

Spring
2017



Project Learning Tree
PreK-8 Curriculum
Workshop at USC

WWW.RCGOV.US/RSWCD

Richland Soil and Water Conservation District



Adopt-A-Stream Monitoring Program Comes to a Waterway Near You!



The Adopt-A-Stream (AAS) volunteer water quality monitoring program is “flowing” into the midlands of SC with the support of SC DHEC, Clemson University’s Center for Watershed Excellence, and Georgia AAS. The goals of the AAS program are to raise awareness about water quality issues, collect baseline water quality data and observations from local waterways, encourage partnerships between citizen scientists and local government, and provide tools and training to help community members evaluate and protect their local water bodies.

A volunteer training was held in Columbia, SC, in December, and Richland SWCD staff were certified as AAS water quality monitors for bacterial, chemical, and

biological parameters. In January, we established our first monitoring site at the Cutler Jewish Day School (CJDS) in Forest Acres. Once a month, we join a small group of CJDS students to record our observations about the water flow, clarity, and odor and to measure water temperature, pH, electrical conductivity, and dissolved oxygen. We also sample macroinvertebrates quarterly and plan to begin monitoring bacteria levels this summer. This data is entered into an online database and is publicly available.

To learn more about the AAS program or to sign up to become a certified stream monitor, visit <http://www.clemson.edu/public/water/watershed/scaas/index.html>.

Local Teacher Named SC Conservation Teacher of the Year



Longleaf Middle School ZooBot Program Lead Teacher Kristin Ziegler was recognized as SC’s 2016 Conservation Teacher of the Year by the SC Association of Conservation Districts in

February. Previously, Ziegler was named Richland County Conservation Teacher of the Year by the Richland SWCD. These

conservation awards are presented annually to teachers who exhibit an outstanding commitment to conservation education.

Ziegler is a deserving recipient of both awards, as she has dedicated her career to furthering her students’ passion for environmental studies. According to Joanna Weitzel, Executive Director of Camp Discovery—a host site for ZooBot student research—Ziegler “is helping a new generation of learners to become responsible environmental stewards in our communities and in our world.” Congratulations, Ms. Ziegler!

The CIG That Changed Our Lives: Soil Health Initiative Concludes with Grand Finale in Dillon, SC



"The way I used to farm, all my fertility DID come out of a bag because I created a soil that's not functioning, a dead soil," Coleman said. Now, with cover crops, his soil is healthy and full of life, and this has allowed him to cut back on nutrient applications. "Cover crops don't cost; they pay," says Coleman. "If I can use cover crops, promote soil biology, reduce fertilizer, and park the subsoiler, I don't need a yield increase...you can actually yield LESS and still make MORE money" by using cover crops.

After three years of research and demonstration at farms in Richland, Marlboro, and Dillon Counties, our Conservation Innovation Grant (CIG) project team hosted a "grand finale" soil health workshop in Dillon in February. Keynote speakers included researcher Dr. Buz Kloot, agronomist Gordon Mikell, and Dillon farmer Carl Coleman. More than 80 people attended the event.

We are continuing our soil health work with a new CIG exploring the connection between soil health and aflatoxins. Stay tuned for updates as this project gets underway by joining our online community at the Carolina Cover Crop Connection Facebook group: <https://www.facebook.com/groups/carolinacovercropconnection/>.

BMP Installations Continue in the Twenty-five Mile Creek Watershed



Two years ago, funding was made available to livestock owners in the Twenty-five Mile Creek Watershed of northeastern Richland, western Kershaw, and southern Fairfield to install Best Management Practices (BMPs) that protect and improve water quality. The funding, which was provided by a Section 319 Grant from SC DHEC, as well as contributions from Kershaw and Richland Counties, could cover up to 70% of the costs of these practices.

With the assistance of the Richland SWCD and the guidance of Conservation Technician Mike Newman, more than 5.5 miles of fencing, two wells, and 19 alternate watering facilities have been installed to prevent cattle and other livestock from having direct access to ponds and streams and to protect vegetated buffers along waterways.

Additionally, grant funding has been used to sponsor the installation of a water-wise pollinator garden at the Clemson Sandhill Research and Education Center and a

rain garden at Lake Carolina Elementary School. Both installations were completed in partnership with Carolina Clear, Richland County Stormwater Management, and the Richland Countywide Stormwater Consortium. The gardens were planted by volunteers who attended outreach events associated with the efforts.

Additional funding is now available to assist with septic repairs or replacements in the watershed.

For more information about the Twenty-five Mile Creek Watershed program, contact Chanda Cooper at cooperc@rcgov.us or (803) 576-2084. If you are a livestock owner and would like more information about BMPs and conservation plans, contact Mike Newman at (803) 602-2585. For information about septic repair, contact Russ VanPatten at russ.vanpatten@kershaw.sc.gov or (803) 425-7230. Information is also available online at www.rcgov.us/twentyfivemile.

Pigs in the Park: Congaree National Park Feral Hog Management Workshop Draws Crowd

Richland and Calhoun SWCDs partnered to host a "Pigs in the Park: Congaree National Park (CNP) Feral Hog Management Program Update" in St. Matthews last November. In addition to first-year results from the new CNP hog management program, the workshop included information about feral hog populations in SC and associated diseases, ecological impacts, and management strategies.

Feral hogs are non-native and cause significant ecological and economic damage in SC. While feral hogs are now found statewide, their populations are most concentrated in drainage basins such as the Congaree River floodplain and in coastal counties. A special task force has been created to address wild hog populations in and around CNP, and in its first year, 112 hogs were eliminated and two were fitted with radio collars to allow researchers to track their movements.

The workshop included a trapping demonstration led by USDA-APHIS personnel (pictured at right) and was attended by 76 people.



Equine Pasture Management

Last September, we hosted an Equine Pasture Management: Healthy Horse, Healthy Land workshop in Blythewood, SC. With sessions on soil health, forages and grazing management, and manure management, the workshop was specifically designed to raise awareness about pasture practices that protect and improve water quality as well as horse health.

USDA-NRCS Agronomist Gordon Mikell kicked off the event with a session about soil health and the SC Forage and Grazing Lands Coalition (SCFGLC) provided a rainfall simulator demonstration (pictured below). Then, Clemson Extension Livestock and Forages Agent Cassie Wycoff spoke about equine nutrition and forage variety selection. Did you know that plant maturity at harvest is the most

important factor determining forage quality? Older plants provide lower quality grazing! Other speakers included Clemson Extension Area Livestock and Forages Agent Travis Mitchell, who spoke about rotational grazing and pasture weed control; and Clemson Extension Agent and Ag Engineer Bryan Smith, who spoke about manure management.

The workshop was produced as a part of the Twenty-five Mile Creek Watershed Water Quality Improvement Program and received sponsorships from Vince Love of Pasture Management Systems (vlove@pasturemgmt.com) and Phil Perry of Mixon Seed (philperry@sc@gmail.com). For more information about pasture management, visit the SCFGLC webpage at <http://www.afgc.org/scfglc.php>.



2016-2017 Conservation Education Mini-Grants



Dutch Fork Middle School ACTION for Unity students planted a bioswale to improve stormwater management and reduce erosion and runoff in their outdoor classroom. The project was funded, in part, by a Conservation Education Mini-Grant from the Richland SWCD.

Nine schools received funding for campus conservation projects through the Richland SWCD's Conservation Education Mini-Grant and Clean Stream Columbia Award programs this school year. These awards provide up to \$500 to support classroom initiatives including school gardens, outdoor classrooms, and water quality protection projects at Richland County schools.

"It is great for students to be able to learn about the environment through these projects," says Richland SWCD Chairman Kenny Mullis. "Hands-on projects such as these

environment."

2016-2017 award recipients are:

- **Catawba Trail Elementary School**—Wildlife Habitat and School Garden (Vikki Pasco)
 - **Gadsden Elementary School**—School Garden (Neely Swygert)
 - **St. John Neumann Catholic School**—School Garden (David Kenga)
 - **Westwood High School**—Pollinator Garden and Solitary Bee Habitat (Mellisa P. Bunch)
 - **Youth Enrichment Academy**—Community Garden (Maxine Sumpter)
 - **Dutch Fork Middle School**--ACTION Team Rain Garden and Wildlife Habitat (Lori Wenzinger)
 - **Hopkins Middle School**--Life Skills Vegetable Garden (Monica W. Jones)
 - **Montessori School of Columbia**--Protecting Water in a Prehistoric Garden* (Misty Dickson)
 - **Ridge View High School**--Rainwater Harvesting, Composting, and Gardening (David Degenhardt)
- *Denotes Clean Stream Columbia Award Recipient*

Fifty projects at 33 schools have been funded through the Mini-Grant program since it began in 2012. Applications for funding are accepted throughout the year for spring and fall ranking. For more information about the awards or to apply for a Fall 2017 award, visit www.rcgov.us/rswcd.

gardening and habitat initiatives really help to bridge the gaps in students' awareness of agriculture and the

SC New and Beginning Farmer Program

Clemson University offers a public service program called the SC New and Beginning Farmer Program (SCNBFP) which provides entrepreneurial education and business training to new and beginning farmers, defined as adults (age 18+) who have been farming for fewer than ten consecutive years. The goal of the SCNBFP is to help new farmers be successful, productive, and innovative members of their agricultural communities by providing tools, knowledge and skills. The program, now in its fifth year, has guided more than 200 emerging farmers and is expecting a 2017 graduating class of approximately 50.

In addition to bi-monthly core programming held in Columbia October through April, SCNBFP participants are also encouraged to attend a number of regional workshops which are held throughout the state. These workshops offer opportunities for local peer and resource networking, as well as provide additional instruction on production topics tailored for each region. Regional workshops are a

collaborative effort between Clemson Agribusiness, Clemson Cooperative Extension, and a number of regional partners, including the Richland SWCD.

As the SCNBFP midlands regional workshop lead, the Richland SWCD has coordinated or co-sponsored a total of ten workshops since October, 2016 in partnership with the Newberry and Aiken SWCDs, USDA-NRCS, Carolina Farm Stewardship Association, Lexington Clemson Extension, SC Forage and Grazing Lands Coalition, Midlands Local Food Collaborative, and others. The most recent regional training event was the SC Farmer Resource Rodeo, which was held at the State Farmers Market and featured representatives from twenty-four different farm resource providers. More than 100 people attended.

For more information about the SCNBFP and the regional workshop schedule, visit www.scnewfarmer.org.

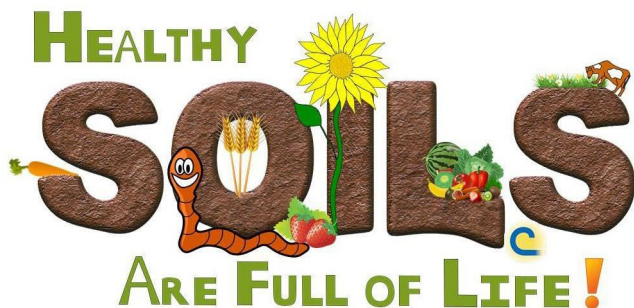
Healthy Soils Are Full of Life

Contributed by Alexander Gorr

The Richland SWCD is currently running a poster contest titled “Healthy Soils Are Full of Life.” This contest is open to students in grades K-12 and hopes to raise awareness about the importance of healthy soils. Healthy soils are soils that are rich in organic matter (OM). This OM prevents erosion, grows healthy plants, stores water, and does so much more. Students are encouraged to send a poster that demonstrates the importance of healthy soils to the SWCD by April 10, 2017.

In addition to this contest, Richland SWCD staff are giving presentations to students throughout Richland County to promote the importance of healthy soil. These programs introduce students to soil science through interactive experiments that focus on the composition of soil, erosional processes, and more. These presentations are available to all students in grades K-12. Teachers who are interested in scheduling a presentation for their students should contact Alex Gorr at richlandswcd@gmail.com.

As the title of the poster contest suggests, healthy soils truly are full of life. As a matter of fact, it may be surprising just how much life healthy soil contains. For example, in one acre of healthy soil there are more than 6,000 pounds of fungi and more than 600 pounds of earthworms! Fungi and earthworms are only two of the countless organisms that inhabit healthy soil. In just one cup of healthy soil, there are more living organisms than there are people on Earth. That’s more than seven billion organisms in just one cup! These organisms are vitally important to the soil because they make it healthy. They hold the soil together, which helps drastically reduce erosion. They also allow soil to hold more air and water. Finally, healthy soils foster the growth of healthy plants, which results in healthy people. Healthy soils are very important, and the poster contest and class presentations promote this message.



Top: Students learn about erosion using a rainfall simulator. Center: Alex Gorr shows the importance of healthy soils using a Styrofoam ball soil model. Bottom: Students learn how unhealthy soil erodes much easier than healthy soil during an erosion experiment.

Welcome to Alexander Gorr



Richland SWCD is excited to host Alexander Gorr as a University of South Carolina SC Semester Program Intern for the spring of 2017. The SC Semester Program pairs students with SC state agencies to give them the opportunity to work in state government while receiving academic credit.

Gorr is a sophomore Geological Sciences major in the University of South Carolina Honors College. He enjoys travelling and visiting the US national parks. He is excited to join the SWCD team and to educate others about the importance of conservation.

Geological Fun Facts

Contributed by Alexander Gorr

- *SC's state stone is Winnsboro Blue Granite, quarried at the Anderson Quarry in Fairfield County from 1898 through 1946.*
- *SC's state gem is the Amethyst.*
- *The highest point in SC is Sassafras Mountain at 3,560' above sea level.*
- *The Atlantic Seaboard fall line, a 900 mile escarpment where the Piedmont and Atlantic coastal plain meet, runs right through downtown Columbia.*

Commissioner Spotlight: Jeff Laney

Contributed by Alexander Gorr



Jeff Laney serves as Richland SWCD Vice Chairman and was re-elected in the 2016 General Election.

Q: Tell me a little bit about yourself.

A: I was born and raised in Columbia, SC. I graduated from Spring Valley High School ('93) and Clemson University ('97). I am fortunate to have a father who [took] me hunting and fishing with him, and a mother who

encouraged my love for reading and writing about the outdoors when I was young. My mother would get me subscriptions to hunting magazines or South Carolina Wildlife when I was a boy. If I could not be outdoors, I was reading about the outdoors. Both instilled in me a passion to enjoy and care for the woods and waters that surround us. Today, I especially enjoy hunting and fishing with my nine year old daughter or simply being outdoors with her and getting to see the excitement on her face when she sees something for the first time – It's wonderful!

Q: How did you become interested in serving as a Commissioner on the Richland SWCD?

A: I was lucky to have wonderful influence from people such as Lorraine Conrad (former Richland SWCD Commissioner) and Mary Jane Henderson (former Richland SWCD staff) who got me involved with the District when I was in High School. After I graduated college and moved back to Columbia, my involvement with the district was rekindled and I served as an Associate Commissioner for several years until recently becoming a Commissioner when the Late John V. Green passed away. I became interested in the District simply because I saw an opportunity to give back and help care for a place I love and cherish – Richland County.

Q: What conservation issues are you passionate about?

A: I am a firm believer that water quality and water conservation are of utmost importance. When such a resource is plentiful we can forget just how vital it is to [...] our everyday life. However, during periods of drought or when our infrastructure fails, we often learn quickly that such a resource can quite literally evaporate. I also believe it is critical to develop land while being mindful of conservation and best practices for protecting our wetlands and other natural resources. It is almost always more costly to the taxpayer and the environment to fix a problem on the backend rather than to simply employ best practices on the front end.

Q: What was it that convinced you to serve on the board for another term?

A: I wanted to ensure that my daughter [...] gets to enjoy the same abundant natural resources our state has to offer. We have a picturesque and diverse landscape here in Richland County and I hope to help keep it that way.

EEASC Midlands Meet-Ups



This school year, the Richland SWCD has partnered with the Environmental Education Association of SC and the SC Green Step Schools Program to host monthly Meet-Ups for environmental educators. These fun networking sessions sometimes include a sample lesson, such as the pizza box solar oven make-and-take activity pictured here. For more information about the Meet-Ups or to be added to the Midlands EEASC Meet-Up contact list, contact Jane Hiller at Jane.Hiller@sonoco.com.

Congratulations!



Richland SWCD Associate Commissioner Mary Burts recently received the 2017 Linda Bleu Part-Time Teacher of the Year Award for SC Adult Education. Burts is an invaluable member of the Richland SWCD team, contributing to education initiatives including the SC Envirothon, Conservation Poster Contest, Richland County Arbor Day Programming, USC Science and Engineering Fair, and more!

State Poster Contest Winners



Abigail Annisley Lanier of Lake Carolina Elementary School was named SC's State Conservation Poster Contest Winner in the 2nd-3rd Grade Division, and Abrianna Nicole McClerkin of Catawba Trail Elementary School was named SC's State Conservation Poster Contest Winner in the 4th-6th Grade Division. Each student created a poster illustrating the 2016 conservation stewardship theme, "We All Need Trees." Councilman Chip Jackson recognized both students before Richland County Council in February.

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Thank you!



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Support the District: Become an Affiliate

Affiliate Members are a vital part of our conservation team. The financial support given by Affiliates helps us carry out many of our conservation and stewardship programs within the County. Please support our efforts by becoming an Affiliate Member today! Affiliate Memberships are good for **one year** from the date of application. Contributions are tax deductible.

- () \$25—Affiliate Member
- () \$50—Silver Affiliate Member
- () \$100—Gold Affiliate Member
- () \$250—Platinum Affiliate Member
- () **Mini-Grant Sponsor****: \$500 each

****Conservation Education Mini-Grants** are awarded to local schools to support conservation projects each fall and spring. Sponsors will be recognized in publicity materials.

Membership Information

Name: _____

Address: _____

Phone #: _____

E-mail address: _____



Please return this form and a check made payable to Richland Soil and Water Conservation District to:

Richland Soil and Water Conservation District
2020 Hampton Street, Rm. 3063A
Columbia, SC 29204

Thank you for your support!