

Lexington Soil and Water Conservation District News and Views

February 2010

Volume 13 Issue I

Source Water Protection

by Fred Taylor

The drinking water we receive from our local drinking water utilities or individual wells comes from ground water, streams, rivers, springs or lakes in a watershed. Although most water requires some treatment before use, protecting this source water is an important part of providing safe drinking water to the public. Protecting drinking water sources usually requires the combined efforts of many partners such as public water systems, local governments, natural resource managers and the public.



To give water utilities and community members the information they need to decide how to protect their drinking water sources, the Safe Drinking Water Act requires that the states develop Environmental Protection Agency approved programs to carry out assessments of all source waters in the state. The source water assessment is a study that defines the land area contributing water to each public water system, identifies the major potential sources of contamination that could affect the drinking water supply, and then determines how susceptible the public water supply is to this potential contamination. Public utilities and citizens can then use the publicly available study results to take actions to reduce potential sources of contamination and protect drinking water.

Businesses and individuals can also take actions to protect drinking water sources. Businesses can institute management practices to reduce their use of harmful contaminants or ensure their wastes do not discharge into ground or surface water. Individuals can reduce their use of pesticides and ensure that their septic systems are properly maintained. This is particularly important for those individuals who obtain their drinking water from private wells and must rely on ground water free of contamination.

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“No Child Left Inside” – Natural Resource Schools Program

In 2008, the SC Department of Natural Resources and the SC Department of Education piloted a new program to integrate natural resources, conservation, and outdoor skills into the public school curriculum. Classroom instruction, after-school programs, field trips, and service projects aim to educate a generation of students who spend a good bit of their time both in school and at home, indoors. While delivering information on natural resources and conservation, the program also addresses some serious concerns of student achievement, behavior, critical thinking and problem solving skills. Although all students participating will benefit, those suffering from ADD and ADHD tend to perform better in an outdoor setting with hands-on instruction and will likely benefit the most. This program will also address childhood obesity, encouraging outdoor activities such as canoeing, hiking, fishing, camping and other ‘back to nature’ behavior.



At the Rice Creek Elementary Natural Resource School Open House, children got up close and personal with live earth worms, discovering just how important they are to our soil health.

Palmetto Middle School in Anderson County was the first Natural Resource School in the state, followed by Rice Creek Elementary in Richland County, McCracken Junior High in Spartanburg County, and North Central Middle in Kershaw County. Each school is at a different point in the process, but all have shown that incorporating natural resources into both classroom and after-school activities has created positive change in the students. For more information about this program, visit either DNR’s or the Department of Education’s websites at www.dnr.sc.gov, and www.ed.sc.gov.

All federal, state and local programs and services provided through the Lexington Conservation District are offered on a nondiscriminatory basis, without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status.

WATERSHEDS, EROSION AND SEDIMENT

by Bill Melven

What is a “watershed”? It is simply an area of land that drains to one point on the topography.

It could be as small as your backyard or it could be the size of a River Basin, like the Saluda River, Congaree River, or Broad River. Within the boundaries of a River Basin there are many small creeks like Hollow Creek near Batesburg-Leesville, Rawls Creek near Irmo, or Twelve Mile and Fourteen Mile creeks near Lexington. These are all watersheds that drain into the Saluda River Basin.

What causes erosion? Soil that is exposed to rainfall events results in erosion. Soil particles start to move downstream caused by the impact of the raindrop on bare soil. Eroding soil could come from your own backyard or from the road in front of your house. Erosion can come from a lot that has been cleared for constructing either a house or a commercial building. Erosion could come from road building and cleaning out roadside ditches. Erosion can come from agriculture crop fields not adequately protected by conservation practices. Soil without the protective cover of grass or trees or organic leaf material will erode.

Eroded soil being carried by water flows is called suspended sediment. Water flowing in a ditch or stream keeps the sediment suspended until the flow is restricted by check dams or by trash and debris in the stream or drainage ditch. When the flowing water gets trapped by check dams in a channel, or comes to a pond or lake, the water velocity drops and the suspended sediment settles to the bottom. The larger particles drop out first and can be observed as sand flumes at the upper end of ponds. The discolored water in the pond still has the very fine clay particles suspended in the water.

Sometimes the pond water clears rapidly. Other times it takes several weeks for it to get back to a normal color.

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“Quiet Creek” by Elizabeth Burns, 2007 Youth Photo Contest — 2nd Place, Division II - Landscapes

...Water Protection - Continued from Front Page

Since passage of the Safe Drinking Water Act, our nation has enjoyed one of the safest and cleanest supplies of drinking water in the world. Protecting water at the source is the first critical step in a multiple-barrier approach that also includes treatment for contaminants, monitoring to ensure that health-based standards are met, and adequate infrastructure maintenance, especially of distribution pipes that carry water from the treatment plant to customers. An informed public with an understanding that everybody plays a role in water protection is critical to protecting our drinking water now and for the future.

Web Soil Survey One-Stop Soils Shop

By Emory Holsenback

If you need the most up-to-date soils information available, the Web Soil Survey (WSS) is for you. It provides agricultural producers, land-use planners, real estate agents, and others electronic access to relevant soil data and soil interpretations needed to make land-use and management decisions.

WSS provides soil data produced by the National Cooperative Soil Survey, which is a joint effort of the USDA Natural Resources Conservation Service (NRCS) and other Federal agencies, State agencies, and local participants. It is operated by NRCS and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for all of South Carolina’s counties as well as 95% of the nation’s counties. The site is updated and maintained online as the single authoritative source of soil survey information.

With WSS, soils information can be accessed for your particular geographic area of interest. Once that area has been selected, a soils map can be produced. WSS also allows users to generate thematic maps of soil interpretations and chemical or physical properties. For example, suppose you have a piece of property and want to build a house with a septic system. You can produce maps and reports in WSS showing the soils on the property which are best suited for these uses.

There are more than 100 soil interpretation ratings and more than 40 soil property ratings available. If you want soils information, Web Soil Survey has got it. To get it, go to <http://websoilsurvey.nrcs.usda.gov>. Best of all...it’s FREE!!



Conservation Education

2010 Youth Photography Contest

Attention Youth! The 2010 Youth Photography Contest sponsored by the Lexington Soil and Water Conservation District is officially underway. The categories in which to enter your photos are the same as last year: Trees and Plants, Native Wildlife, Landscapes, and Rural Life. There are two divisions in which you can enter - Division I and Division II. Division I is for students in grades 9-12 and Division II is for students in grades 6-8. The deadline for entries is the close of business day Monday, April 5, 2010.

All photos must be taken in South Carolina between January 1, 2009 and April 4, 2010. The photographer **must reside** in Lexington County. Students can enter a total of four (4) photographs in the contest, with a limit of two photos per category. Photos submitted must contain the following information: the photographer's name, address, phone number, grade level, and school; category and title of photograph; subjects in photo, if any; and location of where the photo was taken. Each photo submitted may be in black and white or color print and in the sizes of 4"x6" or 5"x7".



Awards will be given to first place, second place, and honorable mention winners in each of the four categories in each Division. First place award winners will receive \$50 each. Second place award winners will receive \$25 each. Honorable Mention award winners will receive a magazine subscription to the SC Wildlife Magazine. All award winners will be recognized at the District's Annual Awards Banquet that will be held on May 13th, 2010 at T&S Farms in Batesburg-Leesville.

For a complete list of rules, please visit the district's website at www.lexswcd.org or contact Alivia in the district office at (803) 359-3165 ext. 3. We received lots of photos from talented youth last year and look forward to seeing their work again this year. Happy Photographing and Keep up the Great Work!!

*May happiness touch your life today as warmly
as you have touched the lives of others.*

Anonymous

Conservation Teacher of the Year Nominations Being Accepted

Do you incorporate environmental science into your lesson plans? Do you have an outdoor classroom? Do you use conservation based curricula? If you are a teacher and answered yes to any of these questions, you may have the qualities of a Conservation Teacher of the Year.



Each year the Lexington Soil and Water Conservation District accepts nominations from school teachers in the county, and honors deserving teachers at their annual awards banquet, which will be held on May 13th, 2010. There are two categories

for teacher awards: Primary Teachers – K-6th grade, and Secondary Teachers – 7-12th grade. If you have incorporated conservation into your school program and would like a nomination form, please visit our website at www.lexswcd.org or call the conservation district office at (803) 359-3165 ext. 3 to have one mailed or e-mailed to you.

The deadline for all nominations is close of business on Monday, April 5, 2010. Don't miss out on the opportunity to be recognized in your community!

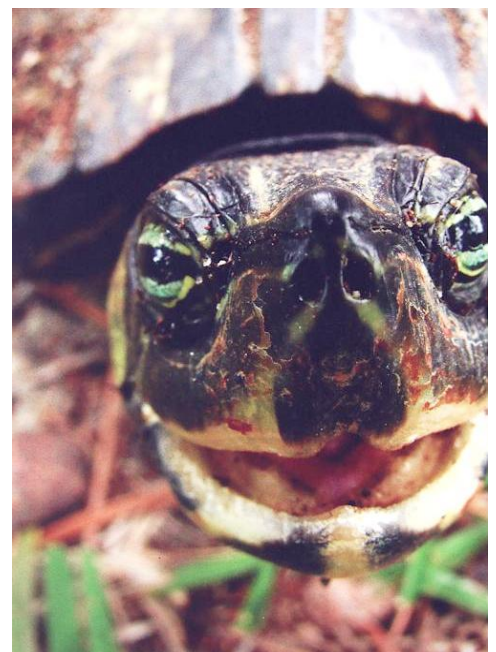
"Raphael"

***by Hayden
Graham***

***2009 Youth
Photography
Contest***

***1st Place
Wildlife***

Division I



Conservation Education

Lexington SWCD Accepting Scholarship Applications

The Lexington Soil and Water Conservation District will award two scholarships this year, one in the sum of \$1,000 and the other in the sum of \$500. Both scholarships are available to eligible high school seniors residing in Lexington County, who will be attending a college or university. The scholarship recipient must be majoring in an agricultural or environmental field such as: agronomy, forestry, horticulture, vocational agriculture education, natural resources, agriculture engineering, biology, etc.



These scholarships are made possible through the Lexington Soil and Water Conservation District Board of Commissioners, businesses, organizations, and individual citizens in the county. The deadline for the applications is close of business on Monday, April 5th, 2010. Applications are available from your guidance counselor, the district's website at www.lexswcd.org, or by contacting Alivia in the Lexington Soil and Water Conservation District Office at (803) 359-3165 ext. 3.

Wood Magic Forest Fair

On October 16th, 2009 Conservation District and DNR staff assisted the SC Forestry Commission with their Wood Magic Forest Fair. Students from Springdale Elementary were treated to a magic show, a video about wood products and renewable resources, and then hands-on activities outdoors at Harbison State Forest. The students learned a great deal about our natural resources, and left with a new



Ms. Driggers Class from Springdale Elementary in front of the log truck

respect for them and the careers they offer.

Accept the Natural Challenge of the SC Envirothon

Are you a high school teacher? Do you want to meet some science, language arts or social studies standards? Do you try to incorporate any outdoor studies into your curriculum? Do you take your students into nature to learn about plants, water quality or wildlife? Do you think that maybe a little bit more could be done in educating your students about the environment? If you answered yes to any of these questions, you, and a team of your students may be perfect candidates for the SC Envirothon!

The Envirothon is a hands-on environmental competition for students in grades 9-12 across the state. Teachers train their team members in the areas of forestry, wildlife, soils, aquatics, and a current environmental issue. For 2010 the current topic will be "Protection of Groundwater through Urban, Agricultural and Environmental Planning". Students will also develop an oral presentation which will be performed in front of a panel of judges the day of the competition.



You don't have to be an expert in any of these areas to compete. There are individuals out there who would be willing to meet with you to assist. You also don't need to commit and pay the registration fee of \$100 until after attending a coaches' training day. On February 6th the station managers for each area of the Envirothon will be available to provide you with all you need to know for the competition in May. The training is free of charge, just contact Joy Sullivan, Envirothon Coordinator at sullivanj@dnr.sc.gov for a headcount, or notify your local Soil and Water Conservation District.

Many of the state's Soil and Water Conservation Districts sponsor local Envirothon teams, and are a great source of information when looking for resource materials. So what do you have to lose? Accept the Natural Challenge of the Envirothon, you and your team may be the lucky ones to win first place scholarships and attend the Canon Envirothon hosted by Fresno, California this year in August...you never know until you try!

Visit www.dnr.sc.gov/education/Envirothon for more information about all of the scholarships and opportunities available.

FireWise Workshop Planned

Homeowners of Lexington County are invited to learn how to protect their homes from a wildfire. Come learn how to avoid the fate of the 76 families that lost their homes in a wildfire near North Myrtle Beach just last April. A workshop sponsored by the South Carolina Forestry Commission along with the Lexington Soil and Water Conservation District and Lexington County Fire Service will be held in March to offer you information to increase the chances of your home surviving a disastrous wildfire.



The South Carolina Forestry Commission invites you, along with other leaders in your community, to a two-hour educational workshop at no charge to you. At the workshop, you will receive the tools needed to begin reducing the risk of wildfire devastation in your community.

This workshop will be held in late March at a site yet to be determined in Lexington County. Please be alert to details concerning this most helpful and timely workshop.

Continued from Page 2... Watersheds

There are ways to help speed up the clearing process. However, if the source of the erosion is not corrected and another rain event occurs the pond can get muddied up again.

Also, the area between the eroding soil and the pond can have very fine soil particles deposited in the flooded area along the stream or ditch as the water level dropped. Even with the eroding area stabilized with vegetation or mulch, the flowing water can pick up the settled out fine clay particles and they will be transported to the pond mudding it up again.

The real point here is that anytime an area of soil is disturbed it should have some protection replaced as rapidly as possible. Erosion has some long term effects on downstream water.

Temporary grass seeding, erosion control mats, hydro seeding, temporary silt traps, wood mulch berms are all things that can be done to protect downstream waters. Advice about these practices is available. Call the Lexington Soil and Water Conservation District at (803) 359-3165, ext. 108 if you need assistance. One thing to keep in mind about watersheds is that EVERYONE LIVES IN A WATERSHED, and everything is connected. So be careful with what you do.

SC Wildlife Federation recognizes Lexington County for their Ordinances

The South Carolina Wildlife Federation (SCWF) recognized the County of Lexington at their Annual Meeting and Awards Banquet on Saturday, January 23rd, 2010. The County of Lexington received the SCWF's Government Award for two of their ordinances, which are the Outdoor Burn Ordinance and the Stormwater Ordinance.

In 2007, Lexington County revised the Outdoor Burn Ordinance and Stormwater Management Ordinance. The Burn Ordinance prevents burning in most subdivisions within Lexington County and prohibits burning associated with land clearing during ground level ozone season. Lexington County is committed to continue to explore ways to improve air quality and the Lexington County Council has agreed to expand the land clearing burn restrictions to year round if there are no improvements in air quality.

Lexington County's revisions to its Stormwater Management Ordinance were implemented in response to the Environmental Protection Agency's requirements under the NPDES program. The revision included improving air quality, creating increased uniformity between two state permits, meeting NPDES requirements and limiting the confusion connected with stormwater permitting throughout the County. The new ordinance prohibits illegal dumping into drains, requires water quality improvements from new developments, limits clear cutting for development, supports low impact development standards and requires buffers along streams, wetlands and shorelines. These new stormwater regulations are more stringent than state and federal requirements.

Intergovernmental cooperation between departments and the involvement of citizens through roundtable discussions were important steps towards the successful implementation of both ordinances. Bill Melven, with the Lexington Soil and Water Conservation District, has worked with Sheri Armstrong and Synithia Williams on these ordinances, along with other projects.



From left to right: Synithia Williams, Sheri Armstrong, and Ben Gregg, SCWF Ex. Director

Sheri Armstrong is the Stormwater Manager and Synithia Williams is the Environmental Coordinator for the County of Lexington. They work in the Stormwater Division of the Department of Public Works.

CALENDAR OF EVENTS

February 15th, 2010 — **Holiday** - USDA Service Center Closed in Observance of George Washington's Birthday

February 16th, 2010 - Lexington SWCD Board Meeting

March 2010 - FireWise Workshop. Hosted by the SC Forestry Commission and the Lexington SWCD. (See Article on Page 5)

March 16th, 2010 — Lexington SWCD Board Meeting

April 5th, 2010 - Deadline to receive entries for Teacher of the Year Contest, Photography Contest, and Scholarships

May 13th, 2010 — Lexington SWCD Awards Banquet at T&S Farms in Batesburg-Leesville. (Invitations will be sent.)

May 31st, 2010 — **Holiday** - USDA Service Center Closed in Observance of Memorial Day

Also, watch for additional news articles and announcements on another event that the district is planning — A Pond Management Workshop, which will be held in late spring. Please continue to check the district's website at www.lexswcd.org for all the latest conservation news!

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Rhett Bickley, Vice-Chair
Kathy Hensley, Treasurer
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Tommy Stone,
Conservation Technician

USDA - OCIO - ITS Staff:

Randy Taylor, IT Specialist

DNR-LW&CD Staff:

Joy Sullivan,
Program Coordinator

Phone: (803) 359-3165 x. 3

Website:

<http://www.lexswcd.org>

District Board Meetings

The Lexington Soil and Water Conservation District Board meets at 4:30 p.m. on the third Tuesday of every month except December at the USDA Service Center conference room, 123 Park Road, Lexington. The public is cordially invited to attend. For information call 359-3165, ext. 3.

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