

HEADWATERS

PUBLICATION OF MARYLAND SEA GRANT EXTENSION WATERSHED EDUCATORS

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DEAR READERS:

As editor of Headwaters, it is humbling and awe-inspiring to be reminded of the true complexity of the task we tackle on a daily basis. The restoration of the Chesapeake Bay has innumerable moving parts, some of which include: governments, organizations, practitioners, programs, implementation projects, policies, funders, advocates, optimists, pessimists, dog poop, and, oh yea, let's not forget about the 18 million people...

It is in this context that the Watershed Protection and Restoration Program (WPRP) provides a unique node in the network of Bay restoration. Our raison d'être is connecting people to the resources they need to do their best work. This issue of Headwaters exhibits the spectrum of ways we provide that integral connection. As a [community partner](#), [program educator](#), [policy interpreter](#), [statewide collaborator](#), and [program creator](#), the WPRP Program is engaged in connecting many moving parts to reduce complexity and help restore the Chesapeake Bay.

For more information about the Watershed Protection and Restoration Program, visit www.extension.umd.edu/watershed.

Sincerely,

The Maryland Sea Grant Extension Watershed Educators Team



DUNDALK RENAISSANCE CORPORATION'S FALL TREE GIVE AWAY

+ KRISZTIAN VARSA

+ COMMUNITY HIGHLIGHT



In a county with nearly 50% tree canopy cover, the community of Dundalk is an outlier. As an older, working class neighborhood in Baltimore County, Dundalk is unique in having just 21% tree canopy coverage¹. The importance of this statistic is that trees don't just perform numerous stormwater functions (they do!) but they also conserve energy, improve air quality, provide wildlife habitat, and increase property values.

Enter the Dundalk Renaissance Corporation's Greening Coordinator, Seyi Adebayo. Seyi is leading the charge to expand canopy cover in Dundalk, with the objective of improving water quality in the Direct Harbor and Bear Creek watersheds. Seyi is waging a difficult battle. In addition to canopy cover being less than half of Baltimore County's overall, the failure rate of urban trees in the Baltimore area is resulting in a net negative



“This wasn’t
your average
give away.”

canopy growth². Further, post-planting tree mortality is an ongoing challenge for local organizations seeking to maximize their effort to improve stormwater.

Dundalk Renaissance Corporation’s (DRC) Fall Tree Give Away aimed to stem the tide of canopy challenges. This wasn’t your average give away. In exchange for their preregistration for the two events in October and November, residents received live demonstrations, prompts and maintenance materials, and volunteer support for homeowner assistance when needed. Seyi shared, “It was great to see people excited to connect with their environment and at the same time spruce up their yards.”

Successful residential tree planting hinges on homeowners’ long term engagement with tree maintenance. First, two live



planting demonstrations showed residents best practices in tree planting at a Dundalk home. Next, new tree owners received a Tree Planting Kit which included a guide, “All About Trees: Planting and Care Guide,” a refrigerator magnet with three critical steps to long term maintenance, a bag of mulch, and Soil Moist granules. Finally, volunteers delivered and planted trees for Dundalk residents in



“Everyone jumped like hotcakes for the redbuds”

need of physical assistance with a tree planting.

The 2014 Fall Tree Give Away resulted in the planting of 90 native trees on private land, which will add 15,000 square feet of mature tree canopy. Approximately 50 tree adopters indicated a high interest in water quality following the demonstrations. DRC will determine the success of the prompts and messaging in improving the mortality rate of the trees by surveying participants one year from tree adoption. And, in the future, Seyi says, “everyone jumped like hotcakes for the redbuds, when we do it again we will definitely have to have more of them.”

- 1 August 2014. “Urban Community Tree Maps and Data.” Baltimore County Department of Environmental Protection and Sustainability. <http://www.baltimorecountymd.gov/Agencies/environment/forestsandtrees/treecanopy.html>
- 2 Nowak, D., Kuroda, M., Crane, D. “Tree Mortality Rates and Tree Population Projections in Baltimore, Maryland, USA.” Urban Forestry and Urban Greening, 2014. pp. 139 – 147. http://www.fs.fed.us/ne/newtown_square/publications/other_publishers/OCR/ne_2004nowak01.pdf



WHAT IS SOCIAL MARKETING?

+ AMANDA ROCKLER
+ HINT: IT ISN'T FACEBOOK OR TWITTER!



In 2009, my parents entered a raffle to win a rain barrel with the intention of conserving water and saving money while maintaining their garden. Three years later, that rain barrel was sitting in the garage, uninstalled, and my well-intentioned parents were not conserving water or saving money.

Similarly, when social psychology researcher L. Bickman interviewed 500 people about personal responsibility for picking up litter, 94% acknowledged that individuals bore a responsibility for picking up litter. However, when leaving the interview, only 2% picked up litter that had been planted by the researcher.

Question:
Why don't people who have the knowledge of the benefits of picking up litter and installing rain barrels choose to make sustainable behavior choices?

Answer:
Barriers and benefits.

In my parents' case, their barrier was cutting the downspout. They were terrified to take a hacksaw to their downspout. Mounting



social science research suggests that barriers deter individuals from engaging in sustainable long-term behavior, and education alone has little effect on overcoming those barriers. However, using the approach of social marketing, which applies principles and techniques of marketing to change attitudes and behaviors for target audiences, it is possible to overcome barriers and instill sustainable long term behaviors which will benefit society as a whole.



“The campaign was deemed a major success.”



The *Don't mess with Texas* anti-litter campaign is another good example of social marketing. In 1985, keeping the Texas roadways clean had become a \$20 million enterprise. The Department of Transportation (DoT) hired a marketing firm in Texas to conduct market research, which concluded that young men were responsible for the majority of litter. The firm developed an effective campaign aimed at stopping the young men from throwing beer bottles out the windows of their cars.

The campaign was deemed a major success. By 1998, the DoT found that 96% of Texans knew the slogan, it drastically reduced littering by 71% from 1986 to 1990, and the amount of money spent cleaning Texas roadways dropped from \$2.33 per Texan in 1986 to \$1.90 in 2012 . To

find out more information on the Don't mess with Texas litter campaign visit <http://www.dontmesswithtexas.org/research.php>

We want clean water, but how are we going to get it? Stay tuned as our team utilizes social marketing strategies to improve water quality in the Chesapeake Bay.

If you would like to learn more about social marketing, we will be holding a workshop on March 7 from 9-3 at the Howard County Extension office. More information can be found on our website in the events calendar: <http://ter.ps/8eq>

ⁱ Bickman, L. (1972). “Environmental attitudes and actions” *Journal of Social Psychology*, 87, 323-324

ⁱⁱ Priceonomics.com. The Surprising Origins of “Don't Mess with Texas.” Retrieved February 4, 2014, from <http://priceonomics.com/the-surprising-origins-of-dont-mess-with-texas/>



INTRODUCTION TO STORMWATER LAW AND YOU

+ ERIC BUEHL

+ PAUL AND MARY
CREATE A DRAINAGE
ISSUE



(This series, Stormwater Law and You, will feature recurring stormwater legal issues which arise in the Chesapeake Bay watershed. Disclaimer: The University of Maryland Extension and WPRP Program are not offering legal counsel, nor do these articles offer legal advice. The following scenario is fictitious.)

own...the American dream. A few weeks later, Paul and a few buddies put in a large concrete patio for grilling. They used the leftover dirt to fill a low spot in the side yard. And then the rain came. The new patio created additional runoff, and to get all the water away from the house, Paul ran to the hardware store and bought flexible downspout extenders.

The day Paul and Mary moved into their new house was their dream come true. They saved every penny for the down payment, skipping their dream vacation and brown-bagging their lunch. But the sacrifice paid off in the end and now they had a home they could call their very

After a few rainstorms, an inspector from the County came to look at the low spot that had been filled. The low spot was actually a drainage ditch, channeling stormwater



“Paul and Mary’s situation is not unusual”

runoff from the homes uphill down to the stormwater pond. Paul’s addition of impervious surface, and redirecting stormwater toward the property line using downspout extenders, had only made a bad situation worse. By filling the low spot, the stormwater was being deflected into their neighbor’s yard and causing flooding issues in their basement. With the help of the inspector, Paul and Mary tried to figure what they had done wrong.

First, they should have discussed their plans to change the flow path and add impervious cover with their neighbors. And, equally, their neighbors should have contacted them as soon as the problem arose, rather than waiting for their flooding to get worse. In many instances, solutions developed at the lowest possible level are the easiest and least costly to apply. Before starting work, Paul and Mary should have looked for restrictions in their deed, contacted the homeowners’ association, looked at the record plat, and checked with the local

planning office to see if their project might violate local codes. With this information, Paul and Mary would have learned that the area near the hedgerow had a drainage easement.

Unfortunately, Paul and Mary’s situation is not unusual. As a result, the Watershed Protection and Restoration Program Specialists are exploring Maryland’s stormwater laws to improve our understanding their application. We have partnered with the National Sea Grant Law Center (<http://nsglc.olemiss.edu/>) and the University of Maryland’s Agricultural Law Extension Program (<http://extension.umd.edu/aglaw>) to provide this valuable information to property owners. We encourage you to check the Watershed Protection and Restoration Program website (<http://extension.umd.edu/watershed>) for more information on this important topic as we develop more information.



THE UME LAND USE AND WATERSHED ACTION TEAM

+ JACKIE TAKACS

+ A PARTNERSHIP
OPPORTUNITY



University of Maryland Extension (UME) accomplishes its mission by focusing its faculty, staff, and resources in four major ***Focus Areas***: Agriculture and Food Systems, Environment and Natural Resources, Healthy Living, and Resilient Communities and Youth Development. These Focus Areas are responsible for collectively achieving UME goals, measuring impacts and reporting findings to our stakeholders. Within each Focus Area are independent ***Action Teams*** that operate similar to small program centers - planning, implementing and evaluating specific projects, programs and initiatives. The goal of the Action Teams is to identify programs or ideas addressing a local need, and expanding them to statewide efforts that meet a broader public need or issue. These efforts will go through a

rigorous assessment and peer review and, in turn, become ***Programs of Distinction***.

The Sea Grant Watershed Restoration Specialists are working to rebuild the ***UME Land Use and Watershed Action Team*** (LUWAT) and welcome collaboration within and beyond UME, to include other UMCP and USM faculty and external stakeholders. These internal and external stakeholders will function as partners and help to identify and prioritize educational programming, applied research opportunities, and funding resources. . . The specialists focus most of their current efforts on the reduction of non-point source pollution from stormwater runoff, but are also developing Programs of Distinction in these broad categories (learn more



“These efforts will go through a rigorous assessment and peer review”

about these program in past, current, and future issues of Headwaters):

Watershed Stewards Academy
(Read more about the Cecil County Watershed Stewards Academy)

Chesapeake Bay Landscape Professional Certification Stormwater Management and Education

The LUWAT recognizes the breadth, depth, and complexity of land use and watershed restoration, and invites partners interested in our programming efforts to contact our LUWAT leader, Jackie Takacs, takacs@mdsg.umd.edu.



CECIL COUNTY STEWARDS ARE FULL SPEED AHEAD

+ JENNIFER DINDINGER

+ EASTERN SHORE PILOT WSA IS GOING STRONG



There has been no rest for the weary, at least as far as Cecil County Watershed Stewards Academy (WSA) candidates are concerned. These dedicated volunteers have committed more than 50 hours of their time over the course of five months to learn about stormwater management, visit successful and not-so-successful project sites, and begin brainstorming for their own class project. They have even requested more class time together to plan the project!

The Cecil County WSA pilot program has far exceeded expectations for both Maryland Sea Grant Extension and Cecil County Development Services Division (DSD). “It has been a long road to get this program up and running,” said Marshall McSorley, the Cecil County WSA co-coordinator and DSD Resource Inspector. “Working with community leaders over the past several months who have devoted such a large amount of time to



“I am very excited for what the class will accomplish”



attend classes, who want to be involved in cleaning their local waterways and who find value in the program has been a great reward. I am very excited for what the class will accomplish in the upcoming months.”

Class members are equally as excited about the program. “I’ve been really pleased with how the instructors work to break down complex subject matter relative to stormwater management,” said Mark Dobbins, a steward candidate from the Elk and North East Rivers Watershed Association. “The ideas that are presented are accessible and informative to individuals like

me with no experience in these areas as well as to others who have a wider and more extensive background.”

The next steps for the Cecil County WSA promise to be even more exciting. The class will install a stormwater management practice in early spring and then they will hit the ground running with their own Capstone projects, due in October 2015. This amazing year of restoration will culminate in a graduation ceremony in December and 10 new Stewards working to improve Cecil County’s waterways!

If you are interested in participating in the Cecil County WSA for the 2015-16 season, please contact Marshall McSorley (mmcsorley@ccgov.org) or Eric Buehl (ebuehl@umd.edu). To find out more about starting your own WSA program on the Eastern Shore, contact Jen Dindinger at jdinding@umd.edu.



HEADWATERS

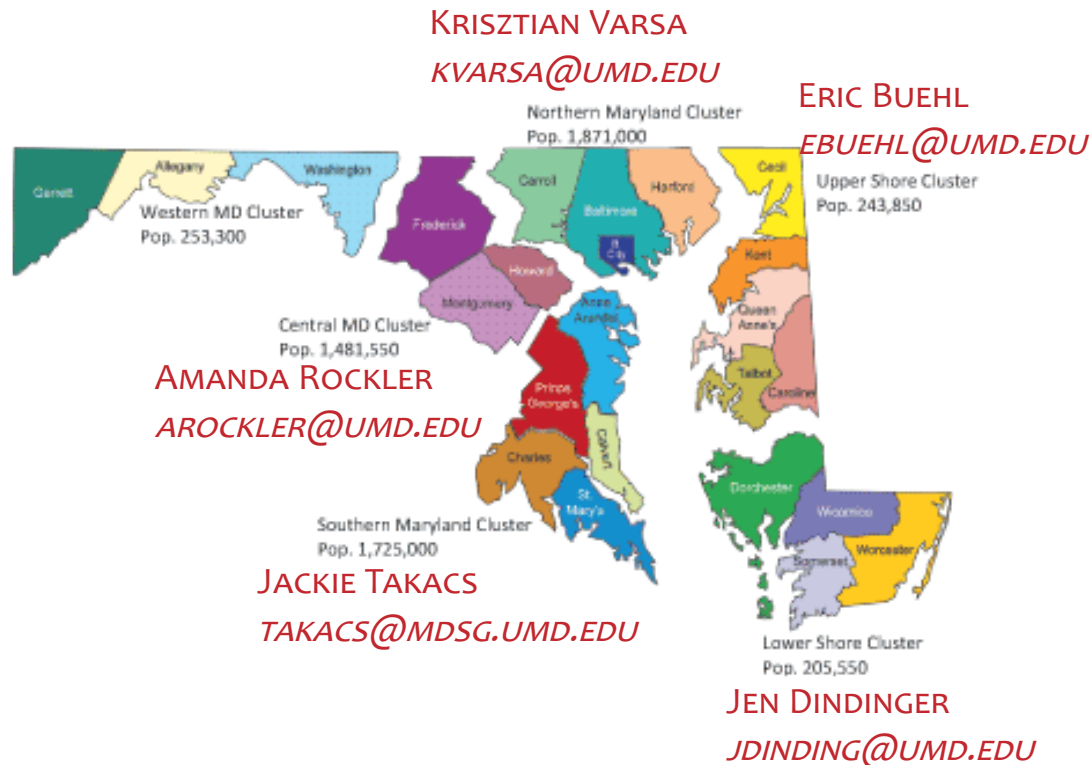
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Headwaters is a publication providing information and resources for Extension and watershed protection professionals. It is a joint production of the University of Maryland Extension and Maryland Sea Grant Program. If you have any comments, questions,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

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WHO'S YOUR WATERSHED SPECIALIST?



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