



**Testimony to the House Committee on Agriculture
Subcommittee on Conservation and Forestry**

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Chairman Thompson, Ranking Member Grisham and distinguished members of the Subcommittee on Conservation and Forestry, thank you for the opportunity to provide testimony today on our Pennsylvania-centric approach to restore local water quality in Pennsylvania, and by virtue of that, the Chesapeake Bay.

I will provide a general overview on the current state of the Chesapeake Bay in Pennsylvania, highlight state and federal partnerships and investments in conservation, outline the commonwealth's strategy to enhance Pennsylvania's Chesapeake Bay restoration, and share a few key thoughts related to local water quality efforts.

Water Quality Trends in the Chesapeake Bay

For background on how we got here, as a result of the federal consent decree in 2010, the United States Environmental Protection Agency (EPA) established a Total Maximum Daily Load (TMDL) for the Bay. Implementation of this TMDL requires us to develop plans to meet specific target reductions in nitrogen, phosphorus and sediment loads in phases. Pennsylvania's Phase 2 Watershed Implementation Plan has interim targets for these reductions to be achieved in 2017. We are not on schedule to meet its goals for 2017. The commonwealth continues to face immense challenges to improve water quality.

Pennsylvania's agricultural sector is facing an enormous test, as it constitutes 55% of the nitrogen loads to the bay. It must reduce its nitrogen loads to Chesapeake Bay by more than 40 percent (or more than 25,000,000 million pounds) by 2025.

Regardless of the 2017 and 2025 federal deadlines, we have an obligation in Pennsylvania to the Clean Streams Law – established well before the EPA established deadlines for Pennsylvania under the Total Maximum Daily Load.

It's about local water quality – no matter where you are located in our commonwealth. It's about doing the right thing. As a state, we realize there is more work to do; however, it is important to recognize the progress Pennsylvania has realized up to this point.

Over the past 30 years, Pennsylvania has invested more than \$4 billion, mainly in wastewater system upgrades, through various loan and grant programs, toward Chesapeake Bay restoration efforts. The results show that phosphorous has decreased by 25 percent; nitrogen by 6 percent, and sediment by nearly 15 percent. The majority of these reductions have come from increased treatment of the discharges of nutrients from wastewater treatment plants.

With 33,600 of Pennsylvania's active farms located in the Chesapeake Bay watershed, achieving our water quality improvement goals will be no easy task, and any solution – state or federal – must balance the commonwealth's interests in a vibrant agricultural sector, local water quality, and limited state and federal resources. Agriculture is ready to be part of the solution. Many people are concerned about the health of our local waters – none more so than farmers, who rely on our land and water to grow so much food.

What remains clear to us is that Pennsylvania has been, and continues to make strides toward protecting and improving local water quality. We are pleased to hear recent reports from the Chesapeake Bay Program that estimated nitrogen, phosphorous, and sediment going into the Bay has all dropped over the last six years – by eight, twenty, and seven percent, respectively. The University of Maryland's Center for Environmental Science recently gave the Bay its third highest health score in three decades, noting progress in several areas. And monitoring from the U.S. Geological Survey indicates that the per-acre nutrient and sediment loads are declining at a majority of the monitoring stations across the five Chesapeake Bay states.

This good news is a reflection of progress in a variety of sectors, including agriculture. The practices farmers use and the strategies and plans they have put in place are truly making a difference, but more work needs to be done. It's very important to note that federal agency investments in conservation have, and will continue to play, a large role in the progress we have made. Of critical importance is the Farm Bill Conservation Title funding administered by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).

State and Federal Partnerships and Investments

USDA programs have been the primary source of federal assistance to agricultural producers working to improve water quality in the Chesapeake Bay. USDA NRCS targets their investments in high-priority watersheds where nutrient and sediment pollution is highest. According to NRCS, since 2009, they have been able to partner with state, non-profit and private-sector partners to install conservation systems on more than 1 million acres in the basin. This equates to more than \$267.2 million invested in Pennsylvania since 2009. This investment includes hundreds of nutrient management plans and the implementation of a variety of practices, such as structural practices, tillage management and cover crops. There is no doubt that without the strong support of NRCS through Farm Bill Conservation Title program funding for on-farm conservation practices, we would not be where we are today. The numbers tell that story.

Pennsylvania farmers actively seek USDA assistance, with more than \$100 million in applications coming to the NRCS annually. Unfortunately, both federal and state resources are limited, even with significant federal investment in conservation programs. In Fiscal Year 2016, applications from Pennsylvania's farmers to the USDA Environmental Quality Incentives Program outpaced available funds by more than 5:1 (\$100 million in requested funds vs. \$20 million in available funds). 65 percent or \$52 million of the unmet need comes from the Chesapeake Bay portion of the commonwealth.

Given this unmet need statewide, leveraging innovative private sector partnerships are more important than ever.

An example of the power of partnerships unfolded recently as the Pennsylvania Department of Agriculture (Department) was awarded more than \$632,000 under the National Fish and Wildlife Foundation's Innovative Nutrient and Sediment Reduction grant to support farmers' local water quality improvement work in southern Lancaster County. The Department partnered with 16 other organizations from the public, private, and non-profit sector to leverage an additional \$909,000 in matching funds, meaning that more than \$1.5 million will be directed to improving the health of Pennsylvania's rivers and streams. The unique aspect of this project is the connection it will demonstrate between conservation, herd health, and farm profitability. The project will give farmers in the targeted watersheds a suite of tools, or adaptive toolbox to be able to do the things that not only achieves a baseline level of compliance, but that are also best for their operation.

Commonwealth Strategy to Improve Water Quality

While Pennsylvania has made strides toward improving local water quality, it needed to change its approach for the Chesapeake Bay. Working with a number of external partners and stakeholders, in January 2016, Governor Wolf unveiled a comprehensive, Pennsylvania-centric strategy aimed at improving local water quality in this commonwealth – and with that, the Chesapeake Bay. The strategy represents a reasonable, incremental and balanced approach to improving local water quality by reducing nitrogen and sediment loads in Pennsylvania waterways that will ultimately restore the water quality of the Chesapeake Bay. The strategy relies on a mix of technical and financial assistance, technology, improved data gathering and recordkeeping, improved program coordination and capacity and, when needed, compliance and enforcement measures.

The strategy also recognizes two key, co-equal goals for success: clean water and viable farms. Our farmers have long recognized the important link between healthy soils, sustainable farming practices, and the water quality of our waterways. When we have healthy, viable farms, we have healthy, viable watersheds. You can't have one without the other.

There are six elements to the plan:

1. Addressing pollutant reduction deficiencies by meeting the EPA goals of inspecting 10 percent of farms in the Bay watershed annually, with increased inspection and compliance efforts using existing Pennsylvania Department of Environmental Protection (DEP) and conservation district staff.
2. Quantifying previously undocumented best management practices (BMPs), and putting new high-impact, low-cost BMP projects on the ground in watersheds that are currently impaired by agriculture or stormwater.
3. Improving reporting, record-keeping and data systems to provide better and more accessible documentation of progress made toward Pennsylvania's restoration effort.
4. Identifying legislative, programmatic or regulatory changes that will give Pennsylvania the additional tools and resources necessary to meet water quality goals.
5. Establishing a new Chesapeake Bay Office within DEP to coordinate development, implementation and funding of Pennsylvania's Chesapeake Bay efforts.
6. Obtain additional resources for water quality improvement by seeking new sources of funding.

I would like to highlight two areas in particular: the role of conservation districts in the inspection and compliance efforts (and lessons learned), and our efforts to quantify undocumented best management practices.

The Role of Conservation Districts

In order to help get the commonwealth back on track to meet the mandated reduction goals, 10 percent of Pennsylvania farms in the Bay watershed will be inspected annually to ensure they

have written plans for manure or nutrient management and erosion control. These mandated reduction goals, paired with our collective challenge of both state and federal diminishing resources, especially on the human capital side, has made the task of 10 percent farm inspections difficult, and has required us to think broadly about conservation service delivery. It has forced a conversation about agricultural compliance and about how to best deliver and implement plans.

Our preferred approach to the challenge of ensuring base-level compliance on 10 percent of farms in the Bay watershed is to use our county conservation districts. Conservation districts are trusted, local partners with well-established relationships with farmers across Pennsylvania. With approximately 33,600 farms in the Bay watershed alone, we needed to think broadly and follow an approach that we feel is in accordance with the historical practice of conservation districts. Historically, conservation district staff has had a role in compliance inspections under Pennsylvania's Chapter 83 Nutrient Management and Chapter 102 Erosion & Sedimentation regulatory programs for decades. In particular, the Nutrient Management program's annual compliance inspection of farms by a conservation district staff person, with follow up enforcement action (if necessary) by the State Conservation Commission, is a model for this strategy.

Conservation districts in 29 Pennsylvania counties in the Bay watershed have applied successfully to conduct farm inspections aimed at reducing agricultural runoff into local streams and rivers and ultimately, the Bay. As a result, these districts will continue to receive funding to support bay technician staff from DEP. Nine conservation districts failed to meet the application deadline or have declined to participate. The remaining three counties in the Bay watershed have such a small portion of the watershed they have not received funding for a Bay technician in the past. Farms in the Bay watershed in these counties will be covered by DEP or EPA personnel.

The participating conservation districts will be inspecting 50 farms per full-time person funded in each county. The goal is to start these inspections by the beginning of October. DEP regional staff has already started inspections in some of the counties that have chosen not to participate. The initial compliance inspection focus will be on ensuring that farmers have Manure

Management Plans and Erosion and Sedimentation Plans – requirements that have been in law for over three decades.

Lessons Learned

We would like to reiterate our commitment to working with the conservation districts to accomplish Pennsylvania’s comprehensive strategies to clean up the Bay. The 66 districts across the commonwealth are a critical first line of engagement with our farming community. We acknowledge the positive contribution that districts have made and recognize the challenges that they, like many in public service, face in carrying out their charge.

Since January 2016, a number of lessons have been learned as it relates to conservation work and the strategy put forth by the commonwealth. We made a number of assumptions on the front side that the roles and responsibilities of conservation-related work are well-defined. Each conservation district is unique, has its own set capacity and capability, and has differing thoughts on the role that district staff plays in conservation. This has caused us to think hard about the level of capacity for conservation work and how to structure the roles and responsibilities. It has caused us to step into the compliance conversation and ask questions about how to best deliver and implement conservation plans. And where conservation districts choose to not conduct compliance visits, we’ve had to think about which entity is best positioned to step into the compliance role – whether it be the private sector, DEP, EPA, or the Pennsylvania State Conservation Commission. There is no perfect solution.

A second lesson learned was how to manage and protect confidential data. One intricacy that proves the connectedness between the commonwealth and NRCS is the fact that farmers may use their NRCS Conservation Plan in order to satisfy Pennsylvania erosion and sedimentation regulatory requirements. In doing so, however, it leads to more questions about privacy and maintaining confidentiality.

Over the past few months, discussions have ensued on Section 1619 of the 2008 Farm Bill and other federal protections of the content of agricultural plans. Section 1619 provides that USDA,

or any “contractor or cooperator” of USDA, are prohibited from unilaterally or voluntarily providing or disclosing information provided by farmers or landowners participating in a NRCS program to a third party.¹ In the current situation, conservation districts in Pennsylvania are considered “cooperators” and DEP is considered a “third party.” NRCS-funded plans represent many plans that are currently in use in Pennsylvania. The federal prohibition does not extend to DEP, as DEP is not a cooperator as that term is defined by relevant federal law.

The concern that has been expressed on behalf of NRCS and the conservation districts is that they do not want to violate the federal prohibitions in conducting work for DEP under the Chesapeake Bay Standard Operating Procedure manual (the manual outlines the role of conservation districts in the commonwealth’s Chesapeake Bay strategy). The dilemma appears to come from the fact that conservation districts are in partnership with both NRCS for certain purposes, and with state agencies for certain purposes. As an example, conservation districts have been delegated authority from DEP for the implementation of Erosion and Sediment Control regulations, which includes agriculture compliance. It is the overlap of those partnerships at the conservation district level, and the duties and obligations that come with both of those relationships that seems to create the dilemma for conservation districts as well as for state and federal agencies.

If conservation districts are to continue to operate in this dual role and under these two different sets of parameters, we need to find a way to meet state needs, federal needs, and conservation district needs, and do so in a way that recognizes and protects each of these interests. As always, this will be a balancing act and compromise will be necessary.

As a temporary solution to this dilemma, DEP is in the process of designing their own release form for conservation district and DEP regional staff to use in the collection of information during the inspections. This form complements the NRCS form. If a producer (at least in this first year) needs to sign both a state and federal form to help ensure that they have properly acknowledged the release of their USDA information and also acknowledge the purpose and intent of what they are releasing that information to DEP for, then that compromise seems to

¹ 7 U.S.C. § 8791.

remove the road block. This compromise also provides us with time to work through these legal and policy issues in hopes of a satisfactory long-term solution.

Quantifying Undocumented Best Management Practices

Our plans to locate, quantify and verify previously undocumented BMPs represent a new and unprecedented partnership with the agriculture industry and the academic community. We want Pennsylvania farmers to obtain maximum credit – both publicly and in the Bay model - for the good work they are doing. Therefore, a survey was developed by The Pennsylvania State University and funded by DEP in late 2015 in collaboration with many partners, including the Department, DEP, Pennsylvania Farm Bureau, PennAg Industries, Professional Dairy Managers of Pennsylvania, Pennsylvania Farmers Union, the Pennsylvania Association for Sustainable Agriculture, the Pennsylvania State Conservation Commission, and the Pennsylvania Association of Conservation Districts.

The purpose of the survey was to inventory conservation practices implemented by farmers across the Chesapeake Bay watershed. We know that Pennsylvania farmers have done much to improve water quality and soil health, yet many of the practices that farmers have implemented are not accounted for in tracking progress toward priority water quality goals. This is especially true where farmers have implemented practices on their own initiative, using their own means to do so. The survey inventoried these practices by providing a mechanism to capture and report voluntary conservation practices.

The survey was launched online in January 2016, and was subsequently mailed to approximately 20,000 farmers. Approximately 6,780 completed surveys were returned, a response rate of 35%. The Penn State Survey Research Center received all surveys, and processed all data. Ten percent of survey returns were randomly selected for on-farm follow-up visits in order to analyze the accuracy of the data and develop a statistical analysis of the surveys returned.

Penn State Extension staff conducted the farm visits in August, and all visits have now been completed. The research team is now in the process of entering and analyzing farm visit data so

that statistical analysis can be completed. A final report will be given to DEP for submission to the Chesapeake Bay Program by the end of September. We look forward to reviewing the data analysis once complete and hope to confirm a high level of conservation stewardship already occurring on farms across Pennsylvania.

Moving Forward

Moving forward, our obligations to water quality – locally and in the Chesapeake Bay will not go away – they aren't something we can ignore. We all have a role in the health of our waterways, and agriculture is a key part of the solution.

We must continue to consider the practical side of things, viewing how rainfall, droughts and planting seasons impact our work to protect our waterways. Like many things in life, there is a tension between the aspirational and the practical. There are a lot of variables in this discussion that can create tension, but we believe it can be a healthy tension. Our collective job is to take the aspiration of cleaner water and a healthy ecosystem and apply it practically.

If anything is clear, it is that agriculture has high standards for conservation, with deep roots in a culture of stewardship. Farmers want to be the solution for clean water, and do not condone poor managers who are causing water quality problems. We need to continue to recognize farmers for their high conservation standards, especially given the multiple and competing expectations of agriculture in the 21st century - job creators, food providers, economic drivers, and environmental stewardship.

We must continue to develop and deploy effective targeting in high-priority areas, integrate soil health and manure management into water quality strategies, support community-based and locally led approaches to conservation, collaboratively seek new funding opportunities, and engage all stakeholders – federal, state, local, public, private, non-profit – in our approach to local water quality.

Local water quality in Pennsylvania is a shared responsibility, and we believe that collaboration, partnerships, commitment, and resources are the key to the success of the effort. If every farmer,

community and citizen does their part, we will restore and safeguard local water quality in Pennsylvania, and help to restore the quality of the Chesapeake Bay.

Thank you for the opportunity to comment.

Improving Local Water Quality in Pennsylvania and Restoring the Chesapeake Bay

CHALLENGE: Pennsylvania is obligated to reduce annual loading of nitrogen, phosphorous and sediment entering the Chesapeake Bay, and return Bay waters to state water quality standards by 2025. Despite efforts and investments, Pennsylvania will not meet 2015 and 2017 reduction targets for nitrogen and sediment.

STATUS: Since 1985, Pennsylvania invested more than \$4 billion toward restoration efforts. Phosphorous is down 25 percent, nitrogen down 6 percent, sediment reduced nearly 15 percent; with significantly reduced discharges of nutrients from point sources, such as wastewater treatment plants.

PENNSYLVANIA-CENTRIC FOCUS: A new plan, developed by the Pennsylvania departments of Agriculture, Conservation and Natural Resources (DCNR), and Environmental Protection (DEP), as well as the State Conservation Commission and other stakeholders, aims at improving local water quality in Pennsylvania, and by virtue of that, the Chesapeake Bay.

STRATEGY: Focus and increase resources and technical assistance, reinvigorate partnerships, organize for success, expand data gathering, improve program coordination and capacity, and create a culture of compliance.

SIX ELEMENTS TO PLAN:

1. Address pollutant reduction by: a) meeting the EPA goal of inspecting 10 percent of farms and MS4s in the watershed annually, b) ensuring development and use of manure management and agricultural erosion and sediment control plans, and c) enforcement for non-compliance
2. Quantify undocumented Best Management Practices in watersheds impaired by agriculture or stormwater and put more high-impact, low-cost BMPs on the ground
3. Improve reporting, record keeping and data systems to provide better documentation and obtain maximum credit toward Bay goals
4. Identify legislative, programmatic or regulatory changes to provide the additional tools and resources necessary to meet federal pollution reduction goals by 2025
5. Establish a DEP Chesapeake Bay Office to coordinate development, implementation and funding of Commonwealth's Chesapeake Bay efforts
6. Obtain additional resources for water quality improvement

VALUE OF THIS APPROACH:

- Retarget existing resources to where they're needed most
- Strengthen ability to seek additional resources
- Restructure existing partnerships and create new ones
- Address chronic data gaps and get PA farmers credit they deserve
- Improve DEP management focus on local water quality improvement and the Bay
- Enhance ability to innovate through tools like credit trading
- Improve information technology

CONSEQUENCE: Because of Pennsylvania's lack of attainment in meeting interim goals, the U.S. EPA is withholding \$2.9 million in funding, and will consider additional actions to increase federal role in inspections, permitting and compliance.