

Emerging Environmental Issues in Agriculture


2019 ENVIRONMENTAL LAW FORUM
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**PENNSYLVANIA
FARM BILL**





As the agriculture industry grows and changes, we must support the industry in new ways to ensure its future success. The *Pennsylvania Farm Bill* invests more than \$24 million in Pennsylvania's agriculture industry to grow opportunities and resources, remove barriers to entry, and cultivate future generations of leaders within agriculture. The plan includes:



1. Agricultural Business Development and Succession Planning

- **Pennsylvania Agricultural Business Development Center**, funded at \$2 million, to serve as a resource to help every farmer create a business plan, transition plan, or succession plan to ensure the best chance of success.
- **Realty Transfer Tax Exemption** for any transfer of preserved farmland to a qualified beginning farmer.





2. Creating more processing capabilities to accommodate a growing animal agriculture sector

- **Pennsylvania Dairy Investment Program**, funded at \$5 million, to fund research and development, organic transition assistance, value-added processing, and marketing grants in support of Pennsylvania's dairy industry.



2. Creating more processing capabilities to accommodate a growing animal agriculture sector


- **Center for Animal Agriculture Excellence**, funded at \$1 million, to support the animal agriculture industry by expanding processing capacity, technical assistance, providing resources for food safety compliance, and assisting with the establishment of hemp as an approved animal feed.





2. Creating more processing capabilities to accommodate a growing animal agriculture sector

- **Incentivizing Access to Meat Processing Inspections**, funded at \$500,000, to encourage access to new and expanded markets for small or new producers by reimbursing federal meat inspection costs and subsidizing the first-time purchase of equipment needed for federal compliance.



3. Removing regulatory burdens and strengthening the state's business climate

- **Conservation Excellence Grant Program**, funded at \$2.5 million, to provide financial and technical assistance to farmers to install and implement best management practices.
- **Agriculture Linked Investment Program**, funded at \$500,000, to re-establish this low interest loan program for the implementation of best management practices.
- **Resource Enhancement and Protection Tax Credits**, expanded by \$3 million, to increase the lifetime cap and increase availability.






3. Removing regulatory burdens and strengthening the state's business climate

Conservation Excellence Grant Program – Purpose:

“To provide technical and financial assistance to farmers and landowners for implementation of high-quality BMP projects in high-priority locations within the Commonwealth through a combination of grants, loans and tax credits under authority of section 4(7) of the Conservation District Law.”



3. Removing regulatory burdens and strengthening the state's business climate

Conservation Excellence Grant Program – Priority Locations:

- Tier 1 Chesapeake Bay Counties
- Tier 2 and 3 Chesapeake Bay Counties
- All other counties





3. Removing regulatory burdens and strengthening the state's business climate

Conservation Excellence Grant Program – Priority Practices:

- Livestock exclusion fencing
- Stream-side buffers
- Streambank restoration
- Barnyard/feedlot runoff abatement
- Stream crossings
- Off-stream watering
- Manure storage facilities
- Agricultural erosion and sedimentation plans



3. Removing regulatory burdens and strengthening the state's business climate

Conservation Excellence Grant Program – Other Priorities:

Priority of project status – The level and extent of planning and technical assistance (inventory and evaluation, design work, permits, etc.) already completed to allow for accurate estimates of project costs and for completion of the project in a timely fashion.

Priority of funding mix – The extent to which an applicant is willing to accept a reasonable mix of loans, tax credits, and grants, in that order, or to supply non-governmental “matching” funds to fund the project.





3. Removing regulatory burdens and strengthening the state's business climate

Resource Enhancement and Protection Tax Credits (REAP)

- Farmers, landowners, and businesses earn tax credits for implementing BMPs that will enhance farm production and protect natural resources.
- First-come, first-served program – no rankings. Administered by the State Conservation Commission and the tax credits are awarded by the Pennsylvania Department of Revenue.
- Eligible applicants can receive 50% or 75% of project costs in the form of State tax credits for up to \$250,000 per operation in any seven-year period.



3. Removing regulatory burdens and strengthening the state's business climate

Resource Enhancement and Protection Tax Credits – Requirements:

- Conservation Plan or Agricultural E&S Plan on all acres
- Nutrient Management Plan (CAO or CAFO) or Manure Management Plan for operations that have animals or utilize manure
- Plans must be on-schedule for full implementation
- Properly Protected Barnyards
- BMPs necessary to control nutrient and sediment runoff from ACAs must be fully implemented or the implementation of these BMPs must be included in the application
- On-schedule for Full Implementation of Crop Field and other NM BMPs





3. Removing regulatory burdens and strengthening the state's business climate

Resource Enhancement and Protection Tax Credits – Amount of Credit:

Tax credits for 75% of eligible costs include the following:

- Conservation/Ag E&S Plans, Nutrient Management/Manure Management Plans
- BMPs for ACAs and barnyard runoff, stream bank fencing with 50 foot forested riparian buffers, and 50 foot forested riparian buffers.



3. Removing regulatory burdens and strengthening the state's business climate

Resource Enhancement and Protection Tax Credits – Amount of Credit:

Tax credits for 50% of eligible costs include the following:

- Any Commission approved BMP or equipment necessary to reduce existing sediment and nutrient concerns. Examples include: manure storage systems, alternative manure treatment practices, grassed waterways, rotational grazing systems, no-till planting equipment, cover crops, etc.
- Stream bank fencing with 35-foot riparian buffers (grassed or forested).





3. Removing regulatory burdens and strengthening the state's business climate

Resource Enhancement and Protection Tax Credits – Eligible Costs:

- Project design, engineering, and associated planning
- Project management costs - contracting, document preparation, applications
- Project construction and installation
- Equipment, materials and other project components
- Post construction expenses
- Interest payments on loans for project implementation for up to one year prior to the award of the tax credit.



4. Strengthening Pennsylvania's workforce to ensure the next generation is prepared to lead

- **Agriculture and Rural Youth Organization Grant Program**, funded at \$500,000, to reestablish this program to fund agricultural and rural youth organizations to help increase knowledge and awareness of agricultural issues within the commonwealth.
- **The PA Farm to School Grant Program**, funded at \$500,000, to improve childhood nutrition while increasing exposure to agriculture.





5. Protecting agriculture infrastructure

- **PA Rapid Response Disaster Readiness Account**, funded at \$5 million, to allow for a quick response to agricultural disasters, including utilizing animal or plant health officials to contain an outbreak or threat, such as Spotted Lanternfly or Avian Influenza; or providing an immediate response to a foodborne illness.



6. Increasing Market Opportunities and Making Pennsylvania the Nation's Leading Organic State

- **PA Preferred Organic Initiative**, funded at \$1.6 million, to make PA the nation's leading organic state by further enhancing the growth of the organic industry.
- **PA Preferred Program**, funded at an additional \$1 million, to support the program and to bolster enrollment in Homegrown by Heroes.





6. Increasing Market Opportunities and Making Pennsylvania the Nation's Leading Organic State

- **State-level Specialty Crop Block Grant Program**, funded at \$500,000, to invest in and encourage farming of high-priority horticultural crops like hemp, hops, and hardwoods.
- **Urban Agriculture**, funded at \$500,000, to improve agriculture infrastructure in urban areas, the aggregation of product, sharing of resources, and support for community development efforts.



Berner et al. v. ZHB Montour Township et al. 39 MAP 2018

Appeal to PA Supreme Court

Update





Berner et al. v. ZHB Montour Township et al.

- Scott Sponenberg's Petition for Allowance of Appeal Filed 2/5/18
- OAG, DEP, and PDA filed joint brief in support
- PA Farm Bureau and Penn Ag Industries also filed brief in support
- PA Supreme Court granted Petition on 8/1/18



Berner et al. v. ZHB Montour Township et al.

“Whether the Commonwealth Court erred by holding that the Nutrient Management Act ("NMA"), 3 P.S., §519, only preempts local ordinances as applied to farms that have an approved nutrient management plan and that small farms that are not required to submit nutrient management plans can be subjected to more stringent regulation than larger more intensive agricultural operations that are required to obtain approval of a nutrient management plan under the Nutrient Management Act.”





Berner et al. v. ZHB Montour Township et al.

- OAG, DEP and PDA again filed a joint brief in support
- PA Farm Bureau and Penn Ag Industries filed joint brief in support
- Oral Argument held in Philadelphia on March 5, 2019
- Questions focused on NMA preemption provisions
- Field or Conflict Preemption



Berner et al. v. ZHB Montour Township et al.

3 Pa.C.S. § 519. Preemption of local ordinances.

(a) General.--This chapter and its provisions are of Statewide concern and occupy the whole field of regulation regarding nutrient management and odor management, to the exclusion of all local regulations.





Berner et al. v. ZHB Montour Township et al.

3 Pa.C.S. § 519. Preemption of local ordinances.

(b) Nutrient management.--No ordinance or regulation of any political subdivision or home rule municipality may prohibit or in any way regulate practices related to the storage, handling or land application of animal manure or nutrients or to the construction, location or operation of facilities used for storage of animal manure or nutrients or practices otherwise regulated by this chapter if the municipal ordinance or regulation is in conflict with this chapter and the regulations or guidelines promulgated under it.



Berner et al. v. ZHB Montour Township et al.

3 Pa.C.S. § 519. Preemption of local ordinances.

(d) Stricter requirements.--Nothing in this chapter shall prevent a political subdivision or home rule municipality from adopting and enforcing ordinances or regulations which are consistent with and no more stringent than the requirements of this chapter and the regulations or guidelines promulgated under this chapter. No penalty shall be assessed under any such local ordinance or regulation under this subsection for any violation for which a penalty has been assessed under this chapter.





Berner et al. v. ZHB Montour Township et al.

3 Pa.C.S. § 519. Preemption of local ordinances.

- Subsections (a) & (b) – Field preemption with respect to nutrient management, including storage, handling, application of manure and construction and operation of manure storage facilities.
- Subsection (c) – Conflict preemption with respect to matters typically addressed by zoning, such as setbacks, building height, etc.
- Facility designs, legally binding assurances, performance guarantees, impact on adjacent properties go beyond what township may do under subsection (c).



Chesapeake Bay Phase III Watershed Improvement Plan

- On June 20, 2018, the U.S. Environmental Protection Agency (EPA) announced their expectations for the Chesapeake Bay Phase III Watershed Implementation Plans.
- EPA sent letters to state agencies within the Chesapeake Bay basin outlining what goals and practices are expected to be in place by 2025 to achieve sediment and nutrient reduction goals.
- This most recent EPA announcement is a further implementation of the a plan that began in 2010 when EPA established the Chesapeake Bay Total Maximum Daily Load (Bay TMDL). To meet water quality standards, the Bay TMDL establishes pollution reductions necessary to address pollution from nitrogen, phosphorus, and sediment.





Chesapeake Bay Phase III Watershed Improvement Plan

- Pennsylvania will soon be rolling out its submission to the EPA on its Watershed Implementation Plan, Phase III (WIP III).
- We understand the challenge that Pennsylvania had with meeting its goals in the mid-point assessment, so we've redoubled our efforts in recognition of the magnitude of Pennsylvania's required share of the water quality improvements needed for the Chesapeake Bay.
- We're working hand-in-hand with our sister agencies and other partners across the Commonwealth to develop a timeline for planning and progress reporting across our priority initiatives: wastewater, stormwater, forestry and agriculture.



Chesapeake Bay Phase III Watershed Improvement Plan

- Agriculture has a solid plan developed – one that is realistic and attainable, given adequate funding.
- Developed by farmers, for farmers.
- We understand the challenges that farmers face... must work hard to strike balances, find solutions, and get buy in from a wary agricultural sector.
- Agriculture conservation measures were being significantly overlooked in our previous reporting.





Chesapeake Bay Phase III Watershed Improvement Plan

- Statewide survey to catalog the extent of producers' voluntary use of Best Management Practices (BMPs).
- Calculated the estimated value of those BMPs in nitrogen, phosphorus, and sedimentation reductions.
- Compared those reductions to what EPA had recorded.
- The reality – our farmers had voluntarily made significant strides for water quality, not because government told them to, but because it was the right thing to do for their farms and environment. .



Chesapeake Bay Phase III Watershed Improvement Plan

Critical to get buy-in from our farmers by:

- Backing up our farmers with empirical evidence to advocate for them and recognize their good work so far.
- Making sure they know that they are not the only ones being pressured to make reductions in nitrogen, phosphorus, and sedimentation.
- Minimizing the notion that taking costly conservation steps in a particularly stressed agricultural economy is just for the benefit of waterways that may be more than 100 miles downstream.





Chesapeake Bay Phase III Watershed Improvement Plan

Reality – improved water quality creates significant benefits to farm and community:

- Reduced input costs.
- Reduced topsoil loss.
- Restoration of wildlife habitat.
- Boosting tourism dollars through improved conditions in creeks and rivers.



Chesapeake Bay Phase III Watershed Improvement Plan

- Taking a broader look at the value of on-farm conservation practices water quality improvements and how they can help watersheds all across our state.
- Each has its strengths and weaknesses – in total cost, in manpower, in landowner buy-in, in total efficacy.
- Together, they're part of a viable, workable, vital solution.
- While the costs and reduction are estimated for the Chesapeake Bay watershed alone on a per-year basis, the practices are vital for water quality improvements in all areas of our state.





Chesapeake Bay Phase III Watershed Improvement Plan

1. Agricultural Compliance

- Ensuring that farmers have their conservation or manure management plans in place and are following them, including implementing required barnyard runoff controls.
- Estimated annual cost: \$33.1 million.
- Nitrogen reduced: 7.3 million pounds (14% of goal).
- Phosphorus reduced: 251,000 pounds (12% of goal).



Chesapeake Bay Phase III Watershed Improvement Plan

2. Soil Health

- Using crop and soil management practices that improve long-term soil health and stability - conservation tillage, non-harvested cover crops, livestock owners following proper grazing protocols.
- Estimated annual cost: \$33 million.
- Nitrogen reduced: 7.3 million pounds (14% of goal).
- Phosphorus reduced: 298,000 pounds (15% of goal).





Chesapeake Bay Phase III Watershed Improvement Plan

3. Expanded Nutrient Management

- Farmlands that don't use manure (don't require manure management plans) must still have nutrient management plans and use precision nutrient management practices like the 4Rs: right source, right rate, right time, and right place.
- Estimated annual cost: \$21 million.
- Nitrogen reduced: 755,000 pounds (1% of goal).
- Phosphorus reduced: 34,000 pounds (2% of goal).



Chesapeake Bay Phase III Watershed Improvement Plan

4. Manure Storage Facilities

- Make sure that farms have appropriate manure storage facilities that meet federal standards. A hefty price tag, but a vital piece of our nitrogen/phosphorus/sediment reduction pie.
- Estimated annual cost: \$214 million.
- Nitrogen reduced: 7.2 million pounds (14% of goal).
- Phosphorus reduced: 300,000 pounds (15% of goal).





Chesapeake Bay Phase III Watershed Improvement Plan

5. Precision Feeding

- Use precision feed management to reduce nitrogen and phosphorous in manure due to wasted feed or feeding more than animals require for production.
- Estimated annual cost: \$1.7 million.
- Nitrogen reduced: 604,000 pounds (1% of goal).
- Phosphorus reduced: 61,000 pounds (3% of goal).



Chesapeake Bay Phase III Watershed Improvement Plan

6. Integrated Systems for Elimination of Excess Manure

- Create Integrated (county/regional) programs for removal of or beneficial use of excess manure.
- Estimated annual cost: \$4.7 million.
- Nitrogen reduced: 1.2 million pounds (2% of goal).
- Phosphorus reduced: 95,000 pounds (5% of goal).





Chesapeake Bay Phase III Watershed Improvement Plan

7. Forested and Grassed Riparian Buffers

- Plant grassy vegetation or forest buffers along streams.
- Estimated annual cost: \$49.6 million.
- Nitrogen reduced: 8.2 million pounds (16% of goal).
- Phosphorus reduced: 2 million pounds (49% of goal).



Chesapeake Bay Phase III Watershed Improvement Plan

- Ultimately, we believe we can reduce phosphorus runoff enough to meet Pennsylvania's goal – a reduction of more than 2 million pounds.
- And we can reduce nearly 33 million pounds of nitrogen runoff – at least 64% of PA's goal.
- The total price tag is stiff -- \$354 million.



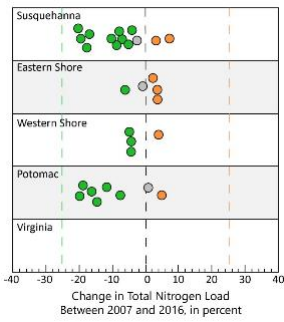
Nutrient Loads and Trends in Chesapeake Bay Nontidal Network Streams: An Update and interpretation of results



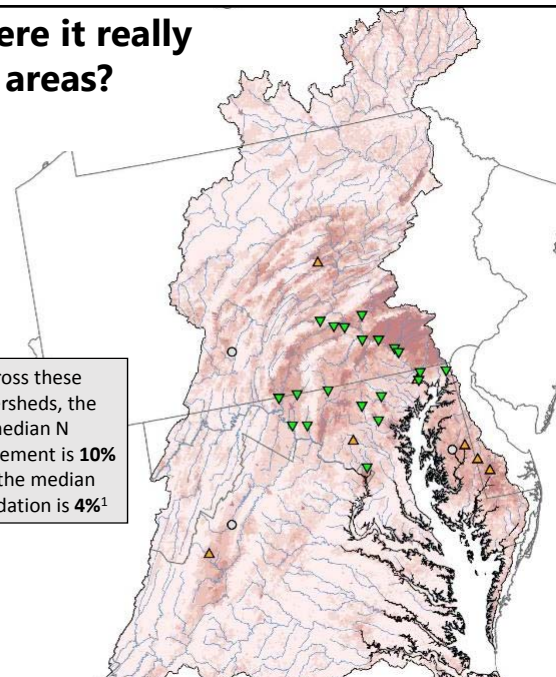
How are we doing where it really matters: high-loading areas?

In the most recent ten year period (2007 – 2016):

Nitrogen loads in the highest loading watersheds (n=30) have improved at **67%**, degraded at **23%**, and have no trend at **10%** of stations¹.



Across these watersheds, the median N improvement is **10%** and the median degradation is **4%**¹

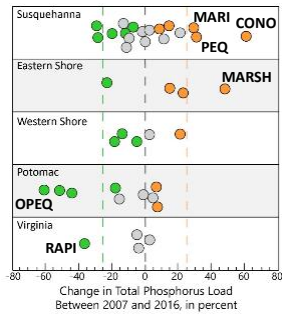


¹Moyer and others, 2017

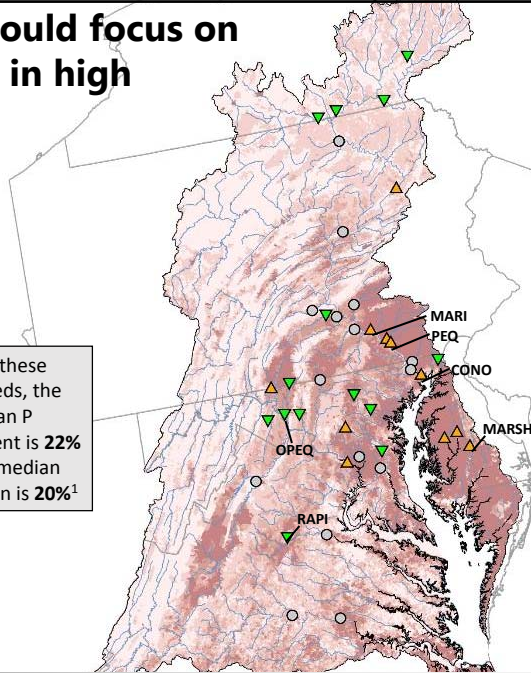
Management efforts should focus on reducing nutrient loads in high yielding watersheds

In the most recent ten year period (2007 – 2016):

Phosphorus loads in the highest yielding watersheds (n=40) have improved at **35%**, degraded at **28%**, and have no trend at **38%** of stations¹.



Across these watersheds, the median P improvement is **22%** and the median degradation is **20%**¹



¹Moyer and others, 2017



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