

Thank you, Senator Miller, for the invitation to speak today.

My name is Erin Frederick. I am the State Coordinator for the Penn State Extension Master Watershed Steward Program.

Like many Extension services across the country, Penn State Extension offers several volunteer programs, including 4-H, Master Gardeners, Master Food Preservers, and Forest Stewards.

The Master Watershed Steward program was introduced in 2013 in response to the state's water quality issues and the need for substantial community engagement to address them.

Non-point source pollution, the term for pollution generated from a wide area that cannot be traced back to a single outlet, remains the biggest challenge facing surface water quality in Pennsylvania. Including stormwater runoff, acid mine drainage, and excess nutrients, non-point source pollution flows from hundreds of thousands of individual sites throughout the Commonwealth into Pennsylvania streams and rivers. No existing body of government regulators and conservation professionals alone can adequately address this problem.

According to the DEP Draft 2026 PA Integrated Water Quality Report, of the 85,568 miles of streams and rivers in Pennsylvania, a total of 31,451 miles are considered "impaired" – more than 1/3 of all streams.

Our program first launched here in the Lehigh Valley. At that time, community watershed associations and other environmental nonprofits, both locally and across the state, were struggling to recruit and retain volunteers to assist with their educational programs and restoration projects.

In outreach across the Lehigh Valley, we repeatedly heard that people were interested in conservation, and that water quality and environmental conservation were incredibly important, but they felt that they didn't know enough to engage effectively. We launched the Master Watershed Steward Program to fill that need. We specialize in volunteer management, partnering with Conservation Districts and other local organizations to add services for restoration, education, and outreach programs. The main purpose of the program is to ensure the ongoing support of local water-resource-focused volunteers who are knowledgeable, engaged, and supportive of partnering organizations.

After demonstrating success in the Lehigh Valley, we received funding from the DEP Growing Greener program to launch the program in other areas of the state. Sustainable funding has been sought through county governments to continue running the Master Watershed program over the years; however, this has become more challenging as counties face shrinking budgets. Even though we currently only have funding to run the program in 28 counties, we now have 1,080 Master Watershed Steward volunteers across

55 counties. We have found that volunteers are willing to drive to projects and programs outside their home counties, realizing that watersheds do not conform to political boundaries, or choose to participate through remote work. I think this also shows the demand for the program throughout the state and the interest in protecting water resources.

The program offers 40 hours of training in a broad range of environmental resource topics, including groundwater, stream ecology, wetlands, soils, geology, native and invasive plants, water recreation, climate science, and stormwater management. Participants are also introduced to local professionals and organizations within their county or region throughout the training. Following this classroom instruction, the participants in each training class are required to complete 20 hours of volunteer service in their first year. Once those 20 hours are completed, they earn the official title of “Master Watershed Steward.” To maintain their title, they must contribute a minimum of 20 hours of volunteer service and 10 hours of continuing education.

Volunteer and training opportunities are curated by MWS Coordinators. Coordinators connect with local nonprofits, municipalities, and other community organizations for volunteer needs. The coordinators ensure efforts are strategically aligned with local priorities, reducing duplication and maximizing impact. The volunteers can pick and choose what they’d like to do based on their availability and interests, whether that is planting trees, wading into streams to take water-quality samples, or running webinars and writing articles. The program is open to all skill sets and abilities – no experience is necessary, just a desire to give back to the community.

The program can be tailored to address state and local needs. For example, there are hundreds of restoration projects installed across the state, but few resources to help maintain them once established. Our volunteers can assist with this. We can offer training to volunteers to give presentations on specific topics, such as stormwater management, plastic pollution, or native/invasive plants, based on the community's educational needs. We have also recently partnered with the Department of Agriculture to incorporate education on the PA Fertilizer Law into our Watershed Friendly certification program, which offers guidance and resources to help people protect watersheds in their homes and yards and allows residents to complete a simple online application to qualify for Watershed Friendly certification.

Master Watershed Steward volunteers have filled critical gaps in local conservation capacity, revitalizing watershed associations, stepping into leadership roles, and serving on municipal committees where decisions about land use and water resources are made.

In 2025 alone, Master Watershed Stewards contributed 51,871 volunteer hours, valued at over \$1.8 million. In those hours, they:

- Educated 142,000 adults and children about water stewardship
- Planted 32,000 trees and 9,500 native herbaceous perennials
- Restored 12.8 stream miles
- Helped install and maintain 352.5 acres of naturalized habitat
- Removed 152 acres of invasive species
- Dispersed 707 rain barrels
- Removed 6,700 55-gallon bags of trash from the environment
- Conducted water quality monitoring on 352 sites on 201 streams.
- Set up educational displays and connected with residents at 308 community events
- Organized 295 educational presentations.
- Taught students about the environment in 141 schools
- Lead activities qualified for MS4 permit requirements in 254 municipalities.
- And assisted over 200 community partners with education and on-the-ground projects.

Again, this is only 1 year of data. Since the program began, volunteers have planted over 136,000 trees and contributed over 250,331 hours, which is valued at over \$8.7 million.

Our program continues to grow. We are actively recruiting for the 2026 class. My hope is that we can develop funding streams this year to continue to guide the investment of millions of dollars' worth of volunteer time and energy, and millions more in on-the-ground projects.

Thank you for your time and the opportunity to talk about the program. I'm happy to answer any questions.