# ANNUAL REPORT

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Greenville County Soil and Water Conservation District
301 University Ridge, Suite 4800
Greenville, SC 29601
864-467-2755
www.greenvillesoilandwater.com





### Our Mission

Our mission is to protect natural resources through education, programs, and cooperative efforts with partner organizations to achieve common goals for the benefit of all citizens of Greenville County with efforts in promoting:

Urban and Land Use Planning | Conservation Awareness | Sustainable Agriculture

# District Commissioners















# A Message from the Chairman

This has been a monumental year for the Greenville District. We welcomed two new commissioners, Brett Tankersley, a farmer, and Bruce Countryman, a water resources expert. We are happy to have these two commissioners working with us to guide our programming.

Greenville played a big part in the regional conservation scene, hosting two large conferences in 2017. The National Association of Conservation Districts SE Regional Meeting was held in Greenville in August. This meeting brought conservation leaders from nine southeastern states, Puerto Rico and the Virgin Islands to Greenville. In addition to nationally recognized attractions, the Greenville District planned several tours and presentations that demonstrated our commitment to 'putting conservation practices on the ground.' We also planned and hosted the South Carolina District Employees Association annual conference.

The Commission continues to benefit from an exceptional staff. From conservation workshops, to successful grant applications and administration, watershed activities, and stormwater education, the District staff has successfully carried out and furthered the mission of conservation in Greenville County, Kirsten, Lynn, and Shelby presented at 11 national, regional, and state conferences in 2017. We are also proud to have our education staff invited to make two presentations at the Annual Meeting of the National Association of Conservation Districts this year in Nashville, Tennessee. Lynn and Shelby will present sessions on watershed education opportunities and a wrap up of our NACD Urban Agriculture Grant program, Woodside City Farm, to conservation district attendees from all over the US.

As always, you are welcome to any Commission meeting (usually held on the second Tuesday of the month). You also can keep up with us on Facebook and our district website.

Yours in conservation.

Rob Hanley Chair

# From Our District Manager

Every year seems to get better and better! This year, in addition to all of our normal awesome activities, we spoke at numerous regional and national conferences all over the US, hosted several national and regional conferences, and added two important demonstration models to our arsenal. These important happenings are covered elsewhere in this newsletter. In addition, we continued and strengthened our farmer outreach by teaching farmers about soil health, and successfully participated in SC Department of Health and Environmental Control's (DHEC) rigorous dam inspection program.

**Beginning Farmer Support** - The District supports the new Greenville Tech Sustainable Ag Certification Program by having both a staff member and a commissioner participate in the Advisory Board. We were approached with the issue that the graduating students needed some ongoing support, the District manager started a support group where the group reviews a member's business plan each month, and then we meet to discuss it and share a meal. We made a point to buy produce from each other and support each other in other ways.

**Mentoring Farmers** - The new soil health initiative by NRCS is taking off in Greenville County. The District uses the new tabletop rainfall simulator to talk about pasture management, and coaches two farmers who have questions about implementation of Management Intensive Grazing on their land. Hands-on private coaching is one of the important puzzle pieces in this movement, and the District is pleased to be able to help in this regard.

**Pasture Workshops** - The District, NRCS and Clemson Extension partnered to host livestock manager workshops on various topics this year. Two of the favorites were about using weeds as pasture health indicators and strategic hay usage. Livestock producers learned a lot and enjoyed meals sponsored by AgSouth and the District.

**Dams** - In response to the devastating dam failures in the Midlands during the floods of 2015, SCDHEC began a thorough program of dam inspection, including dams that they do not normally inspect. The District maintains nine dams in the County, and we are proud to say that DHEC's inspections showed no major flaws or repair needs.



Happy conserving! We look forward to another great year next year!

Kirsten Robertson Manager

# 2017 Education Report

### In Greenville County and Beyond...

- Education total reach for the year was 2,113,521 citizens.
- Over 39,000 members of the public stopped by educational booths including iMAGINE Upstate, Southern Home and Garden Show, Party for the Planet, Tails and Trails, and Earth Day Fairs at Michelin and GE.
- Education Staff made four appearances on Your Carolina, teaching about conservation issues, stormwater pollutants, and our campaigns.
- Maddi and Lynn hosted a radio show called Saturday Splash on 94.5 WGTK, a one hour conservation-themed weekend morning discussion show.
- 2017 was the year that we debuted our 3D Watershed Model to demonstrate watersheds in Greenville County.
- Education staff presented programs at the SE Region of the National
  Association of Conservation Districts annual conference, SE Park Rangers
  Conference, SC Conservation District Employees Association conference,
  Environmental Educators of South Carolina annual conference, and the SE
  Conservation District Employees Association conference.
- US outreach totals over 2.6 million people. Our Poop Fairy campaign is now seen in 7 states.



### School Programs

- With GCSWCD assistance, Slater-Marietta Elementary School continued Trout in the Classroom project and trout release.
- Our annual essay contest had 365 entries from 12 schools. Twelve winners were chosen from grades 5 through 8.
- GCSWCD hosted the third annual Wet and Wild Summer Camp in conjunction with 4H for 37 6-14 year olds. Campers learned all about water and wildlife at this week long day camp.
- Education Staff made presentations at 11 schools, teaching 1130+ children about pollution prevention. An additional 600 students were taught about how they contribute to keeping our water clean with a native plant program at Party for the Planet at the Greenville Zoo.
- A set of Yucky Ducky Arcade games traveled with Greater Greenville Sanitation's Waste Lab to schools in Greenville County.

### In the Community

- 65 Scoop the Poop signs, 1000+ pet waste bag key chains, and over 1000 rack cards were distributed to various entities at the request of county citizens.
- County drivers took notice of our wrapped Suburban with promotional messaging featuring the Poop Fairy and Yucky Ducky campaigns, which impacted approximately 1,423,40 citizens. More importantly, this was a conversation starter everywhere we went. We were able to have in-depth one-on-one conversations about our campaigns.
- GCSWCD was a presence at local farmers markets this year, with booths in Taylors, Travelers
  Rest, Downtown Greenville, and at Swamp Rabbit Cafe. Stormwater and conservation
  information was distributed to all.
- Our largest event this year was the iMAGINE Upstate festival for STEM/STEAM education promotion. Attendance was over 18,000 on one day.

# Education Programs for County Residents

### **EDUCATION CONTESTS FOR GREENVILLE COUNTY STUDENTS**

### PHOTOGRAPHY CONTEST

Open to students K-12

The photography contest has four categories:

**We All Need Trees** - Anything tree related. Leaves, branches, fruit, a single tree, or a forest **Agriculture and Farming** - Photos of farm animals, crops in the field or on the table, people working in farm fields, farm equipment, old barns, and buildings

**Focus on Water** - Anything water related including local rivers, lakes, streams, and the animals that inhabit them

We Live on the Land - This can include landscapes, scenery, soil or animals that live on the land \$50 prize for each category winner, \$100 Best in Show.

For more information, visit www.GreenvilleSoilandWater.com

### **ESSAY CONTEST**

Open to students 5th-8th Grades Entry Deadline March 16, 2018

The 2018 essay contest theme: Watersheds, Our Water, Our Home

Three \$50 prizes for each grade with a special gift for teachers of winners.

For more information, visit www.GreenvilleSoilandWater.com

### **EDUCATION PROGRAMS**

All education programs are adjusted for the appropriate age group and are great for students, camps, homeowner associations or other interested groups.

### STORMWATER/WATER CYCLE/POLLUTANTS

Covers the whole water cycle, definition of stormwater, and what can pollute our waterways. Participants learn what they can do to keep our rivers, lakes, and streams clean for future generations!

### WHAT IS A WATERSHED?

Students love to learn about our local waterways with our interactive watershed model! This program is ideal for 4-6th grade.

### CONNECTING KIDS TO THE LAND

How did that apple get into your lunch box? Where does our food come from? Participants learn food facts, what crops are grown in SC, agriculture basics, and how familiar food items are created. They'll learn what foods come from animals or from plants and what sustainability means to our food supply.

### **LET'S GET WET!**

(No participants will actually get wet!) Using activities from the award winning ProjectWET curriculum, students will learn about all things water through activity based interdisciplinary and interactive activities - from watersheds and water quality to human use and conservation.

### LET'S GO WILD!

Participants learn about wildlife with Project WILD activities. Project WILD is one of the most widely-used conservation and environmental education programs. Actual fur pelts and skulls and scat replicas facilitate questions and answers. Participants learn about local animals with the help of educational puppets.

# Community Corner

Article by Shelby Cohen, GCSWCD Community Relations Coordinator

Last year I was writing as an Assistant. This year I update you from a new office, and with a new title. I'm grateful for the chance to serve Greenville, and am overwhelmed with excitement for the year ahead!

If you're reading this, chances are you're familiar with our campaigns. You've probably giggled a time or two as we cruise around town in our work truck – a truck which some kindly refer to as the "Poop Fairy Mobile". We work hard to inform Greenvillians about stormwater and how it carries pollutants into local waterways – even if it means turning our vehicle into a pink and blue billboard. There's really no telling what we'll do next, but you can be sure that whatever it is, it will help people realize that the seemingly small choices we make every day have big, long-term impacts on the world around us. With the help of our partners, Soil & Water was able to reach over two million Greenville County residents in 2016/17. Here are some of this year's highlights, and what's up next:

**Watershed Model** Surveys and interaction with the public taught us that few people realize the impact of stormwater on waterways. To address this issue, we continued our stormwater campaign, "Clean Water Starts With Me". This messaging conveys the idea that individuals can make an impact on clean water in their community. Our one-of-a-kind, custom Greenville County 3D Topographic Watershed Model has helped drive this message home. The 3'x4' model allows locals to find their home, school, or place of business. We then demonstrate how water flows over the land by spraying water on the model and showing how stormwater makes its way to rivers. This visual representation of how water flows after a rain allowed them to understand the concept of a watershed and why/how it impacts water quality in the county. Our next social media campaign will take the "Clean Water" campaign to a new level – be on the lookout!

**Pet Waste** We continued to partner with Greenville County Animal Care, and supported their Tails and Trails 5k event. In addition, we have taken an adoptable pet with us on the TV program, Your Carolina, every month. Regardless of the month's topic, we always make a point to touch on pet waste, and to promote Animal Care's efforts to build a no-kill community. We will continue this partnership into the new year. In addition, we'll team up with County Rec and co-permittees to install an additional 20 pet waste stations throughout the county, and host 'Dog Dialogue' events at County dog parks to educate dog owners on the hazards of pet waste in our environment.

**Pesticides, Herbicides & Fertilizer** A new two-sided "Dirty Water Bugs Us" and "Your Soil is Unique" rack card was distributed to educate citizens on the consequences of PHF overuse and how it can affect water quality. This informational card includes information on soil testing, pesticide toxicity, and fertilizer application, as well as how these chemicals can impact water quality. We focused on PHFs at this year's Southern Home & Garden, and educated fellow County employees at our Miracle-Gro giveaway. PHFs were also a continual topic of discussion throughout our semester-long project with juniors and seniors at Legacy Charter, where we grew numerous varieties of vegetables in different types of soil.

**Earth Day Events** We presented information on the correct disposal of yard waste at several community Earth Day events, including booths focusing on yard waste disposal at General Electric and Michelin, reaching over 1,500 employees. This year we're celebrating Earth Day by teaming up with Keep Greenville County Beautiful and our Litter Prevention Coordinator to educate our County colleagues. A greener Greenville can start right in our own building!

**Youth Development** In 2016/17, youth outreach programs were held in classrooms, and in informal education settings, such as parks and community centers. Over 10,000 children participated in the youth outreach programs this year, which included vermicomposting after-school programs and a semester-long project based around soil health, PHFs, and the importance of local food in conserving natural resources. This year, we will serve as mentors again for **Green Steps Schools**, a student-driven project-based program bringing conservation into schools.

This year was our third annual **Wet & Wild Summer Camp** with Clemson Extension's 4-H program. This weeklong, outdoor camp was attended by 35 campers ages 6-14 who learned about water, water quality testing, the water cycle, pollutants, watersheds, ecology, and animals. We've already been preparing for the fourth annual camp, and are excited to keep developing a new generation of environmental champions!

Other Community Events We continued to host booths at a number of community events, including iMAGINE Upstate, the Greenville Zoo's Party for the Planet, and Swamp Rabbit Education Days. Summer and fall found us at the Greenville, Greer, Taylors, and Travelers Rest farmers markets. We'll continue engaging the community at events like these in the new year.

### Conferences, Committees, Workshops, and Trainings

GCSWCD staff members serve on the Public Outreach Committee for the **Reedy River Water Quality Group**, a consortium of government agencies, universities, and community partners aimed at protecting the Reedy River.

We continue to serve at State Coordinators for **Project WET** and attended the 2017 USA Coordinator's conference in Traverse City, Michigan.

Staff presented at 11 national, regional, or state conferences. Presentations included "Inexpensive District Programming" at the SENACD meeting and "Water Education for Teachers (Project WET)" at the Environmental Educators Association of South Carolina annual conference in Beaufort, SC and at the Southeast State Park Interpretive Rangers Conference here in Greenville.

# By the Numbers



# Affiliate Membership

Since 1971, citizens, businesses, and educational institutions in Greenville County have donated tax deductible gifts to the Greenville County Soil & Water Conservation District. The District uses affiliate member funds to provide a wide variety of environmental education programs, demonstration projects, and outdoor learning opportunities.

District education programs reach students of all ages, classroom teachers, informal educators, pet owners, homeowners, farmers, contractors, members of the public, and elected officials.

### We need your help to continue these important programs!

- Awards for Greenville County students for photographs, science projects, and essays written on natural resource conservation topics
- Sponsorship of high school students to attend Envirothon and Governors' Institute for Natural Resource Education
- Workshops for educators in Project WILD, Project WET and Project FLP (Food, Land, People)
- Classroom programs for Greenville County schools, reaching hundreds of students each year
- Interactive exhibit displays at area events, fairs, and Earth Day celebrations
- Funding for Outdoor Learning Centers, community rain garden projects, and interactive learning activities
- Funding for mini-grants to schools and organizations for conservation education

# A Heartfelt Thank You To Our Affiliate Members

### **Partners**

South Carolina DNR

### Leaders

Clemson University
Kilwins
ReWa - Renewable Water Resources

### Conservationist

Strange Brothers Grading Company, Inc.

### **Educators**

Darrell & Georgia Harrison

### **Patrons**

AgSouth Farm Credit
Caliber Engineering Consultants, LLC
Darrell & Georgia Harrison
Hyatt Regency Greenville
McCall Environmental, PA

Mountain View Farm Nature Walk Photography Pecan Dale Farmstead Padula's Plants and Gardens Pecan Dale Farmstead

### Supporters

Bob & Claire Bradbery Sean & Satrena Dogan Dr. David L. Hargett Howard Farms Dr. Walter McPhail John W. Parris Paul Wickensimer

### **Contributors**

Dennis and Judy DeFrancisco William N. Gressette, Jr. Danny & Nan Howard

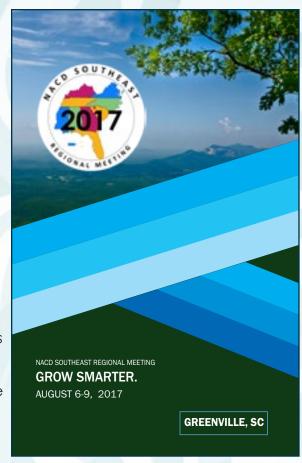
# Greenville Hosts SENACD Conference

The Greenville County Soil and Water Conservation District served as host district to the National Association of Conservation Districts Southeast Regional Meeting in August this year.

District commissioners and staff worked with the SC Association of Conservation Districts board to plan this four day conference with attendees from across the southeast.

The conference was jam packed with education opportunities and tours that furthered the conference theme, "Grow Smarter". Speakers, including Harry L. Ott, Dr. Steven Schafer, Dr. Don Ball, and Dr. Garry Lacefield, spoke about soil health perspectives, climatology and weather extremes, and district programming.

The South Carolina Association of Conservation Districts Mid-Year, National Association of State Conservation Agencies, and the SC Forage and Grazing Lands annual meetings were also held in conjunction with the SENACD conference.



# And Sponsors For Their Generous Support

Grady & Mary Rose Jones North Greenville University Gary & Fran Richardson Sprague & Sprague Consulting Engineers

### **Gala Sponsors**

3 Dog Pet Supply Jody Childs The Commerce Club Country Boys Home and Garden Center Dennis DeFrancesco **Earthen Organics Embassy Suites FoxCarolina** Greenbrier Farms Greenville County Greenville Zoo Greer Farmers Market GrowJourney

Louis Holloway Hyatt Regency Greenville Keep Greenville County Beautiful Kilwins Greenville Michelin North America Padulas Plants and Nursery Petco Salem Media Southern Heritage Nursery Summit Media Tupelo Honey **WSPA** Upcountry History Museum Upstate Forever/B-Cycle Vom Fass

# Caught in the Act!



www.GreenvilleSoilandWater.com

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# From the District Conservationist/NRCS

### Getting Conservation on the Ground in Greenville

2017 has been a busy year for getting conservation on the ground in Greenville County. Natural Resources Conservation Service staff provided assistance to a wide range of customers, from

downtown urban farmers to large rural landowners.

"Helping People Help the Land" is our mission and educating, whether one-on-one or a group setting, plays a big role.

Partnering with the Greenville Soil and Water Conservation District and Clemson Extension, our educational meetings for livestock producers continue to grow in attendance.

Soil health continues to be of interest to farmers and one of our small vegetable farmers and a small livestock producer are working with a USC professor on a project to study the impacts of cover crops on soil health.



Trout habitat improvement



Pollinator Planting

Most of our time was spent carrying out Farm Bill Programs. Eighteen Greenville County farmers received funding through the Environmental Quality Incentive (EQIP) and Conservation Stewardship (CSP) Programs.

EQIP cost share funding addresses many resource concerns such as water quality, energy, soil health, erosion and wildlife. This year farmers addressed concerns with EQIP funding for practices involving trout habitat improvement, high tunnel, cover crops, stream bank stabilization and access road.

The Conservation Stewardship Program is a five year commitment and helps the farmer build on his or her existing conservation efforts while strengthening the operation. CSP offers farmers the opportunity to earn payments for actively managing, maintaining, and expanding conservation activities like cover crops, rotational grazing, buffer strips, pollinator plantings and forest management practices while they work their lands for production. CSP provides an annual minimum payment of \$1500, which is a big help especially for our small operations. For more information about Farm Bill Programs or technical assistance, please call our office.



Crops growing in a high tunnel



Streambank stabilization

# GCSWCD Completes Major Grants

### **Duke Energy Grant funded Project WET Teacher Workshops**

Greenville County Soil and Water wrapped up a \$14,000.00 grand from Duke Energy for Project WET Teacher Workshops.

With grant funds, we offered scholarships for Project WET water conservation workshops to 201 educators in the Duke grant area, impacting upwards of 20,100 students. At least one educator attended a workshop from each county in the Duke service area. We were also able to increase our facilitator network by 26, for a total of 44. We were able to increase our facilitator network by over 200% with grant funds! Each facilitator is required to lead one workshop per year, adding an additional 1000+ educators per year, reaching 100,000+ students each successive year.

This grant from Duke Energy enabled us to present workshops for an estimated 150+ educators that would not have been able to pay to attend a workshop. This number is based on surveys of participants as well as evidence gleaned from non-Duke service area registrations. These educators influence at least 100 students each, totaling an additional 15,000 students.







With grant funds, we offered an educator workshop to university students who were considering teaching as a possible career. After participating in the Project WET workshop, these students went on to start a water conservation club at the university. In addition, 12 of these students were so enthusiastic about the curriculum and using it in their education career, they went on to become facilitators. These additional 12 facilitators will impact tens of thousands of students throughout their career with water education. Winthrop professors are now facilitating ProjectWET Educator Workshops at their university each semester, which will only increase education throughout the state of South Carolina and beyond.

The goal of the Project WET program is to facilitate and promote the awareness, appreciation, knowledge, and stewardship of water resources through the development and dissemination of classroom ready teaching aids and the establishment of state and internationally sponsored Project WET programs.

The Project WET Curriculum and Activity Guide 2.0 is the key to Project WET's water education. The Guide is designed for formal and non-formal educators of K-12 students and it can only be obtained by attending a workshop.

NACD Urban Agriculture Grant for Woodside City Farm Project

The NACD Urban Agriculture grant cycle came to a close in August. We learned an incredible amount over the course of a year, and documented everything along the way. What an opportunity it was to bring sustainable farming to the City View and Woodside communities. In one year, we helped Farm Manager, Jason Schmidt, clear an overgrown plot of land, develop an urban farm site that sought balance with nature, and grew a whole lot of lettuce! We joined the local community, leading a semester-long project on soil health with juniors and seniors at a nearby high school, and actively participated in the community coalition.



Thank you to the partners and fantastic community that helped make it all possible, and to Jason Schmidt for pouring his heart into the project. A special thanks to the farm's neighbors, local restaurants, and the Swamp Rabbit Cafe & Grocery for supporting our mission and the local food movement.

Farming in urban areas comes with many challenges. Even when land has limited use, questionable history, or limited development value, urban areas have more people with conflicting ideas of how to make things happen. Food will always have a political aspect. The project's original partner chose not to continue with the farm. While we don't know what will become of the farm site, we hope conservation and community remain at the heart of it.

Our journey can be revisited at www.woodsidecityfarm.com, and will serve as a resource for future urban farmers as they develop their own projects and navigate the associated hurdles. Thanks to all who supported and followed along on our journey from kudzu to crops!



# Meet Our Staff

### **USDA Natural Resources Conservation Service Staff**

From left: Lynne Newton, District Conservationist, Collin Buckner, Soil Conservationist Drew Williams, DNR Program Coordinator, Chris Workman, DNR Program Coordinator









### **Soil and Water Conservation District Staff**

From left: **Meagean Dugger**, Conservation Assistant, **Lynn Pilewski**, Education Program Coordinator, **Kirsten Robertson**, District Manager, **Shelby Cohen**, Community Relations Coordinator (Not Pictured) **Linda Creel**, Administrative Support



### **Staff Directory**

Kirsten Robertson	District Manager	864-920-6404
Linda Creel	Administrative Support	864-920-6405
Lynn Pilewski	Education Program Coordinator	864-920-6397
Shelby Cohen	Community Relations Coordinator	864-920-6401
Lynne Newton	NRCS District Conservationist	864-920-6402
Collin Buckner	NRCS Soil Conservationist	864-920-6396
Drew Williams	DNR Program Coordinator	864-920-6403

Greenville County Soil and Water Conservation District 301 University Ridge, Suite 4800 Greenville, SC 29601 864-467-2755 www.greenvillesoilandwater.com

# Affiliate Appreciation and Awards Gala

# Jungle Safari Gala





### GREENVILLE COUNTY SOIL AND WATER CONSERVATION DISTRICT

301 University Ridge, Suite 4800 Greenville, SC 29601

ADDRESS SERVICE REQUESTED

PLEASE DELIVER TO:

# **Upcoming Events**

Save the date for these District events that will be happening over the next several months! Stay tuned for more information!

74th Annual Essay Contest
Spring Southern Home and Garden Show
iMAGINE Upstate
Party for the Planet
Tails and Trails
GCSWCD Under the Sea Gala
Wet & Wild Water Camp

Entries Due March 16 March 2-4 April 7 April 14 May 12

May 17

July 30 - August 3