

# HEADWATERS

PUBLICATION OF MARYLAND SEA GRANT EXTENSION WATERSHED EDUCATORS

Monarch butterfly, Wye Mills, MD  
Photo by Jennifer M. Dindinger

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## DEAR READERS:

Welcome to the fourth issue of Headwaters for 2014. It's been a busy year! The watershed team added several new members to the family this year and expanded our partnerships as well.

In this Headwaters issue, we learn about the people, policies, and projects that are reducing water pollution across Maryland. One thing you'll notice in this issue – no one can do this work alone. Each of our articles highlights some kind of collaboration that is strengthened by the efforts of each partner. Just as no one person or sector created our water quality problems, no one group can fix them alone.

As we look ahead to 2015, we continue to be thankful for the support, interest, and partnership we benefit from every day.

For more information about the Watershed Protection and Restoration Program, visit [www.extension.umd.edu/watershed](http://www.extension.umd.edu/watershed).

Sincerely,

The Maryland Sea Grant Extension Watershed Educators Team



# CONSERVATION LANDSCAPING IN ACTION

+ AMANDA ROCKLER

+ CONSERVATION  
LANDSCAPING PROVIDES  
MANY BENEFITS BEYOND  
POLLUTION CONTROL



A conservation landscape is a garden that improves water quality, promotes and preserves native species, and provides wildlife habitat. The Chesapeake Conservation Landscaping Council defines conservation landscaping through its “Eight Essential Elements<sup>1</sup>”:

1. Is designed to benefit the environment and function efficiently and aesthetically for human use and well-being
2. Uses locally native plants that are appropriate for site conditions
3. Institutes a management plan for the removal of

existing invasive plants and prevention of future nonnative plant invasions

4. Provides habitat for wildlife
5. Promotes healthy air quality and minimizes air pollution
6. Conserves and cleans water
7. Promotes healthy soils
8. Is managed to conserve energy, reduce waste, and eliminate or minimize the use of pesticides and fertilizers.

Watermark Place Condominiums are a 12-story, 76-unit high rise in the Wilde Lake watershed in Columbia, MD. The community borders Wilde Lake along a steep slope that is experiencing major erosion. A conservation landscape project was conceived in the spring of 2014 when 15 senior landscape architecture students from University of Maryland visited the property and did a stormwater site assessment. With a warm reception from the Watermark





“Use locally native plants that are appropriate for site conditions.”



community members, a group of dedicated Howard County Master Gardeners and Master Watershed Stewards picked up the initial project design ideas and refined them into a beautiful conservation landscape design to help manage the stormwater-related erosion on site.

conservation landscape was planted with more than 175 native plants including hydrangeas, clethras, witch hazel, wood ferns, ragwort, asters, and native grasses. Support for the project came from the Columbia Association and Sea Grant Extension’s Watershed Protection and Restoration Program. For more information about this and other project opportunities, contact your local Specialist.

This past October, Lauren’s Garden Center set up shop at Watermark Place Condominiums to plant phase one of the conservation landscape design. The 500 square foot

Resources:

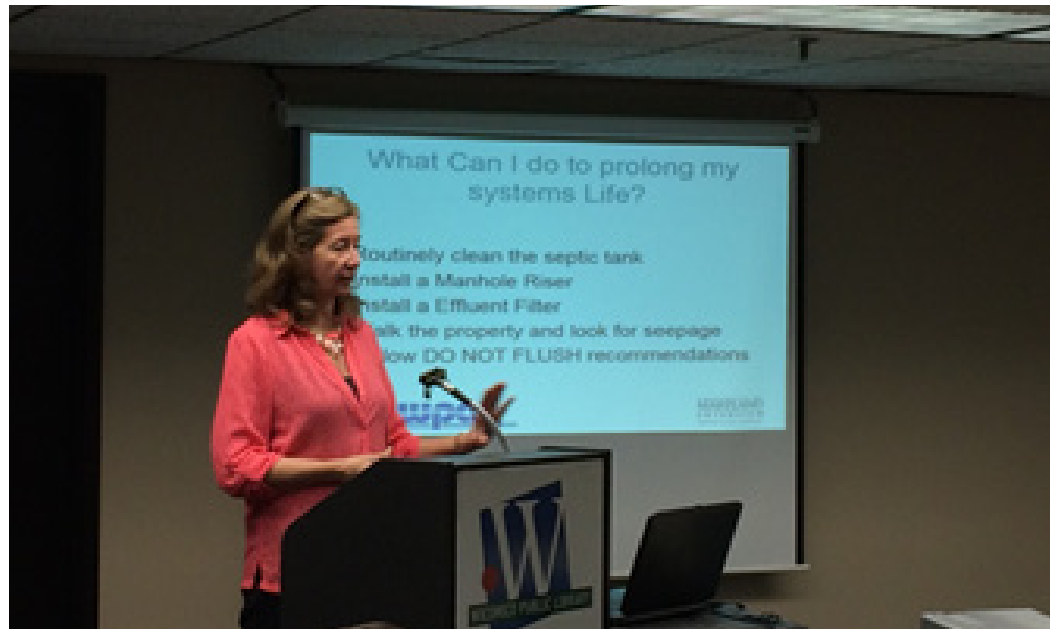
<sup>1</sup> The Chesapeake Conservation Landscaping Council, Conservation Landscaping Guidelines: The Eight Essential Elements of Conservation Landscaping: <http://www.chesapeakelandscaping.org/Guid1207%20.pdf>



# SOS, SOS! SEPTIC OWNER STEWARDSHIP CLINICS

+ JENNIFER DINDINGER

+ CLINICS PROVIDE  
FREE INFORMATION  
TO HOMEOWNERS  
ABOUT SEPTIC SYSTEM  
MAINTENANCE



One of the lesser known, but still important, sources of nutrient pollution in rivers and streams is septic systems. The Maryland Department of the Environment estimates that there are about 420,000 houses in Maryland that use septic systems, and the systems are responsible for approximately 8% of Maryland's nitrogen load to the Chesapeake Bay.

system still contributes about 24 pounds of nitrogen per year to groundwater. If systems are not properly maintained, nutrients and bacteria can leach into groundwater and cause well contamination, sicken your family and your pets, and increase pollution to your local stream.

With this in mind, the Maryland Institute for Applied Environmental Health and UMD Sea Grant Extension recently partnered on a

So, what's the big deal? The big deal is that a perfectly functioning





## “Maintaining houses with private wells and septic systems can be tough.”

homeowner outreach program called Chesapeake SOS: Septic-Owner Stewardship. Supported by a grant from the Chesapeake Bay Trust, this program offered free clinics in Wicomico, St. Mary’s, and Calvert counties (with one in Dorchester County planned for January 2015) to teach people how and why to maintain their septic systems. The clinics were well received by the communities, and some clinics could only offer standing room to hear from local environmental health directors and representatives from the Maryland Onsite Wastewater Professionals Association.

“Maintaining houses with private wells and septic systems can be tough. Even though these homeowners are responsible for protecting, testing, and treating their drinking water, and maintaining their well and septic systems, they don’t get operation manuals for these things when they buy the house. Homeowners often just don’t know what they

need to do,” explains Daphne Pee, Coordinator of the Chesapeake Water and Septic Homeowner Education project at the University of Maryland. “We want to teach homeowners what they need to do to protect their families, their neighbors, and the environment.”

A key element of the clinics was a survey that asked participants about their septic maintenance practices. The results of the survey will be used to tailor future outreach programs to the specific needs of septic system owners.

If you are interested in bringing a clinic to your region, please contact your local Watershed Restoration Specialist. For more resources on septic system maintenance, please visit these websites: <http://extension.umd.edu/learn/septic-systems-and-their-maintenance> • <http://www.nesc.wvu.edu/subpages/septic.cfm>



# STORMWATER REMEDiation COMES TO MARYLAND

+ JACKIE TAKACS

+ SHARING THE BURDEN  
WILL HELP LOWER COSTS

In 2012, the State of Maryland passed the Watershed Protection and Restoration Program (HB-987) which mandated that counties subject to a certain federal municipal stormwater permit institute a Stormwater Remediation Fee (SRF). The purpose of the fee is to manage pollution carried by stormwater into local waterways. Implementation of the fee varies, but frequently the amount of impervious surface on a property will dictate the amount of the fee. The SRF is similar to other infrastructure fees many of us are already used to paying - services such as sewer, drinking water, garbage collection and highways.



quality monitoring, watershed planning, and stormwater educational programming.

Nationally, approximately 2,000 jurisdictions levy the fee to address major flooding and stormwater issues in their communities. In Maryland, the SRF created by HB-987 applies to the nine largest counties (Anne Arundel, Baltimore, Carroll, Charles, Frederick,

The collected fees are placed in a dedicated fund and used to finance projects that treat polluted stormwater. Examples include such projects as stream and pond restoration, storm drain cleaning, stormwater facility inspection, maintenance and upgrades, tree planting, water





“SRF created by HB-987 applies to the nine largest counties and Baltimore City in Maryland.”

Harford, Howard, Montgomery, and Prince George’s) and Baltimore City. Property owners within these jurisdictions, with some exceptions, are required to pay the SRF. The fee structure is established independently by each county/city and differs across Maryland. Some jurisdictions offer a credit/incentive/rebate

program for property owners that install practices to help treat stormwater before it can leave their property. For more specific information about the SRF program in your area, visit [extension.umd.edu/watershed/watershed-resources](http://extension.umd.edu/watershed/watershed-resources).





## THE TWINS HAVE ARRIVED!

+ KRISZTIAN VARSA

+ SEA GRANT EXTENSION  
WELCOMES THE NEWEST  
MEMBERS OF THE  
FAMILY



The watershed team is delighted to announce the growth of our family! On September 24th, Krisztian and his wife Jessica welcomed their first children, twin girls Nóra Erzsébet (3 lbs 15 oz, 18.5 inches) and Jozefine Everett (4 lbs 14 oz 18 inches). The watershed team is excited to share their passion for Maryland's streams and a healthy Chesapeake Bay with future generations of stewards.





# WATERSHED ASSISTANCE COLLABORATIVE

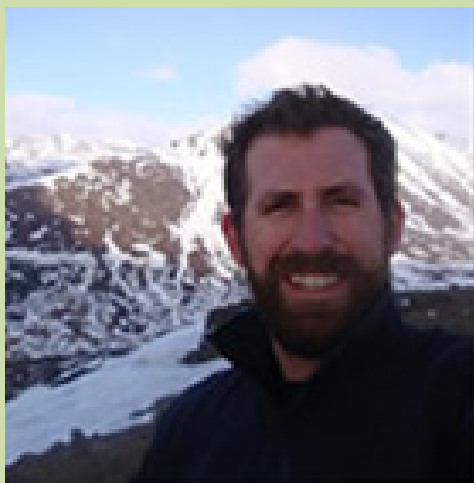
+ PHILLIP STAFFORD,  
MARYLAND DNR

+ BRINGING RESOURCES  
TO THE LEVEL WHERE THE  
WORK GETS DONE



On September 23rd, the Watershed Assistance Collaborative (WAC) met in Southern Maryland for its quarterly meeting. The member organizations that gathered together included the University of Maryland Sea Grant Extension Specialists, Chesapeake Bay Trust (CBT), Environmental Finance Center (EFC), and the Maryland Department of Natural Resources (DNR) Chesapeake and Coastal Services.

The WAC formed in 2008 to improve coordination between the organizations working with local jurisdictions and watershed groups striving to improve the waters of Maryland. The member groups focus on stakeholder outreach and training, capacity building, grant opportunities, and long term financing. These efforts are aimed at everyone from small non-profits and community groups just getting started on





## “Recent efforts of the WAC include the expanded Watershed Assistance Grant Program”

stormwater issues to County governments well on their way to cleaning up their rivers and streams.

By working together, WAC members can integrate the resources available to groups and governments. The WAC also creates a network that can gather the needs and interests of stakeholders and then turn around and disseminate resources and outreach materials to them.

Recent efforts of the WAC include the expanded Watershed Assistance Grant Program (WAGP) which this year awarded nearly one million dollars to assist local jurisdictions to plan and design projects to meet their two-year Watershed Implementation Plan (WIP) milestones. Additionally, the continued rollout of the Stormwater Management and Restoration Tracker (SMART) Tool allows local residents to register their best management practices and

have them credited. There was also a new Watershed Stewards Academy established in Cecil County with 12 new stewards enrolled in the program. In addition, EFC is working on financial stormwater planning in College Park and throughout Prince George’s County. These efforts are helping solidify Maryland’s ability to improve the health of its waters. For more information please visit [www.dnr.state.md.us/ccs/healthy\\_waters/wac.asp](http://www.dnr.state.md.us/ccs/healthy_waters/wac.asp) or contact Phillip Stafford, WAC Coordinator, at [phillip.stafford@maryland.gov](mailto:phillip.stafford@maryland.gov).





# WHAT THE BAY MEANS TO ME... AND A FEW MILLION OTHER MARYLANDERS

+ ERIC BUEHL

+ A HEALTHY BAY MEANS  
SOMETHING TO EVERYONE



It was back in January of 1983 when I first saw the Chesapeake Bay. It was from the stern of a Navy ship headed to sea from Norfolk to the North Atlantic for winter exercises. Little did I know that the Chesapeake would become the place where I would settle down and raise a family a few short years later. Aesop’s fable of the Fox and the Lion emphasizes that “familiarity breeds contempt,” which might be a little strong for me. A better phrase might be “familiarity breeds taking it for granted” when it came to living

near the Chesapeake Bay, first in Annapolis and then in Queen Anne. To me, the Bay was just a place to fish or take photographs. It was only after the first few times that family from the Midwest came to visit that I began to see the Bay with a renewed interest and appreciation. To my family, their only knowledge about the treasures of the Chesapeake came from National Geographic magazines, specials on public television, and the few times they visited; yet they knew what a truly special place it was.





“It was through their eyes that I gained a greater appreciation for its beauty”

And it was through their eyes that I gained a greater appreciation for its beauty, its bounty, and the interdependence between all things living.

Since then, my education and career path have given me a much greater appreciation of the value of the Chesapeake Bay. So what is a healthy Chesapeake Bay watershed in Maryland worth? For starters, the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation for Maryland (<http://www.census.gov/prod/www/fishing.html>) indicates that 426,000 anglers fished Maryland waters, that 88,000 people hunted in Maryland, and 1,362,000 people engaged in wildlife-watching activities. Despite the fact that these numbers include areas like far western Maryland and the Coastal Bays watershed, visitors and residents spent more than \$1.282 billion dollars on trips and equipment. On top of that, the National Oceanographic and

Atmospheric Administration runs a web-based coastal economics tool called ENOW (<http://coast.noaa.gov/enow/explorer/>) which shows that 54,329 people make a living in tourism/recreation and living resources (commercial fishing, aquaculture, seafood processing, etc.) for just the Maryland portion of the Chesapeake Bay alone. And, just those two sectors of the state's economy added more than \$2.382 billion in the value of the goods and services they produced in 2011. A healthy Chesapeake Bay watershed is important, and the bottom line is that people are willing to spend good money to be outdoors and enjoy Maryland's forests and streams, to be near wildlife, to boat on clean water, and to enjoy a meal from a Chesapeake Bay that has abundant, healthy, and safe seafood.





# CHESAPEAKE QUARTERLY

+ VICKY CARRASCO

+ HOW IS SEA LEVEL RISE  
AFFECTING PEOPLE AND  
THE LAND?

Maryland Sea Grant's Chesapeake Quarterly, in partnership with the Bay Journal, has highlighted Sea Level Rise in their most recent issue.

videos and links. A printed version of the Chesapeake Quarterly is also available. <http://www.chesapeakequarterly.net/sealevel/index.php>

Please go to this website to read about stories, local interviews/



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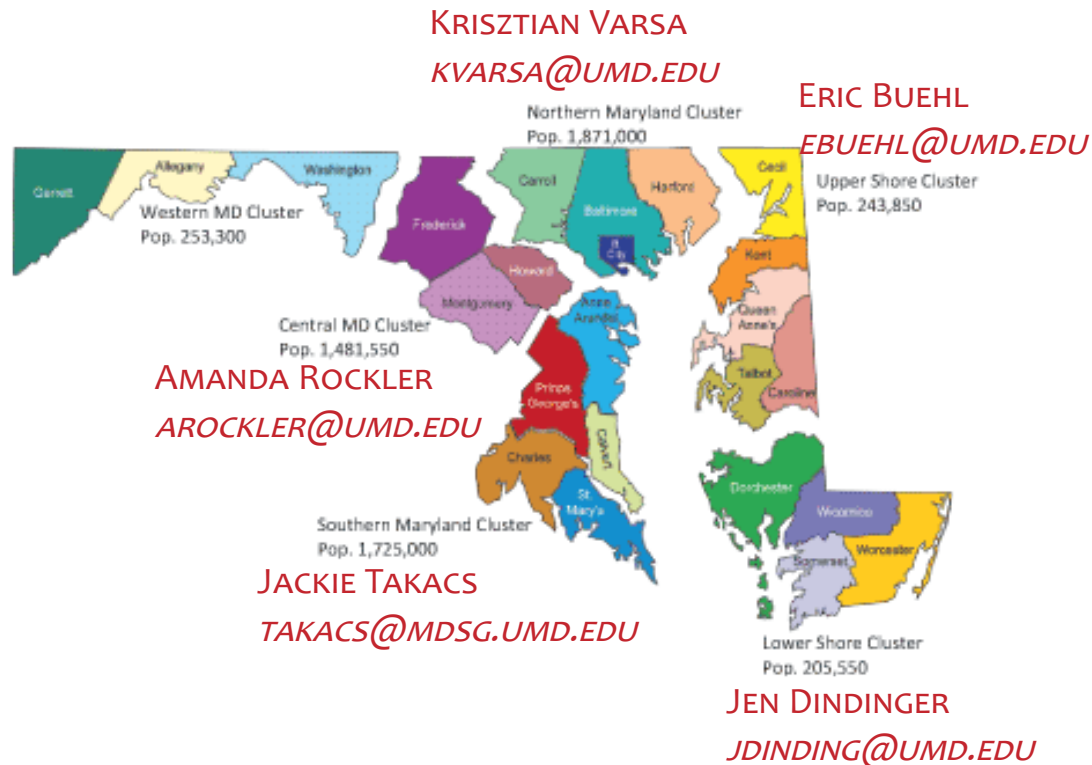
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Headwaters is a publication providing information and resources for Extension and watershed protection professionals. It is a joint production of the University of Maryland Extension and Maryland Sea Grant Program. If you have any comments, questions, or ideas for Headwaters, please contact the Editor:

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## WHO'S YOUR WATERSHED SPECIALIST?



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