



CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

June 26, 2023

RE: Testimony of the Chesapeake Bay Foundation for the House Environmental Resources and Energy Committee Hearing on Pennsylvania's Waterways and the Chesapeake Bay - June 26, 2023

Chairman Vitali, Chairman Causer and other distinguished members of the House Environmental Resources and Energy Committee, my name is Trisha Salvia, and I am the Staff Attorney of the Pennsylvania Office of the Chesapeake Bay Foundation (CBF). I would like to thank you for the opportunity to discuss the challenges and opportunities facing Pennsylvania's local rivers and streams that ultimately flow to the Chesapeake Bay.

CBF is the largest non-profit organization, with the support of over 300,000 members dedicated to the protection and restoration of the Chesapeake Bay, its tributaries, and its resources; the largest tributary of which is the Susquehanna River.

Established in 1986, CBF's Pennsylvania office strives to protect and restore the waters of the Commonwealth through collaboration with a broad range of stakeholders from elected officials to farmers through our policy, planning, grassroots outreach and advocacy, and education. Our nationally recognized, multiple award-winning watershed restoration program has helped thousands of farmers design, build, and maintain critical conservation practices. In 2018 the office launched the Keystone 10 Million Trees Partnership with the goal of planting 10 million trees alongside Pennsylvania's streams, streets, and other high priority areas by the end of 2025. Last October, the partnership planted its 5-millionth tree!

Successes:

First, I want to thank the General Assembly for the historic move last year of creating the Clean Streams Fund and allocating \$220 million of federal monies to the programs. The programs in the Clean Streams Fund address the three major causes of nonpoint source pollution in Pennsylvania. They are agricultural runoff, abandoned mine drainage and stormwater runoff from developed land.

Of the \$220 million a historic \$154 million was dedicated to Pennsylvania's new cost-share program the Agricultural Conservation Assistance Program (ACAP). ACAP is administered by the State Conservation Commission, and it will provide county conservation districts with additional resources to help farmers design and pay the costs of implementing conservation practices. Previously, a state cost-share program did not exist in Pennsylvania. Since 90 percent of the remaining pollution reductions needed to clean streams in the Commonwealth's portion of the Chesapeake Bay watershed must come from agriculture, these programs and funding represent significant momentum for cleaner waters. In the past, the limited technical and financial assistance was the largest barrier to many more

farms establishing conservation practices to keep nutrients and topsoil on the land and out of our waters, so we're excited about the additional conservation practices that will be possible now.

Another success was last year's passage of the fertilizer bill. When it comes to lawn fertilizer, more is not better. Not only can excess fertilizer be a waste of money, but it can also run off into nearby storm drains and streams, even the groundwater, where it causes algal blooms and other damage to water quality.

For many years, Pennsylvania farmers have been required to manage the amount of manure they apply to their fields. Now this new Act helps to ensure that fertilizer on lawns and other non-agricultural landscapes is applied in a balanced way and not harming our local waters.

These successes are the momentum and tone that Pennsylvania needs, but it's not still without its challenges.

Challenges to our Local Water:

The Chesapeake Bay Clean Water Blueprint requires the Bay jurisdictions to develop Watershed Implementation Plans (WIPs) to decrease pollution to local creeks, streams and rivers that flow into the Bay. State and local governments have committed to put practices in place by 2025 to achieve specific, measurable reductions. All jurisdictions except for Pennsylvania have plans in place to meet their goals. Pennsylvania's Phase 3 and final Watershed Implementation Plan (Phase 3 WIP) only achieves 73 percent of its nitrogen-reduction commitments and is underfunded by more than \$300 million annually, according to Pennsylvania's own review. Pennsylvania also has the biggest targets still to hit by 2025 regardless of the Phase 3 WIP deficiencies. This includes reducing over 34 million pounds of nitrogen.

The Pennsylvania Department of Environmental Protection's latest Integrated Water Quality Report lists almost one-third of Pennsylvania's streams as impaired; roughly 28,000 miles.¹ The Pennsylvania Phase 3 WIP has identified our farms as the place to reduce the vast majority of nitrogen in the Commonwealth over the next few years. This cannot be done without help and greater investments of financial and technical resources from the Pennsylvania General Assembly.

Opportunities:

Solutions start on the farm, and make no mistake, there has been great progress. Because agriculture dominates the landscape, it is the largest source of pollution to the Chesapeake Bay and its watershed, and has the potential for the greatest opportunities. Many conservation practices not only help protect soil, air, and water, but they also help farms improve profitability and resilience to extreme weather. Implementing conservation practices, like streamside fencing, will not only benefit farmers and achieve healthier local waters and a cleaner Bay—worth an estimated \$130 billion annually in

¹ 2022 Pennsylvania Integrated Water Quality Report; Clean Water Act Section 303(d) List and 205(b) Report. Pennsylvania Department of Environmental Protection.
<https://www.dep.pa.gov/Business/Water/CleanWater/WaterQuality/IntegratedWatersReport/Pages/2022-Integrated-Water-Quality-Report.aspx>

economic, public health, and environmental benefits²—but will also make significant gains toward the nation’s climate goals and improve the well-being of the more than 18 million people who call the watershed home.

While all conservation practices are eligible for ACAP funding, CBF would like to see an emphasis on practices that plant more trees and prevent livestock from standing in streams. To take efforts in Pennsylvania up a notch, and to protect the health of livestock and everything downstream, CBF is placing greater emphasis on getting livestock out of local waters.

Direct deposits of manure by farm animals standing in streams seriously degrade water quality and threaten the health of animals and people. Livestock in streams can introduce pathogens and hormone-disturbing compounds to surface water, the source of drinking water for most Pennsylvanians.

Hoof traffic into and out of streams also exacerbates streambank erosion and polluted runoff.

Farmers can benefit from streambank fencing, too, as herd health improves with reduced contact with waterborne pathogens³ and other diseases, and there are fewer injuries along streambanks. Milk and beef production are known to improve when livestock has clean water to drink.⁴ Research has continued to confirm the benefits of the practice. ^{e.g., 5,6,7,8,9}

Fencing livestock out of streams is mentioned as a tool in the Phase 3 WIP to help with soil health and nutrient reductions in Pennsylvania’s plan to clean up local streams and the Chesapeake Bay downstream. Yet, currently, Section 702 of Pennsylvania’s Clean Streams Law prohibits Commonwealth agencies or political subdivisions from requiring fencing for the purpose of keeping farm livestock out of the streams.¹⁰ No other conservation practice is prohibited in this manner in the Commonwealth. Fortunately, many farmers have voluntarily adopted the practice and many more are interested.

² Agricultural Conservation Practices: Clean Water and Climate-Smart Investments, *see also*, Carolyn Alkire, PhD and Spencer Phillips, PhD, Economic Impacts of Implementing the Phase III Watershed Implementation Plans: Agriculture BMPs, prepare for Chesapeake Bay Foundation, July 2022. <https://www.cbf.org/document-library/cbf-reports/agricultural-conservation-practices-clean-water-and-climate-smart-investments.pdf>

³ Such as leptospirosis and mastitis.

⁴ PennState Extension; Pennsylvania Nutrient Management Program. Stream Bank Fencing: Green Banks, Clean Streams. <https://extension.psu.edu/programs/nutrient-management/educational/best-management-practices/stream-bank-fencing-green-banks-clean-streams>

⁵ David Kay, John Crowther, Carl M. Stapleton, Mark D. Wyer. Faecal indicator organism inputs to watercourses from streamside pastures grazed by cattle: Before and after implementation of streambank fencing. *Water Research*, Volume 143, 2018, Pages 229-239, ISSN 0043-1354, <https://doi.org/10.1016/j.watres.2018.06.046>.

⁶ Line, D.E., Osmond, D.L. and Childres, W. (2016), Effectiveness of Livestock Exclusion in a Pasture of Central North Carolina. *J. Environ. Qual.*, 45: 1926-1932. <https://doi.org/10.2134/jeq2016.03.0089>

⁷ McDowell, R. W. (2023). The longevity of fencing out livestock as a method of decreasing contaminant concentrations in a headwater stream. *Journal of Environmental Quality*, 52, 173– 179. <https://doi.org/10.1002/jeq2.20417>

⁸ Line, D. E., & Doll, B. (2023). Effects of Livestock Exclusion on Pollutant Export from North Carolina Beef Cow Pasture. *Journal of the ASABE*, 66(1), 99–105. <https://doi.org/10.13031/ja.15348>

⁹ Krall, M. and Roni, P. (2023), Effects of Livestock Exclusion on Stream Habitat and Aquatic Biota: A Review and Recommendations for Implementation and Monitoring. *North Am J Fish Manage*, 43: 476-504. <https://doi.org/10.1002/nafm.10863>

¹⁰ The Pennsylvania Clean Streams Law, 35 P.S. § 691.702 (Act of 1937, P.L. 1987, No. 394). <https://www.legis.state.pa.us/WU01/LI/LI/US/HTM/1937/0/0394.HTM>

Currently, there is a bill in the House, House Bill 677, that would remove the prohibition and allow local or state government to provide streambank fencing where and when it is needed. It would not mandate the practice.¹¹

ACAP is an excellent vehicle for providing cost-share towards streambank fencing projects and would help relieve any financial burdens it may create. The next federal Farm Bill provides another excellent opportunity for continued investments in agricultural conservation practice funding in the Commonwealth.

In conclusion, landmark investments from the new ACAP are significant down-payments to protect and improve our rivers and streams, health and quality of life, and the economic viability of the family farm. But as the \$154 million is spent over the next three years, a sustainable and dedicated funding source will be needed to allow Pennsylvania to leverage this momentum and amplify the efforts towards cleaning our local waters.

Pennsylvania farmers have shown time and again that they are willing to spend their own time and money to keep precious soil on the land instead of in the water. But they can't do it all on their own.

As the fiscal year 2023-24 budget begins to take shape, the new legislative session and new administration of Governor Shapiro have an opportunity to take the Commonwealth's clean water commitment and investments in agriculture to the next level.

Thank you for this opportunity.



Trisha L.R. Salvia, Esq.
Pennsylvania Staff Attorney
Chesapeake Bay Foundation

¹¹ Neighboring states, Virginia and Maryland, both require that producers keep livestock from unrestricted access to streams. Virginia's approach included a timeline for implementation of the requirement that included dedicated cost-share funding to help producers design and implement streambank fencing should they choose to do so. The program has been reportedly very successful. *See*, Maryland Department of Agriculture. (n.d.). Cows in the stream making a mess of things? https://mda.maryland.gov/resource_conservation/counties/MDA%20Stream%20booklet_FINAL.pdf; *see also*, COMAR 27.01.09.01-6. *See also*, Whitescarver, B. (2022, September 1). There has never been a better time to fence cattle out of streams. Virginia Mercury. <https://www.virginiamercury.com/2022/09/01/there-has-never-been-a-better-time-to-fence-cattle-out-of-streams/>; *see also*, [Va. Code. Ann. § § 62.1-44.119:1-:4](#)