

## HEADWATERS SOIL AND WATER CONSERVATION DISTRICT



\*The Fort Defiance High School Envirothon team represented Virginia at the North American Envirothon Competition in Emmitsburg, MD.

We at Headwaters SWCD are happy for FDHS Envirothon Assistant Coach, Eric Stogdale. Eric has a new position at Massanutten Technical Center. We wish him well and thank him for his years of dedicated coaching, turning out so many winning teams and teaching so many students to be good stewards of our environment.

Three students from our district attended Youth Conservation Camp. They each sent a note sharing some of the highlights and things they learned at camp. Pure Water Forum helped to sponsor the campers.

We are working with Stuart Hall School to help them create an outdoor classroom. Chris Bowlen, a member of the Native Plant Society and a Headwaters Master Naturalist, is helping Headwaters SWCD with this.

In mid-September, we will begin a four-session Meaningful Watershed Education Experience (MWEE) working with fourth graders at Clymore Elementary. The MWEE will be designed to demonstrate for them, with hands-on activities, that what we do here in the Blue Ridge has direct impact on the Chesapeake Bay.

\*Headwaters staff have been working on creative ways to promote VCAP. Staff member, Brittany Wood, constructed and designed a miniature replica of a residential home with several urban conservation practices displayed: Green Roof, Conservation Landscaping, Permeable Pavement, Rainwater Harvesting, and Solar Panels (not cost-shared, but recommended!).

Headwaters staff members and directors collaborated with Verona NRCS and FSA to display the VCAP replica house at a conservation agency booth during the Augusta County Fair on August 1<sup>st</sup> – 5<sup>th</sup>, 2017.

Since the fair, the VCAP replica house has been displayed at the Augusta County Government Center's Department of Community Development. Headwaters staff is pleased with the attention the VCAP replica house is achieving, resulting in new VCAP interest and new VCAP applicants.

Staff members Brittany Wood and Ryan Keiner have also met with the City of Waynesboro's Stormwater and Flood Control Commission staff regarding collaborating on a "Homeowner Practices" display at Waynesboro's Fall Foliage Festival on October 14<sup>th</sup> - 15<sup>th</sup>, 2017. Headwaters hopes to gain even more VCAP outreach opportunities in the future!



\* In early 2017, the NRCS National Design, Construction & Soil Mechanics Center (NDCSMC) identified potential issues with filter compatibility and internal instability of multiple embankment zones in the 95% final design for Hearthstone. This raised concerns about possible internal erosion failure modes within the dam. In order to confirm the internal review proposed by NDCSMC, subsurface exploration and lab testing was required to provide a detailed Geotechnical Data Report. This will allow further observation about the filter compatibility and embankment zones within the dam.

Augusta County, along with project sponsors, submitted a Request for Proposal for subsurface exploration and successfully contracted the services of Schnabel Engineering, LLC. The firm has been conducting field investigations that include sonic drilling using multiple bores, several test pit excavation sites, and sampling. The subsurface material will then be tested, and a detailed geotechnical report will be provided with the results of the investigation. This will determine the next step in the rehab process. If the results are in line with the NDCSMC recommended proposal to install a Chimney Drain, this would be installed on the downstream side of the transition zone. To install the chimney filter, a portion of the downstream slope of the dam will need to be removed at a stable slope to expose the transition zone.

## LORD FAIRFAX SOIL AND WATER CONSERVATION DISTRICT



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**Technical Updates:** Staff are continuing to focus on completing funded SL-6 backlog projects. The District decided to put its entire FY2018 allocation toward the backlog and run FY2018 as a tax credit only program, as it did in FY2016. So far we have received multiple applications for cover crops, hay seedings, and stream exclusion, despite the lack of cost share for these new contracts. Staff are also actively pursuing money that may be available from the Dupont Settlement to fund backlogged SL-6 projects in the affected watershed. Staff and Directors also completed the annual inspection of the District's two dams, Lake Laura and Lake Birdhaven, with DCR Dam Engineer Charles Wilson. We are currently in the midst of updating our Emergency Action Plans for both dams in order to renew our O&M certifications. All technical staff attended training at Graves' Mountain Lodge and are working on the newly required AgLearn courses to obtain/maintain NRCS Conservation Planner certification. VCAP staff have made several visits to potential applicants and are actively pursuing eligible urban conservation projects. The District also applied for and was awarded a \$50,000 grant to establish a community garden in Strasburg.

**Education Updates:** LFSWCD is partnering with the Massanutten Governors School to host a youth conservation leadership summit on Oct 26, 2017. Between 80-100 high school juniors and seniors will work in smaller teams and visit stations manned by a subject matter expert to engage in meaningful dialogue on a predetermined conservation topic. The team size, rotation times and topics will vary based on subject matter expert participation. The seniors at Massanutten Governor's School will decide and refine the conservation topics as part of their responsibilities as they prepare for the summit. We continue to grow and strengthen our role in the education community serving as guest lecturers for local high school and governors schools ecology and natural resource classes. LFSWCD has partnered with Lord Fairfax Community College's Middletown campus to establish the state's first Envirothon training academy with construction ongoing throughout 2017-2018.



**Figure 1** LFSWCD Conservation Specialist Nick Livesay lectures Mountain Vista Governor's School ecology students about soils during an outreach and technical expertise support event.

## MOUNTAIN CASTLES SOIL AND WATER CONSERVATION DISTRICT

- Work continues on a large conservation project in partnership with NRCS on a local dairy. The finished project will include significant stream exclusion fencing, hardened animal crossings, animal trails and walkways, and a large feeding facility.
- The District completed a review of the emergency action plans for the four flood control dams on Johns Creek. The Johns Creek Volunteer Fire Department played a key role in the review process.



**Backyard Botetourt**  
**August 14 @ 7 p.m.**  
**Fincastle Library**  
**“Family Gardening: Parents & Children Growing Together”**  
“Beginner” instruction on gardening with vegetables, flowers and herbs. Ideas for garden-related crafts, art projects and incorporating play space into the garden.

   
   
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- The District’s monthly “Backyard Botetourt” series kicked off a new season in August with a “Gardening with Children” program. The workshops are held at the Fincastle Library and are co-sponsored by Valley Conservation Council.
- District staff organized and facilitated a “Project WET” workshop for K-12 teachers and extension agents from the District and beyond. Twelve educators completed the 6 hour workshop held at Camp Bethel.
- District staff have completed a successful move to new office space (the suite next door). “It wasn’t an easy move, but we lived to tell the tale.”



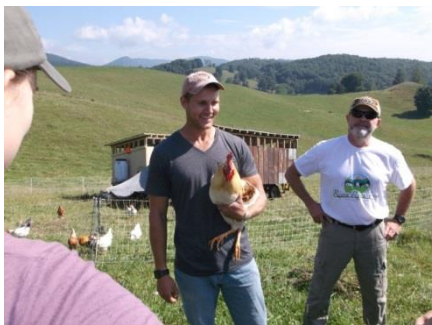
## MOUNTAIN SOIL AND WATER CONSERVATION DISTRICT



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The Mountain Soil and Water Conservation District Field Day took place on Wednesday, August 16, 2016 in Highland County beginning with registration at the Shelter near the Highland County Extension Office and Highland Center in Monterey at 8:30 a.m. Ellen Ford, Chair of the Mountain SWCD Board of Directors welcomed the attendees before the group left for the first Tour Stop. Our first stop was Riven Rock Farm owned by Chuck & Lou Ann Neely. Mr. John Wright, VDOF, introduced Mr. & Mrs. Neely to



the group. There we saw grass/range land fed Belted Galloway Beef Cattle. Mr. Chuck Neely talked about the benefits of rotational grazing, pasture grass management, and the many grass forage types. We also saw and heard about pasture raised chickens from Mr. Jim King. Jim works with Mr. & Mrs. Neely on the farm. He explained how the Chicken Houses are mobile so they can be moved to a different location in the pasture about every three days. He demonstrated the difference between their farm fresh eggs and "store bought" eggs. The group then moved onto

the Rainbow Farm, also owned by Chuck & Lou Ann Neely. Ms. Lou Ann Neely talked to the group about their Tourist Recreation Rental Cabins on this property. Their guests have walking trails to explore, and scenic quiet country living to enjoy. The group was able to tour the Rainbow Springs Retreat Cabin. This cabin is a bird watcher's paradise because of the many different species of birds in the area where the cabin is located. The group then heard from Sammy Vest, Trout Unlimited, about water quality and how that affects trout habitat. Also, informed those present of the numerous conservation programs available within the Upper James River Watershed. Everyone then traveled to the Fireside Farm operated by Jim & Catie King. We heard from Jim about Pasture Raised Poultry and Eggs. This practice of farming focuses less on quantity and more on quality. The only time the chickens don't have access to grass is the first two or three weeks of their lives. This method of farming does not require antibiotics, hormones or debeaking. The broilers are moved 1-2 times a day depending on their age, and the laying flock is moved every two days. This provides a consistently clean environment for the birds, and fertilizes and sanitizes the pasture. The tour ended with a complimentary lunch at the Shelter at the Highland Center in Monterey. There were 39 in attendance for the field day.



## NATURAL BRIDGE SOIL AND WATER CONSERVATION DISTRICT



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- The Natural Bridge SWCD sponsored and participated in the bi-annual McCormick Farm Field Day (Shenandoah Valley AREC) held Wednesday, August 2. A jointly prepared informational display was taken to the event containing SWCD, FSA and NRCS information and photos.
- District Technical Staff, NRCS Staff and SWCD Directors attended the Buena Vista Watershed Town Hall Meeting on August 3. The meeting purpose was to discuss the Buena Vista PL-566 Flood Mitigation Project.
- Planning for a Fall Field Day and Outreach Event for the Buffalo, Colliers and Cedar Creeks watershed. Grant funding in the amount of \$1314 has been provided by the Upper James RC&D Grant. The field day will be held in partnership with the Virginia Dept. of Game and Inland Fisheries, Virginia Cooperative Extension, Chesapeake Bay Foundation and the Natural Resources Conservation Service. There will be a focus on outreach for livestock exclusion, rotational grazing and forage stockpiling with talks provided by conservation experts. The event will be held October 24.
- Planning is underway for the Annual Conservation Awards Dinner to be held October 18. Awards are being considered by committee for Clean Water Farm and Forestry Awards.
- The Natural Bridge SWCD and the Mountain Castles SWCD will co-host the Area I Envirothon in the Spring of 2018. Plans are being made to attend the Area I Planning Meeting to be held in Verona on October 23.
- The district has also been involved with three (3) up and coming TMDLs for Rockbridge County. The district has recently assisted DEQ with public meeting support for the Little Calfpasture TMDL and the Woods Creek TMDL. DEQ Contracts have just been received for the Buffalo, Colliers and Cedar Creeks TMDL.

## SHENANDOAH VALLEY SOIL AND WATER CONSERVATION DISTRICT

- The SVSWCD wished our summer interns well as they returned to their respective Universities. Our three summer interns contributed 793 hours during their months at the office assisting the SVSWCD with a variety of activities and programs including the Pre-Sidedress Nitrate Testing (PSNT) Program, education events, and the Rockingham County Septic Assistance Program. The SVSWCD welcomes Sarah Magee as our 2017 fall intern. Sarah is a senior Biology student at James Madison University. We look forward to working with Sarah and helping her to learn and gain real world experience in the conservation field.



Figure 1: Sarah Magee in the field with NRCS employees conducting Natural Resource Inventory

- The SVSWCD utilized their funds received through a DEQ Meaningful Watershed Education Experience (MWEE) Grant to build a macroinvertebrate touch tank. The SVSWCD uses the touch tank to educate students of all ages about macroinvertebrates and water quality!



Figure 2 The SVSWCD's macroinvertebrate touch tank in action at Virginia Cooperative Extension's Cloverbud Day Camp!

- The SVSWCD continues to dedicate time to the implementation of the Rockingham County Septic Assistance Program funded through a DEQ WQIF grant. Interest continues to increase in the Program as outreach continues. The SVSWCD created a ranking tool that prioritizes applications based on parameters used to maximize water quality benefits. The SVSWCD utilizes the ranking tool to ensure the efficient use of grant funds by targeting practices that indicate maximum water quality benefits. Over the 2017 fiscal year the Rockingham County Septic Assistance funded seven septic system replacements, one septic system repair, and one septic system pumpout providing \$42,024.82 of cost share.



Figure 3: SVSWCD Education Staff utilizing the macroinvertebrate touch tank to teach Blue Ridge Environmental Studies Summer Regional Governor's School students.

- The SVSWCD remains very busy with the VACS Program implementation. We continue to partner with NRCS to piggy back on federal programs. The SVSWCD has worked with partners to process several CREP applications. In addition, the SVSWCD is blessed to also have several active federally funded RCPP projects in our service area and are excited about the implementation of BMPs associated with these RCPP projects.