

## Maryland Watershed Stewards Academy

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### History

To improve water quality and restore the Bay's ecosystem to a healthy condition, in 2010, under the authority of the Clean Water Act, the US EPA set a Total Maximum Daily Load (TMDL) for the Chesapeake Bay. For Maryland, this meant that the state had to reduce nitrogen loads to the Bay by 10 million pounds; phosphorus by 589,000 pounds; and sediment by 169 million pounds from the four major sectors that contribute excess sediment and nutrients to the Bay including agriculture, wastewater treatment plants, urban stormwater, and septic systems.

Reductions in stormwater runoff is costly, and many communities struggle to afford the price tag to meet load allocations through current revenue structures. The grassroots efforts of volunteer Master Watershed Stewards to implement stormwater Best Management Practices (BMPs) can provide a low-cost alternative to jumpstarting stormwater retrofits across the watershed.

The first Watershed Stewards Academy in Maryland was started in 2009 and established by Anne Arundel County. The Anne Arundel County WSA, at their request, has served as a model for the development of the statewide University of Maryland Sea Grant Extension Program Watershed Stewards Academy program. The second WSA, the National Capital WSA in 2011, is an initiative of a coalition of watershed protection groups administered by Anacostia Watershed Society in partnership with the University of Maryland Sea Grant Extension. Subsequent Academy's, Howard County (2012), Cecil County (2014), St. Mary's County (2016), Harford County (2017) and Calvert County (2020) have since been created through unique cooperative partnerships between county government agencies and their local Sea Grant Extension Watershed Restoration Specialists.

### Vision

WSA's vision is to empower communities to engage in behaviors and implement practices that improve water quality, one watershed at a time.

### Mission

WSA's mission is to develop, coordinate and support a widespread, successful network of volunteer community leaders in Maryland to serve as Master Watershed Stewards ("Stewards") in the protection, restoration, and conservation of watersheds. Through sharing resources and fostering partnerships, the WSA works with a Consortium of Support Professionals to assist Stewards and their communities to reduce the negative impacts of stormwater runoff into the Chesapeake Bay.

### Goals

- Engage, inform and empower communities to protect the watershed.
- Certify an active steward in every neighborhood.
- Support certified stewards as they: implement successful projects, educate their neighbors, and shift cultural norms within their communities.

- Connect professional, government, and community resources to accomplish watershed restoration.

## **Watershed Stewards Academy Structure**

### **State WSA Office:**

The State WSA Office is part of the University of Maryland Sea Grant Extension Program and is the governing entity over local WSA chapters. Responsibilities of the State WSA Office include:

- Create peer-reviewed WSA curriculum and other published resources.
- Maintain statewide steward database.
- Serve as an internal and external communication hub.
- Coordinate continuing education opportunities and/or annual conference.
- Assist with long-term sustainability planning.
- Assist with marketing and promotion.
- Participate in the hiring of local chapter coordinators.

### **WSA Chapters:**

WSA Chapters implement the statewide WSA program and curriculum with local adaptations. Responsibilities of the WSA Chapter include:

- Support the WSA mission, vision, and goal as stated by the State Office.
- Follow the core curriculum standards set by the State Office.
- Treat applicant personal information as confidential information.
- Provide Stewards with the necessary training and materials to provide effective outreach to their communities.
- Provide a safe learning environment for Stewards during Certification Course sessions.
- Develop and maintain local Advisory Group and Consortium of Support Professionals.
- Keep Stewards informed about program activities and events through email, newsletters and websites.
- Provide required evaluation feedback and metrics to the State WSA office.
- Share resources, successes and challenges with other WSA chapters and State WSA office.
- Undergo periodic review and re-certification by the State WSA office to ensure all chapters reflect the core WSA mission.
- Maintain the UME logo, WSA logo, and Affirmative Action statement on all public-facing documents.

### **Master Watershed Stewards (Stewards):**

Volunteers who are active and interested in improving the health of their local waterways and watersheds. Once a Steward has completed the WSA Certification Course they will be able to:

- **ASSESS WATERSHEDS** - Using a variety of GIS and field observations, Stewards will help communities identify pollution sources and create strategies for reducing these pollutants.
- **EDUCATE COMMUNITIES** - Stewards will engage communities and decision-makers during community meetings and events to help neighbors understand and appreciate the

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most pressing environmental problems in their area. Stewards will raise awareness among their neighbors about the connectivity between land and water, and their role in maintaining and improving water quality.

- REDUCE POLLUTANTS - Stewards will work with communities to target pollution sources such as pet waste, fertilizer and pesticide applications, and illicit discharges.
- TAKE ACTION - Stewards will help communities take action to reduce polluted runoff via installation of rain gardens, rain barrels, conservation landscaping, swales, and other rainscaping techniques.
- MEASURE SUCCESS - Stewards will track their efforts and demonstrate measurable impacts to their communities.
- CONTINUE EFFORTS - Stewards will expand their knowledge base through pursuit of continuing education after graduation and will include long-term maintenance of Best Management Practices in their Capstone and future projects.

### **Accomplishments:**

Through education, oversight, or support from the Sea Grant Extension Watershed Restoration Specialists, the Watershed Stewards Academies have graduated 416 Master Watershed Stewards as well as provided assistance to previous program graduates with their community outreach and restoration activities.

Highlights of WSA's accomplishments to date include:

- 416 Stewards certified.
- 42,334 community members engaged
- 147 stormwater assessments completed
- Over \$528,000 in value of volunteer time to Maryland.
- Over \$240,000 leveraged for small-scale stormwater projects.
- Over 115,870 sq. ft. of small-scale stormwater practices installed.
- Over 100,000 sq. ft. of impervious surface treated.
- Over 52,290 trees, plants, and shrubs installed.

### ***Specific accomplishment from the last two year:***

In 2019, the five programs run in partnership with the University of Maryland Extension resulted in the completion of 42 new projects totaling 7,390 square feet of best management practices (BMP) treating 33,345 square feet of impervious surfaces. 1,812 native plants were planted, 70 educational events were held, reaching 1,810 individuals. 1,184 volunteers were engaged and completed 9 rain gardens, 130 rain barrels, 17 individual and community site assessments, and multiple conservation landscape installations and tree plantings, storm drain stenciling projects, and trash clean-up events. Volunteer hours in 2019 totaled 3,556, resulting in an estimated value\* of \$90,429.08.

In 2020<sup>1</sup>, through education, oversight, or support from the Sea Grant Extension Specialists, there were no new Watershed Stewards Academies graduates, but the Specialists and their County partners continued with online classes and provided assistance to previous program graduates on various activities. Their combined efforts of class, capstone, and community projects resulted in the completion of 4 new projects totaling 495 square feet of best management practices (BMP) treating 940 square feet of impervious surfaces. In all, they planted 438 native

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plants, held 1 educational event, educated 250 individuals, and engaged 9 volunteers to complete 4 conservation landscapes. Volunteer hours in 2020 totaled 200, resulting in an estimated value<sup>2</sup> of \$5,440.00.

<sup>1</sup>*State and University of Maryland COVID-19 restrictions severely curtailed face-to-face engagement, in-person teaching, and volunteer activities during most of 2020, and reflect a dramatic decrease in program impacts from previous years.*

<sup>2</sup>*Hourly rate \$27.20. Source Independent Sector (<https://independentsector.org/value-of-volunteer-time-2020/>)*