

# **Final Public Comments for PA Phase III WIP**

## **from PA Bulletin**

### **1. Sarah Fenstermacher, Souderton PA, *sefenster11@gmail.com***

In cleaning the Chesapeake Bay watershed, one element to consider is restricting the use of nitrogen-heavy lawn fertilizers. The growth of algae, especially in the summer, is a key indicator of this pollutant. Educating the public on why lawn fertilizer is harmful to our waterways and what alternatives they have would help these restrictions stick. An indicator of success would be seeing native plants, wildlife and fish returning to the waterways.

## **2. Eugene Higgins, South Waverly PA, *ehiggin2@yahoo.com***

Thank you for the opportunity to comment. Respectfully, these mega-ag corporations are making a large mint from DESTROYING American life & laughing all the way to the bank. STOP empowering them! They, like the fossil fuel & tobacco industries, spend billions marketing & litigating an FALSE All-American Red, White & Blue narrative that equates to a pack of Public Relations lies. Ag argues they have the "right" to engineer synthetic foods & DESTROY water & wildlife in pursuit of profit margin. Yet, no one has the "right" to publicly pollute. These substances have been PROVEN UNSAFE & MUST be systemically eradicated!

This situation needs to be nipped in the bud, by BANNING harmful chemicals that are the source root cause of these dilemmas. In the short term, these manufacturers & users need to be made to PAY out of the nose for the hidden costs they are inflicting on society. PAY via taxes, & fees, fines, civil suits &/or jail sentences.

My expectation of you & governmental safeguards goes WELL beyond the MINIMAL Clean Water Act protections. It is unfathomable that the EPA is now (& has been in its recent history) run by the very corporate heads they are charged to regulate. This is a literal abomination in which the public is asked, let alone been made to trust a fox guarding the hen house.

Regardless, it is still incumbent on YOU to protect YOUR public, & NOT protect the economic or corporate interests of polluters. As YOUR job description dictates, YOU are a protector of the Commonwealth's citizens, NOT of corporate interests! As the science PROVES, many of these ag substances are NOT SAFE! I am appalled that they were approved for use in the first place. And it is painfully clear to me their approval was & is an egregious misallocation of the public's trust that MUST be redressed.

Who, of righteous conscience, allows harmful corporate or private practices & substances to persist while they are known to catastrophically affect the public?

Hence, I vigorously implore you to start by taking much larger & more aggressive steps in achieving compliance with the CWA's goals, via aforementioned means. Furthermore, in my opinion, you should maintain the end goal of getting this right, over all. You might need to re-invent your political platform to do it, but do this, by ridding the American landscape of ALL harmful man-made commercial toxins, ENTIRELY!

If not for this, what does the EPA & the DEP stand for?

What does "Environmental" "Protection" "Agency" mean, if not an Agency that Protects the Environment for citizens from corporate avarice & gluttony?

Respectfully, please get it done!

Thank you again, sincerely; Gene Higgins, Mechanical Engineer, USAF Vet of the Gulf War, South Waverly, Bradford County.

### **3. James Hedges, Needlemore PA, *prohibitionists@hotmail.com***

Pa. Dept. Environmental Protection  
Harrisburg  
23 June 2017  
Gentlemen:

With reference to your request for public comment on the "State Plan to Improve Local Water Health in Chesapeake Bay Watershed Counties, I offer these suggestions:  
The most significant remaining pollutants come from agricultural areas. Therefore....

Require riparian buffer zones along all permanent streams, of sufficient width and density of vegetation to catch soil eroded from fields during normal precipitation events;

Ensure that roadway drainage, especially that from unpaved roads, is diverted into vegetated areas and not allowed to discharge directly into streams;

Encourage greater use of "no till" farming of corn and beans;

Where the ground must be plowed in order to plant wheat and other small grains, encourage the use of contour farming -- this seems to have fallen out of favor now that field machinery has become so large -- I see many fields here in Fulton County that are planted down the slope instead of along the slope;

Ensure that in karst (limestone) areas, sinkholes both open and filled are kept in grass or other permanent vegetation, so that fertilizers and pesticides do not have direct access to the groundwater.

As for measurable outcomes:

Many upland ponds, those without through-flowing water, now become totally covered by algae early in summer. Ponds without algal cover would be one measure of improvement.

Wider distribution and increased vigor of Bay oyster beds and shoreline grasses would be another measure.

Larger and more successful reproducing populations of trout and other native fishes would be a measure.

Surface flow of ephemeral streams longer into the summer would be a measure -- indicating more infiltration and less run-off.

And the best way to implement all this would be to provide more support to the County Extension Service, including 4H clubs.

Sincerely,  
James Hedges  
(Box 212, Needlemore 17238)

#### 4. Kent Crawford, Hummelstown PA, *k9kentc@gmail.com*

### Pennsylvania Phase III Watershed Improvement Plan Listening Session

#### Ideas

#### Submitted by Kent Crawford, June 28, 2017

**1. --Advocate for More Resources:** I know getting additional funding has been a top priority for DEP. Over the past decade, the Pennsylvania DEP has faced a growing work load to be handled by a smaller budget and a reduced staff. This is an impossible situation. The Legislature knows this. But now, the EPA's document, "Expectations for Phase III Watershed Implementation Plans" provides additional leverage that could be used with the Pennsylvania Legislature. I suggest meetings between DEP leaders and Legislative leaders during which the DEP clearly lays out the consequences of not meeting the goals. Further, I encourage DEP to provide press releases to newspapers in the Bay watershed explaining the mandate we are under. We could explain that failure to meet the goals could result in lost funding from EPA. This would be an attempt to get public support for DEP programs and thereby, put added pressure on legislators to act.

**2.--Get Social Scientists Involved:** It has been determined that over 75% of the required nitrogen and phosphorus load reductions will need to come from agriculture. The agricultural community has been provided with a range of BMP alternatives to get the job done. Yet, we have little leverage with the agriculture community to force these reductions. So, perhaps now is the time to look to social scientists. Social scientists could examine a laundry list of incentives and dis-incentives that would encourage farmers to act. Then, incentives with the most likelihood of promoting action by the ag community could be prioritized for implementation.

**3.--Promote Wetlands for Nitrogen Removal:** Phosphorus is mostly not soluble. It tends to adhere to sediment particles (both organic and inorganic sediment particles). Thus, Phosphorus can be effectively removed from non-point waste water by controlling the sediment. Conversely, nitrogen is mostly soluble. It does not adsorb to sediments. Thus, nitrogen is relatively difficult to remove from a non-point source waste stream. But, one effective method for nitrogen removal is denitrification. This process converts  $\text{NO}_3$  to  $\text{NO}_2$  and subsequently to nitrogen gas ( $\text{N}_2$ ). The nitrogen gas is harmlessly released to the atmosphere. Remember, the atmosphere is already 80%  $\text{N}_2$  gas, so there is essentially no adverse impact of releasing the nitrogen gas.

It seems to me that the current emphasis is on installing localized BMP options. But, one large, regional wetland facility could effectively remove much more nitrogen from the waste stream than lots and lots of localized BMPs such as rain gardens.

This approach could be applicable for ag or urban runoff. Small scale wetlands are routinely used to treat farm runoff. In an agricultural setting, there may be land more readily available for wetland development than in a suburban or urban setting.

**4.--Look local:** Township supervisors, county and township planning commissions, and zoning boards have a lot of influence over what happens on the land in their jurisdictions. Perhaps DEP could

hire a Local Government Liaison to educate local officials and advocate for ordinances that support good stewardship of the land. Local governing boards are surprisingly knowledgeable about environmental concerns. But, a Local Government Liaison representing DEP could educate these officials about pervious surfaces, riparian buffers, rain gardens, and a host of other conservation practices. Providing a zoning board with a model ordinance might be all that is needed to get a local ordinance enacted. One ordinance on the books (perhaps mandating a buffer zone or a detention pond) could have a much larger effect than advocating for action on an individual property.

The most efficient way to reach local officials would be to have a presence at their statewide conferences. For example, the Pennsylvania Association of Township Supervisors (PSATS) has an annual conference. A DEP rep could get on the program for that conference and reach a large number of supervisors at one time. Similarly, the County Commissioners of Pennsylvania (CCAP) has an annual conference as does the Pennsylvania Chapter of the American Planning Association.

**5.--Good cop/bad cop:** The voluntary approach has not worked. It is time to get tough. Increased inspections, called for by EPA, is a good step. But, we must have the will to enforce compliance with the nutrient management plans. DEP does not have the staff to conduct these inspections. The Conservation Districts have been asked to assist DEP in this task. Many Conservation Districts have accepted this responsibility. Others have not. Perhaps the reason all Districts have not joined the party is they consider themselves to be a friend of the farmer. Perhaps they don't want to jeopardize their relationship with the farmer. And maybe enforcement is a role best left to DEP staff. Is this the current strategy? Perhaps it is. If so, great. If not, consider it.

**6.--Conowingo Cash:** We are all aware that, historically, the Conowingo Dam has been helping by trapping sediments. Now, the reservoir is full and basically, what comes in, goes out. It is no longer a sink for sediment and nutrients. Various options have been considered for making up this loss of removal capacity, including dredging the reservoir. But the dredging option has been rejected as being too costly. Estimates for dredging costs vary widely but a rough ballpark number would \$100 million per year (plus or minus).

But, why does dredging have to cost anything? Perhaps those sediments are valuable. Look at the Ohio River. Commercial dredging goes on there all the time. The sand and gravel companies are happy to reap the profits of that resource. Similar dredging operations occur in many U.S. rivers. Are the sediments in the Conowingo Reservoir not valuable?

I made a phone call to Mike Langland (my former colleague) of the USGS and he politely suggested that this option has been thoroughly explored and subsequently rejected. But, perhaps one more look at the option would be worth the time. I looked briefly at on-line resources and found that over 4 million tons of sand and gravel are extracted from the Ohio River annually – and sold for anti-skid materials, and aggregate.

Even if the sediments are not suitable for construction purposes, there are other beneficial uses for the product. Here is a list from a presentation made by Kurt Prinic of the Ohio EPA:

Beneficial Uses for Dredge Material

- ✓ Mine reclamation
- ✓ Littoral nourishment
- ✓ Top soil and soil manufacture
- ✓ Habitat creation
- ✓ Brownfield redevelopment
- ✓ Landfill Cover
- ✓ Transportation projects

Perhaps there is a use for the material in the Conowingo Pool.

Kent Crawford, Ph.D.  
Environmental Scientist  
1115 Stonegate Road  
Hummelstown, PA 17036-9776  
Phone: 717-566-5851  
E-mail: k9kentc@gmail.com

**5. Alan Robbins, Streamside Landowner, New Milford PA,  
*aljohn@nep.net***

Two items may need to be addressed to improve water quality in the watershed. Although suggestions are based on my personal experience, they occur in many areas.

1.) Animal waste runoff from farming operations. Per our local ag agent - there is no regulation against farmers allowing cattle to graze / be fed or concentrated / harbored near or even be in streamside areas. A concentration of cattle streamside is permitted (i.e. no regulation against.). This causes areas of streamside ground to become disturbed and saturated with animal waste, thereby polluting the water with excess nutrients which have resulted in excessive nutrients promoting algae growth and pollution in my downstream (from the cattle area) pond. Cattle feeding stations are located on stream edge sometimes, and very near stream edges at other times despite the availability of feeding areas significantly distant from stream areas. This is seen to be especially worse in winter months when the ground is frozen and unable to absorb or contain cattle waste.

2.) Haul roads for quarry operations. I am unsure of the regulations here, but have experienced stream and subsequent pond pollution from a lengthy downhill dirt haul road from an active stone quarry which bottoms out in a stream crossing over a small culvert. Water sampling has indicated this runoff to be very cloudy and muddy during periods of rain, compared to a much clearer pond entrance waterflow from a similar roadside and spring drainage. This, especially in combination with animal waste runoff as described above in item 1, has caused extreme sedimentation, pollution and filling in of my pond which is downstream from said haul road. There appear to be no barriers or devices / channels to control runoff and avoid stream pollution.

The stream in question feeds Salt Lick Creek which feeds the Susquehanna River at Hallstead PA.

**6. David and Mona Lippert, McConnellsburg PA, 24trout@gmail.com**

Department of Environmental Protection

29 June 2017

Policy Office

Rachel Carson State Office Building

P.O. Box 2063

Harrisburg, PA 17105-2063

Comments on “Help develop State Plan to Improve Local Water Health in Chesapeake Bay Watershed Counties” (47 Pa. B. 3154)

- Strict guidelines to ensure any type of agriculture buildings, where livestock, animals of all kinds, and fowl species are housed or contained (to include large corporate factory farms) planned to be built (temporary or permanent) cannot be located closer than ½ mile from a creek, stream, river or spring. These proposed building sites should be assessed, carefully examined and inspected to ensure they meet these guidelines before any building permits are issued.

- Riparian Buffer locations and distances should be reviewed and changed as necessary, and extended to a minimum of 300 ft. from any water source where chemicals and pesticides are being or are to be sprayed.

Criteria for Manure spreading in the winter should be strictly enforced. Spreading over snow or ice should Not be tolerated. As of now there are no controls or oversight inspections of fields and areas where manure is being spread in the winter months.

Reason: All pollution from animal waste compost and manure sites that flow or spill into any waterways will negatively affect the Chesapeake Bay eventually. The PA Dept of Environmental Services should inspect from time to time these sites to ensure there is compliance with guidelines stated above. PA needs to take a serious approach to ensuring our streams, rivers and lakes are not polluted by poor farming practices. Especially, large factory farms and CAFO's. Strict guidelines must be written/adopted and enforced to ensure



that these factory farms are not endangering our waterways. A case in point, in Fulton County, a proposed CAFO is being planned to be built in an area where springs are present and a beautiful trout stream, Big Cove Creek (BCC) flows only several hundreds yards below the BCC. If a spill would occur and (historically) CAFOs have, the creek would be polluted and could wipe out and destroy and ruin an excellent cold water fishery. This would result in huge fish kills and aquatic insect life destruction, causing grave damage to this outstanding fishery. This would also adversely affect the economic value of the local area. Many trout fishermen from nearby Maryland and West Virginia travel long distances to fish this gem of a stream. This kind of pollution will over time affect the water quality of other streams and the Chesapeake Bay. There are no other streams or springs outside our County that provide any water supply. All of our water comes from within the County. So basically, in our County we have clean water generating from the many mountain streams and underground springs. The only way it could be polluted is by having large factory farms doing so. These CAFO type farms are and will have an adverse affect of the Chesapeake Bay, however, no one can estimate how bad it is or would be if allowed to continue. It doesn't make sense for PA to spend thousands of dollars on CREP programs within the state to ensure chemicals are not sprayed to close to streams or even trickles of water. However, they seem to look the other way when approving permits for these large CAFOs which make our waterways much more vulnerable to pollution. This is one of the big problems that need to be addressed.

Reason: This is exactly why PA must take serious action (change laws/issue strict guidelines) to prevent these kinds of potential pollution events from happening. As responsible citizens of Fulton County, we must ensure that the future of our children and grandchildren is protected. We need to fight to provide clean water and air for future generations.

Respectfully Submitted

David G. Lippert & Mona D. Lippert

**7. Jeffrey Gossert, York County Conservation District, York PA,  
yorkccd@yorkccd.org**



**YORK COUNTY  
CONSERVATION DISTRICT**

*Conserving Natural Resources for Our Future*

July 7, 2017

Department of Environmental Protection, Policy Office  
Racheal Carson State Office Building, PO Box 2063 Harrisburg,  
PA 17105-2063

Dear Madam or Sir,

The Board of Directors, of the York County Conservation District submits the following comments to the Department for its consideration and use in developing Pennsylvania's Chesapeake Bay Watershed Implementation Plan III (WIP-111):

*Question 1 What key elements need to be included for this effort to be a success? What priority issues must be addressed in the Phase 3 WIP for you to consider it a success?*

Comments:

- Implementing continuous, real-time water quality monitoring of Total Suspended Solids (TSS), Total-Nitrogen (TN) and Total-Phosphorous (TP) at HUC 10 or HUC12 watershed levels to correlate nonpoint sources of pollution with Best Management Practices applied and corresponding water quality improvement trends.
- Enforce existing laws and regulations relating to water quality improvement and environmental protection, creating "positive tension" between the regulated community and the Commonwealth. Further water quality improvements will come with balanced and consistent enforcement of existing laws and regulations, regardless of the program (Ag, stormwater, etc.). The Pa DEP should take the lead in Ag Compliance & Enforcement efforts in order to preserve the trust and rapport conservation districts have gained over decades of working with the Ag community.
- Greater emphasis should be placed on agricultural conservation/nutrient management plan writing, implementation and compliance, including adequate funding and training provided for Conservation District staff.
- Further engage municipal governments as principles in accomplishing plan implementation with the wastewater, agriculture and municipal sectors. Land use authority and decisions in Pennsylvania are made at the local level.

- Priority funding, resources and implementation should be given to those Best Management Practices (BMPs) that give us the greatest bang-for-the-buck in terms of reducing Total Suspended Solids (TSS), Total-Nitrogen (TN) and Total Phosphorous (TP) at HUC 10 or HUC12 watershed levels. However, we need maximum flexibility in addressing resource issues of concern, noting best bang-for-the-buck is the BMP that best fits the situation and the farmers operation and goals. Do not take tools out of the toolbox! While targeting has gained popularity among decision makers at the top, unless you have sound science to identify the problem in the form of water quality monitoring, you may be attempting to fix a problem that doesn't exist, where designation for impairment is in error.

*Question 2 - What measurable outcome does the Commonwealth need to achieve by 2025 that would make this effort successful?*

Comments:

- Implementing continuous, real-time water quality monitoring of Total Suspended Solids (TSS), Total-Nitrogen (TN) and Total-Phosphorous (TP) at HUC 10 or HUC12 watershed levels to correlate nonpoint sources of pollution with Best Management Practices applied and corresponding water quality improvement trends.
- EPA should adjust the Bay's implementation schedule from 2025 to be more realistic and achievable at a rate that is reasonable to finance given economic climate. After all, degradation of the resource occurred over centuries, and efforts, to date are now beginning to show positive trends.

*Question 3 - Is there a particular initiative, action, partnership or training that would aid this effort?*

Comments:

- Address the conservation planning backlog and give credit in the Bay Model's input towards sediment and nutrient reduction goal attainment. Every plan written and implemented captures 100 percent (%) of the Best Management Practices applied on the ground and in principle.
- Dedicate funding of continuous, real-time water quality monitoring of Total Suspended Solids (TSS), Total-Nitrogen (TN) and Total-Phosphorous (TP) at HUC 10 or HUC12 watershed levels to correlate nonpoint sources of pollution with Best Management Practices applied and corresponding water quality improvement trends.

*Question 4 - Are there possibilities for continuing and enhancing current projects or initiatives?*

Comment:

- Restore technical assistance funding where it has been eliminated, in areas where success in generating voluntary requests for assistance go unanswered, due to years long backlogs (willing participants are more likely to own and maintain plans and practices, vs those forced to do so).

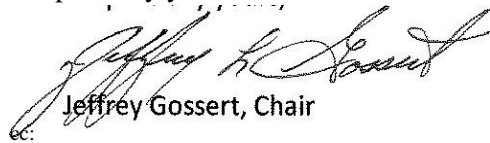
The TMDL start, midpoint assessment and final achievement implementation schedule, 2010 > 2017 (60%) > 2025 (100%) respectively, was neither realistic nor achievable to begin with. The time-lag

between environmental restoration implementation, water quality improvements, and ecosystem recovery large-scale will be 20 years or more before the benefits can begin to be seen and measured. The positive water quality improvement trends we are beginning to see now are the result of all of the work accomplished between 1985 and 2015 (i.e., 30 years), collectively.

Today there is evidence that the bay is more resilient than it has been in a generation thanks to locally led conservation. The February 2017 Chesapeake Bay Program report found 37 percent of the tidal Chesapeake met water quality standards in 2015, which is far short of the 100 percent goal, but represents a 10 percent improvement over the prior period. Bay grasses, which shelter and feed fish, shellfish and waterfowl, are expanding, and Black duck populations are increasing.

Thank you for the opportunity to participate in the development of the PA Phase III WIP.

Respectfully yours,

A handwritten signature in black ink, appearing to read "Jeffrey Gossert". The signature is written in a cursive style with a large initial "J".

Jeffrey Gossert, Chair

cc:  
Board of Directors

**8. Steve Kerlin, Stroud Water Research Center, Avondale PA,  
*skerlin@stroudcenter.org***

Work with partner organizations to increase education and outreach programs to farmers, landowners, businesses, schools and other citizens to improve the Chesapeake Bay Watershed.

**9. Sarah Diebel , Department of Defense, Norfolk VA,  
*sarah.diebel@navy.mil***

On behalf of the DoD Regional Environmental Coordination Office, the attached document provides responses to Secretary McDonnell's request for public input to help develop the Phase III Watershed Implementation Plan to improve local water health in Chesapeake Bay watershed counties (REF: PA Bulletin Doc No 17-936).

Thank you for the opportunity to provide comments.

Very Respectfully,

Sarah E. Diebel, M.S.



**DEPARTMENT OF THE NAVY**  
COMMANDER  
NAVY REGION MID-ATLANTIC  
1510 GILBERT ST.  
NORFOLK, VA 23511-2737

IN REPLY REFER TO:

5090  
EVN40/13/RE429  
**JUL 6 2017**

The Honorable Patrick McDonnell  
Secretary, PA Department of Environmental Protection  
Rachel Carson State Office Building  
Post Office Box 2063  
Harrisburg, PA 17105-2063

Dear Secretary McDonnell:

**SUBJECT: DEPARTMENT OF DEFENSE COMMENTS ON THE INVITATION TO HELP DEVELOP PHASE III WATERSHED IMPLEMENTATION PLAN TO IMPROVE LOCAL WATER HEALTH IN CHESAPEAKE BAY WATERSHED COUNTIES (PA BULLETIN DOC 17-936)**

As the Department of Defense (DoD) Regional Environmental Coordinator (REC) for U.S. Environmental Protection Agency (EPA) Region 3 and on behalf of the military services, the Commander, Navy Region Mid-Atlantic is responsible for coordinating responses to environmental policies and regulatory matters of interest. We appreciate the Commonwealth's request for stakeholders to share their views and the opportunity to provide comments for your consideration in response to the Public Notice dated June 3, 2017 advertising initial stages of Phase III Watershed Implementation Plan (WIP) development.

DoD recognizes this is an ongoing process and we look forward to further communicating our accomplishments, providing information requested in support of your WIP and coordinating with your agencies to further clarify the regulated urban stormwater sector's role in reducing nutrients and sediment based on new Phase 6 model outputs, revised planning targets and development of local area planning goals. Enclosed are our comments that are based on questions included in the bulletin related to elements and priority issues that need to be addressed for success; measurable outcomes for 2025; initiatives, actions, partnerships or training; and continuing or enhancing current projects or initiatives.

DoD continues to prioritize a culture of compliance while maintaining mission readiness to enhance our shared goal of restoring and protecting the Chesapeake Bay. If you have any questions, the point of contact is Ms. Sarah Diebel, DoD Chesapeake Bay Program Lead at E-Mail [sarah.diebel@navy.mil](mailto:sarah.diebel@navy.mil) or telephone (757) 341-0383.

Sincerely,

A handwritten signature in black ink that reads "Sean S. Heaney".

SEAN S. HEANEY  
Environmental Program Manager  
By direction of the Commander

Enclosure

Copy to: U.S. Army REC, Region III (Mr. Patrick Timm)  
Defense Logistics Agency, Installation Support, DS-E (Mr. Bradley Clawson)

## **PUBLIC COMMENT INVITED TO HELP DEVELOP STATE PLAN TO IMPROVE LOCAL WATER HEALTH IN CHESAPEAKE BAY WATERSHED COUNTIES**

### **1. Provide clarity for regulated urban stormwater sector load reductions**

**Comment:** In both the Phase I and Phase II WIPs, the documents reference significant reductions “almost 40% reduction in urban loads.” DoD is concerned a reduction of this size may either not be possible or place an unreasonable burden on existing developed areas on urban lands, especially those that might be more intensely developed. The difficulty will also be exacerbated if the range of regulated urban areas do not increase beyond those current defined in the census reports.

**Recommendation:** Request the Commonwealth provide more discussion in their Phase III WIP on the overall urban load reduction target to resolve this potential issue and to better define what individual urban load reductions are needed for military installations. Instituting clarity will assist in determining specific measurable outcomes needed to meet 2025 targets.

### **2. Ensure fair implementation requirements and equitable distribution of loads**

**Comment:** Federal agencies are only subject to requirements under the Clean Water Act (CWA) to the extent they are treated in a non-discriminatory manner. The CWA § 313(a) subjects Federal agencies to, “all Federal, State, interstate, and local requirements... respecting the control and abatement of water pollution in the same manner, and to the same extent as any non-Governmental entity.”

**Recommendation:** Request the Commonwealth ensure fair implementation of regulatory requirements and distribution of loads, particularly as they relate to the development and implementation of local planning goals that are consistent, equitable and best suited for directly engaging local and federal partners. Equitability is a key priority for DoD and success is only possible with this at the forefront.

### **3. Consider federal partners as a target audience in Phase III WIP development**

**Comment:** Strengthening existing and reconstituting partnerships between military installations and state agencies will enhance collaborative efforts at federal, state and local levels. DoD remains committed to actively participate in the Chesapeake Bay Program Partnership and those developed through our Regional Coordination Office.

**Recommendation:** Request the Commonwealth consider maintaining an active and routine role in the Federal Facilities Workgroup (FFWG) within the Chesapeake Bay Program Partnership as there are a number of DoD components and other federal



departments who are actively participating. The FFWG is a forum for federal and jurisdiction representatives to facilitate water quality improvements on federal facilities. The group continues to discuss mechanisms for federal participation in preparation for upcoming Phase III WIP development. Active participation will aide in overall federal input for Phase III WIP development.

**Recommendation:** Request the Commonwealth consider reinstating the DoD/PA Environmental Partnership. This partnership allowed installations to discuss matters specific and unique to the military and could assist in greater cross-agency information sharing for the development of Phase III WIPs.

**Recommendation:** Request the Commonwealth consider providing federal specific forums in order for installations and facilities to gain insight on Phase III WIP approaches.

#### **4. Continue MS4 training for PAG-13**

**Comment:** Outside of the municipal and industrial wastewater treatment facilities, DoD maintains a number of individual and small municipal separate storm sewer systems (MS4) permits within the Commonwealth. Training installation representatives will assist in maintaining a positive compliance posture.

**Recommendation:** Request the Commonwealth continue MS4 training similar to those outlined from the Phase II WIP.

#### **5. Improve BMP Implementation Progress Tracking**

**Comment:** DoD continues to enhance data collection processes for the overall success of historical, progress, and planned BMP implementation. These enhancements and improvements directly support WIPs and achieving each of the Bay Jurisdictions' goals of 60% reductions by 2017 and 100% practices in place by 2025. In 2016, our data collection efforts reflected more than \$14M in BMP implementation funding and 184 acres of impervious surface treatment across the watershed, however we are currently unable to delineate DoD's progress in the Commonwealth primarily due to minimal communication and feedback. Until there is direct communication from the Commonwealth, our efforts will not be fully functional.

**Recommendation:** Request the Commonwealth identify a representative who will work directly with the DoD Chesapeake Bay Program Coordinator to ensure historical and progress BMP data submitted is accurately and appropriately credited.

**10. Martin Hann, McConnellsburg PA, *martyhann@comcast.net***

Hi

Please accept these suggestions concerning the Chesapeake Bay WIP. When reading the document please use the enclosed graphs to illustrate the subject matter. If you have any questions, feel free to contact me Marty Hann by email or phone 717-377-7257.

Thanx,  
Marty

## **Comments concerning the Chesapeake Bay Watershed Improvement Plan (WIP)**

If you take a look at the included graph ((5) **Martin Hann PA All**) you will see that in Pa, the total number of Animal Units in the watershed is steadily increasing whereas in the other watershed states the numbers are steady or declining. Where is this increase coming from? Take a look at graph ((6) **PA Permitted** CAFO/Volunteer NMP), the number of AU's has close to doubled since 1985 and is on a steady increase. Now look at graph ((7) **PA Non-Permitted** normal farms small family operations), you see that the number of AU's has leveled off, in fact 2013 figures is less than 2008. The steady increase can be directly attributed to the increase in these large Factory farm operations. It would be illogical to assume that the unregulated small family farms are the major reason that Pa. is not meeting its requirements when their numbers are declining. To do this you must **Assume** that the family farmer is doing a worse job now protecting the environment then they were in 2008. Also another **Assumption** is that your regulations of the Factory farms are 100% foolproof.

One of the issues the DEP has is lack of manpower and funds to monitor agriculture. Our first suggestion is since these Factory farms proportion of animal waste is increasing (to about 30% of all animal waste generated) and they are representing only about 2% of the number of farms in the watershed, it would be more efficient to spend the manpower inspecting and testing these facilities.

Our second suggestion is put a moratorium on the permits issued to these CAFO operations. As long as Pa does not meet its requirements then it is counterproductive to allow more CAFO's producing more waste for the bay. No new CAFO's/ CAO's, plus existing operations cannot increase the AU's of the facility.

Third suggestion is to monitor the water for more than nitrites and phosphorous. You can monitor the water for indicators leading back to the source (DNA and feed ingredients) plus there is over 40 pathogens that pigs can pass to Humans via their waste.

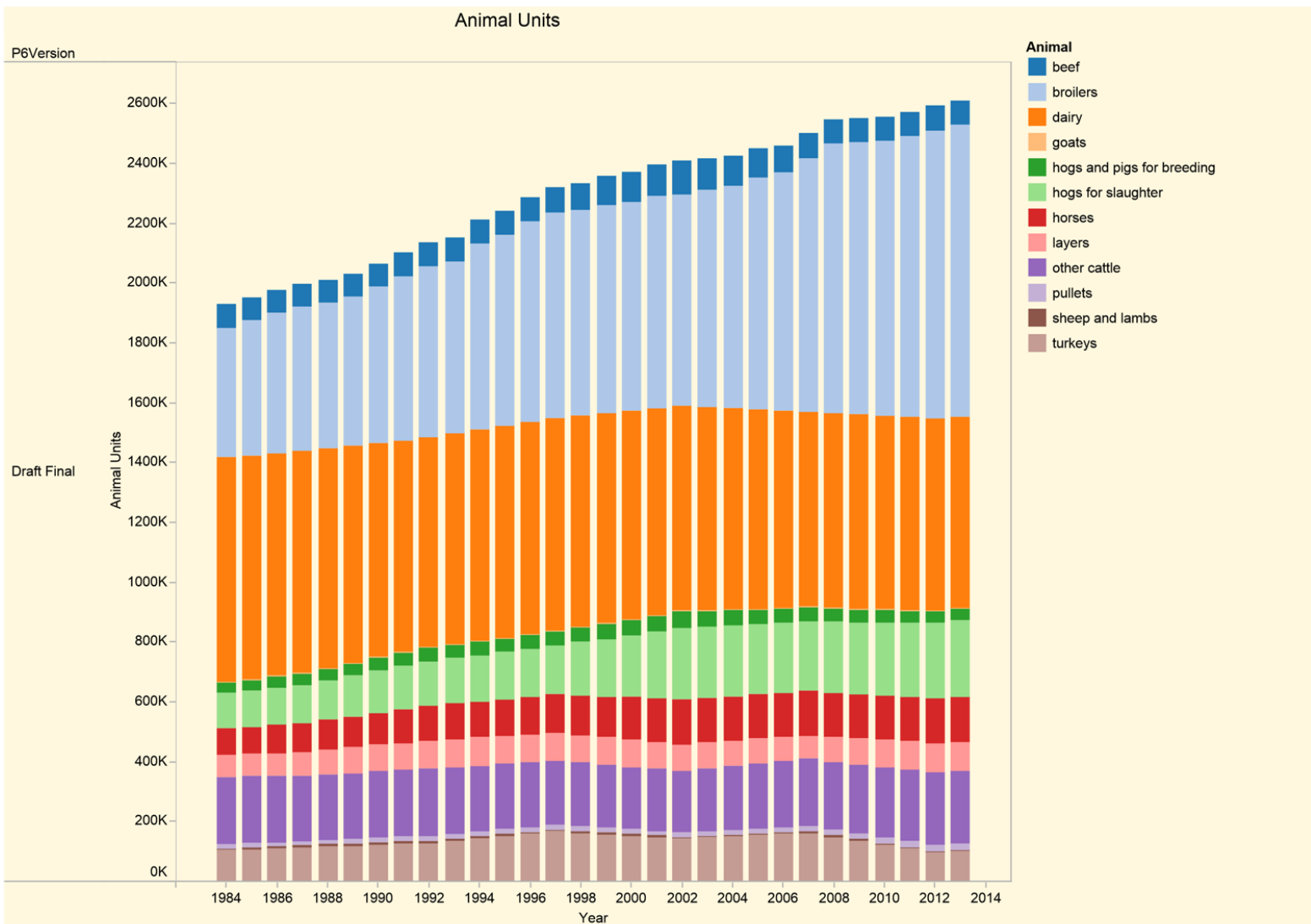
Thank You,

Marty Hann  
Lorne Swope  
Terry Swope.

Martin Hann  
306 S 1<sup>st</sup> Street  
McConnellsburg, Pa.  
17233

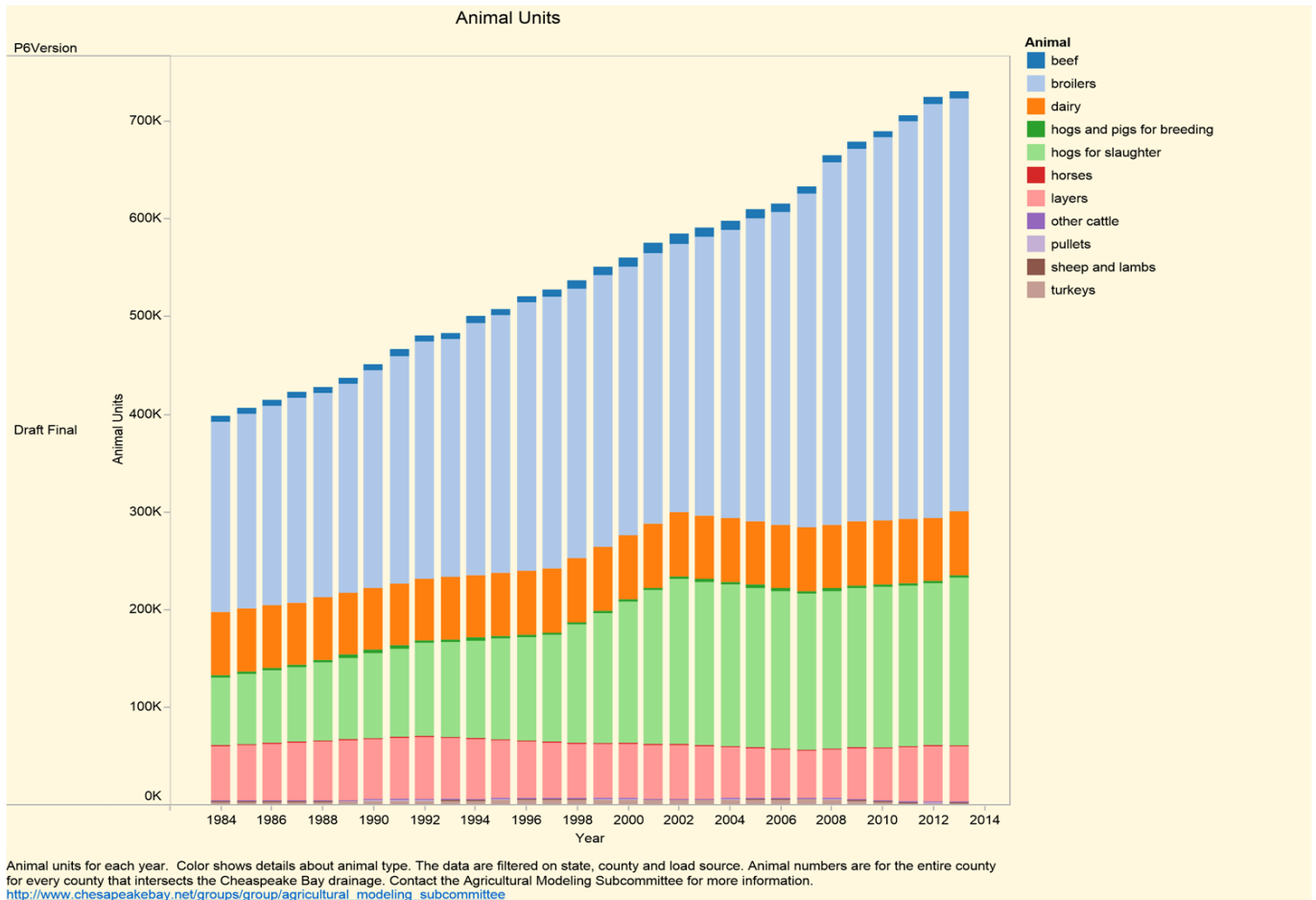
717 377 7257

○ (5) Martin Hann PA All

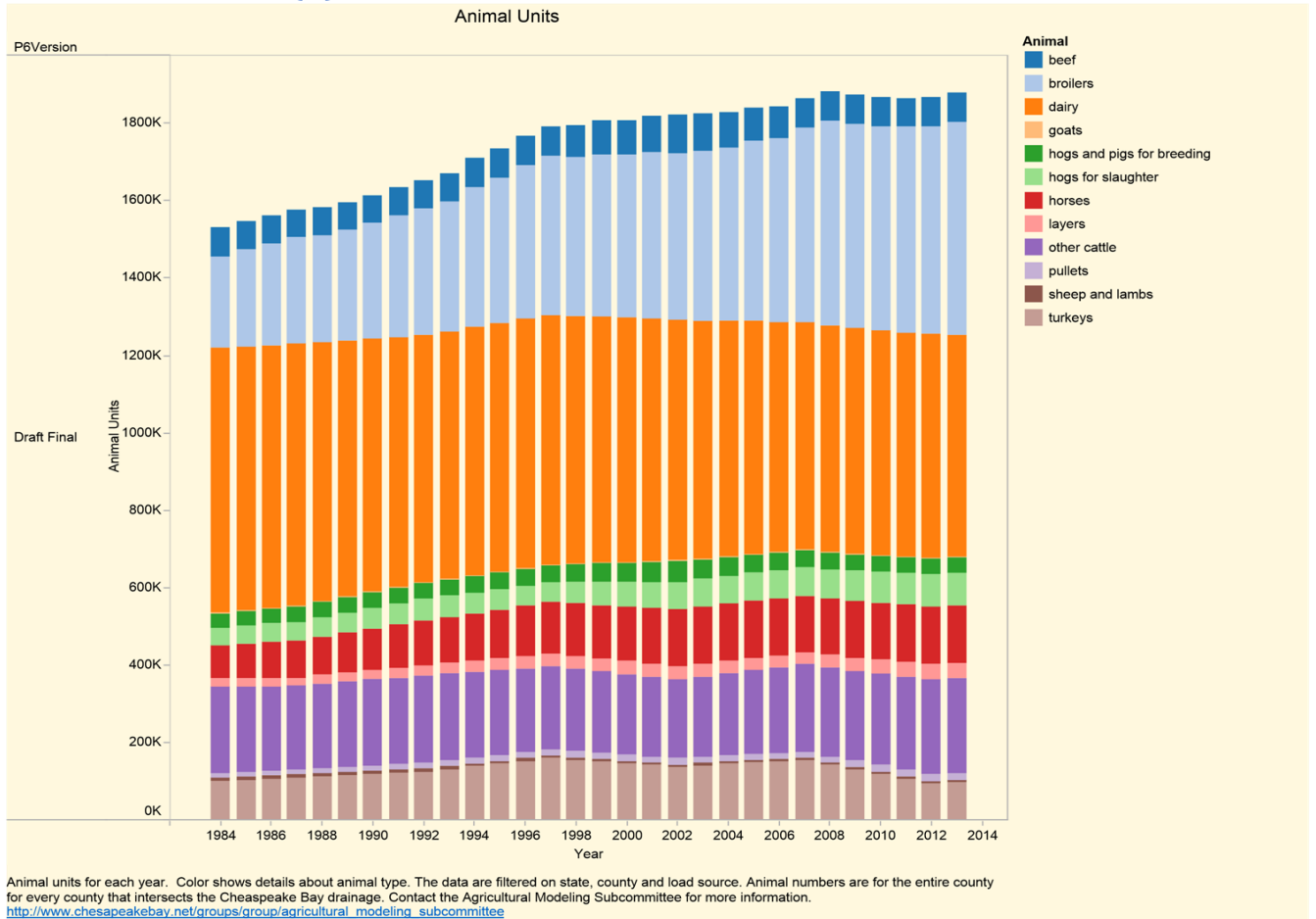


Animal units for each year. Color shows details about animal type. The data are filtered on state, county and load source. Animal numbers are for the entire county for every county that intersects the Chesapeake Bay drainage. Contact the Agricultural Modeling Subcommittee for more information.  
[http://www.chesapeakebay.net/groups/group/agricultural\\_modeling\\_subcommittee](http://www.chesapeakebay.net/groups/group/agricultural_modeling_subcommittee)

○ (6) Martin Hann PA Permitted



○ (7) Martin Hann PA Non-Permitted



**11. Kevin Sunday, PA Chamber of Business and Industry,  
Harrisburg PA, [ksunday@pachamber.org](mailto:ksunday@pachamber.org)**

Good afternoon,

Please find attached the comments of the PA Chamber re Phase III Watershed Implementation Plan.

Thanks,

KEVIN SUNDAY

Director, Government Affairs



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Jessica Shirley, Director  
Policy Office  
Pennsylvania Department of Environmental Protection  
Rachel Carson State Office Building  
P.O. Box 2063  
Harrisburg, PA 17105-2063

July 7, 2017

**Re: Chesapeake Bay TMDL; Pennsylvania Phase III Watershed Implementation Plan**

Dear Ms. Shirley:

I am writing on behalf of the Pennsylvania Chamber of Business and Industry (PA Chamber), the largest, broad-based business advocacy organization in the Commonwealth. Our more than 7,500 member companies are involved in all industrial categories and are of all sizes. On behalf of these businesses, we welcome the opportunity to respond to the Department's invitation for public comments concerning the development of Pennsylvania's Phase III Watershed Implementation Plan (WIP) to progress toward achievement of the nutrient and sediment reductions required under the Chesapeake Bay TMDL.

As the Department and its staff are aware, the PA Chamber has been actively and positively involved throughout the past 15 years or more in working with other stakeholders in helping to frame workable approaches to addressing the water quality challenges of the Chesapeake Bay. Representatives from the PA Chamber and individual Chamber members have served on a myriad of committees, subcommittees and stakeholder groups that have devoted hundreds of hours to seeking solutions for reducing nutrient loadings in a fair, equitable, cost-effective and implementable manner. We recognize that all sectors and stakeholders (industry, agriculture, communities, citizens and environmental groups alike) have a stake in the Bay, and, equally, all of those in the Bay watershed should have a strong interest in preserving the

economic, as well as environmental, viability and well-being of this region. Likewise, all sectors who contribute to the loadings entering the Bay have a stake and a responsibility to address those contributions.

During the process of developing the Phase I WIP, the PA Chamber observed and underscored the importance of assuring that allocations of nutrient loadings be fair, reasonable and achievable. If the agencies or stakeholders lose sight of this loadstar, if efforts are made to shift burdens arbitrarily between sectors or among individual entities, the entire process is doomed to failure. Given the enormous efforts and investments that are needed to achieve nutrient and sediment reductions, public support is essential. Such public support will never be forthcoming for allocations or implementation plans that are arbitrary, outlandishly expensive and unaffordable. Conversely, the goal in developing and implementing the WIP is to provide measures that are affordable, implementable, and assure that all contributing sectors do their fair share to reduce loadings in order to achieve the TMDL allocations.

As we proceed through preparation of the Phase III WIP, we urge the Department to develop a plan that reflects accurately the progress that the respective sectors involved have made so far – and that responsibly allocates responsibility with respect to remaining reductions by these sectors. The point source sector (including publicly owned treatment works and industrial wastewater plants) in Pennsylvania have fulfilled their commitments to achieve the reductions called for under the Chesapeake Bay TMDL. At considerable cost, in terms of both capital investment and operation and maintenance expense, industries have modified production processes to reduce nutrient generation in wastewaters, and both municipalities have upgraded treatment facilities to reduce nitrogen and phosphorus in their effluent. According to the latest available assessment of loading reductions achieved, as of 2015, the point source sector had more than met its targeted 2017 milestone reductions for nitrogen and phosphorus (TN: 9.8 M lbs/year actual vs 10.2 M lbs/year 2017 target; TP: 0.76 M lbs/year actual vs. 0.966 M lbs/year 2017 target). Indeed, the point source sector in Pennsylvania has already achieved its mandated 2025 phosphorus load levels (0.897 M lbs/year) reductions and is within striking distance of meeting its 2025 nitrogen reductions (8.92 M lbs/year). That progress has been made by industries and municipalities not because it was easy, but because this sector has taken its obligations seriously and has worked assiduously to design, construct and invest in the improved processes and facilities required to meet these ambitious targets.

Unfortunately, the progress made by some other sectors toward their TMDL targets have been less encouraging. As the Department reported last year, Pennsylvania committed to reduce its urban/suburban stormwater load for Nitrogen by 41 percent and for Phosphorus by 45 percent, but as of 2016 had only reduced Nitrogen Loads from that sector by about 1 percent and Phosphorus by approximately 10 percent. With respect to the agricultural sector, the modeled loadings remain significantly above the 2017 TN and TP targets. While we understand (and support) efforts to assure that the Bay model better accounts for all best management practice that are, in fact, being implemented, it appears that both the stormwater and agricultural sectors have accrued a significant shortfall that needs to be addressed in the Phase III WIP.

With this in view, please consider the following suggestions regarding elements to be considered for incorporation in the final Phase III WIP.

1. ***Maintain Fair Sector Allocations:*** Given the significant investments already made by the wastewater point source sector, it would be unfair and unreasonable to shift the loadings shortfalls of other sectors onto the point source sector. As the Department knows, the point source sector has already implemented TN and TP removal efficiencies of 95% and higher, and attempting to achieve reduction or the last few percentages will achieve little, but at enormous cost. “Zero discharge” is not technologically nor economically achievable, but even if one were to eliminate the entire point source category the resulting reductions in TN would represent less than 25% of the current shortfall in

loading reductions required from the agricultural and stormwater sectors. Punishing one sector (industry and POTWs) to make up for the shortcomings in other sectors makes no regulatory, water quality, or economic sense.

2. ***Encourage a More Viable Nutrient Trading Program:*** The PA Chamber continues to favor utilization and encouragement of market measures to help promote more cost-effective implementation of nutrient load reductions. For a nutrient trading program to be effective, however, there are several significant prerequisites: (1) a regulatory regime must be stable and predictable, establishing criteria for determining credits that are fixed for the long-term; (2) credits once traded must be secure against subsequent “second-guessing” or regulatory change; (3) there needs to be a marketplace with both an adequate number of willing buyers and willing sellers.

After an initial promising start, it is unfortunate that Pennsylvania’s nutrient trading program was essentially side-tracked by EPA’s objections, and subsequent changes made by policy and guidance that trumped published regulations, leading to regulatory confusion and uncertainty. Such changes have led potential buyers in the marketplace to be chary of relying on credits to meet what would otherwise be their nutrient reduction obligations, lest the value of those investments evaporate in a subsequent regulatory “adjustment.”

At the same time, the fact is that the market of willing buyers has reached a hiatus. Point sources have opted for the security of investing in their own long-term improvements to meet nutrient reduction obligations; and having done so and achieved mandated cap loads, the incentive to acquire credits has dissipated. But if the credit program is encouraged, that hiatus may be temporary. As municipal separate stormwater systems face the requirement of developing and implementing nutrient reduction plans, if the option is offered of acquiring credits as part of such plans, the credit program might assist in helping to channel funds through the market toward activities (whether it be in the agricultural or stormwater sectors) where nutrient reductions can be achieved in a more cost-effective manner.

This said, we are reluctant to endorse proposals that have come from some quarters that would set up a forced market – where the government would be statutorily obligated to purchase credits and charge “fees” or “assessments” to municipalities, stormwater authorities or perhaps others to fund the program. A true market system is one based on willing buyers and willing sellers, not forced transactions where one side is forced to participate. On the other hand, if it is determined that a public investment is needed to attract sufficient nutrient reductions (particularly from non-point sectors, such as agriculture), then we might suggest *pilot testing* a public procurement program to solicit and enter into long-term contracts for credit creation via a competitive bid/competitive proposal process – allowing the market to respond with competitive and cost-effective proposals, rather than just allocating funds to a range of “initiatives” and “measures” that we hope will generate reductions.

3. ***Establish and Encourage More Effective Stormwater Institutional Arrangements:*** The Chamber perceives that one of the impediments to effectively addressing the stormwater component of the TMDL lies in Pennsylvania’s currently balkanized institutional arrangements for stormwater. Across much of the Commonwealth, we see multiple communities in a watershed, each attempting to manage their own stormwater infrastructure and programs – often one flowing into the next. Although the Storm Water Management Act, enacted nearly 40 years ago, called for watershed planning for stormwater, implementation of stormwater management has been left to each municipality, and this municipality-by-municipality approach has been fostered by the MS4 permit program.

Tackling this challenge will require some evolution of our institutions toward a more watershed-based implementation structure. That evolution may well require some concerted educational effort and investment in fostering inter-municipal cooperation and the creation of stormwater management



authorities (as now authorized under the Municipality Authorities Code). A concept to be considered would be to establish a “seed fund” program that provides foundational support for creating such authorities and their initial funding, with the provision that they must establish and maintain a long-term sustainable funding base using the tools provided in the Municipality Authorities Code (e.g., a fee system premised on contribution to the stormwater challenges). In that process, we would note that in addressing various legislative proposals on this topic, the PA Chamber has consistently taken the position that those property owners who have invested in stormwater management practices, such as infiltration basins, to address their respective contributions must be given credit for such efforts in any fee structure.

4. ***Adopt Legislation Allowing Public-Private Partnerships in Stormwater and other Water/Wastewater Projects:*** The PA Chamber has long advocated that Pennsylvania consider the adoption of legislation authorizing counties and local governments, as well as Commonwealth agencies, to enter into public-private partnership (P3) transactions for various types of infrastructure and other projects. Although the General Assembly has done so in relation to transportation projects via Act 88 of 2012, counterpart authorizing legislation for other types of projects, including water, wastewater and stormwater, has been proposed but not progressed to fruition.

The viability of this tool in the field of stormwater is underscored in the EPA report, *Community Based Public Private Partnerships and Alternative Market-Based Tools for Integrated Green Stormwater Infrastructure* (April 2015).<sup>1</sup> This approach has been utilized successfully in our neighboring state of Maryland, where the Prince Georges County Clean Water Partnership was launched in 2014 via a P3 involving the county and Corvias Solutions.<sup>2</sup> In that area, traditional project delivery methodologies and procurement could have been utilized to address the stormwater issues (including Chesapeake Bay requirements). However, as described in the project’s website, “given the magnitude of the challenge of retrofitting 2,000 impervious acres with Green Infrastructure, with the flexibility to potentially grow to 15,000 acres of untreated impervious area by 2025, and an estimated cost of \$100 million, an alternative solution was sought.” Under that community-based P3, solutions were sought via a competitive proposal process. The selected solution involves a private partner, Corvias, is leading a \$100 million/30-year effort involving planning, financing, design and execution of projects (including many green infrastructure projects) across the entire watershed, with the private financing to be repaid via a stream of payments from the County’s stormwater fee program. Instead of a myriad of literally hundreds or thousands of procurements for individual projects conducted on a design-bid-build basis, this P3 approach brings to the table both financing and private expertise to more efficiently identify and execute cost-effective projects.

While no tool is a panacea, public-private partnerships are a tool that definitely should be added to the tool box. The Department and Administration should work with the General Assembly to move forward expeditiously with legislation that permits P3 transactions via competitive proposal procurement procedures in the water, wastewater and stormwater sectors. We must also note that P3’s can be a tool used to achieve meaningful, verifiable pollutant reductions; any enabling legislation must not establish additional mandates or obligations, particularly on sectors that have already achieved the necessary reductions in nutrient loading.

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<sup>1</sup> Community Based Public-Private Partnerships (CBP3s) and Alternative Market-Based Tools for Integrated Green Stormwater Infrastructure. U.S. Environmental Protection Agency Region 3 Water Protection Division, April 2015. [https://www.epa.gov/sites/production/files/2015-12/documents/gi\\_cb\\_p3\\_guide\\_epa\\_r3\\_final\\_042115\\_508.pdf](https://www.epa.gov/sites/production/files/2015-12/documents/gi_cb_p3_guide_epa_r3_final_042115_508.pdf).

<sup>2</sup> See <https://thecleanwaterpartnership.com/>.

5. ***Conservation District Programs and Other Should Build Upon Promising Outreach to the Agricultural Sector:*** The agricultural sector remains the most challenging element of the TMDL picture. We are encouraged by the recent Penn State evaluation of what farmers reported were best management practices they were implementing compared to what was observed in the field – which indicated that reported voluntary measures were, in fact, being implemented and in some cases underreported.<sup>3</sup> It should not require an overly elaborate regulatory program to encourage the type of communication needed to collect data on those measures and obtain credit for such efforts in the Bay model. A combination of enhanced Conservation District outreach programs, farmer self-assessments, periodic spot-checking of self-assessments of the type that Penn State demonstrated, and use of remote sensing technologies should be considered and advocated.

In this regard, we would encourage the agricultural community to modify its positions which limit effective use of satellite and other remote sensing technologies. As noted in a study prepared for EPA:

A principal reason for the often haphazard nature of BMP data collection by watershed projects is the fact that privacy laws and policies often restrict the type and amount of information available to those involved in a watershed project, most notably information about agricultural enterprises. Because specific, farm-level information about livestock, crops, farm inputs such as fertilizer and pesticides, and basic farm management is usually only available if disclosed by the individual farmer, watershed projects often have incomplete information or inconsistent levels of detail from farm to farm. Project investigators are often put into the position of having to reduce the level of detail to the least common denominator across farms or of patching together as much information as they can and then determining how to use it later. Confidentiality policies also drive government agencies that collect land use or management data to aggregate their data – even information collected on a site-specific basis – to a geographic scale (e.g., county, HUC-12) that reduces the utility of the data to a watershed project evaluating water quality influenced by specific drainage areas.<sup>4</sup>

Industries, municipalities, and others in the regulated community are universally subject to some amount of reasonable data collection by the government, including rights of inspection. The use of remote sensing to ascertain and verify use of BMPs on farms, so that they may be utilized in modeling loadings to the Bay, is by far less intrusive than the governmental oversight that other members of the regulated community face every day. We need to get past overly broad claims of “confidentiality” to tackle this shared challenge.

While some (perhaps many) farmers have taken on the challenge, adopted nutrient management plans, and undertaken various voluntary practices (such as no till and stream buffers), pursuit of best management practices is far from universal. A financial incentive approach, via the type of trading arrangement mentioned above, might help. But none of this will work unless the agricultural community fully embraces its responsibilities.

6. ***All Significant New or Expanding Nutrient Contributors Should be on Equal Footing.*** Under the current TMDL program, industrial and municipal generators of nitrogen and phosphorous loadings are subject to cap loading limits, with new or expanded loadings precluded unless offset by

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<sup>3</sup> Survey finds Pa. farmers have done much to protect Chesapeake Bay water quality. Penn State News, Dec. 15, 2016. <http://news.psu.edu/story/442579/2016/12/15/survey-finds-pa-farmers-have-done-much-protect-chesapeake-bay-water-quality>.

<sup>4</sup> Land Use and BMP Tracking for NPS Watershed Projects. Meals, et al., National Nonpoint Source Monitoring Program, August 2014. Available at [https://www.epa.gov/sites/production/files/2016-05/documents/tech\\_notes\\_11\\_aug28\\_bmtrack.pdf](https://www.epa.gov/sites/production/files/2016-05/documents/tech_notes_11_aug28_bmtrack.pdf).

countervailing reductions at the same source or the acquisition of credits representing equivalent reductions elsewhere. But it is not clear that the same rules apply to all major generators. For example, agricultural operations including CAFOs, are being sited and are expanding in various parts of the Bay watershed, but we do not see evidence that those operations (all of which should be subject to NPDES permitting requirements) are being required to obtain offsetting credits for their increased loadings. If our perception is correct, then we have a serious credibility and fairness gap in our approach to Bay TMDL obligations. All of us, whether businesses involved in agriculture or agribusiness, have a responsibility and when undertaking new enterprises or expansions, should be on equal footing in terms of requirements to plan for and mitigate the impacts associated with new or increased nutrient loadings.

We appreciate the opportunity to provide these comments, and for your attention and consideration of them. It is our sincere hope that our efforts, along with those of other stakeholders involved in the Pennsylvania WIP process, will lead to a Phase III plan that is viable, positive and effective as a path forward.

Sincerely,

A handwritten signature in black ink, appearing to read "Gene Barr".

Gene Barr  
President and CEO  
Pennsylvania Chamber of Business and Industry

**12. Kimberly Snell-Zarcone, Esq., Choose Clean Water Coalition,  
Camp Hill PA, [kim@choosecleanwater.org](mailto:kim@choosecleanwater.org)**

Attached please find comments submitted on behalf of the following members of the Choose Clean Water Coalition: Lower Susquehanna RIVERKEEPER, National Parks Conservation Association, Nature Abounds, PennFuture, and Pennsylvania Council of Churches. The comments respond to the Department's June 3, 2017 request for Public Comment Invited to Help Develop State Plan to Improve Local Water Health in Chesapeake Bay Watershed Counties. If you have any questions or would like to discuss the Coalition's comments further, please feel free to contact me.

Respectfully submitted,

Kimberly L. Snell-Zarcone, Esquire

Contractor for Choose Clean Water Coalition



July 7, 2017

Pennsylvania Department of Environmental Protection  
Policy Office  
Rachel Carson State Office Building  
PO Box 2063  
Harrisburg, PA 17105-2063  
(via electronic mail to [ecomment@pa.gov](mailto:ecomment@pa.gov))

**RE: Public Comment Invited to Help Develop State Plan to Improve Local Water Health in Chesapeake Bay Watershed Counties**

The undersigned members of the Choose Clean Water Coalition submit the following comments to help inform the Commonwealth of Pennsylvania's Department of Environmental Protection (DEP or Department) about how best to develop and implement the Phase III Watershed Implementation Plan (WIP).

It is no small secret that Pennsylvania is off-course in meeting its portion of the nutrient and sediment goals established in the Chesapeake Bay Total Maximum Daily Load (TMDL). In fact, “Pennsylvania is only about 10 percent of the way towards its 2025 nitrogen goal, and thus about 35 percent below its 2015 target.” (EPA Expectations for Pennsylvania’s Phase III WIP, April 27, 2017, p. 1)

The Department has solicited input regarding the planning, drafting, and implementation of the Phase III WIP. The undersigned members of the Choose Clean Water Coalition assert that in order to forge a path toward achieving local and Bay-wide water quality goals, the Commonwealth must:

- be realistic in its ability to provide funding for Department staff and restoration initiatives;
- include more detail and documentation in the portions of the WIP related to agriculture;
- include a frank assessment of whether or not the Department has the programmatic capacity necessary to implement the Phase III WIP and underlying restoration strategy;
- include and engage local partners in the planning and implementation of WIP III, particularly conservation districts;
- target financial and staff resources to the Southcentral tier of the state where agricultural pollution is most profound and where water quality improvements will have the most impact upon Bay restoration efforts;
- increase the quantity of inspections completed;
- require agricultural operations to fully implement their planning documents;
- focus on installation of efficient and effective best management practices;
- prohibit the land application of manure in the winter; and,
- require all farming operations to submit reportable information related to farm practice and best management practices to DEP or the County Conservation District.

### **Funding**

All parties involved understand that these are tough budget times in which we are operating. While there has been much talk about the state legislature passing a water usage fee or a new iteration of Growing Greener, neither is on the cusp of passage and should therefore not be relied upon when the Commonwealth is in the planning phase of WIP III. EPA expects the Commonwealth to “coordinate with EPA to perform resources workload model analyses in 2017 [to] determine if there are sufficient resources to implement the Commonwealth’s core state regulatory programs, and in 2018 to determine if there are sufficient resources to meet the Commonwealth’s Chesapeake Bay Phase III WIP implementation needs.” (EPA Expectations for Pennsylvania’s Phase III WIP, p. 5) EPA has also instructed the Commonwealth that any Chesapeake Bay funding provided by EPA for implementation of best management practices should only be applied to projects in priority watersheds in the Susquehanna and Potomac River watershed. (EPA Expectations for Pennsylvania’s Phase III WIP, p. 5)

### **Agricultural Sector**

EPA has stated that it expects the Commonwealth's Phase III WIP to contain more detail and documentation related to the Agriculture Sector because that sector is under backstop actions and oversight by EPA. EPA has also provided the Commonwealth with "state-specific expectations for jurisdictions and pollutant sectors which are under enhanced or back-stopped levels of federal oversight. . . ." (EPA Interim Expectations, p. 8) The Commonwealth's Phase III WIP must address gaps in programmatic capacity aimed at addressing "the financial cost share, technical assistance, and regulatory oversight capacity to deliver agricultural conservation practices at levels consistent with those projected as needed to achieve their Phase III WIP agricultural sector load reductions." (EPA Interim Expectations, p. 2) First and foremost, the Phase III WIP must document programmatic and policy changes needed to "[e]nsure compliance with and full implementation of state nutrient and sediment pollutant load reduction regulations." (EPA Expectations for Pennsylvania's Phase III WIP, April 27, 2017, p. 3) The Phase III WIP must also include a discussion of implementation incentives meant to encourage nutrient management planning and other priority best management practices. (EPA Expectations for Pennsylvania's Phase III WIP, April 27, 2017, p. 3) The Commonwealth also needs to identify and address the Department's lack of programmatic capacity and failure to track best management practices. (EPA Interim Expectations, p. 2) EPA notes that jurisdictions should consider corollary benefits of best management practices targeted for implementation, such as addressing other environmental issues, improving wetlands, increasing forest buffers in addition to water quality benefits of a practice. (EPA Interim Expectations, p. 3)

### **Local Engagement**

EPA has stated quite explicitly that local partners must be engaged in both the WIP III planning process and implementation of strategies and practices. (EPA Interim Expectations, p. 3) "A significant and integral driver towards restoring local waters within the Chesapeake Bay watershed and meeting the goals of the 2010 Chesapeake Bay Total Maximum Daily Load (Bay TMDL) is active engagement and participation from local partners, such as local governments, conservation districts, planning districts, municipalities, federal facilities, watershed organizations, source water protection groups, private businesses, and local elected officials." (Chesapeake Bay Program Partnership's Phase III WIP Stakeholder Assessment Action Plan, 2016, p. 1) The Bay Program has stated that "the Phase III WIPs should help local partners understand their contribution to achieving water quality improvements and clearly articulate who will be held accountable for following through on Phase III WIP implementation." (Chesapeake Bay Program Partnership's Phase III WIP Stakeholder Assessment Action Plan, 2016, p. 1)

The Bay Program recommends including local partners in discussions and decisions about who will take responsibility for which load reductions, from planning to implementation. (Chesapeake Bay Program Partnership's Phase III WIP Stakeholder Assessment Action Plan, 2016, p. 9) "A

justification of the distribution should be provided in terms of equity, practicality, or cost-effectiveness.” (Chesapeake Bay Program Partnership’s Phase III WIP Stakeholder Assessment Action Plan, 2016, p. 10) The Bay Program has stated that merely allocating load reduction responsibility to a local partner is not acceptable. (Chesapeake Bay Program Partnership’s Phase III WIP Stakeholder Assessment Action Plan, 2016, p. 9) Within the Phase III WIP, the Commonwealth must “demonstrate collaboration” with and among its partners, not merely set directives for them to follow. (EPA Expectations for Pennsylvania’s Phase III WIP, April 27, 2017, p. 2)

In addition to engaging local partners, the Phase III WIP must describe in detail how local planning goals below the state-major basin scales will be achieved. (EPA Interim Expectations, p. 1) “A recommendation is to engage those at the county level first to gain an understanding of the process of determining their fair share of the allocation and what they need to do in order to meet that target.” (Chesapeake Bay Program Partnership’s Phase III WIP Stakeholder Assessment Action Plan, 2016, p. 9) The Choose Clean Water Coalition supports county level planning goals in PA, with emphasis on the Southcentral part of the state with respect to the agricultural sector. If agriculture continues to lag behind in meeting its sector goals, DEP should assign individual cap loads to agricultural operations. A permitting program would be needed to capture all farming operations, but this would be a fair and equitable way to ensure that all farms are doing their part to meet the sector load. DEP has suggested that it would consider such a program. (A DEP Strategy to Enhance Pennsylvania’s Chesapeake Bay Restoration Effort, January 21, 2016, p. 29)

To demonstrate commitment to inclusion of local partners, the composition of Pennsylvania’s Steering Committee for the Phase III WIP must be adjusted to include more local partners. The Choose Clean Water Coalition suggests that directors of Conservation Districts in the Southcentral tier of the state should be added to the Steering Committee, particularly those from Cumberland, Adams, York, Lancaster, and Lebanon Counties. Pennsylvania’s Steering Committee for the Phase III WIP is comprised completely of state agency or quasi-agency officials. There are no county or local government officials represented on the Commonwealth’s Steering Committee for the development of the Phase III WIP. (Pennsylvania Chesapeake Bay Phase 3 Watershed Implementation Plan (WIP), Steering Committee Meeting Minutes, April 3, 2017)

Additionally, there is no representation on the Steering Committee by EPA. Failure to include EPA in discussions about how the Commonwealth could reach its Bay TMDL sector loads is a missed opportunity for guidance about whether the chosen path will be accepted by EPA as sufficient, especially in light of EPA’s enhanced oversight of the Commonwealth for both agriculture and stormwater.

### **Require Implementation of Planning Documents**

In order to create the culture of compliance that the Department seeks from agricultural operations, DEP is going to have to require farm operators to implement their nutrient and sediment control plans. "Inspection and verification activities related to agricultural . . . sources have been a missing piece in creating a culture of compliance with existing regulatory requirements, and documenting pollutant reductions necessary to meet our targets. If these basic functions of BMP documentation and verification of compliance are not given their proper role, Pennsylvania's performance in meeting water quality goals and Bay performance measures will continue to seriously lag." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 1) First and foremost, DEP must increase the number of agricultural inspections it is completing in order to address pollutant reduction deficiencies. (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 2)

EPA has set a goal for jurisdictions to inspect 10 percent of farms in the Chesapeake Bay Watershed annually, and the Pennsylvania Department of Environmental Protection has made a commitment to meet that goal within the Commonwealth's portion of the Bay watershed. (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 2) In 2014, DEP completed 592 farm inspections which is only 1.8 percent of the farms in the Commonwealth's portion of the Bay watershed. That is only 17.6 percent of EPA's required level of inspections, well below the 3,360 that EPA anticipates being inspected annually. (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 13) DEP completed even fewer inspections of agricultural operations in 2016. In 2016, DEP and Conservation Districts had only completed approximately 500 inspections of farming operations. (Agriculture Initial Inspection Update, Presentation to Ag Advisory Board, April 27, 2017)

PA DEP's strategy thus far for agricultural inspections, thus far, has been to require each County Conservation District Chesapeake Bay Technician under contract with DEP to do "50 Manure Management and Agricultural E&S Plan inspections, supplemented with an unfunded BMP data collection activity." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 9) PA DEP's strategy has focused exclusively on whether farms have planning documents and locating and quantifying previously undocumented best management practices. DEP's directive to Conservation District staff has been to focus on assuring "that everyone who is required to have plans to be in regulatory compliance has all the necessary plans applicable to their farming operation." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 9) Of the farms inspected in 2016, 64 percent had an administratively complete Manure Management Plan (MMP) while only 60 percent had an administratively complete Agricultural Erosion and Sediment Control Plan (Ag E&S Plan). (Agriculture Initial Inspection Update, Presentation to Ag Advisory Board, April 27, 2017)



DEP has completely ignored making a determination as to whether those plans have been implemented. DEP has specifically directed Conservation District staff to only seek confirmation that plans are in place, but staff should not seek to make a determination as to whether a farming operation is in compliance with those planning documents. This is completely contradictory to EPA's directive to implement planning requirements and BMPs. DEP's Standard Operating Procedure for farm inspections states that "[i]nspections do not include inspection of waste management systems, production areas, barnyards and other animal housing areas, or Best Management Practices (BMPs)." (Standard Operating Procedure, Chesapeake Bay Agricultural Inspection Program, SOP No. BCW-INSP-018, Version 1.0, Final, May 27, 2016, p. 14) The undersigned members of the Choose Clean Water Coalition believe it is the duty and obligation of DEP and Conservation District staff inspecting farming operations to make a determination about BOTH compliance with planning requirements AND implementation of MMP and Ag E&S Plans.

### **Geographic Targeting of Resources**

The Commonwealth must target financial and staffing resources to specific geographic areas where "accelerated restoration efforts are needed and where local governments are receptive towards making a discernable difference in their community in meeting their WIP commitments." (Chesapeake Bay Program Partnership's Phase III WIP Stakeholder Assessment Action Plan, 2016, p. 4) As discussed at the PA Steering Committee meeting on April 3, 2017, "[t]argeting should factor into each workgroup's discussion. Where BMPs are placed is as important as what, when[,] and how they are implemented." (Pennsylvania Chesapeake Bay Phase 3 Watershed Implementation Plan (WIP), Steering Committee Meeting Minutes, April 3, 2017) Given the lack of financial resources for the restoration effort, the Commonwealth must focus funding and staffing where it can most effectively and efficiently "maximize nutrient and sediment pollutant load reductions." (EPA Expectations for Pennsylvania's Phase III WIP, April 27, 2017, p. 2) EPA has stated that the Commonwealth's Phase III WIP should prioritize areas in the Susquehanna and Potomac River watersheds where restoration efforts will have the most impact on the Bay and where local water quality improvement can be achieved. (EPA Expectations for Pennsylvania's Phase III WIP, April 27, 2017, p. 2) EPA has stated that the Commonwealth should utilize available information and tools that assist "in identifying sources of nutrients and sediment, determining appropriate practices that reduce pollution flows, and calculating costs associated with selected actions. . . ." (EPA Expectations for Pennsylvania's Phase III WIP, April 27, 2017, p. 2) EPA acknowledges that programs and practices may need to be targeted to certain geographic areas in order to more effectively and efficiently reduce pollutant loads. (EPA Interim Expectations, p. 2). Accordingly, the Commonwealth should focus agricultural pollutant reduction programs and practices on the Southcentral tier of the state in which the majority of agricultural operations exist.

DEP's compliance efforts thus far have been spread across the watershed fairly even, based upon location of Chesapeake Bay Technicians at Conservation Districts that have a memorandum of understanding to complete work on behalf of DEP. However, the effort should

be more heavily targeted toward the Southcentral tier of the state, given the total agricultural loading to the Bay coming from that region. DEP should either contract for more Conservation District staff in those areas or target the efforts of its staff geographically to the Southcentral Regional Office with respect to agricultural enforcement. EPA has suggested that it would be appropriate for jurisdictions to contract with third parties to provide services that are central to the implementation of the WIP. (EPA Expectations for Pennsylvania's Phase III WIP, April 27, 2017, p. 4) Thus, DEP could contract with third parties to perform agricultural data collection and reserve staff for farm inspections related to plan implementation or pollution related discharge events.

Additionally, Conservation District Watershed Specialists should be utilized to facilitate restoration projects in impaired waters. This adjustment to job responsibilities was previously discussed by the Department and would be a better use of resources to achieve water quality improvements in each county. DEP has stated that the Department should "[i]mplement targeted efforts in impaired watersheds where the cause listed is . . . agriculture . . . and where geography and land use are amenable to successful BMP implementation. . . . These watersheds should be in an area where there is an interested local group ready to take the lead on implementation." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 11-12)

In addition to targeted efforts by DEP, EPA should also continue to complete targeted watershed assessments within Pennsylvania. DEP has previously acknowledged that EPA could pursue one of two approaches in order to further Pennsylvania's efforts to gain compliance with existing regulatory requirements for farming operations. In the first approach, "EPA would directly contract for field work to assess rates of compliance with state and federal requirements of animal Ag operations in Pennsylvania." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 20) In the second approach, EPA field staff would support 3-6 targeted watershed inspection efforts per year in areas with the highest nutrient loading rates for agriculture. (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 20) The undersigned members of the Choose Clean Water Coalition recommend that EPA continue to undertake targeted watershed assessments in the Southcentral tier of the Commonwealth.

### **Installation of Effective and Efficient Best Management Practices**

The Phase III WIP should focus restoration efforts at agricultural operations on best management practices that are effective and efficient at controlling the loss of nutrients and sediment. DEP has committed to "putting new high-impact, low-cost BMP projects on the ground in watersheds that are currently impaired by agriculture. . . ." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 2) DEP has suggested that it is appropriate for cost share programs and funding to be targeted to the most effective and efficient BMPs. DEP has stated, and the undersigned members of the Choose Clean Water Coalition agree, that it would be most beneficial for the jurisdiction to focus on

installation and implementation of the following agricultural BMPs: cover crops, tillage (no-till and conservation till), manure transport, streambank fencing, and buffers. (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 27)

### **Winter Manure Applications**

DEP should make programmatic and policy changes necessary to prohibit winter manure applications. It is well recognized that winter manure applications are not an effective or efficient use of nutrients as plants are not actively growing. It is also well recognized that nutrients are more likely to become unavailable to plants via runoff or leaching if they are not applied close in time to when plants are actively growing. EPA has also stated that Pennsylvania's Phase III WIP must include a discussion of programmatic, policy, legislative, and regulatory changes needed for "[r]estrictions on manure application during winter months to protect drinking water sources and ensure local and Chesapeake Bay water quality protection." (EPA Expectations for Pennsylvania's Phase III WIP, April 27, 2017, p. 3) DEP has also suggested that winter manure spreading should be prohibited unless it is conducted under an approved and certified nutrient management plan. (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 27)

### **Mandatory Reporting of Data**

DEP should make programmatic and policy changes necessary to require all farming operations to submit reportable information related to farm practice and best management practices to DEP or the County Conservation District. DEP has stated that "[c]ontinued reliance on voluntary reporting and costly estimation techniques of indeterminate accuracy result in continued high levels of state and Federal expenditure . . . and seriously hamper the Commonwealth's ability to make informed policy decisions on which to take effective action." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 6-7) DEP in partnership with the Penn State Agriculture and Environment Center completed a farm survey in which they were able to collect data on approximately 7,000 farms within Pennsylvania's part of the Bay watershed. However, there are no immediate plans underway to repeat this effort.

DEP has previously noted the importance of establishing a mandatory reporting requirement for all farming operations, even the smaller farms. DEP has stated the need to "[e]stablish reporting requirements for Ag E&S and Manure Management Plans in the agriculture sector, and provide the CDs with tools (Practice Keeper) to capture these data." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 12) All farms should be required to provide information or plans detailing how a farming operation is meeting DEP's regulatory requirements under the Clean Streams Law. "The data collected, coupled with verification by inspection and compliance assurance activities, will allow the Commonwealth to gather reportable, Bay model-countable data and will result in real improvement in water quality in Pennsylvania, and in the Chesapeake Bay." (A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort, January 21, 2016, p. 7)

Failure by the Commonwealth to draft and implement a Phase III WIP could lead to serious consequences by EPA, including, but not limited to: targeted EPA enforcement and compliance assurance inspections; establishing finer scale wasteload and load allocations; additional load reductions from point sources; and, nitrogen and phosphorus numeric water quality standards. The Commonwealth must use the Phase III WIP process to meaningfully engage with local partners to draft a plan in which resources are targeted to where they can be efficiently and effectively implemented to achieve water quality improvement, both local and Bay-wide.

If you have any questions or would like to discuss these comments further, please contact Kim Snell-Zarccone at (717) 648-0602 or [kim@choosecleanwater.org](mailto:kim@choosecleanwater.org).

Respectfully submitted by,  
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On behalf of:  
Lower Susquehanna RIVERKEEPER  
National Parks Conservation Association  
Nature Abounds  
PennFuture  
Pennsylvania Council of Churches

**13. Carissa Longo, Harrisburg PA, *carissa51@hotmail.com***

PA lags behind other states in educating our citizens about the importance of clean water and quality streams. Most citizens do not even know what a Watershed is, let alone, why it is important. Please endeavor to work with partner organizations and state agencies to increase education and outreach programs to farmers, landowners, businesses, schools (teachers and students), and other citizens to improve the Chesapeake Bay Watershed. Funding is needed to properly accomplish this goal.

**14. H.L. Campbell, Chesapeake Bay Foundation, Harrisburg PA,  
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See attached.



**CHESAPEAKE BAY FOUNDATION**  
*Saving a National Treasure*

July 7, 2017

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**RE: Pennsylvania's Phase III Watershed Implementation Plan Development for the Chesapeake Bay**

Dear Sir/Madam:

The Chesapeake Bay Foundation (CBF) and its more than 200,000 members thank the Department of Environmental Protection (DEP) for the opportunity to provide comments on Pennsylvania's development of the Phase 3 Watershed Implementation Plan (WIP 3) for the Chesapeake Bay Total Maximum Daily Load (Bay TMDL). CBF is the largest nonprofit organization dedicated to the protection and restoration of the Chesapeake Bay, its tributaries, and its resources. With the support of our members, our staff of scientists, attorneys, educators, and policy experts work to ensure that policy, regulation, and legislation are protective of the quality of the Chesapeake Bay and its watershed, the largest tributary of which is the Susquehanna River.

We applaud the Department for the success of the June 5, 2017 Stakeholder Kickoff and Listening Session. The attendance and enthusiasm, and the introductory and concluding remarks from all three Secretaries, demonstrate that now is the time for improving our local waters and the Chesapeake Bay. We could not agree more: restoring our local Pennsylvanian waters will lead to a restored Chesapeake Bay.

Our recommendations herein, which are in addition to those expressed at the small group discussions at the Kickoff, are presented as suggestions we believe will help remedy many of the deficiencies we cited in the first two Watershed Implementation Plans (WIPs), while taking

advantage of successful efforts that Commonwealth and others have undertaken, resulting in a more efficient, effective, and rapid pace of improvement to Pennsylvania's rivers and streams and the Chesapeake Bay.

### **Progress is being made**

It's important to note that according to EPA, Pennsylvania has reduced nutrient and sediment pollution by roughly 11.3 million pounds of nitrogen, 1.7 million pounds of phosphorus, and 540 million tons of sediment.<sup>5</sup>

More importantly, per the United States Geological Survey (USGS), 17 of 23 water quality monitoring stations in the Susquehanna River Basin demonstrated statistically significant decreasing trends in nitrogen pollution loads between 2005 and 2012. During that same time 19 monitoring stations saw trends in phosphorus pollution loads reduction.<sup>6</sup>

And progress is being seen the Chesapeake Bay. Recent field surveys have found submerged aquatic vegetation—a key factor in protective habitat for young crabs and fish and a natural reoxygenator of water—in the Bay to be at levels not seen by scientists in decades<sup>3</sup>, dissolved oxygen levels are at their second highest level in three decades<sup>4</sup>, and in 2015 water clarity is fourth best seen since 1985.<sup>78</sup>

### **But Pennsylvania is considerably behind commitments**

Yet, although decades of investments by Pennsylvania in clean water are producing returns, the Commonwealth remains significantly behind in meeting its WIP and progress in restoring the Chesapeake Bay remains tenuous.

In fact, recent assessments by the EPA<sup>910</sup> have indicated that the Commonwealth is notably behind on implementing its commitments for agricultural and urban stormwater runoff and is at “Backstop Action Level” for both source sectors. As shown below, similar findings were reported by CBF in June 2017.<sup>7</sup>

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<sup>5</sup> USEPA Chesapeake Bay Program. CBP Model 5.3.2 output from 2015 implementation.

<sup>6</sup> Moyer, D. 2016. Nitrogen, Phosphorus, and Suspended-Sediment Loads and Trends Measured at the Chesapeake Bay Nontidal Network Stations. U.S. Geological Survey, Richmond, VA. <sup>3</sup> Dietrich, T. “Chesapeake Bay grasses surge to levels not seen in decades.” The Daily Press. May 3, 2016. Online. <sup>4</sup> Dance, S. “Chesapeake Bay oxygen levels rise to second-highest since 1985.” The Baltimore Sun. July 15, 2016. Online. <sup>7</sup> Blankenship, K. “2015 Bay water quality was fourth best since 1985.” The Chesapeake Bay Journal. September 8, 2016. Online

<sup>9</sup> USEPA Chesapeake Bay Program. Evaluation of Pennsylvania's 2014-2015 and 2016-2017 Milestones June 17, 2016. Website: [https://www.epa.gov/sites/production/files/2016-06/documents/pa\\_2014-2015\\_-\\_20162017\\_milestone\\_eval\\_06-17-16.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/pa_2014-2015_-_20162017_milestone_eval_06-17-16.pdf)

<sup>10</sup> Blueprint Progress: Pennsylvania <http://www.cbf.org/document-library/cbf-reports/2016-17-interimmilestones-pennsylvania.pdf>



And, in a letter dated April 27<sup>th</sup> of 2017, EPA established detailed expectations for Pennsylvania’s WIP 3 which are intended to help address the “...serious challenges in meeting its commitments.”<sup>8</sup>

**Importance of Pennsylvania’s WIP 3**

In December of 2010, EPA issued the Bay TMDL for nitrogen, phosphorus, and sediment. Each of the six watershed States and the District of Columbia then developed WIPs which detail each jurisdiction’s strategy to meet the pollution reduction goals of the Bay TMDL.

As part of that effort, the Principals’ Staff Committee agreed to the “Chesapeake Bay TMDL Accountability Framework” in 2008. For the first time, it established a new step-wise approach to the Bay cleanup, one that called for three interlinked WIPs that include specific targets, strategies, and commitments to assure that pollution reduction practices necessary to meet the Bay TMDL will be accomplished by 2025. The WIP 3 is an essential piece of the Accountability Framework for ensuring that both EPA and Pennsylvania meet their legal obligations to implement the Bay TMDL.

To that end, the primary purpose of the WIP 3 is to provide the Bay jurisdictions an opportunity to engage local partners by establishing localized targets, strategies, and commitments consistent with WIP 1 and 2 “levels of effort” that provides reasonable assurance that Bay TMDL allocations will be achieved and maintained. This is particularly important for pollution source sectors that received enhanced oversight or backstop actions in the Bay TMDL. As noted, Pennsylvania’s agricultural and urban stormwater sectors are subject to such oversight and EPA continues to reserve the right to require point sources to treat to the limit of technology in Pennsylvania.

The accountability framework includes the WIPs, two-year milestones, and EPA’s tracking and assessment of restoration progress and the potential use of federal contingency actions if jurisdictions fail to meet their commitments required under the TMDL. These are essential tools to help attain water quality standards required under the Clean Water Act (CWA). The CWA section 303(d) requires that a TMDL be “established at a level necessary to implement the applicable water quality standard.” Achievement of the water quality standard requirements can only be met with reasonable assurance that the TMDL’s load allocations will be achieved. Reasonable assurance that Bay TMDL allocations will be achieved and maintained, including offsets for any new or increased pollutant loads, falls squarely under the purview of Section



117(g)(1) of the CWA which directs the EPA Administrator to “ensure that management plans are developed and implementation is begun...”

As noted above, since 2010 EPA has consistently and increasingly raised concerns regarding the ability of the Commonwealth to implement it’s the clean water commitments in its WIPs and associated milestones.

<sup>8</sup> EPA Expectations for Pennsylvania’s Phase III Watershed Implementation Plan.

[https://www.epa.gov/sites/production/files/2017-](https://www.epa.gov/sites/production/files/2017-05/documents/final_pennsylvania_phase_iii_wip_expectations_4_27_17_508.pdf)

[05/documents/final\\_pennsylvania\\_phase\\_iii\\_wip\\_expectations\\_4\\_27\\_17\\_508.pdf](https://www.epa.gov/sites/production/files/2017-05/documents/final_pennsylvania_phase_iii_wip_expectations_4_27_17_508.pdf)

Simply stated, the WIP 3 represents the last formal opportunity for Pennsylvania to develop a successful plan towards meeting the Bay TMDL.

Specifically, CBF’s recommendations on the plan itself fall into five critical elements:

1. Localization of efforts
2. Harmonization of resources
3. Source specific opportunities
4. Accounting for growth
5. Supportive features

### **Critical Element 1: Localization of efforts**

*“...Local planning goals, showing how the Phase III WIP goals will be achieved through action at county, municipal, and/or sub-watershed scales — especially in priority areas in the Susquehanna and Potomac River watersheds where the most impact to the Bay and local water quality can be achieved.”*—April 27, 2017 letter to Pennsylvania from EPA entitled Expectations for Pennsylvania’s Phase III Watershed Implementation Plan.

As noted above, we believe that one of the reasons why Pennsylvania’s efforts have been historically challenged is that expectations and responsibilities were not effectively communicated to or engaged with local decision-makers and stakeholders. Successfully doing so can take numerous forms, such as targeted outreach and education and multi-tiered and multimedia communications, but also includes localized prioritization based sub-watershed pollutant loading, local area land use, receptiveness of landowners, and other factors. In any case, meaningful and collaborative local stakeholder engagement and clear and measurable expectations are crucial.

Pennsylvania faces a number of challenges in determining an effective and efficient scale for localization within the context of the WIP 3. Frankly, given the necessity for greater stakeholder engagement, we believe that identifying specific local areas should not necessarily be the responsibility of the WIP 3 workgroups or the Steering Committee, but rather, established as specific outcomes for a prioritized subset of counties to undertake initially followed by other counties as the process unfolds.

We suggest an approach where the WIP 3 ranks counties based on a myriad of factors such as cumulative pollutant load, normalized density of nonpoint source impaired streams, current and projected land use, and socio-economic factors like existing leadership, stakeholder capacity and land prices. Starting with the top ranked/critical counties, stakeholders from each county would be tasked with further categories for detailed examination and prioritization of the subwatersheds (e.g., HUC 12 or similar) within each county. Finally, within each county a ranked prioritization of HUC 12 or similar subwatersheds would be developed. Those priority subwatersheds could then be targeted for the development of specific plans and actions that would further refine critical source areas through means such as pollutant flow path analysis. Specific pollution reduction practices and protocols would be identified in a fashion akin to EPA's nine elements of a comprehensive watershed plan for nonpoint source impaired waters<sup>11</sup>, which includes:

- An identification of the causes and sources or groups of similar sources that will need to be controlled to achieve the load reductions estimated in this watershed based plan.
- An estimate of the load reductions expected for the management measures.
- A description of the management measures that will need to be implemented to achieve the load reductions and an identification of the critical areas in which those measures will be needed to implement this plan.
- An estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon, to implement this plan.
- An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the management measures that will be implemented.
- A schedule for implementing the management measures identified in this plan that is reasonably expeditious.
- A description of interim, measurable milestones for determining whether management measures or other control actions are being implemented.
- A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining water quality standards and, if not, the criteria for determining whether this watershed based plan needs to be revised or, if a TMDL has been established, whether the TMDL needs to be revised.
- A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established.

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<sup>11</sup> EPA. Handbook for Developing Watershed Plans to Restore and Protect Our Waters. <https://www3.epa.gov/region9/water/nonpoint/9elements-WtrshdPlan-EpaHndbk.pdf>

For the above to be successful, or any effort under the WIP 3 employed the Commonwealth, we believe a far more robust, collaborative, and comprehensive approach to engaging stakeholders is necessary. Thus far, DEP, along with the Department of Conservation and Natural Resources (DCNR) and the Department of Agriculture, have done a commendable job at putting forth the “*Game Plan for Success*”<sup>12</sup> and outlining a process to get the job done. While the structure is organized and divided into various work groups with an agency-led steering committee, the inclusion of stakeholders can be viewed as narrow. Through this limited process, key stakeholders and/or groups of stakeholders may be left out of the process. The fact that nearly 250 people attended the Stakeholder Kickoff and Listening Session event on June 5<sup>th</sup> is all the evidence needed to show the widespread level of interest and desire to be included in the process.

No matter how great a plan the Commonwealth creates, improvements in water quality will come only from the plan’s implementation. DEP’s role cannot be understated. However, the greatest chance of success will come from local citizens and groups being engaged and motivated to improve their local waters. Gaining local commitment and action stems from their involvement in the planning process. For the WIP 3 to be successfully implemented, the planning process must be localized. We strongly urge the Department to allow local groups to create local plans. Although no one structure currently exists to handle such a task, we recommend starting with the existing structures such as Councils of Governments (COGs), County Conservation Districts, watershed associations, and others.

In summary, we recommend the Commonwealth develop and adopt a deliberate approach to the prioritization of areas within each county of the Bay watershed, and that local partnerships be developed in priority watersheds where nutrient loads and restoration opportunities are high, local impairments exist, with special emphasis on local efforts that are underway or capacity otherwise exists and can be built upon, as suggested by *Pennsylvania in the Balance*.<sup>13</sup>

This will require new types of technical assistance to local groups to develop plans and approaches, the cultivation of local leadership, and networking among watershed leaders to sustain partnerships in priority watersheds throughout the Commonwealth.

The result: efforts are prioritized in the right places, with the right practices, and engage the right constituencies.

## **Critical Element 2: Harmonization of resources**

While it is necessary to undertake a deliberate and systemic localized approach, in order to galvanize local efforts, the coordination and harmonization of existing and new programs,

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<sup>12</sup> Pennsylvania Department of Environmental Protection. May 2017. Game Plan for Success. [http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/WIP/III/\(6\)%20Game%20Plan%20for%20Success\\_Revised.pdf](http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/WIP/III/(6)%20Game%20Plan%20for%20Success_Revised.pdf)

<sup>13</sup> Pennsylvania in the Balance Report. March 1, 2017. Penn State Agriculture and Environment Center. [http://agsci.psu.edu/aec/research-extension/conferences-and-workshops/pa-inbalance/default/extension\\_publication\\_file](http://agsci.psu.edu/aec/research-extension/conferences-and-workshops/pa-inbalance/default/extension_publication_file)

technical and financial resources, and initiatives should be explored for incorporation into the WIP 3.

Such an approach can take numerous forms and functions, depending upon the local needs, but could include, in no particular order:

- Synchronized federal and state financial assistance opportunities. Such an endeavor would establish a standardized application, deadlines, scoring criteria, and other factors to streamline the application process and increase collaboration among local stakeholders. Inherently, this process would facilitate greater leveraging of existing state, federal, and potential private resources towards water quality initiatives.
- Targeted and coordinated federal, state, and private technical and financial assistance in high priority local subwatersheds, areas with existing backlogs, regions found to have of high levels of non-compliance with existing applicable regulations, particularly agricultural and Municipal Separate Storm Sewer System (MS4) areas, and where opportunities exist such as in areas found to have highly restorable impaired streams, willing landowners, low land use pressures, and where critical practices, such as forested buffers, are found to have higher opportunities for implementation.
- Integration of plans and initiatives. In addition to harmonized resource delivery, the incorporation of the myriad of water pollution plans including, but not limited to, local source water protection plans, existing and updated section 319 nonpoint source watershed plans, MS4 TMDL plans and/or Chesapeake Bay Pollution Reduction Plans, Long Term Control Plans for combined sewer overflows, and existing, updated, and new Act 167 stormwater management plans will allow for increased opportunities for “stacked benefits,” and program integration and delivery, thus furthering cost-effective use of technical and financial resources.
- Public-Private Partnerships. Increasingly, interest has been expressed in leveraging private resources towards water quality initiatives. Approaches such as “Pay-for-Success” and social impact bonds employed to water quality challenges have been offered as potential avenues. (CBF is piloting a Pay-for-Success model in Pennsylvania, via a recently awarded USDA NRCS Conservation Innovation Grant. An Environmental Impact Bond is being employed by D. C. Water in the District of Columbia to jumpstart implementation of their green infrastructure program.)

Adopting a deliberate approach to programmatic integration as part of the WIP 3 will allow for an increased efficiency in the utilization of limited existing resources and establish the framework for more cost-effective use of any new resources acquired at the federal, state, or private level.

### **Critical Element 3: Source specific opportunities**

#### *Agriculture*

Pennsylvania’s Phase I Watershed Implementation Plan in 2011 relied on all farms in the watershed meeting regulatory requirements, by developing and following plans to manage

manure and other nutrient sources, and to prevent erosion and sediment loss. In addition to preventing water pollution, these plans would improve crop utilization of nutrients and keep top soil in place to sustain long-term production. The Pennsylvania Department of Environmental Protection (DEP) stated in the Phase I WIP: “the expectation is that all 40,000 of the estimated farms in the watershed could be in baseline compliance in 7 years.”<sup>14</sup><sup>15</sup> However, six years into this process, Pennsylvania has just begun the necessary steps to ensure that we meet this goal.

The process for verifying which farms have the Manure Management Plans and Erosion and Sediment Control plans is a strong step in the right direction. We are concerned with both the number and quality of these inspections to date. With only 1,125 farms visited between October 2016 and March 2017,<sup>16</sup> the progress is far below what is needed to achieve the annual goal of visiting 10 percent of farms annually, although the pace of inspections has quickened now that the process is more established. CBF is pleased that the process is reaching farms that previously had worked less with Conservation Districts, so they are most likely focusing on the farms with the greatest need for plan development and implementation.

These inspections, however, only assess whether the required plans *exist*, not whether they are fully *implemented*, address all environmental concerns, and help farms meet production goals -- a major shortfall of efforts to date. We hope that the process may be adapted to promote a greater

“culture of stewardship,” as suggested by *Pennsylvania in the Balance*, not simply regulatory compliance of having plans. The inspection process should provide an opportunity to help farmers to improve soil health, reduce erosion, improve nutrient utilization, and manage manure as a resource, to both reduce pollution and improve production.

Pennsylvania faces a significant shortage of trained technical assistance providers, and needs to increase training opportunities to build and strengthen the network of conservation professionals necessary to meet increased farmer demand for developing plans and implementing their associated conservation practices. The WIP 3 should support efforts to train interested students and professionals. Farmer-to-farmer approaches and community, technical and vocational schooling opportunities should also be pursued, as suggested by *Pennsylvania in the Balance*.

CBF supports the Department of Agriculture’s proposed agricultural certification program to recognize and reward producers who have reached a high bar of conservation, to provide recognition, market-based incentives, possibly expedited processes for permitting, Resource Enhancement and Protection (REAP) Program tax credits, and nutrient trading credits. As recommended by *Pennsylvania in the Balance*, the process needs to ensure that participating

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<sup>14</sup> Pennsylvania Department of Environmental Protection. January 11, 2011. Pennsylvania Chesapeake Watershed Implementation Plan. Page 102.

<http://files.dep.state.pa.us/Water/Chesapeake%20Bay%20Program/ChesapeakePortalFiles/REVISED%20FINAL%20PA%20Chesapeake%20Bay%20WIP%201-11-11.pdf>

<sup>16</sup> Pennsylvania Department of Environmental Protection. June 22, 2017. “Pennsylvania’s Phase III Watershed Implementation Plan.” Presentation to Agricultural Advisory Board.

farms adequately reduce nutrient and sediment pollution to meet TMDL goals, above and beyond current regulatory compliance of merely having a plan in place.

PAOneStop<sup>17</sup> provides online tools to create farm maps and generate information to develop Manure Management or Nutrient Management Plans, Nutrient Balance Sheets, and Erosion and Sediment Control Plans to help farmers meet regulatory requirements. The program requires funding to fully develop the Manure Management module, to maintain the system, keep it updated, and provide education and technical assistance to use it. Investments in this program would help alleviate the current shortage of technical assistance staff to assist farmers with developing and updating plans to will help them meet regulatory requirements and improve their environmental stewardship.

We applaud the efforts to document the previously uncounted conservation practices, through the survey conducted by Penn State University<sup>18</sup> and U.S. Department of Agriculture's remote sensing analysis.<sup>16</sup> These data are critical to assessing true progress; however, because these surveys provided confidentiality to farmers, future tracking efforts may have difficulty avoiding double counting these recently included practices. There must be continued efforts to keep track of all conservation practices, whether or not established with public assistance, but with a credible process for determining which were previously counted. Similarly, there needs to be a process to remove practices that are no longer functioning.

### *Regulated stormwater*

We recognize that reducing nutrients and sediment from the stormwater sector is both costly and complex. However, urban and suburban runoff is a significant source of water pollutants to both the Chesapeake Bay and local waters. This source of pollution is the third leading cause of stream impairment in the Commonwealth<sup>19,20</sup>. Furthermore, urban and suburban runoff have remained under backstop actions and enhanced oversight since EPA began evaluating progress towards TMDL goals. We are encouraged by the new 2018 PAG-13 Small Municipal Separate Storm Sewer System (MS4) permit. Introducing a numeric reduction target for sediment and nutrients that must be achieved over the course of the 5-year permit cycle, is a welcome step in the right direction.

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<sup>17</sup> <https://www.paonestop.org/>

<sup>18</sup> Penn State College of Agricultural Sciences Environment and Natural Resources Institute. December 15, 2016. *An Analysis of the Pennsylvania Farm Conservation Practices Inventory for Purposes of Reporting Practices to the Chesapeake Bay Program*.

<http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/Farm%20Survey%20Report%20Final%20121516.pdf>

<sup>16</sup> Tetra Tech, Inc. December 13, 2016. *Assessment of NRCS Remote Sensing Pilot in Potomac River Basin of Pennsylvania*. [http://www.chesapeakebay.net/channel\\_files/24633/assessment\\_of\\_pilot\\_remote\\_sensing\\_12-132016.pdf](http://www.chesapeakebay.net/channel_files/24633/assessment_of_pilot_remote_sensing_12-132016.pdf).

<sup>19</sup> Pennsylvania Department of Environmental Protection. July 2016. 2016 Draft Pennsylvania Integrated Water Quality Monitoring and Assessment Report. <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document->

<sup>20</sup> [/2016 Draft Pennsylvania Integrated Water Quality Monitoring and Assessment Report Updated 0728-2016.pdf](http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-/2016%20Draft%20Pennsylvania%20Integrated%20Water%20Quality%20Monitoring%20and%20Assessment%20Report%20Updated%200728-2016.pdf)

The Department's 2016 Strategy to Enhance Chesapeake Bay Restoration Effort also indicated a renewed commitment to reducing sediment and nutrients from the stormwater sector<sup>21</sup>. While the Department has fulfilled some of the recommended stormwater actions, it has fallen short on delivering a small grant program for stormwater authority feasibility studies, upfront administrative costs, and a sustainable cost-share program for best management practices (BMPs) related to MS4s. The time preceding the release of *"The Reboot Strategy"* was the ideal time for a small grant program encouraging stormwater authorities, while the MS4 community was developing their Chesapeake Bay Pollutant Reduction Plans requiring a 10% reduction in sediment.

Another action *"The Reboot Strategy"* lays out in addressing urban and suburban stormwater is a renewed effort in funding, developing new and updating previous Pennsylvania Storm Water Management Act of 1978 (Act 167)<sup>22</sup>. In order to be successful, however, this program should be updated. See the Miscellaneous section for more information.

#### *On-lot sewage management (septic systems)*

*"In the case of new or increased loading from sources other than permitted point source dischargers, jurisdictions are expected to estimate loadings and ensure offsets that fully compensate for this estimated increase in pollutant load."*—Bay TMDL, Appendix S (detailing "common elements" for jurisdictions to include when developing offset programs).

Although comparatively small in comparison to other source sectors, on-lot septic system nitrogen loads have continuously grown, partially because unlike new septic systems do not have to achieve the no net increase standard that new or expanding sewage treatment facilities must meet.

For instance, a new residential development that can hook up to an existing sewer line may either be required to pay the local authority a fee to offset increased nutrient loads or provide offsets in the form of credits. Alternatively, the development could build a "package" plant to provide sewage treatment if conditions were appropriate. In this case, the no net increase provision applies and credits or appropriate treatment such as spray irrigation would need to be obtained or employed. However, if on-lot septic systems are to be employed as the sewage treatment technology, the developer and/or landowners have no obligation to address nitrogen loads from the on-lot systems. Not only does this allow for the incremental increase in total load from this source, it also may establish an incentive for large lot development and septic systems over other treatment options, particularly in rural areas.

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<sup>21</sup> Pennsylvania Department of Environmental Protection. 2016. A DEP Strategy to Enhance Pennsylvania's Chesapeake Bay Restoration Effort.

<http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/DEP%20Chesapeake%20Bay%20Restoration%20Strategy%20012116.pdf>

<sup>22</sup> Pennsylvania Department of Environmental Protection. 1978. Storm Water Management Act.

<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-87074/3930-BK-DEP0121.pdf>

To ameliorate this issue, the WIP 3 should close the “loophole” available for septic systems and require new or reconstructed on-lot septic systems to also achieve a no net increase in nutrient loads via site appropriate nitrogen-removing technology or the purchasing of offsets under the Commonwealth’s existing Nutrient Credit Trading Program.

#### **Critical Element 4: Accounting for growth**

*“Where the TMDL does not provide a specific allocation to accommodate new or increased loadings of nitrogen, phosphorus, or sediment, a jurisdiction may accommodate such new or increased loadings only through a mechanism allowing for quantifiable and accountable offsets of the new or increased load in an amount necessary to implement the TMDL and applicable WQS in the Chesapeake Bay and its tidal tributaries. Therefore, the Chesapeake Bay TMDL assumes, and EPA expects, that the jurisdictions will accommodate new or increased loadings of nitrogen, phosphorus, or sediment that do not have a specific allocation in the TMDL with appropriate offsets supported by credible and transparent offset programs subject to EPA oversight.”* —Implementation and Adaptive Management Section of the Bay TMDL

The Bay TMDL not only requires pollution reductions necessary to achieve established cap loads for nutrients and sediments, but also requires that once those cap loads are obtained that they be maintained in perpetuity. As a result, assuring that pollutant loads result in no-net increase as conditions within the watershed shift through population growth, new development, emergence of new industries, changes to agricultural activities and other factors, is essential to assuring the success of the Bay TMDL and local water quality.

Currently, the Commonwealth does not have an explicit Accounting for Growth program per se. Instead, a sector specific approach has been employed, relying on approved offsets and permitting requirements, as cited in the Phase 1 WIP. This approach is centered upon requiring any new or expanded wastewater discharge to offset loads to a net zero discharge equivalent and the NPDES post-construction stormwater management peak rate and volume control permit standards for new development that aim to achieve the functional equivalent of a no-net increase of stormwater pollutant loads.

Using the language from the TMDL and EPA’s expectations of the jurisdictions to address how they are going to offset any increases in nutrient and sediment pollutant loads as a result of growth, we argue that the current sector specific approach employed in Pennsylvania does not adequately address new pollution sources.

We believe a more comprehensive approach is required, given Pennsylvania’s changes. As noted above, information indicates that on-lot septic system nitrogen loads are continuing to grow. And EPA recently concluded that between 2007 and 2012, Pennsylvania layer operations increased by 38 percent in Pennsylvania counties that have some portion in the Chesapeake Bay watershed.<sup>20</sup>

As noted in EPA’s June 30<sup>th</sup> interim evaluation of Pennsylvania’s milestones progress, the agency expects Pennsylvania to understand where growth is occurring, and where loads need to



be offset, to offset these new loads within the appropriate timeframe, and to continue to track and account for new or increased loads.

To do so comprehensively and quantitatively, is logistically challenging. However, the Commonwealth should establish a process for the collection and evaluation of information pertaining to current and projected landscape level changes, including but not limited to, land conversion/construction/development, changes in forest cover, on-lot septic systems, AFOs/CAFOs, new or expanded industrial activities, including resource extraction. Information obtained from such an endeavor could be used for the basis of exploring new or revised permitting requirements and approaches and offsetting requirements.

### **Critical Element 5: Supportive features**

In addition to the above, several more specific elements and recommendations should be explored as part of the WIP 3 process. They include, but are not limited to:

#### *Pennsylvania's Nutrient Credit Trading Program*

CBF supports nutrient trading programs that are properly designed and implemented, since they offer a way to achieve and maintain pollution reductions in a cost-effective and environmentally beneficial manner. The key to any nutrient trading program is to ensure net environmental benefits and public accountability. In fact, the EPA guidance to permit writers regarding trading programs states that they should “strive to be transparent, real, accountable, defensible, and enforceable.”

In 2015, the Department began implementing improvements to Pennsylvania's Nutrient Credit Trading Program due to EPA objecting to National Pollutant Discharge Elimination System (NPDES) permits which employ traded credits over concern of the quality of credits being used for compliance. We view these improvements as a step towards the needed changes to the

<sup>20</sup> EPA Interim Evaluation of Pennsylvania's 2016-2017 Milestones Progress  
June 30, 2017. [https://www.epa.gov/sites/production/files/2017-06/documents/pa\\_interim\\_2016\\_2017\\_milestone\\_eval\\_20170630.pdf](https://www.epa.gov/sites/production/files/2017-06/documents/pa_interim_2016_2017_milestone_eval_20170630.pdf)

Program. During a DEP presentation in March 2015, stakeholders were told to expect regulation changes to occur with draft regulations coming in 2016 and published final regulations set for fall 2017. DEP's last programmatic milestone report indicates that draft regulations to the Trading Program have yet to occur.

One thing that was missing from the program improvements is a formal third party verification requirement that the BMPs exist and properly function. Independent, third party verification is the only way to assure the Trading Program is transparent and sound. In accordance with the recent EPA Final Technical Memorandum, verifiers are to be absent of conflict of interest. Allowing a financially compensated party responsible for credit generation to validate project installation, such as by self-verification or verification by a credit aggregator, is a conflict of

interest and does not ensure the installation and long term maintenance of credit generating practices. CBF requests a regulatory change to the Trading Program to require third party, independent verification of nutrient credit generating projects. Third party verification should include, at a minimum, an administrative review of certification paperwork, credit calculations, and periodic on-site visits to ensure project implementation and baseline conditions are being met. In addition, for projects including manure conversion technologies and manure export, a third-party review should also include, at a minimum, verification of nutrient management on farms receiving manure products, proper grab sample procedures, laboratory results, and tracking of manure shipments.

### *Resource Capacity Assessment*

The WIP 3 should specify the level of financial and technical assistance needed and what funding streams will be secured, leveraged or appropriated and at what levels for all programs and recommendations. This analysis would logically assume shared contributions from the federal government, the state, and producers themselves. Without a clear assessment of the necessary levels of technical and financial assistance spelled out in the WIP 3 coupled with specific funding streams meeting that level, a key element of reasonable assurance will not be satisfied.

Indeed, to its detriment previous WIPs failed to mention imminent shortfalls and reductions and what steps could have been taken to minimize the impacts.

### *Funding for County Conservation Districts and Core Conservation*

While CBF supports efforts to explore innovative technologies, we are concerned that this focus may distract the DEP from ensuring that “the basics” are addressed first, such as forested buffers, cover crops, streambank fencing, barnyard treatments, and other BMPs needed for soil health and nutrient management. It is from these practices that PA will derive the lion’s share of reductions at the lowest cost, and where local streams and the Bay will be improved.

Previous WIPs relied heavily on County Conservation Districts for delivery of core conservation practices, and placed additional responsibilities on staff, without providing further resources. The WIP 3 should estimate the additional staffing and resources for the conservation districts to implement the supplementary outreach, compliance and technical assistance necessary for implementation of the agricultural portion of the Bay TMDL and provide the necessary increase in future state budgets.

### *Maximize use of the Resource Enhancement and Protection (REAP) tax credit program*

This efficient and over-subscribed tax credit program has established a tremendous track record of matching tax credits with private resources to achieve conservation goals. Despite its effectiveness at supporting conservation goals and leveraging private funds, the allocation to REAP is not fully funded per the authorizing legislation.

CBF recommends that the allocation for the Resource Enhancement and Protection (REAP) tax credit program be restored to at least \$15 million beginning next fiscal year until unmet demand for financial assistance comes into line with available funding from all sources, and milestones for BMP implementation are being consistently met.

### *Pennsylvania's Stormwater Management Act 167*

When passed in 1978, Act 167 was a unique and progressive step towards better stormwater management. But, in many ways, the Act has outlasted its usefulness and needs to be updated to reflect today's regulatory realities. With updates that require preventing new sources of stormwater pollution and addressing problems from existing development, Act 167 could once again serve as the framework for planning and implementing stormwater management relevant to the challenges of today, particularly for municipalities currently not part of the MS4 program.

Unfortunately, Act 167 has fallen out of favor as a tool. For a number of years the program has received no funding from the legislature, and as a result new plan development and revision/updating of existing plans has largely ceased, particularly in Pennsylvania's Bay watershed.

Act 167 could be used as the fundamental tool to achieve compliance with the non-MS4 stormwater-related requirements of the Bay TMDL, as well as local TMDLs. But in order for it to function in such a fashion, the Act should be revised so that requirements for such plans and ordinances explicitly and quantitatively integrate achieving and maintaining TMDL Waste Load Allocations (WLA) and Load Allocations (LA) for stormwater.

### *Urban Nutrient Management (Lawn Fertilizers)*

Recent research has indicated that turf cover ranges from 2.1 to 3.8 million acres, or 5.3 percent to 9.5 percent of total Bay watershed area. Approximately 75 percent of current turf cover is potentially devoted to home lawns. In Pennsylvania, lawns cover an estimated 1,059,015 acres—most of which occurs in south-central part of the Commonwealth<sup>23</sup>. Although precise data on management techniques does not exist, the potential implications to local and Bay water quality are large and should be a primary focus.

Although numerous programs attempting to limit the impact of fertilizers on water quality have been developed and implemented across the United States in recent decades, given the size and magnitude of the Bay effort in Pennsylvania, the most readily implementable approach could be to simply limit the sale of phosphorus-based lawn fertilizer in the Commonwealth.

A study released by Virginia Tech supports the concept of restrictions of fertilizer applications, with exemptions for nutrient deficient soils or new seedings, as one of the most effective approaches to reduce nutrient runoff within the Bay watershed. Researchers at Virginia Tech

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<sup>23</sup> Chesapeake Stormwater Network. 2010. CSN TECHNICAL BULLETIN No. 8 The Clipping Point: Turf Cover Estimates for the Chesapeake Bay. Baltimore, MD.

estimated that a potential 25 to 50 percent reduction in total phosphorus loading to stormwater could result within several years of the prohibition. The study also concluded that the prohibition achieved an estimated 10 to 20 percent reduction in total nitrogen loads to stormwater runoff.<sup>24</sup>

Given the clear benefit such an approach would yield at relatively low cost, through legislation Pennsylvania should enact a lawn fertilizer restriction law which would ban the sale of all fertilizers designed for turf lands that contain phosphorus and those that contain less than 25 percent slow release nitrogen. Further, by law, the application of fertilizer that contains nitrogen should be limited on turf lands to once a year unless required by a valid soil test. Applications of fertilizers should be allowed for new seedings on construction and reconstruction sites and for areas where soil test indicate a nutrient deficiency. A multi-year citizen education program will need to accompany the effort to ensure homeowner compliance.

### *Improved Phosphorus Management*

The current Phosphorus Index allows phosphorus to accumulate in some soils beyond crop needs, and therefore will not adequately protect water quality over the long term. Therefore, the WIP 3 must outline a strategy to revise phosphorus management standards that will be implemented over time to address the problem of excessive phosphorus accumulation. Elements of this strategy may include:

- Revision of nutrient management planning requirements to prevent oversaturation of soil phosphorus, such as by reducing the P Index scores where P may not be applied or may be applied at reduced rates, within one year, or refining the P Index to prevent oversaturation in critical areas.
- A limit on P application to the rate needed for crop production, based on soil tests and realistic yields, over a specific timeline. For example, these standards could be implemented by 2018 for Concentrated Animal Operations (CAOs) and Concentrated Animal Feeding Operations (CAFOs), and for all farms by 2025.
- Development of new strategies to correct the regional imbalance of phosphorus that results in a heavy influx of this mineral that is a finite natural resource. Pennsylvania must reduce the flow of phosphorus in livestock feeds into the region, and/or develop new strategies to cost-effectively transfer it to locations that need it.

### *Coordination among All Organizations and Agencies*

The effort to assure that all farms in the Chesapeake Bay watershed are developing and implementing the necessary conservation and manure management plans will require

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<sup>24</sup> Daniels, W.L., M. Goatly, R. Maguire, D. Sample. 2010. Effects of Fertilizer Management Practices on Urban Runoff Water Quality. Virginia Polytechnic Institute and State University, Blacksburg, VA.

collaboration among all parties working with farmers, not just conservation districts and DEP. The WIP should recommend roles and an on-going planning process bringing together on a consistent basis the Steering Committee, Committed Partners, and others.

A coordinated and long-term effort could advance innovative approaches that have not been employed in the past; for example:

- All Erosion and Sediment Control and Conservation plans should address all water quality problems on the farm, and they should be developed in close collaboration with the farmers to ensure that they will be fully implemented.
- Agricultural lenders should be verifying that their clients are implementing the necessary plans, to reduce the financial risks of farms with serious pollution problems.
- Insurance providers could verify the implementation of plans, to reduce their liability.
- Milk inspectors could inform farms of their requirements, as a way to ensure that the farms remain in production and, in some cases, produce higher quality milk, such as when cows are no longer standing in muddy animal concentration areas that contribute runoff to local streams and increase mastitis risks.
- Municipal governments could ensure that farms are meeting all state and federal requirements, such as when farms need building permits. An even better approach would be a comprehensive strategy to ensure that all farms are meeting requirements, such as those used by several Lancaster County municipalities.
- County tax offices could require that farms receiving preferential tax assessments under the Clean and Green program verify that they have and are following the required soil erosion control and manure management plans.

### *Innovative Manure Management & Technologies*

The WIP 2 promoted the concept of regional digesters and other technologies. As time has progressed, such endeavors have failed to take root among the agricultural community or have been proven economically unsustainable without substantial subsidies. Although interest continues in such efforts, for these approaches to be successful, CBF believes they need to:

- Recognize that manure is a resource to farmers and therefore focus on approaches that allow enhanced management and precise application of manure. On-farm composting and manure injector technologies are two examples.
- Support the needs of the average Pennsylvania farmer with livestock, not just large-scale operations.
- Be economically sustainable beyond the pilot phase.
- Not divert resources away from “tried and true” cost-effective pollution reduction methods from the agricultural or urban/suburban stormwater efforts.

One potential approach to explore is the transport of “excess” manure from agricultural areas to for use in abandoned mine land (AML) reclamation efforts within the Commonwealth. There are more than 184,000 acres of abandoned mine lands in Pennsylvania. These landscapes are

devoid of soil carbon and nutrients necessary to support reclamation. Employing excess manure, raw or composted, in AML reclamation projects would provide an alternative to inorganic fertilizers typically used in such endeavors while simultaneously enhancing carbon concentrations in the soil. As a result, AML would be returned to ecological function and excess manure concerns would be meaningfully addressed.

## **Summary**

In sum, while progress has been made, to meet clean water commitments for local streams and the Bay, Pennsylvania's WIP 3 must be real, measurable, and accountable.

It must be "real" in that it must be translated beyond the "basin scale" centralized planning approach that has been the historical methodology of the Commonwealth, through the engagement and empowerment of local stakeholders in the development and implementation of localized efforts, including numerical targets, particularly in critical high-loading and impairment regions. It should be "real" in that it should result in systemic alignment of state and federal resources, programs, plans, and permitting to assure the stacking of benefits and increased efficiency.

It must be "measurable" in that it institutes a comprehensive methodology to cost-effectively identify and verify non-cost shared pollution reduction practices in agricultural areas and also non-MS4 urban and suburban areas as well; examines land use, social, and economic trends within the drainage areas of each long-term monitoring station for opportunities and lessons learned; integrates the long-term sub-basin surveys by the Susquehanna River Basin Commission; and it not only maintains, but targets new water quality monitoring networks.

And, it must be "accountable." Accountability extends to continuing but improving efforts to ensure that the agricultural compliance initiative under the January 2016 DEP Chesapeake Bay Restoration Strategy; acquiring the necessary resources to successfully oversee the state's MS4 program, which EPA has identified as suffering from chronic understaffing and other challenges; accounting for growth; identifying and improving existing regulations, such as the nutrient credit trading program rules; and adopting new regulations when necessary and cost-effective, such as legislation on lawn fertilizer restrictions, among other opportunities.

We are committed to helping the Commonwealth develop a sound WIP 3, and then ensuring that it is fully implemented. The PA staff of CBF formally offer our assistance to all WIP 3 workgroups and look forward to working in close collaboration with DEP, the Steering Committee, and stakeholders throughout the process.

Thank you again for this opportunity to provide these comments. If you have any questions or concerns, please feel free to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Harry Campbell", with a horizontal line underneath.

Harry Campbell, PA Executive Director

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HARRISBURG, PA 17102

**15. Jennifer Case, PA Municipal Authorities Association,  
Wormleysburg PA, [case@municipalauthorities.org](mailto:case@municipalauthorities.org)**

Please see attached comments.

Thank you.

Sincerely,

Jennifer L. Case

Government Relations Liaison



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Jessica Shirley, Director  
Policy Office  
Pennsylvania Department of Environmental Protection  
Rachel Carson State Office Building  
P.O. Box 2063  
Harrisburg, PA 17105-2063

July 7, 2017

Re: Chesapeake Bay TMDL: PA Phase III Watershed Implementation Plan

Dear Ms. Shirley:

On behalf of the Pennsylvania Municipal Authorities Association (PMAA) thank you for the opportunity to share our comments on the Phase III WIP process. PMAA members played a



lead role, along with DEP and others, in the successful nutrient reduction plan designed by the Point Source Workgroup to significantly decrease nitrogen and phosphorus loads.

It is with a great sense of accomplishment to point out that the wastewater sector is the only Pennsylvania sector to have met, and exceeded, its required reductions---and three years prior to the 2017 goal. Over 190 treatment plants spent an estimated \$1.4 billion to meet this goal, and the majority of this cost was paid by ratepayers of the wastewater systems.

As DEP moves forward with the Phase III WIP, PMAA would like to offer the following comments:

1. Given that wastewater plants continue to decrease their nutrient load, and in all likelihood will meet their 2025 reduction goals early, they should not be penalized for lack of compliance in other sectors and forced to go to a more extensive and expensive reduction program that would deliver very little additional units of nutrient reduction.
2. DEP and EPA should ensure that other sectors have adequate direction, technical assistance, and the financial capability to meet their reduction goals, and be held to a compliance schedule that includes suitable penalties for non-compliance.
3. DEP and EPA should continue to investigate innovative practices and technologies that could be implemented to provide alternatives for nutrient and sediment reductions.
4. The credit trading program should be re-evaluated and include practices such as interstate trading and changes to time frame and accounting applicability.

Thank you for the opportunity to comment on the Phase III WIP process. We look forward to working with DEP and other Bay partners to make the cleanup of the Chesapeake Bay a reality.

Sincerely,



John W. Brosious  
Deputy Director, PMAA

**16. Brianna Steinmetz, Resource Environmental Solutions LLC,  
Houston TX, *bsteinmetz@res.us***

Attached are written comments that RES is submitting in regards to “Developing Pennsylvania’s State Plan to Improve Local Water Health in Chesapeake Bay Watershed Counties.”

Please contact me should you have any questions or require additional information.

[AND]

Attached is an updated PDF of the written comments that RES is submitting in regards to “Developing Pennsylvania’s State Plan to Improve Local Water Health in Chesapeake Bay Watershed Counties.” (Revised to include the address).

Thank you,  
Brianna Steinmetz

July 7, 2017

Pennsylvania Department of Environmental Protection  
Policy Office  
Rachel Carson State Office Building  
P.O. Box 2063  
Harrisburg, PA 17105-2063

RE: Pennsylvania Chesapeake Bay Phase III Watershed Implementation Plan

Resource Environmental Solutions LLC (RES) is providing comments on the Pennsylvania Phase III Watershed Implementation Plan (WIP). While Pennsylvania has made progress towards the Chesapeake Bay 2025 nutrient and sediment Targets, Pennsylvania remains off track to achieve the statewide 2017 interim targets for nitrogen, phosphorous and sediment. Our comments focus on potential programs and processes, executed successfully in other states or regions, that could be adopted in Pennsylvania to assist in reducing their nitrogen, phosphorous and sediment loads to meet EPA’s 2025 Chesapeake Bay Targets.

## Development of a Robust State Nutrient Program

Virginia's nutrient trading program is one of the largest, and most successful trading programs in the nation, allowing both point and nonpoint sources to generate and transfer credits. Consistent with the Bay TMDL and Bay Program Guidance, which expressly allows for and encourages trading as a compliance tool, Virginia first established a point-to-point source nutrient trading program in 2005. The program was subsequently expanded to incorporate trading among nonpoint sources. This expansion of the program – facilitating trading by and among new construction and MS4s permittees and agricultural offset providers – has been a hallmark of its success; both in terms of alleviating the financial burden of Bay TMDL compliance on private and municipal permittees, as well as in accelerating the pace and scale of restoration efforts across the state. One study suggests utilizing trading for even just 10 percent of stormwater implementation would lead to annual savings of \$74 million.<sup>25</sup> Allowing nutrient credit trades to satisfy VSMP post-construction stormwater requirements, MS4 requirements, VPDES requirements, and enforcement issues creates a flexible program with enough demand to drive significant private investment in offset projects that provide a tangible and meaningful water quality benefit across the landscape. Indeed, more than 70 different offset projects yielding some 30,000 lbs. of phosphorous reduction have been approved or proposed in just a few short years since the expansion of the program.

## Off-site Compliance

The Virginia DEQ and Virginia Department of Transportation (VDOT) encourage the purchase of nutrient credits to address post-construction water quality reduction requirements as an off-site compliance option, as detailed in the Instructional and Informational Memorandum 251.4. Instead of mandating onsite BMPs, the purchase of nutrient credits to address water quality reduction requirements for construction activities are considered the preferred alternative when available and economically feasible. 100% of reduction requirements may be achieved through the purchase of nutrient credits if the project area contains less than 5-acres of land disturbance or the postconstruction phosphorous water quality reduction requirement is less than 10 lbs./year. If the project does not meet these conditions, at least 75% of the required phosphorous load reduction is to be met onsite and the remaining load reduction may be met through the purchase of nutrient credits. Typically, the funds used to purchase credits are accounted for in the design and construction phases of the given project, and included in the project's budget.

Allowing for off-site reductions provides VDOT more flexibility in finding the best suited stormwater management practice for every project, and therefore, leads to significant cost and time savings. A study published in 2014 by the Virginia Center for Transportation Innovation and Research analyzed 19 years of historical data and found that water quality trading can be an economically feasible solution for VDOT to manage stormwater runoff. The report compared the costs to VDOT for the design, build and maintenance of nine structural BMPs to the proposed cost to VDOT if they had the

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<sup>25</sup> See “Nutrient Trading By Municipal Stormwater Programs In Maryland And Virginia: Three Case Studies” by Cy Jones, Beth McGee, Lee Epstein, Erik Fisher and Peggy Sanner (March 2017) available at: [http://www.wri.org/sites/default/files/Nutrient\\_Trading\\_By\\_Municipal\\_Stormwater\\_Programs\\_In\\_Maryland\\_And\\_Virginia\\_Three\\_Case\\_Studies.pdf](http://www.wri.org/sites/default/files/Nutrient_Trading_By_Municipal_Stormwater_Programs_In_Maryland_And_Virginia_Three_Case_Studies.pdf)

opportunity to participate in water quality trading. Had water quality trading been an option for VDOT, they would have realized an average savings of approximately 50%.<sup>26</sup>

*In order to create a more robust nutrient trading market in Pennsylvania, PA DEP should seek a similar programmatic expansion, building upon and enhancing its existing point-to-point source trading framework by introducing a broader offset program that explicitly allows new construction and MS4 permittees to satisfy Bay TMDL limitations through off-site nutrient trading.*

### **Establishment of a Turnkey Performance Based Approach**

To achieve Bay compliance milestones via its state-administered MS4 permit program, Maryland established two specific performance-based requirements: (1) the restoration of 20% of a jurisdiction's impervious area, which is a strategy outlined in Maryland's Watershed Implementation Plan (WIP); and (2) the development of a schedule for BMP implementation to meet all applicable WLAs. To quantify this 20% impervious area reduction, Maryland created restoration credits, called Impervious Acre Credits, which is based on treating 1 inch of rainfall, known as the water quality volume (WQv). Maryland developed a list of "alternative BMPs"- BMPs which were not identified in the Manual- and determined associated pollutant load efficiencies and impervious acre equivalents to allow jurisdictions greater flexibility when implementing these practices. Maryland Department of Environment published a report titled "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated," which details these MS4 practices and includes straightforward tables to determine Impervious Acre equivalents.<sup>27</sup> This framework has enabled delivery of highly cost effective and innovative compliance solutions by the private sector, while facilitating the transfer of BMP performance risk from MS4s to private offset providers.

From 2009 to 2015 Maryland has restored over 84,000 acres of impervious area, which has contributed to the state's significant progress towards meeting Maryland's 2025 Chesapeake Bay Target.<sup>28</sup> By enabling and encouraging the development of innovative off-site compliance solutions by private third party providers, Maryland is leveraging the private sector's unique ability to simultaneously enhance restoration efforts and benefit stormwater permittees given its greater access to capital and experience with financing. In addition to private involvement, Maryland passed the Watershed Protection and Restoration Program (WPRP) in 2012, which required counties subject to MS4 permits to establish a stormwater remediation fee to fund projects that treat stormwater runoff. In 2015, the WPRP was revised to make stormwater remediation fees voluntary, and instead, required the counties to submit a Financial Assurance Plan (FAP) every two years that

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<sup>26</sup> See "Investigating the Cost-Effectiveness of Nutrient Credit Use As an Option for VDOT Stormwater Permitting Requirements" by Alicia L. Nobles, Hillary D. Goldstein, Jonathan L. Goodall, Ph.D., G. Michael Fitch, Ph.D ( August 2014) available at: [http://www.virginiadot.org/vtrc/main/online\\_reports/pdf/15-r9.pdf](http://www.virginiadot.org/vtrc/main/online_reports/pdf/15-r9.pdf)

<sup>27</sup> See "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated" by Maryland Department of the Environment (August 2014) available at: <http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Documents/NPDES%20MS4%20Guidance%20August%2018%202014.pdf>

<sup>28</sup> See "State and Local Progress on Maryland's Chesapeake Nutrient and Sediment Reductions" by Jim George (Fall 2016) available at:

[https://agresearch.umd.edu/sites/agresearch.umd.edu/files/docs/locations/wye/J.%20George%20AM%20WIP%20Progress%20Workshop%20Jim%20UES\\_%202016%200927\\_Final\\_PPT%20\(1\).pdf](https://agresearch.umd.edu/sites/agresearch.umd.edu/files/docs/locations/wye/J.%20George%20AM%20WIP%20Progress%20Workshop%20Jim%20UES_%202016%200927_Final_PPT%20(1).pdf)

details proposed stormwater runoff practices and payment methods over the next five years.<sup>29</sup> Although the stormwater remediation fee is no longer mandatory, some counties subject to impervious area requirements, including Anne Arundel and Howard counties, are relying on stormwater fees, as well as grants, to fund these stormwater projects.

*Pennsylvania should consider implementing a turnkey performance based approach that encourages both public and private sector involvement to increase their stormwater BMP implementation to meet their Chesapeake Bay Targets.*

### **Integrated Landscape Approaches**

Wetland, stream and riparian buffer restoration provide multiple ecosystem services far beyond what is accounted for in a typical wetland or stream credit. Consider a wetland restoration project that seeks wetland credits for the replanting of a forested wetland. This restoration not only improves the hydrologic conditions of the site to receive wetland credit, but also provides other ancillary benefits, such as nonpoint source offsets to reduce nutrient loading within the watershed.<sup>30</sup> While there is a lot of controversy surrounding the idea of selling multiple credits for one area, it is important to understand and take advantage of the ancillary benefits provided by various restoration opportunities.

Siting stormwater management practices, such as riparian buffers, adjacent to or on a Clean Water Act, Section 404 restoration site creates a larger restoration area, which leads to synergistic benefits. Instead of having multiple small, fragmented projects, one large project which incorporates several different restoration techniques, provides greater ecological uplift and cost-savings through economies of scale. Below are examples of integrated landscape approaches and the benefits that are realized from two states.

#### **Virginia**

Virginia allows for the bundling of nutrient and Federal 404 administered credits, thereby fostering the creation of larger, more integrated restoration projects. The state of Virginia allows for a stream or wetland restoration project to enroll in both the Federal 404 Program and the State Water Quality Program, thereby creating a bank that can sell both 404 and nutrient credits. Instead of double counting credits, a conversion ratio is used to determine the pounds of sediment, phosphorus or nitrogen in terms of a 404 stream or wetland credit that is then deducted from the bank's ledger. This practice provides the opportunity to leverage market forces by selling either 404 or nutrient credits based on what the market dictates, and in turn makes nutrient banking more cost-effective. It also allows for projects to be financially feasible in market areas which may not have enough demand to drive standalone 404 or nutrient bank sites.

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<sup>29</sup> See "Watershed Protection and Restoration Program – Financial Assurance Plans" by Maryland Department of the Environment *available at:*

<http://mde.maryland.gov/programs/water/StormwaterManagementProgram/Pages/WPRPFinancialAssurancePlans.aspx>

<sup>30</sup> See "Environmental Credits The Building Blocks of a Restorative Economy" by Miranda R. Yost and Thomas J. Mascia (June/July 2011) *available at:* <https://www.troutmansanders.com/files/Uploads/Documents/vl0711-environmental-credits.pdf>

Virginia also allows for the pairing of 404 and water quality projects, so that a wetland restoration bank can generate wetland credits for its lowlands and nutrient credits for converting its uplands from agricultural land to forest. This option compartmentalizes the parcel, so that wetland and nutrient credits are generated from separate, designated areas. The Buena Vista bank in northern Virginia is an example of a bank that bundles offsets, supplying wetland, stream and nutrient credits without stacking.<sup>31</sup>

### **North Carolina**

North Carolina requires a 50-foot buffer for stream restoration projects (30-foot buffer in the mountains), but gives the option for bank sponsors to restore up to a 200-foot buffer. The additional buffer mitigation can then be used as either stream credits, buffer credit, or nutrient credits. Allowing this flexibility provides a cost savings to the bank sponsor as it triggers economies of scale. Additionally, this program creates opportunities for restoration in areas where it would not be economically feasible otherwise. Examples of North Carolina's nutrient and buffer program can be seen in the Neuse Watershed.

*If Pennsylvania developed a robust nutrient trading program incorporating rules that encourage integrated landscape approaches, more cost-effective nutrient credits would be entered into the market. Creating this market would accelerate PA's progress towards meeting its Chesapeake Bay 2025 Target, while also realizing costs savings for the state and its taxpayers.*

### **Implementation of a Flexible Framework for BMP Efficiencies**

The Bay States, including Pennsylvania, are typically confined to the crediting protocols and BMP efficiency rates set forth by the Chesapeake Bay Program. Introducing a flexible framework into Pennsylvania that allows for increased crediting or decreased uncertainty ratios where project sponsors can justify through monitoring or other means of best available science could reduce implementation costs and help meet Chesapeake Bay Targets. In instances where there is an innovative approach or monitoring reports to suggest a higher efficiency rate than what is commonly given, the state should create a regulatory forum or mechanism that allows for advocacy of this higher rate. Currently some Bay States, including Virginia, have a forum that enables project sponsors to prove a higher efficiency rate is justified for specific projects.

*Pennsylvania should consider creating a forum or mechanism that allows project sponsors to advocate for higher efficiencies, thereby providing more flexibility when implementing BMPs.*

### **Regionalization of Stormwater Management**

The York County Planning Commission (YCPC), in an effort to satisfy their MS4 requirements, has taken a regional approach to stormwater management. With over 34 MS4 municipalities in the County, the YCPC created a York County Stormwater Consortium (YCSC) to coordinate the municipalities' MS4 efforts to help satisfy the Chesapeake Bay Pollutant Reduction Requirements. York County also published a feasibility study in January 2016, which found that establishing a

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<sup>31</sup> See "Upland Field to Forest Credit Conversion" by Williamsburg Environmental Group, Inc. (September 2012) available at:

[https://ribits.usace.army.mil/ribits\\_apex/f?p=107:278:17103304634937::NO:RP,278:P278\\_BANK\\_ID:545](https://ribits.usace.army.mil/ribits_apex/f?p=107:278:17103304634937::NO:RP,278:P278_BANK_ID:545)

regional stormwater authority was technically feasible and would offer the benefits of regional cooperation.<sup>32</sup> This stormwater authority, which would cover all 72 municipalities, leads to larger, more efficient water quality projects that realize economies of scale, secures a predictable revenue stream and cash flow, and improves consistency of BMP approaches.

*RES recommends that DEP create policy, which supports the regionalized approach created by YCPC. For example, allowing BMPs outside the urban footprint; however, in the same watershed. This will allow for communities to build BMPs at scale and receive a large reduction towards their MS4 permit. Further, RES recommends allowing the regionalized communities to take credit for these BMPs for both their County Chesapeake Bay Plan and their MS4 permit.*

*Additionally, we recommend that DEP provide financial incentives for regionalized stormwater authorities or consortiums. For example, but not limited to, 1) provide funding to help communities pay for the planning of their regionalized MS4 permit and 2) provide funding directly to communities that decided to regionalize to implement BMPs. These incentives will encourage communities to work together and create scale that will reduce cost and significantly improve the Chesapeake Bay.*

RES appreciates the opportunity to provide these comments.

Thank you,  
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<sup>32</sup> See “York County Stormwater Authority Feasibility Study” by the York County Planning Commission and Amec Foster Wheeler (January 2016) available at:  
[http://www.ycpc.org/images/pdfs/Reports\\_and\\_Documents/FinalFeasibility%20Study%20Report%2001182016.pdf](http://www.ycpc.org/images/pdfs/Reports_and_Documents/FinalFeasibility%20Study%20Report%2001182016.pdf)