

Conservation Corner

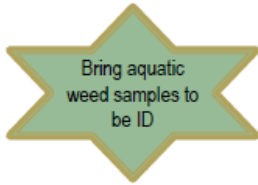


2017 POND CLINIC

Durham & Orange Soil and Water Conservation District's Pond Clinic

Saturday, May 6, 2017

7:30am-8:30am (fishing tournament)
(9am- Pond Clinic) for pond owners or potential pond owners



Join Us!	
•Pond Maintenance	•Pond construction
•Fish production	•Wildlife management
•Shock boat	•Fishing Tournament

Presenters: Durham Soil and Water Conservation District, Orange Soil and Water Conservation District, Durham Soil and Water Department, Orange County DEAPR Department, NC State Cooperative Extension, Foster Lake and Pond Management, NCDA and NC Wildlife Resource Commission.

Registration

Register by April 28th 919-560-0558

Location

Blackwood Farm Park
4215 NC 86 S, Hillsborough, NC 27572

[View Map](#) Please note if you are putting this address into a GPS/Nav system they may have the city listed incorrectly as Chapel Hill, NC.



FREE Lunch (fish fry)

Must pre-register by 4/28
919-560-0558

Please bring a lawn chair



FISHING TOURNAMENT

Tournament 7:30am-8:30am
Ages 5 + Prizes: Youth & Adult
Register 919-560-0558 by 4/28/17

Inside this issue

- Live Stock Exclusion and Water Quality 2-3
- No-till Drill 3
- Upcoming Stream Restoration Projects 4-5
- Teacher of the Year Nominations...6
- Resource Conservation Workshop ..7
- Urban Conservationist of the Year Nominations 7
- EPA 319 Grant/CCAP..... 8
- Summer Green Infrastructure Program..... .9

Upcoming Events

- Durham and Orange Soil & Water Conservation District's Pond Clinic- May 7, 2016 (p.9)

Live Stock Exclusion and Water Quality



Livestock numbers in Durham County are on the rise. Cattle, horses, sheep, goats and pigs can all be found in increasing numbers. Whether they are raised for the market or recreation, the livestock's health and productivity is a top priority for the owner. Eliminating sources of potential hazards from the animals pasture is critical to maintain a healthy animal. But one potential hazard often goes unrecognized... their watering source. Traditionally farmers utilize surface waters; streams, creeks, springs and ponds, as the water source for their livestock. In hot summer months cows can often be found lounging in the pond or stream to cool off if the pasture doesn't have adequate shade available. But the impacts of livestock access to surface waters can be negative to the animal and the environment.

A hooved animal can cause a lot of damage as it walks down the stream or pond bank to access water to drink, trampling vegetation and causing streambank erosion. At the same time, urine and feces are being deposited in and near the water, providing a direct conduit for nitrogen, phosphorus and bacteria into the water that will then be transported further downstream reducing water quality of the entire watershed. Water is also a very effective means of spreading diseases; bacteria, viruses and cyst infections. An outbreak upstream can quickly spread to all herds downstream if the livestock in both locations are allowed access to surface waters. Bovine viral diarrhea (BVD), Johne's disease, foot rot and mastitis can be spread by water, as can pathogens that can impact human health; Cryptosporidium, Giardia, E. coli, Salmonella, Campylobacter, and Leptospirosis. Injuries to the hooves and legs of livestock can occur. All can have a direct negative impact on the rate of gain in your herd for meat or milk production or the use of your horse for recreation.

By fencing out surface waters in the pasture, livestock health and the health of the waterbody will improve. Producers who have installed fences along streams report improved herd health, decreased incidences of sores in cattle, and decreased leg injuries. There is also an increase in calf survival. The increased water consumption can result in increased weight gain and an increase in milk production. Studies on beef cattle have shown a gain of up to 25 lbs or 5% increase in weight. More weight at the market means more money for the producer.



Newly completed Livestock Exclusion fencing

An animal requires a convenient, clean source of water. Studies have shown that livestock will drink more water when it is cool and clean. Watering facilities located away from surface water sources are the recommended alternative to using the pond or stream as the water source. NCSU and Virginia Tech studies show that over 90% of the time cattle prefer to drink from a water trough compared to a stream or pond.

Thanks to grant funds received by the District, special cost share funding is available to assist Durham County livestock owners with fencing and alternative watering systems.

Live Stock Exclusion and Water Quality– continued

Cost Shareable items include:

- Exclusion Fencing
- Stream Protection Well
- Stream Crossing
- Watering trough or tank
- Heavy Use Area
- Spring Development

Please contact the Durham SWCD today if you have livestock with access to surface waters and would like more information, 919-560-0558.



No-Till

Now Available for Rent Durham SWCD's Great Plains 7ft No-Till Drill



Rental rate: \$12/ac (\$100 minimum)

To reserve the Drill or for more information,
contact us at 919-560-0558

Upcoming Stream Restoration Projects

Ward Stream Restoration Project

The District received a Clean Water Management Trust Fund Grant (\$400,000) and funding from the Upper Neuse Clean Water Initiative (\$360,000) to restore approximately 3,900 linear feet of stream restoration on the sediment-impaired unnamed tributaries to Falls Lake. The property is owned by Jimmy Ward who has converted this once tobacco farm to a grape vineyard. The project has been surveyed and the design is being completed. Permits will be pursued within the next 30 days with construction to follow in late summer/early fall. Once completed the project will reduce 982 tons/yr. of sediment, 681.93 pounds of total Nitrogen and 43.92 pounds of total Phosphorus from entering Falls Lake. The District will hold and monitor an approximate 10 acres permanent conservation easement.



Before picture

Southern High Stormwater Project



Before picture (above)

The District is gearing up to start construction on Phase II of the Southern High project. This project is funded through an Environmental Enhancement Grant (\$435,000) and a Division of Water Resources Grant (\$90,000) and will capture and treat storm water runoff from the school's bus parking lot. The project will protect and improve the water quality to the impaired Chunky Pipe Creek, Little Lick Creek, Falls Lake, and Neuse River. The water quality degradation is largely the result of land development without appropriate stormwater management practices. This project will not only protect and improve these impaired surface waters with the installations of the BMPs, but will also conserve



After picture (above)

4 acres surrounding the project to ensure long term protection through a permanent conservation easement monitored by the District. Once completed the project will reduce 4,643.96 pounds of total Suspended Solids, 95.51 pounds of total Nitrogen and 12.65 pounds of total Phosphorus from entering Falls Lake. Construction is scheduled for June of this year.

Upcoming Stream Restoration Projects– continued

Walker Stream Restoration Project

The District will begin surveying this 2,200 linear feet of stream restoration in May of this year. This project is funded through a Clean Water Management Trust Fund Grant (\$400,000) and is located on a sediment-impaired unnamed tributaries to Little Lick Creek near the headwaters of Falls Lake. Permitting and design will be conducted in the fall of this year with construction to begin in the spring of 2018. The District will hold and monitor an approximate 6 acre permanent conservation easement. Once completed the project will reduce 466.5 tons/yr. of sediment, 383.40 pounds of total Nitrogen and 24.69 pounds of Total Phosphorus from entering Falls Lake.



Before pictures

Marbrey/Jackson Stream Restoration Project

The District has partnered with Piedmont Conservation Council to conduct 3045 linear feet of stream restoration in the headwaters of Falls Lake. The project is funded by a Division of Water Resources Grant (\$200,000) and a Clean Water Management Trust Fund Grant (\$450,000). The surveying will begin in May of this year with design and permitting to follow in the fall of this year. The District will hold and monitor an approximate 8 acre permanent conservation easement. Once completed the project will reduce 901 tons/yr., 528.87 pounds of total Nitrogen and 34.06 pounds of total Phosphorus from entering Falls Lake.



Before pictures

Durham County Teacher of the Year Award– *Nominations Open*

Durham County Conservation Education Teacher of the Year Award



Nominate yourself or an outstanding K-12th grade teacher you know that excels in conservation & environmental education in the classroom.

For more information visit us at
dconc.gov/swcd

Each year the Durham Soil and Water Conservation District is committed to recognizing the outstanding conservation education efforts of our county's teachers. The contest is open to all Elementary (K-5), Middle (6-8) and High School (9-12) teachers in Durham County who have incorporated conservation and environmental education into their classroom curriculum. Nominate yourself or an outstanding teacher you know.

Three categories will be awarded at the County level: Elementary, Middle and High School. Of those three an 'Overall District winner' will be selected and that teacher's entry will go on to the NCASWCD's statewide Environmental Education Teacher of the Year competition (to be awarded the following January).

All teachers in public, parochial, charter/magnet and private schools in Durham County are eligible. Winners from each category will be awarded a plaque and a cash prize of \$100 at our Annual Conservation Awards Banquet each year.

Eligibility:

- ◆ Educators must be teaching full time in the classroom and be personally responsible for utilizing a conservation education program.
- ◆ Shown concern, scope, and originality by integrating environmental education into his/her curriculum
- ◆ Provide a positive environmental role model
- ◆ Team teachers are eligible, but awards will be made to the designated team leader.

Applications can be downloaded from <http://dconc.gov/swcd> or by emailing jbrooks@dconc.gov

2017 NC Resource Conservation Workshop– *Scholarships available*

The Resource Conservation Workshop (RCW) is a weeklong camp for high school students who are interested in conservation, the environment &/or our state's natural resources. The camp is sponsored by the NC Division of Soil and Water Conservation and the NC Association of Soil and Water Conservation Districts.

The RCW targets hopeful future environmental professionals by giving students a first-hand look at a wide array of conservation careers that they may not know about. Since the camp is housed on the campus of NC State University, it also gives students a chance to explore college life. If you have an interest in nature, the environment, natural resource conservation or are thinking about pursuing a college education in any of these areas then this camp is for you.

The Durham Soil and Water Conservation District sponsors 1 Durham County student delegate per year to attend the workshop. The Durham SWCD will pay all camp registration fees. All the student will be responsible for is a few meals on their own and transportation to and from NCSU at the start and end of camp. This year, the RCW will be June 25th – 30th. Priority will be given to rising seniors, but rising sophomores and juniors may apply. Interested students should fill out an official application and return to the Durham SWCD office by 5pm Friday, April 28, 2017. Applications can be downloaded from <http://dconc.gov/swcd> or by emailing jbrooks@dconc.gov



2017 Durham County Urban Conservationist of the Year Award– *Nominations Open*

**Nominate yourself or an outstanding citizen/organization/business you know
that is dedicated to conservation of natural resources**

Purpose: The Durham Soil and Water Conservation District sponsors a Durham County Urban Conservation of the Year Award annually to recognize outstanding leadership and achievement in conservation.

Participant Eligibility: Any individual, organization or corporation responsible for a conservation project in an urban setting.

Due Date: All applications are due to the SWCD office by 5pm on May 1, 2017. Applications can be sent to: Durham SWCD 721 Foster St Durham, NC 27701

Judging Criteria: The Urban Conservation Award recognizes individuals, organizations or corporations in the urban setting for outstanding conservation achievements. Applications will be reviewed by the District's awards committee and judges. Awards: Winners will be presented a plaque during the Durham SWCD's annual awards banquet in the spring.

Application: click on the link below to apply

[2017 Urban Conservationist of the Year Application](#)

Durham Soil and Water Conservation District receives \$100,000 grant from EPA



The Durham Soil & Water Conservation District was recently awarded \$100,000 by the EPA

319 grant program to install stormwater best management practices (BMP) through its Community Conservation Assistance Program (CCAP). Stormwater BMPs reduce pollution of our local waterways and often improve drainage and erosion issues on private properties. Stormwater BMPs include streambank stabilization projects, rain gardens, riparian buffers, cisterns, critical area plantings, grass swales and more.



The grant funds will be used to provide landowners in impaired watersheds – Third Fork Creek, Northeast Creek, and Ellerbe Creek – with reimbursement for up to 75% of the cost of these projects.

Interested landowners should contact Heather Dutra (HDutra@dconc.gov; 919-560-0558) to schedule a free site consultation to determine eligibility for project cost-share. A summary report and/or comprehensive conservation plan for your property will be provided as part of the site consultation.



Conservation Store

All proceeds go towards Environmental Education

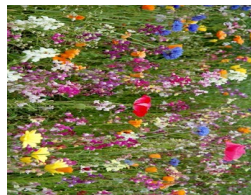
Quantities are limited so please place your orders early.



Ivy Rain Barrel
(50 gallon \$85)



Moby Rain Barrel
(65 gallon \$120)



Wildflower Seeds
(1 pack covers 400 sq. ft.)
\$10



A-frame Blue Bird House \$14
Basic frame Blue Bird House \$12

BETC 2017 Summer Green Infrastructure Program

The Bionomic Education Training Center (BETC) is a curricula-based workforce-development training program that teaches students how to design and install stormwater management projects like rain gardens and cisterns, while also teaching students bionomics, or the relationship between oneself and one's environment. The partnership between the District & Durham Public Schools has resulted in a sustainable business model in which students' experience real-life lessons in E-STEM (environment, science, technology, engineering, and math) via the BETC curriculum and associated installations of stormwater management projects; earn service hours towards graduation; and develop green infrastructure job skills.

The third year of the BETC Summer Green Infrastructure program is scheduled for June 19 - July 28, 2017. Six teachers and 21 student interns will work for 6 weeks (30 hours per week) on a minimum of three new stormwater management projects. These projects will be paid for in part by Durham's Community Conservation Assistance Program, grant funding, and community cash match. The team will also provide maintenance on rain gardens previously installed on school campuses and maintain vegetable gardens at elementary and middle schools (donating the harvested produce to the Interfaith Food Shuttle).

Durham Soil & Water greatly appreciates the generous financial support of the 2017 BETC Summer Green Infrastructure Program provided by the Smith Richardson Foundation and the Longleaf Collective (a fund of the Triangle Community Foundation):

- The Smith Richardson Foundation (SRF) has donated a total of \$50,000 in grant funds to Durham Soil & Water in support of BETC. \$20,000 will be utilized to offer extended employment for three Southern School of Energy & Sustainability teachers for six weeks as part of the BETC 2017 Summer Program. The remaining funding is paying for two researchers to incorporate the BETC curriculum into multiple schools in 2017 as part of a study of the academic benefits resulting from use of the curriculum. This grant funding is critical to the momentum that has been achieved since the program's conception in 2010. Thank you SRF!
- The Longleaf Collective is a nonpartisan giving circle of young professionals committed to making a meaningful impact in the Triangle area. Through financial contributions from each member, the collective makes significant grants to innovative nonprofits that work to improve North Carolina. The Longleaf Collective chose Durham Soil & Water to be the recipient of the 2016 Longleaf Collective grant; the \$18,500 grant will be used to purchase supplies, provide transportation, and pay three teacher salaries during the 2017 BETC summer program. The Longleaf Collective will leverage the grant award with volunteer hours throughout 2017 to maximize their impact during this year-long partnership with the BETC program. Thank you Longleaf Collective!

In addition, grant funds from the National Association of Conservation Districts will be used to support a summer rain garden training for the students and teachers at the DPS Hub Farm.

Durham Soil & Water Conservation District

721 Foster Street
Durham, NC 27701

Phone: 919-560-0558
Fax: 919-328-6192

Board Members

Talmage Layton– Chairman
Danielle Adams– Vice Chairman
Curtis Richardson– Secretary/Treasurer
Ray Eurquhart– Supervisor
Katie Locklier– Supervisor

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Melissa Rooney
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Becky Emmons

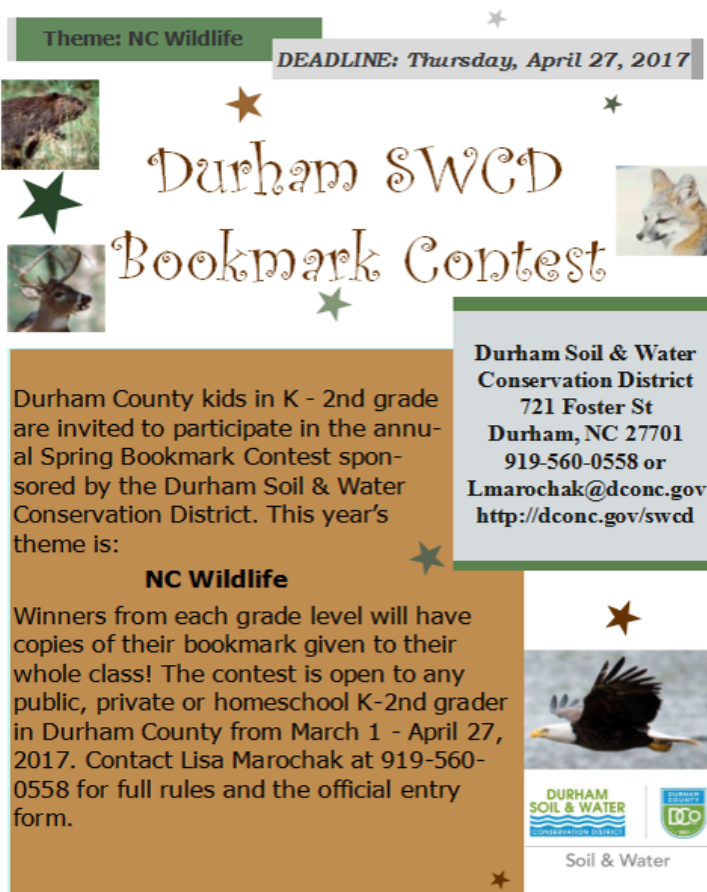
MISSION STATEMENT

To conserve, enhance, promote the natural resources of Durham County by providing technical assistance, environmental education information, and economic incentives to County citizens and by exhibiting a diversified program to meet its changing needs.

Staff

Eddie Culberson– Director
Lisa Marochak– Senior Administrative Officer
Jennifer Brooks– Natural Resources Coordinator
Mike Dupree– Agribusiness & Environmental Services Manager
Heather Dutra– Watershed Conservationist
Diana Lewis– USDA/ NRCS District Conservationist
Louise Hart-Regional Coordinator, NC Division Soil and Water Conservation Districts

Bookmark Contest



Theme: NC Wildlife *DEADLINE: Thursday, April 27, 2017*

Durham SWCD
Bookmark Contest

Durham County kids in K - 2nd grade are invited to participate in the annual Spring Bookmark Contest sponsored by the Durham Soil & Water Conservation District. This year's theme is:

NC Wildlife

Winners from each grade level will have copies of their bookmark given to their whole class! The contest is open to any public, private or homeschool K-2nd grader in Durham County from March 1 - April 27, 2017. Contact Lisa Marochak at 919-560-0558 for full rules and the official entry form.

Durham Soil & Water Conservation District
721 Foster St
Durham, NC 27701
919-560-0558 or
Lmarochak@dconc.gov
<http://dconc.gov/swcd>

DURHAM SOIL & WATER CONSERVATION DISTRICT
Soil & Water