISLATIVE STRATEGIES IN THE CHESAPEAKE BAY WATERSHED

WEDNESDAY, DECEMBER 9, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSERVATION, CREDIT, ENERGY, AND RESEARCH,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:05 a.m., in Room 1300, Longworth House Office Building, Hon. Tim Holden [Chairman of the Subcommittee] presiding.

Members present: Representatives Holden, Dahlkemper, Schauer, Kissell, Boccieri, McIntyre, Ellsworth, Massa, Bright, Kratovil, Murphy, Minnick, Goodlatte, Neugebauer, Smith, and Thompson.

Staff present: Christy Birdsong, Claiborn Crain, Nona Darrell, Tyler Jameson, John Konya, James Ryder, Anne Simmons, April Slayton, Debbie Smith, Rebekah Solem, Patricia Barr, Josh Maxwell, and Sangina Wright.

OPENING STATEMENT OF HON. TIM HOLDEN, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA

The CHAIRMAN. This hearing of the Subcommittee on Conservation, Credit, Energy, and Research to review the regulatory and legislative strategies in the Chesapeake Bay Watershed will come to order. I would like to thank our witnesses and guests for coming today.

This hearing presents an opportunity for Members of the Subcommittee to review the regulatory and legislative strategies in the Chesapeake Bay Watershed. The Chesapeake Bay is the nation's largest and most diverse estuary, and has been recognized by Congress as a national treasure. The Bay is home to more than 3,600 species of plants and animals, and is recognized as the most significant migration and wintering habitat in the Atlantic flyway. It is important that we protect its fragile ecosystem.

Despite some areas of progress, improving water quality in the Bay remains the most critical element in bringing about restoration. Agriculture has been an important part of the Chesapeake's landscape, comprising almost a quarter of the watershed, and it can play a significant role in the Bay cleanup. Farmers and ranchers have always been the original stewards of the land and continue to be the best advocates for resource conservation.

Last week, Members of this Subcommittee heard testimony from Dr. Jude Capper, Assistant Professor of Dairy Science at Washington State University. Dr. Capper's research found that over the past 65 years, the carbon footprint of the entire dairy industry has been reduced by 41 percent through the voluntary adoption of technologies and modern management practices that improve productivity. This includes a 65 percent reduction in water use, a 76 percent reduction in manure output, and a 90 percent reduction in total land required for milk production. The dairy industry is not alone in finding ways to increase productivity while decreasing pollution.

Efforts continue, even though the Chesapeake Bay farmers receive significantly less money for environmental protection practices, and despite being under some of the most stringent environmental regulations.

The 2008 Farm Bill took significant steps to address this underfunding and made many improvements to USDA conservation programs. These programs are important tools that farmers and ranchers use to protect the environment and address local resource concerns.

The strong conservation title in the farm bill included a $7.9 billion increase in conservation funding. Included in this was a $3.4 billion increase in the Environmental Quality Incentive Program, which helps producers implement practices that enhance soil and water quality while conserving energy.

Perhaps most significant to today's discussion, the title created a new Chesapeake Bay Watershed Program of $438 million initiative to help reduce nutrients and sediment that can flow from farms and forestland into the Chesapeake Bay. This program applies to all tributaries, backwaters and side channels running into the Bay, including the Susquehanna River, which runs through my Congressional district, Pennsylvania's 17th.

This new program will help to improve water quality and quantity, restore, enhance and preserve wildlife habitat and increase economic opportunity for rural communities and producers. Agricultural practices can be some of the most cost-effective at improving water quality in the region, and the agriculture community and USDA stand ready to improve water quality and wildlife habitat.

The Chesapeake Bay Watershed Program and other conservation efforts included in the 2008 Farm Bill have only recently been implemented, and we have yet to see their full impact. It is important that we allow these efforts to take effect to further elevate the environmental stewardship of farmers across the Chesapeake Bay Watershed before adding increased regulations.

I remain committed to working with NRCS and FSA, as well as EPA, to ensure that Chesapeake Bay conservation programs are implemented as effectively as possible while minimizing the burdens on producers.

I look forward to hearing from our witnesses today.

[The prepared statement of Mr. Holden follows:]

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I remain committed to working with NRCS and FSA, as well as EPA, to ensure that Chesapeake Bay conservation programs are implemented as efficiently as possible, while minimizing burdens on producers. I look forward to hearing from our witnesses today.

The CHAIRMAN. I now recognize the Ranking Member of the Subcommittee, the gentleman from Virginia, Mr. Goodlatte.

OPENING STATEMENT OF HON. BOB GOODLATTE, A REPRESENTATIVE IN CONGRESS FROM VIRGINIA

Mr. GOODLATTE. Well, Mr. Chairman, thank you for holding today's hearing to review the regulatory and legislative strategies in the Chesapeake Bay Watershed.

The Chesapeake Bay, the largest estuary in the United States, is an incredibly complex ecosystem that includes important habitats and is a cherished part of our American heritage. The Bay Watershed includes all types of land uses, from intensely urban areas, spread-out suburban development, and diverse agricultural practices. But unquestionably, the Bay is in need and worthy of our attention and concern, and I believe everyone has a role to play in restoring it.

That is why I worked with Congressman Holden and other Members of this Committee during the 2008 Farm Bill to include critical funding to help farmers comply with increasing and costly environmental regulations. The approach we took in the farm bill was to provide unprecedented incentive-based mandatory money for farmers and ranchers to improve management practices. These incentive-based programs are the tools that our farmers and ranchers need to restore and protect the Bay and our watersheds, while continuing to provide the U.S. with the safest, most affordable, most abundant feed and fiber supply in the world.

Unfortunately, today we are here due to a Presidential Executive Order and legislation that would codify this Order which would enforce more mandates and overzealous regulation of our producers. This strategy will limit economic growth and unfairly over-regulate agriculture in the Chesapeake Bay Watershed.

The 2008 Farm Bill provides mandatory money specifically for the Bay in addition to numerous voluntary conservation programs. The Administration has barely released any of these conservation dollars before the announcement of this Executive Order. In addition, the Administration continues to call for budget cuts to EQIP and other conservation program funding which would help farmers in the Bay Watershed even more.

The goal for all involved is the same: the continued health and vitality of the Bay. But the map to that health and vitality is being strongly debated. It is a clear choice, over-regulation and intrusion into the lives and livelihoods of those who chose to make the Chesapeake Bay Watershed their home; or incentive-based programs that help restore and protect our natural resources.

This Administration fails to realize that command and control over citizen's lives is no way to govern.

Again, thank you, Chairman Holden, for holding today's hearing. I look forward to hearing today's testimony.

[The prepared statement of Mr. Goodlatte follows:]

PREPARED STATEMENT OF HON. BOB GOODLATTE, A REPRESENTATIVE IN CONGRESS FROM VIRGINIA

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Again, thank you, Chairman Holden for holding today's hearing. I look forward to hearing today's testimony.

The CHAIRMAN. The chair thanks the gentleman, and would ask all other Members of the Subcommittee to submit any opening statements for the record.

[The prepared statement of Mr. Peterson follows:]

PREPARED STATEMENT OF HON. COLLIN C. PETERSON, A REPRESENTATIVE IN CONGRESS FROM MINNESOTA

Thank you, Chairman Holden, for holding this oversight hearing to look at what we are doing and what needs to be done to improve the condition of the Chesapeake Bay Watershed.

In the 2008 Farm Bill, we included significant resources to help farmers, ranchers and forest landowners improve the health of the Chesapeake Bay by reducing runoff and improving water quality and quantity.

It is an important responsibility of this Committee to ensure that legislation and regulatory action is effectively addressing the challenges facing the Chesapeake Bay Watershed. To that end, I am looking forward to the testimony and discussion here today.

The CHAIRMAN. I would like to welcome our first panel today: Ms. Ann Mills, Deputy Under Secretary for Natural Resources and Environment, United States Department of Agriculture; Mr. J. Charles Fox, Senior Advisor to the Administrator of the Environmental Protection Agency; and Mr. Russell C. Redding, Acting Secretary, Pennsylvania Department of Agriculture, but that is only until Tuesday when you get confirmed. Welcome.

Ms. Mills, you are may proceed.

STATEMENT OF ANN MILLS, DEPUTY UNDER SECRETARY FOR NATIONAL RESOURCES AND ENVIRONMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Ms. MILLS. Thank you.

Chairman Holden, Ranking Member Goodlatte and Members of the Subcommittee, I appreciate the opportunity to appear before you today.

Conservation and restoration of the Chesapeake Bay is a major priority for the United States Department of Agriculture. At USDA, we view prosperous farms, forests and fisheries as integral parts of the watershed's future. The Bay is a national treasure, and the fea-

tures that make it so special are more than just the waters of the estuary. They are the landscapes that stretch across six states. They are the rural communities that are so important to the fabric of this watershed.

The Chesapeake Bay has the highest land-to-water ratio of any estuary in the United States. As a result, what happens on the land matters to the Bay and its upland tributaries.

USDA recognizes the responsibility of agriculture to contribute its share to restoring the Bay Watershed. For their part, farmers have stepped up. Agriculture has reached 50 percent of the goals established for nutrient and sediment reduction, though more needs to be done.

In recent years, USDA has been helping these land owners achieve their stewardship goals by investing more than $90 million per year directly on conservation practices and projects to benefit the Bay. In the 2008 Farm Bill, this Committee provided even further support through the Chesapeake Bay Watershed Program's additional $188 million. Agriculture cannot, nor should it, bear a disproportional burden of addressing the watershed's water quality goals. Nutrient and sediment run off from agriculture is on the downward trajectory, whereas it is rising in other sectors, notably development; 130,000 new residents move into the Bay Watershed every year. Every eight percent growth in population translates into a 41 percent increase in impervious surfaces, such as roads and parking lots. And every acre of parking lot generates the same runoff as a 16 acre meadow.

As the Executive Order's draft strategy states, healthy sustainable farms and forests are essential to restoring the Bay and are the preferred land use. They also increase rural prosperity, provide food, feed and fiber, and protect the natural heritage that makes this watershed a natural treasure.

The USDA is pleased to be part of the Executive Order effort and appreciates the opportunity to work closely with our sister Federal agencies. USDA believes that voluntary agriculture conservation practices and market-based solutions will play a central role in achieving Bay health, while also ensuring continued prosperity for producers.

The strategy captured in the Executive Order reports contain six recommendations with a goal of equipping producers with the incentives, tools and technology and improved efficiency of operations to meet water quality challenges and protect producers' bottom line. The recommendations include focusing funding on high-priority watersheds, working with partners to apply the most effective suite of conservation practices, and improving accountability.

This Executive Order calls for a new level of collaboration among the Federal family. This will help ensure stronger science and better leveraging of Federal dollars. But fundamental to the strategy's approach is USDA's continued leadership in determining how and where to allocate farm bill dollars, including the $188 million Chesapeake Bay Watershed program funding.

Secretary Vilsack is leading USDA with an all-lands approach to water quality conservation. We recognize that upland activities are vitally important to achieving downstream goals. Farmers and landowners in Lancaster or Dauphin Counties may never boat or

fish in the Chesapeake Bay, yet the conservation benefits achieved by our collective Bay restoration efforts will be seen and felt first hundreds of miles away from the Bay in communities that will experience cleaner water and air, and more productive wildlife habitat.

Farmers across the watershed are being asked to invest real money at a time when agriculture is feeling significant economic strain. Conservation programs require the farmer to assume significant costs as part of implementing expensive practices, such as nutrient management systems. Yet producers continue to initiate new projects, and USDA continues to have backlogs. We are proud to partner with these farmers. USDA stands ready to provide the mix of technical help, incentives, tools and market opportunities to tackle the challenges ahead.

In closing, additional details of USDA's role in the strategy to restore and conserve the Bay are included in my written testimony submitted for the record. I would be happy to respond to any questions that Members of the Subcommittee might have. Again, I appreciate the opportunity to be here with you today.

Thank you very much.

[The prepared statement of Ms. Mills follows:]

PREPARED STATEMENT OF ANN MILLS, DEPUTY UNDER SECRETARY FOR NATIONAL RESOURCES AND ENVIRONMENT, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairman Holden, Ranking Member Goodlatte, and distinguished Members of the Subcommittee, thank you for this opportunity to appear before you to discuss the U.S. Department of Agriculture's (USDA) conservation efforts in the Chesapeake Bay Watershed. As Deputy Under Secretary for Natural Resources and Environment (NRE), I oversee the Natural Resources Conservation Service (NRCS), which plays a key role protecting and restoring the Chesapeake Bay Watershed. I will talk first about the challenges ahead of us in the Bay before describing the progressive steps USDA is taking to meet those challenges.

But first let me stress this about our work to protect the Chesapeake Bay—USDA works with private landowners who live in the watershed. We work hard to reinforce the notion that the work we do throughout the Bay Watershed, along all of its tributaries, is designed to improve local natural resource conditions, which in turn will have a positive impact on the Bay itself.

The Challenge

Agriculture and forest land accounts for 75 percent of the Chesapeake Bay Watershed, which stretches over 44 million acres in six states and the District of Columbia. The Chesapeake Bay has the highest land-to-water ratio of any estuary in the U.S. As a result, land-based activities heavily influence the condition of the Bay. Over 80,000 farms, covering about 25 percent of the watershed, produce a diverse array of fresh vegetables, fruits, grain, dairy, beef, poultry, and much more. Although diminished, Chesapeake forests still account for 50 percent of the land cover and represent one of the most expansive hardwood forests in the world, providing diverse habitats and valuable ecosystem services.

These agricultural and forest lands also anchor rural communities and provide open space and other amenities important to the economic, cultural and social fabric of the Chesapeake Bay Watershed. Because of their extent, the stewardship of these lands has a tremendous influence on the quality of natural resources in the watershed.

Today, agriculture and forestry in the Bay Watershed are under increasing pressure from development. To put this in perspective, visualize a strip of land 1 mile wide running from Washington, D.C. to San Francisco, CA. That is almost 2 million acres and the amount of crop, pasture, and forestland that were converted in the Bay Watershed to developed uses between 1982 and 2003. Currently, about 12 percent of the land in the Chesapeake Bay Watershed is classified as developed, up from eight percent in 1982.

Approximately 130,000 new residents move to the Chesapeake Bay Watershed each year, accelerating the development of agricultural and other lands. Among the consequences of losing these agricultural and forested areas are diminishing access to fresh local foods; reduced capacity of soils and plants to capture carbon; reduction in groundwater recharge; and increased runoff from roads, roofs, and parking lots. According to the Chesapeake Bay Blue Ribbon Panel Finance Panel, a 1 acre parking lot produces about 16 times the volume of runoff that comes from a 1 acre meadow. This runoff from paved surfaces also carries oil, exhaust residue, lawn chemicals and other pollutants.

While agriculture is an important component of the landscape and economy, it also is a source of nutrients and sediment that adversely affect water quality in the Bay and its tributary waters. Agriculture has made significant strides in reducing these impacts through a longstanding conservation partnership effort. According to the Chesapeake Bay Program, since 1985, agriculture has reached nearly 50 percent of the goals established for nitrogen, phosphorus, and sediment reduction.

Despite these gains, the challenge ahead is substantial. One thing, however, is clear—losing farms and forests is not in the best interest of the Chesapeake Bay ecosystem. Stakeholders from diverse backgrounds—from the Chesapeake Bay Foundation to the National Fish and Wildlife Foundation to state regulatory agencies—support agriculture as a preferred land use in the Chesapeake Bay Watershed. Under the Obama Administration, and with the help of additional funding provided through the 2008 Farm Bill, USDA has accelerated its conservation efforts in the Bay Watershed. USDA advocates a landscape scale approach that recognizes natural resource conservation issues and solutions do not stop and start at land ownership boundaries. A successful Bay conservation effort must engage local, state, and national partners. Integrated solutions must address intertwined issues of rural prosperity, strong agricultural and forest product markets, new revenue streams for ecosystem services, and healthy communities in order to deliver sustainable solutions to protect the natural heritage that makes the Chesapeake Bay Watershed a national treasure.

Conservation in the Bay Watershed

Concern about Chesapeake Bay water quality and its living resources date back to the 1930s. Congress' longstanding commitment to protection of the Bay is very clear, and was recently emphasized with the establishment of the Chesapeake Bay Watershed Program in the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). The Obama Administration took an unprecedented step on May 12, 2009 with the release of an Executive Order [Chesapeake Bay Protection and Restoration] that commits to solutions to restore and protect the Chesapeake Bay.

USDA has been a long-standing partner in the effort to protect and restore the Bay Watershed. Our employees across the Bay Watershed work daily with farmers, forestland owners, other private land managers, and communities to identify and address natural resource conservation problems. This commitment is substantial—between 2004 and 2008, USDA invested nearly $800 million in conservation, rural development, and research activities related to restoring and protecting the Chesapeake Bay Watershed.

It is important to note that protection of the Chesapeake Bay, and conservation on agricultural lands in the Bay Watershed, is a wide-ranging effort that includes Federal, local, and state partners and stakeholders. USDA, in particular, works in close partnership with local Conservation Districts and State Departments of Agriculture (often co-located with USDA) to help producers improve the condition of their natural resources. Local land trusts and states in the Bay Watershed have successful farmland preservation programs. Non-governmental organizations such as the Chesapeake Bay Foundation and Environmental Defense have in recent years provided funding for on-the-ground conservation efforts with producers. The Federal investment on the part of USDA is noteworthy, but the restoration of the Bay and widespread improvement in agricultural conservation will not be possible without significant investment and commitment from our diverse set of conservation partners.

Through its diverse portfolio of conservation programs, USDA assists individuals and communities in planning and implementing conservation solutions to reduce the losses of nutrients and sediment, conserve wetlands, protect critical farm and forest acres, and improve related natural resource conditions across the watershed. Below are just a few examples of the amount of conservation applied from 2004 to 2008:

Top 5 Conservation Practices Applied on Agricultural Land in the Chesapeake Bay Watershed, FY 2004–2008

Conservation Practice Name	Average Annual Application	Total
	—acres—	
Conservation Crop Rotation	145,559	727,796
Nutrient Management	116,381	581,906
Pest Management	82,488	412,441
Residue and Tillage Management	106,128	530,639
Upland Wildlife Habitat Management	48,933	244,663

Chesapeake Bay Watershed Program

In 2009, USDA began implementation of the Chesapeake Bay Watershed Program authorized in the 2008 Farm Bill. In developing the initiative, USDA worked to balance the program objectives of (1) improving water quality and quantity, and (2) restoring, enhancing, and preserving soil, air, and related resources in the Chesapeake Bay Watershed. The farm bill language also directed USDA to give special consideration to four River basins (Susquehanna, Potomac, Shenandoah, and Patuxent).

This new authority offered an unparalleled opportunity to leverage new information and technology to focus on accelerating conservation and improving the condition of the watershed. USDA collaborated with USGS, EPA, and others to identify watersheds expected to have the greatest influence on Bay water quality, based on natural resource condition and vulnerabilities, land use in different regions of the watershed, existing conservation practices, and their relationship to key Bay pollutants—nitrogen, phosphorus, and sediment. The partnership drew upon a variety of analytical tools, databases, and local knowledge. As a result of that effort, about 500 small watersheds (12 digit HUC watersheds) were identified. Eighty-seven percent of these watersheds fall within the four special consideration river basins mentioned in the farm bill.

Below is a table displaying CBWP financial assistance obligations for Fiscal Year 2009.

Fiscal Year 2009 CBWP State-by-State Obligations

State	CBWP Obligations
Delaware	$969,065
Maryland	$4,150,068
New York	$1,107,942
Pennsylvania	$5,429,703
Virginia	$5,642,956
West Virginia	$1,148,621
Totals	**$18,448,353**

58.3 percent of CBWP funds were obligated in the identified priority watersheds using EQIP program authorities. In addition, to further emphasize water quality practices through the CBWP, NRCS State Offices in the Bay Watershed identified 24 practices that impact water quality. Looking at the historical implementation of these 24 practices through EQIP between 2004 and 2008, 45,602 practices were installed in the Bay Watershed. Historically in the Bay Watershed, 51 percent of those practices were applied in the now-identified priority watersheds. Through the CBWP in Fiscal Year 2009, we were able to increase the application rate of the 24 practices in priority watersheds to 75 percent. This translates into practices with the greatest impact on water quality being implemented in locations that contribute the largest amounts of nutrients and sediment to the Bay. Next year we hope to further increase this rate.

We will soon announce the availability of CBWP funding for Fiscal Year 2010. The 2008 Farm Bill authorizes $43 million for CBWP in 2010. We will be re-evaluating the priority watersheds and practice list based on what we learned through the first year of implementation. We are also hoping to use innovative approaches to improve producer outreach efforts.

Conservation Innovation Grants in the Bay Watershed

Conservation Innovation Grants was authorized in the 2002 Farm Bill under EQIP. Through this program, funding is used to stimulate the development and

adoption of innovative conservation approaches and technologies. Since 2005, a portion of CIG funding has been dedicated to projects in the Chesapeake Bay Watershed. In Fiscal Year 2009, over $2 million was provided to six projects through the Chesapeake Bay component.

Two recent awards focusing on developing water quality credit trading markets are examples of the type of innovative approaches funding through CIG. The Development and Implementation of a Water Quality Bank and Trade Program for the Potomac River Watershed is a three-phase project to develop and implement a water quality credit trading program in the WV area of the Potomac River Watershed. This project is being developed by the West Virginia University Research Corporation. In Maryland, the Maryland Department of Agriculture is piloting a Point source to Non-Point Source Nutrient Trading in the Upper Chesapeake Bay Maryland. Deliverables from these projects will hopefully enhance opportunities for intrastate and interstate water quality trading in the Chesapeake Bay Watershed.

Conservation Effects Assessment Project

In addition to delivering a wide array of conservation programs in the Chesapeake Bay Watershed, USDA is also leading the Conservation Effects Assessment Project (CEAP) that will be an important tool for strengthening the science base in the Bay Watershed. CEAP began in 2003 as a multi-agency effort to quantify the environmental benefits of conservation practices and systems.

The first CEAP cropland report (Upper Mississippi River Basin (UMRB)) is being completed currently, while the CEAP Chesapeake Bay Watershed assessment is underway. Analysts have identified some UMRB results that ***are expected*** to apply equally in the Chesapeake Bay, namely the importance of: (1) focusing conservation on the most vulnerable acres to provide the quickest response; (2) conservation systems that address runoff, edge-of-field mitigation, and carefully manage inputs; and (3) managing the intensity of land use for some of the most vulnerable acres.

We expect other important elements to emerge in the forthcoming Chesapeake Bay Watershed assessment. For example, additional conservation practices not included in the UMRB simulations will be examined, such as drainage water management to promote de-nitrification or construction of wetlands near interfaces with streams and cultivated cropland. Given the concentration of animal agriculture in certain parts of the Bay Watershed, there will be special emphasis on conservation needs related to manure management. Last, the influence of proximity to streams will be an important factor in assessing potential vulnerabilities in the Chesapeake Bay Watershed.

Expected to be completed in 2010, the CEAP Chesapeake Bay report will be able to provide estimates of the progress in reducing the delivery of agricultural contaminants, identify remaining under-treated cropland acres, and estimate the environmental results from treating those acres. There also will be an opportunity to coordinate between the Bay Model and the CEAP Model to improve the identification of priority landscapes as well as the estimates of environmental effects of conservation applied.

Chesapeake Bay Executive Order

The May 12th Executive Order (EO) 13508 called on the Federal Government to take significant action to restore and protect the Chesapeake Bay Watershed. Agencies were directed to develop recommendations for accomplishing important steps to protect and restore the Bay. USDA, in collaboration with other Federal and agencies, outlined an aggressive and focused voluntary conservation strategy under Section 203 of the EO, titled "Chesapeake Farms and Forests for the 21st Century." This draft strategy contains six major elements for focusing resources and developing new approaches to protect and restore the Chesapeake Bay and its tributary waters.

1. Focusing on the Highest Priorities First

This strategy will focus first on the watersheds and acres that have the greatest conservation need—where our shared work will address the most pressing challenges and deliver the biggest impact for improving local water quality. Conservation applied on any acre delivers an environmental benefit, but to date conservation applied in the Chesapeake Bay Watershed has not reached dimensions needed to achieve the broader goals for improving the aquatic health of the Bay and its tributary waters. Applying lessons learned, we are using science-based tools and input from local experts to determine where to invest program and human resources in order to deliver the greatest environmental benefit.

2. Integrate Federal, State, and Local Programs

A substantial number of Federal and state programs are delivered in the Chesapeake Bay Watershed with objectives related to restoring and protecting the Bay. With so many entities involved, it is critical to coordinate and integrate programs on the ground to ensure that they are working toward common objectives, maximizing synergistic opportunities, and preventing potential duplication of efforts. Among the many benefits of increasing integration of programs on the ground is the potential to simplify program delivery for potential participants—developing the virtual "one-stop-shop" for individuals and communities that will need to participate in conservation efforts in order to accomplish Chesapeake Bay Watershed restoration and protection objectives. Coordinating programs across all of with the Bay Partners, including the authorities under the farm bill, State and Private Forestry, the Clean Water Act, as well as Department of the Interior programs such as Partners for Wildlife, offers the best opportunity for success.

3. Accelerate Conservation Adoption

Nearly 75 percent of the Chesapeake Bay Watershed is in the hands of agricultural and forest landowners and managers. Economic and non-economic incentives play an important role in encouraging these landowners to make the day-to-day stewardship decisions that shape conservation in the Chesapeake Bay. Between 2004 and 2008, through USDA conservation programs alone, nutrient management was applied on 600 thousand acres; while an important achievement, we must accelerate conservation adoption if we are to achieve objectives for restoring the health of the Bay. Existing incentive approaches will be improved on to increase their effectiveness by better coordinating programs and streamlining processes to simplify program participation.

4. Accelerate Development of New Conservation Technologies

USDA's research mission through the Agricultural Research Service (ARS) and the National Institute for Food and Agriculture (NIFA) is engaged in a substantial partnership effort with public and private sector interests to identify needed research and focus Federal researchers and grant programs on developing solutions. We will be focusing funding and increasing public-private research partnerships to spur innovation in research and accelerate development of new conservation technologies. New technologies that increase revenue opportunities for farmers and their communities will also increase rural wealth and sustain the restoration of the Bay.

5. Foster and Support Ecosystem Markets

Chesapeake Bay protection and restoration could also involve private markets in order to reach the level and scope of progress needed. Markets for carbon sequestration, water quality, wetlands, wildlife habitat, and species protection have great potential to complement existing federally supported conservation efforts and drive private investment to improve the health of the Chesapeake Bay. These markets could connect the critical ecosystem services provided by farms, forests, and ranches to beneficiaries who are willing, or required, to pay for their stewardship—such as urban water utilities, industry, and land developers who need to mitigate unavoidable negative impacts to the watershed. While farmers and foresters use conservation methods to improve the quality of the watershed's natural resources, they could also be building new revenue streams for themselves and their rural communities. Potential income from ecosystem markets could provide new incentives for landowners to engage in restoration and conservation activities on their land.

6. Implement a Sound System of Accountability

A sound system of accountability is critical to monitoring progress toward the goals for the Bay. That system of accountability has many parts starting with ensuring that objectives are clearly defined and achievable, and that adequate resources are dedicated to make restoring and protecting the Bay possible. An adaptive management approach is fundamental to an effective accountability system, including monitoring how well programs are working, evaluating and refining priorities, and incorporating new science and strategies to improve results. Adaptive management for the Chesapeake Bay Watershed will be data intensive, and will depend on effective collaboration across the broad Bay partnership.

USDA also will work to implement the Healthy Waters, Thriving Agriculture Initiative included under the response to the EO. We will be consulting with both Federal and non-Federal partners to align financial and technical resources to accelerate our on-farm conservation work in the Bay Watershed. For example, we will be identifying watersheds and Centerpiece projects where the greatest opportunity for demonstrating conservation benefits exist and working with EPA and other part-

ners to leverage their voluntary conservation funding to accelerate action in these areas.

Conclusion

The shores of the Chesapeake Bay could likely be covered with past proclamations and restoration goals that have gone unfulfilled and deadlines that have been missed. At USDA, we know that, despite our progress in agricultural conservation over the past few decades, we have more work to do. Additional resources in the 2008 Farm Bill will help us reach more customers. The Administration's Executive Order provides USDA with new tools and strategies to accelerate our efforts in the Chesapeake Bay Watershed. We look forward to this challenge and the opportunities ahead. Thank you again for the opportunity to testify before you today and I am happy to answer any questions you may have.

The CHAIRMAN. Thank you very much.

Mr. Fox.

STATEMENT OF J. CHARLES FOX, SENIOR ADVISOR TO ADMINISTRATOR LISA P. JACKSON, U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.

Mr. FOX. Mr. Chairman, Ranking Member Goodlatte, Members of the Subcommittee, thank you very much for the invitation to appear here this morning.

We appreciate greatly the interest of this Subcommittee in the restoration and protection of Chesapeake Bay. We would like to extend a special thanks to Mr. Holden and Mr. Goodlatte for their leadership in securing the new Chesapeake Bay Watershed Initiative in the most recent farm bill. This program is already producing impressive results, and we are immensely appreciative of your actions.

At the outset, it is important to emphasize that EPA believes that maintaining the viability of agriculture is essential to sustaining healthy ecosystems in the watershed. Put simply, environmentally sound farming is a preferred land use. EPA remains committed to working together with USDA to help farmers produce abundant and affordable foods while managing nutrients and soils in a manner that helps to restore the Bay's water quality.

It is also important to emphasize that while today's testimony will focus on the challenges and opportunities for the agricultural sector, EPA remains intensely focused on reducing runoff pollution from urban and suburban lands. Since 1950, the number of residents in the Chesapeake Bay Watershed has doubled. Sprawling development patterns have exacerbated pollution, consumed farms and forest lands, and degraded habitats throughout the watershed. We expect to implement several new actions to reduce pollution from these landscapes, and we would be happy to discuss these further in response to questions from the Subcommittee.

Over the past 2 decades, agricultural sources have significantly reduced pollution to the Chesapeake Bay and its tributaries. This is a result both of substantial investments and significant commitments of time and energy by the agricultural community.

Some of the more effective actions include widespread adoption of no-till systems, improved nutrient management, increased use of cover crops, expanded installation of riparian buffers, and improved fencing practices along streams.

At the same time, agriculture remains the single largest source of nitrogen, phosphorus and sediment pollution to the Chesapeake

Bay, with about half of that pollution load directly related to excess livestock waste.

On May 12, President Obama signed an Executive Order which defined a new era of shared Federal leadership to restore the Bay. The Executive Order created a Federal leadership committee and directed the preparation of seven topical reports to support a joint Federal strategy. A draft of that strategy was released last month, and we are in the process of soliciting comments from the public and key interest groups throughout the watershed.

The draft strategy seeks to achieve three principal objectives: One, restoring water quality; two, conserving treasured places and restoring habitats; and three, adapting to the impacts of climate change. Our written statement describes these elements in some detail.

In my remaining comments, I will focus on actions to improve water quality, which I know is of special interest to the Chairman and the Committee.

The draft strategy defines several key steps to improve water quality. The first is a new accountability program which builds on the requirements of sections 117(g) and 303(d) of the Federal Clean Water Act to reduce nitrogen, phosphorus and sediment pollution. Specifically, over the next 2 years, EPA will work closely with the states to develop watershed implementation plans that are consistent with the emerging TMDL, which is required to meet water quality standards.

The second step includes a proposal for EPA to initiate new Federal rulemakings designed to reduce run-off pollution from urban, suburban and agricultural lands. Specifically, these proposed rulemakings will focus on concentrated animal feeding operations, urban storm water, and new or expanding discharges of nutrients and sediments. Importantly, the draft strategy emphasizes EPA's desire for state-level action *in lieu of* Federal action whenever possible and appropriate.

Finally, the strategy defines an enhanced partnership with the USDA to promote Healthy Waters, Thriving Agriculture. This initiative is designed to improve several voluntary conservation programs of each agency, relying upon our distinct statutory authorities.

Mr. Chairman, thank you once again for this opportunity. The Chesapeake Bay ecosystem remains severely degraded despite the concerted efforts of many people for more than 25 years. We look forward to working with you and your colleagues to chart a new future for the Chesapeake Bay and its communities.

[The prepared statement of Mr. Fox follows:]

PREPARED STATEMENT OF J. CHARLES FOX, SENIOR ADVISOR TO ADMINISTRATOR LISA P. JACKSON, U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.

Chairman Holden, Congressman Goodlatte, 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 the Chesapeake Bay Executive Order and the Federal Agency Strategy for implementing it. We appreciate greatly the interest of this Subcommittee in cleaning up the Chesapeake and in the valuable role that the agriculture community can play in doing so.

President Obama's Executive Order on the Chesapeake Bay defines a new era of shared Federal leadership, one that is characterized by new levels of accountability,

performance, partnership and innovation. In this regard, we intend to build on the progress made by the agricultural community and other sectors in the Chesapeake Bay Watershed in implementing the important objectives of the Executive Order. The twenty-six year history of the modern Chesapeake Bay cleanup program suggests that we will need a new commitment and new tools to be successful in achieving our ambitious goals for the Bay and the watershed.

The Importance of the Watershed and the 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 approximately 84,000 farms in the Chesapeake Bay Watershed form a vital part of the watershed's economy and way of life. EPA believes that maintaining the viability of agriculture is essential to sustaining ecosystems in the Bay. Environmentally sound farming is a preferred land use in the Region and EPA is committed to working together with USDA to help farmers produce abundant and affordable foods while managing nutrients and soils in a manner that helps to restore the Bay's water quality and the values and benefits that derive from clean water and a healthy, vibrant ecosystem.

The Health of the Bay

The main sources of nutrient and sediment pollution to the Chesapeake Bay and its tributaries are agriculture, urban and suburban discharges and runoff, wastewater, and atmospheric deposition (see *Figure 1*). While both nitrogen and phosphorus loadings have declined since 1985, significant additional loading reductions are needed to meet water quality standards (see *Figures 2* and *3*). Based on EPA's current estimates, to meet water quality standards by 2025 in the Bay, as specified in the President's Executive Order, nitrogen must be reduced by 84 million pounds per year from current loadings and phosphorus by 1.3 million pounds per year from current loadings.

It is clear that to achieve the loading reduction targets EPA, in collaboration with the Bay states and stakeholders, estimate are needed to achieve state water quality standards in the Bay and its tributaries, significant nutrient and sediment loading reductions are needed from each of these main pollution sources. Put differently, water quality standards cannot be met without a significant reduction of nutrients and sediments from each of these sectors.

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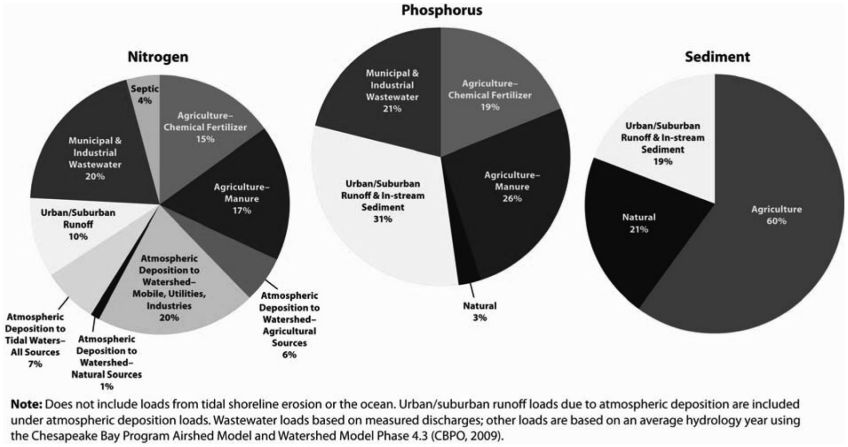
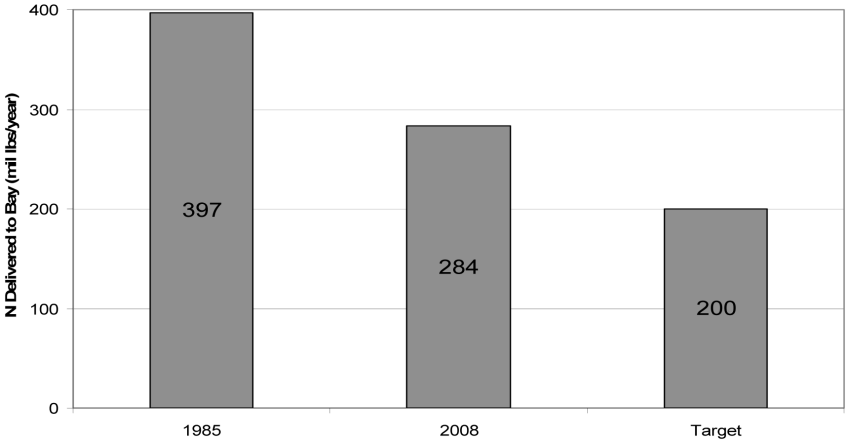
[1] *Saving a National Treasure: Financing the Cleanup of the Chesapeake Bay,* A Report to the Chesapeake Bay Executive Council, Chesapeake Bay Blue Ribbon Finance Panel, October 27, 2004.

Figure 1. Relative Responsibility for Pollution Loads to the Bay



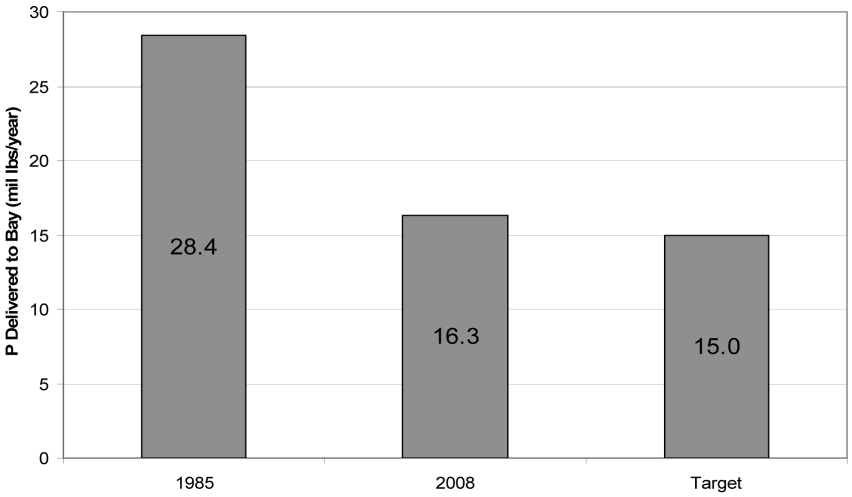
Note: Does not include loads from tidal shoreline erosion or the ocean. Urban/suburban runoff loads due to atmospheric deposition are included under atmospheric deposition loads. Wastewater loads based on measured discharges; other loads are based on an average hydrology year using the Chesapeake Bay Program Airshed Model and Watershed Model Phase 4.3 (CBPO, 2009).

Figure 2. Total Nitrogen Delivered to the Chesapeake Bay from the Watershed



Source: Chesapeake Bay Program Watershed Model Phase 5.2 (2009).

Figure 3. Total Phosphorus Delivered to the Chesapeake Bay from the Watershed



Source: Chesapeake Bay Program Watershed Model Phase 5.2 (2009).

Much of the reductions in agricultural pollution since 1985 been achieved through implementation of nutrient management and conservation practices, and changes in land use. In addition to this historical progress, there are many current examples in the Bay Watershed of the agricultural community's leadership in conservation. They include:

- **Manure injection technology on no-till systems.**
  The Commonwealth of PA and other Bay states have made tremendous progress in sediment reductions by switching to no-till systems. EPA, through our Innovative Nutrient and Sediment Reduction Program, is funding a project to test manure injection technologies on farms throughout the watershed to not only get the sediment reductions from no-till systems, but to increase the nutrient crop uptake and lower the manure nutrient runoff from these systems. This technology will be tested soon on farms in Pennsylvania, Maryland and New York.
- **Advanced nutrient management.**
  NRCS through the Conservation Innovation Grants program is funding a project that will showcase how enhanced nutrient management can be good for the farmers' bottom line and for the Bay. Demonstrating how farmers can lower nitrogen application rates on some fields by guaranteeing participating producers no loss in net income, is a great way to test out new approaches without negative impacts on the farmers' bottom line. This approach will be demonstrated soon in Pennsylvania.
- **Cover crops and ethanol production.**
  EPA, through our Innovative Nutrient and Sediment Reduction Program is funding a project in Maryland that will target 7,000 acres per year in the Chester River Watershed to plant commodity cover crops. The project will quantify nutrient uptake by winter small grain commodity cover crops and promote cover crop ethanol production. This work is good for the Bay and offers an additional revenue stream for the farmer.
- **Accelerated Agricultural Conservation.**
  In the Commonwealth of Virginia, under Congressman Goodlatte's leadership the Virginia Waste Solutions Forum was formed to address the most pressing challenges of livestock waste in the Shenandoah Valley. EPA is pleased to be aligning our resources with the USDA farm bill funding to harness the collaborative efforts of the Virginia Waste Solutions Forum to accelerate nutrient reduction efforts in areas of high-density animal production in the Shenandoah Valley.

Still, agriculture remains the single largest source of nutrient and sediment pollution to the Bay, with about half of that load directly related to excess livestock waste. Agriculture covers about 25 percent of the Chesapeake Bay Watershed, representing the largest intensively managed land use. USDA's 2007 Census of Agriculture estimates there are84,000 farms in the Bay Watershed covering about 12.8 million acres. Excess livestock waste and improperly applied fertilizers still flow into creeks, streams and rivers, carrying excess nitrogen and phosphorus into the Bay. Aggravating this problem are certain cropland tillage practices that increase sediment and nutrient discharges to the Bay and its tributaries by contributing to erosion.

Pollution from urban and suburban stormwater is also significant and like agricultural sources, must be significantly reduced if the Bay's water quality standards are to be met. Since 1950, the number of residents in the Bay Watershed has doubled. Experts predict that population will continue to rise, topping 19 million in the watershed by 2030. 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 and its impacts are very significant. New development that is spread-out, far from existing communities, schools, wastewater treatment facilities, shopping, and jobs brings increased impervious surfaces that do not allow water to filter into the ground. Instead, rainfall runs off, picking up pollution and quickly carrying it into waterways, increasing the volume and speed of storm water carried in nearby streams and rivers, eroding stream banks, and increasing rates of nutrient and sediment discharges downstream and into the Bay.

Clearly the manner in which we manage the impacts from such growth must be improved and new and successful practices like low impact development, and storm water retention and infiltration are necessary if this growth is to be accommodated on the landscape and the Bay's water quality standards achieved. Devising and delivering low impact development practices on the ground is every bit as important to reducing the impacts of urban and suburban development as conservation practices like livestock waste management, conservation tillage and buffers are to reducing impacts from agriculture.

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 shared Federal leadership to restore the 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 the Departments of the Interior, Commerce, Agriculture, Defense, Homeland Security, and Transportation. The Order directed Federal agencies to prepare seven draft reports to support a joint Federal strategy. These topical reports, on issues ranging from water quality to public access, were released in draft on September 10, 2009 and in revised form on November 24, 2009. At the same time these reports were being prepared, EPA conducted extensive outreach in public meetings and invitational sessions with agriculture leaders in the Bay Watershed. We held public meetings with agricultural stakeholders in Frederick, Maryland and Harrisburg, met with key Chesapeake Bay leadership of the National Association of Conservation Districts, twice met with producers in meetings facilitated by NRCS and the American Farmland Trust, and held numerous meetings with state agricultural agencies and producer groups. And we will continue to seek public review and comment on the Executive Order Strategy.

The Executive Order directed the Federal Leadership Committee to prepare and release a Draft Strategy for Protecting and Restoring the Chesapeake Bay. That Draft Strategy was released on November 9, 2009. It contains a comprehensive suite of Federal initiatives that collectively support three objectives:

1. Restoring clean water,
2. Conserving treasured places and restoring habitats, fish and wildlife, and
3. Adapting for Climate Change.

To achieve these objectives, there are three mechanisms that pervade our approach:

1. Empowering local efforts by governments, citizens, and conservation districts;
2. Promoting science-based decision making, and
3. Establishing a new era of shared Federal leadership.

The Draft Strategy is available online at: *http://executiveorder.chesapeakebay.net.* The formal public comment period opened November 9, 2009 and extends through January 8, 2010. The strategy will evolve significantly through public comments, state consultations and agency revisions before the final version is published in May 2010.

Actions to Restore Water Quality

The Executive Order challenged EPA to identify potential changes to programs, policies and regulations that would be sufficient to achieve water quality standards. The Strategy states the goal of implementing, by 2025, all pollution control measures needed to restore water quality and attain water quality standards. As explained in the draft Strategy, EPA is proposing three key steps to accomplish these pollution reductions:

1. Create **a new accountability program** to guide Federal and state water quality efforts;
2. Initiate **new Federal rulemakings** as needed and other actions under the Clean Water Act (CWA) and other authorities; and
3. An **enhanced partnership between USDA and EPA** to implement a "Healthy Waters—Thriving Agriculture" Initiative.

New Accountability Program

The proposed new accountability framework builds on the requirements of Sections 117(g) and 303(d) of the Clean Water Act to establish new expectations to guide state and Federal efforts for reducing nutrient and sediment pollution.

On November 4, 2009, EPA sent a letter to the six watershed states and the District of Columbia providing the Agency's expectations for the development of Watershed Implementation Plans (WIPs). These plans are a key element of this new era of ecosystem restoration, greater transparency and accountability, and improved performance.

Watershed Implementation Plans will express the specific intentions and commitments of the states, and through the states, the local partners, for achieving the Bay TMDL nitrogen, phosphorus and sediment load reductions necessary to meet Bay water quality standards. EPA expects Phase One plans to be submitted by November 2010 and include a description of the authorities, actions and control measures that will be implemented to achieve point and nonpoint source target loads and TMDL allocations. Phase Two plans, due November 1, 2011, will further divide loads at a finer scale and among smaller geographic areas.

EPA expects the states and the District to have controls in place for 60% of the necessary load reductions by 2017 as an interim milestone to meeting the 2025 goal. These plans will be further measured through a series of 2 year milestones detailing near term actions to evaluate progress.

EPA's new accountability program, modeled on the Clean Air Act, also includes actions we may take in the event that jurisdictions do not commit to establish and implement effective restoration programs or do not achieve interim milestones. EPA plans to articulate these so called "consequences" in greater detail in a letter to the states later this month, and they include:

- 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 pollution sources where achievement of pollution reductions is more reliable;
- Objecting to state CWA National Pollutant Discharge Elimination System (NPDES) permits that fail to incorporate limitations consistent with the pollutant allocations in the TMDL;
- Acting to limit or prohibit new or expanded discharges of nutrients and sediments unless appropriate offsets are made;
- Withholding, conditioning, or reallocating Federal grant funds; and
- Taking other actions as appropriate.

New Federal Rulemakings and Actions

The draft Strategy calls for new clean water rulemakings to reduce pollution from concentrated animal feeding operations (CAFOs), stormwater, and new or expanding discharges of nutrients and sediment. With these rulemakings, EPA would signifi-

cantly strengthen or clarify Federal requirements that would further limit nutrient and sediment discharges to the Bay. EPA is also in the process of developing and implementing a number of regulations and programs that will continue to reduce nitrogen from a variety of stationary and mobile sources of air deposition. EPA expects the full slate of planned air program activities will result in at least an estimated additional 7 million pounds of reduction in nitrogen loading to the Bay between 2010 and 2020.

It is important to note that with respect to the CAFO, stormwater and new or expanding discharge rules, EPA has expressed its willingness and desire to encourage state-level regulatory action *in lieu of* Federal action whenever possible and appropriate. Nonetheless, EPA believes initiating Federal rulemaking in the areas outlined here provides important Federal leadership in support of state regulatory action. As described in the Water Quality Report under Section 202(a) of the Executive Order, EPA plans to initiate rulemakings under the CWA to reduce nitrogen, phosphorus and sediment pollution to the Bay Watershed from concentrated animal feeding operations (CAFOs), stormwater [2] and new or expanded dischargers. In the interim, EPA will continue to collaborate closely with the Bay states in establishing appropriate new programs that are consistent with the load reductions necessary to achieve water quality standards.

EPA will also implement a compliance and enforcement strategy that focuses on four key sectors: concentrated animal feeding operations, stormwater discharges, municipal and industrial wastewater treatment facilities and stationary air sources of nitrogen deposition. In addition, EPA will identify appropriate opportunities for compliance and enforcement activities related to the CWA section 404 program regulating dredge and fill operations, Federal facilities, and Superfund sites, including remedial action and removal sites and Resource Conservation and Recovery Act (RCRA) corrective action facilities.

Enhanced Partnership between USDA and EPA

Let me emphasize again that EPA believes maintaining the viability of agriculture is essential to sustaining ecosystems in the Bay. Environmentally sound farming is a preferred land use in the region, and the Agency is committed to strong partnerships and collaboration with states and local governments, urban, suburban and rural communities, the private sector, and USDA to achieve the water quality and environmental objectives for the Bay. We want to work with USDA to align our resources to complement USDA efforts. Recognizing that well-managed forest and farm lands are the preferred land uses for water quality in the Bay, EPA and USDA have committed to developing and implementing a "Healthy Waters—Thriving Agriculture Initiative." Meeting the challenges in the Bay will require Federal agencies to commit and coordinate resources on a scale that matches the scope of the environmental and agricultural issues in the region. EPA has a unique opportunity to undertake with USDA several new and ambitious efforts that build and expand on the strong working relationships that have been reinforced in developing the Chesapeake Bay Watershed Initiative. Our hope and commitment is to work with USDA to achieve significant improvements for the Bay itself and the farming communities in its watershed in several key areas, including:

- Strategically expanding intensive use of key conservation practices in the high priority agricultural watersheds by aligning EPA resources with those of USDA and other public and private partners to engage farmers in nutrient and sediment reduction efforts;
- Collaborating in development of next generation conservation planning tools with other Federal, state, agricultural, and research partners;
- Aligning Federal, state, and private resources and partnerships to establish high profile projects to tackle some of the most challenging agricultural issues facing the Bay; and
- Aligning EPA programs and resources with USDA efforts to achieve water quality improvements by developing critically needed tools and technologies to help farmers meet their conservation and farm operation objectives.

By aligning the resources and continued work of Federal, state and local partners, EPA and USDA's collaboration can accelerate the wider adoption of conservation practices and support innovative efforts to address some of the most pressing challenges to meeting water quality and agricultural goals in the Bay. For example, EPA will target its resources as a catalyst for strong partnerships on local initia-

[2] More information: *http://www.epa.gov/npdes/stormwater/rulemaking.*

tives to address challenging agricultural issues such as keeping livestock out of streams and engaging small dairy operations in conservation.

EPA is also interested in working to expand market-based conservation opportunities. We believe markets for ecosystem services are an essential part of the solution to Bay impairment. EPA's 2003 National Water Quality Trading Policy and 2007 Water Quality Trading Toolkit for Permit Writers recognize and promote trading markets. We anticipate the 2010 Bay TMDL and state implementation plans will provide a basis for trading whereby landowners who reduce their nutrient discharges can generate nutrient credits in the process, and sell a portion of those credits on the open market. EPA is also supportive of wetland mitigation banking which creates a revenue stream for participating landowners and we are interested in promoting other types of markets such as carbon sequestration and endangered species habitat protection, which could also benefit landowners.

Closing

As I noted earlier, a fundamental challenge for the Bay's water quality is reducing pollutant discharges and run-off from both urban and suburban development and agricultural lands. Pollutant discharges and run-off to the Chesapeake from urban and suburban development are increasing, while nutrient and sediment loadings from agriculture have not declined enough to restore the Bay. Presently, we have a range of tools that we are implementing to tackle these problems and we have also laid the groundwork to achieve similar necessary pollution reductions from municipal wastewater and air sources of nutrients. We stand ready to work with the Subcommittee and other Members of Congress to explore these issues in the months ahead.

Across the Chesapeake Bay Watershed, there have been important actions over the past 25 years—by farmers to implement nutrient management practices, such as installing buffer strips and fences; by homeowners to reduce energy consumption and storm water 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. These good efforts have helped to hold the line against further degradation of the magnificent Chesapeake Bay, they have not, however, been sufficient to restore the Bay to its once healthy condition.

The Chesapeake Bay Program's March 2009 annual Health and Restoration Assessment of the Chesapeake Bay and Watershed, known as the "Bay Barometer," documents what so many residents of the Bay Watershed already know: the Chesapeake Bay ecosystem remains severely degraded, despite the concerted efforts of many people for more than 25 years. The data are sobering. Virtually all of the 13 measures which comprise Bay health show conditions that fall short of restoration goals.

Although we face daunting challenges, in all my conversations with government officials and citizens around the Bay, I have heard a strong sense of optimism 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. We have a wonderful opportunity to build on the work of farmers in the Chesapeake Bay Watershed to make a clean and healthy Chesapeake Bay a reality.

I greatly appreciate your support in simultaneously addressing the agricultural sustainability and water quality restoration imperatives in the Chesapeake Bay Watershed. Thank you again Chairman Holden, Congressman Goodlatte, and Members of the Subcommittee, for the opportunity to appear before you today.

The CHAIRMAN. Thank you.

Mr. Redding.

STATEMENT OF RUSSELL C. REDDING, ACTING SECRETARY, PENNSYLVANIA DEPARTMENT OF AGRICULTURE, HARRISBURG, PA

Mr. REDDING. Mr. Chairman, thank you, first of all, for the opportunity to be here.

I want to say thanks to Ranking Member Goodlatte and Congressman Thompson and Congresswoman Dahlkemper.

We are pleased to have three leaders on this Committee. Thank you for your interest and your leadership here in Washington and on behalf of Pennsylvania agriculture.

On behalf of the Governor, thank you again for the invitation to be here. It is certainly symbolic on this panel to have the USDA, the EPA and the Commonwealth as partners, and I will talk about that in a moment, the importance of the partnership as we go forward.

Clearly, there are a multitude of legislative, regulatory and administrative strategies that are being considered to improve water quality in the Chesapeake Bay.

Having an opportunity today to talk about that is an important part of the conversation. In fact, the Obama Administration, as Chuck has mentioned, has recognized the Chesapeake Bay as a national treasure and worthy of national attention. We agree with that.

The strategies being considered today are in part the result of the Presidential attention. It is part Congressional attention, and it is also a judicial process where the courts have mandated that the Bay Watershed jurisdiction develop a plan for clean water. Surely these programs must address the broad spectrum of the very important natural resources and the cultural issues which are multifaceted, complex and interwoven.

Your interest and willingness to examine these strategies and how they will impact Pennsylvania farmers, citizens and the communities of Pennsylvania is greatly appreciated. But let me be clear at the outset. I believe we need to have two clear and co-equal goals in any effort to restore the Chesapeake Bay and its Watershed. First, it is imperative to meet the goals established for clean water for Pennsylvania and the other Bay Watershed states. Second, it is imperative that we have economically viable and thriving farms and strong communities in Pennsylvania and other Bay Watershed states. These goals will need the strong support of Congress, and Federal support in general.

And we certainly appreciate the work, Mr. Chairman, of this Committee through the farm bill that you mentioned in your opening statement.

We also have a chance in the reauthorization of the Clean Water Act to further complement the work of the farm bill and leverage the work that has been done and will have been done by that time through the efforts of the farm bill funding.

It is clear to me that the problems we face in the Bay in terms of nutrient and sediment reduction goals is not exclusively an agricultural problem, nor is it exclusively an urban problem. Regardless, it is a Pennsylvania problem. More than three million Pennsylvania citizens call a portion of the Chesapeake Bay Watershed their home. Each and every person who lives in a portion of the Chesapeake Bay Watershed contributes to the nutrient and sediment loads that are impacting the Bay.

Whether you milk cows in Bradford County, the northern reaches of the state, fertilize your lawn in State College, flush the toilet in Lancaster County, or park your car in Gettysburg, you are contributing to the problem of the Chesapeake Bay. And, therefore, you must contribute to the solution as well.

In terms of farmers, they fully understand that clean water for the Chesapeake Bay means clean water for their families, communities and their livestock. Pennsylvania farmers are trying to better understand how the changes called for in the Executive Order proposed report, strategies, and legislative bills will impact their day-to-day farming decisions. What changes will they need to make? And what will the cost be? All are legitimate questions.

It is imperative that, as legislative leaders and appointed political leaders, we fully understand the impact of these proposals, their solutions, and what a balanced and effective solution looks like for addressing the issues of the Bay.

I would be remiss if I didn't mention the economic issues of agriculture right now; just to make sure that we achieve this goal and to achieve one of the two goals I stated at the outset, we will have to deal with the economic issues of agriculture. We are asking farmers to come up with money to match, to leverage Federal and state investment. But we have to be sensitive to the economic times we are in. And for that reason, and it is the reason I state in the testimony, we need to have a long-term view of this. As long as we are smart about the approach and sensitive to the progress made, we are sensitive to the times we live in, I believe we can achieve those two co-equal goals.

We also have to understand, as you do, the issues of local government, state government and the resources. They are the partners. They are the folks who are being asked to come up with money to implement the strategies to help advance the plans. They are in a tough spot. Again, just being smart about that is an important statement at the outset of us being able to achieve our goals.

I mentioned the complexity, and I just put this on the table, this is a complex issue. There are four different components that we are talking about when we say strategies for the Chesapeake Bay. Certainly the Presidential Chesapeake Bay Watershed Executive Order that Chuck has mentioned, the ongoing Chesapeake Bay TMDL process is what I referenced earlier in terms of the court-mandated action, the proposed reauthorization of the Chesapeake Bay Program and the Clean Water Act, and in our case, Region 3's Agricultural Assessment Initiative in Lancaster County. All four of these are of a part of the conversation in Pennsylvania at the moment about the Chesapeake Bay. They are all interrelated, and all will have significant impact on the progress we make and the action plan that we lay forth to achieve the goal.

The bottom line in Pennsylvania, especially for Pennsylvania farmers, they have much at stake, and we have to be sensitive to the economic times. But also, I would ask recognition of the progress made by farmers. Ms. Mills mentioned this, and I think farmers have done a phenomenal job.

It is also important to note that we have been at this for over 25 years, and that is only in terms of the legal mandates we have had, but, obviously, part of agriculture is good conservation. So, in many terms, we have made the investments needed. We have shown reductions, as noted here earlier.

Pennsylvania is the first state to have a mandatory Farm Nutrient Management Plan, the first Nutrient Management Plan to regulate both nitrogen and phosphorus, and the first EPA approved

regulatory program for confined animal feeding operations. It is also important to note that we have permanently preserved 20 percent, nearly 3 million acres, in this watershed. All of that is important in achieving the goal.

You have the testimony, and I won't read that verbatim, just a couple of highlights. I mentioned the partnership and each of the four points here that are on the table for the Chesapeake Bay. Partnerships have brought us here, and partnership is really how we have achieved what we have achieved, whether it is at the state level with our partners, both in county government and the conservation districts, whether it be the Federal level with USDA and EPA and many others, or the nonprofit community.

But the largest partner and the partner that is being asked to put the most on the table is agriculture, and the farmers who have signed on the dotted line to repay the loans that they have taken out to stay in this business called agriculture. They are a partner. Respecting that partnership as we go forth I think is absolutely critical. And it is an important statement of Congress and this government about what we believe is achievable with those partners.

Finding some balance between our approach, and we know on the one hand that we need greater compliance, and we know that we need greater investment. We know that we need farmers and communities to step up to achieve more. It is clearly known. We have to do more than we have done to achieve the goals. We can do that if we are smart about it, if there is balance, and continued investment in it.

A few specifics in terms of the framework, regulatory framework, going forward, that I would ask the Committee to consider.

I think we have to recognize that simply requiring more operations to be confined animal feeding operations to get that permit is not the right approach. What is important is not what you term them, it is what they do on the ground. It is what practices they put in place to give us the results we are looking for in clean water.

Second, our farmers deserve clear, predictable legal obligations. We need to know what it is we are obligated to do. And that conversation has begun, and it is ongoing. To the credit of Chuck Fox of the EPA and the USDA, we have had these conversations. Knowing where the boundaries are is important. But for the farmers at the outset, given the four pieces that are at play here, we need to understand where the boundaries are.

We also ask in this regard, and we suggest, that the proposed legislation to reauthorize the Bay includes some provision that dispels the notion that the EPA will be the regulatory authority on farms under the bill. Make the expectations clear. If a farmer has developed and is implementing a plan, let's acknowledge that. That is an important part of building their trust and getting the trust we want.

There is much I could talk about on the compliance side. There is nothing more important than getting good technical assistance on the ground, and having resources available both for the technical assistance, but also to help farmers and landowners who will need the money to implement the plans. We need to make that available.

We need a good tracking system. One of the revelations that I think has come out of this discussion in the last several months is that we are very good at tracking what we pay for as a government. We are not good at tracking what farmers and landowners have done on a voluntary basis. All of that, when you start counting practices and counting acres that in the models equate to certain changes in water quality. We need to make sure that we are capturing that and doing a good job of it, and that is a Bay-wide piece. We have taken some actions in the state, and we have talked to USDA and the EPA about that.

But I think that is one of the items that helps build the confidence of the folks who are asked to do more, to at least give them credit for what they have already done. So we put that on the table, a good tracking system that needs to be available.

And we believe that new technologies will also help us get there. It is part of the way you will address the problem. Science is part of the solution here. We need technologies and investments in those technologies.

With that, let me just stop where I began, and that is there are co-equal goals: clean water and viable agriculture.

[The prepared statement of Mr. Redding follows:]

PREPARED STATEMENT OF RUSSELL C. REDDING, ACTING SECRETARY, PENNSYLVANIA DEPARTMENT OF AGRICULTURE, HARRISBURG, PA

Introductory Comments

Chairman Holden, Members of the Subcommittee on Conservation, Credit, Energy and Research and guests, thank you for inviting the Commonwealth of Pennsylvania to be a part of this important hearing concerning the multitude of legislative, regulatory and administrative strategies that are being considered to help improve the water quality of the Chesapeake Bay, its tributaries, and its watershed. On behalf of Governor Edward G. Rendell, it is my honor to testify before you today.

There is no doubt that the Chesapeake Bay and its tributary waters are natural resources of outstanding ecological, economic and cultural importance to the citizens of the United States, and especially to the citizens and farmers of Pennsylvania. In fact, the Obama Administration has recognized the Chesapeake Bay as a national treasure worthy of national attention.

The strategies being discussed here today are in part the result of that Presidential attention, in part the result of Congressional attention, and in part the result of the judicial process as the courts have mandated that the Bay Watershed jurisdictions develop a plan for clean water. Surely these programs must address the broad spectrum of very important natural resource and cultural issues which are multifaceted, complex and intricately intertwined. Your interest and willingness to examine these strategies and how they will impact Pennsylvania farmers, citizens and communities is greatly appreciated.

Let me be clear at the outset, I believe we need to have two key, clear, and co-equal goals in any effort to restore the Chesapeake Bay and its watershed.

> First, it is imperative to meet the goals established for clean water for Pennsylvania and other Bay Watershed states.
>
> Second, it is imperative that we have economically viable and thriving farms and strong communities in Pennsylvania and other Bay Watershed states.

To accomplish these goals, we need strong Federal support. This Committee, and the Congress, must be commended for your work on the farm bill to deliver to the watershed those tools and resources needed to keep farmers in business protecting clean water. Now, we have a second shot at the apple with the reauthorization of the Bay Program in the Clean Water Act. If done right, this legislation can compliment the farm bill and again ensure that farming will be sustainable while farms are managed to deliver clean water.

It is clear to me that the problems we face in meeting the Bay nutrient and sediment reduction goals is not exclusively an agricultural problem, nor is it exclusively an urban problem; regardless, it is a Pennsylvania problem. More than three million

Pennsylvania citizens call a portion of the Chesapeake Bay Watershed their home. Each and every person that lives in a portion of the Chesapeake Bay Watershed contributes to the nutrient and sediment loads that are impacting the Bay. Whether you milk cows in Bradford County, fertilize your lawn in the suburbs of State College, flush a toilet in Lancaster City, or park your car at the mall in Gettysburg, we all contribute to the nutrient and sediment loads that are impacting the Bay. Likewise, we all need to contribute to the solutions that will help restore the Bay.

Approximately 40,000 Pennsylvania farmers rely on the soil, water, air and other natural resources of the Chesapeake Bay Watershed to raise and market their crops and livestock, support their families and communities; and to help feed the citizens of Pennsylvania, the United States, and people around the globe. These Pennsylvania farms are extremely diverse, from 50 cow Amish dairy farms to 2,500 cow dairies; small organic truck farms to cash-grain operations farming thousands of acres; backyard cow-calf operations to large-scale poultry or swine growers. The diversity of Pennsylvania agriculture is one of its most important strengths.

It is often said that farmers are our first conservationists, and I sincerely believe that. Pure and simple, they make their living off the land. The quality, health and sustainability of the natural resources they manage from day-to-day, year-to-year, and decade-to-decade on their farms determines to a large degree their economic success, viability and longevity. Farm families are often tied to their land for generations.

Pennsylvania farmers have worked diligently over the generations to help protect and restore the natural resources that they and their fellow citizens depend on. I believe our farmers take seriously the challenges we collectively face in achieving water quality goals that have been established for the Chesapeake Bay and its tributaries. They fully understand that clean water for the Chesapeake Bay means clean water for their families, their communities and their livestock.

Pennsylvania farmers are trying to better understand how the changes called for in these Executive Order proposed reports, strategies and legislative bills will impact their day-to-day farming decisions, what changes will they need to make, and what the costs will be. It is imperative that as legislative leaders and appointed political leaders, we fully understand the impact of these proposals, ensure the solutions are practical, balanced and effective, and work to provide the financial and technical resources that will be necessary to implement these changes.

Current Economic Challenges

I would do an injustice if I did not note that farmers are also dealing with the some of the most difficult and challenging economic conditions that they have faced in more than 30 years, at the same time they are being asked to do more for the Bay. Requiring farmers to expend significant amount of funds for conservation practices during this economic recession could force many operators to make difficult decisions about leaving the industry.

In addition, state and local governments in Pennsylvania also face very real economic challenges. Pennsylvania's 2009–2010 state revenue short falls resulted in the need to make difficult and painful reductions in state agencies' budget and staff complements. County and local governments are currently adopting 2010 annual budgets that are extremely tight due to revenue short falls. County conservation districts, which depend on a combination of state and county based funding sources, are being impacted especially hard during this annual budget cycle. Conservation districts are a key component of Pennsylvania's outreach and technical assistance programs for nonpoint source pollution programs.

Any Chesapeake Bay Watershed restoration strategy, initiative or legislative solution must provide adequate Federal funds necessary to accomplish new regulatory requirements and initiatives. As a state, we truly appreciate and value the funds provided through farm bill programs such as EQIP, and especially the Chesapeake Bay Watershed Initiative. These funds and the technical assistance they bring to Pennsylvania are critical to our success, but unfortunately significantly more financial and technical resources are needed to achieve the nutrient and sediment reductions that are called for in the TMDL and draft strategy.

For these reasons, our approach to the Bay restoration must be viewed over many years to address the economic and fiscal cycles that we will have to manage through.

Complexity of Challenges Faced

As I mentioned earlier, these strategies address a broad spectrum of very important natural resource and cultural issues that are multifaceted, complex and intricately intertwined. This is a very complicated equation with a common denominator—the Chesapeake Bay. Parts of the equation include:

- The Presidential Chesapeake Bay Watershed Executive Order with its seven draft reports and a draft strategy.
- The ongoing Chesapeake Bay Total Maximum Daily Load (TMDL) process to establish enforceable waste load allocations and caps throughout the watershed that is currently being implemented under existing authorities of the Federal Clean Water Act.
- The proposed reauthorization of the Chesapeake Bay Program provided for under Section 117 of the Federal Clean Water Act, including S. 1816 and H.R. 3852 which propose to reauthorize section 117, including broad codification of the TMDL process.
- EPA Region 3's new "Agricultural Assessment Initiative" currently taking place on 26 farms (25 Amish, 1 English) in Watson Run, Lancaster County.

The complex and inter-related nature of each of these proposals and actions is challenging to those whose full-time job it is to review rules, regulations and legislation. Imagine how overwhelming they are when you're hustling everyday to make a living from farming.

The bottom line is Pennsylvania, and especially Pennsylvania farmers, have much at stake in the intricate details of the evolving national strategies and plans regarding the restoration of water quality in the Chesapeake Bay and its watershed lands and communities.

Recognizing Accomplishments to Date

Pennsylvania has worked diligently over many decades to help reach the water quality goals for the Chesapeake Bay and its tributaries. We were a signatory to the original 1983 Chesapeake Bay Watershed Restoration Agreement. From the beginning, Pennsylvania's approach has focused on each of the challenges we have faced, with a strong emphasis on agricultural nonpoint source pollution.

Pennsylvania leads the Chesapeake Bay states in measures critical to the restoration of the nation's largest estuary. The U.S. Environmental Protection Agency's most recent calculations show Pennsylvania farmers can proudly lay claim to 55 percent of all the nitrogen reductions made by agriculture anywhere in the multistate watershed. This leadership derives from the Commonwealth's set of agricultural stewardship firsts:

- The first mandatory farm nutrient management plans.
- The first nutrient management program to regulate nitrogen and phosphorus.
- The first EPA-approved regulatory program for concentrated animal feeding operations.
- The first Bay state permanently to preserve 20 percent (now more than 3 million acres) of land in the watershed. More than 425,000 of those acres represent some 3,900 preserved farms (required to follow a conservation plan), representing an investment of more than $1 billion in state, county and Federal funds.

The Commonwealth also met its goal to plant 600 miles of riparian forest buffers well ahead of the 2010 goal. Pennsylvania is home to the largest Conservation Resource Enhancement Program in the entire nation. Our CREP program delivers more than $50 million in state and Federal assistance for best management practices and, unlike other Federal farm bill programs, targets key edge-of-stream BMPs to maximize water quality. Pennsylvania leads the Bay states in this category after restoring 3,212 miles of 35 feet-wide buffers in the watershed.

From 2007 to 2009, Pennsylvania has invested more than $750 million in a variety of programs to improve water quality in the Bay. This includes $264 million in Commonwealth funds for financing municipal and industrial wastewater systems. The largest funding sources have been the Growing Greener bond initiatives, the state Resource Enhancement And Protection Program (REAP), the Pennsylvania Farmland Preservation Program, and land conservation acquisitions and easements funded by the Department of Conservation and Natural Resources, through Growing Greener and the 'Key 93' real estate transfer tax fund.

Together, these measures and others have helped Pennsylvania achieve 46% reductions in Nitrogen, 64% in Phosphorus and 88% in sediment (as of 2008). Since 1985, the U.S. Geological Survey trend analysis of water quality data shows that Pennsylvania has been sending cleaner water to the Chesapeake Bay. While we have made important gains, there is more to do. The Commonwealth continues to need funding to improve water quality in the Susquehanna River and its tributaries, and funding for conservation.

Local, State and Federal Partnerships

To date, achieving water quality goals for the Chesapeake Bay has been dependent on strong and balanced partnerships at the local, state and Federal level. As new strategies, initiatives, regulations and/or laws are developed, it is critical that these partnerships are enhanced and that a proper balance of non-regulatory and regulatory approaches are maintained. This is especially true as efforts are ramped up to address nonpoint source pollution concerns.

Pennsylvania conservation districts and the USDA NRCS have worked for decades to assist landowners in voluntarily managing their natural resources in a manner to minimize nonpoint sources of pollution (nutrients and sediment). They have developed relationships and trust with landowners that are critical to solving nonpoint source pollution problems. Our conservation districts also have experience in managing regulatory nonpoint source programs such as nutrient management and erosion and sediment control programs. When these efforts are combined with the regulatory tools of the Pennsylvania Department of Environmental Protection and other state agency partners, Pennsylvania has access to a suite of tools that we believe are best equipped to accomplish the nutrient and sediment reduction goals for the Chesapeake Bay and its tributaries.

The key to success in addressing nonpoint source pollution problems is using the right tool for the job at the correct time. Some situations call for technical and or financial assistance; some call for a regulatory approach; and some call for a mix of both. The key is balance. By utilizing the appropriate mix of tools, positive tension can be created that causes farmers and landowners to change behaviors and adopt best management practices that are necessary to reduce nutrients and sediments being delivered to the Bay.

Adopting a heavy handed or unbalanced approach will only drive farmers away from compliance and or out of business. On the other hand, if we work smartly, with a balanced approach, and allow the agency(s) with the appropriate skills and necessary tools to work with farmers and landowners, we will have a greater chance of accomplishing our goal of clean water and thriving farms.

Based on the success of this existing regulatory frame work, we recommend EPA and other Federal agencies work cooperatively with Pennsylvania agencies to develop and implement a strategy for achieving widespread compliance of agricultural producers using existing Pennsylvania legal requirements. The strategy should address the following:

Regulatory Authority:

- Recognize that simply requiring more operations to obtain a Concentrated Animal Feeding Operation (CAFO) permit is not the answer to improving water quality, but rather we believe implementing Pennsylvania's current regulatory authority that calls for an active on-site collaboration between producers and conservation professionals to identify and implement required practices for all farms, is the best approach.
- Farmers require and deserve clear and predictable legal obligations. We must do a better job of communicating those expectations to farmers, and provide them with tools that facilitate their ability to comply. Any changes to regulatory and enforcement strategies must be made in a transparent manner with cooperation between Federal, state, and local partners. In this regard, we suggest that the proposed legislation to reauthorize the Bay Program includes some provisions that dispel the notion that EPA will be the regulatory authority on farms under this bill and make the expectations clear. If a farmer has developed and *is implementing* a plan (in accordance with any existing state and/or Federal requirements and in accordance with the criteria established), then the producer should be deemed to be in compliance with the TMDL and its Watershed Improvement Plan (WIP). Simply stated, if the Federal Government develops a set of approved conservation practices for the Bay water quality, and those practices being implemented are part of an approved conservation and comprehensive nutrient management plan, then the producer is assured they have met the requirements.
- The TMDL and the proposed language to reauthorize section 117 both recognize that one size does not fit all and identify the states as the entity that will develop and carry out Watershed Implementation Plans (WIPS). EPA has a legitimate interest in overseeing a state's implementation, but as long as a state continues to meet its commitments under the Implementation Plan, the state must remain the primary entity for regulation and enforcement. However, for a state to be successful, we do need a strong Federal partner in the area of compliance assistance.

Compliance assistance:

- The proposed legislative language to reauthorize section 117 recognizes the crucial role that technical assistance plays in agricultural compliance. We cannot underestimate the benefits of having knowledgeable conservation professionals who can meet one-on-one with farmers. The time and money spent on these relationships are extremely cost-effective in the long run because they help to ensure that practices are implemented correctly both for the environment and for the farmer. This in turn will help to keep plans implemented and practices on the ground.
- There is a critical shortage of technical assistance and compliance oversight staff in Pennsylvania. Providing additional technical assistance capacity (planning/engineering) through conservation districts, an enhanced technical service provider (TSP) program and increased compliance oversight staff is critical. USDA must take action to expand their capacity under the TSP program, and EPA must allocate funding to address the staffing shortfall for compliance oversight staff at the state agencies and conservation districts.
- Technical and financial assistance programs must be coordinated within the state to ensure that all farms develop and implement the necessary conservation and manure management plans. Program delivery and conservation practice implementation at the state level should be integrated with EPA's expectations for water quality improvement. They should also be linked to individual states' implementation plans and milestones.
- A tracking system, to be effective, must include the ability to capture all conservation practices, including those implemented with or without Federal or state funding. Current modeling has no effective method for including practices (*i.e.,* cover crops, reduced tillage) established independently of public assistance.
- Technical and financial assistance programs should be used holistically to address the overall water quality challenges on a particular farm, instead of the current piecemeal approach that leaves some water quality problems unaddressed. Good overall farm management throughout the watershed is needed to reach the goals we need to reach, not just individual priority practices on certain farms or regions.
- The practices needed on each farm must be site-specific and address water quality cost-effectively. While we recognize that best management practices must meet certain standards that demonstrate water quality improvement, a rigid set of standards may actually be a hindrance to compliance instead of an asset. Instead, we need flexible standards that, while still being based on water quality outcomes, recognize the differences between types of farms and their configuration on the landscape.
- New and alternate technologies (*i.e.,* phytase, manure digestion) can play a key role in helping some farms improve water quality. Strategically targeted technologies in areas where it can make the most difference can be very cost-effective. For example, focusing the placement of enhanced regional digesters in areas of Franklin and Lancaster County could help achieve 20 percent of Pennsylvania's manure-related reductions. Investments in new research or technological developments can provide significant opportunities.
- Effective and simple planning tools are needed in order to assist farmers in their efforts to comply with water quality obligations. As we move to deal with a greater number of smaller farms, we need to have planning tools that can be easily understood and completed by farmers or their consultants. The current array of extensive planning tools has relevance to the larger farms; however, a very simple approach is appropriate and needed in order to ensure compliance with the vast number of smaller farms. Pennsylvania is in the process of developing these tools (*i.e.,* OneStop Online Conservation Plans) and needs additional resources to finalize them for public use.

Mr. Chairman and Committee, I'll end where I began by saying there are two coequal goals—

First, it is imperative to meet the goals established for clean water for Pennsylvania and other Bay Watershed states.

Second, it is imperative that we have economically viable and thriving farms and strong communities in Pennsylvania and other Bay Watershed states.

If we are going to be successful, we must find balance between these goals and be flexible as we develop the strategy. This year and next, as the Reauthorization of the Bay Program is considered by Congress, we hope that you will continue to

champion these inextricably linked goals. In doing so, you will be greatly assisting the Commonwealth of Pennsylvania, the Chesapeake Bay and farmers throughout the watershed.

Furthermore, we hope that you will continue to be our champion as the farm bill is reconsidered, each time assuring that farm sustainability and clean water are considered in tandem. The Bay-wide TMDL must be implemented by 2025. Between that end goal and now stands 16 years and at least two, possibly three farm bills. We must count on you then, as we count on you now, to be the voice for farms and clean water.

Thank you.

The CHAIRMAN. Thank you, Mr. Redding.

Ms. Mills, Mr. Goodlatte and I and many other Members of this Subcommittee and the Committee worked very hard to come up with a good Chesapeake Bay Program in the farm bill and devoted mandatory money for this effort. We have heard, and you have said, that it has been very popular, and we are committed to making sure this program works.

The Executive Order outlines several new initiatives for USDA, and I want to make sure that we are all on the same page with regard to the role of ag in the Chesapeake Bay region. Can you assure us that the Bay program in the farm bill will be run and operated by USDA only?

Also, can you assure us today that all farm bill money is allocated and based on decisions made by USDA?

Finally, can you assure us that agriculture decisions are made by the Department of Agriculture?

Ms. MILLS. Yes, sir. I would answer in the affirmative on all of those. As it has for decades now, USDA has decided where and how we invest farm bill dollars. This does not change with the Chesapeake Bay at all.

We have been leaders in this. Certainly, as Mr. Redding has indicated, there is a strong partnership and consultation with our local, state and Federal partners, whether it is local working groups, conservation districts, state technical committees, Federal partners including the U.S. Fish and Wildlife Service, USGS and EPA. But at the end of the day, it comes down to the science and the judgment of the NRCS staff as to where these dollars are invested, both base farm bill funding dollars and the $188 million Chesapeake Bay program dollars.

The CHAIRMAN. Well, we are with you. We look forward to working with you.

Mr. Fox, there are several regions of the country that have similar problems that we currently are experiencing with the Chesapeake Bay. Can you explain what distinguishes the need to emphasize the new regulatory and enforcement approach in the Bay but not in other regions, such as the Gulf Coast?

Mr. FOX. Yes, Mr. Chairman. The fundamental nature of the Clean Water Act is a mandate for EPA, working with the states, to tailor solutions to meeting the unique water quality challenges of a specific water body.

We all remember when Lake Erie was declared dead in the 1970s. The response by states and the Federal Government was a series of pollution control actions to improve water quality in Lake Erie. These were not pollution control actions that were then implemented throughout the nation. It is the way the Clean Water Act is designed and how it is being implemented. All of our actions

are dictated towards improving and achieving the water quality goals that are established by the states.

As a practical matter right now in the Chesapeake Bay Watershed, EPA is implementing the CAFO regulations uniformly in the Bay Watershed and throughout the country. There is no difference whatsoever with how we treat a CAFO in Virginia, Maryland, Pennsylvania, or how we treat one in Iowa with respect to Federal law.

There are sharp distinctions in state laws in how they regulate different sources throughout the country. Fundamentally, our challenge here is, as Russ said, Mr. Redding said, is to ensure viable agriculture and at the same time achieve our goals for the Chesapeake Bay and the communities throughout the watershed.

The CHAIRMAN. Mr. Fox, last week we heard from Jude Capper, a dairy economist that I mentioned in my opening statement, and I would like to enter her testimony into the record for this hearing, along with some points that the dairy sector has been doing to increase productivity while reducing the carbon footprint.

[The information referred to is located on p. 93.]

The CHAIRMAN. Also, we will hear from some on the second panel who will talk about voluntary programs underway to reduce pollution in the Bay. My question is, given the voluntary actions currently underway by agriculture, coupled with new measures in the farm bill, why aren't we giving these initiatives time to be implemented and to work? Why are we increasing regulations before we give some of the programs a chance to show their progress?

Mr. FOX. That is an excellent question, and one that we struggle with every day. I look forward to learning more about the dairy examples that you used. In the Chesapeake, we have similar examples that I think cause us a great deal of satisfaction.

The poultry industry, which you will hear from soon, has voluntarily introduced some feed additives which have greatly reduced the phosphorus concentration in the manure. There have been tremendous success with voluntary programs since the Bay program was started in 1983.

As you heard my counterparts on either side of me testify, since the Bay program began, we have achieved roughly a 50 percent reduction in ag pollution, 50 percent of the goal we need to achieve, and that is a remarkable testament to voluntary programs.

The challenge we face today, though, is to achieve our ultimate goals for the Chesapeake Bay, we need to do far better than we have done in the past. This is where we are trying to find the appropriate mix of enhancing our voluntary programs, and in some cases strengthening the regulatory programs. At the end of the day, the goals which have been established by the Governors and the Administrator of EPA is that we have a Chesapeake Bay to restore for the people in the communities and the watershed.

The CHAIRMAN. Mr. Redding, if you want to comment on that, and do you think anything in the Executive Order, or any of the legislative initiatives that are being proposed, will put Pennsylvania farmers at a competitive disadvantage?

Mr. REDDING. Mr. Chairman, first on the voluntary efforts, I would say a couple of things. Clearly we have made great progress with our voluntary actions. I think at the moment we are in, and

I refer to this time as sort of a teachable moment. We clearly, for the resource issues I mentioned earlier and in agriculture, it is a moment that we have to be clear what the expectations are. We can, both as a Congress and state, outline where we want these producers to go, and particularly where we want our citizens to go so all of us are clear. So the voluntary actions have brought us so far. We will continue that, and that will be parallel with some other actions.

But, the moment we have right now is to change the game, and that is to be clear right now about what we want agriculture to do and where we want them to be. In 16 years, the TMDL is to be implemented. And when this Executive Order, different pieces are done and with the Clean Water Act, I think you have a moment here, Mr. Chairman, to use to reframe the discussion. Acknowledge first of all that there has been some progress. We are halfway there. And then be clear about how we are going to reach the second half of that goal.

It also presents an opportunity for us, with the efforts at hand, to spawn some innovation. How do you close the gap? If we haven't done it in 25 years, what is going to get us there? There is going to be technology, and there are folks who haven't complied to this point, and we haven't needed them to because of recommendations or law. We ought to use them. So you have this moment to really spawn some innovation.

I think, in terms of the Committee and for the Federal Government, you have spoken very clearly in the farm bill about what your expectations are. I think in this initiative, we now have an obligation to tell you what we have done. And one way to do that is to be clear in the framing, so everyone in the Chesapeake Bay Watershed knows where the end goal is and how we will get there. We will do it with volunteers, but we will also do it with continued investments and collaboration with partners.

The CHAIRMAN. The gentleman from Virginia.

Mr. GOODLATTE. Thank you, Mr. Chairman.

Let me ask both Ms. Mills and Mr. Fox, has the Administration issued a statement of policy or SAP on the legislation introduced by Senator Cardin, and there is a House companion bill as well?

Ms. MILLS. Congressman Goodlatte, we have not. We are looking forward to commenting on the bill and will do so as soon as we get a request to comment on it.

Mr. GOODLATTE. Do you need a request to comment on it?

Ms. MILLS. Yes. My understanding is that we need a formal request. Actually, we did meet with Senator Cardin's staff last week, I believe, and made the request. And we have eagerly started looking at the bill, and will comment on it the earliest we can.

Mr. GOODLATTE. Have you consulted with Senator Cardin on the drafting of this legislation?

Ms. MILLS. No, sir, we did not.

Mr. GOODLATTE. You have stated that farms are essential to the fabric of the Bay Watershed while also alleging that they are a major source of pollution in need of greater regulatory mandates. Farmland continues to diminish, while population growth skyrockets, along with more impervious surfaces. Farms operate on thin margins in the best of times. This legislation and the Adminis-

tration's plan promises more costly regulatory mandates for farmers. How do you expect to improve the Bay with policies that will accelerate the loss of farmland and the proliferation of land uses that deliver a greater nutrient load to the Bay?

Ms. Mills?

Ms. MILLS. USDA cannot comment on the role of regulation, and we have not done so. So, again, with regard to the legislation, we do look forward to commenting on the bill and giving our full analysis of each of the provisions in the bill.

I will note that one question we are asking ourselves as we have looked at the legislation is reconciling what the farm bill asked USDA to do, and that is to establish uniform standards for ecosystem service markets. And we have within the Natural Resources and Environment mission area stood up an Office of Ecosystem Service Markets to do that. And we are pleased that in the Executive Order draft summary, that USDA is identified as the leader in working with Federal partners to develop this framework and these standards.

There appears to be a conflict between what the Executive Order summary and the farm bill say and what is in the legislation. This is something that we are looking at, and again, one of the provisions we are interested in giving comments on.

Mr. GOODLATTE. Did you reach out to the agricultural community prior to the Executive Order? And if so, specifically who in the ag community did you reach out to?

Ms. MILLS. Yes, Congressman Goodlatte, there were a series of listening sessions throughout the summer during the course of crafting our, USDA's, specific 202(b) report, and USDA staff was involved in that in addition, just after the publication of both the——

Mr. GOODLATTE. But Ms. Mills, the Executive Order was issued on May 12.

Ms. MILLS. Yes.

Mr. GOODLATTE. Who did you reach out to in the agricultural community prior to the issuance of the Executive Order?

Ms. MILLS. The consultation all took place afterwards.

Mr. GOODLATTE. Why was that? Before you issue an Executive Order that has dramatic implications on the agriculture community, on farms all across the Chesapeake Bay region, why wouldn't you reach out to members of that community, at least to members of the Farm Bureau or other organizations like that, before you issued an Executive Order?

Ms. MILLS. The Department of Agriculture was not involved in drafting the Executive Order.

Mr. GOODLATTE. Mr. Fox?

Mr. FOX. Yes, Mr. Goodlatte, if I can respond to a few of the issues.

Mr. GOODLATTE. Well, let me ask you to respond to that question. Did you reach out to members of the ag community prior to the issuance of the Executive Order on May 12?

Mr. FOX. The roots of the Executive Order go back to an initiative that began with Governor Kaine, Governor O'Malley and Governor Rendell, on behalf of the Chesapeake Executive Council, they presented——

Mr. GOODLATTE. I didn't ask for a history of it. I asked you whether the Environmental Protection Agency reached out to the agriculture community in the Chesapeake Bay region prior to issuing an Executive Order that has, potentially, a dramatic impact upon the viability of agriculture, of farms, in my district and Mr. Holden's district and dozens of other Congressional districts in the Chesapeake Bay region?

Mr. FOX. The Administration was responding to a request from the Chesapeake Bay Executive Council to issue the Executive Order. We did not have extensive consultations with any interest group, whether they were agricultural interest groups, municipal interest groups, or stormwater interest groups.

Mr. GOODLATTE. Thank you.

Earlier this week, the Waterkeeper Alliance filed a 58 page petition with the EPA that would require the EPA to be the enforcer for the Clean Water Act to better protect the Chesapeake Bay. Their petition, if approved, would set increased NPDES fees and increased EPA oversight of state government agencies, and, essentially, having the EPA run the Clean Water Act in the Bay Watershed. While I assume you have not taken a position on this petition, can you share with the Committee your vision of the role you think EPA should play in enforcing and overseeing the Clean Water Act in the Chesapeake Bay Watershed and throughout the country?

Mr. FOX. Yes, Mr. Goodlatte. Just a few very brief comments. First, your comment about expanded regulations pursuant to the Executive Order, I just want to make it very clear that we have only proposed one specific change in regulatory authorities, those governing CAFO regulations, and specifically it relates to the provisions of the land application of manure with respect to CAFO regulations.

Second, I agree completely with your characterization about sprawl and development patterns and how difficult it will be to achieve our goals given the patterns of the past.

Third, with respect to legislation, the Administration did receive a request from Senator Cardin to testify on the legislation. We do have Administration-approved testimony that I would be happy to provide to the Committee. It doesn't specifically support or oppose the legislation in terms of a bottom line, but I would be happy to get that to you.

Finally, with respect to the petition, we received numerous petitions for withdrawal of NPDES programs. We have received over a dozen of them. We received one when I was Assistant Administrator for the State of Virginia. We consider these pursuant to the legal requirements of the Federal Clean Water Act. Every single state in the country that has a delegated program is delegated pursuant to the law by EPA, and we have an obligation to ensure that the states are implementing these programs efficiently and effectively, and this petition will be considered like all of the others.

Mr. GOODLATTE. And what factors will you employ in doing so in terms of what role you believe the EPA should play in implementing Clean Water Act provisions within the Chesapeake Bay Watershed relative to the role of the states?

Mr. FOX. I haven't specifically read the petition, let me be clear about that. The allegations that I have heard about in summaries include that the State of Maryland is not reissuing permits in a timely fashion, is not taking aggressive enforcement action, and is not appropriately implementing the TMDL programs. These are three allegations that the petitioners have made. Again, we are going to have to go through a process to review these evaluations and have conversations with the State of Maryland and, ultimately, make some determination. We have never in the history of the agency withdrawn a state program.

Mr. GOODLATTE. Mr. Chairman, I have plenty more questions, but my time has expired.

The CHAIRMAN. The chair thanks the gentleman.

The gentleman from North Carolina.

Mr. KISSELL. Thank you, Mr. Chairman.

And I would like to thank the panel for being here today.

The Chesapeake Bay area is unique, vital and a very important community in all regards. I have learned from reading Michener's book a few years ago, *Chesapeake,* to understand the history and culture and the environment. Also, in having a wife whose family is multigenerational in farming in Lancaster County, I am very familiar with that part of the world also.

Mr. Fox, I have concerns that we are making decisions, and I would like for you to respond to this concern, that we are making decisions based upon a model that predates a lot of the changes that have taken place in agricultural practices. It is based on numbers and agriculture Census numbers that would not be current to some of the improvements we have already heard about in the poultry and dairy industry, and agriculture in general. You even responded a second ago, I think that you said you are interested in learning more about these programs and the positive effects.

Are we making decisions, and how would you respond to somebody who says that you are making decisions based upon outdated information, a model that has changed, and you are going to require a lot of changes in the agricultural community based upon outdated information? How would you comment on that?

Mr. FOX. Thank you, and I welcome the connections you have to the Chesapeake Bay. It is a wonderful place.

The short answer is, we can be very proud of the science that we have on the Chesapeake Bay Watershed. I will tell you, as the former national manager of the Federal Water Program, I don't know of any other place in the country where we have as good information about the specific cause and effects of pollution like we have in the Chesapeake Bay.

The model that you referred to specifically has been peer-reviewed numerous times. It has been in development for over 25 years. Literally tens of millions of dollars have been invested into it. And at the same time, it is but one tool that we use, ultimately, to make decisions. I have a lot of confidence in the model. But it is, at the end, just a model, and it is something you should know that is constantly updated with new information.

In the last year, for example, we have revised all of the calculations for the efficiencies of various agricultural best-management practices based on some of the best science that we have. Some of

these efficiencies showed that these practices were more efficient than we thought, and others showed that they were less efficient. And this is the kind of commitment we have to science. It is an interagency commitment and a multi-jurisdictional commitment to science that I think has been the hallmark of the Chesapeake Bay program.

Mr. KISSELL. So people in the agriculture community then could accept and feel good that you all will have taken into consideration all of these improvements that have been made and will be made. So, as we have talked about and witnesses have said, it is a very fragile economic time for agriculture everywhere, and this area included, and regulations that are put on top of things that are already being done that don't serve to a positive end against what is being done, that you all take that into effect.

Mr. FOX. I won't for a minute begin to represent the agricultural community, but I will tell you there is one significant issue, at least one that I am aware of. Mr. Redding mentioned it in his testimony. We do need to improve the procedures by which we incorporate the most recent data about practices that are going on the ground, particularly those that are not part of any Federal or state cost-share program, and we are working closely with our counterparts at the state. NRCS, I am aware, is very actively working on this. It is something that we hope to improve, going forward. But again, it is important to keep in mind that the model is just one tool that we use, ultimately, to guide our decisions.

Mr. KISSELL. As my time is running out, I would like to caution, as we move forward, as the Ranking Member just talked about, for us to make proclamations on regulations before we seek input is not a good way to go. It needs to be, if we talk about a joint exercise, it needs to be a fully informed joint exercise.

Mr. FOX. Mr. Chairman, I need to dispel something very clearly here. Any regulatory actions by this agency will go through the normal regulatory procedures. At this point, we have a draft strategy. As I suggested, it proposes one change in agricultural regulations dealing with CAFOs. If this regulation is proposed, that proposal process will probably take about a year and a half to propose. Finalization of that will probably be another year and a half. So you are looking at between now and probably 3 years of a whole lot of process before any regulations would ultimately be changed for CAFOs.

The CHAIRMAN. The chair thanks the gentleman.

The Chair recognizes the gentleman from Texas.

Mr. NEUGEBAUER. Thank you, Mr. Chairman, for having this hearing. This issue has implications, not just for the Chesapeake Bay Watershed but I believe for agriculture as a whole. I have been very concerned about this process.

With that, I would like to yield the balance of my time to the gentleman from Virginia, Mr. Goodlatte, to continue this very important questioning he has started.

Mr. GOODLATTE. I thank the gentleman from Texas, who is the Ranking Member on our Livestock Subcommittee.

I want to follow-up on the comments and question of the gentleman from North Carolina, which I thought was a very good one, regarding the concern about not taking note of the dramatic

progress that agriculture has made in terms of reduction in various types of sediments and so on that get into our waterways. It also was pointed out by the Chairman in his comments on how efficient dairy production has become in the country. And it is true in other sectors of agriculture as well.

But the gentleman from North Carolina expressed concern about piling on more regulation. So I would like to ask Mr. Fox to comment, even though I know the Administration has not yet issued an SAP on the reauthorization legislation that Mr. Cardin introduced in the Senate.

The legislation to reauthorize the Bay is far more expansive than simply the reauthorization of the Bay program. Included in this reauthorization legislation is the codification of President Obama's Executive Order to incorporate into the reauthorization legislation new law on how agriculture will operate in the watershed.

President Obama's Executive Order and the subsequent EPA section 202(b) reports focus on a centralized Federal oversight approach to Bay restoration activities that emphasize regulatory mandates and enforcement rather than cooperative approaches.

This reauthorization bill could result in Federal regulation and enforcement of the Chesapeake Bay, yet legislation introduced earlier this year to reauthorize the Gulf States Program simply reauthorizes the program.

What distinguishes the need to add all of these additional provisions into the Chesapeake Bay reauthorization where no similar need was found in the reauthorization for the Gulf States?

Mr. FOX. I think you are asking me to speculate on the motivation of the Senator for introducing the legislation.

Mr. GOODLATTE. No, I am asking you to speculate on why an Executive Order was issued with regard to the Chesapeake Bay, and why that Chesapeake Bay reauthorization should be put into this legislation? If your position is that it should not be, then we certainly would welcome hearing that. If your position is that the additional mandates that go beyond the Executive Order that are in Senator Cardin's legislation should not be in the legislation, we would welcome hearing that as well.

Mr. FOX. Just to be very clear, the Administration has no formal position on the Cardin legislation. And again, I would be happy to share our formal Administration-cleared testimony, which does discuss some of the nuances that I think you are getting at.

With respect to why the Executive Order was issued, again, first and foremost, it was in response to a request that we received from the Chesapeake Bay Executive Council, made up of the Governors of the Chesapeake Bay States, the Mayor of the District of Columbia and the head of the Chesapeake Bay Commission. And, second, it was in response to the Administrator and the President's interest in delivering on some real results for the people of this watershed. The Chesapeake Bay, as you well know, we have not fulfilled our goals for the better part of almost 30 years, and we believe it is time to change that.

Mr. GOODLATTE. Have they achieved those goals in the Gulf States?

Mr. FOX. To the best of my knowledge, the Gulf States do not have the specific goals that we have here for the Chesapeake Bay.

Mr. GOODLATTE. But do they not have the same type of problems with sedimentation and water quality standards that we have issues here of in the Chesapeake Bay area?

Mr. FOX. I couldn't testify to that, sir.

Mr. GOODLATTE. You don't know? The Chesapeake Bay is the only watershed in the country that faces water quality issues?

Mr. FOX. Of course not, and I did not say that. What I am suggesting is that I don't know about the water quality standards and the criteria for the Mississippi River and the Gulf of Mexico. I am quite familiar with those of the Chesapeake, and I know of no other part of the country where we have dissolved oxygen, chlorophyll and clarity standards with the specificity that we have in the Chesapeake Bay Watershed.

Mr. GOODLATTE. So that means, because the Chesapeake Bay region, without by the way consulting with the farmers in that region, as you have acknowledged, because we have more information about the nature of the problem, the farmers in that region should face greater environmental burdens and economic burdens than farmers in other parts of the country?

Or are you simply saying because we have reached this information with the Chesapeake Bay sooner than we have in other areas, what is coming down the pipeline for the Chesapeake Bay and the farmers in that region, it is only a matter of time before those same burdens would fall upon the Gulf States or other parts of the country that have similar programs or similar needs and concerns that have to be addressed. What we are looking at here in terms of government regulation is coming to those areas in the not-to-distant future, but you have more information for the Chesapeake Bay so you are going there first?

Mr. FOX. Responding first to your question of consultation, it is true that there was not extensive consultation with anybody in advance of the Executive Order. I am not aware of typical consultation periods that happen with Executive Orders anyway. I can tell you there has been extensive consultation after the Executive Order at many different points, and I will continue that. I have spent many days in your state and the Chairman's state and many times with Mr. Redding talking about these precise matters. And I am committed to continuing to do that.

With respect to your characterizations about what is happening next in other parts of the country, I am trying to be respectful, but I just don't feel comfortable talking about it because it is not my job, and I am not aware of it. It is certainly fair to say that the challenges we face here in the Chesapeake are very similar to challenges that other communities and waters are facing throughout the rest of the country. That is true.

Mr. GOODLATTE. Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman, and recognize the gentleman from Maryland.

Mr. KRATOVIL. Thank you, Mr. Chairman.

Let me begin by thanking you for holding the hearing, and thanking all of the panelists here today, coming to testify.

It is, obviously, a very important opportunity for all of us to hear from all sides on this issue and do our best. Mr. Redding, you have certainly suggested, and all of you have suggested, trying to find

a reasonable, pragmatic, and fair approach to doing something that at times clearly appears to be to be at opposite ends—improving water quality in the Bay and the watershed and at the same time obviously recognizing and doing everything we can to promote and protect the agriculture industry.

My district and the First District both are critically important, not only economically but culturally, and as we go forward, as we move forward, all of us need to recognize that this cannot be a zero-sum game. There has to be a reasonable, fair, pragmatic approach. I think everyone has to have an open mind about it in moving us forward.

There is no question we have been trying to clean up the Bay for 25 years. We have a long way to go. The flip side of that, as Mr. Fox, you and I have talked about on a number of occasions, I do feel that there has been substantial focus on agriculture as opposed to other areas. You have all mentioned the fact that ag has made substantial progress reducing by 50 percent, and I don't think we have had the same kind of focus in other areas. So let me begin with that.

Mr. Fox, you mentioned in your statement that there have been substantial declines in nitrogen and phosphorus loading since 1985. Specifically, what has that decline been in agriculture, and how does that compare to the other areas of municipal-industrial wastewater, atmospheric deposition, and urban and suburban stormwater runoff.

Mr. FOX. With the Chairman's permission, I would like to get you the specific quantitative pound reductions for the record. I can characterize them fairly precisely though for you, Mr. Kratovil.

The most significant percentage reduction since 1985 has clearly been in the wastewater publicly owned treatment works sector. There has been literally billions of dollars invested in improving pollution control at wastewater treatment plants. That is, I think everyone would agree, a very big success story.

Agriculture, as Mr. Redding testified, has contributed significant total poundage reductions that have also been very impressive. But as I suggested there is still—because it is the largest source of pollution, we still have a long ways to go.

There have been also significant reductions in air pollution. The one area that we have actually seen going the wrong direction, as you implied in your question, has been the urban-suburban runoff. This is a huge challenge and it is the focus of considerable attention of the Executive Order and some of the regulatory responses that we are considering.

By and large, we have to turn around the pollution loads from the urban and suburban sector and not only just get them to come down again, but they ultimately have to get reduced. And this will require new pollution requirements most likely on new development projects, on redevelopment projects, and we are going to have to explore ways of retrofitting some of the most impactful large development projects that have occurred over the last 40–50 years.

Mr. KRATOVIL. Mr. Fox and Ms. Mills, one of the things I noticed when we were having discussions about the energy bill was, looking at Maryland specifically and how Maryland farmers in my view have in some ways been ahead of the curve, depending on where

you are on the issue for good or for bad and the consequence of not taking that into consideration in terms of moving forward. Similarly, in this situation, I am concerned that Maryland farmers have already been leaders in implementing best management practices to help clean up the Bay.

Will the fact that many are already taking responsible steps put them at a disadvantage to other states when the responsibility to reduce pollution is allocated under TMDL?

Ms. MILLS. Congressman Kratovil, in fact, I was just in your district last week in Queen Anne and Kent County, seeing some of the steps that producers there are taking to put conservation on the ground.

I think the potential to help agriculture, to help farmers, through these new markets, ecosystem service markets, is tremendous. USDA is, as I noted earlier, is taking the leadership role with the Federal partners to set up standards in a framework that will create certainty and expand the market opportunities to give producers income, new streams of income.

We are in conversations with EPA. We feel strongly that it is important to create room for producers to take advantage of these markets. As Mr. Redding said, we have to take the long view here, and we have to allow producers to position themselves to not only do what is right and what they want to do in terms of stewardship of the land, but also to experience the benefits of conservation on the ground through these new market center developments.

So that is certainly our commitment, and we will continue to talk to EPA about this.

Mr. KRATOVIL. Mr. Chairman, my time has expired. I yield back.

The CHAIRMAN. The chair thanks the gentleman, and recognizes the gentleman from Pennsylvania.

Mr. THOMPSON. Thank you, Mr. Chairman, and I thank the panel for being here for your testimony today.

I will start out by saying I am very disappointed, actually, in the shortsightedness of the President's Executive Order. While it certainly recognizes the Chesapeake Bay as a national treasure, it fails to recognize all components of national treasures—and that is our agriculture, our tradition, our heritage, the importance of our independence over having our own healthy agriculture—there is a failure to recognize our farms as a natural treasure.

As Secretary Redding noted in his testimony, I think he captured what the President missed. Our goals are to establish clean water, and also to have economically viable and thriving farms. That, to me, is extremely critical, both components.

Secretary Redding, in your opinion, what do you see as some of the practical impacts and effects on Pennsylvania farms should the Cummings bill become law?

Mr. REDDING. Congressman, I haven't looked at the other bill in detail. I will say this: Generally, our concern, as I stated, has been sort of respecting that balance between the state and Federal Government. I think that is crucial. At least early indications are that that balance may not be there, or at least recognized fully as it should be. So we think that is an important piece that needs to be taken into account.

So, making sure that that partnership that I spoke of earlier, and we recognized here that has been so valuable to bringing us to that point, is respected in whatever legislation goes forward.

I, too, think the issues of trading and how they are addressed in the legislation are key. I will say in Pennsylvania we have the only viable trading program, the only workable trading program at the moment. We have eight trades as of today. Not big numbers, but you have to start somewhere.

To the Congressman's earlier comments about how do you find this equity between the producers who have really stood up and have done everything we asked them to do, what is the incentive to keep going? And you have this issue across fence lines. Well, part of it is that we can offer those folks, who have gone to baseline, who have done a good job, a trading opportunity. To deal with some of the issues of the community, whether it be the stormwater runoff or municipal authorities, the answer is in part linking production of agriculture with the other entities. So how trading is handled there is important.

The final point, whatever you do in the legislation has to acknowledge the technical assistance and the funding needed to do it. The legitimate question we get all the time, if everyone knows what the problem is, why isn't it fixed now? Well, part of it is money. It is about resources. It is about having enough money to do what you want to do, either on the farms or at the municipal level.

So making sure there is some technical assistance to deal with getting people—landowners, farmers, others—into the proper stage of planning, implementing the plans, and then the resources to help them do that.

But most important in that is making sure we acknowledge that this has been a partnership between the Federal Government and the state. States should have the primacy in making sure that they are meeting the goals set forth so you have the accountability, and the EPA then can oversee that to make sure it is done.

But we are continuing the review of the legislation.

Mr. THOMPSON. Thank you.

Mr. Fox, actually just one comment first, and then a question for you. One of my colleagues was talking about the concern over the regulations, where that would go. You assured us it would go through normal regulatory process. Well, myself, and I know some of my colleagues are probably skeptical of that, given the most recent EPA announcement that CO_2 is a dangerous gas. That really, from the best I can see, circumvented all normal regulatory processing.

But my question for you is that I really am concerned about the attitude toward our farmers that has been shown by some organizations pushing this bill. As you mentioned, stormwater runoff and agriculture pollution are, in EPA's opinion, the largest source of pollution in the Bay. When family farms that are struggling currently go out of business, those farms are rarely returned to forestland. Instead, those farms are developed into shopping malls, houses, and expansions of services.

Can you assure this Committee that as you move forward with the Executive Order in whatever Bay program bill that we move,

that you will do everything you can to assist farmers in meeting your goals? That you will do your best not to make the precarious financial situation that they find themselves in today, for many different reasons, even worse?

Mr. FOX. Absolutely. We are not going to save this Bay unless we can find a way to do it with the cooperation and engagement of not just members of the agriculture community, but the building community, members of the public, the hunting-sportsmen community. We all have to be in this together.

I am acutely aware, I spent enough time with Mr. Redding and his counterparts in the other states, I am acutely aware of the economic situation facing the farmers in the region and the nation, for that matter. We have to be mindful of that and tailor our solutions so that they work for everybody.

The goal we are working on right now is to have practices on the ground by the year 2025. That seems like a long way away, but there is a lot that has to happen in the next 17 years, and this is the challenge we face. We have to do that in a way that respects the economic realities that not just the farmers are facing, but in Russ' case, the economic realities that state governments are facing as well.

Mr. THOMPSON. You are talking about 17 years. We have had 25 years and we have remediated—I don't know what the proper word is, I guess that is the best word as any—50 percent of the problem. You are talking about 17 years and approaching it, and you are changing course in how we are going to address it. So what is the problem? If you are looking at 17 years out and we have mediated the first 50 percent in 25 years, and it takes some time I am sure to get that started, what is the problem with staying the course?

Mr. FOX. You have done the math quite well. Just to elaborate a little bit on this, the leadership of Mr. Goodlatte and Mr. Holden with the new farm bill provisions are huge, and this is going to significantly improve things. But, at the same time, it is also fair to say that we have done a lot of the low-hanging fruit, the easy things first, and Mr. Redding and his counterparts will all agree that the challenge gets much, much more difficult with time.

For example, no-till agriculture is now pretty much universal throughout the watershed. There are huge benefits that we get from that. It has been a tremendous success story. We are not going to be able to go to that well again.

So, this is where we are trying to look at the appropriate mix of an expansion of our voluntary programs, expansion, hopefully, of using the new farm bill monies as efficiently as we can, and then considering some tailored expansion of some of our regulatory and accountability programs.

Mr. THOMPSON. I am well over my time. Thank you, Mr. Chairman.

The CHAIRMAN. I recognize the gentlewoman from Pennsylvania.

Mrs. DAHLKEMPER. Thank you, Mr. Chairman. Thank you to the panel.

I have a number of questions, but I want to first state that I am not from the Chesapeake Bay Watershed. I am from Pennsylvania, but I am from the far western side. I am on the Lake Erie side, which is where I reside.

So, Mr. Fox, you brought up Lake Erie. As a school girl, I remember when the Cuyahoga River caught on fire. I also know the economic benefits that have come to my region from the cleaning up of that lake. And we have a beautiful bay on Erie. Anyone looking for a vacation spot in the summer, or in the winter if you want to ice fish, come up there. But it certainly has improved our economy greatly by improving the quality of that lake.

So, I only have 5 minutes. Mr. Fox, if you just could give us a 30 second history on that and maybe how that would tie into what we are doing today?

Mr. FOX. Thank you very much. It is a wonderful story. Lake Erie was impaired by phosphorous, one of the two nutrients that is identical to what we are facing in the Chesapeake Bay. Unlike the Chesapeake, it is a very small watershed. It is literally a little ribbon, and it was heavily dominated by point sources, sewage treatment plans. The fix, the solution, was a series of permanent limitations that restricted the amount of phosphorous discharges. That in turn led to very remarkable improvements in Lake Erie.

We have had phosphorus limitations in the Chesapeake Bay Watershed since the early 1980s from municipal sewage treatment plants. Since then the Bay Program has grown and expanded and we now have very aggressive programs to control phosphorus and nitrogen. But this is exactly what we are trying to do in the Chesapeake. It is just a lot harder here, because the watershed is so large.

Mrs. DAHLKEMPER. Okay. So the 30 years you have been working on this is just not enough time because of the expanse of the watershed basically?

Mr. FOX. Right.

Mrs. DAHLKEMPER. Thank you for that quick history lesson. I do have a couple of questions.

Mr. Redding, you mentioned in your testimony that the economic hardships facing our farmers are dire, and, of course, you and I have dealt with this on my side of the state and different issues than we are currently talking about today. But I just wanted you to elaborate on that a little bit and how much you think it would cost for farmers, on average, to implement the Executive Order?

Mr. REDDING. Thank you first of all for hosting some discussions in your district on dairy and the perils we have at the moment on that. Certainly that is what I was referring to in the testimony.

Two points: One is just on dairy, and then for Pennsylvania specifically. That is 42 percent of our cash receipts in the state; big numbers. It is the key part of agriculture. So what happens there at the moment speaks volumes for what happens to the rest of agriculture and what you could expect from it.

It has cost about a $1,000 loss in the last year per cow; 550,000 cows, that is $550 million of lost income to Pennsylvania. So when we talk about resources being available to take the next step to implement plans, that is what I was referring to.

In the terms of cost per plan, I think it is going to develop. I think for someone to develop a plan, it is going to cost a couple thousand dollars to put the plan at least on paper. Then it depends on the scope of that plan for implementation, but it will be tens of thousands of dollars to do it and do it well.

Mrs. DAHLKEMPER. And the help that might be there for those farmers?

Mr. REDDING. Well, that is a good question. That is why I keep emphasizing the technical assistance. It begins there. Because the first question for any farmer is what do I have to do to get me to the baseline compliance, and that is where NRCS, the conservation districts, and the technical assistance money that has been available to date, both through EPA and the farm bill and the state, has been so critical. But it begins there, and then builds from that in terms of the dollars.

Everything beyond the baseline planning though is a match. You have to put a dollar on the table, or some amount, to leverage that money. So it is going to take some additional resources to get it done. But everything that we are working with is anywhere from a 25 percent match to a 75 percent match, depending on what the practice would be.

Mrs. DAHLKEMPER. Do you see these increased regulations really forcing many farmers out of business? I know that it is hard to look in the crystal ball, but what do you see, going forward?

Mr. REDDING. Well, I don't know if it is going to force them out. That is the reason I use the word *smart* in the testimony, because we have to be smart about this. I think we know what the end goal is, right? We know where we want to get to. But we have to understand the world in which we are living. Financially it is upside down right now, right? Financially.

So having some great expectation we are going to find some new money in the next 12–24 months to do what we want to do is not the answer. That has to be conveyed though to the landowner, the producers, and to many others, is that we are taking a long view of this. We will work with you, we will get there, and there will be opportunities for you; in our case, if you meet the baseline, that there will be some trading opportunities.

We haven't spent a lot of time on that today, but it has great potential because it says for the folks that have invested for 25 years, you are there. Now you can add value to your income stream by trading that across the state, the watershed, and potentially the legislation is considered federally, across state lines.

So I don't know if we force them out. But we have to be clear up front about what we want them to do, reassure them we will work with them, and reassure them we are going to support them through the state and conservation districts and have an open conversation, but to do that in a positive and constructive way.

Mrs. DAHLKEMPER. My time has expired. But I just want to finish by saying, as I look at my own experience and my own district with Lake Erie, there are a lot of economic issues that have to do with making sure we have that clean water; economic issues for those who work in the aqua-industries, whatever they might be, as well as certainly for the health of the people, including the agriculture around there. I think our farmers are with us on that. We have to find a way to do that.

The CHAIRMAN. I thank the gentlewoman.

Now I recognize the Ranking Member for a unanimous consent request.

Mr. GOODLATTE. Thank you, Mr. Chairman.

I would ask unanimous consent that three letters be submitted for the record. One of those is signed by the Virginia Agribusiness Council; one by the Maryland, New York and Virginia Grain and Corn Growers as well as the National Corn and Wheat Growers; and the third signed by 63 state and national agriculture producer organizations, including producer groups from each of the six states in the Chesapeake Bay Watershed.

Each of these letters expresses concerns about H.R. 3852, the House version of the Chesapeake Clean Water and Ecosystem Restoration Act of 2009 and the potentially severe economic effects it will have on the agriculture sector in the Chesapeake Bay Watershed.

This bill goes beyond reauthorizing the Chesapeake Bay program under the Clean Water Act and codifies the Presidential Executive Order that we are discussing today, and the legislation does not have the support of our farmers and ranchers.

Just to give you an example, I won't read all 63 of these organizations, but just to show you how widespread this is, in Virginia it includes the Virginia Agribusiness Council, the Virginia Cattlemen's Association, the Christmas Tree Growers Association, the Cotton Growers Association, the Crop Production Association, the Virginia Farm Bureau Federation, the Forage and Grasslands Council, the Forest Products Association, the Golf Course Superintendents Association, the Grain Producers Association, the Green Industry Council, the Virginia Horse Council, the Nursery and Landscape Association, the Peanut Growers Association, the Pork Industry Association, the Virginia Poultry Federation, the Sheep Producers Association, the Soybean Association, the Virginia State Dairymen's Association, the Virginia State Horticulture Society, the Virginia Turf Grass Council, and the Virginia Wineries Association.

So this is widespread. And I will tell you, this is the product of legislation being drafted without consulting with the agriculture community. In fact, I was not consulted, as has been noted. And I thank Mr. Fox for his comments about the efforts of Mr. Holden and myself. We strongly want to help the Chesapeake Bay. We think the approach taken in this legislation is misguided. I wasn't contacted by anybody with the Chesapeake Bay Foundation, the Chesapeake Bay Commission, anybody, about the introduction of this legislation or about the Executive Order before either were put forward.

I think this is the wrong approach to take to help the Chesapeake Bay to create this kind of confrontation and controversy, and it is spreading nationwide. The American Farm Bureau Federation and many national organizations related to those Virginia ones, and Pennsylvania, Maryland, Delaware, West Virginia, and New York organizations, have all expressed very, very strong concerns about the legislation. I think it is the wrong foot to be starting out on.

I thank the Chairman for allowing me to ask unanimous consent that those three letters be made part of the record.

The CHAIRMAN. Without objection, the three letters will be made part of the record.

[The information referred to is located on p. 103.]

The CHAIRMAN. The gentleman from New York.

Mr. MASSA. Thank you, Mr. Chairman.

Just a quick question, if I could, for Mr. Fox. I represent the northernmost and westernmost headwaters of the Chesapeake Bay. From the confluence of the Tioga-Chemung-Cohocton Rivers, one can kayak to the Susquehanna and all the way south, as millenniums worth of humankind have done. With that understanding and with the focus today that we are talking about agriculture, I would like to place a marker, if I could, in those headwaters.

For the first time ever, New York State is now considering a natural gas extraction process called chemical hydrofracking, which accesses the second largest natural gas field in the world, the North American Marcellus Shale, cutting from southern New York through most of central and Western Pennsylvania and southward. Depending on where you drill, natural gas is available from a depth of 5,000 to 14,000 feet under the actual shale rock.

Through a simple quirk of legislative legerdemain, the chemical hydrofracking process was exempt in the last energy bill passed in the previous legislation from all controls of the Clean Water Act. We now know that the chemicals that are used to dissolve and dislocate the shale rock include some of the most carcinogenic chemicals known to man, aromatic benzoates, *et cetera*. I am not a chemical scientist, but I am a cancer survivor, so this is something in which I have some interest.

The Finger Lakes in western New York State represent one of the largest depositories of fresh water in the world. In fact, Lake Seneca is 900 feet deep. There are those who have tried to tell me that drilling to a depth of 8,000 feet, injecting 1 million gallons of chemical-laced water, including, at least in a million-gallon load, some 15 tons of known carcinogenic chemicals, will in no way affect groundwater, because there is no commingling. To which I say, Bunk. Over the millennium in time, there is no doubt in my mind that the aquifer commingles across natural fissures occurring in shale.

So as a marker in this hearing, I would like to lay before you, Mr. Fox, and this Administration, the fact that all that you are talking about doing now with agriculture, everything and every effort that has been yet undertaken to protect the Chesapeake Bay, is about to be for naught. And unless we understand very clearly what it is we are about to do in the name of extracting cheap natural gas, which I am all in favor of—everybody would want to use natural gas from an American source rather than imported crude from our enemies, and make no doubt they are our enemies—unless the provisions of the Clean Water Act are assigned to chemical hydrofracking, this hearing is useless. And in 20 years, it makes no difference how much cow urine we keep out of the Cohocton River if we are pumping in tens of millions of gallons of a hydrofracking solution to the northern Marcellus Shale.

I would welcome the opportunity to speak with you and the other Representatives concerned with this, one on one. I don't think that anyone yet has connected the dots. But if I throw a rubber ducky in the Cohocton River three blocks from my house, it will end up in the Chesapeake Bay. And if I pump 1 million gallons of chemi-

cally laced carcinogenic waters into the aquifer of western New York State, you are going to be drinking it in 20 to 30 years.

Mr. Chairman, I yield back the balance of my time.

The CHAIRMAN. The gentleman yields back the balance of his time. Anyone want to comment? Mr. Fox?

Mr. FOX. I would just say thank you for that. That was a very articulate statement, and I would be happy to follow up with you and make sure we get you in touch with the appropriate folks at EPA.

Mr. MASSA. I don't think I am out of bounds here, sir. I really don't. My personality and my public persona and my politics are not one of being an off-the-chart tree-hugging environmentalist. I am a very pragmatic and practical person. But long after these drilling companies leave my hometown and long after they have extracted the mineral wealth that lies underneath western New York State and shipped it overseas—because many of these companies are foreign-owned—I would like to be able to drink the water, and I don't know for sure that I am going to be able to do that.

Mr. FOX. Thank you.

The CHAIRMAN. The chair thanks the gentleman, and also thanks our witnesses for their testimony today.

We will now call on our second panel. We would like to welcome Mr. Wilmer Stoneman, Associate Director of Governmental Relations, Virginia Farm Bureau; Mr. Steve Schwalb, Vice President of Environmental Sustainability of Perdue, Salisbury, Maryland; and Mr. Jim Curatolo, Watershed Coordinator of the Upper Susquehanna Coalition.

Mr. Stoneman, whenever you are ready, you may begin.

STATEMENT OF WILMER N. STONEMAN III, ASSOCIATE DIRECTOR OF GOVERNMENTAL RELATIONS, VIRGINIA FARM BUREAU FEDERATION, RICHMOND, VA

Mr. STONEMAN. Chairman Holden, Ranking Member Goodlatte, I want to express to you the thanks of farmers throughout the watershed for having this hearing. Without question, the Bay relies upon USDA for our technical assistance. It relies on the farm bill for funding to help us make it through. And certainly, without question, you have heard today that farmers throughout the watershed are certainly trending in the right direction. We have made 50 percent of our goal. But as you have heard, there is 50 percent more to do.

So we thank you for, certainly, your leadership in having this hearing today. We certainly thank you for your interest in this subject, and we think it is something that affects farmers nationwide.

The EPA Administrator has very plainly said that the Chesapeake Bay Program, this legislation, the Executive Order and perhaps the TMDL, will be the blueprint for the Gulf of Mexico, the Great Lakes, Puget Sound, and perhaps even Albemarle Sound. So this is big. This is something that farmers everywhere have on their mind.

I greatly appreciate Mr. Goodlatte listing off the 63, or at least the Virginia portion of the 63 organizations that are certainly concerned about this legislation. I will say up front and I will say very clearly, and I have done this many times over the last few weeks,

the Virginia Farm Bureau and farmers throughout the watershed support reauthorization of the Chesapeake Bay Program. But we don't support the extra things that go along with it that are included in this bill, like codification of the TMDL, like upping the ante, including enforceable and otherwise binding programs for farmers, like including citizen suits in this particular legislation.

Now, the bill does have redeeming qualities. It includes further technical assistance for farmers. It includes an idea certainly that is of concern to us, and you have heard about it today: voluntary measures that have not been accounted for in the Bay model up until this point. And certainly in that discussion we are heartened, because in Virginia we found out that certainly the Federal dollars that you have sent us through the USDA for the last 4 years have not been included in the Bay model. We think there is a lot more to be said about the good things that farmers have done for the Chesapeake Bay.

So the bill has its redeeming qualities. It takes into account these volunteer measures. It takes into account the fact that we need technical assistance, and it reauthorizes the Bay Program.

Mr. Chairman, you have heard today about the 25 year history of the Chesapeake Bay cleanup effort. I contend that the Chesapeake Bay's current state is 400 years old. From the time John Smith made that right-hand turn with three ships full of paper, we have had an effect on the Chesapeake Bay. We are not going to clean it up right away.

My family and I own a farm in the Chesapeake Bay Watershed. Actually it goes back 400 years. We are the proud current owners of the farm that Pocahontas and John Rolfe owned, where the tobacco industry as we know it was started. So we have a keen sense of what has gone on certainly in the Chesapeake Bay, and what is needed for farmers.

We talk about 50 percent improvement. Well, over the last 20 to 30 years, since 1987, we have lost 41 percent of our farms. No amount of efficiency, no amount of technical advancements, no amount of money is going to bring those farmers back. You hear a lot about Farm Bureau crying wolf about farmers being lost or farmers going out of business. That is an ag statistics fact; 41 percent fewer are there today. That may not be all because of regulation, but there are 41 percent fewer.

Very much our concern about this particular bill is about the TMDL. It caps our growth. It caps our farms. A no-net increase of nitrogen and phosphorus to the Chesapeake Bay basically says a young farmer will have to buy the farm and then buy offsets for the right to use it. Farmers are generally considered as being the beneficiaries of offsets. But I contend with the TMDL in place, there will be no room for a trade, because the compliance level will be so high.

Mr. Chairman, I have used all of my time and certainly will answer any question that you ask of me. But I want to remind you that we have had 400 years of effect on the Chesapeake Bay. We are not going to fix it in 30. We are not going to fix it in 25, and we certainly are not going to fix it in 2 year increments.

Thank you, sir.

[The prepared statement of Mr. Stoneman follows:]

PREPARED STATEMENT OF WILMER N. STONEMAN III, ASSOCIATE DIRECTOR OF GOVERNMENTAL RELATIONS, VIRGINIA FARM BUREAU FEDERATION, RICHMOND, VA

Chairman Holden, Ranking Member Goodlatte, and Members of the Subcommittee, thank you for the invitation to testify today on the regulatory and legislative strategies in the Chesapeake Bay Watershed. My testimony will specifically address S. 1816 and H.R. 3852 and the efforts to expand and reauthorize the Chesapeake Bay Program. I ask that these comments be entered into Congressional record as part of the December 9, 2009 hearing on Regulatory and Legislative Strategies in the Chesapeake Bay Watershed before the Subcommittee on Conservation, Credit, Energy and Research of the House Committee on Agriculture. As a supplement to my comments, I have received permission to attach the testimony of Susan Parker Bodine, Partner, Barnes and Thornburg, before the Subcommittee on Water and Wildlife of the Senate Committee on Environment and Public Works on the "*Chesapeake Clean Water and Ecosystem Restoration Act of 2009*."

Across the Chesapeake Bay watershed and nation, agricultural producers are very concerned about the implications of these legislative proposals that seek to significantly expand Federal enforcement and spur citizen litigation of Chesapeake Bay programs. In addition to heavy-handed enforcement we understand that the legislation also places a cap on economic growth in the watershed—impacting jobs, development, and food production. These bills will impose severe economic hardship to our industry and further increase pressure to the Chesapeake Bay's most effective and efficient land use, production agriculture, to move out of the watershed.

First, before exploring the specifics of the regulatory and legislative proposals I would like to give you a brief update on the plight of agriculture in the Chesapeake Bay Watershed. According to USDA's National Agriculture Statistic Service, farms across the Bay watershed are under significant financial pressure. Over the period of 1987 to 2007, NASS's numbers indicate that almost 14 percent of the tillable farmland has been converted to another use. Over that same period, 20 percent of all agricultural land—tillable land and pasture, has been converted to another use. However, the most significant loss in the watershed has been in the loss of farms. Over that same 20 year time period, the Chesapeake Bay watershed has lost 41 percent of its farms. In this area, no amount of scientific advance, gain in efficiency or technology will replace the people and families we have lost.

Second, I would like to discuss the regulations and requirements that are already in place and mandated on farms by state regulation in the Chesapeake Bay watershed. I am talking about mandatory nutrient management, setbacks and buffer zones that take land out of production, and tillage practices and farm plans that require farms and ranches to operate in a manner that seeks to increase environmental outcomes. Almost all require significant management and labor but most of these practices achieve two important and complementary things. They reduce environmental externalities, improve efficiencies and if managed properly can help the farmer's bottom line. The management practices that will be required to achieve the load reductions called for in the Bay Total Maximum Daily Loads (TMDLs) will have a high cost and will only take away from the farms' already thin bottom line. Mandating environmental practices will push more and more of Bay watershed farmers and ranchers from the land. This will be a sad consequence of this legislation and a significant issue for the nations' food security.

Last, TMDLs and "hard" nitrogen, phosphorus and sediment caps will have profound negative implications for agriculture and the overall economy in the Chesapeake Bay watershed. In current EPA regulations, there are "prohibitions" on any new or expanding permits in "impaired" watersheds. In other words, if a new activity needs a permit—EPA can object or any person can sue in order to stop the issuance of the permit. That means no new jobs if the owner of the business needs a construction stormwater permit to build a factory or parking lot. That means no new homes for an increasing population because the developer would need a construction stormwater permit. That means farmers can be stopped from building a barn or poultry facility because the activity would need a construction stormwater permit. The process will likely force a very harsh economic reality. It could mean that new jobs could not be brought into the watershed unless other jobs are pushed out of the watershed. It could mean no new homes could be built unless others are torn down. It means that any development or redevelopment activity in the watershed must be "offset" which brings mandates to restore the land to a "pre-development" hydrology standard. This applies to the construction of schools, hospitals and roads as well as homes and businesses. If the restoration can not be accomplished on site, offsets must be installed elsewhere in the watershed.

Proponents of the offset or trading concept have proposed that the offsets can be supplied by farmers. But there is a significant problem with that reasoning because

the approach mandated in the leading proposals only allows offsets to be traded after the farm reaches its individual nutrient reduction obligations. Individuals who understand the Bay model know that every farm will have to install every BMP available on every acre just to reach the goal. That means, and experts in this area agree, there will be no offsets left to sell on working farms. So we believe the offset provisions will leave local governments and developers with no other option than to purchase whole farms and take them out of production in order to achieve the offset. The alternative is a halt to all economic development in the watershed.

We understand that improving the Bay will require a lot of time, money and individual effort. Improving the Bay is an important task, but the *Chesapeake Clean Water and Ecosystem Restoration Act* is too heavy on Federal enforcement and will force states to:

1. Adopt and submit to EPA for approval watershed implementation plans that must have reduction targets, key actions, and schedules to attain water quality standards by reducing loads of nitrogen, phosphorus, and sediment from all sources, including agricultural runoff, point sources including stormwater point sources, nonpoint source stormwater runoff, and septic systems;

2. Codify the nitrogen, phosphorus, and sediment caps identified in a December 2003 EPA document, unless more stringent limits are established by a state or EPA;

3. Adopt control measures that identify, and include enforcement mechanisms;

4. Phase implementation into 2 year periods with modeling to show reductions associated with each period—the plan must also identify contingency measures if reductions are not achieved; and

5. Adopt plans that address offsets for new or expanded sources.

The legislation also mandates EPA to approve or disapprove a state's implementation plan, based on minimum criteria established by EPA. If a state fails to submit an implementation plan or meet its 2 year milestones, EPA must:

1. In the Senate bill, withhold all Clean Water Act funds from the state; this includes state revolving fund (SRF) capitalization grants under section 601, and section 106 and section 319 funds. In the House bill, all funds except SRF capitalization grants are completely withheld. For the SRF grants, 75 percent of the grant is withheld and given to EPA to select projects and activities from among those eligible for SRF funding in that state.

2. Develop and administer an implementation plan in that state.

3. Require 2–1 offsets for all new or expanded sources of nitrogen, phosphorus, and sediments.

4. Promulgate any regulations or issue any permits as EPA determines are needed to control pollution to meet water quality goals, notwithstanding any other provision of the Clean Water Act and notwithstanding any existing exclusion or exemption. For farmers in the watershed, this provision repeals the agricultural stormwater exemption and provides EPA with blanket authority to do *anything* to meet water quality standards, not limited to issuing 402 permits.

5. Enforce any permits issued under a watershed implementation plan as if they were section 402 permits.

The *Chesapeake Clean Water Ecosystem Restoration Act* contains broad and far reaching language that **"authorizes states to issue permits under section 402 of the Clean Water Act to any pollution source the state determines to be necessary to achieve the nitrogen, phosphorus, and sediment reductions in the implementation plan."** These permits are authorized for any source of pollution, whether or not that source is currently excluded from regulation under current law (the agricultural stormwater exemption). The permits are then fully enforceable by EPA and citizen suits.

In addition, to implement the TMDL, the legislation grants EPA sweeping new authority to **promulgate any regulations or issue any permits as EPA determines is necessary** to control pollution sufficient to meet the water quality goals defined in the implementation plan. This is an extraordinary expansion of Federal authority. As was pointed out in the Senate testimony on S. 1816, "EPA could supersede the local development plan of every community, as well as state and metropolitan transportation plans. EPA could prohibit or prescribe sidewalks, parking lots, buildings, roads, even lawns. EPA could dictate the length of gutters or require rain barrels and green roofs. EPA could prohibit the use of fertilizer. EPA could shut down factories or force land out of agriculture production."

Nutrient Trading

Nutrient trading should be a safety valve to facilitate implementation of sound conservation practices, but as anyone that understands the load reduction required to achieve the TMDL knows, trading opportunities are likely to be limited or nonexistent. First, it appears that trading will be limited to regulated entities and few sources in agriculture will be able to reduce nitrogen, phosphorus, or sediment loadings above the reductions assigned to them under the TMDL implementation plan. In other words, within agriculture, there will be very few excess reductions to trade as credits. The unfortunate fact is that the only cost-effective source of credits will be the retirement of agricultural land, driving agriculture from the watershed. The May 2009 plans put forth by states to meet their 2011 milestones for reducing nitrogen and phosphorus already assume the retirement of 81,676 acres of land.

Citizen Suites

The legislation authorizes citizen suits against EPA for failure to carry out any provision of the Act. While EPA does retain the discretion to choose where and how to utilize most of its new authorities, if a citizen believes that EPA's actions are not sufficient to meet the goals of the TMDL, then that person can file suit in Federal court to compel action. Implementation of the load allocations from nonpoint sources in the TMDL will likely be the outcome of litigation, no matter what the impact is on communities, individuals or farmers and ranchers.

Codification of the TMDL

Through codifying executive and regulatory authorities, the *Chesapeake Clean Water and Ecosystem Restoration Act* will hamper innovative solutions in areas such as nutrient trading, economic growth, farm adaptive management and overall water quality restoration. Without adequate time and science to effectively work through processes such as the drafting of the Chesapeake Bay Total Maximum Daily Load (TMDL), the *Chesapeake Clean Water and Ecosystem Restoration Act* will impose burdensome regulations and penalties before defining procedures and practices that are proven to efficiently achieve desired water quality goals. This accelerated course of action will be expensive and damaging to the watershed's economy, viability of our agriculture sector, and overall water quality objectives.

Farmers in the Chesapeake Bay watershed have a strong history of being responsible and proactive environmental stewards, both through compliance with existing regulations and through implementation of voluntary conservation practices. However, a significant amount of conservation practices implemented by agricultural producers have not been given accurate credit in decision making models. The *Chesapeake Clean Water and Ecosystem Restoration Act* will create a system of burdensome regulations without understanding the full impact of water quality improvements from implementing additional requirements on agriculture. Reauthorization of the Bay Program should enhance the current Chesapeake Bay Model to ensure it is based on comprehensive and accurate data.

We support reauthorization of the existing Chesapeake Bay Program without dramatically expanding Federal authorities. We believe adequate time should be given to develop creative ways for economic recovery and growth to partner with water quality goals, as well as to refine the science and modeling in the watershed. We are committed to developing strategies to protect all resources within the Chesapeake Bay watershed, including family farmers and other agribusinesses. Our organizations look forward to continuing discussions with you regarding this critical issue and thank you for the opportunity to comment.

ATTACHMENT

PREPARED STATEMENT OF SUSAN PARKER BODINE, PARTNER, BARNES & THORNBURG, BEFORE THE SUBCOMMITTEE ON WATER AND WILDLIFE, SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, HEARING ON GREAT WATER BODY LEGISLATION: S. 1816 AND S. 1311, DATED NOVEMBER 9, 2009

Chairman Cardin, Ranking Member Crapo, and Members of the Subcommittee, thank you for the invitation to testify today on S. 1816, the Chesapeake Clean Water and Ecosystem Restoration Act of 2009 and S. 1311, the Gulf of Mexico Restoration and Protection Act.

My goal today is to provide a legal analysis of these two legislative proposals, based on my understanding of the Clean Water Act and water quality implementation programs. I am currently a partner in the law firm of Barnes & Thornburg. I have previously held positions at both the U.S. Environmental Protection Agency (EPA), as Assistant Administrator for the Office of Solid Waste and Emergency Response, and in the House of Representatives, as the staff director for the Water Re-

sources and Environment Subcommittee of the Committee on Transportation and Infrastructure. During my tenure on the Water Resources and Environment Subcommittee, I worked on the last reauthorization of the Chesapeake Bay Program, as Title II of Public Law 106–457 (2000). I also participated in extensive oversight of EPA's Total Maximum Daily Load (TMDL) program.

S. 1816, the Chesapeake Clean Water and Ecosystem Restoration Act of 2009

Establishment of a Chesapeake Bay TMDL

Consistent with EPA's announced plans, S. 1816, the Chesapeake Clean Water and Ecosystem Restoration Act of 2009, requires EPA to establish, by December 31, 2010, a basin-wide Chesapeake Bay TMDL for the 92 Bay and tidal tributary segments that are impaired by nitrogen, phosphorus, and sediment. This TMDL will cover 64,000 square miles in six states and the District of Columbia. Under the bill, the TMDL must include wasteload allocations for point sources for nitrogen, phosphorus, and sediment, necessary to implement applicable water quality standards. The bill also requires the TMDL to include enforceable or otherwise binding load allocations on nonpoint sources, including atmospheric deposition, agricultural runoff, and any stormwater runoff that is not currently regulated. Finally, under the bill, the TMDL must prohibit any net increase in nitrogen, phosphorus, and sediment from any new or expanding source, including increases from new or increased impervious surfaces, concentrated animal feeding operations, transportation systems, and septic systems, even if a discharge meets water quality criteria so the source is not causing or contributing to the violation of a water quality standard.

S. 1816 provides states with greatly expanded state authorities to implement the TMDL. If a state fails to implement the TMDL, EPA must implement it, with the greatly expanded Federal authorities provided by the bill. Finally, if persons are not satisfied with the implementation by a state or by EPA, the bill provides for citizen suits to use the courts to implement the TMDL. These provisions all raise significant issues. A few of those issues are highlighted below.

Load Allocations and Water Quality Standards

Under new section 117(j), S. 1816 requires each state to develop an implementation plan for each impaired segment in its jurisdiction. The implementation plans must incorporate the caps on nitrogen, phosphorus, and sediment that were agreed to among EPA and the states in 2003, or the caps identified in the TMDL developed by EPA. The 2003 agreement caps nitrogen loads at 175 million pounds, phosphorus loads at 12.8 million pounds, and sediment loads at 4.15 million pounds.[1] These maximum loads were based on modeling in 2003 that assumed that states would be modifying their water quality standards based on ambient water quality criteria for the Bay for dissolved oxygen, water clarity, and chlorophyll published by EPA in April 2003.[2] The 2003 agreement notes that:

> "Over the next two years, Maryland, Virginia, Delaware, and the District of Columbia will promulgate new water quality standards based on the guidance published by EPA. Although the public process for adopting water quality standards varies among the states, each state's process will provide opportunities for considering and acquiring new information at the local level. States may choose to explore a number of issues during their adoption process, such as the economic impact of water quality standards and specific designated uses."[3]

Scientific analysis did not stop in December 2003, and EPA and the Chesapeake Bay States have continued to refine the models on which these load allocations are

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[1] Memorandum dated April 28, 2003, from W. Tayloe Murphy, Jr., Chair, Chesapeake Bay Program Principals' Staff Committee to Principal Staff Committee Members and Representatives of the Chesapeake Bay "Headwater" states, titled "Summary of Decision Regarding Nutrient and Sediment Load Allocations and New Submerged Aquatic Vegetation (SAV) Restoration Goals," reprinted as Appendix A of "Setting and Allocating the Chesapeake Bay Basin Nutrient and Sediment Loads," EPA 903–R–03–007, December 2003.

[2] Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll *a* for the Chesapeake Bay and Its Tidal Tributaries, EPA 903–R–03–002 (April 2003).

[3] "Setting and Allocating the Chesapeake Bay Basin Nutrient and Sediment Loads," December 2003, at A6. For example, in setting its water quality standards for dissolved oxygen, Maryland has included variance that allows dissolved oxygen criteria to exceed the water quality standard in some of the deepest parts of the Bay because: "Even after spending billions of dollars to reduce nitrogen, phosphorus, and sediment pollution to clean up the rest of the Bay, essentially doing everything we know how to do at this time, the deep areas still could not attain the dissolved oxygen standard." *http://www.mde.state.md.us/Programs/WaterPrograms/TMDL/wqstandards/faqs.asp.*

based. In fact, based on the most recent modeling, EPA and the Chesapeake Bay Program's Principals' Staff Committee have agreed to preliminary target loads of 200 million tons per year of nitrogen and 15 million tons per year of phosphorus. These targets are likely to continue to change. In fact, the most recent model (phase 5.3) is not expected to be ready until December 2009. However, S. 1816 codifies the nitrogen, phosphorus and sediment load allocations as no more than the December 2003 allocations, or whatever allocations EPA establishes in the TMDL. Thus, the load allocations are capped by Federal law even if, after the TMDL is established in December 2010, new data or further changes to the model show that increased loads would achieve water quality standards.

By codifying specific pollutant caps in law, S. 1813 may be freezing both science and policy. As noted above, the models used to establish pollutant loads are very complex and are continually evolving. Codifying the pollutant caps could preclude EPA and states from using their evolving understanding of the Bay and improved modeling to achieve water quality goals. Also, the models seek to answer the question of whether or not water quality standards are met. States must review and, as appropriate, revise, their water quality standards every 3 years. 40 CFR 131.20. Under current law, water quality standards can be made less stringent if meeting those standards "would result in substantial and widespread economic and social impact." 40 CFR 131.10(g)(6). It appears that, by codifying specific load allocations, S. 1813 would eliminate the ability of states to later make changes to the loads based on changed water quality standards that may be needed to account for substantial and widespread economic and social impacts. Finally, codifying load allocations is contrary to the principles of adaptive management. The Chesapeake Bay watershed is a complex, dynamic system. It is unclear how the watershed will respond to the various measures being proposed. In its report, *Assessing the TMDL Approach to Water Quality Management,* the National Academy of Sciences (NAS) recommended using the scientific method to apply adaptive implementation to TMDLs. NAS describes this as "a process of taking actions of limited scope commensurate with available data and information to continuously improve our understanding of a problem and its solutions, while at the same time making progress toward attaining a water quality standard."[4] The NAS's recommended framework for water quality management includes reviewing the attainability of designated uses and water quality standards both before the development of a TMDL and as part of adaptive implementation.[5] S. 1813 would prevent EPA and states from implementing that recommendation.

State Implementation

S. 1816 requires state implementation plans to include enforceable or otherwise binding measures to reduce loads of nitrogen, phosphorus, and sediments, to meet the targets discussed above. Although programs to achieve voluntary reductions through funding commitments may be included in the implementation plan, S. 1816 makes it clear that the state must have enforcement mechanisms to employ if an entity does not achieve its assigned pollutant reductions. S. 1816 provides Federal authority for binding measures and enforcement mechanisms in new section 117(j)(2), which **authorizes states to issue permits under section 402 of the Clean Water Act to any pollution source the state determines to be necessary to achieve the nitrogen, phosphorus, and sediment reductions in the implementation plan.** These permits are authorized for any source of pollution, whether or not that source is currently excluded from regulation under current law. The permits are then fully enforceable by EPA and by citizen suits.

This provision greatly expands the scope of Federal water pollution control law. Under current law, the Clean Water Act controls point source discharges of pollutants. "Point sources" are defined in section 502 of the Clean Water Act as any discernible, confined and discrete conveyance, such as pipes, ditches, channels, *etc.* Diffuse runoff of water is not a point source. The Clean Water Act also specifically excludes agricultural stormwater discharges and return flows from irrigated agriculture from the definition of point source, so they are not regulated under Federal law. In addition, EPA, by regulation (in 40 CFR 122.27) has defined what is and is not a silviculture point source, excluding a variety of activities such as natural runoff from forest road construction and maintenance. These sources all could be subject to permits under S. 1816.

"Pollutants" are defined in section 502 of the Act as specific, measurable, materials that are discharged into water, such as solid waste, sewage, chemical wastes,

[4] *Assessing the TMDL Approach to Water Quality Management,* National Research Council, National Academy of Sciences (2001), at 90.

[5] *See id,* Figure 5–1, at p. 91.

biological materials, radioactive materials, heat, and industrial, municipal, and agricultural waste. In contrast, "pollution" is defined as the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water. Pollution includes increased water flows and habitat alternation. Under S. 1816, any activity that causes increases flow or habitat alteration, no matter how distant from a body of water, could be required to obtain a permit.

In fact, under S. 1816, permits issued under section 402 of the Clean Water Act could be required for any activity that affects water, whether or not there is any addition of a pollutant to the water, and whether or not there is even a discharge that can be measured and controlled. The bill specifically requires reductions in pollution from agricultural runoff, point sources including point source stormwater discharges, nonpoint source stormwater discharges, and septic systems. Although not specifically required, the bill also would authorize a state to issue a section 402 permit to a source of air deposition, because the states' new authority applies to "any pollution source," and air deposition is a source of pollution to the Bay. Finally, the bill does not restrict the states' new authority to sources located within the geographic boundaries of that state.

The section 402 permitting program is designed for point source discharges of measurable pollutants into bodies of water. It is unclear how section 402 permits could be used to address all the diverse sources of pollution affecting the Chesapeake Bay. For example, S. 1816 does not address what types of technology-based and water-quality based effluent limitations could be established to address diffuse sources of pollution that do not directly discharge into a water body. Absent specific statutory language clarifying how these sources are intended to be controlled, it is unclear where and how compliance is to be measured, whether numeric limitations could be imposed, and who would be legally responsible for meeting any requirements. Because these new permits can be enforced by citizen suits, these questions may be answered by courts.

S. 1816 also imposes specific requirements for development. Under new section 117(j)(3), EPA must issue regulations identifying, based on the area of impervious surface,[6] what development projects states must regulate to maintain or restore predevelopment hydrology, to the maximum extent feasible. EPA must define "predevelopment hydrology" by regulation. This may mean that the owner of property must return the volume of water leaving the property to its predevelopment levels, whether or not the water flows into a water body and whether or not there is any impact on water quality. These requirements will apply to existing projects seeking to expand, as well as new projects. When the term "maximum extent feasible" is used, that is usually understood to mean technically feasible without regard to cost.[7] If an impact to predevelopment hydrology is not avoidable, then a permit (presumably a section 402 permit, although the bill does not specify) must require mitigation using a ratio to be established by EPA by regulation. States are required to provide assurance to EPA that they will implement these regulations.

Federal Implementation

If a state fails to submit an implementation plan or submits a plan that does not meet criteria established by EPA, new section 117(k)(5) requires EPA to withhold all Clean Water Act funds from the state. This includes the capitalization grants for State Revolving Loan Funds. EPA also must develop a Federal implementation plan to implement the TMDL in that state.

To implement the TMDL, S. 1816 gives EPA the authority to **promulgate any regulations or issue any permits as EPA determines is necessary** to control pollution sufficient to meet the water quality goals defined in the implementation plan. This is an extraordinary expansion of Federal authority. It literally means that EPA could regulate any activity that has any impact at all on water quality. Under this provision EPA could supersede the local development plan of every community, as well as state and metropolitan transportation plans. EPA could prohibit or prescribe sidewalks, parking lots, buildings, roads, even lawns. EPA could dictate the length of gutters or require rain barrels and green roofs. EPA could prohibit the use of fertilizer. EPA could shut down factories or require farm land to become idle. EPA could force communities to spend billions of dollars beyond the limits of affordability to meet nutrient standards at sewage treatment plants. EPA could require

[6] The area of impervious surface may include roofs as well as parking lots.

[7] In contrast, the term "practicable" is usually understood to include consideration of cost.

all municipal separate storm sewer systems to carry out retrofits, at an estimated cost of $7.9 billion.[8]

S. 1816 also requires EPA to impose requirements for 2 to 1 offsets in permits under section 402 for any new or expanding discharges of nitrogen, phosphorus, or sediments in a state where EPA is implementing the TMDL. All permits would be enforceable as permits issued under section 402 of the Clean Water Act, including citizen suit enforcement.

EPA's new authority is to be implemented to advance a single goal: meeting the load allocations of a TMDL. S. 1816 does not provide for consideration of other values that a state or local government may want to take into account, such as safe transportation, locally grown produce, the economic health of a community, and even the ability of individuals to afford the cost of shelter. In fact, as discussed above, even if a state chooses to change its water quality standards to address any substantial and widespread social and economic impacts of implementing the TMDL, those new standards may not be implemented. It appears that S. 1816 would still mandate achievement of the goals established in 2003 or in the TMDL to be issued in December 2010.

Nutrient Trading

New section 117(k)6) directs EPA to establish, by May 2012, an interstate nitrogen and phosphorus trading program to facilitate implementation of the TMDL. However, trading opportunities may be limited. First, it appears that trading must occur between "points-of-regulation" which must be entities regulated under the Clean Water Act. It is unclear if a regulated entity can rely on credits generated from unregulated activities, such as wetlands restoration, nutria eradication, or increasing the number of filter feeders such as oysters. It also is unclear if trading can occur with sources of air deposition. Second, few sources will be able to reduce nitrogen, phosphorus, or sediment loadings above the reductions assigned to them under the TMDL implementation plan. Given that credits must arise in the watershed and all sources of pollution in the watershed would become regulated under the bill, there may be very few excess reductions to trade as credits. In fact, the only cost-effective source of credits may be the retirement of agricultural land, driving agriculture from the watershed. The May 2009 plans put forth by states to meet their 2011 milestones for reducing nitrogen and phosphorus already assume the retirement of 81,676 acres of land.[9]

Federal Assistance

S. 1816 requires EPA to develop guidance, model ordinances, and guidelines, to help states and local governments ensure that land maintains predevelopment hydrology and to encourage low impact development. The bill authorizes $1.5 billion in grants to help local governments that adopt the guidance, ordinances, and guidelines to implement projects designed to reduce stormwater discharges. However, as noted above, EPA estimates the cost of retrofitting municipal separate storm sewer systems to reduce stormwater discharges of nitrogen, phosphorus, and sediment to be $7.9 billion.

Enforcement

New section 117(o) includes provisions to authorize Federal and citizen suit enforcement against states for failure to implement the TMDL, and citizen suit enforcement against EPA for failure to carry out any requirement of section 117.

The section authorizing Federal and citizen suit enforcement against states for failure to act would likely be found to be unconstitutional under the 10th Amendment to the Constitution, even if the bill successfully waives state sovereign immunity under the 11th Amendment.[10] Specifically, the Supreme Court has held that Congress may not "commandeer the legislative process of the states by directly compelling them to enact a Federal regulatory program." *New York* v. *United States,* 505 U.S. 144, 161 (1992) (relating to solid waste disposal). *See also Printz* v. *United States,* 521 U.S. 98 (1997) (the Federal Government may not compel the states to

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[8] *See* "The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay, A Draft Report Fulfilling Section 202a of Executive Order 13508" (Sept. 9, 2009), at 23–24.

[9] *See http://archive.chesapeakebay.net/pressrelease/EC__2009__allmilestones.pdf.*

[10] The Supreme Court has gone back and forth in recent years regarding whether Congress can waive state sovereign immunity through the exercise of Article I authority. *Compare Seminole Tribe of Florida* v. *Florida,* 517 U.S. 44 (1996) (Congress cannot abrogate state sovereign immunity under Article I), *with Central Virginia Community College* v. *Katz,* 546 U.S. 356 (2006) (the Bankruptcy Clause of Article I abrogates state sovereign immunity).

enact or administer a Federal program, relating to regulation of guns). Thus, Congress cannot compel a state to implement the Bay TMDL.

Congress can authorize citizen suits against EPA for failure to carry out any provision of the Act. While EPA does retain the discretion to choose where and how to utilize most of its new authorities, if a citizen believes that EPA's actions are not sufficient to meet the goals of the TMDL, then that person can file suit in Federal court to compel action. In deciding the case, the Federal court will not be able to balance competing interests. Implementation of the load allocations in the TMDL could be ordered, no matter what the impact is on communities or individuals.

S. 1311, the Gulf of Mexico Restoration and Protection Act

S. 1311, the Gulf of Mexico Restoration and Protection Act would amend the Clean Water Act to add section 123 to formally establish a Gulf of Mexico Program office, to be located in a Gulf Coast State.[11] The Program Office is to coordinate and carry out activities to improve the water quality and living resources in the Gulf of Mexico. These activities may include research, monitoring, modeling, education and outreach, and providing information. The Program Office also is to be a liaison with counterparts in Mexico.

S. 1311 authorizes grants to nonprofits, state and local governments, colleges and universities, interstate agencies, and individuals for monitoring, research, addressing water quality and living resource needs, habitat restoration, and reducing point source discharges of pollutants. The grants have a 25 percent local cost share and a 15 percent cap on administrative costs. The bill also requires periodic reports and, in coordination with the Gulf of Mexico Executive Council, periodic assessments of the state of the Gulf of Mexico ecosystem and implementation of the Program. The bill authorizes $10 million in 2010, $15 million in 2011, and $25 million in each of 2012 through 2014 to carry out the Program.

The bill defines the Gulf of Mexico Executive Council as "the formal collaborative Federal, state, local and private participants in the Program" but does not establish the Council or specify how people become members of the Council. If the Council includes private citizens, it can be advisory only. The only function provided for the Council in the bill is to coordinate with EPA on the assessment of the ecosystem and the Program that must take place every 5 years. It is unclear what other functions, if any, the Council is intended to perform. Currently, there is a Gulf of Mexico Alliance that is a partnership of the States of Alabama, Florida, Louisiana, Mississippi, and Texas. There also is a Citizens Advisory Committee, a Policy Review Board that includes public and private entities, and a Management Committee that includes public and private entities. It is unclear how the efforts of these existing organizations are intended to be integrated. It also is unclear how existing efforts, such as the Governors' Action Plans developed by the Gulf of Mexico Alliance, will be supported.

In new section 123(b)(1)(C)(iii), the bill authorizes the Program Office to implement state-led and community-led restoration plans and projects, and facilitate science, research, modeling, monitoring, data collection and other activities to support the program. As drafted, it appears that this provision would be carried out using contract authority. If it is intended to be carried out using grants, it should cross-reference subsection (d), authorizing grants.

Among the purposes of the grants authorized under subsection (d) is to eliminate or reduce point sources of pollutants, including eliminating leaking septic systems. Septic systems are nonpoint sources, not point sources.

The CHAIRMAN. Thank you.

Mr. Schwalb.

STATEMENT OF STEVE SCHWALB, VICE PRESIDENT OF ENVIRONMENTAL SUSTAINABILITY, PERDUE FARMS, INCORPORATED, SALISBURY, MD

Mr. SCHWALB. Chairman Holden and Ranking Member Goodlatte, other Subcommittee Members, thank you for the opportunity to appear today. I am Steve Schwalb, Vice President of Environmental Sustainability of Perdue, Incorporated.

[11] The existing Gulf of Mexico Program Office is located at the Stennis Space Center in Mississippi.

Perdue, a family owned business, is the largest agribusiness company in the eastern U.S., and the third largest poultry company in the nation. Perdue employs 22,000 associates in 15 states, with operations throughout the mid-Atlantic, South and Indiana. With our headquarters located in the heart of the Chesapeake Bay's Eastern Shore, we know the ecological sensitivity of the Bay and its watershed.

Our Chairman, Jim Perdue, is committed to preserving the Bay and the highest level of environmental stewardship. We are proud of the leadership we have provided on environmental challenges. We have invested millions of dollars in research and technology. Let me mention a few examples.

In 1999, we created Perdue AgraRecycle, the first and only full-scale litter processing facility in the world that converts poultry litter into organic fertilizer. Since then, Perdue AgraRecycle has handled 639,000 tons of poultry litter. That is 26 million pounds of nitrogen, 13 million pounds of phosphorus, and 20 million pounds of potassium. At least half of those nutrients have been relocated out of the Chesapeake Bay Watershed.

Since 2006, Perdue has had a unique partnership with the EPA, now called the Perdue Clean Waters Initiative. This initiative fosters and produces on-farm environmental leadership. Implementation of the Clean Waters Initiative is on schedule, with almost 700 Delmarva poultry farmers coming on line first. By the end of the 4 year implementation, 1,650 family farms in the eastern U.S. will be included.

In 2007, we established the Perdue Environmental Sustainability Initiative under three platforms: Reduce, Reuse, Recycle; Research and Innovation; and Community Outreach.

Now, Perdue is not alone in our efforts to care for the Bay. Agriculture on Delmarva is a three-legged stool with the poultry companies, poultry growers and grain farmers working together. According to Maryland's Department of Agriculture, poultry growers and grain farmer conservation accomplishments have been numerous.

Our position on the Chesapeake Bay Program is that Perdue also wholeheartedly supports its reauthorization. However, we have concerns that the legislation creates new law on how agriculture will operate in the watershed. The President's Executive Order and EPA's section 202 reports envision a centralized Federal oversight approach to Bay restoration.

Perdue's Clean Waters Initiative is producing measurable results. Before Congress codifies Federal oversight and enforcement of the Bay restoration, we should first let these efforts take hold. Codification is unwarranted.

The bill creates an uneven playing field for poultry in Delmarva. It establishes a higher level of EPA Clean Water Act regulation for farmers in the Bay Watershed than elsewhere. This bill puts our operations and growers at significant competitive disadvantage, and that threatens the very existence of the Delmarva poultry industry.

Second, the bill gives EPA unprecedented authority to take any actions the Agency deems necessary to reach Bay restoration goals. This includes requiring all poultry and livestock operations, and

potentially any farmer that fertilizes a field, to operate under a Clean Water Act permit. This would be cost-prohibitive.

Third, the bill mandates caps, specific caps, for the TMDL for the Chesapeake Bay, sets deadlines and gives EPA ultimate authority to run the program. Unfortunately, the agricultural community still has very little information on the Bay-wide TMDL. USDA's NRCS is still gathering information to determine what agricultural BMPs are included in the Bay model. Many of the volunteer practices outlined in my written testimony are not included in the Bay model. It is not an accurate representation of agriculture's environmental impact on the Bay. We need to better understand the baseline and outcomes before mandating a Bay-wide TMDL.

Fourth, codifying the citizen suits will generate unnecessary legal actions directed at family farmers.

Fifth, this reauthorization would require farmers to get a Clean Water Act permit, yet not place the same oversight and enforcement mechanisms on the other nutrient contributors in the watershed. The bill envisions that all nutrient contributors should protect the Chesapeake Bay. Why then is agriculture the only one facing penalties if this fails?

Sixth, while the Bay envisions Federal funds for technical support to help farmers, the bill does not ensure such funding. Thus, farmers are left with the stick of enforcement and merely the promise of a carrot, without a guarantee of funds, placing the financial burden on the back of the farmer.

Finally, this legislation mandates an environmental credit program that would be generated by agricultural efforts to enable farmers to pay for the costs associated with additional regulation, and to utilize those credits to provide necessary offsets for any form of additional development. Experts agree that there will be no farm credit offsets to sell, leaving local governments to purchase whole farms and take them out of production to achieve the offsets necessary for additional development, such as schools and hospitals.

Perdue's actions are in place and effective. Congress must ensure the actions of the agricultural community are included in an updated Bay model and that the Executive Order not be codified. Otherwise, agriculture and the Chesapeake Bay Watershed will be at a competitive and economic disadvantage.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Schwalb follows:]

PREPARED STATEMENT OF STEVE SCHWALB, VICE PRESIDENT OF ENVIRONMENTAL SUSTAINABILITY, PERDUE FARMS, INCORPORATED, SALISBURY, MD

Chairman Holden and Ranking Member Goodlatte, thank you for the opportunity to appear today before the Subcommittee as you review regulations and legislation impacting the Chesapeake Bay Program.

My name is Steve Schwalb. I am Vice President of Environmental Sustainability at Perdue Incorporated, headquartered in Salisbury, Maryland, on the Eastern Shore of the Chesapeake Bay. Perdue Incorporated's (Perdue) operating entities consists of Perdue Farms and Perdue Agribusiness. Perdue Farms is the number-one brand of premium chicken in the Eastern U.S. and is synonymous with quality products around the globe. With annual sales in excess of $4.6 billion, Perdue is ranked as the third largest poultry company in the U.S. and the largest agribusiness company in the eastern U.S. Combined, we provide food and agricultural products and services to customers in more than 50 countries and to our servicemen and women serving in war. Perdue employs 22,000 associates in 15 states, with operations in Alabama, Delaware, Florida, Georgia, Indiana, Kentucky, Maryland, New Jersey,

New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia.

With our headquarters located in the heart of the Chesapeake Bay's Eastern Shore, we know all too well the importance and ecological sensitivity of the Bay and its watershed. Our Chairman, Jim Perdue is fully committed to restoring, protecting and preserving the Bay, like the other watermen and farmers of the Shore. With a family history on the Shore dating back to the 1600s and a PhD in fisheries, Jim continues to support the highest level of commitment to environmental stewardship. As a firm believer that the restoration of the oyster population in the Bay is critical to a successful Bay restoration, he serves as a board member of the Oyster Recovery Partnership.

Perdue is committed to environmental stewardship and shares that commitment with our farm-family partners. Together, we can continue to provide a safe, abundant and affordable food supply while protecting our natural resources.

Perdue is proud of the leadership role we're providing in addressing the full range of environmental challenges related to animal agriculture and food production. We have invested, and continue to invest, millions of dollars in research, new technology, equipment upgrades and awareness and education as part of our ongoing commitment to protecting the environment. Some examples:

- Perdue has been conducting environmental research for more than 2 decades.
- Perdue was among the first poultry companies with a dedicated Environmental Services department. A group of corporate environmental specialists and environmental managers are responsible for ensuring that every Perdue facility operates within 100 percent compliance of all environmental regulations and permits.
- Our processing plants have some of the newest and most-advanced wastewater treatment facilities, helping us to protect the waterways in our communities.
- We've invested thousands of man-hours in producer education to assist our farm-family partners manage their independent poultry operations in the most environmentally responsible manner.
- Our Technical Services department is conducting ongoing research into feed technology as a means of reducing nutrients in poultry manure. We've already achieved phosphorus reductions that far exceed the rest of the industry.
- Perdue was one of four poultry companies operating in Delaware to sign a historic agreement with Delaware officials outlining our companies' voluntary commitment to help independent producers solve on-farm environmental challenges.
- Perdue signed MOUs with Delaware, Maryland and Virginia pledging cooperative efforts to address current and potential environmental challenges created from poultry production on the Eastern Shore.

Our demonstrated commitment to protecting the Chesapeake Bay is not something recent. In 1999, as "physteria hysteria" was settling in over the watershed, Perdue took immediate action. We entered into a joint venture and created Perdue AgriRecycle. Because many Delmarva poultry producers did not have sufficient land to be able to utilize poultry litter as fertilizer, especially those with smaller farms, an alternative to traditional land application of poultry litter was needed. Perdue AgriRecycle provides that alternative. Our manufacturing facility, the first-ever, large-scale litter-pelletizing operation and the result of an initial investment of $13 million, is located in Sussex County, Delaware, the center of one of the country's most-concentrated areas of poultry production. While the close proximity to hundreds of poultry farms helps the supply of raw material, the plant's location also demonstrates Perdue's environmental commitment to the independent poultry grower and the grain farmer. Perdue's willingness to continue to invest an additional $17+ million to-date to keep Perdue AgriRecycle operating further demonstrates our commitment to the environment.

Perdue AgriRecycle can process the equivalent of 400 poultry houses worth of litter each year. Perdue AgriRecycle also participates in litter relocation programs, further reducing excess nutrients on the Delmarva Peninsula.

The Perdue AgriRecycle process begins at the farm, where surplus poultry litter is loaded into specially designed, sealed trucks for transport to our 65,000 square-foot manufacturing facility. The trucks are unloaded inside the plant, where a negative-air system prevents dust and odor from escaping to the environment (the same negative-air system is used in the finished product storage area). Special filters and scrubbers ensure that the air leaving the plant is cleaner than the outside air. Raw material is heated to a temperature that kills *Salmonella* and *E. coli* as well as destroys bacteria and weed seed. The dried material is then reduced to a powder be-

fore it is transferred to the pellet mill. Moisture captured in the drying step is reused in the pelletizing process. The finished product is then stored in an enclosed warehouse room. Product can be shipped by truck or rail to our customers.

While poultry litter remains a valuable resource for many producers as a natural alternative to chemical fertilizers, Perdue AgriRecycle provides an environmentally friendly alternative for those producers who do not have the acreage for traditional land application or whose fields do not need the nutrients in poultry litter. Our organic fertilizer, approved by the USDA's National Organic Program (NOP) and classified as approved for use without restriction by the Organic Materials Review Institute (OMRI) is used in horticulture, landscaping, organic crop production, on golf courses and as a key ingredient in popular organic lawn and garden products. Perdue AgriRecycle also participates in litter transport programs, relocating raw litter to farmers who can appropriately utilize the nutrients. Since its inception, Perdue AgriRecycle has handled 639,000 tons of poultry litter, the equivalent of 1535 poultry houses and over 51 million pounds of nitrogen, 25 million pounds of phosphorus and 38 million pounds of potassium. Also since its inception, Perdue AgriRecycle has sold almost 329,000 tons of finished product. This represents 26.3 million pounds of nitrogen, 13.1 million pounds of phosphorous, and 19.7 million pounds of potassium. At least half of those nutrients have been relocated to states out of the Chesapeake Bay Watershed.

In 2001, Perdue approached the Delaware Center for Inland Bays (a private, nonprofit National Estuary Program) and proposed a "model watershed" concept for the Little Assawoman Bay that would include cooperative efforts to accelerate compliance with Delaware's Nutrient Management regulations. The proposal developed into the Poultry Integrators Nutrient Effort (P.I.N.E.). Partnership, which includes the poultry industry, the Center for Inland Bays, the Delaware Nutrient Management Program, the Sussex Conservation District, the Delaware Non-point Source Program and the University of Delaware. The P.I.N.E. Partnership includes environmental surveys of poultry farms within the watershed and the development of nutrient management planning and best management practices for the Little Assawoman Bay Watershed. Most recently, as part of the P.I.N.E. partnership, Perdue helped create a model farm that incorporates technology and best practices to reduce the environmental impact and is more "neighbor-friendly."

Another example of our commitment to environmental sustainability centered on the independent farm families that grow poultry for Perdue. On September 18, 2006, Perdue and the U.S. Environmental Protection Agency (EPA) Region 3 signed a Memorandum of Agreement for the Perdue-EPA Clean Bays Environmental Management Initiative (Clean Bays), a corporate stewardship program aimed at reducing environmental impacts of poultry farms on the Chesapeake Bay and Coastal Bays throughout the Delmarva Peninsula.

The first-of-its-kind Pilot Program for the poultry industry, Clean Bays was also designed to improve the independent poultry producers' compliance with environmental regulations by utilizing the unique relationship between the Perdue flock supervision and those producers within the comprehensive structure and organization of Perdue Farms. Although EPA was a participating partner, the strong reliance upon corporate leadership throughout many levels within Perdue Farms constituted the majority of the effort under the Clean Bays Memorandum of Agreement.

The pilot program included trained area flock supervisors visiting the 19 largest poultry farms that were growing birds for Perdue to evaluate how the producer was managing important aspects of poultry litter as well as how best management practices (BMPs) were being implemented to help reduce nutrient runoff.

After training was provided to area flock supervisors and producers by Perdue and EPA, poultry farms in the pilot program throughout the Delmarva Peninsula were visited several times throughout 2007 and early 2008 by the area flock supervisors. Utilizing an environmental assessment checklist jointly developed by Perdue and EPA, the area flock supervisor recorded how farms were implementing environmental practices in accordance with Clean Bays, identified areas needing improvements, and assisted producers with ensuring that corrective measures were taken.

The pilot program also included recognition awards to producers that demonstrate excellence in environmental stewardship.

This pilot program was a new model for how industry, agriculture and regulators can cooperate to promote environmental compliance and protect our natural resources.

Based upon the very positive results of the pilot program, Perdue and the EPA agreed to expand the Clean Bays initiative company-wide. On November 21, 2008, Perdue and EPA Regions 3 and 4 signed an MOA to continue to work together to develop and implement the Perdue Clean Waters Environmental Initiative (Clean Waters). The purpose of this Initiative was to continue to foster Perdue's environ-

mental leadership in the poultry industry by providing training, assistance, and environmental assessments to all the producers to enhance their compliance with Federal, state, and local environmental regulations and specific BMPs and by the use of Environmental Management Systems (EMSs) at Perdue processing facilities.

As outlined in the "Clean Waters Initiative" MOA:

> The goal of this Initiative is to restore and protect our nation's waters. To accomplish this goal, the Initiative is designed to minimize environmental impacts to our nation's waters, to support continued corporate environmental excellence, to encourage sustainable agriculture, and to improve Producers' compliance with environmental requirements. The Parties have identified the following critical components of the Initiative and plan to work together to refine these:
>
> **Perdue Corporate Environmental Stewardship**
>
> 1. **Sustainable Agriculture:** It is in the interest of Perdue and the Producers to employ agricultural practices to ensure environmental protection and a prosperous and sustainable agricultural industry. Toward that end, Perdue agrees to utilize feed management techniques to minimize phosphorous content of poultry litter and endeavor to minimize the use of substances that are determined jointly by the Parties to adversely affect surface and groundwater quality. Perdue currently utilizes phytase in its feed formulation and has adjusted the composition of its feed to minimize the phosphorous content of poultry manure. Perdue agrees to continue this practice and to continue to investigate and utilize other means to minimize the phosphorus levels of litter if found not to detrimentally affect bird health or growth. Perdue agrees to make every effort not to use arsenic compounds in its feed, but may use it where the health of the flock is a concern and other non-arsenic techniques fail to restore the flock to health in a timely manner. EPA and Perdue intend to engage in regular technical discussions on advances in feed management practices to identify and employ new advances in sustainable agriculture.
> 2. **Environmental Management Systems:** To enhance Perdue's environmental excellence, Perdue plans to implement an Environmental Management System at all of its processing plants using as a model the ISO 14001 based program that has been developed for Perdue's Salisbury processing plant.

Producer Program

1. **Training and Assistance:** Proper training and assistance are critical to ensure that both Perdue associates and the Producers have sufficient tools and knowledge to comply with environmental regulations and to take the necessary actions to minimize nutrient loads to our nation's waters. Under the September 2006 Perdue-EPA Clean Bays Environmental Management Initiative, Perdue and Region 3 have developed a training program in consultation with other Federal and state agricultural agencies. Under this Initiative, the Parties plan to modify the training program to incorporate lessons learned from the Perdue-EPA Clean Bays Environmental Management Initiative. The Parties will also review modifications proposed by Region 4 and agricultural agencies and environmental departments in Region 4 states that were not part of the September 2006 Perdue-EPA Clean Bays Environmental Management Initiative's pilot program.

   Once updated, the training program, to be jointly presented by Perdue and EPA, will:

   a. provide Perdue flock supervisors training necessary to perform thorough environmental and compliance assessments;

   b. provide Producers information on Best Management Practices and how they are to comply with Federal, state and local environmental requirements governing poultry operations; and

   c. provide Producers with technical guidance and information about publicly available financial assistance to support implementation of nutrient management plans.

2. **Producer Environmental Assessments:** Regular and thorough Producer Environmental Assessments ("Assessments") are critical if the goals of this Initiative are to be achieved. Perdue, in previous consultation with EPA, developed an Assessment program that Perdue implemented as a part of the Perdue-EPA Clean Bays Environmental Management Initiative's pilot program. With this Initiative, the previous pilot program is being expanded to include the Assessment of all dry litter chicken facilities owned or operated by the Producers located in Region 3 and 4 states only. In addition, an updated assessment checklist has been developed by Perdue. This expanded Assessment program is to be implemented in phases according to the following schedule:

April 2009	October 2009	April 2010	October 2010	April 2011	October 2011	April 2012
Retrain Region 3 Flock Supervisors, Producers with >100,000 capacity	Region 3 assessments on farms with >100,000 capacity	Train Region 3 Producers with 60,000–100,000 capacity	Region 3 assessments on farms with 60,000–100,000 capacity	Train remaining Region 3 Producers	Region 3 assessments on remaining farms	
	Train Region 4 Flock Supervisors, Producers with >125,000 capacity	Region 4 assessments on farms with >125,000 capacity	Train Region 4 Producers with 80,000–125,000 capacity	Region 4 assessments on farms 80,000–125,000 capacity	Train remaining Region 4 Producers	Region 4 assessments on remaining farms

In order to maintain a more comprehensive Assessment checklist, EPA, in consultation with participating Region 3 and 4 states agrees to provide available guidance that reflects state and Federal environmental requirements. These criteria will be incorporated by Perdue into the Assessment checklist.

The Assessment checklist is intended to promote compliance by the Producers with applicable state and Federal environmental requirements, and evaluate:

- whether Producers have obtained a Nutrient Management Plan,

- whether critical elements of the Nutrient Management Plan, as it relates to chicken operations within the production area, are being followed, and
- whether required Best Management Practices are fully implemented within the production area.

The Assessment should also record that the Producer has a means of disposing of and handling litter that is consistent with good environmental practices and all applicable Federal and state regulations. Perdue is not expected to verify the accuracy of the Producer's plan and does not intend to perform assessments of operations outside the production area.

The Assessments are to occur at a frequency of two (2) times per year at each Producer's facility. One assessment should be conducted within a reasonable time after birds have been removed from the farm but prior to the next placement of birds and another assessment should be conducted during the Producer's grow-out cycle. Perdue agrees to make the Assessments available to EPA in redacted form upon request.

3. **Deviation Notification Process:** During Perdue's Assessments, it is possible that deviations may be identified regarding some Producers' operations. It is important from an environmental compliance standpoint that these deviations be corrected in a timely and appropriate manner. During the Perdue-EPA Clean Bays Environmental Management Initiative, Perdue developed and implemented a program to enable the Producers to address deviations identified during the Assessments. The same response to deviations will operate under this Initiative. Specifically, in the event that Perdue's Assessment identifies a deviation, Perdue should implement the Deviation Notification Process, which alerts the Producer to correct the deficiency by a certain date. If a deviation is not addressed by a Producer in the time specified in the Assessment and the issue is elevated to Perdue's Environmental. Services group, it will be logged and tracked to closure. Perdue agrees to make the deviation log available to EPA for review upon request with Producer names redacted and agrees to notify EPA annually of Producers that are no longer in the program.

4. **Environmental Results:** Our shared goal in the development and implementation of this Program is the restoration and protection of our nation's waters. Toward that end, it is central that the program be designed and implemented to achieve environmental results. Perdue, in consultation with EPA, intends to develop and implement an information system and set of program measures designed to track progress in achieving environmental improvement and compliance. Perdue agrees to make available information regarding Assessments and deviations available for EPA review except that the database will not contain Producer names and locations but will substitute a confidential identification number specific to an individual farm.

5. **Program Evaluation:** In order to ensure that the program is accomplishing the intended results, Perdue and EPA plan to conduct an annual evaluation, involving joint site visits, joint record reviews, including reviews of Assessments and Deviation Response Plans, and environmental results analysis. Perdue and EPA intend to use the information obtained from these evaluations to assess the effectiveness of program implementation and make any necessary program modifications.

6. **Recognition:** EPA appreciates the efforts of its partners to improve water quality and compliance. Perdue, in consultation with EPA, intends to work with other agencies and organizations to develop a program designed to recognize those program participants who demonstrate environmental and compliance excellence, particularly those that are judged to be outstanding in their efforts to minimize nutrient loads to our waters.

7. Outreach: In order to further our shared goals of environmental protection and compliance, materials and tools developed under this program with EPA assistance may be shared with the public and other members of the poultry industry.

8. EPA Compliance Assurance Activities: While nothing in this agreement waives or limits the authority of EPA to conduct compliance monitoring (including inspections or other information gathering activities) or to take enforcement action pursuant to Federal law, the Agency intends to consider the good faith and full participation by Perdue and the participating Producers in this MOA as a factor in determining whether and how such activities will be undertaken.

9. Record Retention: Perdue agrees to maintain copies of all Assessments and Deviation Response Plans for a period of 4 years (1 year after full implementation) of the Producer Program.

10. Record Review: Perdue agrees to provide EPA with copies of any documents generated by Perdue as part of this initiative upon request by EPA. These documents may be redacted to shield the identity of the Producers. However, if EPA needs to review documents in their entirety for program evaluation purposes, EPA can have access to these documents on-site at Perdue's regional complexes located in Salisbury, Maryland and Perry, Georgia. This MOA in no way limits EPA's legal authority to obtain documents from Perdue or any of the Producers.

Progress-to-date on the implementation of the Clean Bays initiative has been on-schedule, with the largest of the almost 700 Delmarva producers the first to come on-line. By the end of the 4 year implementation, approximately 1,650 producers in Alabama, Delaware, Florida, Georgia, Kentucky, Maryland, North Carolina, South Carolina and Virginia, as well as all Perdue processing operations, will be included in the initiative.

Since the on-farm environmental assessment component of the Clean Bays initiative is especially applicable to the purpose of this hearing, I would like to highlight the specifics of the assessment process and how the process is executed:

- Two on-farm environmental assessments are to be performed on each farm annually. These assessments are performed by the Perdue area flock supervisor. One is performed when the house is in production (birds in) and one is performed when the house is out of production (birds out).
- It's important to note that although "official" assessments are conducted two times per year, the Perdue flock supervisors visit the poultry farms each week, and will be observing and noting assessment items during those times. Any issues of concern noted during these visits will be addressed with the producer.
- Assessment information includes:
  - General Farm Information.
  - Nutrient Management Plan review.
  - Manure Management practices review and evaluation.
  - Mortality Management practices review and evaluation.
  - Chemical Management practices review and evaluation.
  - Environmentally Beneficial Practices (EBS)/Best Management Practices (BMP) review and evaluation.
  - Direct Contact with Waters evaluation.
  - Records Management review.
  - Status & Summary
- A graduated "deviation notification process" is part of the initiative, and operates as follows:
  - Step One: Issue identified, brought to the producers attention by the Perdue flock supervisor to address with a follow-up time scheduled to verify completion.

- Step Two: Should the producer not address the issue, it is elevated to Perdue Corporate Environmental Services and Perdue Live Production management, who meet with the producer to address/correct the issue.
- Step Three: Should the issue remain unresolved, Perdue will not place birds at the farm until the producer rectifies the situation.
- Final Step: If all previous steps do not result in satisfactory resolution, the contract with the producer will be terminated. Perdue's contract with the producer clearly states that the producer agrees to comply with applicable Federal, state and local laws, regulations and codes.

It's also important to note that the Clean Waters initiative includes a commitment by Perdue to implement an Environmental Management System (EMS) in each processing facility. This is a major undertaking to ensure that all environmental aspects related to the processing of our poultry at our processing plants are considered. Based on the ISO 14001 standard, Perdue's EMS is a Plan-Do-Check-Improve process for controlling and improving environmental performance. By requiring the setting of clear environmental goals, roles and responsibilities, an EMS provides the mechanism for ensuring involvement of every facility associate in environmental issues. The EMS also serves as a comprehensive training tool for facility and environmental management.

I hope it is apparent that the Clean Bays and subsequent Clean Waters initiatives are a different model for supporting environmental compliance. Since September 2006, Perdue has demonstrated our on-going commitment through thousands of man-hours and substantial funds to support this initiative, and will continue to do so in the future.

Perdue has established a long record for exceeding compliance and leading the industry in addressing the environmental challenges associated with animal agriculture and food production. Continuing that record, we formally established the Perdue Environmental Sustainability Initiative in November 2007. This initiative, operating parallel and in harmony with the Corporate Environmental Services function mentioned earlier, is a comprehensive approach. It's driven by the Environmental Steering Committee, a cross- business unit and cross-functional team that set the strategic direction for the overall Environmental Sustainability Initiative and ensures there are measurable results to support Perdue's environmental story. Today, we're organizing our Environmental Sustainability Initiative efforts under three platforms: *Reduce, Reuse, Recycle; Research and Innovation; and Community Outreach:*

- The *Reduce, Reuse, Recycle* platform at Perdue is defined as conserving resources and reducing waste streams by managing material usage more efficiently. Some examples are:
  - Phytase, an enzyme added to our feed formulations since 2000, reduces phosphorus in manure by over 25%.
  - Water Conservation initiatives for our facilities on Delmarva resulted in an average reduction in water use of 2 million gallons of water per week per plant.
  - Energy saving pilot projects at our Delaware processing plants will save 3.98 million kWh annually and pave the way for even greater energy savings throughout the company.
  - A pilot recycling project at our Dillon, S.C., processing plant recycled 2 million pounds of solid waste in 1 year, and is now a model being implemented in all of our plants.
  - Perdue uses recyclable, eco-friendly corrugated boxes.
  - Improvements at our Accomac, Va., protein conversion plant reduced nitrogen oxide emissions by 29,000 pounds per year and sulfur dioxide by 121,000 pounds.
  - Perdue Transportation Inc. is an EPA *SmartWay* Transport Partner with an "exceptional rating" for our fuel savings and environmental improvements.
  - Revised routing for flock supervisors reduced distances traveled by 2,000 miles per week. This process is being applied to other live production transportation.
- The *Research and Innovation* platform at Perdue is leveraging technology discovered through research or developed through innovation to drive environmental sustainability throughout Perdue's supply chain for the benefit of associates, consumers, customers and our businesses. Some examples are:

- Perdue BioEnergy, LLC, is pursuing opportunities in alternative fuels, including wood chips, poultry fat and by-products from our waste treatment plants to replace fuel oil at our processing plants.
- Perdue is working to reduce packaging and make our packaging more recyclable.
- The company has modified formulas in our products to be less impactful on our waste treatment facilities.
- We've modified our packaging case sizes to reduce the environmental impact of the transportation of our finished products. In one example, a case-size change enabled the same product to be shipped in 240,000 less corrugated boxes on 1,666 less wood pallets needing 75 less trucks to deliver.

- The *Community Outreach* platform at Perdue is bringing us together with various stakeholders to communicate, educate and collaborate on environmental sustainability efforts. Some examples are:
  - The Perdue EPA Clean Waters Environmental Initiative that is currently being implemented.
  - As part of the P.I.N.E. Project from 2004, activity at the Model Farm continues, the latest being the installation and testing of diverters for the exhaust fans to minimize airborne dust. This project is managed within an ongoing partnership with the Delaware Center for Inland Bays.
  - For 2008 & 2009, Perdue supported Maryland Public Television's Chesapeake Bay Week volunteer-a-thon by pledging 500 and 700 volunteer hours respectively to Bay-based environmental projects.
  - Also for 2008 & 2009, Perdue participated in Project Clean Stream, an effort coordinated by the Alliance for the Chesapeake Bay. Perdue associates volunteered 498 hours over the two yearly efforts. Additionally, a Perdue executive serves on the Board of the Alliance.
  - In 2009, Perdue initiated a pilot partnership with the National Fish and Wildlife Foundation. By committing funds to NFWF, Perdue supported two important Chesapeake Bay-oriented projects: an Oyster Recovery Partnership project that attached 200+ oyster gardens to docks along the Nanticoke River; and a Nanticoke Watershed Alliance project that will develop a Green Infrastructure conservation plan for ecologically sensitive areas in the Nanticoke River Watershed.

When this Environmental Sustainability Initiative is combined with our Environmental Services efforts to ensure compliance at our Perdue facilities and locations, I hope it is very apparent that Perdue is committed to a comprehensive approach to addressing our corporate environmental impact.

Perdue is not alone in our efforts to care for the Bay. Agriculture on Delmarva is best characterized as a three-legged stool, with the poultry companies, poultry growers and grain farmers working to equally support a viable poultry industry. According to the Maryland Department of Agriculture, poultry grower and grain farmer conservation accomplishments include:

- Since 1984, farmers have spent over $12.25 million of their own money to match $98 million in state and Federal funds to install over 20,000 water quality best management practices (BMP) or about 2.5 BMPs per day, every day, for 24 years. Installation of agricultural BMPs on farmland will account for 67 percent of 2.5 million pounds of nitrogen of Maryland's recent 2011 Chesapeake Bay milestones.
- In 2007 and 2008 alone, farmers matched $24.4 million in MACS state grants with $3 million of their own money to install over 4,000 capital and special projects on their farms. These practices are preventing 5.1 million pounds of nitrogen, and 287,000 pounds of phosphorus from impacting waterways.
- Cover crops are widely recognized as one of the most cost-effective and environmentally promising ways to reduce agricultural runoff into the Chesapeake Bay and its tributaries. In 2004, the Chesapeake Bay Restoration Fund was established to create a dedicated and stable funding source for Maryland's cover crop cost-share program. In 2008, Governor O'Malley's 2010 Chesapeake Bay Fund provided millions more. In 2009, farmers have signed up to plant 330,500 acres of cover crops to take up excess nutrients and prevent soil erosion over the winter.
- Since 1999, through Maryland's Manure Transport Program, approximately 456,983 tons of excess poultry litter and manure have been transported from

areas with excess manure or high soil phosphorus levels to other farms or alternative use facilities that can use the product in an environmentally-sound manner. In 2008, approximately $520,357 in state cost-share funding to transport manure was matched by Delmarva poultry companies, for a total of $891,342 provided to participating poultry growers.

- 99 percent of the state's 1.3 million acres of crop land and 99 percent of the state's 6,200 eligible farmers have nutrient management plans and are complying with the state's nutrient management law.
- Over the last 10 years, Maryland farmers have converted approximately 74,000 acres of environmentally sensitive farmland into streamside buffers, wetlands other wildlife habitat areas through the Conservation Reserve Enhancement Program (CREP). The program helps protect water quality in local streams and rivers by reducing soil erosion, controlling nutrient runoff and increasing wildlife habitat.
- Approximately 22 percent of all Maryland farmland is managed as woodland, which promotes sustainable forestry to provide clean water, improve stream health, stabilize soil reduce nutrients and sequester of carbon through actively growing forests and tree biomass.
- More than 50 percent of Maryland farmers in targeted watersheds achieved the highest assistance rate available from the Conservation Security Program—a Federal program that provides funds for the farmers that go the extra mile for conservation. More farms in Maryland qualified in their first year of eligibility than any other state in the Northeast.
- The Maryland Agricultural Land Preservation Foundation has permanently preserved 277,475 acres of priority farmland for farming, with a public investment of over $550 million since its founding in 1977. The Foundation has preserved farmland in all of Maryland's 23 counties.

Today you, the Members of this Committee, are exploring legislation and regulation as it relates to the Chesapeake Bay Program. On behalf of the 8,000 Perdue associates that live and work in the Chesapeake Bay Watershed, the 700 independent farm families on Delmarva that grow poultry for Perdue, and the more than 7,000 independent farm families in the Chesapeake Bay Watershed that grow grain, we appreciative of your efforts.

Our position on the Chesapeake Bay Program is clear. Perdue wholeheartedly supports the reauthorization of the program, Section 117 of the Clean Water Act. We do, however, have concerns with the efforts to incorporate into the reauthorization legislation new law on how agriculture will operate in the watershed. President Obama's Executive Order (EO 13508) and the subsequent Section 202 reports recently issued by EPA focus on a centralized, Federal oversight approach to Bay restoration activities that emphasize regulatory mandates rather than cooperative approaches. Through the efforts taken by Perdue and our family farm partners, in cooperation with both Federal and state officials, and the actions taken by the agriculture community, we have implemented an initiative that is producing measurable results for the Bay and the watershed. Before Congress codifies the Federal oversight and enforcement of the Bay restoration, we should first let the efforts that Perdue and the farmers in the watershed have started take hold. Many of the concepts and regulations included in this legislation to reauthorize the Chesapeake Bay Program are codification of proposals recently set forth in EO 13508. This EO is not yet promulgated into regulation, but now without the opportunity to see if the regulation has value or testing its impact, it would be set in stone as law. Such action is premature.

As for specific areas of concern, first, H.R. 3852 will create an uneven playing field for the ever tenuous continued operation of poultry processing in the Delmarva by establishing a higher level of EPA Clean Water Act regulation for the states in the Bay Watershed than is required by farmers throughout the rest of the country. Today, Delmarva is one of the least cost effective locations for the agriculture community and, in particular, for the poultry industry. This reauthorization would put our operations and our growers at a significant competitive disadvantage and would threaten the very existence of the poultry industry.

Second, the bill gives EPA unprecedented authority to take any and all action the agency deems necessary to reach Bay restoration goals. This includes requiring all poultry and livestock operations, and potentially any farmer that fertilizes a field, to operate under a Clean Water Act permit. This will be cost prohibitive for small and medium size farm operations.

Third, the bill puts into law specific caps for the Total Maximum Daily Load (TMDL) for the Chesapeake Bay, sets deadlines to achieve these TMDLs and gives

EPA ultimate authority to implement the program. Unfortunately, the agricultural community still has very little information on the TMDL, what it means at the farm level and how they are expected to measure the nonpoint sources attributed to their farms. Based on information from the USDA, the NRCS is still gathering information to determine what agricultural BMPs are included in the Bay Model, the basis for the TMDL program. We know that many of the voluntary practices outlined in this testimony are not included in the Bay Model, and therefore, the baseline on which the initial TMDLs have been developed is not an accurate representation of agriculture's environmental impact on the Bay. This baseline effort needs to be completed, and the outcomes better understood, before the TMDL program is mandated through codification by this legislation.

Fourth, citizen right of action or citizen suits must not be codified as they will generate unnecessary legal actions that are intended to stop a project or prolong the issuance of permits. This will provide a legal tool to be used by any group against farmers and other permitted projects from getting established, and will become a huge financial burden to farm families targeted by special interest groups.

Fifth, this new reauthorization would designate agriculture as permittees, yet would not place the same oversight and enforcement mechanisms on the other nutrient contributors in the watershed. Why if the legislation envisions that all nutrient contributors should be engaged in the process of protecting the Bay is agriculture the only one facing penalty if they fail to meet the goals established by EPA?

Sixth, while we appreciate the provisions in the bill to set aside Federal funds for technical support in NRCS and Soil Conservation District offices to help farmers develop conservation plans and install BMPs, this authorization of legislation does not ensure that such funding will be made available through an appropriation. Thus farmers are left with "the stick" of enforcement and merely the promise of a "carrot" without a guarantee of the funds. We are concerned that if Congress fails to make the annual appropriation, farmers will bear the brunt of nutrient reduction when local governments cannot afford the investment.

Finally, it is our understanding that the legislation mandates an "environmental credit" program that would be generated by agricultural efforts for farmers to "pay" for the costs associated with additional regulation, and utilize those credits to provide necessary "offsets" for any form of additional development. However, it is our understanding that farmers will be required to meet all individual farm nutrient obligations under the TMDL program, and therefore have to implement all available BMPs, before being eligible to generate any credits. According to the Maryland Farm Bureau, experts in this area agree that there will be no offsets on farms to sell, leading to local governments utilizing very onerous alternatives, such as purchasing whole farm and taking them out of production, to achieve the mandated offsets necessary for additional required development, such as schools and hospitals.

Earlier in my testimony, I outlined the actions Perdue is taking to address our environmental impact and help sustain the environment. These actions are in place and effective. I also outlined a few actions that the agricultural community currently has in place that's proving to be effective. I respectfully request that Congress ensure the current actions of Perdue and others in the agriculture community are included in an updated Bay Model, and that President Obama's Executive Order not be codified through legislation at this time to allow the agricultural community to work cooperatively with the Federal Leadership Committee charged to develop the strategy to address EO 13508. To do otherwise would be placing all agriculture in the Chesapeake Bay Watershed at a competitive and economic disadvantage.

To that end, we urge you to share with your colleagues at the Transportation Committee that this legislation, as introduced, could dramatically and adversely impact the future of agriculture in the watershed.

In closing, Mr. Chairman and Members of the Subcommittee, I thank you for your time and I will be happy to answer any of your questions.

The CHAIRMAN. Thank you, Mr. Schwalb.

Mr. Curatolo.

STATEMENT OF JAMES A. CURATOLO, WATERSHED COORDINATOR, UPPER SUSQUEHANNA COALITION, BURDETT, NY

Mr. CURATOLO. I would like to thank you, Mr. Chairman, for allowing me to testify, and I would like——

The CHAIRMAN. Sir, if you would move the microphone closer to you. Thank you.

Mr. CURATOLO. And I would like to thank Congressman Massa for having me come from New York and provide you with some information. My testimony will be a little different. I want to give you a local perspective from water quality professionals on how we see the Chesapeake Bay.

I am the Watershed Coordinator for the Upper Susquehanna Coalition. The Coalition consists of 19 county soil and water districts, 16 in New York and three in Pennsylvania, that completely cover the headwaters of the Susquehanna River and Chesapeake Bay. I think in your package you all have a map, and that map actually delineates the USC boundaries, and I will talk about that map a little later.

I am employed by the Tioga Soil and Water Conservation District. I am a conservation employee. The USC has three major focus areas. Where the folks work on ag sustainability, we do stream rehabilitation and wetland restoration. Agriculture sustainability I define as farmers having a good bottom line and also being environmentally healthy.

I suggest that for a delivery system that you folks look at soil and water districts, organization of soil and water districts as a delivery system that can complement the state and Federal folks in working on Chesapeake Bay issues, especially ag.

We are the folks who provide the technical support to the farmer, and I always like to say we don't have a regulatory bone in our body. We are the ones that go out and help farmers get things done. And when you go out on a farm with the district person, the farmers are real comfortable working with us. And, if you read my written testimony, we can do things outside that box that the NRCS and the state folks need to work under for what they do. So we add value and expanded work on farms that other folks just can't do because they have too much bureaucracy.

There is a discussion on data collection. I think it is very important to have true, important, baseline data so that the agricultural models that are out there that define what we need to do have a source in truth.

The way the Coalition works, we actually have a dot on the map and a data stream that defines all the good practices that every farm has done. I always say the truth will set you free. If we have really good information on the nutrient loads from farms, from real good assessment work, we will see that our farm loads are not quite as high as thought. And there is your information needs, if you want to get into nutrient trading, you can really document things.

We have developed a fantastic data management system that we use to give the information to the Chesapeake Bay, and I suggest that this is a good way to, over time, work on Bay issues. Which gets me to a real important point, is how we deliver programs effectively, which is one of the major Executive Order discussions.

The way that EPA and NRCS look at delivering programs, if you look at that map, they target by geographical region. A few points I should suggest, that by targeting geographically and putting all your money in those certain watersheds, you disenfranchise a lot of the farmers. Those farmers are not able to access that funding. They are still under the same regulations, and we have found that

those farms outside the targeted areas—there are plenty of farms where we could get just as much bang for our bucks—deliver just as much in nutrient load reduction. By disbursing your work, you don't overload the technicians in those watersheds, you keep everybody sustainable, and you have a true watershed approach.

You can even it out over the long term, if you are only working a portion of your watershed, you are going to reduce the infrastructure that farming needs. We are a dairy area. If we only work on dairy over here, the milk trucks over at this end of the watershed will be gone and it is hard to bring them back.

The devil is in the details, but it is so important that we address a scientific approach to farms. And the answer is that you pick a farm that has a willing farmer, has that nutrient reduction need, and has the technical work to do it. And with the models, which are pretty good, we can pick the right farm, get the job done, and do it faster.

The other thing is we need to get things done. If you put all your money in one watershed, it will slow things down. I am the proposal writer. I am the one—the spin doctor gets money. I guarantee you, if you keep all the money in certain watersheds, you will be paying for diapers on dairies sooner or later, and it will sound very good because I will write it the right way.

So you are going to get to that third tier of practices that won't be as efficient, but because you are forced to spend money there, that is what will happen. I think NRCS has said they will select the areas. The model they use, all it really shows if you look at that map, what their model shows basically is this is where there are a lot of farms. The model isn't good enough to say these are leaky farms that need help. These are just farms.

So I would hope that the farm bill could do two things: allow work to be done where it should, and also to put a plug in for districts, allow districts to get access to that funding, not through NRCS, but directly. That way the practices that we can do don't have to follow NRCS specs, because we do things that NRCS can't do. We can pound posts with Amish farmers and show them how to build things, where if it is not an NRCS BMP, it doesn't fit.

They do good work, but we can expand on that and do that cost-effective stuff, especially management plans where we can go back and visit with the farmer, make sure he is doing it right. We can visit with him, do the planning it needs, and you will support the local implementation of folks who really are there to help.

I think I am over time.

[The prepared statement of Mr. Curatolo follows:]

PREPARED STATEMENT OF JAMES A. CURATOLO, WATERSHED COORDINATOR, UPPER SUSQUEHANNA COALITION, BURDETT, NY

I am the Watershed Coordinator for the Upper Susquehanna Coalition. I write proposals and develop programs to promote the ability of Conservation Districts to work on a watershed scale. The Coalition is composed of the 16 County Soil and Water Conservation Districts in NY and three County Conservation Districts in PA that cover the Headwaters of the Susquehanna River and the Chesapeake Bay. Its mission is to protect and improve water quality and natural resources in the Upper Susquehanna River Basin with the involvement of citizens and agencies through education, partnerships, planning, implementation and advocating for our water resources. The Coalition formed in 1992 and I was hired as Coordinator in 1996. We

implement agricultural practices, rehabilitate streams and restore wetlands. The following testimony contains my own opinions and views.

I bring a county-based watershed perspective on how to best develop strategies that support Agricultural sustainability and maximize nutrient and sediment reductions to the Chesapeake Bay. I would like to address several major themes that run through the Chesapeake Bay Program, President Obama's Chesapeake Bay Protection and Restoration Executive Order, The farm bill, and the proposed Chesapeake Clean Water and Ecosystem Restoration Act of 2009 (*S. 1816, H.R. 3852*). This legislation gives us 16 more years to get the mechanisms in place to restore water quality throughout our region. If this bill and subsequent farm bills can get us more resources to build our capacity to provide technical assistance, we should be able to get the job done.

Let me begin with "**Deliver programs most effectively**" from the Executive Order:

> *"Technical assistance is an essential ingredient in delivering conservation programs effectively. We will develop a coordinated plan to assess technical assistance capacity across the partnership and identify and create strategies to fill technical gaps to ensure success of this effort. . . . We will also explore new ways to develop local capacity, taking into account innovative approaches for delivering assistance, opportunities to build third-party capacity, and the need to reach out to landowners who may not have traditionally participated in conservation programs. As we broaden and strengthen the traditional conservation partnership, these local advocates will help to leverage the interest and participation needed to accelerate the application of conservation on the ground";*

and *S. 1816/H.R 3852: "give preference to cooperative projects that involve local governments"*.

I suggest the paradigm for such an approach is the Upper Susquehanna Coalition (USC). The USC works under a simple Memorandum of Understanding where the Districts agreed to work on watershed issues in the Chesapeake Bay Headwaters, and to the degree possible, without regard to county boundaries. And to answer the question now: funds from NY stay in NY, funds from PA stay in PA, but Federal funds for the Bay go to wherever the best project is located.

The USC, being a coalition of Conservation Districts, houses the local agricultural professionals that implement Best Management Practices on farms. By taking a watershed approach we have developed an integrated network where a state or Federal agency can sit down and talk with people from an entire Basin on an issue. Our integrated, networking abilities were championed by the NY State Department of Environmental Conservation when it gave the USC the task of writing the agricultural portion (as well as the other nonpoint chapters) of its original Tributary Strategy for the Bay and as well as future implementation plans. We are a one-stop shop for getting nonpoint messages out to watershed residents.

A Conservation District person is frequently the liaison between the state and Federal agencies and the farmer: she or he is the one that helps them through the increasingly complex maze of farming bureaucracy. District staff don't have "a regulatory bone in their body" and maybe that is why they can, like no other entity, reach out and be trusted by farmers. We have had great success helping the "nontraditional" farmers by teaching how to install practices rather than paying for them. For example, we bought a post pounder for our Grazing Specialist, Troy Bishop, and he held a fence building workshops on Amish farms. They ended up buying their own pounder and the cows are now out of the streams and grazing where they should be. Troy is always welcome on their farms. *Helpful Hint: If you have the opportunity to go on a farm tour be sure to go stand next to the person wearing the District cap when everyone piles out of their vehicles.*

When you organize Districts by watershed you have an efficient delivery system to complement Federal and state approaches. The USC covers 12% of the Bay Watershed. Seven more similar sized coalitions would cover the entire Basin. Even a few more strategically located in high agricultural areas would be tremendously helpful. We have spent the last 18 years perfecting the approach and will gladly provide all of our lessons learned to help other coalitions form.

And since there is a great need to help build capacity and capability at the local level I suggest that a direct funding mechanism for Districts be included in a future farm bill similar to what is described in the Chesapeake Bay Restoration Act. I believe Conservation Districts are the local partner you want; it will be the most cost effective use of money you can find. *Comparison Shop: In the NY Chesapeake Bay headwaters you can get almost all District Technical support for $34 per hour.*

Second I would like to discuss "**Targeting funds to Priority Watersheds**", a tremendously important approach that will drive the entire Bay cleanup.

Everyone agrees that the best use of the limited funding that is available is to reduce the maximum amount of nutrients and sediment for the least amount of dollars. That is the End Game. The strategy of choice is targeting watersheds for funding. There is a great desire to "focus in" on small areas where many good projects can be done, its the "Targeting Priority Watersheds" approach. Computer models estimate where the nutrient loads originate and high loading watersheds are selected. The EPA Bay Program and the USDA have almost completely gone to this approach. You can see a myriad of maps with "Priority Watersheds" delineated based on computer models. These computer models are actually fairly good; however, they do not designate watersheds with "leaky farms" as high priority and watersheds having "clean farms" as low. To the computer all the farms are basically the same. The model is highlighting watersheds with more farms per square mile that cumulatively deliver the most nutrients. However we do not implement at the watershed level. To implement we drive up to a single farm and begin identifying Best Management Practices. At that level there are many farms in the lower priority watersheds that have exactly the same potential for nutrient reduction as the high priority watershed farms. Exactly the same or even better. Just not as many. But the need to target has disenfranchised those farms from participation. So the next time you see a priority map look at the white areas. Those are the areas where farms are not allowed to participate for funding. But they are still going to be under the same TMDL regulations.

There a simple solution that I believe is most efficient. Let us "target" instead two things:

- the farm that has a willing landowner and nutrient imbalance that we can address, and
- the computer model agrees that the practices we select on this farm will be most cost effective.

The results after we place all our red dots on a map for farms where efficient nutrient reduction measures were implemented will look quite similar to a priority watershed map (it should, as the computer was telling us where most of the farms are) but with two important differences.

- There will be a scattering of red dots where we were able to work on all of the High Priority Farms, and everyone was "in the game".
- We had a truly watershed-based approach where every Member of Congress can go home to his or her District and say "you all are eligible to get implementation money but we are starting with the highest priority farms and practices that we can scientifically show will give us the most reductions to the Bay." Every farmer will agree this is a truly democratic and cost effective approach. There is no disenfranchisement. I reviewed the *S. 1816/H.R 3852* and this bill allows for all stakeholders to participate.

And as a grant proposal writer and seeker of funds for the past 37 years I can guarantee you when funds are dedicated only to a small portion of the watershed the good projects will be done first and the second tier of lower-value projects will get funded out of necessity spend the funding. You will not maximize your implementation dollars. Part of a watershed approach is to keep farming sustainable and environmentally friendly and to ensure that we have a functioning area-wide infrastructure. If only certain farming areas (the geographical targeting approach) are subsidized it could lead to loss of farms in other areas ultimately causing infrastructure to disappear; getting that system back up and running is very difficult.

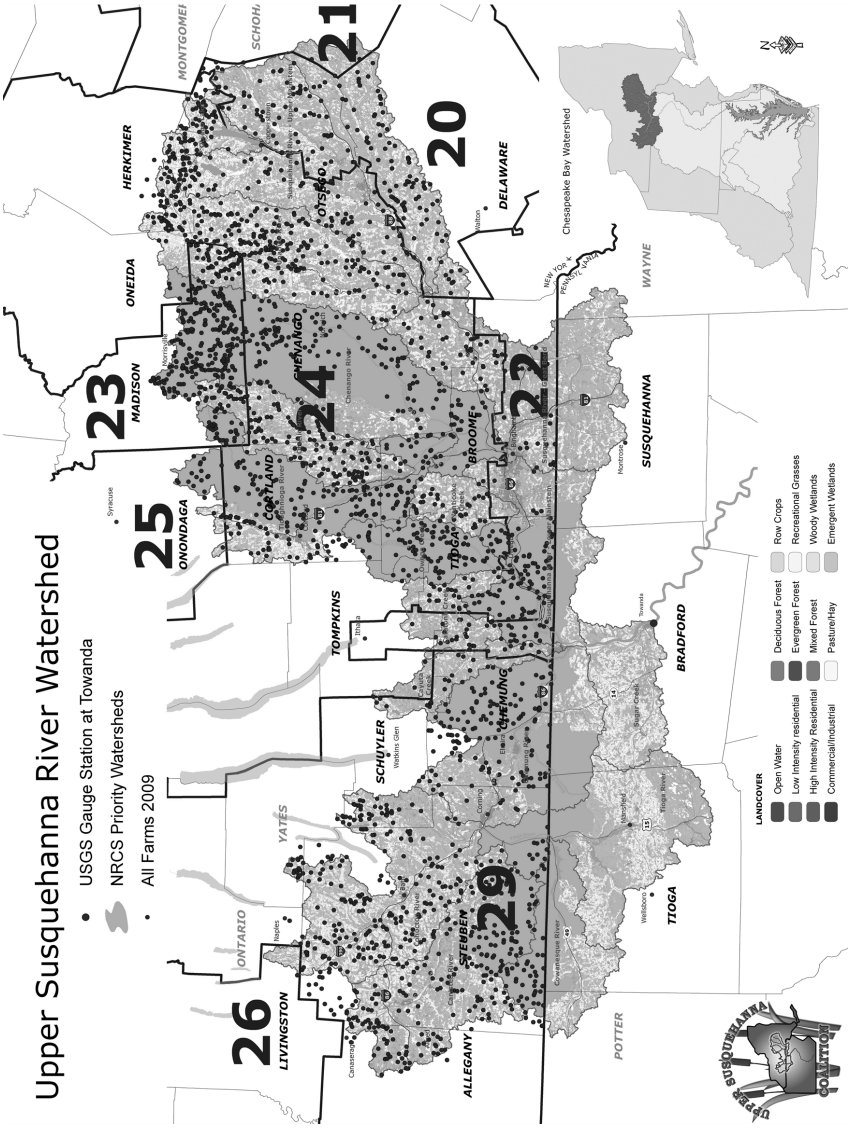
A third strategic topic is supporting "**innovative practices**". I suggest that it is indeed critical that we continue to add to our toolbox. However the objective of developing "innovative" practices is to shake out those that will become "Tried and True" and have a lasting and important benefit. Much of the competitive funding proposals solicited from EPA and USDA now needs to be "innovative". I suggest the agencies provide funding for high quality practices that a farmer needs while adding to the innovativeness.

Innovativeness is good. The USC, Cornell University and Cornell Cooperative Extension have developed some tools to help a farmer reduce costs. Cornell developed a simple mass balance calculator that farmers can use to calculate nutrient inputs and outputs. Interestingly we have found that over several years of use on a farm the mass balances get more "balanced" and we believe the farmers are reviewing data in a different way and they see places for savings. And we have taken that concept one step further by developing a series of benchmarks for dairy farmers, who can quietly, at their own kitchen table, measure themselves against a "standard" to see if they can do better and reduce their costs (one benchmark example is

home grown feed as a percent of diet—it should be at least 60% to ensure cost effectiveness).

Last, I want to support the need for good, high quality data so we can track all the good practices that we have installed. High quality data is needed for computer modeling to support watershed planning; it will ensure that we target the right practices. The Chesapeake Clean Water and Ecosystem Restoration Act of 2009 does an excellent job of walking that fine line between confidentiality and data needs. To further assess farm operations I suggest that one look at NY State's Agricultural Environmental Management Program (*http://www.nys-soilandwater.org/*). This entire voluntary Program uses a simple yet sophisticated farm assessment approach that aids the farmer and his planner in determining how to reduce both his costs and his nutrient loading by helping identify where a problems may exist on the farm.

ATTACHMENT


Upper Susquehanna River Watershed
USGS Gauge Station at Towanda
NRCS Priority Watersheds
All Farms 2009
21
20
23
24
22
25
26
29
HERKIMER
ONEIDA
MADISON
CHENANGO
DELAWARE
BROOME
ONONDAGA
CORTLAND
TIOGA
TOMPKINS
SCHUYLER
CHEMUNG
SUSQUEHANNA
WAYNE
BRADFORD
ONTARIO
YATES
STEUBEN
LIVINGSTON
ALLEGANY
POTTER
TIOGA
Chesapeake Bay Watershed
LANDCOVER
Open Water
Low Intensity residential
High Intensity Residential
Commercial/Industrial
Deciduous Forest
Evergreen Forest
Mixed Forest
Pasture/Hay
Row Crops
Recreational Grasses
Woody Wetlands
Emergent Wetlands
UPPER SUSQUEHANNA COALITION

The CHAIRMAN. Thank you very much.

We have talked a lot today about the farm bill provisions for the Chesapeake Bay. I am just curious; have your members or your associates utilized the program and how do you think it is being administered?

Mr. STONEMAN. Yes. Our members, we rely on a couple of sources for funding for BMPs. Certainly the Commonwealth of Virginia in recent years has put forward $20 million for these practices. We certainly rely upon EQIP dollars and that type of thing.

But, without question, $3 fuel has pushed no-till farming far beyond any technical assistance or far beyond any cost-share dollars. So most of our farmers are looking for efficiencies and are looking for better ways to farm, and it just so happens they have environmental benefits.

The CHAIRMAN. But the specific programs are Chesapeake Bay—in the new farm bill, I know USDA is still in the process of getting the program up and running. But have you been able to utilize those provisions, and how do you think it is being administered by the Department?

Mr. STONEMAN. I think without question the intent was good. I think, certainly, in the priority areas that were selected, those dollars were being put out as quickly as possible. The unfortunate thing is a lot of dollars are flowing through too little technical assistance, and that is a positive of the bill.

I will say that there is a good—USDA has made a change in the last 6 months to expand the priority areas, and it was something of concern to my members that folks that could see the Bay, touch the Bay, and are near the Bay every day, weren't in a priority area. It was in some of our livestock regions. So there have been tweaks that have made the program better.

The CHAIRMAN. Anyone else care to comment?

Mr. Stoneman and Mr. Schwalb, you have made clear your opposition to the proposed legislation. Do you care to elaborate why you think the voluntary program has made such good progress, and why people have had the incentives to participate in your voluntary programs, that we don't have the need for any advanced regulatory legislation?

Mr. STONEMAN. I think without question, farmers want to do the right thing. They need water quality as badly as anyone else. So they are there. They want to do these practices.

I think the detail that it shows—even the Presidential Executive Order says we are trending in the right direction with voluntary measures. I think once we get the voluntary measures that are done outside of any state or voluntary program in the Bay model, then you will see an even further impressive record for agriculture with respect to the Chesapeake Bay. That has been a concern of ours for a long time, and I think that is another positive for the bill.

But our concern about the codification of this TMDL and the acceleration of its process could bring all of that to a halt.

The CHAIRMAN. Mr. Schwalb?

Mr. SCHWALB. Yes, I would echo for our poultry growers, our Clean Water environmental issue is a great example. There is a thirst to understand what the regulations are. They want to do

what is right. And really one of the emphases behind our Clean Waters Initiative was for us, with our expertise, to help explain to the farmer what is required to be a poultry farmer today from an environmental standpoint. It is increasingly complex.

So really what this process does, and it is voluntary on our part, and it is mandatory for anyone that grows with us, it is something that utilizes really a very established relationship between the grower and our flock supervisor. That is the person who they deal with on a weekly basis. And utilizing that relationship, that flock supervisor goes through training and an education and an environmental assessment process with that grower. It is a four-step—there is a deviation process. If there are problems, there are four steps to work with the grower to ensure they are corrected.

But the grower needs that information to know what to do, and the role that we have is to help them understand that information. And it is a much more comfortable role dealing with us than dealing with the EPA.

Now we do partner with the EPA on this, and they have helped us develop this training program. But it is really something that the grower is looking to understand—what do we do, just help us understand that, and help us understand where to get resources to get that done—and they like to do that.

The CHAIRMAN. Thank you.

The chair recognizes the gentleman from Virginia.

Mr. GOODLATTE. Thank you, Mr. Chairman.

Mr. Chairman, before I question these witnesses, I would like to commend Mr. Fox. He stayed and listened to their testimony. You know, as a courtesy, we have always recognized government representatives to speak on our first panels, and usually it happens that they give their testimony and then get up and leave, and don't listen to what their constituents have to say. So, Mr. Fox, thank you for staying. It is not unheard of, but it is definitely out of order. I thank you for that.

Mr. Stoneman, you have testified about some of the positive things that farmers and agribusinesses have done to protect water quality. You have also stated that the proposed reauthorization bill would be economically harmful to farmers and agribusinesses. What impacts will this legislation have on agriculture in the Chesapeake Bay Watershed in being able to compete nationally and internationally?

Mr. STONEMAN. Well, without question if we put this TMDL in place, if we codify it in such a way and it actually does cap the growth of our industries, a young farmer will not be able to expand his business. And certainly that could push him to another place, if he wants a bigger farm or a more economical farm.

I think without question, if we have the—if he is capped in such a way that he has to buy the right to farm his property, that is an economic cost that other folks don't have in the rest of the nation and the world. I think without question, if we codify the citizen suit provisions of this particular bill, then that particular farmer may not ever get a permit, because of being held up in litigation, and actually never receive his permit.

So there is a high cost associated with the provisions of this bill.

Mr. GOODLATTE. Mr. Schwalb, you have briefly outlined in your statement the actions that Perdue has taken with its Clean Bay and Clean Water Initiatives with EPA. How does this program actually work, and how do family farmers who work with Perdue feel about this program?

Mr. SCHWALB. The program works. As I said, it utilizes that relationship between the grower and the flock supervisor. And we have found during the pilot piece of it, which started in 2006, through the implementation of the full roll-out of it, that the growers have been very receptive. Again, it is a thirst for knowledge and it is a thirst to understand what the regulations are about.

There is a genuine fear of doing something wrong and not really understanding what that is. So each grower is educated. They go through a training process that we have developed with the EPA. That is on a CD, or it is written for those growers that don't have access to a computer. That is a training, educational, and environmental assessment process that we review with them, all the resources they would need to know how to operate a poultry farm.

Included in that, the environmental assessment piece, is two times a year, the area flock supervisor, who is someone who is a step up from the flock supervisor, who knows a larger area. They assess each farm with an assessment that has been developed jointly by the EPA and Perdue. And that is an environmental assessment, looking at key things like nutrient management plans, bird disposal, renewal management, best management practices on the farm, like vegetative buffers, stormwater management. And based on that plan, if there are processes that are needed to improve, those are identified. Those supervisors come up with an action plan to fix and the growers are in a responsible position to get that done.

If it happens that the grower decides they do not want to get on board, then Perdue has made the decision that we will no longer place birds on that farm.

So there is a tremendous set of teeth involved in this. There is a tremendous impetus for the grower to participate. And during our pilot program, we really have not had anybody that has not been interested, and during the roll-out we are finding the same thing so far.

Mr. GOODLATTE. Thank you, Mr. Chairman.

The CHAIRMAN. The chair recognizes the gentleman from North Carolina, Mr. Kissell.

Mr. KISSELL. Thank you, Mr. Chairman, and thank you, gentlemen, for being on the panel today.

Mr. Stoneman, we talked about the voluntary aspect of best practices and that so much has been accomplished. From your perspective, how widespread are the voluntary practices across the board in all the different aspects of agriculture?

Mr. STONEMAN. I think without question, certainly with the high price of fuel, the economy overall, and the economic condition of all farmers, they are looking for better ways to do everything. We have had technical advances in biotechnology. We have had technical advances in equipment. So farmers are doing more and more and more of the right things.

I think in my brief history associated with this program and in farming, I have seen—we have talked about the explosion of no-till farming. Farmers are doing that everywhere. I think, certainly, the important take-home point of this is that farmers are doing—stepping up to the plate. In fact, I get the response from my members all the time, You mean they want us to do more? What we have done hasn't been good enough? That has been quite disappointing to all of them.

I think the Clean Water Act in the past has taken aim on farmers of large scale. Certainly this bill and the activities of the Presidential Executive Order are going to make the EPA's reach or the Federal reach all the way down to the smallest of the small, and that is of concern to all farmers.

Mr. KISSELL. I would like to join in expressing my appreciation to Mr. Fox for staying on and listening.

It is kind of a question to combine the testimony earlier and the question I had earlier. Mr. Stoneman, Mr. Fox said that the best practices that the farmers are practicing now, that they are included in current models and how they will be viewing this relationship as we move forward.

You mentioned a few minutes ago, I kind of thought maybe you thought they weren't being accounted for in these models. I am just wondering, did I interpret what you said right? Are you comfortable that the best practices are being accounted for in the model?

Mr. STONEMAN. Up until this discussion, it has been my experience that when we talk about BMPs or practices that have been installed by a farmer on his own, free from any connection to a local soil, water and conservation district, NRCS, or any government program, they have not been counted in that model.

However, just this summer when we have had this discussion, we have brought to light that those practices do count, they do have a meaning, and they should be included in the model. But they are not currently included in the model.

We have also discovered that because of a lack of manpower and lack of funding, that even the best management practices that you have funded through the farm bill in Virginia for the last 4 years have not been counted in the model.

So we think that is a significant difference in where the water quality regarding agriculture is and where folks think it could be.

Mr. KISSELL. And Mr. Chairman, it would seem that this may be, this gap of understanding may be some opportunity we have to improve the models or improve the communication as we move forward.

One last question. Mr. Schwalb, I don't know the percentage and I am not asking you the percentage of Perdue's share of the poultry production on the Eastern Shore, but assuming there are other competitors out there, do they follow the same practices that Perdue has put forth?

Mr. SCHWALB. At this point, the answer is no. They do follow some practices. I am not really sure as to what all of their practices with their growers are. They do not have a Clean Waters Environmental Initiative with the EPA yet. They do practice good environmental stewardship. They have environmental management. I do

know that they work with growers on similar issues the way we do. I don't know of a formal program, but I am sure that they do work with their growers on similar nutrient management issues and best management practices.

Mr. KISSELL. Thank you, sir. Mr. Chairman, I yield my time.

The CHAIRMAN. I recognize the gentleman from Pennsylvania.

Mr. THOMPSON. First of all, I would like to submit a letter from the Farm Bureau on this particular issue.

[The document referred to is located on p. 109.]

The CHAIRMAN. Without objection.

Mr. THOMPSON. Second, I would like to follow up on my colleague from New York, who brought up the issue of natural gas, and my perspective. My home State of Pennsylvania is sitting on what is the largest natural gas plane in the world, the Marcellus, and the shale is virtually on tap, close to the Northeast. The infrastructure is there. I believe if developed correctly, it will bring significant wealth and jobs throughout Pennsylvania and our surrounding states.

Finally, I speak with farmers in Pennsylvania regularly who are anxious to supplement their farms, especially in this current economy, with revenues from natural gas leases.

Most recently I met with the Pennsylvania Department of Environmental Protection, Secretary John Hanger, and Pennsylvania DP has a long record, and a successful record of overseeing natural gas drilling, ensuring that this industry's accessing of domestic energy is safe and meets quality standards. Frankly, under the Pennsylvania Department of Environmental Protection standards, I don't believe anyone in Pennsylvania would consider the Pennsylvania DP as warm and fuzzy in providing oversight on environmental standards. They are fair, they do their job, and there are consequences if they don't follow those. But under the Pennsylvania DP standards compliance, no history of water quality compromises have occurred with natural gas drilling.

Mr. Stoneman, you talked about the potential and unnecessary litigation H.R. 3852 could impose on many farms in the watershed. In my district, we are seeing firsthand the problems that are created when unnecessary suits are brought on the Federal Government. The Allegheny National Forest is in my district, and the Forest Service has shut down the leasing of oil and natural gas, which is putting many businesses, frankly, many families and people out of jobs, even though the Federal Government doesn't even own the mineral rights and subsurface rights. And some of the environmental groups are using the courts to systematically put these mom-and-pop producers out of business. This Executive Order, I believe, actually provides—I mean the bill provides for the establishment of a citizen right of action for civil suits.

In your opinion, what impact could these suits regarding total maximum daily loads have on the ability of farmers to operate in the watershed?

Mr. STONEMAN. Without question the TMDL is going to require practices of farmers. The Presidential Executive Order you heard a good bit about today contemplates requiring further work on behalf of confined animal feeding operations. Certainly the bill in and of itself requires states to implement certain programs. If they

don't, then the state can be sued, and generally the way to get a permit is through our Commonwealth or through the state. If you are tangled up with litigation, ultimately you will end up with no permit and ultimately spending a lot of dollars for nothing.

Mr. THOMPSON. In the previous panel, Mr. Fox mentioned that EPA wants to continue to foster the relationship with states and local governments. I want to check with all three gentlemen on the panel, do you have any suggestions or ideas on how the EPA could foster that partnership?

Mr. CURATOLO. We work closely with the Department of Environmental Conservation. I think the state's view is they really want to have control of how to finalize all our TMDL work and our BMP practices. I think between the state and the counties, they have the information and the local understanding of how to maximize our reductions, minimize money, and definitely minimize the cost to our farmers and our communities. I think it is important that EPA provide enough opportunity for the state to develop its strategy, and each state strategy should be different, because each state is a little different in its philosophy and its watershed, and that is an important way to go.

Mr. STONEMAN. I would like to add, the bill in and of itself asks states to do certain things and asks local governments to do certain things. It seems, though, in this particular scenario, the way the bill is drafted EPA holds all of the cards. You either do it or they withhold funds. You either do it or we regulate somebody else, therefore creating a civil war among economic sectors.

So my suggestion is we take, we go back to where we are, a cooperative nature, a voluntary program, and keep moving the ball forward. Holding all of the cards, or both the carrot and the stick, one in one hand and one in the other, is just going to stifle where we are.

Mr. SCHWALB. If I could add, EPA working with state and local agencies, to truly understand what BMPs have been accomplished on farms, be they ones that were cost-shared or be they ones that were voluntary, is critical to gaining credibility. AgriRecycle is a great example. The Bay model, based on agriculture Census, assumes a certain number of birds generate a certain amount of litter. But all of the litter that goes to AgriRecycle does not get put on the ground as fertilizer. As I mentioned in my testimony, over half of that is moved out of the watershed; yet the Bay model assumes, based on the number of chickens, this is the amount of litter and here is where it goes. So there is a lot of local knowledge that I think is just not tapped yet, and so I would encourage that.

Mr. THOMPSON. I thank you.

The CHAIRMAN. The Chair would like to add to Mr. Thompson's statement that also the Susquehanna River Basin Commission is heavily involved in regulating a new natural gas field that has been recently discovered. I would just like to add that for the record.

I recognize the gentleman from Maryland.

Mr. KRATOVIL. Thank you, Mr. Chairman.

Mr. Stoneman, going back to something that you said that I think is very important. You were talking about the decline in

farms. And first of all, congratulations on the ability to maintain the family farm and the historic value of it and so forth.

One of the things that strikes me about this debate that we have, again, is looking at these sources of pollution and, in a sense, putting them on equal footing. And the bottom line is they should not be, because looking at the critical value that farming has to our country, not just economically and culturally, but clearly in terms of national security issues, there is a big difference between farming and, in my view, the issues of sprawl and development.

I would say, Mr. Fox, thank you for sticking around, but I think that is something important to consider as we look at how we deal with these different sources of pollution. There is a big difference in terms of promoting and protecting agriculture, as opposed to allowing for sprawl and development.

Mr. Schwalb, you have obviously talked at length about your initiative, Clean Bays and Clean Water Initiative. What has the relationship with EPA been on that and how did that relationship come about?

Mr. SCHWALB. The relationship has been excellent. Really it was a discussion early on in 2006 about how to help ensure—a group discussion that we had with EPA about how to help ensure that our growers had a good understanding of all of the regulations. Perdue, as part of our environmental commitment, said it is tough for the growers to understand that. It is hard for us to understand them sometimes.

Really what evolved was how best can we work together to come up with a process that would help the growers understand it, and, from Perdue's standpoint, if you can't grow chickens, we can't sell them. So that is a very important part of our supply chain. We felt that the relationship we had with our growers is much more comfortable in working with the grower than the EPA's relationship with the grower.

Mr. KRATOVIL. Going back to the point that the Ranking Member was making about lack of communication prior to the Executive Order, did you have any idea, heads-up—anybody that you guys were dealing with in terms of EPA know, despite the efforts you were making, sort of what was going to happen and where this was going?

Mr. SCHWALB. I can't say that would be something that we would have discussed with the EPA folks during this time. So I can't say that we had that discussion; but I don't know if I would have expected to.

Mr. KRATOVIL. One of the innovations that you haven't talked about is the use of the feed additive by the growers to reduce the phosphorus generated in poultry litter. Tell me about that, and how has that been working, and how do we know?

Mr. SCHWALB. Phytase, which is an enzyme, we have been giving it to our poultry since 2000. What it does, it helps the chicken better utilize the phosphorus in the feed. The chicken needs phosphorus in the feed to support its bone structure. So if the chicken can utilize the phosphorus in the feed better, then we have to add less phosphorus generating products in the feed itself. If the chicken utilizes that phosphorus better, then there is less in the manure. Studies have shown that the reduced phosphorus level in the

manure has been by 25 to 30 percent, and we do that by analysis of the manure.

Mr. KRATOVIL. Are other growers, other companies doing that?

Mr. SCHWALB. Yes, other companies are doing that.

Mr. KRATOVIL. All of you have expressed concerns about the Bay model. Given your concerns, what are your specific suggestions in terms of how we deal with that?

Mr. STONEMAN. I think without question, you include or figure out a way to include the voluntary measures that farmers are doing on their own.

Now I am going to mention a thorny little subject, but one of the reasons why we haven't been able to get that information in there is a little nuance in the farm bill that even my organization supported at the time because it seemed like a wonderful thing, and that was the privacy clause. Certainly we need to figure out how to get aggregate data into the model. Individual data is problematic and certainly fits into the privacy clause that was put in the farm bill, I think 1619 is the number. But we have to get Federal agencies—and I am not going to be the one that says the Presidential Executive Order is all bad, because if it has gotten Federal agencies talking together and communicating and sharing data, then that will certainly help that Bay model be a better model.

But harkening back to my computer 101 course, garbage in is garbage out, and no information is no information. So that's what we have to do with that Bay model.

Mr. KRATOVIL. Thank you, Mr. Chairman.

The CHAIRMAN. I recognize the gentleman from Indiana.

Mr. ELLSWORTH. Thank you, Mr. Chairman.

Mr. Stoneman, I was intrigued by the 41 percent loss of Virginia farmers, and I certainly don't want to see them becoming an extinct entity by any means, especially the Virginia peanuts. We survive on those on the Agriculture Committee, along with North Carolina and Georgia.

Talking about what Mr. Kratovil said about sprawl, I know you don't have it broken down, but as the Farm Bureau President, in discussions, how much of that is the family decides that a subdivider or developer, whether office buildings, subdivisions, that come in and offer the family farmer thousands per acre and they make that decision based on finances, and once they do that, it never goes back to farmland. Virginia is a pretty good example. They make that conscious decision to do what they want with their land.

Can you break down a little bit in your discussions, how much is regulation; how much is a farmer, the family decides let's profit, the kids decide I am not going to get into the business that mom and dad were in?

Mr. STONEMAN. The 41 percent is for Bay-wide. So Bay-wide, we have lost 41 percent of our farmers.

The interesting statistic in Virginia is we have gained farmers, but they have gotten smaller. In some discussion, a 10 acre farmette that is raising pumpkins, strawberries, or watermelons is what Virginia is sustaining itself with as far as farming.

The second part of your question, I have some very strong experience with that. I have talked about the farm that my family and

I own. I farmed it myself for 12 long years. My child wanted to eat better, and I wanted a better standard of life for her. We have several family members involved, so we figured the best thing to do was to rent it out. But my father was one of the largest dairymen in the state. When the Clean Water Act was passed, he made a conscious decision, because he didn't feel like he could justify the rules associated with his size of dairy. They went out of the dairy business. They became a grain farmer, which made it a little simpler but not a whole lot more.

But I contend—and we have just gotten through with our state annual meeting. We had a farmer from Amelia very passionately say to the press that she is a small dairyman. This particular regulation puts a target in Virginia on the back of small dairies because most poultry farms, as has been discussed, are regulated. Most pork farms because of their size are regulated by the state. In fact, our state regulations are three times more stringent than anything EPA has put forward so far.

So when EPA says it wants more, it is the 200 cow dairies and less that they are after. At least in Virginia. They are the only ones left. Eighty-four percent of our dairies in Virginia, a significant number in Mr. Goodlatte's district, are 200 cow dairies. They feel like they are the target, the ones left.

So I cannot stand here and tell you that for any one specific farmer, a regulation put them out of business. But I will tell you that along with the cumulative effect of the economy and the situation of the ag enterprises, it will.

Mr. ELLSWORTH. Thank you very much.

Mr. Schwalb, what will Perdue do? What is the tipping point with these regulations that Perdue decides either your growers decide it is not worth it anymore, kind of like we are talking about with dairy, and what will Perdue do? We don't mind you coming to Indiana, but I know you already have producers there. I am sure there would be people glad to see you go out of the area.

Mr. KRATOVIL. We mind you going to Indiana.

Mr. SCHWALB. We are in both places, so we will keep you both happy.

Mr. ELLSWORTH. So what is the game plan when you start pulling producers and pulling jobs and affecting the economy when these regulations start? Or do you suspect they will go to Indiana? What does the crystal ball say?

Mr. SCHWALB. Again, it a three-legged stool. Perdue is in 15 states. If you think about agriculture on the Shore, agriculture on the Shore is a combination of the grain farmers that grow the grain, the poultry farmers that grow the chickens, and the integrators that keep all those together. Those are the three legs.

Mr. Stoneman was talking about additional regs. While poultry producers are regulated now in nutrient management plans, under the new proposed regulation, most poultry farms will become CAFOs, and the regulations required for CAFOs are substantially higher and substantially more expensive for those farmers.

So it is really going to depend on which leg of the stool sort of bends the first and breaks. This will be a tremendous burden—as written, this bill would be a tremendous burden, we feel, to poultry growers. If poultry growers can't make a living, there isn't any rea-

son to grow grain. And if grain farmers aren't around, we have 14 other states or 13 other states. Not that we want to move out of the Bay, but it is an economic decision. It is pure economics.

So again, the voluntary things that we are doing, we need to make sure that they are counted, so then we truly know what is the effect of poultry. I don't think you can treat a poultry farm the same way you can treat a point source, and that really is a little bit about what is coming down the road.

Mr. ELLSWORTH. Does Perdue have any facilities outside the United States?

Mr. SCHWALB. We do have a China venture, a very small one in China. But that is the only operation that we have outside of the United States, and it is limited to producing product for the Chinese market.

Mr. ELLSWORTH. Could you foresee it getting to the point where you opened something, where you import the product to the United States because it is cheaper to operate in another country?

Mr. SCHWALB. We have a definite concern that is coming down the road. We have a genuine concern that production of our food will be outsourced overseas because it is more economical.

Mr. ELLSWORTH. Thank you, and I yield back.

The CHAIRMAN. The chair thanks the gentleman. The chair also thanks the witnesses for their testimony.

Under the rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplemental written response from the witnesses to any question posed by a Member.

This hearing of the Subcommittee on Conservation, Credit, Energy, and Research is adjourned. Thank you.

[Whereupon, at 12:20 p.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED STATEMENT OF HON. ELIJAH E. CUMMINGS, A REPRESENTATIVE IN CONGRESS FROM MARYLAND

Mr. Chairman:

I thank Chairman Holden for the opportunity to submit a statement for the record compiled for the hearing entitled "Regulatory and Legislative Strategies in the Chesapeake Bay Watershed."

The Chesapeake Bay is America's largest estuary and its biological productivity was once unparalleled in the world—making its current degradation all the more stunning. As the Representative of Maryland's 7th Congressional District, I know first-hand what an incomparable resource the Chesapeake Bay is to the State of Maryland and indeed to this entire nation.

In the Administration of President Barack Obama, we finally have a President who has made the restoration of this national treasure among his top environmental preservation goals.

Earlier this year, the President issued an Executive Order that created a Federal Leadership Committee on the Bay. A few months ago, that Federal Leadership Committee released a series of reports on the Bay—known as the Section 202 Draft Reports.

These reports reaffirm that the Chesapeake Bay is one of the most studied water bodies in the world. They also reaffirm that there is no scientific doubt that the flow into the Bay of nitrogen, phosphorus, and sediment from a variety of sources is the cause of the Bay's decline. Together, they foster the rapid growth of algae and they lower dissolved oxygen levels in the water; as oxygen levels fall, so-called "dead zones" develop where aquatic life cannot survive.

Controlling the flow of nitrogen, phosphorus, and sediments into the Bay is essential to restoring the Bay's ecosystem and enabling the Bay to thrive again.

The 202 reports also find that thirty years of voluntary agreements enforced only by good intentions have left the Chesapeake Bay with water quality that is still rated "very poor."

Particularly as the population in the Bay's Watershed increases, it is evident that we must begin implementing more formal structures to control pollutant loadings. It is also evident that current law does not provide all of the authorities necessary to implement and assess the results of such new control measures.

Responding to these challenges, on October 20, 2009, I introduced the *Chesapeake Clean Water and Ecosystem Restoration Act of 2009,* H.R. 3852. This legislation is similar to legislation introduced in the Senate by Maryland Senator Ben Cardin.

H.R. 3852 will require the Environmental Protection Agency to complete its determination of judicially ordered and scientifically derived maximum tolerable levels of nitrogen, phosphorus, and sediment in the Bay. The legislation would then require the Bay's Watershed states and the District of Columbia to each contribute to the achievement of reductions in nutrient flows into the Bay until these levels are reached.

Each jurisdiction would have the flexibility and discretion to develop its own detailed plan outlining how it would reduce its pollutant load; however, states that do not develop or implement their plans will face significant penalties.

I emphasize that to achieve overall nutrient flow reductions, H.R. 3852 would require equitable reductions in pollution from all sources, including wastewater treatment plants, stormwater run-off, and run-off generated from agricultural activities.

Importantly, the benefits of H.R. 3852 will accrue to the entire Chesapeake Bay Watershed—and not just to the Bay itself. New approaches to nutrient control adopted by the states in the Bay's Watershed and by the Federal Government itself will improve water quality in the tributaries that flow into the Bay, including the Susquehanna River in Pennsylvania, the Rappahannock River in Virginia, and rivers providing drinking water throughout the Bay's Watershed.

H.R. 3852 also supports what must be a renewed and reinvigorated partnership among Federal, state, and local governments, and between public and private interests. For our part, the bill would authorize more than $5 billion to support efforts to clean up the Bay, including providing $1.5 billion to support initiatives that will control stormwater run-off and $500 million for each of Fiscal Years 2010 through 2015 to support the Section 319 programs that help farmers implement nonpoint source management initiatives.

To provide additional assistance to farmers in the Bay's Watershed—who I know are struggling in the midst of this prolonged economic crisis—and to support the adoption of the most cost-effective nutrient reduction measures, H.R. 3852 would also establish an innovative interstate nitrogen and phosphorus credit trading program.

Such a program will encourage Bay-wide partnerships between municipal and agricultural interests for the implementation of cost-effective, upstream nutrient management controls.

A study issued by the World Resources Institute analyzing the nutrient trading programs that would be created by H.R. 3852 found that, "[p]reliminary analysis indicates that the potential annual revenue to farmers from selling credits in a Bay-wide nitrogen trading program could be of a similar scale or greater than current annual government agriculture conservation funding in the Chesapeake Bay."

The study estimates that a nitrogen trading program could generate as much as $300 million in annual revenue to farmers. A copy of the World Resources Institute study entitled "How Nutrient Trading Can Help Restore the Chesapeake Bay" is attached here as a reference.

I note that the nutrient trading program proposed by H.R. 3852 builds on successful programs already implemented in states such as Pennsylvania and Virginia.

As Peter Hughes, President of Red Barn Consulting, Inc., testified during a hearing held by the House Transportation and Infrastructure Committee's Subcommittee on Water Resources in September of this year, "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."

Under the Administration 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.

I am honored to be working with Senator Cardin as well as 15 bipartisan House cosponsors to develop the legislation that will finally achieve the Bay restoration we have so long pursued.

I also look forward to working closely with Chairman Holden, Ranking Member Goodlatte, and the Members of the Committee on Agriculture—and the Subcommittee on Conservation, Credit, Energy and Research—to ensure that this legislation is responsive to the concerns and needs of the farm community, which will continue to play a central role in our restoration efforts.

WORLD RESOURCES INSTITUTE

WRI FACT SHEET

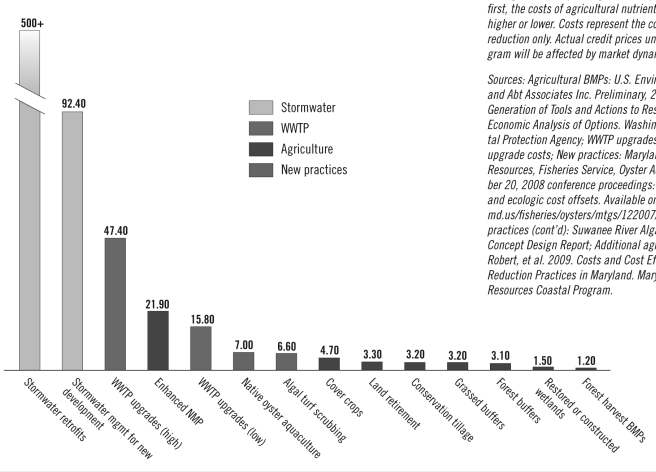
How Nutrient Trading Can Help Restore the Chesapeake Bay

Congress is considering proposals to revise and strengthen the Clean Water Act for the Chesapeake Bay region and improve the health of the region's streams, rivers, and wetlands. Senator Cardin's and Representative Cummings's proposed legislation, The Chesapeake Clean Water and Ecosystem Restoration Act of 2009, provides significant new resources and tools to help restore the Bay. Water quality trading for nutrients, or "nutrient trading", is one such tool. It could make it possible to achieve Bay restoration goals faster and at lower cost. It also could create an additional source of revenue for farmers.

Trading creates revenue opportunities and reduces cost. Nutrient trading is based on the fact that the cost to reduce nutrient pollution differs between sources (Figure 1). With trading, entities that are able to reduce their pollution below required levels are able to sell their surplus reductions to entities facing higher costs. Trading therefore allows those for whom it is cheaper to reduce nutrient pollution (e.g., farmers) to enjoy new revenue sources. It also allows those for whom it is more expensive to reduce nutrient pollution (e.g., municipal stormwater systems, wastewater treatment plants) to save money.

Trading accelerates pollution reduction. Trading encourages adoption of less expensive pollution reduction practices that are typically faster and easier to implement. Trading taps the most efficient, available reductions so states do not have to let construction schedules dictate compliance deadlines.

FIGURE 1. Average Cost of Selected Nitrogen Reduction Measures
Dollars per pound of annual nitrogen reduction



Note: Cost estimates do not take into account the baseline or minimum practices that agriculture will have to implement prior to selling credits. Depending on which practices farmers implement first, the costs of agricultural nutrient reduction measures may be higher or lower. Costs represent the costs of achieving the nitrogen reduction only. Actual credit prices under a nutrient trading program will be affected by market dynamics of supply and demand.

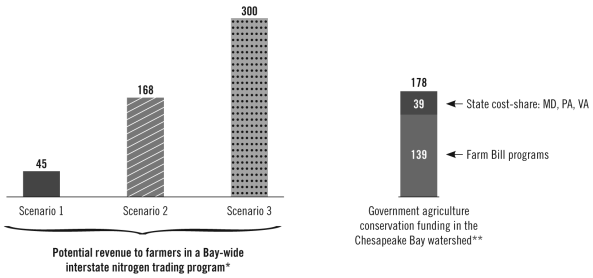
Sources: Agricultural BMPs: U.S. Environmental Protection Agency and Abt Associates Inc. Preliminary, 2009. Chesapeake Bay: Next Generation of Tools and Actions to Restore the Bay: Preliminary Economic Analysis of Options. Washington, D.C.: U.S. Environmental Protection Agency; WWTP upgrades: WRI analysis using plant upgrade costs; New practices: Maryland Department of Natural Resources, Fisheries Service, Oyster Advisory Commission. December 20, 2008 conference proceedings: Oyster restoration economic and ecologic cost offsets. Available online at: http://www.dnr.state.md.us/fisheries/oysters/mtgs/122007/meeting122007.html; New practices (cont'd): Suwanee River Algal Turf Scrubbing System Concept Design Report; Additional agricultural BMPs from Wieland, Robert, et al. 2009. Costs and Cost Efficiencies for Some Nutrient Reduction Practices in Maryland. Maryland Department of Natural Resources Coastal Program.

The cost-effectiveness of pollution-credit trading has been demonstrated. The 1990 Clean Air Act Amendments established an interstate trading program for sulfur dioxide emissions from power plants, allowing plants facing higher pollution reduction costs to purchase reductions from plants facing lower pollution reduction costs. Savings due to this trading program have been estimated to be 43-55 percent.[1]

How could farmers benefit from nutrient trading? Farmers can earn additional revenue when they sell nutrient reduction credits generated by implementing practices that reduce fertilizer or manure runoff beyond baseline levels. Preliminary economic analysis indicates that the potential annual revenue to farmers from selling credits in a Bay-wide nitrogen trading program could be of a similar scale or greater than current annual government agriculture conservation funding in the Chesapeake Bay (Figure 2).

It is important to note that ***these two sources of funding are complementary.*** A farmer can use government agriculture conservation funds to help finance best management practices to achieve the farm's baseline nutrient levels. If the farmer implements additional practices that yield further nutrient reductions, the farmer could earn revenue by selling the reductions as nutrient credits.

FIGURE 2. **Potential Annual Revenue to Farmers from Bay-wide Nitrogen Trading is Same Scale as Current Government Agriculture Conservation Funding in the Bay**
Million dollars per year



** Scenario 1: Credit price based on transactions in nascent PA nutrient market, $8/lb. Scenario 2: Credit price of $20/lb. Scenario 3: Credit price of $50/lb. Both scenario 2 and 3 credit prices account for potential baseline practices agriculture would have to implement prior to selling credits and opportunity costs, but assume no discounting or transaction costs. All scenarios assume credits are generated after agriculture baseline has been met. Credit demand is based on modeled wastewater treatment plant and stormwater program needs.*

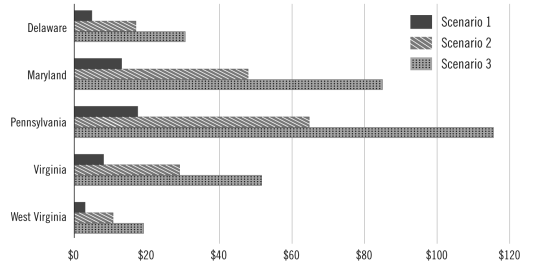
*** Reflects financial assistance for implementing best management practices in the Chesapeake Bay watershed. Farm Bill programs include Environmental Quality Incentives Program, Agricultural Management Assistance, Farm and Ranchlands Protection Program, Wetland Reserve Program, Conservation Security Program, Conservation Reserve Program, Conservation Reserve Enhancement Program, and Chesapeake Bay Watershed Program. Figures are 2009 fiscal year.*

Note: Government agriculture conservation funding and revenue from interstate nitrogen trading program are not mutually exclusive. Rather, government agriculture conservation funding could be used to assist farmers to achieve baseline. Further nutrient reductions beyond the baseline that result from additional practices could be sold as credits.

Source: WRI analysis using data from the Chesapeake Bay Watershed Model phase 5.2, the U.S. Department of Agriculture, and the Chesapeake Bay Foundation.

A Bay-wide nutrient trading program could generate new revenue sources for farmers throughout the Chesapeake Bay region. Figure 3 summarizes the potential annual revenue to farmers by state from selling nitrogen credits. [See the appendix for descriptions of the scenarios.]

FIGURE 3. Potential Revenue to Farmers (by State) from Selling Nitrogen Reduction Credits in a Bay-wide Nitrogen Trading Program
Million dollars per year

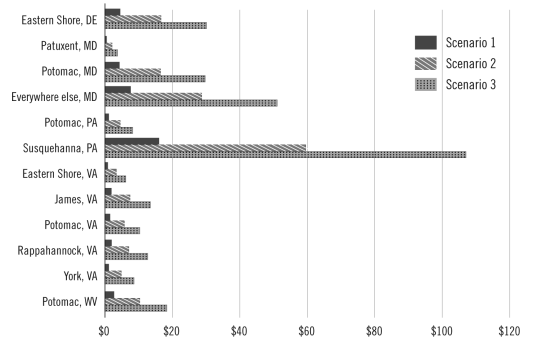


** Scenario 1: Credit price based on transactions in nascent PA nutrient market, $8/lb. Scenario 2: Credit price of $20/lb. Scenario 3: Credit price of $50/lb. Both scenario 2 and 3 credit prices account for potential baseline practices agriculture would have to implement prior to selling credits and opportunity costs, but assume no discounting or transaction costs. All scenarios assume credits are generated after agriculture baseline has been met. Credit demand is based on modeled wastewater treatment plant and stormwater needs.*

Source: WRI analysis using Chesapeake Bay Watershed Model phase 5.2.

Figure 4 summarizes the potential annual revenue to farmers by major river basin from selling nitrogen credits.

FIGURE 4. Potential Revenue to Farmers (by Basin) from Selling Nitrogen Reduction Credits in a Bay-wide Nitrogen Trading Program
Million dollars per year



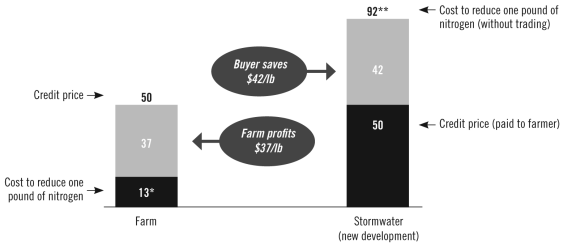
** Scenario 1: Credit price based on transactions in nascent PA nutrient market, $8/lb. Scenario 2: Credit price of $20/lb. Scenario 3: Credit price of $50/lb. Both scenario 2 and 3 credit prices account for potential baseline practices agriculture would have to implement prior to selling credits and opportunity costs, but assume no discounting or transaction costs. All scenarios assume credits are generated after agriculture baseline has been met. Credit demand is based on modeled wastewater treatment plant and stormwater needs.*

Source: WRI analysis using Chesapeake Bay Watershed Model phase 5.2.

Which other stakeholders could benefit from nutrient trading? A Bay-wide, interstate nutrient trading program could generate benefits for other stakeholders in the Chesapeake Bay region, too. For instance:

- *Municipalities* can cost-effectively reduce urban runoff and meet load requirements through purchasing nutrient credits from farmers and others. Preliminary analysis by WRI indicates that trading could reduce costs to municipal stormwater system retrofits by billions of dollars, perhaps more than 50 percent relative to conventional nutrient reduction approaches. Figure 5 illustrates potential economic benefits of nutrient trading to both farmers and municipalities with regard to new development.

FIGURE 5. Benefits of a Trade between a Farm and a Stormwater Program
Dollars per pound of annual nitrogen load reduction

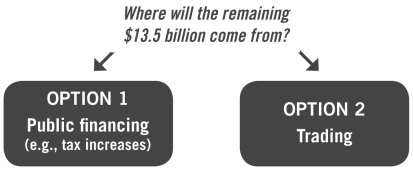


** Estimated average marginal cost to reduce one pound of nitrogen across four best management practices that are implemented after a farm's agricultural baseline is met. Each practice is modeled in each of five Bay states. Costs include implementation costs, operations and maintenance costs, and opportunity costs but analysis assumes no discounting or transaction costs. Data sources include Nutrient Net and Wieland, Robert, et al. 2009. "Costs and Cost Efficiencies for Some Nutrient Reduction Practices in Maryland." Maryland Department of Natural Resources Coastal Program.*

*** Average cost to reduce one pound of nitrogen from municipal stormwater management systems for new development in Maryland. MS4 retrofit costs may be higher. Based on: Wieland, Robert, et al. 2009. "Costs and Cost Efficiencies for Some Nutrient Reduction Practices in Maryland." Maryland Department of Natural Resources Coastal Program.*

- *Utility ratepayers* can save money on their utility bills when wastewater treatment plants—most of which are publicly owned—meet their nutrient reduction obligations at lower cost.
- *Wastewater treatment plants* can cost-effectively reach their nutrient reduction obligations by purchasing nutrient credits from those with lower cost reductions. In addition, plants can earn additional revenue by reducing nutrient discharges below permitted levels and selling the "surplus" reductions. Furthermore, as the region's population continues to grow, nutrient trading can allow for the expansion or addition of wastewater treatment plants without increasing pollution.
- *Entrepreneurs* can benefit by developing innovations that prevent nutrients from entering the water or that reduce nutrient concentrations in the water. Examples include new manure management technologies, native oyster aquaculture, and algal turf scrubbing.
- *Local governments and taxpayers* benefit from improved water quality in local rivers, lakes and streams, and from the more efficient use of taxpayer resources (Figure 6).

FIGURE 6. Benefits to Local Governments and Taxpayers



- Stormwater is the only growing source of nutrient pollution to the Bay*
- Pollution reduction from stormwater programs is the most costly of all sectors
  - Accounts for $15 billion of total $28 billion estimated cost of achieving Tributary Strategy goals**
- The Chesapeake Clean Water and Ecosystem Restoration Act of 2009 provides $1.5 billion to local government stormwater programs
  - $1.5 billion is only 10% of the need

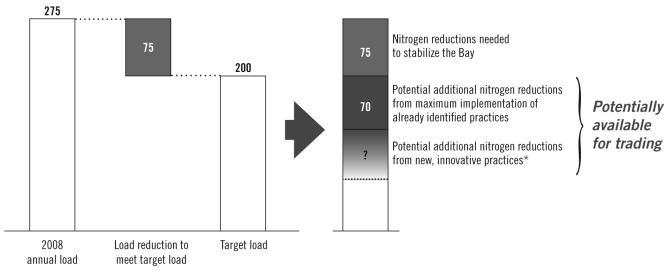
Trading may reduce these costs by more than 50%

* *Chesapeake Bay Program. 2009. Bay Barometer: A Health and Restoration Assessment of the Chesapeake Bay and Watershed in 2008. Annapolis, MD, Chesapeake Bay Program.*

** *Estimated cost for achieving goals from 2003 to 2010. Chesapeake Bay Blue Ribbon Finance Panel. 2003. Preliminary Tributary Strategy Cost By State-Revised 10/26/04. Annapolis, MD: Chesapeake Bay Program.*

Pollution-reduction opportunities are estimated to be sufficient to enable trading. The current version of the Chesapeake Bay Watershed Model (Phase 5.2 using 2008 data) estimates that known pollution-reduction practices by current polluters could, if fully implemented, reduce nitrogen pollution by 145 million pounds per year—or 70 million pounds more than the preliminary target load needed to stabilize the Bay (Figure 7). Those 70 million pounds—plus potential additional reductions from innovative practices—could provide a source of tradable reductions. (Note: As the Chesapeake Bay Watershed Model is refined, these numbers may change and Figure 7 will be accordingly updated.)

FIGURE 7. Pollution-reduction Opportunities are Estimated to be Sufficient to Enable Trading
Million pounds of nitrogen per year (estimated by the Chesapeake Bay Watershed Model)



* *Innovative load reduction practices are those not already listed by states in their tributary clean-up plans. These are innovative practices that entrepreneurs would develop if a trading system were implemented. Examples include, but are not limited to, native oyster aquaculture, algal turf scrubbing, new manure management technologies, and other nutrient reduction practices that meet regulatory requirements.*

Notes: Load numbers are figures based on the current Chesapeake Bay Watershed Model Phase 5.2 using 2008 data and are subject to change.

APPENDIX: BACKGROUND ON THE SCENARIOS

Table 1 summarizes the model inputs for the scenarios referenced in Figures 2, 4, and 5. The economic analyses in this document are preliminary. WRI has research underway to refine these estimates and conduct sensitivity analyses as new data become available.

TABLE 1. Model Inputs for Scenarios

	Scenario 1	Scenario 2	Scenario 3
Credit price	• $8/lb of nitrogen. • Based on transactions in nascent Pennsylvania nutrient market	• $20/lb of nitrogen • Based on modeled implementation, operations & maintenance, and opportunity costs, as well as profit margin, of four agricultural practices (forest buffers, cover crops, grass buffers, and restored/constructed wetlands) across five bay states, after agriculture baseline for a farm (tributary strategy target reduction) has been met*	• $50/lb of nitrogen • Estimated average nitrogen reduction cost per lb for WWTP upgrades (based on data from 109 WWTPs in the Chesapeake Bay) is ~$16. Average for the 40 WWTPs with the highest nutrient abatement costs is $47.40. $50 is the estimated price that exceeds this subset's willingness to pay
Credit supply	• Nitrogen reductions generated by a variety of agriculture practices only after agriculture baseline for a farm (tributary strategy target reduction) has been met • Based on a conservative estimate of potentially available agriculture-based nutrient reductions after tributary strategy target has been met, using Chesapeake Bay Watershed Model Phase 5.2	• Same as scenario 1	• Same as scenario 1
Credit demand	• Wastewater treatment plants (WWTPs) in PA and WV projected to have nitrogen loads in excess of permit requirements over coming decade buy credits after point-point source trading has been exhausted • Municipal stormwater programs (MS4s) comprise 2/3 of urban runoff. MS4s purchase credits to achieve 40% of their load reductions required to meet tributary goal for urban runoff. Data based on Chesapeake Bay Watershed Model Phase 5.2 • Does not include potential demand from new development	• WWTPs: Same as scenario 1 plus new and expanded WWTPs in MD, PA, VA, and WV purchase credits to offset expansion. Data based on WWTP capacity data by river basin, projected population growth, and 100 gallons/day/person • MS4s: Same as scenario 1 but they purchase credits to achieve 70% of their load reductions required to meet tributary goal for urban runoff. Estimates do not include potential demand from new development. Including new development would increase the number of credits purchased.	• WWTPs: Only new and expanding facilities purchase credits (to offset expansion). Facilities with existing allocations choose to upgrade instead • MS4s: Same as scenario 2. Stormwater programs are the main buyers of credits since they have a higher "willingness to pay" and a greater potential for savings. Estimates do not include potential demand from new development. Including new development would increase the number of credits purchased.

** Implementation and O&M costs per practice are from Wieland, Robert, et al. 2009. "Costs and Cost Efficiencies for Some Nutrient Reduction Practices in Maryland". Maryland Department of Natural Resources Coastal Program, and from the U.S. Department of Agriculture.*
Note: All figures reflect delivered nitrogen

Notes

1. California Market Advisory Committee. "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California." Recommendations to the California Air Resources Board, June 30, 2007.

This document contains preliminary results from ongoing research and analysis. It is designed to inform timely discussion, obtain feedback, and influence ongoing deliberations on emerging topics.

For more information, contact: Cy Jones (cy.jones@wri.org).

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. TIM HOLDEN, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA

PREPARED STATEMENT OF JUDITH "JUDE" L. CAPPER, B.S.C., PH.D., ASSISTANT PROFESSOR OF DAIRY SCIENCE, DEPARTMENT OF ANIMAL SCIENCES, WASHINGTON STATE UNIVERSITY, PULLMAN, WA

Before the Subcommittee on Conservation, Credit, Energy, and Research, Committee on Agriculture hearing, entitled,* Hearing To Review the Potential Economic Impacts of Climate Change on the Farm Sector, *dated Wednesday, December 02, 2009

Summary

The purpose of U.S. animal agriculture is to produce high quality meat, milk and eggs for human consumption. The environmental impact of livestock production must therefore be assessed on a whole-system basis and expressed per unit of food produced. Improving productivity (output per unit of resource input) is a key factor in reducing the environmental impact of livestock production. Systems that allow for increased milk yield per cow, improved growth rate per beef steer or greater quantities of food product to be moved using a single vehicle allow for considerable reductions in resource use, greenhouse gas emissions and economic cost per unit of food produced. Management practices and systems that intuitively appear to be environmentally and economically beneficial should therefore be subjected to scientific assessment in order to correctly assess their potential for mitigating the environmental impact of livestock production.

Introduction

All food production systems have an impact upon the environment, regardless of how and where the food is produced. The environmental impacts of agricultural practices are increasingly well-known, not only to food producers but also to policymakers, retailers and consumers. Increased public awareness of these issues underlines the critical need to adopt livestock production systems that reduce the environmental impact of agricultural production. This can be achieved through the use of management practices and technologies that encourage environmental stewardship at the farm-level, as well as improving transportation operations to reduce the eventual environmental and economic cost to the consumer. In the following testimony I will discuss the potential for improved productivity to mitigate the environmental impact of animal agriculture.

Low-Input Production Systems Are, By Definition, Low-Output Production Systems

The dichotomous challenge of producing more food from a dwindling resource base often leads to the suggestion that adopting low-input production systems is the key to sustainable agriculture. However, this defies a fundamental principle of physics, the First Law of Thermodynamics which states that 'energy can neither be created nor destroyed, it can only change form'. Carbon is the key unit of currency of energy use of living organisms. Just as we balance our checkbook every month, energy (carbon) inputs and outputs must be balanced against each other. By definition, a low-input production system is a low-output system. Within livestock production systems, low-output systems are characterized by reduced productivity over a fixed time period. The following examples will discuss the effects of improved productivity manifested as increases in milk yield per day (dairy production), growth rate (beef production) and transportation carrying capacity (egg production).

Environmental Assessment Must Be Assessed Per Unit of Food Produced

The purpose of any livestock production system is to provide sufficient safe, nutritious, affordable meat, milk or eggs to fulfill market demand. In contrast to more uniform manufacturing industries, livestock production occurs within myriad different systems that range from extensive to intensive; small-scale to large-scale and independently owned and managed to contracted production. Environmental impact has previously been assessed per acre, per animal or per facility. Although this may provide an indication of the impact of animal production on a specific geographic region, this fails to consider the true aim of the system—to produce food.

When assessing environmental impact, it is therefore essential to express impact per functional unit of food, *e.g.,* resource use and waste output per lb, kg or gallon of product (Schau and Fet, 2008). Thus, greenhouse gas (GHG) emissions should not be simply assessed as per animal or per facility but based on system productivity using a lifecycle assessment (LCA) approach. Prescribed by the EPA, LCA incorporates all inputs and outputs within food production and allows valid comparisons

to be made between systems. For example, it is intuitively obvious that a 50 cow dairy will have lower annual methane emissions compared to a 500 cow dairy. However, the 500 cow dairy will produce more milk both per facility (as a consequence of the increased number of animals) but also, according to a recent USDA–NAHMS report (USDA, 2007) an extra 1,152 kg milk per cow annually. Greater productivity is associated with both physical and financial economies of scale, but also with a reduction in environmental impact through the 'dilution of maintenance' effect (Bauman *et al.,* 1985).

The 'Dilution of Maintenance' Effect

All animals require a daily amount of maintenance nutrients to maintain weight, bodily functions and health. This 'fixed cost' must be met before production (growth, pregnancy or lactation) can occur and is fulfilled by primary (feed, water) and secondary (cropland, fertilizer, fossil fuels) resource inputs. It is also associated with a proportion of the animal's daily waste and GHG output. To use dairy cows as an example, 'dilution of maintenance' occurs when output (milk yield per cow) is increased, thus diluting the maintenance cost over more units of production and improving efficiency. This effect is not simply confined to lactating cows: the national herd also contains a considerable number of non-productive animals (non-lactating cows, replacement heifers and bulls) that serve to maintain the dairy herd infrastructure and require maintenance nutrients. Improving productivity thus improves efficiency and reduces the total population size required to produce a set amount of milk. Consequently it reduces both resource use and GHG emissions per unit of milk produced.

Improving Productivity (Milk Yield) Reduces the Dairy Industry's Environmental Impact

The effect of improved productivity on the environmental impact of producing a set quantity of milk is perhaps best illustrated by comparing U.S. dairy production in 1944 compared to 2007 (Capper *et al.,* 2009b). The agrarian vision of U.S. dairy farming involves cows grazing on pasture with a gable-roofed red barn in the background—a traditional low-input system. By contrast, the image of modern dairy production propounded by anti-animal agriculture activists is synonymous with "filthy and disease-ridden conditions" and "industrialized warehouse-like facilities that significantly increase GHG emissions per animal" (Koneswaran and Nierenberg, 2008). It is indeed true that modern dairy cows produce more GHG emissions than their historical counterparts. *Figure 1* shows that daily GHG emissions per cow (expressed in CO_2-equivalents, the standard measure for expressing carbon emissions) have increased considerably over the past 65 years. The average dairy cow now produces 27.8 kg of CO_2-equivalents per day compared to 13.5 kg CO_2-equivalents per day in 1944 (Capper *et al.,* 2009b). However, expressing results on a 'per cow' basis fails to consider system productivity. When analyzed using LCA on a whole-system basis, GHG emissions per kg of milk produced have declined from 3.7 kg in 1944 to 1.4 kg in 2007, a 63% reduction. This has been achieved through considerable improvements in productivity conferred by advances in animal nutrition, genetics, welfare and management. Annual milk yield per cow more than quadrupled between 1944 (2,074 kg) and 2007 (9,193 kg), allowing 59% more milk (84.2 billion kg vs. 53.0 billion kg) to be produced using 64% fewer lactating cows (9.2 million *versus* 25.6 million).

The resource use and waste output per unit of milk for 1944 and 2007 production systems are shown in *Figure 2.* The 4.4-fold increase in productivity (milk yield per cow) drove a 79% decrease in total animals (lactating and dry cows, heifers, mature and adolescent bulls) required to produce 1 billion kg of milk. Feed and water use were reduced by 77% and 65% respectively. The total land required for milk production in 2007 was reduced by 90% compared to 1944, due to both improved crop yields and the shift from feeding pasture to nutritionally-balanced diets based on silage, hay and concentrate feeds. Manure output from the modern system was 76% lower than from the 1944 system, contributing to the aforementioned 63% decrease in the carbon footprint per unit of milk. In consequence, the carbon footprint of the entire dairy industry was reduced by 41% by the adoption of technologies and modern management practices that improved productivity between 1944 and 2007.

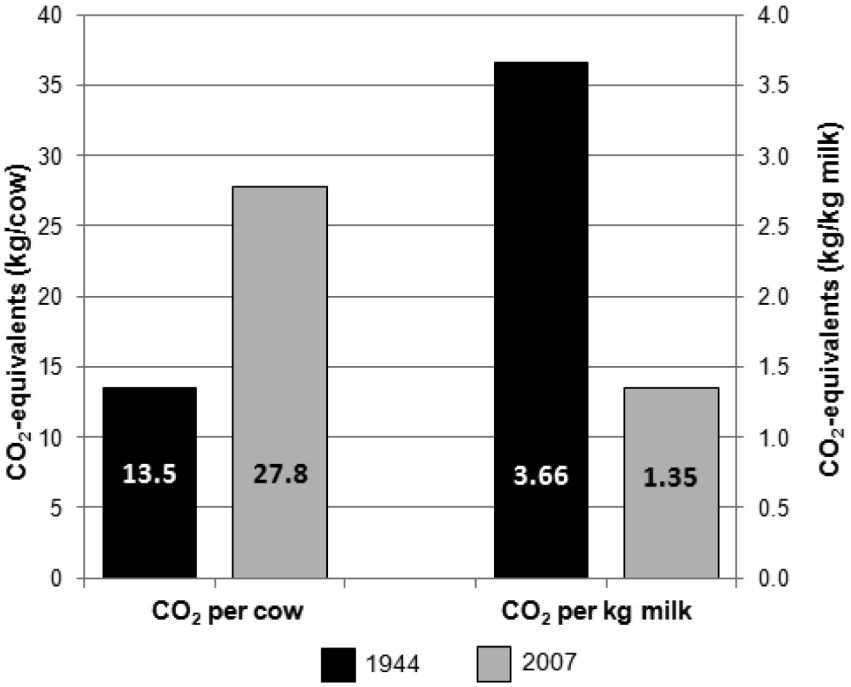


Figure 1. Carbon Footprint per Cow and per Kilogram of Milk for 1944 and 2007 U.S. Dairy Production Systems (Capper *et al.,* 2009).

The U.S. dairy industry has led the major global dairy regions in terms of productivity since 1960 (FAO, 2009). The average U.S. dairy cow produced 9,219 kg milk per year in 2007. By contrast, the average annual yield for the top six milk-producing counties in Europe was 6,362 kg milk per year, while annual production in New Zealand and Canada averaged 3,801 kg milk/cow and 8,188 kg milk/cow respectively (FAO, 2009). On a comparative basis, this meant that for every one dairy animal in the USA in 2007, Canada required 1.1 animals, Europe required 1.4 animals and New Zealand required 2.4 animals to maintain a similar milk supply (*Figure 3,* Capper *et al.,* 2009a). This clearly demonstrates the important of improving productivity in reducing the number of dairy animals required to produce a set amount of milk, therefore reducing total resources and GHG emissions associated with milk production.

Within any milk production system, a relatively minor increase in productivity will have a major environmental mitigation effect. Simply increasing the average U.S. dairy cow's daily milk yield from 29.5 kg to 34 kg would reduce the dairy population required to fulfill the market demand for milk by 12% (Capper *et al.*, 2008). This would reduce the GHG emissions per billion kg of cheese by 1,173,000 metric tonnes—equivalent to taking ~246,900 cars off the road or planting 184 million trees. This improvement in productivity would also equate to a significant improvement in economic sustainability for the producer. Fetrow (1999) discusses a similar improvement in productivity conferred by the use of the technology recombinant bovine somatotropin (rbST) and concludes that a 50% return on investment can be gained. Furthermore, as noted by Alvarez *et al.* (2008), improvements in productivity are intrinsically linked to economic and labor efficiencies.

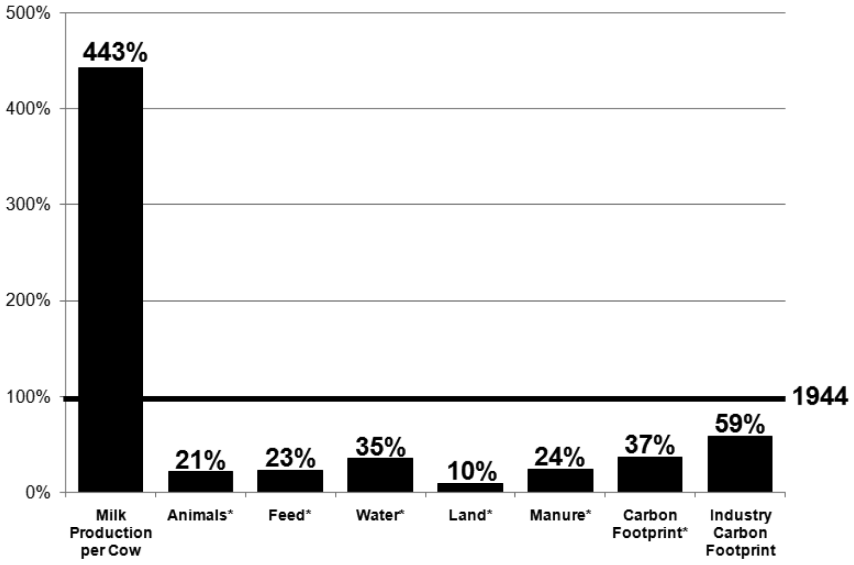


Figure 2. 2007 U.S. Milk Production, Resource Use and Emissions Expressed as a Percentage of the 1944 Production System (Adapted from Capper *et al.,* 2009).

Improving Productivity (Growth Rate) Reduces the Environmental Impact of Beef Production

Mirroring improvements in dairy productivity over time, the average beef-carcass yield per animal has increased over the past 30 years from 266 kg in 1975 compared to 351 kg in 2007 (USDA, 1976; USDA/NASS, 2008). It appears that slaughter weight has reached a plateau beyond which the processor is unwilling to venture. However, improving productivity by increasing growth rate confers considerable potential as a mechanism to reduce the environmental impact of beef production. As previously described, all animals have a basic requirement for daily maintenance nutrients to maintain health and body tissues. As growth rate increases, fewer days are required to grow the animal to slaughter weight, thus saving maintenance nutrients and associated resource inputs.

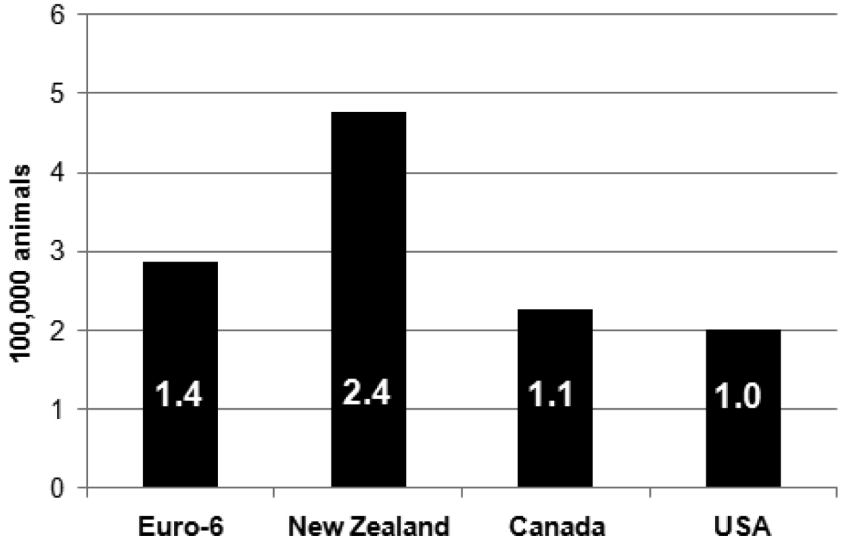


Figure 3. Dairy Animals (Cows, Heifers and Bulls) Required to Produce One Billion kg of Milk in 2007 (Capper *et al.,* 2009a).

According to Capper *et al.* (2009a) finishing beef steers on pasture takes 438 days, compared to 237 days to finish identical animals on corn-based diets. This is due to the lower growth rate conferred by pasture-based diets. In combination with increased daily GHG emissions and energy use by animals fed pasture-based diets, the extra 201 days of maintenance nutrients results in a threefold increase in total energy use and methane emissions to finish the pasture-fed steer. To supply the extra maintenance nutrients required, 13× more land is required to finish a pasture-fed beef steer than a corn-fed steer. These results are in agreement with modeling simulations of beef production systems published by researchers at Iowa State University (Lawrence and Ibarburu, 2007), and with the suggestion by Avery and Avery (2007) that pharmaceutical technologies used to improve growth rate in beef animals have positive environmental and economic effects. Furthermore, Acevedo *et al.* (2006) analyzed the economic implications of differing productivity in conventional (grain-fed), grass-fed and organic beef production systems and concluded that the conventional system, with its high growth rate, was the most economically-beneficial to the producer.

Productivity Plays a Key Role in Reducing the Environmental Impact of Food Transportation

Transportation represents a relatively minor component of the total environmental impact of food animal production with the major component occurring during the on-farm production phase (Berlin, 2002; Steinfeld *et al.*, 2006). Nonetheless, the productivity (in this situation defined as the quantity of food product moved over a specific distance) of the transport system has a major effect upon the total environmental impact attributed to transportation. In response to the current tendency to use 'food miles' as an indicator of environmental impact, three scenarios were developed by Capper *et al.* (2009a) to model the transport of a dozen eggs from the point of production to the consumers' home. The three scenarios were as follows: (1) the local chain grocery store supplied by a production facility with eggs traveling a total distance of 805 mi; (2) a farmer's market supplied by a source much closer than the grocery store's source; (total distance traveled 186 mi) or (3) directly from a local poultry farm (total distance traveled 54 mi). Intuitively it would seem that buying eggs directly from a local poultry farm would be the situation with the lowest environmental impact. However, the grocery store eggs, which traveled the furthest distance, were shown to have lowest fuel consumption per dozen eggs (0.56 liters), buying eggs from the local farm had the highest fuel use (9.12 liters per

dozen eggs) and the farmer's market eggs were intermediate between the other two scenarios. The high energy efficiency of the grocery store system can be attributed to its reliance on tractor-trailers that have a capacity of 23,400 dozen eggs—a huge increase in productivity compared to the other two scenarios. Again, it is clear that productivity has a significant impact, not simply upon resource use and consequent environmental impact; but, given the current financial situation, on the economic sustainability of the food transport system.

Conclusion

The global population is predicted to increase to 9.5 billion people in the year 2050 (U.S. Census Bureau, 2008). Total food requirements will increase by 100% (Tilman *et al.*, 2002) as a function of both the 50% increase in population and the additional global demand for animal protein as people in developing countries become more affluent (Keyzer *et al.*, 2005). The resources available for agricultural production are likely to decrease concurrently with population growth due to competition for land and water and depletion of fossil fuel reserves. To continue to produce sufficient milk, meat and eggs for future domestic and export markets in an environmentally and economically sustainable manner it is essential to examine the entire food production system and to make judgments based on productivity, expressed per unit of food. There can be no doubt that improving productivity, whether as part of on-farm production or further down the transportation chain has a considerable effect upon total environmental and economic impact.

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Potential Economic Impacts of Climate Change to the Farm Sector

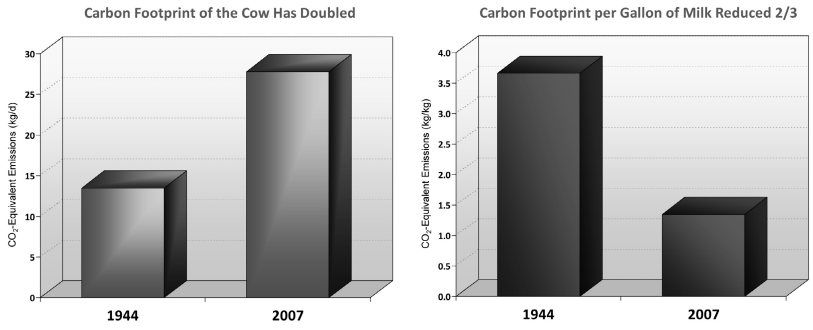
Dr Jude Capper

Testimony to Members of the Subcommittee on Conservation, Credit, Energy and Research

Room 1300, Longworth House Office Building, Washington DC

December 2nd 2009

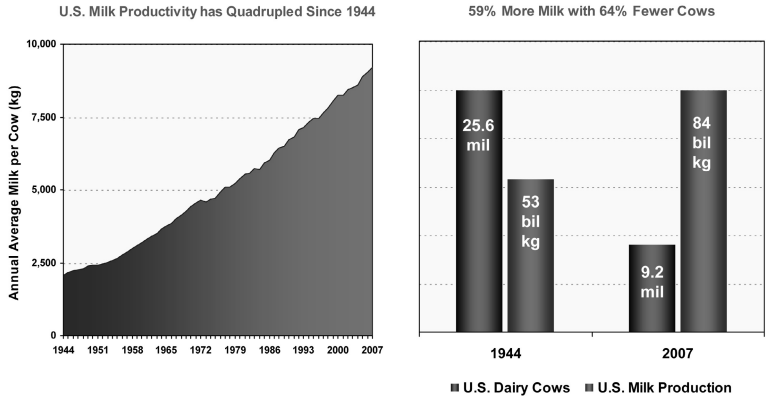
An Individual Cow's Carbon Footprint is Not Indicative of the Dairy Industry's Footprint



Net Result: U.S. Dairy Farm Industry has Reduced its Total Carbon Footprint by 41% Since 1944

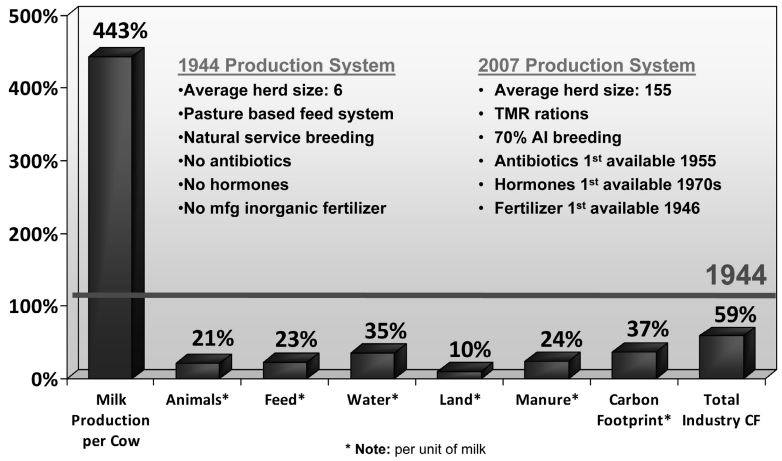
Source: Capper et al. (2009) "The environmental impact of dairy production: 1944 compared with 2007" *J. Anim. Sci.*

Improved Productivity is Key to Reducing Environmental Impact



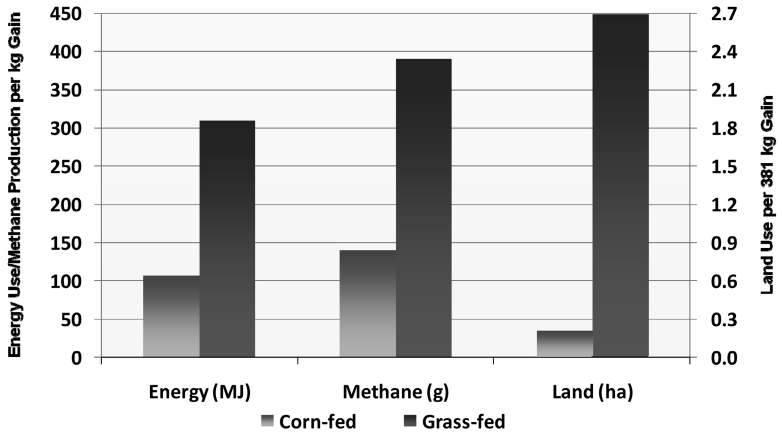
Source: USDA-NASS (2009) http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/ Last accessed, 8/14/09

Environmental Impact of U.S. Milk Production Considerably Reduced Since 1944



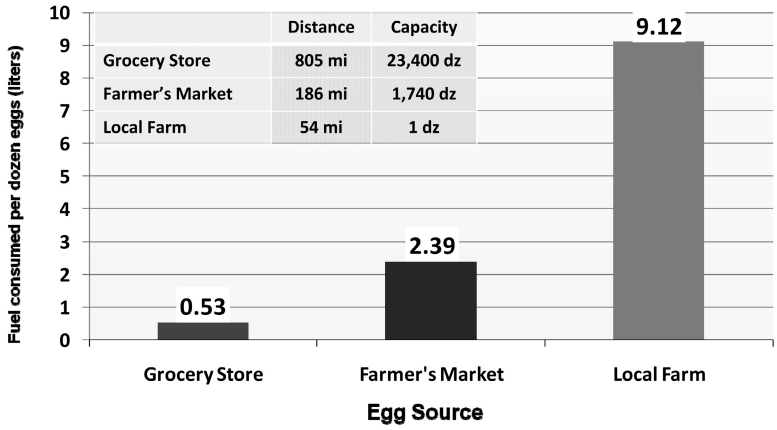
Source: Capper et al. (2009) "The environmental impact of dairy production: 1944 compared with 2007" *J. Anim. Sci.*

Corn-Finished Beef Production Reduces Resource Use and Waste Output per Kg Gain



Source: Capper et al. (2009) "Demystifying the environmental sustainability of food production" *Cornell Nutrition Conference*

Fuel Consumed per Dozen Eggs to Move Eggs from Source to Home



Source: Capper et al. (2009) "Demystifying the environmental sustainability of food production" *Cornell Nutrition Conference*

SUBMITTED LETTER BY HON. BOB GOODLATTE; ON BEHALF OF MARYLAND GRAIN PRODUCERS ASSOCIATION, *ET AL.*

December 7, 2009

Hon. TIM HOLDEN,
Chairman,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. BOB GOODLATTE,
Ranking Minority Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.

Dear Chairman Holden and Ranking Member Goodlatte,

We write today in regards to H.R. 3852 and as part of the December 9, 2009 Subcommittee on Conservation, Credit, Energy, and Research hearing, *"To review the regulatory and legislative strategies in the Chesapeake Bay Watershed."* We thank you for your leadership in convening this hearing. We also thank you in advance for carefully considering the broad implications of this legislation for production agriculture and the important role our industry plays in water quality.

This legislation subjugates state and local actions to the approval of Federal authority through the Environmental Protection Agency (EPA). Our producers and members are concerned about the requirements established by this legislation with' little or no consideration to economic impact or future growth. By codifying the May 2009 Executive Order, H.R. 3852 would establish broad and undefined new authorities for the U.S. Environmental Protection Agency (EPA) and other Federal agencies. Many of the reports required by the Executive Order are still being drafted and not yet publicly released. Language in this bill significantly expands EPA authority to include withholding state funds, withholding current and new permits, superseding state and local programs and other measures. We believe codifying the Executive Order cedes the legislative process to the Executive Branch and establishes questionable authority, particularly since the Administration's proposals are still being developed.

This proposed legislation also codifies already court-ordered Total Maximum Daily Loads (TMDLs) while shortening the process for TMDL completion. The TMDL process, which includes 92 TMDL's throughout the watershed, is the most complicated TMDL process ever undertaken by EPA and is only given 8 months to complete according to H.R. 3852. In addition, the current nutrient trading or offset program would be rendered worthless. Because of the strenuous baseline cap established by EPA through the TMDLs, less than 10% of the agricultural acres in the watershed would be eligible to participate in offsets. Additionally, certain agriculture sectors will mostly likely need to buy offsets to update or expand their operations. Without adequate time and science to effectively evaluate the TMDL process, H.R. 3852 will impose burdensome regulations and penalties before procedures and practices for efficiently achieving desired water quality goals are defined.

Along with the Executive Order, the Chesapeake Bay Program announced 2 year milestones with which to track TMDL progress through 2025—the estimated duration of full Chesapeake Bay restoration. Currently, milestones have only been drafted through December 31, 2011 which leaves approximately 14 years of unknown regulations that would be codified by H.R. 3852. In addition, this legislation carries strong penalties such as a 90 day period to correct any missed 2 year milestones. In the case of production agriculture, this penalty leaves no room for weather problems or delayed harvest which is a common challenge. This lack of flexibility demonstrates the absence of economic impact evaluation for the agricultural sector.

In addition, this language also exposes family farmers to potential citizen action lawsuits both through the permit process and by establishing mandatory regulations. In respect to water quality, agriculture is the Chesapeake Bay Watershed's most effective and efficient land use; however, farmers would bear such significant economic hardship from S. 1816 that many farms would be sold into less desirable, detrimental land uses. We believe this type of approach will not achieve desired water quality benefits because it seeks to penalize production agriculture—the very industry that stands to provide the most benefit to the Bay. Agriculture is the watershed's top economic industry and the only nonpoint sector that has consistently made progress toward water quality goals over the past decade.

While efforts to improve the Chesapeake Bay are critically important, achieving water quality must be a cooperative partnership instead of cumbersome regulations. With extremely diverse agriculture inside the Bay Watershed, no "one size fits all" approach will work. Flexibility and voluntary measures are key to successful water quality programs.

While many changes could be made to improve this legislation, we believe sufficient scientific information is not in place to support its passage. It has been acknowledged and proven that the Chesapeake Bay Model operates from incomplete information, and production agriculture has produced numerous examples of currently implemented farm conservation practices that have not been counted or included in the Chesapeake Bay Model's current process. Without complete information or current science, this current proposal is unwise for Bay health and economic growth.

There are some positive aspects included in H.R. 3852 such as data protection and technical assistance. However, these measures are pale in comparison to the unintended consequences and broad implications of this bill. We ask the Subcommittee on Conservation, Credit, Energy, and Research to support reauthorization of the Chesapeake Bay Program without substantive changes in order devote adequate time and science to develop creative ways for economic recovery and growth to coexist with water quality goals and initiatives. We welcome any opportunity to continue working with the Subcommittee to achieve improved water quality in the Chesapeake Bay and thriving farming operations throughout the region.

Once again, thank you for your leadership on this issue on behalf of production agriculture. We look forward to continuing our work with you.

Sincerely,

Maryland Grain Producers Association;
Missouri Corn Growers Association;
National Association of Wheat Growers;
National Corn Growers Association;
New York Corn Growers Association;
Virginia Grain Producers Association

SUBMITTED LETTER BY HON. BOB GOODLATTE; ON BEHALF OF AGRI-MARK, INC., *ET AL.*

December 9, 2009

Hon. TIM HOLDEN,
Chairman,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. BOB GOODLATTE,
Ranking Minority Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.

Dear Chairman Holden and Ranking Member Goodlatte,

We write today in regards to H.R. 3852 and the efforts to expand and reauthorize the Chesapeake Bay Program. We ask that these comments be entered into the Congressional record as part of the December 9, 2009 hearing to review legislative and regulatory strategies in the Chesapeake Bay Watershed before the House Agriculture Committee, Subcommittee on Conservation, Credit, Energy, and Research.

Across the Chesapeake Bay Watershed and nation, our agricultural producers and organization members are very concerned about the implications of H.R. 3852 and believe it does not soundly or efficiently achieve the goal of improved water quality in the Chesapeake Bay. In effect, the legislation places a cap on the watershed's economic growth—impacting jobs, development, and food production. This bill will impose severe economic hardship to our industry and further increase pressure to the Chesapeake Bay's most effective and efficient land use, production agriculture, to move out of the watershed.

Through codifying executive and regulatory authorities, H.R. 3852 will hamper innovative solutions in areas such as nutrient trading, economic growth, farm adaptive management and overall water quality restoration. Without adequate time and science to effectively work through processes such as the drafting of the Chesapeake Bay Total Maximum Daily Load (TMDL), H.R. 3852 will impose burdensome regula-

tions and penalties before defining procedures and practices that are proven to efficiently achieve desired water quality goals. This accelerated course of action is expensive and damaging to the watershed's economy, viability of our agriculture sector, and overall water quality objectives.

The agriculture sector in the Chesapeake Bay Watershed has a strong history of being a responsible and proactive environmental steward, both through compliance with existing regulations and through implementation of voluntary conservation practices. However, a significant amount of conservation practices implemented by agricultural producers have not been given accurate credit in decision making models. H.R. 3852 will create a system of burdensome regulations without understanding the full impact of water quality improvements from implementing additional requirements on agriculture. Reauthorization of the Bay Program should enhance the current Chesapeake Bay Model to ensure it is based on comprehensive and accurate data.

We ask the Subcommittee on Conservation, Credit, Energy, and Research to support reauthorization of the existing Chesapeake Bay Program without dramatically expanding Federal authorities. We believe adequate time should be given to develop creative ways for economic recovery and growth to partner with water quality goals, as well as to refine the science and modeling in the watershed. We are committed to developing strategies to protect *all* resources within the Chesapeake Bay Watershed, including family farmers and other agribusinesses. Our organizations look forward to continuing discussions with you regarding this critical issue and thank you for the opportunity to comment.

Sincerely,

Agri-Mark, Inc.;
American Farm Bureau Federation;
Association of Virginia Potato & Vegetable Growers;
Central Virginia Nursery & Landscape Association;
Cooperative Milk Producers Association;
Dairy Farmers of America, Northeast Council;
Dairylea Cooperative Inc.;
Delaware Maryland Agribusiness Association;
Delmarva Poultry Industry, Inc.;
Environmental Resources Coalition;
Maryland Association of Soil Conservation Districts;
Maryland Cattlemen's Association;
Maryland Farm Bureau;
Maryland Grain Producers Association;
Maryland Pork Producers Association;
Maryland & Virginia Milk Producers Cooperative Association, Inc.;
Missouri Corn Growers Association;
National Association of Wheat Growers;
National Cattlemen's Beef Association;
National Chicken Council;
National Corn Growers Association;
National Council of Farmer Cooperatives;
National Milk Producers Federation;
National Pork Producers Council;
National Turkey Federation;
New York Corn Growers Association;
Oklahoma Wheat Growers Association;
PennAg Industries Association;
Pennsylvania Cattlemen's Association;
Pennsylvania Center for Beef Excellence;
Pennsylvania Farm Bureau;
Pennsylvania Pork Producers Association;
Pennsylvania State Grange;
South East Dairy Farmers Association;
Southwest Virginia Agricultural Association;
St. Albans Cooperative Creamery;
The Fertilizer Institute;
United Egg Producers;
United States Poultry and Egg Association;
Upstate-Niagara Cooperative;
Virginia Agribusiness Council;
Virginia Cattlemen's Association;
Virginia Christmas Tree Growers Association;

Virginia Cotton Growers Association;
Virginia Crop Production Association;
Virginia Farm Bureau Federation;
Virginia Forage & Grasslands Council;
Virginia Forest Products Association;
Virginia Golf Course Superintendents Association;
Virginia Grain Producers Association;
Virginia Green Industry Council;
Virginia Horse Council;
Virginia Nursery & Landscape Association;
Virginia Peanut Growers Association;
Virginia Pork Industry Association;
Virginia Poultry Federation;
Virginia Sheep Producers Association;
Virginia Soybean Association;
Virginia State Dairymen's Association;
Virginia State Horticultural Society;
Virginia Turfgrass Council;
Virginia Wineries Association;
West Virginia Poultry Association.

SUBMITTED LETTER BY HON. BOB GOODLATTE; ON BEHALF OF DONNA PUGH JOHNSON, PRESIDENT, VIRGINIA AGRIBUSINESS COUNCIL

December 9, 2009

Hon. TIM HOLDEN,
Chairman,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. BOB GOODLATTE,
Ranking Minority Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.

Dear Chairman Holden and Ranking Member Goodlatte,

On behalf of the members of the Virginia Agribusiness Council, we respectfully submit the following comments in regards to H.R. 3852 and the efforts to expand and reauthorize the Chesapeake Bay Program. We ask that these comments be entered into the Congressional record as part of the December 9, 2009 hearing to review legislative and regulatory strategies in the Chesapeake Bay Watershed before the House Agriculture Committee, Subcommittee on Conservation, Credit, Energy, and Research. The Virginia Agribusiness Council represents farmers, foresters, processors, manufacturers, and suppliers of agricultural and forestal products, as well as approximately 40 commodity associations.

Over the past month, our members have reviewed the provisions of H.R. 3852 and remain extremely concerned about the implications of the legislation. While our industry is committed to taking steps to improve water quality across the Commonwealth including the Chesapeake Bay, we are concerned that this legislation does not soundly or efficiently achieve goals for improving water quality. Agribusinesses across the Bay Watershed have implemented best management practices, complied with permit requirements, and made innovative and environmentally friendly changes in their production systems over the past 2 decades. According to the Chesapeake Bay Program, as of 2008 approximately 50% of the goals for nitrogen, phosphorus, and sediment reductions from agriculture have been achieved. This progress will continue in the future with innovations in agricultural production, increased participation in best-management programs, and farmer education.

The provisions of this legislation are most troubling to us and threaten Virginia's number one industry of agriculture and forestry—a $79 billion economic engine. In effect, the legislation places a cap on the watershed's economic growth, impacting jobs, development, and food production. This bill will impose severe economic hardship to our industry and further increase pressure for the Chesapeake Bay's most effective and efficient land use, production agriculture, to move out of the watershed. Inclusion into law of the specific caps for Total Maximum Daily Loads (TMDLs) for the Bay is premature, as is the accelerated timetable for TMDL devel-

opment set forth in the legislation. Court-ordered TMDL development must be in place by May 2011, however this legislation sets a deadline of December 2010. On November 4, 2009, EPA communicated to each Bay state and Washington, D.C. expectations in setting TMDL implementation plans. This process has just barely gotten underway. Codification of deadlines, severe limits, and expanded EPA authority at this point is premature and troubling. Agribusinesses in Virginia will be participating in the development of the TMDL. However, we are unsure of the specific requirements for implementation and, most importantly, the true implications to agriculture and forestry at this time.

By setting a hard cap on the amount of nutrients and sediments in the Bay through codifying the TMDL we believe any economic activity will also be effectively capped under this legislation. Young farmers or those who would like to expand their existing businesses will be forced to do so at significant costs for purchasing offsets, if they are able to do so at all. We are unsure as to the fate of already permitted "point source" discharges from agriculture. Will animal and livestock operations be required to comply with costly permit requirements or retire out of business? Will they be authorized to expand their business capacity beyond their current animal numbers without purchasing the right to do so from another agricultural producer? Most importantly, what will be the fate of a viable, sustainable, and growing farm economy in the Bay region under these cap limits?

Our members are supportive of offset or trading programs as market-based solutions to environmental issues. However, in light of the heavily regulated environment that agriculture could be operating under, the ability to generate offsets from our industry is questionable at best. In Virginia, compliance with the TMDL may mean as much as 92% implementation of practices, leaving a mere 8% for offset generation to go beyond TMDL requirements. Under these circumstances, retirement or loss of agricultural land will be the only available offset for use by any expanded or new economic development. The loss of this land in profitable agricultural production leads to loss of food production in the Bay Watershed. If instead, few offsets are available for purchase, it leads to loss of economic growth within the watershed. In either scenario, the outcome is concerning at best.

Technical assistance and cost-share funds to help agriculture implement the best management practices that will be required for Chesapeake Bay clean-up remain a priority for our membership. We appreciate the provisions in the legislation that set aside Federal funds for these purposes, and continue to support efforts at the state and Federal levels to increase cost-share and technical assistance for best management practices. However, there is no assurance that cost-share funding through the farm bill, new funds authorized in this legislation for technical assistance, or state cost-share funding will continue to exist. As more regulatory measures are placed upon agriculture over the next 10 to 15 years, we cannot guarantee to producers that cost-share funding will be appropriated to offset the costs of compliance.

The legislation establishes an elevated level of Clean Water Act regulation on agriculture in the Bay Watershed greater than is in place in any other area in the nation. This unprecedented expansion of EPA authority to take *any* action deemed necessary to meet Bay goals will result in severe economic hardship for Bay-region producers, who must compete not only with their counterparts across the country but also worldwide. Expanding EPA's authority over *any* pollution that affects water quality effectively eliminates existing Clean Water Act provisions, such as agricultural stormwater exemptions placed into Federal law due to the specific nature of agricultural production.

Current data utilized to make decisions on Chesapeake Bay loading limits, regulations, and permits must be based on accurate, scientific data. The basis for many of these decisions rests with the Chesapeake Bay Model, however, this model does not currently contain accurate data as to all best management practices implemented by farmers. For example, the Model does not account for agricultural best management practices voluntarily (without cost-share assistance) implemented by farmers or for those who continue to utilize a practice after the "life-span" of the cost-share agreement has ended. While the legislation speaks to an accounting system for practices that have been implemented, this must be the first action to be undertaken.

Our members are committed to water quality, not only in the Bay, but in their local streams and rivers. In light of our commitment to these goals, we ask you to support reauthorization of the existing Chesapeake Bay Program without dramatically expanding Federal authorities. Adequate time should be given to develop creative ways to economically achieve water quality goals, expand economic development, and refine the science and modeling in the Bay Watershed. Thank you for

this opportunity to comment and we look forward to continuing discussions with you regarding this critical issue.

Sincerely,

DONNA PUGH JOHNSON,
President.

SUBMITTED LETTER BY HON. BOB GOODLATTE; ON BEHALF OF STEWART SCHWARTZ, COALITION FOR SMARTER GROWTH, *ET AL.*

December 8, 2009

Hon. BOB GOODLATTE,
U.S. House of Representatives,
Washington, D.C.

RE: The Chesapeake Clean Water and Ecosystem Restoration Act (S. 1816/H.R. 3852)

Dear Representative Goodlatte:

Many family farms throughout the Commonwealth have made significant progress on their land to address their impact on local streams and rivers. Farmers have spent a great deal of time and money, sometimes with Federal or state assistance, to be good stewards. A wide variety of conservation practices have been implemented and tailored to particular needs and problems—farm by farm, and there is still much work to be done.

The Chesapeake Clean Water and Ecosystem Restoration Act, legislation recently introduced by Senator Ben Cardin and Congressman Elijah Cummings of Maryland, establishes for the first time a firm deadline for implementing Bay restoration activities. Notably there are significant benefits to Virginia farmers.

Importantly, the legislation provides the funding and the guidance to reach the 2025 goal. The bill significantly expands the amount of Federal support available for restoration activities throughout the region, specifically targeting grants and technical assistance for both farmers and local governments.

In addition to efforts by farmers, local governments and homeowners have made commendable progress toward cleaning up. Many local governments have installed state-of-the-art technology at their sewage treatment facilities, and these costs are borne by citizens. And many homeowners throughout the Commonwealth have implemented low impact development practices on their properties to reduce stormwater pollution that devastates local streams. The bill makes a strong effort to enable, encourage, and enforce expanded efforts to improve water quality from all sectors including Federal facilities, new development and existing pollution sources.

All of these efforts on behalf of clean water in the Chesapeake region should be applauded and rewarded. Passage of the bill goes a step further by making good sound practices commonplace on the land and in our communities.

Through the Chesapeake Clean Water and Ecosystem Restoration Act, we have a real opportunity to clean up degraded waters and protect healthy waters throughout the Commonwealth of Virginia and ultimately save the Chesapeake Bay.

Sincerely,

Stewart Schwartz, Coalition for Smarter Growth;
J.R. Tolbert, Environment Virginia;
Don Sims, Float Fisherman of Virginia;
Jane Pratt, Friends of the Blue Ridge;
Bill Tanger, Friends of the Rivers of Virginia;
Karen Forget, Lynnhaven River NOW;
Sheila Sheppard, Partnership for Smarter Growth;
Chris Miller, Piedmont Environmental Council;
Chris Lyons, Restore America's Estuaries;
Kate Wofford, Shenandoah Valley Network;
Nathan Lott, Virginia Conservation Network;
Lisa Guthrie, Virginia League of Conservation Voters;
David Hannah, Wild Virginia.

SUBMITTED LETTER BY HON. GLENN THOMPSON; ON BEHALF OF CARL SHAFFER, PRESIDENT, PENNSYLVANIA FARM BUREAU

SENT VIA E–MAIL

October 12, 2009

Hon. GLENN THOMPSON,
U.S. House of Representatives,
Washington, D.C.

Dear Representative Thompson:

The Pennsylvania Farm Bureau (PFB), the Commonwealth's largest farm organization with more than 46,000 farm and rural member families, has major concerns with proposed legislation regarding the Chesapeake Bay. As the nations' first environmentalists, farmers have committed to do our part in the improvement of the nation's largest estuary. However, agricultural producers—who make our living off the land—have much at stake in the intricate details of the national strategy and plan regarding the Chesapeake Bay.

Senator Cardin, of Maryland, has developed a legislative proposal that will reauthorize the Chesapeake Bay Restoration Program and significantly expand Federal authority with nationwide impacts. It appears that Representative Cummings, of Maryland, will introduce a similar House version. Both bills, in their current form, codify the provisions of President Obama's Chesapeake Bay Executive Order, sets an enforceable deadline for Bay restoration, sets deadlines for Bay Total Maximum Daily Load development and implementation and establishes citizen right of action. **We are asking you to reauthorize the Chesapeake Bay Program without codifying the Presidential Executive Order, setting deadlines for TMDL development and implementation, and establishment of citizen right of action.**

We believe that reauthorization of section 117 of the Clean Water Act is important to the continued progress toward the restoration of the Chesapeake Bay; however, **we oppose expansion of Federal authority by codification of: President Obama's Chesapeake Bay Executive Order, deadlines for Chesapeake Bay Total Maximum Daily Load development and implementation, and authorization of citizen suits.**

As you know, on May 12, 2009, President Barrack Obama signed an Executive Order that recognizes the Chesapeake Bay as a national treasure and calls for the Federal Government to lead renewed effort to restore and protect the Bay and its watershed. The Order calls for a multi agency report to be prepared with a draft deadline of September 2009, a draft for public comment released in November 2009, and a final report with recommendations and strategies completed by May 12, 2010. The report, in its current form, places a significant share of the responsibility for Bay pollution on agriculture; over 50%. It calls for increased and expanded regulation of agriculture, increased prioritization and targeting of conservation incentives, and improved credit for voluntary measure implemented by farmers. **The Executive Order should not be codified because it will not become final until 2010; and it is a precedent setting document with questionable authority. We also believe it blurs the line of separation of power between the Legislative and Executive Branch.**

Proposed bill language also codifies deadlines for development and implementation of a Total Maximum Daily Load for the Bay itself and its tributaries. It establishes the maximum load or "cap" of nutrients and sediments that can be discharged to the Bay from any source and sets enforceable or otherwise binding load allocations for all nonpoint sources, including atmospheric deposition and other sources for which a permit is not required. No growth will be allowed "from construction of new development, increased impervious surfaces, transportation systems and septic systems" that causes loadings beyond the cap. This will significantly limit new or beginning agricultural operations and place similar limits on expansion. It also effectively expands the Bay regulatory programs throughout the watershed without the Pennsylvania General Assembly action. In Pennsylvania, this watershed includes 50% of the land mass. **While the TMDL development is court ordered, it should not be codified because it is under development with unknown outcomes and bypasses the authority of the Pennsylvania General Assembly. To date, a TMDL of this magnitude has never attempted. Local governments throughout the watershed will be saddled with implanting these plans with diminishing budgets.**

The proposed bill also codifies the "Chesapeake Bay Milestones" or 2 year goal or initiatives to achieve Bay restoration in 2 year increments. Virginia's Governor

Kaine, with the other Governors from Chesapeake Bay states, has committed to impose these milestones. The immediate list of measures include continued and expanded cost share funding, phytase additives in feed, mandatory nutrient management plans, mandatory fencing of streams, and a number of other measures. **The Milestones, as established through the Executive Order and Memorandum of Agreement between the Bay states and EPA, should not be codified because they are state specific and unknown beyond the current 2 year cycle.**

Establishment of "citizen right of action" is also included in the proposed legislation. Whether intended to keep EPA engaged in the restoration of the Bay or to hold up permits, both general and individual permits, this is a tool that will bring economic growth to a halt. This will allow a legal tool to be used by any group against farmers and other permitted projects from getting renewed or established. Each farmer will have to fight the regulatory system as well as the legal system if they are required to get a permit for their operations. **Citizen right of action or citizen suits cannot be codified because they will generate unnecessary legal actions that are simply intended to stop a project or prolong the issuance of permits.**

We believe that reauthorization of the program is in the long term best interest of the Chesapeake Bay but codification of these initiatives or concepts will have disastrous effects on agriculture and our economy. If you have any questions regarding PFB's position, please contact Sam Kieffer, National Governmental Relations Director, at [Redacted].

Sincerely,

CARL SHAFFER,
President.

SUBMITTED LETTER BY HON. GERALD E. CONNOLLY, A REPRESENTATIVE IN CONGRESS FROM VIRGINIA; ON BEHALF OF MALCOLM F. BALDWIN, CO-OWNER, WEATHER LEA FARM

December 7, 2009

Hon. COLLIN C. PETERSON,
Chairman,
Committee on Agriculture,
Washington, D.C.;

Hon. FRANK D. LUCAS,
Ranking Minority Member,
Committee on Agriculture,
Washington, D.C.;

Hon. TIM HOLDEN,
Chairman,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. BOB GOODLATTE,
Ranking Minority Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Dear Chairman Peterson, Ranking Member Lucas, Chairman Holden, and Ranking Member Goodlatte,

I am writing in support of H.R. 3852, the Chesapeake Bay Ecosystem Restoration Act. My wife and I own and manage a small farm just a half mile above the Potomac River in Lovettsville, Virginia, where we raise wool sheep and have a vineyard for wine grapes we sell to a nearby winery. We have been heavily investing in our land, now in a conservation easement, as an agricultural operation, and we have no interest in a future greenfield development site. Contribution to the protection of the Potomac River and the Chesapeake Bay resource is one of the benefits we believe that suburban and rural and owners have an obligation to provide, because restoration of the Bay and its watershed will enhance the economic and heritage value of this entire region.

This bipartisan legislation has been well-crafted to reduce pollution entering the Chesapeake Bay with fair-minded provisions that recognize the extent to which farmers can reduce nutrient pollutants. We all know that the Chesapeake Bay is in very poor health, which has become steadily worse over the decades since I first came to Northern Virginia. The crabs, fishing and oysters that I and others once enjoyed, and that allowed employment by thousands, have now become memories. Unless we act resolutely and quickly, our children and grandchildren will only know to regret the economic and cultural values that we squandered and lost.

Taking the steps that this bill provides will have immense importance not simply for the Bay but for all the streams and rivers entering the Bay in its vast watershed. Suburban development have caused significant runoff and pollution problems that, to a significant degree, threaten to counteract progress that this bill recognizes farmers have made to protect the Chesapeake Watershed.

Successful protection of the Chesapeake Bay requires firm and consistent regulatory measures throughout the watershed that are based on clearly established quantitative limits. Farmers need certainty around which to plan their operations and suburban developers need certainty to establish their new enterprises. The outstanding feature of the Chesapeake Bay Ecosystem Restoration Act is that it would, at long last, reduce pollution in the watershed by creating a Total Maximum Daily Load (TMDL) for watersheds within the Bay. Moreover, it will empower states to reduce pollution within those watersheds and require new greenfield development to prevent increased pollution loading. As I farmer I applaud this greenfield provision as an essential requirement to reduce pollution entering the Bay and to make certain that developers, who have the capacity to plan and invest ahead based on clear targets, contribute fairly to the Bay's restoration.

The development here in Loudoun County that has caused our population to multiply 14 fold since 1960 has irrevocably destroyed thousands of acres of our best agricultural soils, including those exceptionally fertile lands lying in my area that is known as Loudoun Valley. Denuded forests and paved roads with no stream buffers now cause storm water runoff and floods unknown in our history, with Goose Creek being among the most notorious example. Ground water pollution and irrevocably altered hydrologic structures have harmed suburban and rural dwellers alike. All this suburban and commercial development directly and immeasurably contributes to rapid degradation of the Chesapeake, but its adverse impacts could have been, and can still be, economically avoided so as not cause such havoc. Protection of viable agriculture in the Mid-Atlantic requires that this notorious development problem be addressed effectively and reasonably.

I believe that the standards set by the Chesapeake Bay Ecosystem Restoration Act will provide the necessary balance between constraints on pollution from new development and reduction of pollution from agriculture. Farmers regularly face difficult and often unpredictable economic pressures that this bill and its enforcement framework recognize. We also understand that we have our obligations to pursue long-term measures that will help return the Bay and its watershed to good health.

I appreciate your work in behalf of the Chesapeake Bay and the agricultural community.

Sincerely,

MALCOLM F. BALDWIN.

SUBMITTED LETTER BY HON. GERALD E. CONNOLLY, A REPRESENTATIVE IN CONGRESS FROM VIRGINIA; ON BEHALF OF DAVID BLAKE, BUCKLAND FARM

Dear Chairman Peterson and Committee Members,

I am a Virginia farmer from a family who has been farming in this country for fifteen generations. We also had farms in the state of Maryland during my youth, so I have spent much of my life hunting, sailing and acquainting myself intimately with the Chesapeake Bay much of my forty odd years.

This bay was important to me even when in college during the 1980's and I testified as a farmer before the Maryland Legislature concerning the Chesapeake Bay Act. Several of us in my college communicated directly with consultants at Rutger's University who had conducted much study and had recommendations included within this first legislation designed to improve/protect conditions in the Bay. Rutgers told us then that there would be much more required to improve the health of the Bay and that the Chesapeake Bay Act which ultimately passed would not bring success.

Those words have surely come true as I have watched many vast areas I knew well transformed by suburban development and tributaries we hunted/fished have

died as poultry/agri-businesses changed farming practices. These changes brought with them devastation to the small farmer, the once thriving seafood industry, water-men and the small towns we all supported have nearly disappeared.

Although there have been some successes with the Chesapeake Bay Act, including improved technology for the treatment of sewerage, much conservation and protection of natural resources, it is damned clear that we must do more now. I find it offensive to read that organized farm groups have written H.R. 3852 "has the potential to put some farmers out of business." Surely you must recognize which farmers people who are writing such are representing and I can only imagine what the big developers will be writing to you as this bill moves forward.

The fact is that twenty five years of laxed enforcement of pollution standards associated with the practices of a few have nearly destroyed one of the largest estuaries in the world however, citizens are now better informed about these matters. There are documentary films like "Food Incorporated" which show how agri-business is operating today (please see this is you haven't) and it is encouraging that people are finally beginning to understand the consequences of non-impervious surfaces associated with urban sprawl the people at Rutgers warned us about 25 years ago.

H.R. 3852 is the first effort I've seen that takes a balanced approach to what has now become a shameful circumstance for this nation and we all have some responsibility in this. Please do not let people misinform you about the position of farmers on these issues. Every farmer I know is very much in support of this bill and would ask that you all please do the same. We must not let another generation, as has my own, watch the environmental health of this remarkable asset continue to decline. I hope and pray that future generations will say that it was you who finally stood up to do what is right.

Truly,

DAVID BLAKE,
Buckland Farm,
Warrenton, Virginia.

SUBMITTED LETTER BY W. MICHAEL PHIPPS, PRESIDENT, MARYLAND FARM BUREAU, INC.

December 9, 2009

Hon. TIM HOLDEN,
Chairman,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. BOB GOODLATTE,
Ranking Minority Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Re: *Regulatory & Legislative Strategies in the Chesapeake Bay Watershed*

Dear Chairman Holden and Ranking Member Goodlatte:

On behalf of 33,000 Farm Bureau families across the State of Maryland, I would like to thank you for considering the accomplishments and the concerns of the farm community during discussions of the Chesapeake Bay restoration effort. Please add our written comments to the official record for today's hearing. As you may know, Maryland farmers have been longstanding partners in the effort to protect the Bay. In fact, our farmers lead the nation in the use of conservation best management practices and have committed more personal funds to this effort than any sector in the watershed.

Over the last several weeks we have had the opportunity to review H.R. 3852, The Chesapeake Clean Water and Ecosystem Restoration Act. It is with sincere concern that I inform you that the bill as drafted threatens the very existence of family farms in Maryland.

H.R. 3852 sets an unlevel playing field for farms in the Chesapeake Bay region by establishing a higher level of EPA Clean Water Act regulation than is required of farmers in the rest of the country. Maryland farmers are competing against producers in other states and around the world, with minimal opportunity to add additional costs into the price we are paid for our products. The bill gives EPA unprece-

dented authority to take any and all action the agency deems necessary to reach Bay restoration goals. This includes requiring all livestock operations, regardless of size, and possibly any producer that fertilizes a field to operate under a Clean Water Act permit. This will be cost prohibitive for small and medium size farm operations, particularly since the bill authorizes citizen suits against all permittees.

The bill also puts into law specific caps for the Total Maximum Daily Load for the Chesapeake Bay and gives EPA ultimate authority to implement the program. EPA may promulgate any regulation and issue any permit necessary, notwithstanding any other provision of the Clean Water Act—effectively repealing the stormwater exemption for farms in the watershed. Unfortunately, Maryland farmers still have very little information on the TMDL, what it means at the farm level and how they are expected to measure the nonpoint sources attributed to their farms. If the Tributary Strategy program is any indication, Maryland farms could be required to install every conservation practice available on every acre of farmland, regardless of the economic or agronomic value. We believe the bill is premature in this area and should not mandate a program and establish onerous penalties before we have a chance to consider the actual farm implications.

We applaud the general goal of the bill to engage all nutrient contributors in all six watershed states—particularly those in the urban and suburban areas that are sliding backwards in the effort to reduce nitrogen, phosphorus and sediment pollution. However, we oppose penalty provisions that allow EPA to force only permitted businesses to make further reductions in the event that the rest of society misses the mark every 2 years.

As we read it, EPA would have authority to order all permitted entities to reduce discharges—meaning livestock and poultry operations could be told to reduce herd sizes. Through the permit, EPA could dictate farming practices such as fertilization, harvest and cover crop planting dates. The agency would also have the authority to deny permits—meaning new or young farmers may be denied the opportunity to farm in Maryland.

We appreciate the provisions in the bill to set aside Federal funds for technical support in NRCS and Soil Conservation District offices to help farmers develop conservation plans and install BMPs. We also support the $500 million in BMP funding in the bill. We continue to believe that the best way to protect the Chesapeake Bay from a farm perspective is to encourage farmers to use the BMPs that fit their specific operations and economic circumstances. Technical assistance by planners in local offices and cost share funding for farmers are critical to implementing BMPs.

Unfortunately, there can be no assurance that new funding authorized in the bill will be appropriated annually, even though the expensive mandates will continue to exist. It appears that a good portion of the new funding authorized is targeted to local governments. While we agree that stormwater management and waste water treatment upgrades are necessary and will require Federal assistance, we are concerned that if Congress fails to make the annual appropriation, farmers will bear the brunt of nutrient reduction when local governments cannot afford the investment.

Finally, the bill mandates an offset program that proponents believe will facilitate the purchase of BMPs on farms in exchange for development activities in other areas of the state. Under the bill, any development or redevelopment activity in the watershed must restore the land to the pre-development hydrology. This applies to the building of schools, hospitals and roads as well as homes and businesses. If the restoration cannot be accomplished on site, an offset must be purchased and a nutrient reducing BMP must be installed elsewhere in the state. Proponents believe that the offsets will be supplied by farmers.

The problem with this concept is that there will be no offsets available on Maryland farms. The bill mandates that offsets may only be sold after a farm reaches its individual nutrient reduction obligation. Under the TMDL program mandated in the bill, the expectation is that every farm will have to install every BMP available on every acre just to reach the goal. Experts in this area agree that there will be no offsets left to sell on farms. Unfortunately, most farms will not be able to install the plethora of costly BMPs needed to meet the TMDL without financial assistance. We believe the offset provision will leave local governments and developers with no other option than to purchase whole farms and take them out of production in order to achieve the offset. The alternative is all economic development in the watershed must end.

We know that efforts to improve the condition of the Chesapeake Bay must be a priority as the watershed states move towards the 2025 goals. This will be a substantial challenge in light of exploding population expectations in the region. We know that all citizens in Maryland treasure the Chesapeake Bay. We also know that Marylanders want family farms to remain economically viable in order to provide

fresh, locally produced farm products. Unfortunately, H.R. 3852 takes the decision making authority on critical lifestyle issues away from state and local governments and the citizens they represent and gives the Federal Environmental Protection Agency ultimate control over our communities.

For the sake of our family farmers and the hope for a future generation of producers in Maryland, we request that you not pass H.R. 3852 in its current form.

Sincerely,

W. MICHAEL PHIPPS,
President.

SUBMITTED STATEMENT BY DELMARVA POULTRY INDUSTRY, INC.

December 8, 2009

Hon. TIM HOLDEN,
Chairman,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. BOB GOODLATTE,
Ranking Minority Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. FRANK KRATOVIL, JR.,
Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

H.R. 3852, Chesapeake Clean Water and Ecosystem Restoration Act of 2009, December 8, 2009

Gentlemen:

We are writing to you regarding H.R. 3852 and ask that these comments be entered into the Congressional Record as part of the December 9, 2009 hearing before the House Agriculture Committee's Subcommittee on Conservation, Credit, Energy, and Research.

Delmarva Poultry Industry, Inc, (DPI) is the 61 year old, 2,000 member nonprofit trade association working for the broiler chicken industry on the Delmarva Peninsula that includes the State of Delaware, the Eastern Shore of Maryland, and the Eastern Shore of Virginia, This region produces about seven percent of the meat-chickens grown in the United States, The chicken industry is one of the largest employers in the region, with more than 14,000 direct poultry company jobs, nearly 1,800 farm families growing chickens for the four chicken companies, thousands of local farmers supplying corn and soybeans to feed the chickens, and tens of thousands of other people who are employed because chicken industry dollars are flowing through the economy.

In the last 10 years, most of our organization's work has been related to on-the-farm environmental issues. Thanks to state nutrient management laws enacted in 1998 and 1999, our farm families growing chickens have led the nation in environmental stewardship and have had tougher regulations than other chicken growers and other farmers in the Chesapeake Bay Watershed and throughout the republic. Environmental protection has become an expected part of growing chickens on Delmarva.

Thanks in part to Federal Government financial support, our members have made tremendous strides in minimizing their contributions to water quality impairments. We are convinced that if other segments of society had been as aggressive in environmental protection, we would not face the Bay Watershed water quality problems that we do. The Federal farm bill has provided hundreds of millions of dollars to assist farmers through technical support and financial aid. The work by the U.S. Department of Agriculture's Natural Resources Conservation Service is invaluable and must continue.

Our position on the Chesapeake Bay reauthorization legislation is clear. DPI supports the reauthorization of the program, Section 117 of the Clean Water Act. It should be extended as the Gulf States program has been extended, without imposing new laws and regulations that negatively will affect agriculture in the watershed. The broad expansion of Federal authority for the Chesapeake Bay region sets a dangerous precedent for similar actions in other watersheds nationwide. We believe adequate time should be given to develop more creative ways for agriculture to partner with water quality goals, as well as to refine the science and modeling in the watershed.

H.R. 3852 sets an unlevel playing field for farms in the Chesapeake Bay region by establishing a higher level of EPA Clean Water Act regulation than is required of farmers in the rest of the country. Watershed farmers are competing against producers in other states and around the world, with minimal opportunity to add higher operating costs into the prices they are paid for their products.

The bill gives EPA unprecedented authority to take **any and all action** the agency deems necessary to reach Bay restoration goals. This includes the possibility of requiring all livestock operations, regardless of size, and possibly any producer that fertilizes a field, to operate under a Clean Water Act permit. This will be cost prohibitive for small and medium size farm operations, particularly since the bill authorizes citizen suits against all permit holders.

President Obama's Executive Order (EO 13508) and the subsequent Executive Order Section 202 reports focus on a centralized, Federal oversight approach to Bay restoration activities that emphasize regulatory mandates rather than cooperative approaches. Before Congress codifies the Federal oversight and enforcement of the Bay restoration, the voluntary approach in the agricultural arena should continue and be accelerated. EPA data show that agriculture is making progress in achieving Chesapeake Bay water quality goals. Other segments of society are getting worse. If agriculture's record of achievement was as dismal as urban and suburban pollution sources, then stricter requirements might be in order. But we've proven that the voluntary approach is working and it should be continued with Federal Government assistance.

Many of the concepts and regulations included in this bill are codification of proposals in EO 13508. This Executive Order is not yet promulgated into regulation, but now without the opportunity to see if the regulation has value or testing its impact, it would be set in stone as law. Such action is premature.

As for specific areas of concern, first, H.R. 3852 will create an uneven playing field for the chicken industry on the Delmarva Peninsula and throughout the watershed by establishing a higher level of EPA Clean Water Act regulation than is required for farmers throughout the rest of the country. Today, Delmarva is one of the least cost effective locations for the agricultural community and, in particular, for the poultry industry. This reauthorization would put our operations and our growers at a significant competitive disadvantage and would threaten the very existence of the local chicken industry.

Second, the bill puts into law specific caps for the Total Maximum Daily Load (TMDL) for the Chesapeake Bay, sets deadlines to achieve these TMDLs and gives EPA ultimate authority to implement the program. Unfortunately, the agricultural community still has very little information on the TMDL, what it means at the farm level and how farmers are expected to measure the nonpoint sources attributed to their farms. The Natural Resources Conservation Service is still gathering information to determine what agricultural BMPs are included in the Bay Model, the basis for the TMDL program. We know that many voluntary, non-cost shared practices are not included in the Bay Model, and therefore, the baseline on which the initial TMDLs have been developed is not an accurate representation of agriculture's positive environmental impact on the Bay. This baseline effort needs to be completed, and the outcomes better understood, before the TMDL program is mandated through codification by this legislation.

Through codifying executive and regulatory authorities, H.R. 3852 will hamper innovative solutions in areas such as nutrient trading, farm adaptive management, and overall water quality restoration. Without adequate time and science to effectively work through processes such as the drafting of the TMDL, the bill will impose burdensome regulations and penalties before procedures and practices that are proven to efficiently achieve desired water quality goals are identified. This accelerated course of action is expensive and damaging to the watershed's economy, viability of our agriculture sector, and overall water quality objectives.

The bill also puts into law specific caps for the Total Maximum Daily Load for the Chesapeake Bay and gives EPA **ultimate authority** to implement the program. EPA may promulgate **any** regulation and issue **any** permit necessary, notwithstanding any other provision of the Clean Water Act—effectively repealing the

stormwater exemption for farms in the watershed. If the Tributary Strategy program is any indication, Maryland farms could be required to install every conservation practice available on every acre of farmland, regardless of the economic or agronomic value. We believe the bill is premature in this area and should not mandate a program and establish onerous penalties before our members have a chance to consider the actual farm implications.

By codifying specific pollutant caps in law, the bill may be freezing both science and policy. Codifying the pollutant caps could preclude EPA and the states from using their evolving understanding of the Bay and improved modeling to achieve water quality goals. Under current law, water quality standards can be made less stringent if meeting those standards "would result in substantial and widespread economic and social impact." 40 CFR 131.10(g)(6). It appears that, by codifying specific load allocations, H.R. 3852 would eliminate the ability of states to later make changes to the loads based on changed water quality standards that may be needed to account for substantial and widespread economic and social impacts. Codifying the load allocations is contrary to the principles of adaptive management, a tool that allows flexibility in reaching desired goals.

Third, citizen rights of action or citizen suits must not be codified as they will generate unnecessary legal actions that are intended to stop a project or prolong the issuance of permits. This will provide a legal tool to be used by any group against farmers and other permitted projects from getting established, and will become a huge financial burden to farm families targeted by special interest groups.

Fourth, while we appreciate the provisions in the bill to set aside Federal funds for technical support in NRCS and Soil Conservation District offices to help farmers develop conservation plans and install BMPs, this authorization of legislation does not ensure that such funding will be made available through an appropriation. Thus farmers are left with "the stick" of enforcement and merely the promise of a "carrot" without a guarantee of the funds. We are concerned that if Congress fails to make the annual appropriation, farmers will bear the brunt of nutrient reduction when local governments cannot afford the investment.

Fifth, the bill requires state implementation plans to include enforceable or otherwise binding measures to reduce pollution loads to meet the desired targets. Although programs to achieve voluntary reductions through funding commitments may be included in the implementation plan, H.R. 3852 makes it clear that states must have enforcement mechanisms to employ if an entity does not achieve its assigned pollutant reductions. The bill provides Federal authority for binding measures and enforcement mechanisms in new section 117(i)(2) **that authorizes states to issue permits under Section 402 of the Clean Water Act to any pollution source the state determines to be necessary to achieve the nitrogen, phosphorus, and sediment reductions in the implementation plan.** These permits are authorized for any source of pollution, whether or not that source currently is excluded from regulation under current law. The permits are then fully enforceable by EPA and by citizen lawsuits.

This provision greatly expands the scope of Federal water pollution control law. Under current law, the Clean Water Act controls point sources of pollutants. "Point sources" are defined in Section 502 of the CWA as any discernible, confined and discrete conveyance, such as pipes, ditches, channels, *etc.* Diffuse runoff of water is not a point source. The CWA specifically excludes agricultural stormwater discharges and return flows from irrigated agriculture from the definition of point sources, so they are not regulated under Federal law. Agricultural stormwater runoff could be subject to permits and all the liabilities and lawsuits associated with permits under H.R. 3852.

Pollutants are defined in Section 502 of the CWA as specific, measurable materials that are discharged into water, such as solid waste, sewage, chemicals, biological materials, radioactive materials, heat, and industrial, municipal, and agricultural waste. In contrast, "pollution" is defined as the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water. Pollution includes increased water flows and habitat alternation. Under H.R. 3852, **any** activity that causes increased flow or habitat alteration, no matter how distant from a body of water, could be required to obtain a permit.

Finally, the bill mandates an offset program that proponents believe will facilitate the purchase of BMPs on farms in exchange for development activities in other areas of the watershed. Under the bill, any development or redevelopment activity in the watershed must restore the land to the pre-development hydrology. If the restoration cannot be accomplished on site, an offset must be purchased and a nutrient reducing BMP must be installed elsewhere. Proponents believe that the offsets will be supplied by farmers.

The problem with this concept is that there will be no offsets available on many watershed farms. The bill mandates that offsets may only be sold after a farm reaches its individual nutrient reduction obligation. Under the TMDL program mandated in the bill, the expectation is that every farm will have to install every BMP available on every acre just to reach the goal. Experts in this area agree that there will be no offsets left to sell on farms. Unfortunately, most farms will not be able to install the plethora of costly BMPs needed to meet the TMDL without financial assistance. We believe the offset provision will leave local governments and developers with no other option than to purchase whole farms and take them out of production to achieve the offset. Farm sales may be good for the farmers selling the land, but further development of farmland is contrary to the goal of water quality improvement. According to Chesapeake Bay Program data cited by a Chesapeake Bay Foundation report (***A Guide to Preserving Agricultural Lands in the Chesapeake Bay Region: Keeping Stewards on the Land***), "urban/suburban development delivers the greatest amount of nitrogen and phosphorus pollution to local waterways and the Bay per acre: 30 lb/acre/year of nitrogen, compared with 17 lb/acre/year for agriculture . . ."

Summary

We know that efforts to improve the condition of the Chesapeake Bay must be a priority as the watershed states move towards the 2025 goals. This will be a substantial challenge in light of exploding population expectations in the region. Population growth in the Bay Watershed has skyrocketed. In 2000, the total population stood at roughly 15.7 million. Today's population is approximately 16.8 million and it may reach 20 million by 2030. Unfortunately, H.R. 3852 takes the decision-making authority on critical lifestyle issues away from state and local governments and the citizens they represent and gives the Federal Environmental Protection Agency ultimate control over our communities.

So we have exploding population growth with more and more impervious surfaces and a shrinking base of less-impacting farmland. This is not the time to burden farmers with more regulations. It would be counterproductive toward restoration of the Bay.

Yet this is exactly what appears to be coming out of Washington. The President's Executive Order and related reports point to centralized, Federal oversight of Bay restoration activities and greater emphasis on regulatory mandates than the voluntary, cooperative approaches of the past. Some say the voluntary approaches have not worked. However, one would not know by just looking at the Bay Model because it does not account for significant numbers of farm BMPs. Only practices implemented with cost-share or by government regulations are factored in the model, yet we know that farmers have implemented numerous BMPs outside of any government program. Thus, a big priority in reauthorization of the Bay Program should be to ensure that the Bay Model is based on comprehensive data and valid assumptions. Before any more mandates are created, the best possible data must be used in the modeling and assignment of Bay restoration responsibilities.

The bill would codify the President's Executive Order with its command and control approach; establish punitive consequences for states that fail to meet benchmarks, no matter how economically crippling; and open private enterprises, including farms, to citizen suits. We are opposed to this. We must not forego science and economic analysis in the rush to implement a new Bay restoration program.

EPA would have authority to order all permitted entities to reduce discharges—meaning poultry farms could be told to reduce flock sizes. EPA could dictate farming practices such as fertilization, harvest, and cover crop planting dates. EPA would have the authority to deny permits—meaning new or young farmers may be denied the opportunity to farm.

We support reauthorization of Section 117 of the Clean Water Act and recognize it as a logical step to continue the progress toward restoring the Chesapeake Bay and improving water quality. However, we strongly oppose bills that expand Federal authority by codification of President Obama's Chesapeake Bay Executive Order, deadlines for Chesapeake Bay Total Maximum Daily Load development and implementation, and the authorization of citizen suits. Each of these initiatives calls for increased and expanded regulation of agriculture.

As Oklahoma Senator James Inhofe said during a recent public hearing, "A top-down, heavy handed Federal approach will not lead to the kind of real-world changes that are necessary to ensure the health of the Bay." H.R. 3852 features exactly that top-down, heavy handed Federal approach.

We support a reauthorization of the current Chesapeake Bay program. However, we cannot support a massive Federal expansion of EPA's authority that poses serious consequences for agriculture and local governments.

SUBMITTED LETTER BY THE NATURE CONSERVANCY

December 18, 2009

Hon. TIM HOLDEN,
Chairman,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Hon. BOB GOODLATTE,
Ranking Minority Member,
Subcommittee on Conservation, Credit, Energy, and Research,
Committee on Agriculture,
Washington, D.C.;

Dear Congressmen Holden and Goodlatte:

We are writing to thank you for holding the December 9 hearing to review the regulatory and legislative strategies in the Chesapeake Bay Watershed. While many details of these strategies still need to be refined, The Nature Conservancy submits that this enhanced focus on the Chesapeake Bay, coupled with increased investments and new accountability measures, is essential. We also appreciate that this enhanced focus and the associated new requirements create both uncertainty and concern among a number of key stakeholders, most notably the agricultural sector. As such, The Nature Conservancy is committed to trying to advance many of these new strategies to restore the Chesapeake Bay, while at the same time seeking common ground with those interests that approach this issue from different perspectives.

The Chesapeake Bay is a national treasure, providing us with outstanding ecological, economic, recreational, and cultural resources. For too long, however, pollution from a variety of sources has harmed the Bay and diminished the value of those resources. Despite years of public and private efforts to clean up the Bay, and despite progress in reducing nutrient pollution from agriculture and wastewater, the Bay's pollution problem persists. It is clear that current efforts are not enough. Many of the new approaches your Subcommittee examined would take the difficult but necessary steps of requiring the additional pollution reductions essential for a healthy and sustainable Bay.

The Nature Conservancy believes that enforceable standards necessitate that the states have sufficient implementation flexibility to meet those standards, and we support these complementary measures, including those proposed in the Chesapeake Clean Water and Ecosystem Restoration Act of 2009 (S. 1816 and H.R. 3852). We also support the creation of a mechanism that allows the trading of nutrient credits and enables farmers and others to benefit from their successes in reducing harmful emissions to the Bay.

We strongly support the proposed new authorizations for new implementation funding in this legislation and commend this Committee for the additional funding that it created in the most recent farm bill. The Nature Conservancy partners with the agricultural community on a number of fronts throughout the Bay Watershed and we recognize that farmers understand the role they need to play in a healthy Bay. Clearly, even more funding, along with outreach to ensure that it is put to the best use, is needed. Accordingly, The Nature Conservancy calls on Congress and the Obama Administration to provide the needed technical assistance and financial support to implement the changes and new practices at the local level at the scale that will be required for Bay-wide success.

These are just a few elements of the various regulatory and legislative strategies that ultimately ask all sectors to take the actions necessary to restore the Chesapeake Bay. We recognize that this new focus on the Chesapeake Bay is ambitious, but believe an ambitious and innovative approach is called for it we are to restore the Bay so that it delivers a wide range of ecological and economic benefits. We are eager to continue working with you, others in Congress, the Administration, farmers, developers, and other key stakeholders to refine these efforts they move forward.

Sincerely,

NAT WILLIAMS,
Maryland/DC State Director;

BILL ULFELDER,
New York State Director,

MICHAEL LIPFORD,
Virginia State Director;

ROGER JONES,
Delaware State Director;

BILL KUNZE,
Pennsylvania State Director;

RODNEY BARTGIS,
West Virginia State Director.

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