



**Crawford County Conservation District**

**Impact of Aquatic Invasive Species on Rural Pennsylvania**

**Testimony before the  
Center for Rural Pennsylvania**

Submitted by:

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Thank you for providing the opportunity to discuss the impacts of aquatic invasive species (AIS) on rural Pennsylvania. My name is Brian Pilarcik, I have served as Watershed Specialist at the Crawford County Conservation District since 2000, and have served on the board of directors of the Pennsylvania Lake Management Society since 2001 as both Western Region Director and President. As such I have had the opportunity to witness firsthand some of the challenges AIS pose to rural Pennsylvania as well as some of the ways they have been addressed. I would like to focus on one particular project that I believe embodies the struggle happening statewide to combat both environmental and economic impacts of AIS.

## **Pymatuning Reservoir Hydrilla Infestation Response:**

- Pymatuning Reservoir is a 17,000-acre multi-use reservoir located on the border of northeast Ohio and northwest Pennsylvania.
- 3.1 million visitors are estimated to annually visit Pymatuning State Park. The Park is operated by **Pennsylvania Department of Conservation and Natural Resources**. A sister Pymatuning State Park on the western side of the reservoir is operated by the Ohio Department of Natural Resources.
- Over 2,000+ acres of the shallow northwest end of the lake form the Pymatuning Wildlife Management Area, also known as Sanctuary Lake. The area is managed by the **Pennsylvania Game Commission**, and is a major resting location for migrating waterfowl as well as a major bird nesting area.
- The reservoir is well known regionally and nationally for its excellent bass, muskie, walleye, and crappie fishery. Sanctuary Lake is also the site of one of the largest warm water fish hatcheries in the world, the Linesville State Fish Hatchery operated by the **Pennsylvania Fish and Boat Commission**.

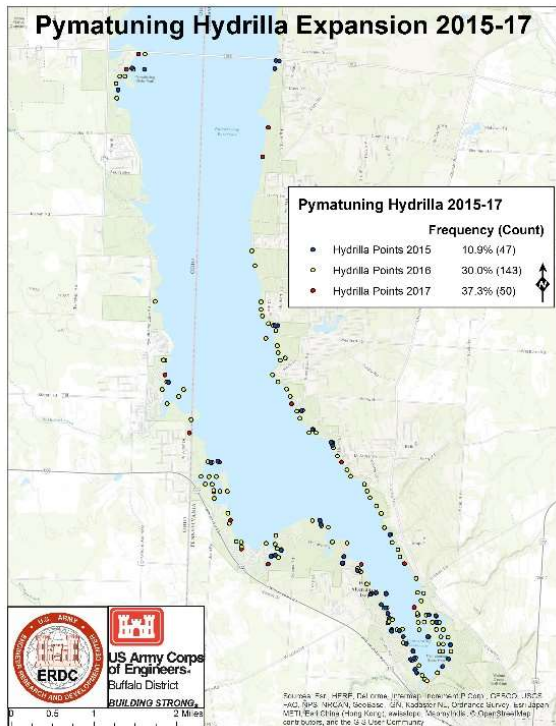
In 2010 a routine aquatic vegetation survey was conducted on the south end of Pymatuning Reservoir by the Crawford County Conservation District and Pennsylvania Department of Environmental Protection. During that survey a small population of hydrilla was found near the dam. Hydrilla is widely regarded as the “**almost perfect aquatic weed**” by aquatic plant managers for its ability to rapidly outcompete native aquatic plants and form a dense “shag carpet” effect from the bottom to surface of a waterbody as seen in the picture to the right of mooring area B on Pymatuning Reservoir.



In 2010 hydrilla was just moving into the northeast United States and was not well known in Pennsylvania aquatic plant management circles. Also, in 2010 aquatic plant management by Pennsylvania state agencies was not widely practiced and the potential impact of the

infestation was greatly underestimated. As such, hydrilla in Pymatuning Reservoir was not addressed immediately. The Crawford County Conservation District spent the next 4 years lobbying for a renewed interest and response to the infestation while it was in its early stages and still manageable.

- In 2014 the Crawford County Conservation District, with the permission of DCNR Pymatuning State Park organized a stakeholder meeting to discuss possible response to the infestation.



- As a result of the 2014 meeting, in 2015 the Crawford County Conservation District was able to secure the assistance of the US Army Corps of Engineers ERDC and University of Florida to help coordinate and conduct a reservoir wide survey.

- The survey utilized 6 boat crews from 8 separate County, State (PA/OH), and Federal agencies to visit 1915 vegetation samples points on the reservoir.

- In 2015 the survey identified 10.9% of the sample points contained hydrilla. That frequency increased to 30% in 2016 and 37.3% in 2017.

- In 2016 hydrilla was causing use impairments by socking boats in mooring areas on the south end of the reservoir.

- In 2016 the District partnered with Pymatuning State Park to secure grant funding to start a pilot Launch Steward program. The funding also paid for invasive species disposal stations and 3 wash stations. Since 2016 the pilot program has been expanded to 9 parks statewide.

- In the fall of 2018 a large mat of hydrilla broke away and clogged the gates of the dam. Pymatuning State Park had to hire divers to clear the gates so they could maintain their mandate to manage water levels for the Shenango River.
- Since 2018 the partners in the Pymatuning Hydrilla Response project have been able to secure piecemeal funding to ramp up hydrilla treatment to ~750ac annually. The result has been a drastic decrease in use impairments at the Reservoir.

It is now understood that hydrilla posed then, and still poses a strong risk of severely compromising the ecology and economic value of Pymatuning Reservoir. The lake's shallow depths (average depth = 15 feet) make a large fraction of the lake subject to risk of invasion. **If no action were taken, a conservative estimate of dense infestation up to a depth of 10 feet across the entire lake indicates that over 6,500 acres of the lake's reported total 17,088 acres is at strong risk of hydrilla invasion, including all of Sanctuary Lake.** If the infestation should ever get to that high density, it should also be recognized that a lake-wide infestation of hydrilla would represent a major challenge to the uses and ecology of the lake and require an exponential increase in cost of management. **An initial cost projection**

**for a single cycle of managing an infestation up 6,500 acres in size is between \$2.2 - \$2.9 million annually.**

As a serious threat to one of Pennsylvania's top fisheries and tourist destinations this project also had regional implications. On a statewide and federal scale, the Pymatuning hydrilla infestation could have been a perfect springboard for spread to other Pennsylvania lakes as well as neighboring states and the Great Lakes. On a more local scale the economic impact of a severely degraded reservoir could have been severe.

- With over 3.1 million visitors per year the potential to spread hydrilla to neighboring waters was and is a very real threat. Data from Pymatuning launch steward surveys show travel to and from Pymatuning from as far north as Canada and south to Louisiana.
- An unchecked hydrilla population in Pymatuning Reservoir has the potential for severe recreation related economic impact to Crawford County, PA as well as Ashtabula County, OH.
  - A 2010 Penn State Economic Impact Study: *The Economic Significance and Impact of Pennsylvania State Parks* found the following:
    - *"For Pymatuning State Park, visitors (both local and non-local) spent an estimated \$77,175,000 on their trips to this park in 2008."*
    - *"This spending resulted in \$68,586,000 in sales, contributing to 1,177 jobs with \$23,360,000 in labor income, and \$36,189,000 in value added"*
    - *"Pymatuning State Park hosted 3,004,508 visitors, spending \$77 million."*
    - *"The direct contribution to the local economy was 1,004 jobs and 1,177 jobs including secondary effects."*
    - *"Omitting spending by visitors from the local area, the impact of visitors from outside the local region was 633 direct jobs and 747 jobs including secondary effects."*

**Because of early action taken locally, severe impacts to the economy and ecological integrity of Pymatuning Reservoir have not yet happened.**

The Crawford County Conservation District was in a unique position to recognize the threat and act early to essentially "hold the line" while other local and regional stakeholders mobilized and pulled in needed pieces to form a coalition that is still active and thriving in 2021.

Since that initial meeting coordinated by the Crawford County Conservation District in 2014:

- DCNR was able to fill a vacant statewide Aquatic Resource Manager position (Nick Decker) that is essential to the success of the response.
- Pymatuning State Park was able to fill a vacant Assistant Manager position with one of DCNR's best invasive species management professionals (Stacie Hall).

- Army Corps of Engineers has continued to provide assistance with a now annual multi agency vegetation survey, as well as support with management strategy development.
- Ohio Department of Natural Resources has contracted with Cleveland Metroparks to provide the assistance of Ohio's most experienced hydrilla manager to the project (Mark Warman)
- Pennsylvania SeaGrant (Sarah Whitney and Sara Stahlman) has stepped in to provide assistance with outreach and grant writing.
- The Crawford County Conservation District continues to provide critical assistance to all phases of the hydrilla response.

This coalition of stakeholders has spent the last 7 years pulling in piecemeal funding and providing outreach and education. Although largely unseen by the public, this action has likely saved the Commonwealth significant resources and funding had the project been delayed further. However, it should also be noted if dedicated invasive species resources had been available in 2010 those savings would have surely been much greater.

The lessons learned from this ongoing project are now proving valuable to new infestation responses around the Commonwealth:

- **Rapid action on new infestations of aquatic invasive species is critical to preventing economic and ecological harm.**
- **Local, connected entities and coalitions can be more effective and efficient at coordinating an initial response than larger entities with less flexibility.**
- **A dedicated funding source in 2010 would have allowed the local coalition to rapidly act rather than spend time pulling in funding piece by piece allowing the project to be more cost effective and efficient.**
- **A response effort is only as good as the people involved. Pymatuning Reservoir was lucky to have the specific resource personnel fall into place at the right time to make the response effective. The *right* people, not just people are needed to ensure success.**
- **While currently effective, if the Pymatuning Hydrilla Response runs out of funding options we could easily lose the ground we have won over the past 7 years.**

In conclusion, local partnerships such as the informal Pymatuning hydrilla project or more formally groups like the Allegheny Plateau Invasive Plant Management Area that Jody Groshek from McKean County Conservation District will describe in her testimony could act more quickly and efficiently as future invasive species infestations occur. These examples of invasive species success in Pennsylvania are currently more the exception than the rule, however with more formal and dedicated support they can act as a model for increased future success.

Thank you for the opportunity to testify about the impacts of aquatic invasive species (AIS) on rural Pennsylvania. I would be happy to answer any questions.