



**Testimony to the House Environmental Resources & Energy Committee
Informational Meeting on House Bill 1901
“Utilizing Federal Funds for Clean Water Projects”
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Submitted by:

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The Pennsylvania Fish and Boat Commission (Commission) is pleased to present the following testimony to the House Environmental Resources & Energy Committee on the Clean Streams Fund legislation introduced as House Bill 1901 in the 2021-22 session.

Founded in 1866 to improve water quality and restore migratory fish passage, the Commission is one of the oldest conservation agencies in the nation. The agency’s mission is *“To protect, conserve, and enhance the Commonwealth’s aquatic resources and provide fishing and boating opportunities.”* This mission includes fish, reptile, and amphibian communities, and the habitats of game and non-game species.

The Commission, like many other state fish and wildlife agencies, operates under a user pay, user benefit funding system. The agency does not receive General Fund revenue, but rather relies on the sale of licenses, permits, and registrations for approximately 75% of our annual revenue, with the additional 25% coming through federal excise taxes on sportfishing equipment and motorboat fuel. This unique funding structure requires the Commission to utilize the most cost-effective strategies for safeguarding and improving the quality of our aquatic resources.

Enhancing Stream Habitat Improvement Efforts

As an agency, the Commission is guided by a strategic plan which provides a detailed blueprint of how to accomplish its mission in a continuously evolving ecological landscape. One of the most relevant strategic plan goals to this legislation is Goal #16 *“...to expand the stream habitat program to perform stream corridor Best Management Practices (BMPs) to improve local water quality and fish habitat and contribute to the goals of the Pennsylvania Phase 3 Chesapeake Bay Watershed Implementation Plan (WIP) and the Chesapeake Bay Watershed Agreement.”*

This strategic goal is a recognition that clean water means healthy aquatic ecosystems that support fishing and boating opportunities. Although the Commission is primarily interested in water quality due to the benefits it provides to our aquatic resources, there are additional benefits to performing stream corridor BMPs. A few benefits are the reduction of downstream sediment and nutrient loading, the increased resiliency to severe weather events, and the improved health of soil. The Commission's Stream Habitat Section, and particularly its Chesapeake Bay Watershed Habitat Unit (CBWHU), provides an example of how additional resources could be used to benefit our waters, farms, and communities.

The CBWHU was created from \$3.8 million in funding through the U.S. Environmental Protection Agency's Chesapeake Bay Implementation Grant program. This unit expanded the existing Northcentral Stream Restoration Partnership (Partnership), established in 2008. The entities involved are the Northcentral Pennsylvania Conservancy, the Pennsylvania Department of Environmental Protection (DEP) Northcentral Regional Office, the Commission, and county conservation districts. The goals of the Partnership are to decrease erosion, improve aquatic habitats, stabilize stream banks, and improve riparian corridors. To date, the Partnership has enhanced over 20 miles of streams on 160 properties with just over \$2 million invested, making this an extremely cost-effective effort. Historically, the Commission had two dedicated employees working with this partnership, but the creation of the CBWHU in 2020 expanded that capacity to eight staff who are specifically focused on the Chesapeake Bay watershed.

The Stream Habitat Section and CBWHU facilitate streambank and floodplain restoration efforts statewide. Specifically, they provide technical guidance and construction oversight in collaboration with project partners. These partners include federal agencies such as the U.S. Fish and Wildlife Service, state agencies such as DEP, county conservation districts, private landowners, and non-governmental organizations including the Western Pennsylvania Conservancy and the Northcentral Pennsylvania Conservancy. With the help of these and other partners, the Commission completed 33 streambank and floodplain restoration projects that improved more than five miles of streambank during 2021 alone. Three-and-a-half of the five miles were in the Chesapeake Bay watershed.

It also implements other BMPs, such as the creation of riparian buffers. For example, the Commission recently planted approximately 1,500 trees to create 7.5 acres of riparian buffer on three Commonwealth-owned boat launch properties along the Juniata River in Juniata County. Projects like this can reduce nutrient and sediment loads and improve water quality not only in local watersheds, but also on a much larger scale in the Chesapeake Bay watershed.

While there is great progress taking place throughout the state and the Chesapeake Bay watershed, there is more work to be done as almost one-third of Pennsylvania's streams are considered impaired. Additional resources to help implement the Pennsylvania's Phase 3 Watershed Improvement Plan, such as the investment of \$250 million from the federal American Rescue Plan Act funds, as is proposed in House Bill 1901, would be a strong catalyst to

accelerate this progress and help reduce and eliminate the non-point sources (NPS) of impairment in Pennsylvania's streams and rivers. This influx of funding would increase the progress that partners, such as the county conservation districts, are able to accomplish.

Dirt, Gravel, and Low Volume Roads Program

Agricultural practices are a large contributor to NPS pollution and waterway impairment in Pennsylvania. House Bill 1901 would establish the Agricultural Conservation Assistance Program (ACAP) to implement BMPs to address NPS pollution on agricultural operations. The program is proposed to be administered at the local level by county conservation districts, which are valuable partners of the Commission. Putting these funds in the hands of local entities is a model that has proven successful in many instances, since they have a more intimate connection with the waterways and the landowners where future projects would take place.

One program that is administered by the county conservation districts with a proven track record is the Dirt, Gravel, and Low Volume Roads Program (DGLVRP). The DGLVRP allocates funding through the State Conservation Commission and is administered at the local level by the county conservation districts. It was created specifically to address NPS pollution from sedimentation coming from unpaved roads to protect Pennsylvania's cold-water resources. The DGLVRP currently administers \$28 million annually that promotes environmentally sensitive road maintenance, roadway resurfacing with less erosive materials, and stream crossing replacements with better stream continuity and aquatic organism passage. This investment at the local level provides for more resilient local infrastructure and healthier aquatic resources.

The Commission supports the provision within the current Clean Streams Fund legislation to provide this needed funding at the local level to county conservation districts to implement agricultural BMPs that will further reduce NPS. The establishment of this additional funding will address one of the major sources of impairments to improve the health of Pennsylvania waterways, resulting in greater ecological functioning that also supports recreational fishing and boating opportunities and contributes to local economies.

Reducing Acid Mine Drainage

As the natural resource management agency responsible for the management of the various species which inhabit the 85,000 miles of flowing waters and 99,000 acres of lakes in the Commonwealth, the Commission strives to fulfill this mission not only on behalf of Pennsylvania's 3 million anglers and boaters, but for the benefit of all citizens. A healthy environment improves everyone's quality of life.

One can often get a sense of the health of a waterway by observing the color of its water and substrate. Colors like orange, black, or white are unappealing and denote degraded water quality. These colors are often associated with impacts from acid mine drainage (AMD) and are

a stark reminder that while coal mining is an important part of our state's industrial heritage, unregulated activities of the past have led to legacy impacts on our waterways.

From the onset of industrial-scale mining in the late 1800s until the 1970s, Pennsylvania coal mines operated in a largely unregulated environment with respect to mine site restoration and water quality degradation. These mining operations resulted over 400 million tons of abandoned coal mine refuse and 5,600 miles of polluted waterways throughout the major mining regions of the Commonwealth. The passing of the federal Surface Mining Control and Reclamation Act of 1977 (SMCRA) was a critical first step in ensuring operators were responsible for reclaiming their mine sites in a manner that restores the landscape and protects water quality. However, legacy impacts to our streams and lakes remain. Pennsylvania contains approximately half of the nation's un-reclaimed Abandoned Mine Lands, with an estimated cleanup cost of \$10 billion.

AMD is the principal pollutant associated with how coal extraction severely degraded our aquatic resources today. It is responsible for the impairment of almost 5,600 miles of streams in Pennsylvania alone. AMD is caused by the mineral Pyrite, which can be found intermixed with coal and is incidentally extracted during mining operations. When Pyrite is exposed to oxygen and water, it undergoes a chemical reaction that produces acidity and heavy metals such as aluminum, manganese, and iron. These chemicals are highly toxic to aquatic life, and when they find their way to nearby surface waters, it can result in the total loss of aquatic life.

Siltation is another form of pollution that degrades water quality and instream habitat. It can originate from unreclaimed coal mine sites, especially those located in floodplains or on steep slopes adjacent to surface waters. In this case, unstable sediment originating from unreclaimed coal mine sites is washed into streams, smothering streambed habitats that support aquatic macroinvertebrates such as mayflies, stoneflies, or caddisflies. These invertebrates are critical components of the aquatic community providing food for Brook Trout, Brown Trout, and Smallmouth Bass, all game species highly prized by anglers. This habitat is also utilized by these same fish species to complete their life cycle. Fish deposit their eggs on or in the stream bottom both haphazardly and in nests, depending on the species. When sediment is washed into streams, the subsequent siltation can cover and suffocate the eggs leading to poor hatching rates and ultimately reduced fish populations.

Projects that focus on the remediation of abandoned coal mining sites have proven successful in returning aquatic life to AMD impaired streams. For example, in the 1970s, an operator mined an underground coal seam near Watkins, Cambria County. The refuse remaining after the coal was extracted was stockpiled in the flood plain of the West Branch of the Susquehanna River. The resulting pile was 18 acres in size and contained 1.3 million tons of material. In addition, the underground portion of the mine accumulated surface and groundwater resulting in a discharge of approximately 7.5 million gallons of AMD impaired water each day. The water running off the site was high in aluminum, acidity, and silt, impacting aquatic life downstream

for miles. The Commission monitored fish populations in this section of the West Branch in the late 1990s and found little sign of aquatic life, with no evidence of natural reproduction by trout.

In 2004, DEP's Bureau of Abandoned Mine Reclamation initiated a remediation project for the Watkins site, and had removed all 1.3 million tons of coal mine refuse within the next four years. Additionally, an AMD treatment plant was constructed to treat the AMD originating from the underground mine. The completion of these projects resulted in reduced loading rates in the West Branch of the Susquehanna River for several chemicals that impact aquatic life including 1,600 pounds of acidity, 120 pounds of iron, and 245 pounds of aluminum per day.

Subsequent monitoring of the Watkins site by the Commission revealed improvements in the health of the fish community. By 2018, merely a decade after the project was completed, a Commission survey indicated this section of the river met the criteria to be listed as a Class A wild Brown trout stream. This is significant as only 3% of all flowing waters in the Commonwealth support robust trout populations that meet the requirements for this designation. This project demonstrates the resilience of biological communities and the speed at which they can recover when the sources of water quality degradation are remediated.

With 5,600 miles of AMD impaired streams in the Commonwealth, additional funding for remediation, as is proposed in House Bill 1901, is sorely needed. Every year these streams remain polluted is another year where boating, fishing, or swimming is diminished, which represents lost recreational value for the community. A study of the value of AMD impaired streams estimated that remediating them would generate \$30 million annually in recreational use.

Earlier this year, as Congress was developing the Infrastructure Investment and Jobs Act, the Commission took a lead role with our national association, the Association of Fish and Wildlife Agencies and the PA AML Campaign, to seek additional funding for AML and AMD remediation. Forming a coalition of six state fish and wildlife agencies most impacted by these legacy sites, the group was able to secure a 13-year reauthorization of the Abandoned Mine Land Trust Fund, including a one-time \$11.29 billion authorization to increase the current balance of the fund, which is currently between \$1-2 billion. Injecting an additional \$50 million into the Commonwealth's AMD Abatement and Treatment Fund through House Bill 1901 would have a tremendous benefit to these ongoing efforts, which involve many local community partners.

In conclusion, the Commission strongly supports House Bill 1901 and using federal funds from the American Rescue Plan Act for clean water projects in the Commonwealth. The Commission thanks Chairman Metcalfe, Chairman Vitali, and the Members of the Committee for the opportunity to provide testimony on this important legislation.