



From the *Fall Line*

Serving the Counties of King George, Spotsylvania, Stafford & the City of Fredericksburg Summer 2018



INSIDE THIS ISSUE

Wonders of the Wetlands!

2019 Cost Share Dates

NRCS Corner

2018 Envirothon

NACD Poster Contest

Rain Barrels

DIRECTORY

Wonders of the Wetlands!

TCCSWCD hosts a family-friendly water quality monitoring event at Stafford Civil War park



For the second year in the row, TCCSWCD in conjunction with Stafford county Parks and Rec has hosted stream macroinvertebrates identification event for children and youth at Accokeek Creek in Stafford County.

See more on the next page.

CONTACT US:

4811 CARR DRIVE
FREDERICKSBURG, VA 22408
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WWW.TCCSWCD.ORG





What Do Macroinvertebrates Tell Us About Water Quality?

Benthic (meaning “bottom-dwelling”) macroinvertebrates are small aquatic animals and the aquatic larval stages of insects. They include dragonfly and stonefly larvae, snails, worms, and beetles. They lack a backbone, are visible without the aid of a microscope and are found in and around water bodies during some period of their lives.

(source: <https://www.epa.gov/national-aquatic-resource-surveys/indicators-benthic-macroinvertebrates>) Different types of macroinvertebrates have different requirements to survive. Depending on their water quality requirements we classify them into the following categories:

Pollution-Sensitive Organisms

Organisms that require good water quality to survive. They may require high dissolved oxygen levels, clear, non-turbid waters and they may be predators that require an ample source of prey.

Moderately Pollution-Sensitive Organisms

Organisms that can survive in fair water quality. Their habitat requirements aren’t as stringent as pollution-sensitive organism

Pollution-Tolerant Organisms

Organisms that can survive in poor water quality. They often have adaptations that allow them to survive in water with low dissolved oxygen, turbid waters, or nutrient-enriched waters.

Why Monitor for Macroinvertebrates?

Benthic macroinvertebrates are commonly used as indicators of the biological condition of waterbodies. They are reliable indicators because they spend all or most of their lives in water, are easy to collect and differ in their tolerance to pollution. Evaluating the abundance and variety of benthic macroinvertebrates in a waterbody gives us an indication of the biological condition of that waterbody. Generally, waterbodies in healthy biological condition support a wide variety and high number of macroinvertebrates, including many that are intolerant of pollution. When the biology of a waterbody is healthy, the chemical and physical components of the waterbody are also typically in good condition. (EPA)



Pictures courtesy of Ms. Paula Santoro, Stafford County Parks and Recreation: Top - Damselfly larvae (moderately pollution-sensitive species); Middle - Young citizen scientists looking at collected macroinvertebrates from Accokeek Stream; Bottom; Izabela Sikora, TCCSWCD Education Coordinator, identifying species found that day.

2019 ANNUAL COST SHARE SIGN-UP



One of the directives of the Tri-County/City Soil & Water Conservation District is to take applications for and distribute Agricultural Conservation Best Management Practices (BMPs) funding that is provided by the Commonwealth. The purpose of the supported BMPs is to protect and improve water quality in the three watersheds the District oversees, the Potomac, the Rappahannock and the York. Examples of eligible BMPs are fencing out of streams/waterbodies, planting of cover crops to reduce erosion

and retain nutrients in fields that traditionally have laid barren over the winter, establishing and planting of vegetative buffers, and development and implementation of nutrient management plans written by a DCR-certified Nutrient Management Plan Writer.

We will have our base program which includes agronomic/seeding practices, among others, as we have had in the past. This year priority practices will include: Nutrient Management Plan Writing, Nutrient Management Plan Implementation, and Small Grain Cover Crops.

If you apply and are approved for funding for these practices, you must develop a certified Nutrient Management Plan on the entire tract (hayland, pastureland and cropland) to receive the approved funding.

Who is eligible for “cost-share” monies?

Anyone is eligible who has land in a bona fide program of agricultural management and is engaged in the production of agricultural, horticultural or forest products for market. The real estate must consist 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.

Initial Cost-Share sign up will be from July 1, 2018 - August 10, 2018. This means that you must fill out an application for inclusion in the program at this time. After all applications have been accepted and ranked, applications will be selected and approved by the Conservation District Board of Directors at the monthly Board meeting in September.

You may receive a state tax credit for 25% of your out-of-pocket expense to install some BMPs. A tax credit may also be given to purchase a piece of machinery to better utilize fertilizer application.

Please call Etta Lucas, Conservation Specialist, at (540) 656-2402 or visit the District office at 4811 Carr Drive, Fredericksburg, VA to complete an application or discuss the BMP Cost-Share Program requirements.



NRCS CORNER

by David Bryan, Private Lands Biologist,

NRCS/DGIF/Virginia Tech

Well, folks, we're getting into the warm season again and for most Virginia grazers, this is the time of year when fescue pastures are browning out into summer dormancy. Fescue is a highly versatile forage species, but this cool season grass isn't built to grow in the summer, especially hot and dry ones. It is also a well-known fact that fescue plays host to an endophyte fungus that causes a variety of negative impacts to livestock, most especially the constriction of blood vessels that interferes with the cattle's ability to regulate its body temperature. Ever wonder why your cattle have been hanging out all day in the shade?



Enter native warm season grasses. Unlike fescue, native perennials such as Switchgrass, Indiangrass, Big Bluestem, Little Bluestem and

Eastern Gammagrass thrive in the summer months. They photosynthesize using a different pathway than fescue, and they also have 6-10 foot root systems, allowing them to harvest water and nutrients from the deep for vigorous growth in the hot summer months. Perhaps most importantly to grazers, they are excellent forages that, when managed correctly, can produce tremendous results in terms of average daily gain – and with very little nitrogen or lime inputs! While typical toxic summer fescue gains may be 0.8 pounds per day per head (lbs/day), researchers at the University of Tennessee have shown that average gains over a 112 day growing season have averaged up to 1.74 lbs/day on Switchgrass and 2.11 lbs/day on a mix of Indiangrass and the Bluestems. Move over, fescue, you've got some serious competition!

Optimally a quarter to a third of ones' forage base should be considered for conversion to natives as part of a well-managed rotational grazing system. However, it is always wise to convert in stages, spreading out your risk and the costs over several years. Interested? Reach out to your local NRCS office in Fredericksburg at 540-684-9941 or your Private Lands Biologist David Bryan at 804-287-1661. NRCS staff can work with you to determine if natives might be a good fit on your land. Additionally, NRCS has recently launched a new program, "Working Lands for Wildlife", designed to provide financial assistance to farmers interested in getting native grass forages on their land, thereby improving their forage base and their bottom line. And yes, as the title suggests, these forages also are great for wildlife, particularly grassland and shrubland bird species such as the ever-elusive Northern Bobwhite quail. It is a win-win for everyone – the farmer, the cows and the birds. Give us a call, we look forward to discussing the options with you.

USDA is an equal opportunity provider, employer, and lender.

2018 Envirothon Update



FERRUM, Va.—Jamestown High School (*pictured on the left*) placed first overall in Virginia’s 2018 Dominion Envirothon State Competition, held at Ferrum College May 20-21. Jamestown competed with teams representing 12 high schools throughout Virginia to earn the title of State Champions.

The Jamestown team will travel to Pocatello, Idaho

July 22-28 to represent Virginia as they compete at the National Conservation Foundation’s Envirothon against teams from across the United States, Canada, and China for a chance to earn thousands of dollars in scholarship prizes.

Envirothon competitions consist of five “in-the-field” test stations – soils, wildlife, aquatics, forestry and a current environmental issue – which challenge teams to answer questions in both written and hands-on formats. During an oral presentation, teams present their environmental solution to industry and natural resource professionals who serve as judges. The issue for the 2018 Dominion Envirothon was “Pastureland Management” and teams presented environmental plans for a farm in Franklin County.

“Each year, Envirothon gives students the chance to hone their environmental skills in a natural setting while building communications and leadership abilities as well,” said Hunter A. Applewhite, president of the Dominion Energy Charitable Foundation. “It’s a great program that we’re proud to sponsor.”

Dominion Energy has been the primary sponsor of Virginia’s local, regional and statewide Envirothons since 2012, with annual funding provided by its Dominion Energy Charitable Foundation. Envirothon is run by the Virginia Association of Soil and Water Conservation Districts and Virginia’s 47 Soil and Water Conservation Districts.

Individuals interested in volunteering or learning more about starting an Envirothon team at their high school, 4-H, FFA, Ecology club or home school group, should contact Tri-County/ City Soil and Water Conservation District at (540) 656-2402 or the VASWCD at (804) 559-0324.

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The Virginia Association of Soil and Water Conservation Districts (VASWCD) is a private nonprofit association of 47 soil and water conservation districts in Virginia and is classified accordingly as a 501(c)(5). It is a voluntary, nongovernmental association of Virginia's districts.

2018 Conservation Poster Contest



The annual Conservation Poster Contest provides kindergarten through twelfth grade students an opportunity to convey their thoughts about soil, water and related natural resource issues through art. It also highlights the educational outreach efforts of conservation districts and their state conservation associations, auxiliaries and agencies. The poster contest theme follows the annual NACD Stewardship theme.

Each year, the poster contest starts at the district level. District winners advance to the state level. Finally, state winners advance to the National Contest. National winners are recognized each year at the NACD Annual Meeting.

Any Girl Scout or Boy Scout who creates a poster and submits it to their local SWCD for judging can earn the VASWCD Poster Contest Patch. When submitting a poster to earn the Poster Contest Patch, be sure to check the box on the entry form. The contest is open to public, private or home school students, girl scout/boy scout troops, etc.

2018 Contest Theme

Watersheds: Our Water, Our Home

Poster Categories by Grade:

- K-1st
- 2nd-3rd
- 4th-6th
- 7th-9th
- 10th-12th

Rules and Resources

- ✚ Any media may be used, including paint, crayon, colored pencil, charcoal, stickers, paper, or other materials. **The poster size must be FLAT and 14" x 22" (half a poster).**
 - ✚ All posters must be created by an individual student, rather than a team of students.
 - ✚ The 2018 Stewardship theme "Watersheds: Our Water, Our Home" must be included on the front side of each poster submission to be eligible for the national poster contest.
 - ✚ Each entry for the national contest must be submitted to NACD with an entry form to be eligible for judging. The form must be completed and signed by a parent or guardian.
 - ✚ Although younger students will most likely receive help in planning from parents or teachers, NACD encourages each student to do their own work.
- ***Note: Entries with student handwriting and coloring will score better than those designed, drawn, and colored by adult assistance.

Prizes

The top three posters in each category of the national contest will receive monetary prizes. First place winners will receive \$200, second place winners will receive \$150 and 3rd place winners will receive \$100. Monetary prizes at the national level are sponsored by the NACD Auxiliary from their quilt project and the Albert I Pierce Foundation.

Visit the NACD Poster Contest site for additional resources, free activities and lesson

ideas: <http://www.nacdnet.org/general-resources/stewardship-and-education-materials/contests/>





2018 NACD/VASWCD POSTER CONTEST Local Entry Form

Submit all entries to:
Tri -County/City Soil & Water Conservation District
4811 Carr Drive, Fredericksburg, VA 22408

Deadline: October 5th, 2018

Please see contest rules on the next page. Attach this registration form to the back of your poster.

Please check appropriate category

| | |
|------------------------------------|--|
| K-1st | |
| 2 nd -3 rd | |
| 4 th -6 th | |
| 7 th -9 th | |
| 10 th -12 th | |

This poster is being submitted to earn a Scout VASWCD Poster Contest Patch

STUDENT

First Name _____ Middle _____ Last _____

Address _____

City _____ State _____ Zip _____

Phone (_____) _____ E-mail _____

School Name _____ Grade _____ Age _____

_____ The poster is an original completed by the student.

_____ The student received assistance from another person or materials/ideas from another source. If so, please explain on another piece of paper.

SCHOOL

Teacher _____

Public School _____ Private School _____ Home School _____

Address _____ Phone (_____) _____

City _____ State _____ Zip _____

E-mail address _____

Parent or guardian name (printed) _____

Signature of parent or guardian allowing NACD/District to utilize the poster for educational or promotional purposes:

_____ Date _____

SOIL & WATER CONSERVATION DISTRICT

SWCD Name _____

Contact Name _____

Email Address _____

Questions?

Contact Tri-County/City Soil & Water Conservation District at (540) 656-2401 or Bonnie Mahl at (804) 559-0324 or bonnie.mahl@vaswcd.org

Virginia Association of Soil & Water Conservation Districts

<http://vaswcd.org/poster-contest>

We Have Rain Barrels!

Installation of a rain barrel is an excellent way to prevent soil erosion, conserve water, and save money. Rain barrels are containers that are connected to your downspouts to capture runoff from the roof. The water collected can provide plants and gardens with water, reduce flooding in your yard, and help protect the Chesapeake Bay.

TCCSWCD sells 50-gallon rain barrels for \$85 year-round. Each rain barrel comes with complete instructions and installation kit. Contact the District today to reserve yours!

The EarthMinded™ RainStation™ Rain Barrel connects to your downspout and automatically collects runoff water from your home's roof.

Product features:

- ***A reversible "Planter Top" lid that can be used to grow annuals or herbs on top of the barrel making it both functional and decorative.***
- ***Flexifit™ Diverter automatically passes excess water through the downspout to prevent flooding***
- ***Hole saw included, installs in minutes***
- ***A large opening lid with locking feature for safety***
- ***Sealed system keeps out mosquitoes, pests and sunlight***
- ***Works with standard rectangular downspouts (2 x 3" and 3 x 4")***

<http://www.earthmindedconsumerproducts.com/index.html>



Did you know?

A single 1" rain storm on a 1,000 square foot roof results in 600+ gallons of runoff.

TRI-COUNTY/CITY SOIL & WATER CONSERVATION DISTRICT DIRECTORY



District Directors

| | |
|--------------------------------------|---------------------|
| Giannina Frantz, Chair | Fredericksburg |
| Mike Broaddus, Vice-Chair | VA Cooperative Extn |
| Wayne Miller, Secretary | Spotsylvania |
| Janet Gayle Harris, Treasurer | King George |
| Jeff Adams | Stafford |
| Mike Anderson | Stafford |
| Steve Cameli | Fredericksburg |
| Jan Massey | Spotsylvania |
| Richard Street | At-large |
| Robert Wernsman | King George |

Associate Directors

| | |
|----------------|----------------|
| Gordon Linkous | Fredericksburg |
| John Howe | Stafford |
| Ray Simms | Spotsylvania |

District Staff

| | |
|----------------|-----------------------------|
| Marta Perry | District Manager |
| Etta Lucas | Conservation Specialist |
| Kim McAfee | Administrative Professional |
| Izabela Sikora | Education Coordinator |

Partner Agencies

| | |
|----------------------------|-----------------------------------|
| Amy Walker, <i>DCR</i> | Conservation District Coordinator |
| Lucia Kossler, <i>NRCS</i> | District Conservationist |

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

City of Fredericksburg
 King George County
 Spotsylvania County
 Stafford County
 USDA – Natural Resources Conservation Service
 USDA – Farm Services Agency
 VA Department of Conservation & Recreation
 VA Cooperative Extension
 Friends of the Rappahannock
 VA State Parks
 VA Native Plant Society
 Tree Fredericksburg
 George Washington Regional Council
 Potomac River Watershed Roundtable
 Rappahannock River Basin Commission
 York River & Small Coastal Basins Roundtable
 VA Department of Environmental Quality
 VA Department 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 Association of 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.