



# From the *Fall Line*

Serving the Counties of King George, Spotsylvania, Stafford & the City of Fredericksburg

Summer 2016



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## 2015 Clean Water Farm Award

*The Department of Conservation and Recreation is proud to sponsor the annual "Clean Water Farm Award" that acknowledges farmers who implement conservation plans and who are doing their part to preserve water quality. They deserve recognition and thanks. These individuals are role models who encourage others to do their part as well. Farmers spend time, energy and hard-earned money carrying out conservation practices such as fencing livestock out of streams, planting cover crops to reduce soil erosion and trap an excess nutrient which directly prevents pollution runoff from affecting water quality in nearby streams. (Continue on the next page)*



Mr. Chad Young (center), one of the two local recipients of the 2015 Clean Water Farm Awards. Mr. Young was recognized for implementing conservation practices in the Rappahannock Watershed.

## 2015 Clean Water Farm Award Presentations (continued)



On June 7<sup>th</sup>, 2016 at the Stafford County Board of the Supervisors meeting, the Tri-County/City Soil and Water Conservation District was pleased to present the 2015 Clean Water Farm Awards to the two local winners, Chad Young and Edward Shelton. Both farmers demonstrated a commitment to the conservation of natural resources through responsible farming practices which includes the installation of fencing, pipeline, watering troughs, and riparian buffers, to prevent their cattle from polluting the streams and ponds on their properties. Continuing a tradition of land stewardship

through carrying out these practices also known as best management practices (BMPs) not only benefits the farm owner but also allows the rest of our community to enjoy clean streams and rivers for many years to come.



**Mr. Edward Shelton (center-right), the recipient of the 2015 Clean Water Farm Award. Mr. Young was recognized for implementing conservation practices in the Potomac Watershed.**



*For farmers interested in implementing Best Management Practices on their operations, Tri-County/City SWCD is offering a cost-share program to assist with funding for eligible practices. The district is accepting applications for the 2017 Cost Share Program beginning July 1<sup>st</sup>, 2016 – through August 12th, 2016. All applications will be ranked pending a final approval by the TCCSWCD Technical Review Committee/District Board of Directors on September 16<sup>th</sup>, 2016. (See program announcement on the page 2)*

## Best Management Practices (BMPs) COST SHARE SIGN UP

July 1st, 2016 – through August 12th, 2016

### Purpose of the BMP Cost-Share Program

TCCSWCD offers and oversees a financial assistance program to encourage local farmers to voluntarily install agricultural BMPs. The purpose of the BMP implementation program is to protect and improve water quality in the Chesapeake Bay by protecting local watersheds within the Potomac, Rappahannock and York rivers.



A watering trough provides an alternative source of water for cattle to keep them out of streams and ponds.

### Examples of eligible BMPs

Practices that ensure soil and water conservation and prevent pollution runoff such as;

- Fencing to keep livestock out of streams
- Planting cover crops to reduce erosion and trap residual nutrients
- Establishing and planting vegetative buffers to protect streams located within farms
- Developing and following a nutrient management plan to properly apply fertilizer according to individual crop needs

### Ranking

- Applications are prioritized based on high and medium ranked watersheds (DCR)
- Fields that are highly erodible (NRCS)
- Fields that are upstream of an impaired stream
- Fields that have a VA Resource Management Plan
- The cost efficiency of the practice

### Applicant Eligibility

- Anyone having land in a bona fide program of agricultural management
- Anyone engaged in the production of agricultural, horticultural or forest products for market, real estate consisting of a minimum of five contiguous acres and have verifiable gross receipts in excess of \$1,000.00 per year from the sale of agricultural, horticultural or forest products produced on that land for each of the past five years are eligible to receive cost share funds
- Financial assistance is provided on a nondiscriminatory basis without regard to race, color, national origin, age, religion, sex, marital status or handicap

### How to Apply

For more information about the BMP Cost-Share Program or to schedule an appointment for a visit, please contact **Etta Lucas, TCCSWCD Conservation Specialist at (540) 656-2402.**



## Highlights of the Spring 2015 TCC SWCD Community Outreach Programs

We participated in a number of community outreach events and special school programs highlighting good conservation practices to protect our soil and water. Thank you for your support and a great turnout!



Annual Tree Seedlings and Rain Barrel Sale



2016 Fredericksburg Earth Day

## TCCSWCD Showcases Innovative Approaches to Stormwater Management at 2016 Earth Day

By Marta Perry

In spite of a late morning rain shower, hundreds of people turned out to Old Mill Park in Fredericksburg for the 13<sup>th</sup> annual Fredericksburg Earth Day Festival on Saturday, May 23<sup>rd</sup> 2016. Many of those attendees stopped by the Tri-County/City SWCD booth to explore some of the innovative materials and practices used in stormwater management. The focus of the booth this year was stormwater management and the new Virginia Cost-Assistance Program (VCAP) that funds 11 different best management practices for stormwater on non-agricultural land. Items on display included an informative exhibit about VCAP, a 65-gallon rain barrel (with gutter attached!), a selection of native plants chosen by Brent Hunsinger of Hunsinger Native Plantings, photos of Virginia rain gardens by landscape designer Shirley Street, and a flat of 19 different sedums cultivated specifically for use on green roofs donated by Moerings Semper Green in Culpeper, VA. Especially intriguing to young and old was the interactive demonstration of water flowing right through samples of Porous Pave, a permeable asphalt pavement, which were provided by the local landscape and irrigation supply house, Aquarius Supply. Interest was high and kept Tri-County/City staff and volunteers busy throughout the day fielding questions and discussing stormwater management. The well-attended event was a successful opportunity to connect with local residents and TCCSWCD is already excited about Earth Day 2017.



<http://www.mfconcreteinc.com/porous-pave.htm>

## WHAT IS A MWEE?

The essence of the “MWEE” is an idea to bring together students, teachers, environmental organizations and citizen volunteers to create Meaningful Watershed Educational Experiences (MWEE) fostering positive connections between citizens’ actions and Chesapeake Bay well-being.



In the 2014 Chesapeake Bay Agreement, the six Chesapeake Bay watershed states pledged to “restore and protect this national treasure”. The Agreement set eleven wide-ranging conservation goals, among which, the “Environmental Literacy Goal” as “to enable every student in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed meaningful watershed educational experience”.

([http://www.chesapeakebay.net/documents/FINAL\\_Ches\\_Bay\\_Watershed\\_Agreement.withsignatures-HIres.pdf](http://www.chesapeakebay.net/documents/FINAL_Ches_Bay_Watershed_Agreement.withsignatures-HIres.pdf))

Tri-County/City SWCD is committed to assist schools in our region to meet all outcomes outlined in the Chesapeake Bay Agreement. During the 2015/2016 school year, the district has prepared and implemented two MWEE events for 6<sup>th</sup> grade students in King George and Stafford counties. Each event helped students explore human impacts on water quality issues in their local streams and connect them to the overall health of the Chesapeake Bay.



Ms. Donna Finnegan, Virginia Master Naturalist is helping a King George 6th grade student to identify aquatic insects at the Aspen Grove Farm MWEE event.

Meaningful Watershed  
Educational Experience



## Fall 2015/ Spring 2016 MWEE Projects

### 1. Stafford Middle School Stream Cleanup Project (Stafford County)

Tri-County/City SWCD teamed up with the Rappahannock Regional Solid Waste Management Board (R-Board) and Mrs. Rebecca Musso, the Lead 6th Grade science teacher at Stafford Middle school to design and conduct a stream clean-up project involving participation of Mrs. Musso's 6th grade students.



The project's goal was not only to investigate sources of trash and to clean a waterway but also to find ways to prevent future trash from entering the stream. During a span of a few short weeks, students have collected and cataloged over 70 pounds of various litter, regularly checked stream water for pH, temperature and available oxygen to ensure that water quality is adequate for sustaining aquatic life. In the final stage of the project, students came up with a design of screens for storm drains around the school parking lot to catch any litter from moving down the drain.



## Stafford Middle School Stream Cleanup Project (Continued)

In addition to learning about water pollution concepts, Ms. Musso's class also learned how to work as a team and use problem-solving skills to collect water quality data and construct storm drain screens. At the end of the project, students have learned that the cleanup not only helped to restore the stream but it also helped inspire them to take ownership of their school surroundings to positively change the overall impacts on the stream.

Summary of total trash picked up by students from the stream at Stafford Middle School (Courtesy: Ms. Rebecca Musso)

Date	Plastic	Glass	Paper	Metal	Foam	Other
12/8/15	1.6 lbs	0.7 lbs	1 lbs	1 lbs	1 lbs	3.3 lbs
12/15/15	2.43 lbs	x	x	0.3 lbs	x	2.2 lbs
1/9/16	1.05 lbs	x	0.7 lbs	x	0.3 lbs	7.7 lbs
1/16/16	3.7 lbs	0.7 lbs	x	0.22 lbs	x	1.6 lbs
2/26/16	2.2 lbs	x	0.3 lbs	x	x	3.9 lbs
3/8/16	2.65 lbs	1 lbs	0.22 lbs	x	x	4.4 lbs
4/8/16	4.8 lbs	x	0.22 lbs	0.3 lbs	x	2.0 lbs
Totals	18.43 lbs	2.4 lbs	2.44 lbs	1.82 lbs	1.3 lbs	39.5

**TOTAL = 77.14 lbs**

### Defining the Meaningful Watershed Educational Experience

*"MWEEs are the cornerstones of student environmental education about and in the Chesapeake Bay watershed. MWEEs seek to seamlessly connect standards-based classroom learning with outdoor field investigations to create a deeper understanding of the natural environment."*

Chesapeake Bay Program Education Workgroup

## Student Reflections

### ***What surprised you the most?***

*Finding tobacco. Alexis A.*

*How gross the stream was. Elliah E.*

*That there was a lot of wildlife around the stream. Mackenzie D.*

*That frogs came after we cleaned up! Savannah M.*

### ***How does cleaning the stream make you feel?***

*It feels good, especially after seeing all the life surrounding the stream! Tai G.*

*That I was helping the world to be a better place! Molly S.*

*Mad about how dirty it was.*

*Xavier H.*

### ***The most interesting thing was:***

*That we were doing something for the environment and could see the effects. Savannah M.*

*Finding ways to keep trash out of the storm drains. Emma M.*

*Testing the water to find stuff that is harmful to animals. Sarah O.*



## 2. Aspen Grove Farm 6<sup>th</sup> Grade MWEE – Investigation of soil and water conservation practices at the Aspen Grove farm and their impact on Chesapeake Bay watershed.



In the spring of 2016, King George Elementary School 6<sup>th</sup> grade students were given an opportunity to visit a local farm to learn how farming can affect local watersheds and how installing appropriate conservation practices can minimize any negative effects resulting from farming operations.

The field trip with its hands-on activities was designed to reinforce watershed concepts previously learned during

class instruction. In order to understand how land use and human impact may result in producing polluted runoff, students had to first study concepts of a watershed and water pollution. Multi – disciplinary activities to include science, social studies and art were used to introduce Chesapeake Bay watershed and its water quality problems. Through a presentation of “Enviroscape”, a 3D model of a watershed, students became familiar with different kinds of pollution such as sediment, litter, toxic and organic waste. After learning the background information on the pollution in the watersheds, students were ready to visit an actual working farm in King George to observe how the farm is affecting local streams and consequently the water quality in the Chesapeake Bay. The field day was created around major themes introduced during in-class instruction including; water quality impacts on stream habitats, soil erosion and the role of soil in pollution prevention, conservation practices and reducing impacts of overall land use on the water quality.



King George 6<sup>th</sup> grade students are “building” watersheds.  
Right image: In-class activity “Sum of the Parts”. Left image: A sandbox activity “Creating a River” creating topographic features of land and its use as part of the local watershed.



## Aspen Grove Farm 6<sup>th</sup> Grade KGES MWEE - (Continued)



Rotating amongst five stations students were exposed to a variety of water and soil testing methods and conservation practices. They participated in aquatic organisms identification, performed chemical tests to evaluate the health of stream habitat, walked through riparian forests learning about its benefits to trap pollutants. Finally, they “played in the sand” constructing historical landscapes surrounding the Rappahannock River to depict changes in land use and its consequences on both the River and the Bay.



*“I love this field trip. I was raised in the country in Eastern Kentucky and I loved getting my hands in the dirt. There is no easier way to get closer to the earth and make a connection. The farm is so beautiful and it is so gracious that the owner would allow over 100 6<sup>th</sup> graders to invade the tranquility of this beautiful place for a better understanding of its importance. Thank you for the experience”.*

*Ms. Heather Baker, KGES 6<sup>th</sup> grade teacher*



## 2016 Envirothon Update

The District had a very busy 2016 Envirothon season. We hosted two Envirothon events; our TCCSWCD competition for local high school teams and then the Area III competition for our neighboring SWCDs' teams. Both competitions were well attended. The local contest took place at the University of Mary Washington (Stafford campus) and it determined the winner – the King George 4H team. Two Stafford county high schools; Stafford HS and Mountain View HS also participated in the local contest.



**Top: King George 4H team, 2016 TCC SWCD local Envirothon winner. Left: Caroline Co. Governor's High School team, 2016 Area III Envirothon winner.**



The Area III contest was held at the Germanna Community College (Fredericksburg Campus) and it welcomed five teams from our neighboring districts. That contest was won by the Jamestown High School

team from the Colonial SWCD. Second and third place were taken by Caroline Co. Governor's High School team and King George 4H team respectively. All three teams went on to the Virginia State Competition in May 2016, where Fort Defiance High School Team from the Headwaters SWCD placed first overall with the highest cumulative score. Fort Defiance will be traveling to Ontario, Canada for a week in July to represent Virginia at the national level and compete against teams from across the United States and Canada (please see the press release on the next page).

**Fort Defiance High School Team, 2016 Virginia State Envirothon winner.**





## Fort Defiance High School Team Wins State Environmental Honors at Dominion Envirothon Competition by VASWCD

Harrisonburg, Va.—Augusta County’s Fort Defiance High School placed first overall in Virginia’s 2016 Dominion Envirothon State Competition, held at Eastern Mennonite University on May 15th-16th. Fort Defiance competed with 17 teams representing high schools throughout Virginia to earn the title of State Champions. Fort Defiance will travel to Ontario in July to represent Virginia as they compete at the National Conservation Foundation’s Envirothon against teams from across the United States and Canada for a chance to earn thousands of dollars in scholarship prizes.

“The Envirothon often becomes a lifestyle for students and goes beyond competitions and school meetings—it encourages students to be actively engaged in the environment around them at all times, whether through current issues in their hometown, statewide environmental disasters, or just an appreciation for the wildlife and trees in their own backyard,” said Beth Beran, VA Association of Soil & Water



Conservation Districts Education & Training Coordinator. “Students leave this program as responsible citizens and stewards of the environment and the world needs more people like them.”

Dominion’s Envirothon features Virginia’s finest high school students as they compete in five “in-the-field” test stations – soils, wildlife, aquatics, forestry and a current environmental issue – where teams answer questions in both written and hands-on formats. During an oral presentation, teams brief their solution to the current environmental issue before industry and natural resource professionals who serve as judges. The environmental issue for this year is ‘Invasive Species.’ A \$50,000 annual grant has made Dominion Resources the primary state sponsor for the program throughout Virginia. The Dominion Foundation is the philanthropic arm of Dominion Resources (NYSE:D), the parent company of Dominion Virginia Power. Envirothon is run by the Virginia Association of Soil and Water Conservation Districts (VASWCD) and Virginia’s 47 Soil and Water Conservation Districts.

To get more information on how to participate in the Envirothon, please contact Izabela Sikora at 540-656-2402 or email [Izabela.sikora@tccswcd.org](mailto:Izabela.sikora@tccswcd.org)



## Upcoming Events and Announcements

### The 2016 Conservation Poster Contest

*We would like to invite all K- 12 students in our area to take part in the annual National Association of Conservation Districts (NACD) Poster Contest.*

*The 2016 poster theme is **"We all need trees"**. The goal of the contest is to encourage all K-12 grade students to convey their thoughts about the importance of our natural resources through the artistic expression.*



#### Contest Rules:

- Entries will be judged separately in categories by grade: K-1, 2-3, 4-6, 7-9 and 10-12.
- The contest is open to public, private or home school students.
- The top three posters in each category of the national contest will receive monetary prizes. First place winners will receive \$200 and second place winners will receive \$150 and 3rd place winners will receive \$100
- Any media may be used to create a flat or two dimensional effects (paint, crayon, colored pencil, charcoal, stickers, paper or other materials on regular posters (no computer only special category). Poster size must be between 8.5" x 11" and 22" x 28"
- **The 2016 poster theme "We all need trees" must be on your poster. This is the only title eligible for the national poster contest.**
- Poster category must have signed TCC SWCD entry form to be eligible for judging (available on our website; [tccswcd.org](http://tccswcd.org))
- Entries must be submitted **by October 3<sup>rd</sup>, 2016** to Tri- County/City Soil and Water Conservation District at 4811 Carr Drive, Fredericksburg, VA 22408
- For more NACD **free** student activities, ideas and other resources, please visit : <http://www.nacdnet.org/education/we-all-need-trees>

## **“Wonders of the Wetlands”**

**Saturday, September 17<sup>th</sup>, 2016**

**Crow’s Nest Natural Preserve**

**Ages: 7 and up**

**Cost: FREE**

*We are very excited to announce a new community outreach program; “Wonders of the Wetlands” promoting knowledge of aquatic insects and other organisms as well as their role in preserving good water quality in our streams and rivers.*

*The program is a result of collaboration*



*this event is free, pre-registration is required.*



*Crow’s Nest Natural Preserve, Stafford County*

*with the Stafford County Parks Recreation and Community Facilities and Crow’s Nest Natural Preserve. Participants will learn how and what aquatic organisms help determine a presence of water pollution in the stream. Activities will include; collecting and identification of macroinvertebrates, learning to use identification guides as well as exploring beautiful trails on the Crow’s Nest. While*

Visit <http://www.staffordparks.com> or call (540) 658-5116 for more information.

## TRI-COUNTY/CITY SOIL & WATER CONSERVATION DISTRICT DIRECTORY



### **DIRECTORS:**

Giannina Frantz, *City of Fredericksburg*  
Steve Cameli, *City of Fredericksburg*  
Janet Gayle Harris, *King George County*  
Robert Wernsman, *King George County*  
Wayne Miller, *Spotsylvania County*  
Jan Massey, *Spotsylvania County*  
Jeff Adams, *Stafford County*  
Mike Anderson, *Stafford County*  
Richard Street, *At Large*  
Mike Broaddus, *VA Cooperative Extension*

### **DISTRICT PERSONNEL:**

Kyle Haynes, *District Manager*  
Etta Lucas, *Conservation Specialist*  
Kim McAfee, *Administrative Professional*  
Izabela Sikora, *Education Coordinator*

### **PARTNER AGENCIES:**

Amy Walker, *Conservation Coordinator, DCR*  
Lucia Kossler, *District Conservationist, NRCS*

**TCCSWCD maintains a working relationship with each of the following agencies and organizations to reach common conservation goals:**

USDA – Natural Resources Conservation Service  
USDA – Farm Services Agency  
VA Department of Conservation & Recreation  
City of Fredericksburg  
King George County  
Spotsylvania County  
Stafford County  
VA Cooperative Extension  
Friends of the Rappahannock  
VA State Parks  
VA Native Plant Society  
Tree Fredericksburg  
George Washington Regional Council  
Potomac Watershed Roundtable  
Rappahannock River Basin Council  
York River & Small Coastal Basins Roundtable  
VA Department of Environmental Quality  
VA Dept. of Agriculture & Consumer Services  
VA Department of Forestry  
VA Department of Game & Inland Fisheries  
VA Outdoors Foundation  
U.S. Army Corp of Engineers  
U.S. Fish & Wildlife Service  
VA Soil & Water Conservation Districts

All programs and services of the Tri-County/City Soil and Water Conservation District are available without regard to race, color, national origin, religion, sexual orientation, genetic information, veteran status, age, marital status, disability, gender, gender identity, political affiliation or any other basis protected by law.