

Spring, 2016

Guilford Soil & Water Conservation District

New Phone Number!

336-641-2440

Voicemail Now Available

NRCS-Kelley Smith

375-5401x3



Conservation Conversation



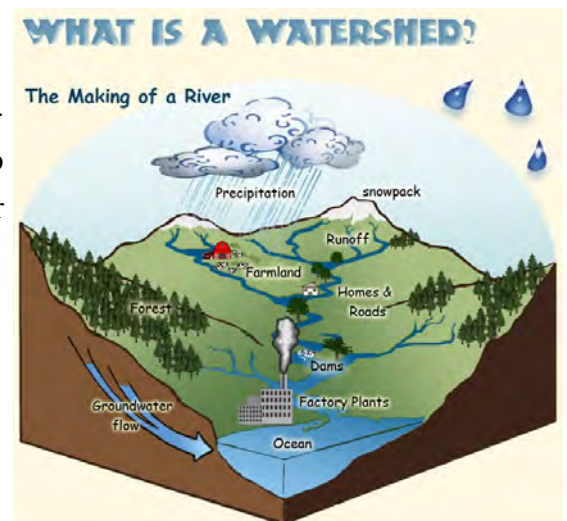
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We All Live In A Watershed

No matter where you are, you are in a watershed! A watershed is the land area that “sheds” rainwater, melting snow, and stormwater runoff downhill to the lowest point where it collects in a body of water such as a lake, creek, stream, river, wetland or the ocean. NC has 17 major river basins which are made up of many smaller watersheds. Guilford County is at the top of the Cape Fear River Basin which eventually flows into the Atlantic Ocean near Wilmington.

Watersheds can be affected by many different activities and events. Construction of cities, farming, logging, and the application & disposal of many garden and household chemicals can affect the quantity and quality of water flowing from a watershed.

When land is stripped of its vegetation and covered with hard surfaces such as asphalt and rooftops, rainwater can no longer soak into the soil to replenish water for growing plants or recharge groundwater. Since the rainwater cannot penetrate these “impervious” surfaces, it becomes stormwater runoff. It runs off the land, picking up pollutants and delivering them untreated into our streams, rivers, lakes, etc. Fast-flowing stormwater has force and erodes streambanks causing sedimentation of our streams which is the #1 water pollutant in NC.



Best Management Practices (BMPs) are innovative strategies used to reduce the amount of impervious surfaces, allow rainfall to soak into the ground, and keep pollutants out of our waterways.

Our Team:

- Millie Langley, Soil Conservationist
- Jamey Walker, Soil Technician
- Elizabeth Williams, Education Coordinator
- Kelley Smith, NRCS District Conservationist

District Supervisors:

- George Teague, Chairman
- Harold Alexander, Vice Chairman
- Ray Briggs, Secretary/Treasurer
- Lewis Brandon III, Member
- Richard Phillips, Member
- Anna Amoriello and Dan Kerns

BMPs Continued.....

Urban BMPs can be used on school yards, in towns & cities, and at home.

- ◆ Add vegetative cover such as trees, shrubs, and grasses to slow stormwater runoff and increase infiltration.
- ◆ Keep your soil healthy. Uncompacted, healthy soils allow stormwater runoff to absorb more easily. Soil that is enhanced with compost can breathe, improving soil biodiversity. Mulch can act as a sponge to absorb runoff.
- ◆ Riparian Buffers are areas planted in native trees, shrubs and perennials to slow stormwater runoff and filter out its pollutants. In Guilford County, landowners are required to maintain 50-foot of riparian buffer along both sides of perennial streams. They also reduce erosion of streambanks and provide vital wildlife habitat and travel corridors.
- ◆ Minimize the use of pesticides in your yard or garden. Implement Integrated Pest Management to protect beneficial insect pollinators.
- ◆ Wash vehicles on the grass so that the soil can filter out pollutants.
- ◆ Always test your soil before adding fertilizer to your yard. Sweep stray fertilizer off of sidewalks and other impervious surfaces.
- ◆ Keep storm drains clear of debris and never pour anything into a storm drain. The water and the pollutants it carries, is deposited directly into nearby streams.



Check out the Carolina Yards and Neighborhoods link for more information:

<http://www.piedmontwaterquality.org/CYNWorkbookfinal.pdf>

Farm BMPs include:

- ◆ **Cover Crops:** A conservation method where a crop, such as winter rye or clover, is planted between regular crops that are grown and harvested. Cover crops blanket the soil surface, protecting it from erosion and preventing weeds. The roots anchor topsoil in place and retain moisture. Clover also fixes nitrogen from the air into the soil around its roots.
- ◆ **Crop Rotation:** System of rotating the types of crops grown in one location to avoid depleting the soil and to control diseases, pests, and weeds.
- ◆ **Contour Farming:** Planting with the contour of the hill rather than up and down the hill. Reduces sheet and rill erosion on sloping cropland.
- ◆ **Field Borders:** An area of grass or other permanent vegetation that filters out excess nutrients, pesticides and sediment before the runoff enters a body of water.
- ◆ **Livestock Exclusion Fencing:** Fence livestock out of creeks, streams, rivers and ponds. Instead of drinking directly from a stream, the livestock drink fresh water from a watering tank and a heavy use area is designed to handle foot traffic around watering tank. This prevents animal waste from entering the watershed. It also stops soil erosion along the streambanks.



Poster Contests

1st/2nd Grade Winners

1st Place: Maleiya Thomas, 2nd Grade at Jones Elem., Teacher: Miller

2nd Place: Dyua Isley, 1st Grade at Erwin Elem.; Teacher: Bhudary;

3rd Grade

1st Place; Also won 2nd Place at the Area 3 SWCD Contest

Angelina Gonzalez at Peck Elem.; Teacher – Murray

2nd Place

Vonte Adams at Kirkman Park Elem.; Teacher – Perez

3rd Place

Christopher Leonard at Sumner Elem.; Teacher – Blackwell

4th Grade

1st Place; Also won Honorable Mention at Area 3 SWCD Contest

Amos Shay at Peck Elem.; Teacher – Murray

5th Grade

1st Place; Also won 1st Place at the Area 3 SWCD Contest

Laura Truong at Millis Road Elem.; Teacher – Daniels

2nd Place

Sophia Caldwell at Jesse Wharton Elem.; Teacher—Lofters

3rd Place

Noelle Kondeas at Jesse Wharton Elem.; Teacher – Lofters

6th Grade

1st Place; Also won 1st Place at the Area 3 SWCD Contest

Evelyn Chang at the Academy at Lincoln; Teacher – Anand

2nd Place

Peyton Youth at the Academy at Lincoln; Teacher – Anand

3rd Place

Zoya Bowangaowala at Academy at Lincoln; Teacher – Anand

6th Grade Essay Contest

1st Place; Also won 3rd Place at the Area 3 SWCD Contest

Luke Harrington at the Academy at Lincoln; Teacher – Anand

2nd Place

Fiona Carlone at the Academy at Lincoln; Teacher – Anand

3rd Place

Alaina Randolph at the Academy at Lincoln; Teacher – Anand

**2015-2016 Contest Theme:
“We All Live In A Watershed”**

Congratulations to this year’s contest winners!

Cash prizes will be given out at our Annual Awards Banquet in May.

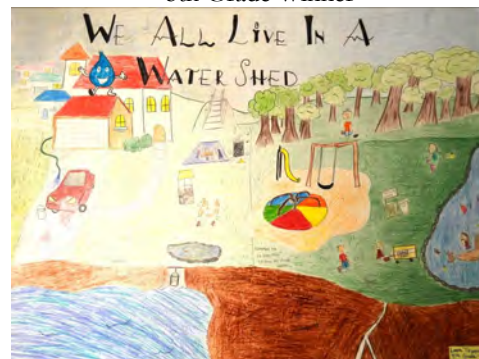
3rd Grade Winner



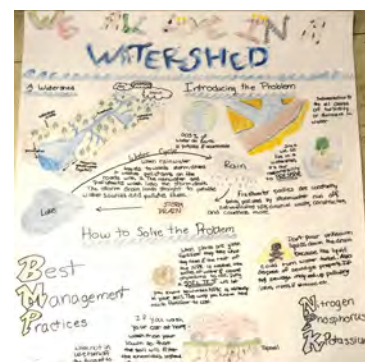
4th Grade Winner



5th Grade Winner



6th Grade Winner



Congratulations to Kathryn M. Hice of Pleasant Garden! She is a Freshman in Poultry Science at NC State University. She is the 2016-2017 recipient of the Guilford Soil & Water Conservation District Scholarship Fund.

Hugh Hammond Bennett (1881-1960) - Father of Soil and Water Conservation

Hugh Hammond Bennett was born in a plantation home near Wadesboro, North Carolina in 1881. As a boy, Bennett played, worked, and roamed the acreage of his father's cotton farm. A setting that gave Bennett the opportunity to witness soil erosion while growing up.

After earning a degree in chemistry from the University of North Carolina-Chapel Hill, Bennett became a soil surveyor with the USDA's Bureau of Chemistry and Soils. His years of working with the Bureau gave him insight into the effects of erosion on soil and the production of agricultural commodities. He became a nationally recognized authority on the issue through a number of publications and papers he would write.

In 1933, as the nation struggled through the Great Depression and Dust Bowl, Bennett was given the opportunity to put his ideas on soil conservation into practice. The Soil Erosion Service (SES) was created within the Department of Interior and Bennett was named its director. Bennett and the other employees of the SES began to holding demonstrations on farms throughout the country.

In 1935, the SES was moved to the US Department of Agriculture and re-named the Soil Conservation Service (SCS). Bennett continued as the chief of this new agency.

Bennett and his colleagues devised an entirely new approach to land management; putting every acre to its best use and treating every acre according to its needs. Thus was born the conservation plan based on soil resources and their capabilities. This concept involved the ecology of the entire farm -- woods, crops, pastures, and wildlife. Along with the conservation plan, the revolutionary idea of soil conservation districts was born.



In 1937, President Franklin D. Roosevelt sent to the governors of all states legislation that would allow the formation of soil conservation districts. The first district established was the Brown Creek Soil Conservation District which included Bennett's home county, Anson.

Bennett's flair for showmanship and his evangelistic commitment to soil conservation, convinced national leaders and farmers alike for the need to conserve our soil and water resources. His ideas changed the face of America's landscape. On farmland scared by gullies and blown by winds, lush fields of grain once again waved. Conservation practices like strip-cropping, terraces, and waterways had stopped the erosion of our soil and returned the land to its former productivity.

In 1951, Bennett retired as chief of the Soil Conservation Service. His influence had spread worldwide as many other nations emulated the programs he had established in their own country. He was one of the founders of the Soil Conservation Society of America (now the Soil & Water Conservation Society).

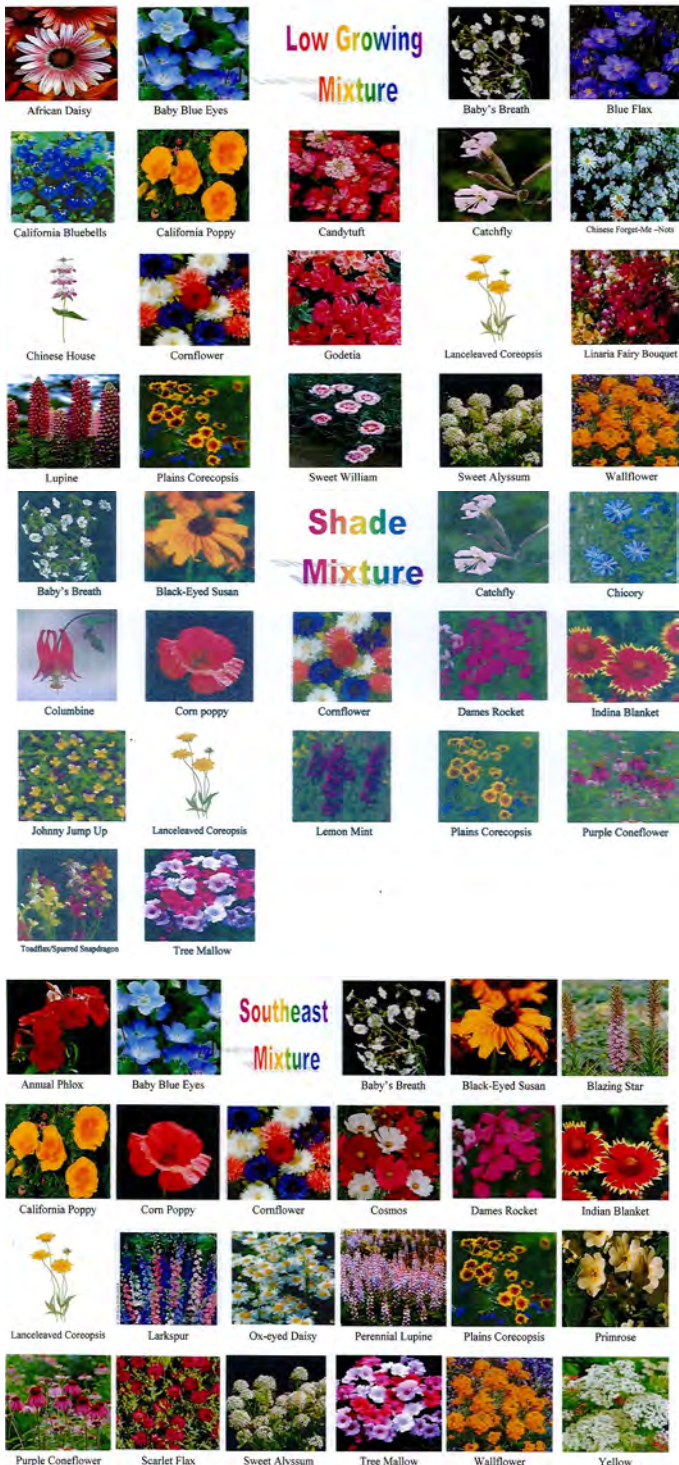


On July 7, 1960, Hugh Hammond Bennett died of cancer in Burlington, North Carolina at the age of 79. He is buried in Arlington National Cemetery.

His legacy lives on in the Natural Resources Conservation Service (formerly the SCS), the nation's 3,000 Soil Conservation Districts, and on the land he worked so hard to protect and enrich. -

Source: www.nrcs.usda.gov

Throughout the year, Guilford SWCD sells wildflower seed packets, Blue Bird Boxes, Wood Duck Boxes and Bird Feeders to raise funds for educational programming for Guilford County residents. Now is the time to plant wildflowers for our pollinators and install blue bird boxes.



Wildflower Seed Packets: Cover 400 square feet. Plant Aug.—Nov. and March-May in well drained for the Low Growing, Southeastern and Shade mixes. Mixes have 16-23 varieties of flowers and require little maintenance once established. Mixes contain Cornflower and should not be planted within 500 feet of small grain fields.

Blue Bird Boxes—Eastern Bluebird nestboxes are made locally using Eastern Red Cedar and should be spaced at intervals of at least 100 yards — 125–150 yards may be better. Boxes should be mounted on a smooth metal pole at a height that is convenient for monitoring and maintenance. Bluebirds tolerate a box mounted as high as 15 feet and as low as 5 feet from the ground. The nestbox should be mounted so the entrance hole faces away from prevailing winds to reduce the amount of rain that might be blown into the box. The box opening should also face away from direct sun exposure. A nearby tree will provide young bluebirds with a place to fly to when they first leave the nest, and shelter from the elements and predators.

Wood Duck Boxes—In pre-colonial times, the wood duck was likely the most abundant waterfowl species in eastern North America. Overharvesting, coupled with the destruction of bottomland habitats, drove these colorful birds to the brink of extinction by the early 20th century. The dramatic rebound of wood duck populations since that time can be largely attributed to protection provided by the Migratory Bird Treaty Act of 1918. However, the recovery of the wood duck was also assisted by the advent of artificial nesting structures, or wood duck boxes.

Wildflower Seeds	Cost
Shade	\$5.00
Southeastern	\$5.00
Low Growing	\$5.00
Bird Boxes	Cost
Blue Bird	\$20.00
Wood Duck	\$40.00
Feeders	\$30.00

NC Agriculture Cost Share Program

The North Carolina Agricultural Cost Share Program (NCACSP) is designed to help farmers implement Best Management Practices (BMPs). The goal of this program is to improve and conserve the quality of the soil, water and, in many cases, the air. In order to accomplish these goals, the program provides Cost Share funds to assist in the installation of environmentally friendly farm practices. In most instances 75% of the average cost of a project is provided through the NCACSP. There are many different BMPs available through this program that reach a broad range of agricultural needs, including: Grassed Waterways, Conservation Tillage, Cropland Conversion, Grassed Waterways, Cover Crops, Livestock Exclusion Fencing, Stream Crossings, Livestock Watering Facilities, Heavy Use Area Protection, etc.



Stream Crossing and Livestock Exclusion Fencing

Community Conservation Assistance Program

CCAP is a voluntary, incentive-based program designed to improve water quality through the installation of best management practices on urban, suburban and rural lands, not directly involved in agricultural production. Interested landowners may submit applications to Guilford SWCD for practices such as: abandoned well closures, cisterns, pet waste receptacles and rain gardens. Applications will be ranked based on local water quality priorities. If eligible, a conservation plan is prepared for the applicant to install the BMP and the landowner may be reimbursed up to 75% of pre-established average cost of the BMP.



Cistern installed at UNC-G to collect rainwater.



If you have questions or think you may be interested in applying for any of our Cost Share Programs, please stop by the Guilford Soil and Water Conservation District, located in the Guilford Agriculture Center, 3309 Burlington Rd. Greensboro, NC 27405 or give us a call at 336-641-2440.

No-Till Drill for Planting Needs

The Guilford Soil and Water Conservation District invites you participate in the effort to conserve our natural resources and aid in the prevention of soil loss in our county by renting our no-till drill. The 5.5 foot drill is best used for pasture reseeding and can be rented for \$10/acre.



No-till farming is a way of growing crops or pasture from year to year without disturbing the soil. No-till increases the amount of water that can infiltrate into the soil, increases organic matter retention and improves the cycling of nutrients in the soil. It also reduces or eliminates soil erosion from crop fields. A huge benefit of no-tillage farming is improvement in soil health. It increases the amount and variety of life in and on the soil, making soils more resilient and capable of growing better quality crops. Farm operations that utilize No-Till farming are much more efficient and will often see a cost-savings in fuel and fertilizer usage quickly.

Pasture Management for Horses

For most horse property owners, available pasture acreage is a premium. That's why it's critical to maximize the amount of forage provided by the pasture you do have. The best way to do this is through rotational grazing, in which the pastures are sub-divided and horses are rotated between pastures. Use temporary fencing to divide the pastures into multiple sections (paddocks). Rotate horses once they have grazed the grass to about 3—4 inches, and mow the pasture soon after the horses have been rotated off. Horses are spot grazers, in that they will selectively graze some parts of the pasture while leaving others ungrazed, and mowing brings all the grasses to a uniform height as well as prevent undesirable weeds from going to seed. Horses should return to the pasture when grasses have grown to about 8 inches in height (depending on the species).



<http://content.ces.ncsu.edu/managing-pastures-to-feed-your-horse>

Protecting Water Quality While Owning Horses

Guilford County ranks 2nd in NC for Equine population with over 11,000 horses. With over 50% of the county being within the Jordan Lake Watershed, we need to be mindful of the potential runoff concerns related to the large amounts of manure and stall bedding waste. One average 1,000 lb. horse produces 9 tons of manure per year. That manure contains 99 lbs. of Nitrogen, 18 lbs. of Phosphorus and 72 lbs. of Potassium. Unmanaged manure piles can impact horse health by serving as a breeding ground for flies and other parasites. Runoff from the piles can contaminate nearby streams, rivers and groundwater. In the Jordan Lake watershed, excess nutrients are negatively affecting water quality.



Photo taken by *USDA, NRCS*

Composting is a cost-effective, win-win solution to the manure problem. Composting turns manure into fertilizer for your pasture/garden and reduces the soluble nitrogen that leads to unwanted runoff. Guilford SWCD provides technical and cost-share assistance for building a manure dry storage area. Contact staff to learn more.

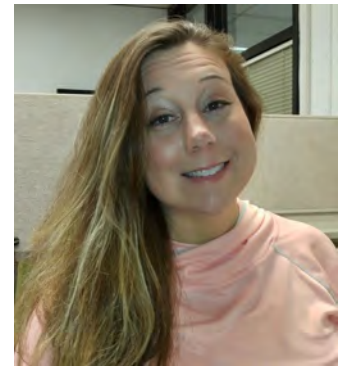
It is also important that horses are fenced away from streams, rivers and wetlands to protect water quality. Horses entering a stream can lead to stream bank erosion, sediment, nutrient, and bacterial pollution. To protect streams on or near your farm, provide alternate water sources and fence horses out of all bodies of water. Leave at least a 25 ft. “riparian buffer” between the stream and your fence line. Make sure your stream has plenty of native trees, shrubs or grasses surrounding it to filter out pollutants and hold the soil in place. Designate an area for building a stream crossing. These Best Management Practices (BMPs) can possibly be cost shared with the Guilford SWCD. Call the office to learn more about the application process.

Check out the following link to learn more about sustainable practices:

<http://www.sustainablestables.com/best-practices.html>

Meet our new NRCS District Conservationist!

Kelley Smith joined the Guilford team in October of 2015. She studied at Virginia Tech. in Crop/Soil Science and Environmental Science. She lives in Virginia and worked with 15 counties in Virginia before working in the Salisbury office for 7 years. Currently, Kelley is working with 6 counties including Guilford County. She looks forward to working with landowners to meet conservation goals.



Natural Resource Conservation Service (NRCS)

NRCS offers voluntary programs to eligible landowners and agricultural producers to provide financial and technical assistance to help manage natural resources in a sustainable manner. Through these programs the agency approves contracts to provide financial assistance to help plan and implement conservation practices that address natural resource concerns or opportunities to help save energy, improve soil, water, plant, air, animal and related resources on agricultural lands and non-industrial private forest land.

Our financial assistance programs include the following:

The Agricultural Management Assistance (AMA) helps agricultural producers use conservation to manage risk and solve natural resource issues through natural resources conservation. NRCS administers the AMA conservation provisions while the Agricultural Marketing Service and the Risk Management Agency implement other provisions under AMA.

The Conservation Stewardship Program (CSP) helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resources concerns. Participants earn CSP payments for conservation performance—the higher the performance, the higher the payment.

The Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to agricultural producers in order to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat.

To learn more about eligibility, go to:

http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/nc/programs/?cid=nrcs142p2_046676



Area III Spring Meeting

On March 3, 2016 Guilford SWCD hosted the Spring meeting for Area III Soil and Water Conservation Districts. The meeting was held at the Pleasant Union United Methodist Church in Liberty, NC. Area III Chair, George Teague called the meeting to order, and Alan Branson with the Guilford County Board of Commissioners, provided the welcome. There are eleven

counties that make up Area III: Rockingham, Guilford, Randolph, Montgomery, Caswell, Alamance, Chatham, Moore, Lee, Orange and Person.

Many thanks to our sponsors and donors who made the meeting such a success!

McKnight Hardware	Farmers Insurance
Carolina Farm Credit	Southern States
Calico Farmstead Cheese	Quality Equipment
Whitesell Blackberry Farms	Spring House Farm
Ward Farms	Reedy Fork Organic Farm
Bowman Dairy, Inc.	Lowe's Home Improvement
Ms. Mary's Specialties	The Shops At Friendly Center
Faucette Farms	Piedmont Triad Water Quality Partners

Environmental Camp

July 11-15, 2016

9:00 am – 4:00 pm—Guilford Ag. Center

Ages: Middle School—5th-8th Graders

Limit: 20 Cost: \$35.00

Discover your Environment!

We will take daily field trips to investigate the natural resources around us.

Discover trees, water, wildlife, and soils through hikes and hands-on activities.

Bring your lunch, drink/water bottle and 2 canned food items for the food pantry.

To register call 641-2400 and request a 4-H Summer Adventures Flyer

UNC-Greensboro Receives Cost-Share Funds For Cistern

Guilford Soil and Water Conservation District provided over \$2,600 in Community Conservation Assistance Program (CCAP) funds to install UNC-G's latest water-saving device. The 2,500 gallon cistern catches rainwater from the roofs of two adjacent buildings. A series of pipes keeps the water free of leaves and other debris, but it doesn't clean it enough to make it drinkable. It takes 3 inches of rain to completely fill the cistern. The water will be used to water trees, flowers and shrubs in areas of the 250-acre campus that aren't irrigated. In the winter, groundskeepers will use the water to make a brine solution that helps keep roads and sidewalks free of ice.

The cistern water is a drop in the bucket for a campus that uses about 124 million gallons of water annually. However, UNCG officials say the cistern will help in two ways: It will cut the amount of water the university buys from the city, and it will decrease the amount of storm water runoff that flows into city storm sewers.

Guilford County residents can also reduce storm water runoff and water bills by installing rain barrels and diverting down spouts to grassed or mulched areas. During a one inch rainstorm on the roof of a 1,000 square foot house, you have the potential of collecting 600 gallons of water. To learn more, check out the following website:

<http://www.rainbarrelguide.com/how-much-water-can-you-collect-in-rain-barrels-during-a-rainfall/>



Guilford Soil & Water Conservation District

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NRCS—Natural Resource Conservation Service
Kelley Smith—District Conservationist
336-375-5401x3
Kelley.Smith@nc.usda.gov



Row 1: Dick Phillips, Lewis
Brandon III, Ray Briggs

Row 2: Harold Alexander and
George Teague



Events and Announcements.....

Resource Conservation Workshop for
High School Students (June 26th—July 1st)
Applications due May 2! Download from our website!

Wildflower Seeds For Sale - \$5 Packet Covers 400
Square Feet—3 Mixtures: Shade; Low Growing;
Southeastern

Board Meetings: 1st Wednesday of Each Month
9:00 a.m. Rm 106 of Ag. Center

Middle School Environmental Investigations Camp
July 11th—15th (\$35)
Call 336-641-2400 to get more info. & register.



Guilford Soil and Water Conservation District

We're on the web!

<http://www.myguilford.com/planning-and-development/soil-and-water-conservation/>

Our Mission is.....

.....to promote the conservation of natural resources in Guilford County through education, information, technical assistance, and available economic incentives.

The Guilford Soil and Water Conservation District (SWCD) is a governmental subdivision of the State of North Carolina, charged with the responsibility of promoting soil and water conservation and establishing conservation programs in the District. The District partners with the Natural Resources Conservation Services (NRCS) to carry out these responsibilities. As a local organization, we work with citizens, agencies, and landowners to plan and direct programs for the conservation and development of our natural resources. We work closely with other state, federal, and local agencies, such as NC Department of Agriculture, NC Department of Environment and Natural Resources, NC Forest Service, NC Cooperative Extension, etc. to provide effective natural resource management and environmental education.