

Richland Countywide Stormwater Consortium



Year 3

FY 2010-2011

Annual Report of Activities

Of the



& Richland County
Stormwater Management

March 2012



Executive Summary



June 2010 began the third year of education activities by the Richland County Stormwater Consortium. It has been a busy year of programming, with the introduction of many new events and projects, as well as many important accomplishments by the county's stormwater program.



On August 28, Richland County held its 1st annual Summer Celebration of Water, a free family festival building appreciation and stewardship of local water resources. The festival was a joint venture between Richland County and the City of Columbia. A true partnership effort, nearly all of the consortium's education partners participated in the festival. With close to 700 people in attendance, the celebration was a great success, and the start of a fun new summer tradition. Other new activities included 4-H2O Advanced Classroom for youth, the re-launch of the Carolina Yards and Neighborhoods program for homeowners, and a newsletter on stormwater and flood preparedness mailed to all homes within the floodplain in Richland County.



Richland County worked hard over the year to improve its stormwater infrastructure. The countywide storm drain marking program was completed in summer 2010. All catch basins on county-maintained roads in residential areas now bear warning placards. Several capital improvement projects to provide better stormwater management and restore damaged ecosystems were also completed and others initiated during the reporting period.



Since 2006, Richland County has been working to fulfill a Consent Order from SCDHEC regarding its stormwater program. In May of 2011, SCDHEC announced that the county had met the requirements of the order, and the Consent Order was closed. Richland County also received an achievement award from the National Association of Counties for their Stormwater Management Water Quality Monitoring and Improvements program for 2011.

Looking back at the past year, the Richland Countywide Stormwater Consortium has much to be proud of, and begins the 2011-2012 year of work with a bright outlook.

Executive Summary



In the News...

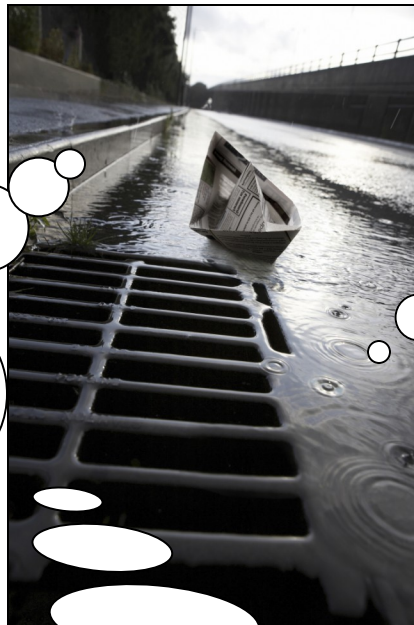
Columbia event celebrates wealth of water

Richland Conservation District's Conservation Station was one of more than a dozen local government agencies, conservation groups and businesses – such as a green landscaping firm – at Saturday's Summer Celebration of Water at Columbia's Riverfront Park. The idea behind the festival was to teach about the cause and effect relationship that everyday decisions have on the local water supply — and simply to enjoy the area's abundance of water, through its rivers, creeks and lakes.

- *The State*, Aug. 29, 2010

Conservation shouldn't be an obstacle. It should be an amenity. I think the next generation will even buy more into that, but we're in a transition between the old mind and the new mind. We have to be patient."

- *Jim Wilson, Richland County Soil & Water Conservation District, retired.*
In The State, Feb. 3, 2011



Kids learning on the lake

A dip in Lake Murray Tuesday proved to be a very rewarding for a group of kids. Not only did it give them a chance to cool down, but they also soaked up some knowledge about the importance of water quality.

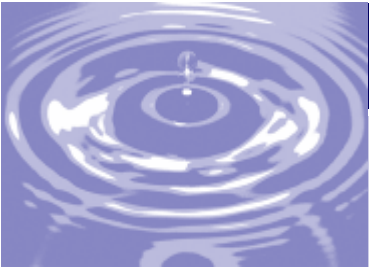
- *WACH FOX*
MidlandsConnect.com,
June 15, 2010

Clean Water? Ask the Bugs.

Carnagey's work as a consultant for Richland County's stormwater program takes him to often beautiful settings where pollution is an invisible threat. Still he remains pragmatic, saying there are always tradeoffs for civilization. "If problems are found," he said, "they will hopefully get corrected because of this work." Water samples taken by Richland County to measure pollution along major creeks show a 35 percent improvement since 2007, said Srinivas Valavala, the county's stormwater services manager.

- *The State*, August. 27, 2010

In the News...



In the News...

KUDOS CORNER: Great Job Richland County!

Richland County has made impressive strides in its efforts to prevent pollution from reaching our rivers and streams through stormwater runoff. Stormwater runoff, which carries a variety of pollutants from roads, parking lots, and driveways during heavy rains, can have harmful impacts to the health of our streams and rivers if not properly monitored and dealt with. Richland County has the most advanced and comprehensive stormwater monitoring program in the State.... The results are encouraging, and Congaree Riverkeeper applauds the work that Richland County is doing to clean up our rivers.

Riverwatch, Feb. 2011

Excavation to clear polluted Richland waters

“The work on Cary Lake will benefit everybody who lives downstream, not just the 50 families who live around [Cary Lake] because the pollutants are being removed and the drainage system will flow more freely.

- WLTX, Sept. 19, 2010



Watershed Revitalization

“About 650,000 is being spent to clean Cary Lake and remove pollutants, including tons of silt...The cleanup project is part of a 20 year plan to revitalize the 70 square mile watershed. [Draining the lake] is a small inconvenience for a cleaner environment.

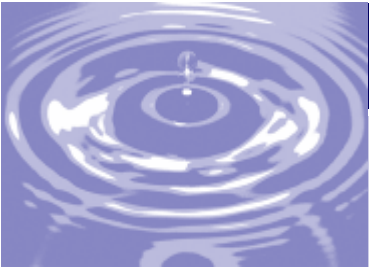
- The State, Jan. 18, 2010

Tree of Life Synagogue

Tree of Life is leading the way, also, in “Green Gardening,” as their “Rain Garden” demonstrates. A formerly ignored corner of the property now sports a boardwalk and bench through the wooded area. The garden collects stormwater from the parking lot and traps it before it enters Cary Lake nearby, absorbing oil, gas, and dirt that would have entered the lake. The planting is designed for maximum water absorption and cleansing effect, such as willows, dogwoods, sumacs, and herbs.

- Columbia Star, April 8, 2011

In the News...



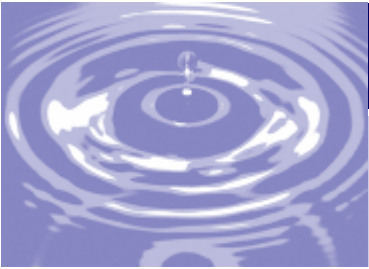
RCSC - FY 2010-2011 Annual Report

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*Where direct counts of participants and/or numbers of people impacted by programs were not available or possible, numbers of participants and impacts were estimated to the best of the author's ability.

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Richland MS4's



Richland County is a committed member of the Stormwater Consortium. We believe that the partnership of the consortium best serves the educational and outreach needs of our All-America Community by enhancing our knowledge of water quality issues that improves quality of life!

*-- J. Milton Pope
County Administrator,
Richland County*



The Richland Countywide Stormwater Consortium includes Richland County, the City of Forest Acres, and the Town of Arcadia Lakes. All three municipalities hold MS4 stormwater permits from SCDHEC, and are committed to a regional effort to provide stormwater education and public outreach and opportunities for public involvement and participation in stormwater pollution prevention. By working regionally, the county, city and town are able to accomplish far than they would independently.

Table 1. Summary of MS4 Leadership

Co-permittees	MS4 Leaders
Richland County	Milton Pope, Administrator Srinivas Valavala, Stormwater Manager
City of Forest Acres	Mark Williams, Administrator Jake Broom, Assistant Administrator
Town of Arcadia Lakes	Richard Thomas, Mayor Christine Murphy, Town Clerk



Richland's MS4's

Education Partners

The Richland Countywide Stormwater Consortium’s education partners include government agencies, non-profit and community organizations, and businesses who share the consortium’s mission of providing education to the public on stormwater issues throughout the county. In Year 3, the education partners formed the backbone of education efforts, leading education initiatives relating to their specific areas and collaborating on larger projects. Their unique skill sets enhance the variety of programs the consortium is able to offer.

Table 2. Summary of Local Education Partners

Organization	Representative
Richland County Stormwater	Keith Anthony
Richland County Planning	Anna Lange Anna Almeida
Richland County Public Information Office	Stephany Snowden Tamara King
Richland County Environmental Planning	James “Buddy” Atkins Hugh Caldwell
Richland Soil and Water Conservation District	Chanda Cooper Mary Jane Henderson
Richland County Conservation Commission	Jim Wilson Carol Kososki
Town of Blythewood	Michael Criss
South Carolina Department of Health and Environmental Control - Bureau of Water	Amanda Ley
Gills Creek Watershed Association	Jessica Artz, Pamela Greenlaw
Keep the Midlands Beautiful	Heidi Johnson
Richland County Master Gardeners Association	Amelia Cotty



Continued...

Education Partners

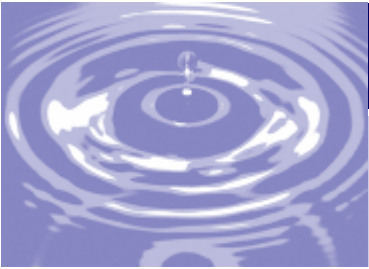
Education Partners

Table 2. Summary of Local Education Partners, Continued

Organization	Representative
Sustainable Midlands	Ryan Nevius
Richland County 4-H	Paulette Gay
Carolina Children's Garden	Chanda Cooper
Congaree Riverkeeper	Stuart Greeter
Sonoco Recycling and Green Steps Schools	Jane Hiller
East Piedmont Resource Conservation & Development	Reginald Hall
Sustainable Carolina (USC Green Quad)	Jason Craig, David Whiteman
South Carolina State Museum	Tom Falvey
Conservation Station	Chanda Cooper
South Carolina Forestry Commission	James Miller
Central Midlands Council of Governments	Gregory Sprouse
Fuss & O'Neill	Betsy Kaemmerlen
BP Barber and Associates	Geoff Smith Erica Huggins



Education Partners



Mission & Goals

RCSC Mission Statement

Support the restoration and protection of healthy waterways in Richland County through outreach, stormwater education, public involvement, and partnerships with local governments, citizens, businesses, schools, and organizations.

Goals:

1. Maximize stormwater education efforts by using a regional/watershed approach. Develop and implement education strategies addressing the range of stormwater pollutants using a prioritized approach that capitalizes on local training resources.
2. Involve citizens in stormwater management and change behaviors to improve environmental protection and awareness.
3. Facilitate collaboration among local organizations interested in watershed-related education to best meet the needs of local communities.
4. Through partnerships with MS4s, leverage local education resources and organized outreach programs to meet NPDES permit requirements for public stormwater education and outreach to achieve greater water resource protection.
5. Participate in collaborative stormwater education that can be universally presented and applied.

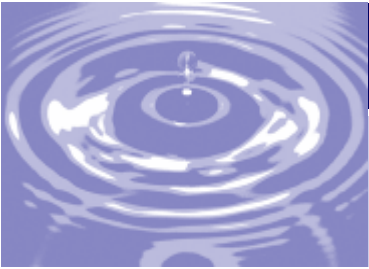


The EPA encourages permittees in a geographic area to establish cooperative agreements in implementing their stormwater programs. Partnerships and agreements between permittees and/or other agencies can minimize unnecessarily repeating activities and result in using available resources as efficiently as possible. Using existing tools and programs instead of creating new ones can allow permittees to focus resources on high priority program components instead. In addition by forming partnerships, water quality can be examined and improved on a larger consolidated scale rather than on a piece-meal, site-by-site basis.

EPA 2010 MS4 Permit Improvement Guide



Mission and Goals



2010-2011 Overview



Table 3 shows a comparison of program outputs from year 1 through year 3. While it may take many years to demonstrate that the consortium's programs are producing the desired outcomes (greater awareness, behavior change, and improved water quality), tracking our outputs shows improvement in immediate program objectives such as numbers of volunteers participating and pounds of trash removed from waterways.

Table 3. Comparison of Education and Involvement Program Outputs for Years 1, 2 and 3

	Year 3 2010-2011	Year 2 2009-2010	Year 1 2008-2009
Total impacts	922,770	725,668	283,345
Total activities	72	88	41
Cleanup volunteers participating	6,387	3,338	2,685
Pounds of trash removed	153,918	116,859	66,143
Volunteer hours for cleanups	14,929	8,556	5,326
Rain barrels made	47	32	0
Erosion control inspectors certified	315	596	106
RCSC Website Views	2,323	1,791	265



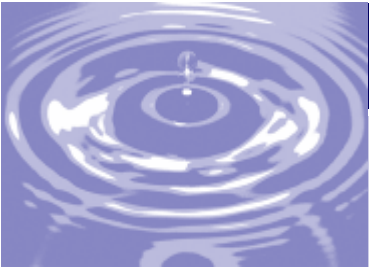
Efforts were increased to include a evaluation step as part of as many activities as possible during year 3. At the Summer celebration of water, participants were asked to complete a short survey telling how they expected their behavior to change as a result of what they learned at the festival. For example 35% learned what watershed they lived in. Additional results from the survey are shown in Table 4.

Table 4. Summer Celebration of Water Survey Results

Behavior Change	More Likely
Use a refillable water bottle / purchase less bottled water	81%
Participate in water recreation such as tubing or canoeing	70%
Read the label before applying fertilizer or pesticide	70%
Volunteer for a community litter cleanup	64%
Pick up after their pets	61%

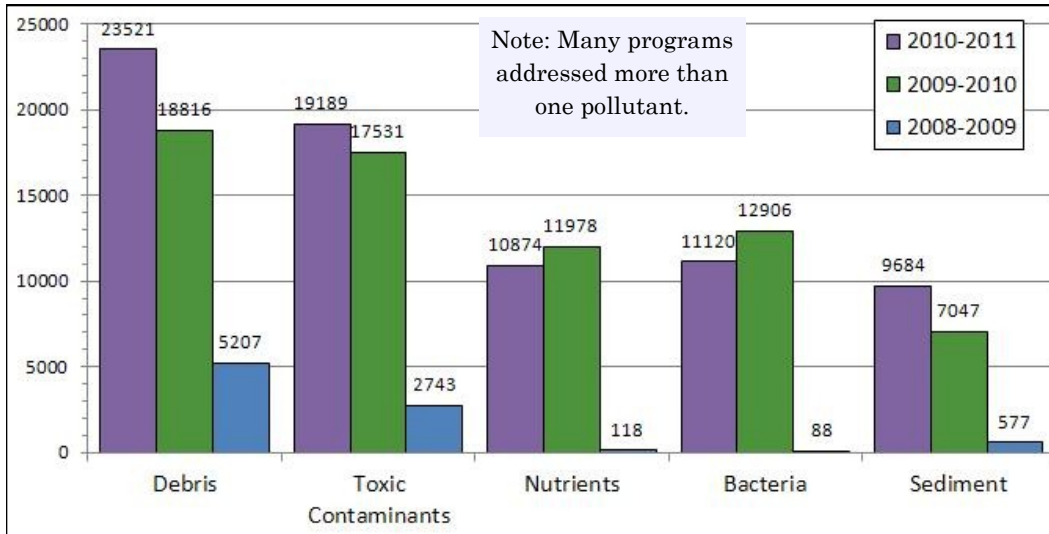


2010-2011 Overview



2010-2011 Overview

Figure 2. Number Impacted, by Target Pollutant

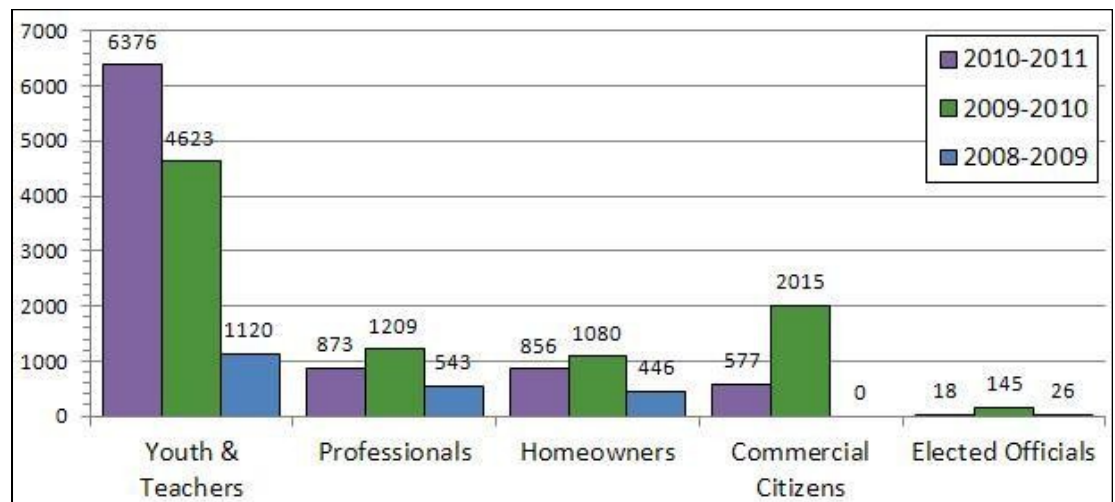


The number of people reached by outreach and education efforts increased for most pollutants in Year 3 compared to Year 2. Programs targeting debris increased particularly due to nearly double the number of volunteers participating in litter cleanups. In the upcoming year, additional focus will be placed on nutrients through the Carolina Yards & Neighborhoods program (p. 25) and on bacteria through increased dispersal of pet waste brochures.

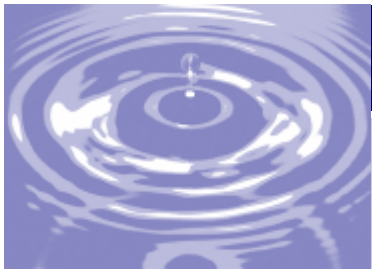
Although targeting specific audiences continues to be of high importance, in Year 3, the consortium focused on several large scale activities for the general public, such as the Summer Celebration of Water, which took emphasis away from other audience groups. Other than the general public (not shown) youth was the target audience reached in the greatest numbers, due to our participation in large scale youth events, such as Richland 101 for kids, and the new online interactive white board lessons (p. 19-20). In Year 4, efforts will be made to return to a more audience-specific approach, with special emphasis placed on elected officials and businesses.

Figure 1. Number Impacted, by Target Audience

In both figures, numbers from mass media campaigns and storm drain marking have been omitted. Both of these efforts reach huge numbers of people, but with less direct impact than a more formal program, and therefore are not comparable.



2010-2011 Overview



Priority Watersheds

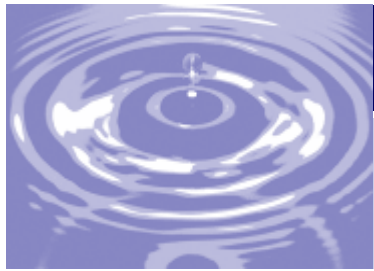
Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Gills Creek Watershed Association	Public presentations on the Gills Creek Watershed	5 presentations during the year	126	N/A
GCWA	Presentations to Homeowner Associations on Gills Creek Watershed	6 presentations during the year	90	N/A
GCWA	GCWA monthly e-Newsletter	Electronic distribution	400	N/A
GCWA	GCWA Annual Meeting	10/17/10, Clemson Sandhills REC	30	N/A
GCWA	"Wine for Water" fundraiser building community support of the Gills Creek Watershed Association	7/18/10, Cooks Mountain	130	N/A
GCWA	Gills Creek Watershed Video	Completed 8/18/10, online and used at presentations	100	Richland County
Richland County	Street signs marking watershed boundaries and stream crossings for Gills Creek	May 2011	9 signs	Gills Creek Watershed Association
Carolina Clear	Presentations to Homeowners Associations on the Crane Creek Watershed	2 presentations	26	N/A

Richland County currently has two priority watersheds: Gills Creek Watershed and Crane Creek Watershed. The Gills Creek Watershed is a highly impaired urban watershed running through Richland County, Arcadia Lakes, Forest Acres, and the City of Columbia. It was the first priority watershed to be addressed by Richland County, with stakeholder meetings in 2007 followed by the formation of the Gills Creek Watershed Association, a non-profit organization with the goal of restoring the watershed through education, grass roots action, public and private partnerships, remediation projects, and controlled development.



The Crane Creek Watershed was the second priority watershed addressed by Richland County. Crane Creek is also impaired in several areas, but has more undeveloped land with greater potential for conservation. Stakeholder meeting began in 2008, and during 2009 and 2010 Richland County worked with the Center for Watershed Protection and the University of South Carolina to draft a management plan. Over the past year, Richland has focused on building community awareness of the watershed and searching for leadership for watershed association. Community buy-in is critical for creating a successful association to protect Crane Creek. Richland County is actively pursuing and completing improvement projects as identified in the Watershed Management Plan (p. 16).

Priority Watersheds & Pollutants



Priority Pollutant: Bacteria - Pet Waste Campaign

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
East Piedmont RC&D	Doggie Dooley installation demonstration and press event.	Jan. 20, 2011, North Springs Park	20	Conservation District
Carolina Clear	Pet Waste brochures included with Chimney Ridge Neighborhood Association newsletter	Jan. 2011, Chimney Ridge Neighborhood	200	N/A
Richland County	Pet waste brochures mailed with pet registration renewal letters.	Ongoing	750	Carolina Clear
Carolina Children's Garden	Pet Waste Information at Children's Garden "Dog Training Demonstration"	Jan. 28, 2011, Sandhills REC	32	Carolina Clear

Pet Waste & Water Quality

PROTECT THE WATER
YOU AND YOUR PET BOTH LOVE...

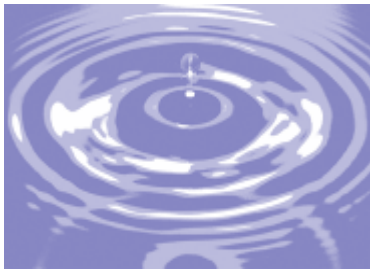
PLEASE CLEAN UP AFTER YOUR PET!

Did you know that your dog's waste contains 2 1/2 times the amount of bacteria as yours? If you wouldn't want your own waste entering lakes and rivers, then you don't want your pet's waste to either! Picking up after your pet protects water quality, your health, and the health of your pet. [LEARN MORE...](#)

Pet waste continues to be a major area of emphasis in the county. In January, the East Piedmont Resource Conservation & Development office received a grant to install “Doggie Dooley” stations in a number of locations throughout the county, including several parks and Clemson Sandhills REC. Doggie dooleys are miniature septic tanks for disposal of pet waste. The installations will serve as demonstration sites for this product with the hope of increasing their use in neighborhoods and awareness of the pet waste issue in general. A demonstration and press event was held at North Springs Park, where the first doggie dooley was installed. In addition, RCSC continues its efforts to distribute pet waste brochures at events, in neighborhoods, and with pet registration renewal letters. Year 4 the consortium will expand its effort in reducing bacteria by exploring new methods of increasing sanitary sewer overflows and promoting preventative care for septic tanks.



Priority Watersheds & Pollutants



General Public - Mass Media

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Carolina Clear	“Downstream” stormwater awareness commercial created and released on-line	Feb. 7, 2011, youtube.com	39 views	N/A
Carolina Clear	Interview on “Making it Grow!” television show.	Aug. 3, 2010, SC ETV (statewide)	3931	SC ETV
Carolina Clear	Interview on "Your Day" radio program.	Dec. 9, 2010, SC ETV (statewide)	30,000	SC ETV
Richland County, Carolina Clear	Interviews on Richland Radio Program (GCWV AM 620)	Multiple dates, reaches Richland, Florence, & Darlington Counties	300,000	N/A

In 2010, Carolina Clear began work on a new statewide mass media campaign, focusing on demonstrating how pollution-preventing behaviors allow everyone to enjoy water activities, both for recreation and livelihood. A television commercial was produced, with accompanying billboard design, and released on youtube.com and the Carolina Clear websites in February 2011. The commercial is scheduled to air on cable television beginning in August 2011. Keith Anthony with Richland County Stormwater starred in the commercial as a kayaker on the Saluda River,

Other mass media formats utilized included interviews on statewide and local radio and television programs, building general stormwater awareness as well as promoting special events such as the 1st annual Summer Celebration of Water festival (p. 12).



For more information and to play the commercial, please go online at www.clemson.edu/public/carolinaclear and click on “Mass Media.”


General Public



General Public - Publications

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Clemson Extension	Three water quality articles published in <i>The State</i> newspaper (see Appendix D)	Oct. 19, 2010, Nov. 4, 2010, & Feb. 3, 2011	Circulation of 96,737 for each article	N/A
SC Wildlife Magazine	Rain garden and rain barrel articles published in SC Wildlife magazine	April 26, 2011	Circulation of 47,000	Carolina Clear
Congaree Riverkeeper	<i>River Watch Monthly Newsletter</i>	Monthly from Feb. 2011	Online distribution, 400	N/A
Richland County	<i>Flood Happens</i> newsletter on flood preparedness	May 2011	Mailed to 8,927 addresses	Carolina Clear
Richland County Conservation District	Stormwater activities featured in the Richland County Soil and Water Conservation District Newsletter	August 2010	Online distribution, 700	N/A
Richland County	Brochures, miscellaneous, distributed during events and inspections	Ongoing	1935 brochures	N/A

Congaree Riverkeeper Newsletter
March 2011



On behalf of its members, Congaree Riverkeeper works to protect and improve water quality, wildlife habitat, and recreation on the Congaree, Lower Saluda and Lower Broad Rivers through advocacy, education and enforcement of environmental laws.

River Watch

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[We Wouldn't Be Here Today Without the Support of our Founding Members](#)
[Calling All Photographers](#)
[More Bugs are Better for Rivers](#)
[New Water Quality Monitoring Station to be Located on Lower Broad River](#)
[City of Columbia Sets Goal of Planting 10,000 Trees](#)
[KUDOS CORNER: Great Job Steve and Felix!](#)

River Rocks is Shaping Up Quite Nicely
 Congaree Riverkeeper is busy planning its first major fundraising event called River Rocks, a festival sure to appeal to folks of all ages and interests, to be held at Riverfront Park on May 28, 2011 from 11:00 a.m. to 8:30 p.m. River Rocks will feature great music, with Acoustic Syndicate headlining the concert stage, along with Treadmill Trackstar, Danielle Howle, Wanda Johnson, Whiskey Tango Revue, Papa String Band, The Project, and J'Ouvert Steel Drum Band. River Rocks will also feature canoe, sculling, kayaking and stand-up paddling races on the Broad River and the Columbia Canal as well as paddling demonstrations. And, we are proud to join our event with Celebration of Water, a free family festival organized by local governments that includes fun kids' activities and educational demonstrations on the subject of water quality and conservation.

Annual Review | Spring 2011

FLOOD HAPPENS

BE PREPARED



Your Property is in a Flood Hazard Area
 Top Ten Things You Can Do To Protect Yourself and Property in Case of Flooding

Newsletter on flood preparedness, including information on the function of storm drain systems and conservation of natural areas was mailed to all parcels within the flood plain in unincorporated Richland County, as part of FEMA's community rating system.

Excerpt from *River Watch* Newsletter, March 2011

General Public

General Public - Internet

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Clemson	Clemson University Carolina Clear web page for Richland County	Ongoing	2,323 page views	N/A
Many	Education Partner Facebook Pages	Ongoing	2,472 "fans"	N/A

The screenshot shows the website for the Richland Countywide Stormwater Consortium. Key elements include:

- Navigation:** Home, About Us, Partners, Programs, Watersheds, Volunteer, TMDL Information, Archives, Links.
- Upcoming Events:** Summer Celebration of Water on August 6, 9AM-2PM at Riverfront Park.
- Announcements:**
 - 4-H2O Pontoon Classroom 2011:** A week of summer fun and learning on Lake Murray.
 - 4-H2O Environmental Classroom 2011:** Building knowledge from the Pontoon Classroom and adding forestry for an extra challenge.
- RCSC is now on Facebook!** A call to action to visit their Facebook page.

In 2010-2011, the Richland Countywide Stormwater Consortium website received 2,323 total page views, compared to 1,791 view reported in Year 2. Nearly all of our education partners have their own websites as well (listed in Appendix E), Richland County Stormwater Division's website continues to increase in the amount of information it contains and the ease of use by the public seeking information on the county's stormwater program and policies.

Richland County Stormwater Consortium launched its own Facebook page in April. Facebook pages let organizations build a dynamic community network for promoting programs, sharing news, and facilitating discussions on issues related to stormwater, pollution, water resources, and sustainability. Richland County Stormwater Division and many of the education partners also maintain their own Facebook pages.

By keeping up with technology trends, we can reach a broader audience, including environmentally-minded young adults eager to be involved in their community.

	<u>Education Partner Facebook Pages</u>	<u># of Fans</u>
	<i>Richland Countywide Stormwater Consortium</i>	<i>12</i>
	<i>Gills Creek Watershed Association</i>	<i>119</i>
	<i>Keep the Midlands Beautiful</i>	<i>984</i>
	<i>Congaree Riverkeeper</i>	<i>1075</i>
	<i>Sustainable Midlands</i>	<i>125</i>
	<i>Sustainable Carolina (USC Green Quad)</i>	<i>143</i>
	<i>Richland County Stormwater Department</i>	<i>14</i>

**Check us out on the web at www.clemson.edu/carolinaclear/rcsc
Or "LIKE" us on Facebook at www.facebook.com/midlandsstormwater**

General Public

General Public - Summer Celebration of Water



Lead Provider	Activity	Location and Date Delivered	Number of Impacts*	Other Providers Involved
Richland County, City of Columbia	Summer Celebration of Water Family Festival	Riverfront Park, August 28, 2010	700	Many!



On August 28, Richland County, in partnership with the City of Columbia, held the Inaugural Summer Celebration of Water Festival at Riverfront Park. This free family event featured tubing, kayaking and canoeing on the Columbia Canal, a water slide for kids, displays from local non-profits and green businesses, stories, fishing demonstrations, games, and more. The purpose of the event was to promote appreciation and stewardship of Richland County’s water resources. Approximately 700 people attended the festival, which will become an annual event for the County.

Above: Local river outfitters Palmetto Outdoors, Adventure Carolina, and Get Your Gear on gave families a chance to try out kayaks, canoes and tubes on the canal.



Center left: Richland County Councilman Jim Manning shows his appreciation of clean water.

Lower left: Exhibitors provided information on preventing pollution and protecting watersheds.



Right: Kids learn about hydrology from Congaree National Park Staff.

**Reported numbers are estimated total festival attendance.*

General Public



General Public - Summer Celebration of Water



Left from top: The inflatable waterslide was a splash hit!

Richland County Councilman Bill Malinowski and Stormwater Manager Srinivas Valavala team up in a canoe.

City of Columbia Councilwoman Belinda Gergel shares a story with kids as part of "Together We Can Read," a 2010 initiative where city officials and local celebrities read to children.



Richland County Councilman Norman Jackson tries a kayak.

Right from Top: City of Columbia Mayor Steve Benjamin proclaims the City's support for clean water.

The Bass Federation of South Carolina lets kids try their hand at casting a fishing line.

Columbia Marionette Theater entertains and educates with a puppet show about litter prevention.

Bottom Center: Richland County Stormwater provides information on their water quality management plan.



General Public

General Public - Festivals

Lead Provider	Activity	Location and Date Delivered	Number of Impacts*	Other Providers Involved
Congaree Riverkeeper	River Rocks Festival	Riverfront Park, May 28, 2011	500	N/A

**Reported numbers are estimated total festival attendance.*



On Memorial Day weekend, the Congaree Riverkeeper held its first River Rocks festival, an all-day fundraiser event including canoe, kayak, sculling and stand up paddle board races, children's casting lessons, and a concert featuring eight bands with headliner Acoustic Syndicate. The Congaree Riverkeeper is a non-profit organization, formed in 2009, with the mission of protecting and improving water quality, wildlife habitat and recreation on the Congaree, Lower Saluda and Lower Broad Rivers through advocacy, education and enforcement of environmental laws.



Counterclockwise from left: Stand up paddle board race on the Columbia Canal; Kid's casting in the Saluda River; Acoustic Syndicate performs for the crowd.

Photos courtesy of Stuart Greeter, Congaree Riverkeeper.

Richland County	Richland County Recycles Day	Sandhills REC November 13, 2010	7750	Solid Waste Division
Forest Acres, GCWA	Forest Acres Green Festival	Multiple churches in Forest Acres, Sept. 25, 2010	1500	Forest Acres Churches

At the 4th annual Richland County Recycles Day the county collected more than a half million pounds of computers and mixed electronics, tires, mattresses, scrap metal, and household hazardous waste, all to be recycled.



General Public

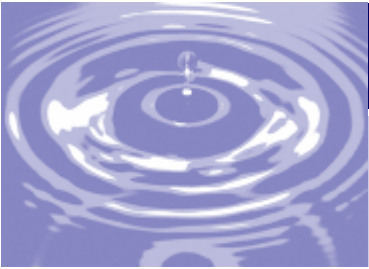
General Public - Festivals

Lead Provider	Activity	Location and Date Delivered	Number of Impacts*	Other Providers Involved
Richland County	Stormwater education display at National Night Out	8/3/10, Lower Richland High School	150	Richland County Sheriff's Department
Carolina Clear, Gills Creek Watershed Association	Stormwater education display at Sweet Seasons festival	Richland Mall, December 2, 2010	150	Forest Acres Restaurant & Merchant Association
Gills Creek Watershed Association	Stormwater education display at Farmville	EdVenture Museum, April 9, 2011	120	EdVenture Museum
Carolina Clear	Stormwater education display at Big Nosh Festival	Tree of Life Synagogue, April 10, 2011	2,000	Tree of Life Congregation
Gills Creek Watershed Association	Stormwater education display at Nature Fest	Congaree National Park, April 16, 2011	100	Congaree National Park
Gills Creek Watershed Association	Stormwater education display at Rooftop Rhythms Festival	Richland Mall, April 21, 2011	3,000	Forest Acres Restaurant & Merchant Association
Richland County	Stormwater education display at Energy Expo	Saluda Shoals Park, April 29, 2011	50	Carolina Clear
Gills Creek Watershed Association	Stormwater education display at the Rosewood Crawfish Festival	Rosewood Drive, Columbia, April 30, 2011,	100	N/A
Richland County, GCWA	Stormwater education displays at the Sparkleberry Country Fair	Clemson Sandhills REC, April 30, 2011	30,000	Richland County Master Gardeners
Carolina Clear, GCWA	Stormwater education display at Earth Sunday festival	Forest Lake Presbyterian Church, May 15, 2011	50	N/A
Arcadia Lakes	Rain garden information at Arcadia Lakes Town Picnic	Tree of Life Synagogue, May 15, 2011	160	N/A



**Reported numbers are estimated total festival attendance.*

General Public



General Public - Community Cleanups

Lead Provider	Activity	Delivered	Number of Impacts	Other Providers Involved
Keep the Midlands Beautiful	Adopt-A-Highway --148,008 pounds of trash removed from Richland County roadways	Ongoing	5960 volunteers contributed 13,817 hours of service	Various volunteer groups
Keep the Midlands Beautiful	Adopt-A-Waterway --5,910 pounds of trash removed from Richland County waterways	Ongoing	427 volunteers contributed 1,112 hours of service	Various volunteer groups

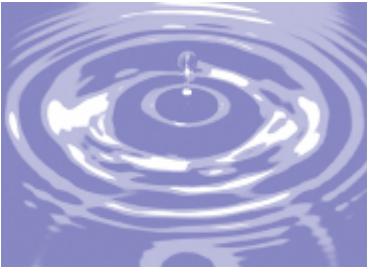


Keep the Midlands Beautiful is a non-profit organization that coordinates the Adopt-a-Highway and Adopt-a-Waterway program in Richland and Lexington Counties. These programs include not only the regular cleanups of specific areas by dedicated groups, but many other cleanups and anti-littering campaigns besides. Cleanups open to the general public are held every third Saturday at locations based on need. Groups can also sponsor their own events with KMB providing bags, gloves, and other materials. Gills Creek Watershed Association worked with KMB to organize several cleanups of priority areas within their watershed. These included Lake Katherine, Cary Lake, and South Beltline Blvd. Dent Middle school also partnered on a cleanup with Benedict College behind Decker Boulevard. Litter is a major problem throughout the county, and the dedication of volunteers is essential to keeping our rivers and streams trash-free.

*From June 2010 to May 2011,
6387 volunteers contributed
14, 929 hours of service
to remove over 153,918 lbs.
of trash from Richland County
roads, communities,
and waterways!*



General Public



General Public - Miscellaneous

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Richland County	Stormwater Hotline—Public reporting system for issues related to stormwater and water quality	Ongoing	Not assessed	N/A
Richland County	Public Meeting on Little Jackson Creek Stream Restoration Project	Feb. 8, 2011, Spring Valley Country Club	45	Carolina Clear, GCWA
Richland county	Press releases on capital improvement projects: Cary Lake, Farrow Road, Jasmine Place, Windsor Lake Blvd.	Throughout year	Not assessed	N/A
Richland County Solid Waste	Presentations on illegal dumping and recycling at Homeowner Association meetings and public recycling events	81 meetings throughout the county	Not assessed	N/A

Richland County uses several methods to keep the public informed on capital improvement projects and other initiatives involving streams and stormwater infrastructure, including press releases and public meetings. The county completed four capital improvement projects during the 2010-2011 reporting year, including a huge undertaking to remove silt from Cary Lake. This was the first major project completed towards repairing the Gills Creek Watershed. Turbidity barriers were also installed to reduce further inflow of sediment.

The county also utilizes a stormwater hotline that the public can use to report any stormwater issues directly to the stormwater department, such as sediment leaving construction sites, sanitary sewer overflows, or drainage issues.



Left: Cary Lake in 2009, showing sedimentation. Photo courtesy of Elliot Powell.



Right: Catch basins installed as part of capital improvement projects at Windsor Lake Blvd. (top) and Farrow Road (bottom).



General Public



Youth & Teachers

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Carolina Clear, Conservation District	Enviroscape presentations for public and private schools in Richland County	6 presentations during the school year	494	N/A
Carolina Clear	Display at Dent Middle School Career Day	Nov. 11, 2010, Dent Middle School	1300	N/A
Gills Creek Watershed Association	Wonderful Watersheds library presentations	July 20, 2010 & Apr. 18, 2011, Wheatley Branch Library	49	Carolina Clear
Carolina Clear	Enviroscape presentations for after-school programs	Feb. 7-9, 2011, Crane Creek Community Center	60	Richland County Recreation Commission
Carolina Children's Garden	Enviroscape presentations for homeschool students.	March 18 & April 13, 2011, Carolina Children's Garden	31	N/A

The Enviroscape™ Watershed Model formed the backbone of youth education programs, from schools to festivals. This detailed model allows kids to get a hands-on lesson about stormwater pollution. Students identify sources of point and non-point source pollution in a community and watch as “rain” from a squirt bottle moves the pretend pollutants through the watershed and into a lake. The model teaches this complex concept in a way that is clear and captivating for children and allows the instructor to cover a wide range of pollutants, from fertilizer to thermal pollution.

Below: Students in Dent Middle School's ESOL program study non-point sources of pollution, and assist with a litter cleanup at Lake Katherine (p. 15)



Youth & Teachers



Youth & Teachers

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Carolina Clear, 4-H	4H2O Pontoon Classroom day camp	Lake Murray, June14-18, 2010	20	Lexington and Richland Countywide Stormwater Consortiums, others
Carolina Clear, 4-H	4H2O Pontoon Classroom day camp	Harbison State Forest, June28-July 2, 2010	10	Lexington and Richland Countywide Stormwater Consortiums, others



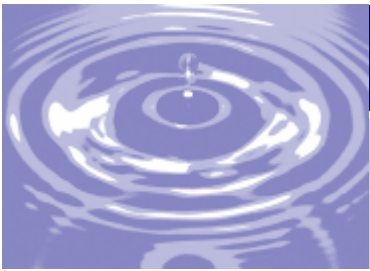
4-H2O Pontoon Classroom is a day camp in format, but much more in content. Twenty students ages 10-12 from Richland and Lexington Counties spent the week exploring Lake Murray on pontoon boats, swimming, and learning about local water resources. They toured the Auxiliary Coast Guard station and drinking water treatment plant, caught fish with a seine net, and conducted chemical and biological water quality tests.



In 2010, a second week of camp, titled 4-H2O Advanced Classroom was added for older students, to serve as an additional opportunity for students who had already completed Pontoon Classroom, or were looking for a more challenging program. Held at Harbison State Forest, this camp also incorporated forestry and provided a more challenging curriculum. Campers canoed on the Saluda River, walked the boardwalk at Congaree National Park, and sampled Harbison Forest's vernal pond for macroinvertebrates.



Youth & Teachers



Youth & Teachers

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Conservation District	Conservation Station Aquatic program - biological water quality monitoring	8/3/10, 8/4/10, 9/23/10 Sandhills REC	110	Carolina Clear
Carolina Clear	Macroinvertebrates for Nature Navigators Club	April 26, 2011, Sandhills REC	19	4-H, Conservation District
Richland County	Stormwater booth at Richland 101 for Kids	Dutch Square Mall, July 29, 2010	2000	Carolina Clear
Richland County	Stormwater education tent at Richland County National Public Works Week Kids Day	Richland County Public Works, May 18, 2010	150	N/A



Top Left: Nature Navigators Club samples a pond for macroinvertebrates and other aquatic life.

Bottom Left: Kids learn about watersheds at Richland 101 for Kids

Bottom Right: At the Conservation Station, students get a hands on lesson on indicator species.



Youth & Teachers



Youth & Teachers

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Sonoco Recycling	Rain Barrel Workshop for Green Steps Teachers	July 16, 2010, SC State Museum	12	SC State Museum, Carolina Clear
Carolina Clear	Watershed and Stormwater Interactive Whiteboard Lessons, correlated to SC Science Standards for 5th and 7th grades	3 lessons created, available online January 2011	16 teachers, 2000 students	N/A
GCWA	Sustainability Across the Curriculum - panel for USC faculty on involving students in environmental work	May 10, 2011, USC Campus	20	University of South Carolina



Left: Green Steps Teachers make rain barrels to take back to their schools

Right: In "A River Runs Through It," one of three lessons for 5th-7th graders, students learn how humans change the landscape and how this impacts rivers. This online resource was downloaded by 16 Richland County teachers, reaching 2000 students.

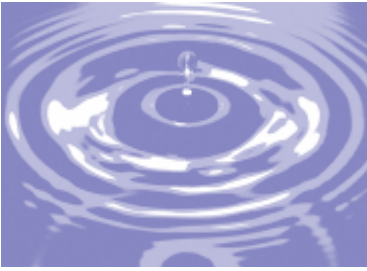
A River Runs Through It

Objective: Students will identify the different ways that humans change the land and explore the connection between land uses, in relation to upstream-downstream. Students will also match common pollutants found in waterways with associated land uses.

SC Science Standards:
5-3.6 Explain how human activity (including conservation efforts and pollution) has affected the land and the oceans of Earth.

Lead Provider	Activity	Location and Date Delivered	Number of Participants	Other Providers Involved
GCWA	Gills Creek Watershed Concerns Tour with USC Political Science class	Sept. 13, 2010, Gills Creek Watershed	20	University of South Carolina
GCWA	Gills Creek Tour on urban development with USC Geology class	March 23, 2011, Trenholm Plaza & Decker Blvd. areas	20	University of South Carolina
GCWA	Activities promoting student involvement with Gills Creek Watershed Association	March 24 & 29, 2011, USC campus	45	University of South Carolina

Youth & Teachers



Elected & Appointed Officials

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Richland County	Development Roundtable to review county ordinances related to development and land use planning	10 meetings throughout the year.	12	N/A
Richland County	Presentation for Richland County administration on the county's storm-water program	April 8, 2011, Richland County Administration Building	6	N/A

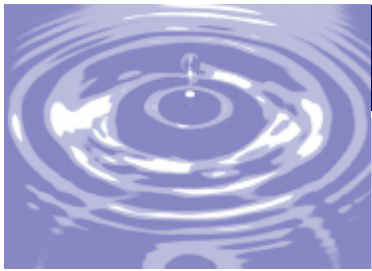
The Richland County Development Roundtable was formed in 2009 to provide a forum for reaching a consensus between developers the environmental community in Richland County on issues related to land use, development, and environmental management. The Roundtable provided recommendations on the county's stormwater ordinance language to Richland County Council, which were accepted in February 2010. Since then, the roundtable has continued to meet monthly to discuss related Richland County ordinances and provide recommendations to the County Council. Recently the Central Midlands Council of Governments joined the Richland Countywide Stormwater Consortium as an education partner. The COG is currently developing a green infrastructure toolkit as a resource for city and county councils to use in planning for land use and development. The toolkit will emphasize water quality, transportation solutions, and low impact development to reduce the impact of growth on natural resources.



Photo Courtesy Ben Powell, Horry County Extension Service

Richland County's NPDES MS4 stormwater permit is due for renewal in the upcoming year. Richland County has been working with BP Barber and SCDHEC on the draft of the new permit. Related to this, as well as to the 2006 consent order from SCDHEC, Srinivas Valavala, Richland County Stormwater Manager gave presentations to Richland County administration and SCDHEC about its stormwater program, including its accomplishments to date and its goals for the future. More details about the county's stormwater management program can be found on their website, <http://www.richlandonline.com/departments/publicworks/storm.asp>.

Elected & Appointed Officials



Professionals: Contractors & Engineers

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Center for Watershed Excellence	SC Water Resources Conference, including speakers from throughout the State, booth, presentation and posters by Carolina Clear	Oct. 13-14, 2010, Columbia Metropolitan Convention Center	350	Carolina Clear, others
Carolina Clear	Presentation on Carolina Yards & Neighborhoods program as part of University of Florida webinar.	Jan. 18, 2011, Online webinar	84	University of Florida
Clemson	Certified Erosion and Prevention & Sediment Control and Inspector (CEPSCI) courses	Midlands Technical College, 6 courses conducted during the year.	315	N/A

At the SC Water Resources Conference, a two day conference organized by Clemson's Restoration Institute and Center for Watershed Excellence, professionals from across the state came together to discuss current water policies, research, and water management issues in South Carolina. Carolina Clear participated by giving a presentation on the telephone survey of attitudes and behaviors conducted in 2009, and displayed posters on water conservation behavior changes, the Low Impact Development Mapping Tool, and the Watershed Stewardship Mapping Project.



An evaluation of changes in water conservation habits of homeowners in the Upstate of South Carolina



Abstract

The purpose of this poster is to present the development, implementation and preliminary evaluation of an education and outreach workshop aimed at reducing stormwater runoff and promoting water conservation. This workshop has been delivered in several counties statewide within South Carolina through many partnerships including Clemson Extension, Carolina Clear, county public works and parks departments, Master Gardener Associations, community groups and non-profit organization. As of the date of this submission, more than 100 state residents have participated in this exercise, and there is often a waiting list to meet demands.

The "Build Your Own Rain Barrel" workshop was developed to educate the public about stormwater, while responding to drought conditions experienced throughout the state. Registered attendees at each workshop participated in a classroom session, which introduced attendees to stormwater pollution, habits that homeowners can modify to reduce pollution from their own yard, and the real impacts of stormwater in their own community. In the second part of the classroom session, the benefits of rain harvesting and the positive effects that it has for stormwater management were discussed.

Participants then spent the afternoon of the workshop building their own rain barrel. Barrels were acquired through commercial suppliers and the plumbing of rain barrels was directed by Extension staff and implemented by the individual attendees, often working in pairs.

Attendees evaluated the effectiveness of the workshop immediately after completion. Furthermore, participants were provided with an evaluation several weeks after the workshop to assess any changes in their behaviors at home. The goal of this type of outreach activity is to educate homeowners on real local issues pertaining to stormwater, provide tools for homeowners to get involved in stormwater pollution prevention, and to initiate behavioral change in the individual's practices leading to greater conservation of our water resources.

Situation

Stormwater management in the upstate region of South Carolina has become a more pertinent issue as more counties and communities are being permitted. The Upstate has also had other water related issues in recent years due to several summers in drought condition. In response to this situation, Clemson Extension, through its stormwater education programs, has developed a "Build Your Own Rain Barrel Workshop" for homeowners in the region. The workshop addresses rain harvesting as both a drought and stormwater mitigation technique.

Learning Objectives

Participants will:

- Identify sources of general stormwater pollution and mitigation techniques.

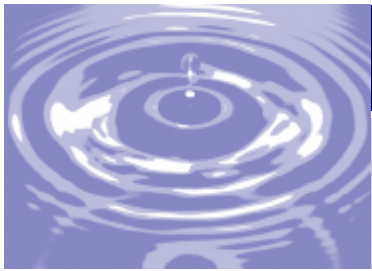


Excerpt from poster by Marguerite Porter and George Dickert presented at the SC Water Resources Conference, 2010

Date	Location	Number Attended
CEPSCI Initial Certification Training		
Jul. 28, 2010	Columbia	87
Oct. 27 2010	Columbia	76
CEPSCI Recertification Training		
June 9, 2011	Columbia	79
May 4, 2010	Columbia	73
	Total:	315

CEPSCI is a course from Clemson University that prepares personnel to inspect sites for proper management of sediment for water quality.

Professionals: Contractors & Engineers



Professionals: Contractors & Engineers

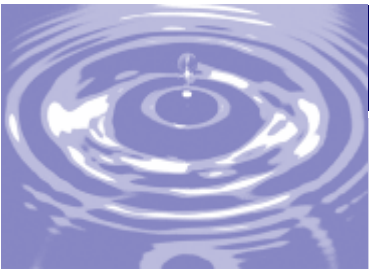
Richland County is very active in sharing stormwater knowledge with other professionals locally and throughout the state. Richland County Stormwater Manager Srinivas Valavala gave two presentations at the South Carolina Environmental Conference, which is held by the Water Environment Association of South Carolina (WEASC), one on water quality improvements in the county and one on Richland County's wet weather monitoring program. Mr. Valavala chairs the stormwater committee for the WEASC to bring more focus and awareness to stormwater programs within the association. The County also participates in the South Carolina Association of Stormwater Managers and the Columbia Climate Protection Action Campaign, and attended work sessions for the City of Columbia's stormwater management planning process.

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Richland County	Two presentations at the South Carolina Environmental Conference	March 15, 2011, Myrtle Beach	100	WEASC
Richland County	Presentation for SCDHEC on Richland County's stormwater program	April 12, 2011, SCDHEC Columbia office	24	N/A

In order to keep Richland County staff up to date on the latest practices, tools, and regulations, the following trainings were conducted for stormwater department staff, or other county employees.

Lead Provider	Internal Trainings	Location and Date Delivered	Number of Participants	Other Providers Involved
Richland County	Annual SWPPP's training on BMPs and housekeeping for fire fighters and inspectors	Richland Co. Adult Activity Center, Dec. 6, 2010	45	N/A
Richland County	Continuous educating storm water staff of current enforcement practices and guidelines.	Richland County Conference Room, Jan. 27, 2010	10	N/A

Professionals: Contractors & Engineers



Homeowners

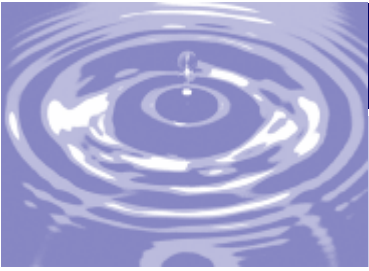
Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Carolina Clear, Richland County	Build-Your-Own Rain Barrel Workshops (35 barrels built)	Sandhills REC, Nov. 2 & Dec. 12, 2010	45 participants	Richland County Master Gardeners
Richland County Master Gardeners	Article on Rain Barrel Workshop in <i>Gardening in Richland</i> newsletter	Fall 2010	200	N/A
SC DHEC, Keep the Midlands Beautiful	Central Midlands Lawn Mower Exchange	SC State Museum, April 16, 2011	100 mowers exchanged	Richland County, Lexington County, City of Columbia, SC State Museum

Rain water harvesting reduces stormwater pollution by controlling the volume of runoff water coming from roofs, reducing erosion, and increasing infiltration by allowing water to be utilized when the soil is dry. Plus, homeowners love it because it saves them money! Nearly half of the water used annually by the average home is used outdoors. At a hands-on workshops, homeowners not only built their own barrels to use at home, but got a morning class on stormwater management and ways to reduce pollution through their daily actions. The Richland County Master Gardeners included an article on rain barrels in their newsletter.

For Earth Day, Richland and Lexington County residents were invited to trade in their gasoline-powered lawn mowers in exchange for a deep discount on the purchase of environmentally-friendly electric mowers to promote cleaner air and reduce fuel spills and leaks in the Midlands.



Homeowners



Homeowners

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Carolina Clear	Presentations for retirees on Gardening for Water Quality	Sept. 22, 2010 & Apr. 6, 2011, Shepherd Center	19	N/A
Carolina Clear	Carolina Yards & Neighborhoods homeowner presentation	Apr. 27, 2011, Forest Lake Presbyterian Church	26	N/A
Richland County	Neighborhood Planning Conference	Oct. 2, 2010, SC Dept. of Archives & History	100	Carolina Clear, Conservation District, GCWA
Richland County	Storm drain marking, accompanied by stormwater awareness door hanger.	Richland County, Completed Summer 2010	365,000	N/A
Richland County	Installation of trash racks to prevent trash from entering storm drains: pilot project	Arcadia Lakes neighborhoods, June 28, 2010	50	N/A

In the summer of 2010, Richland County Public Works Stormwater Division completed a three year project to mark all storm drains on county roads in residential areas throughout Richland County. Student interns and volunteers placed permanent metal markers on drains and hung door hangers through neighborhoods reminding Richland County residents that nothing should go down storm drains except rain water. The project will continue on a limited basis with neighborhood associations and other volunteers who want to mark storm drains in unmarked areas, such as privately owned and maintained streets, on school grounds, and at local businesses. In a related pilot project, the county installed trash racks in Arcadia Lakes neighborhoods to keep debris out of storm drains, and enlisted homeowners to help keep the screens clear.



The Carolina Yards and Neighborhoods program is a recognition program for homeowners who want to make their yards more environmentally friendly. Participants complete actions from the *Carolina Yardstick Workbook* to earn “inches” or credits, and those earning 36 inches qualify as a Carolina Yard. Most of the actions are not only good for the environment, they also reduce yard maintenance. For example by following the “right plant, right place” principle, homeowners choose plants that will need less pruning, watering, fertilizers and pesticides.



Homeowners

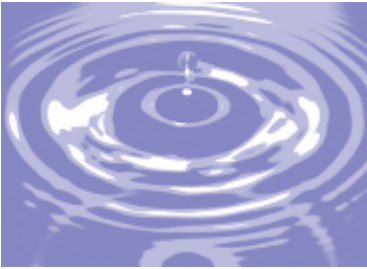
Commercial Citizens

Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Richland County, Carolina Clear	Informational Displays at Green is Good for Business Conference	Columbia Metropolitan Convention Center, Sept. 14, 2009	450	Keep the Midlands Beautiful
Richland County	Pesticides, Herbicides, and Fertilizer (PHF) Inspections to bring awareness about proper use of these products and regulate storage of these products.	Golf courses, exterminating companies, utility companies, and county facilities	27 inspections	N/A
Richland County	Stormwater display at Small Minority Business Conference	May 12, 2011, Richland County Admin. Bldg.	100	N/A
Carolina Clear	Development of “Partners for Healthy Watersheds” Business Recognition Program	To be launched in 2012	N/A	Richland County, GCWA



In 2011, work was begun on a business recognition program to encourage local business owners to take steps to reduce stormwater pollution from their sites. Other green business programs exist in the Midlands, but these overlook or place minimal importance on water quality. The name “Partners for Healthy Watersheds” was chosen for the appeal it would have for customers visiting businesses. A set of actions for businesses to take was developed, such as knowing where storm drains on the property go, training staff on good housekeeping principles, and participating in volunteer initiatives. Additional categories of actions were included for three high-risk business types: auto repair, landscaping, and restaurants. A reward and recognition system for qualifying businesses was also created, including window stickers, recognition on websites and in the newspaper, and special training opportunities. All that remains to be completed before the program can be launched, is the development of a marketing plan to attract businesses to participate in the program. RCSC’s goal is to launch the program by the beginning of 2012 and have the first round of businesses certified by June 2012.

Commercial Citizens



Conclusions for Year 3 (2010-2011)

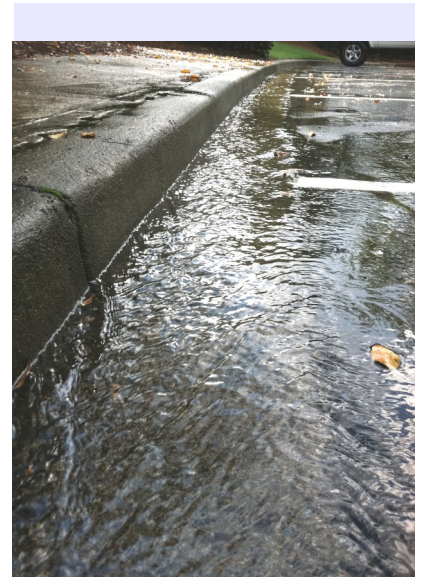
Lead Provider	Activity	Location and Date Delivered	Number of Impacts	Other Providers Involved
Carolina Clear RCSC	The Richland Countywide Stormwater Consortium	6 bi-monthly business meetings	varied RCSC members per meeting	All MS4's and Educational Partners

The Richland County Stormwater Consortium has many exciting initiatives to look forward to in the coming year. The new television public service announcement developed in year 3 will air on Time Warner Cable in Carolina Clear communities across the state. Other mass media opportunities will be utilized as well, such as the Richland Revealed television program. Television public service announcements will be developed specifically for Richland County, each focusing on a particular high-priority pollutant. Successful programs from the past year, such as 4-H2O Environmental Classroom and Summer Celebration of Water will be repeated and improved upon. The new “Partners for Healthy Watersheds” business recognition program will be launched in 2012, and is anticipated to improve pollution prevention practices of many businesses. In addition, landscaping businesses will be targeted with increased education programs on safe use of pesticides, herbicides, and fertilizer.

The consortium is also excited about the upcoming projects of its education partners. The Central Midlands Council of Governments recently joined the consortium as a partner, and will act as a link for reaching municipal officials. Congaree Riverkeeper, although a partner for several years, has committed to a more active role in the consortium, and is anticipated to be a great asset to future education efforts. In May they held their first River Rocks Festival, which drew a crowd of 500. In the upcoming year, the Riverkeeper has many exciting events planned to raise awareness of water quality in the Congaree, Lower Saluda, and Lower Broad Rivers, and to promote stewardship throughout the watershed.

In 2011 Richland County drafted a new NPDES MS4 permit, which is expected to go through a review process by SCDHEC to be completed in late 2011 or early 2012. SCDHEC is also in the process of revising the Small MS4 NPDES permit. A draft of this permit was released in Spring of 2011, and strongly influenced the Year 4 Education Plan of Work.

The Richland Countywide Stormwater Consortium has grown and evolved much over the last three years. As needs, struggles, and successes are evaluated, we will continue to develop programs with a commitment to make the best use of our resources, reach the most people with behavior changing messages, and have the greatest possible positive influence on water quality in Richland County.



*All the water that
will ever be is,
right now.*
- National Geographic



Conclusions



Appendix A - Year 3 Education Plan of Work: 2010-2011

The education plan of work is a living document, and therefore subject to change over the course of the year. This allows RCSC to take advantage of new opportunities that arise and react to changes in conditions and priorities. Appendix A show the initial plan developed in July 2010, and Appendix B shows the list of activities completed by July 2011, including impact numbers and related data.

Table 4. Education Plan of Work - Year 3 Initial Plan Developed July 2010, Page 1

ADAPTIVE Stormwater Education Plan			Year 3 (2010-11) - Richland County, Arcadia Lakes and Forest Acres										Living Document (last revised: 7/15/2010)				
Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants	petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other						
General Public																	
Carolina Clear	TV Commercials	Richland County	x														
Richland County & Carolina Clear	Public Access TV Slides	Richland County	x											Ongoing			
Carolina Clear	Articles in the <i>Free Times</i> Newspaper	Richland County	x														
Richland County	Raise awareness to the Stormwater hotline - distribute magnets at events and programs	Richland County	x	x	x	x	x	x					Carolina Clear	Ongoing			
Richland County	Stormwater and Pet Waste signs posted at county buildings and parks	Richland County	x	x				x									
Carolina Clear	Pet Waste Brochures distributed to Veterinary offices & pet supply stores	Richland County	x	x				x									
Keep the Midlands Beautiful	Adopt-A-Highway Program	Midlands										x		Ongoing			Pounds collected
Keep the Midlands Beautiful	Adopt-A-Waterway Program	Midlands										x		Ongoing			Pounds collected
Keep the Midlands Beautiful	Riversweep	Richland County										x		Saluda River at Riverbanks Zoo			Pounds collected
Keep the Midlands Beautiful	Third Saturday Cleanups	Midlands										x		3rd Saturday of each month			Pounds collected
Gills Creek Watershed Association	Gills Creek Clean-ups	Richland County	x									x		Congaree Riverkeeper	Lower Gills Creek Area		Pounds collected
Richland County	Public Presentations on the Crane Creek Watershed		x	x	x	x	x	x					Carolina Clear				Post-Survey
Gills Creek Watershed Association	Public presentations on the Gills Creek Watershed	Richland County	x	x	x	x											Post-Survey

Continued...

Appendix A - Year 3 Education Plan of Work: 2010-2011



Appendix A - Year 3 Education Plan of Work: 2010-2011

Table 4. Education Plan of Work - Year 3 Initial Plan Developed July 2010, Page 2

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other							
General Public																	
Gills Creek Watershed Association	Gills Creek Watershed Association Newsletter	Richland County	x												Distributed electronically, monthly		
Gills Creek Watershed Association	Gills Creek Watershed Association Annual Meeting	Richland County	x	x								x					
Gills Creek Watershed Association	Fundraisers building community support of the Gills Creek Watershed Association	Richland County	x														Funds Raised
Richland County, City of Columbia, Carolina Clear	Summer Celebration of Water Family Festival	Richland County	x	x	x	x	x	x					Conservation District, KMB, Sonoco, GCWA, others	8/28/2010 Riverfront Park			Post-survey
Richland County	Richland County Recycles Day	Richland County			x							x	Solid Waste	Sandhills REC			
GCWA	Display at Forest Acres National Night	Forest Acres	x										Forest Acres	Trenholm Park			
Richland County	Display at Touch-a-Truck	Richland County															
GCWA	Display at "All Creatures Great and Small" Festival	Richland County	x	x									Forest Lake Presbyterian Church, Carolina Clear	Forest Lake Presbyterian Church			
GCWA, Richland County	Display at Earth Day at the State House	Richland County												SC State House Grounds			
GCWA	Display at Nature Fest	Richland County	x										Congaree National Park	Congaree National Park			
Richland County	Displays at Sparkleberry Country Fair	Richland County	x											Sandhills REC			
GCWA	Display at Rosewood Crawfish Festival	Richland County												Rosewood Neighborhood			
Richland County, Blythewood	Display at Blythefest	Richland County															
Richland County	Display at Black Expo	Richland County															
GCWA	Display at Farmville Festival	Richland County	x	x							x		Edventure Museum	Edventure Museum, Columbia			
GCWA, Carolina Clear	Display at Rooftop Rhythms Festival	Forest Acres	x	x	x	x	x	x					Forest Acres	Richland Mall			
GCWA	Display at Forest Acres Festival	Forest Acres	x										Richland County, Forest Acres Rotary Club				

Continued...

Appendix A - Year 3 Education Plan of Work: 2010-2011



Appendix A - Year 3 Education Plan of Work: 2010-2011

Table 4. Education Plan of Work - Year 3 Initial Plan Developed July 2010, Page 3

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other							
Youth / K-12 / Teachers																	
Carolina Clear	Enviroscape Presentation at Richland County Schools	Richland County	x	x	x	x	x	x	x								Worksheet or quiz
Carolina Clear	Rain Barrel Programs for Schools	Richland County	x										Forest Acres				
Gills Creek Watershed Association	Watershed Curriculum Pilot Program	Richland County	x	x	x	x	x	x	x				Dent Middle School	Dent Middle School			Post-survey
Carolina Clear	Watershed Presentations for After School Programs	Richland County	x	x	x	x	x	x	x				Richland County Recreation Commission	Richland County Recreation Centers			
Carolina Clear	Rain Garden Work Days at schools with rain garden installations	Richland County	x			x							Bookman Road Elementary	Bookman Road Elementary			
Carolina Clear	Green Steps Projects with local schools	Midlands											Green Steps, Keep the Midlands Beautiful				Number of successful project
Carolina Clear	4H2O Pontoon Classroom day camps	Richland County	x	x	x	x	x	x	x				4-H Program	June, Lake Murray, Harbison State Forest			Post-survey
Carolina Children's Garden	Carolina Children's Garden Presentations on Water Quality	Richland County	x	x	x	x	x							Carolina Children's Garden at Sandhills REC			
Conservation District	Conservation Station - Stormwater runoff and pollution prevention module	Richland County		x		x	x						Carolina Clear	Sandhills REC			
Richland County	Richland 101 (Kids Day) Activities and information delivered to inform kids and their parents about Stormwater related issues.	Richland County	x											Dutch Square Mall			
Richland County	Public Works Week Kids Day	Richland County	x										Department of Public Works Divisions	Richland Co. Public Works			

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Appendix A - Year 3 Education Plan of Work: 2010-2011



Appendix A - Year 3 Education Plan of Work: 2010-2011

Table 4. Education Plan of Work - Year 3 Initial Plan Developed July 2010, Page 4

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants	petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other						
Professionals: Contractors, Engineers, Developers																	
Carolina Clear	Presentations for the Development Roundtable	Richland County												Richland County			
Richland County	Construction Conference	Richland County															Post-Survey
Clemson University	CEPSCI (Certified Erosion Prevention and Sediment Control Inspector) Training	Richland County				x	x								Ongoing		Exam
Richland County	Internal stormwater management training for Richland County staff														RC Public Works		
Elected and Appointed Officials and High-Level Staff																	
Richland County & Carolina Clear	Richland County's County Council awareness presentation of the importance of Stormwater regulations and general Stormwater projects and programs. (NEMO presentation)	Midlands	x											SC Sea Grant, KMB			Post-Survey
Carolina Clear	Presentation for Blythewood Town Council	Richland County	x	x													
Carolina Clear	Presentation for Forest Acres Town Council	Richland County	x	x													
Carolina Clear	Joint presentations for Lexington and Richland County Councils													Richland & Lexington Counties			
Commercial Citizens																	
Clemson Carolina Clear	Business Recognition Program, with special categories for stormwater retrofits and new low-impact development	Richland County	x	x	x	x	x	x	x					Richland County			Number of businesses recognized
Richland County, Carolina Clear	Display at Green is Good for Business Conference	Midlands	x	x	x			x						Keep the Midlands Beautiful, City of Columbia	Columbia Metropolitan Convention Center		
Clemson Carolina Clear	Partnering for Water Quality presentation to the Chamber of Commerce	Richland County			x	x	x	x						Carolina Clear			
Clemson Carolina Clear	General Stormwater Awareness presentations to Rotary Club	Richland County	x														
Richland County	Pesticides, Herbicides, and Fertilizer (PHF) Conference and Inspection Program	Richland County			x			x									Post-survey
Clemson Carolina Clear	Brochure in Spanish for landscaping businesses and employees.	Richland County	x					x									
Richland County	Distribute brochures at the Business License Bureau	Richland County	x											Carolina Clear			

Continued...

Appendix A - Year 3 Education Plan of Work: 2010-2011



Appendix A - Year 3 Education Plan of Work: 2010-2011

Table 4. Education Plan of Work - Year 3 Initial Plan Developed July 2010, Page 5

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type
			General Stormwater Awareness	Bacteria	Toxic Contaminants	petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other					
Homeowners & Homeowner Associations																
Richland County	Storm drain marking, accompanied by Stormwater awareness door hanger.	Richland County	x	x		x	x	x					Carolina Clear	To be completed Summer 2010		
Richland County	Promote storm drain marking already completed by the county through newspapers, newsletters and local channels.		x	x		x	x	x					Clemson Carolina Clear			
RC Master Gardeners Association	Rain garden installations and demonstration workshops	Richland County	x			x								Clemson Sandhills REC		Post-survey
Carolina Clear	Build a Rain Barrel Workshops	Richland County	x		x	x							RC Public Works	Richland Co. Public Works		Post-survey
Soil & Water Conservation District	Rain Barrel Sales with accompanying newsletter articles	Richland County												Ongoing		Number barrels sold
Forest Acres, Richland County	Household Hazardous Waste Hanging Brochures placed on garbage cans	Richland County	x										Carolina Clear			
Richland County	Lawn Mower Exchange	Richland County	x										Keep the Midlands Beautiful, RC Special Services			Number of mowers replaced
Carolina Clear	Carolina Yards & Neighborhoods Recognition Program	Richland County	x			x	x	x								Number of yards recognized
Gills Creek Watershed Association	Presentations to Homeowner Associations on Gills Creek Watershed	Richland County	x													
Richland County	Presentations to Homeowner Associations on Crane Creek Watershed	Richland County	x										Carolina Clear			
Richland County	Richland County Neighborhood Council - include articles in electronic newsletter to HOAs across the county	Richland County		x		x	x	x					Carolina Clear			
Richland County	Neighborhood Planning Conference	Richland County														



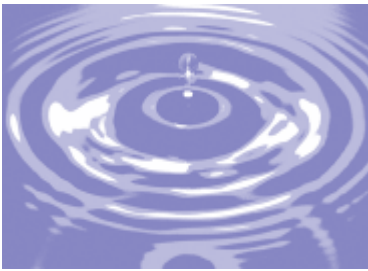
Appendix B - 2010-2011 Education Activity Data

Table 5. Education Plan of Work - 2010-2011 Activity Data, Page 1

ADAPTIVE Stormwater Education Plan			Year 3 (2010-11) - Richland County, Arcadia Lakes and Forest Acres							Living Document (last revised: 10/17/2011)						
Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)									Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other						
General Public																
Carolina Clear	"Downstream" stormwater awareness commercial created and released on-line	Richland County	x	x	x		x	x						2/7/11, youtube.com	49	None
Carolina Clear	Interview on "Making it Grow!" television show	Statewide	x									SC ETV, Clemson Extension	8/3/10, SC ETV	3931	None	
Carolina Clear	Interview on "Your Day" Radio program	Statewide	x									SC ETV, Clemson Extension	12/9/10, SC ETV	30,000	None	
Clemson Extension	Water quality articles in the State Newspaper	Richland County	x	x	x	x	x							96,737	None	
SC Wildlife Magazine	Two articles in SC Wildlife Magazine on rain gardens and rain barrels.	Statewide	x				x	x		x		Carolina Clear	4/26/11	47,000	None	
Richland County Soil & Water Conservation District	Stormwater activities featured in Richland County Soil and Water Conservation District Newsletter	Richland County	x										Aug. 2010, online distribution	700	None	
Richland County	Flood Happens newsletter on flood preparedness	Richland County	x									Carolina Clear	May 2011	8,927	Feedback	
Richland County	Interviews on Richland Radio Program	Richland, Florence, & Darlington Counties	x									Carolina Clear	Multiple dates, reaches Richland, Florence, & Darlington Counties	300,000 each	None	
Carolina Clear	RCSC Website	Richland County	x										Ongoing	2323 page visits	None	
Many	RCSC Partner Facebook pages	Richland County	x									Many	Ongoing	2472 "fans"	None	
Richland County Animal Care	Pet Waste Brochures distributed with pet registration renewals	Richland County	x	x				x				Carolina Clear	Ongoing	750 brochures	None	
Richland County	Brochures on stormwater related topics	Richland County	x	x	x	x	x	x				Carolina Clear	Ongoing	1935 brochures	None	
East Piedmont RC&D	Doggie Dooley installation demonstration (attended by 3 news stations)			x								Conservation District	1/20/11, North Springs Park	20	None	
Carolina Clear	Pet Waste Information at Children's Garden "Dog Training Demonstration"			x								Carolina Children's Garden	1/28/11, Sandhills REC	32	None	
Keep the Midlands Beautiful	Adopt-A-Highway Program	Midlands							x			GCWA, others	Ongoing	5960	148008 Pounds collected	
Keep the Midlands Beautiful	Adopt-A-Waterway Program	Midlands								x		GCWA, others	Ongoing	427	5910 Pounds collected	
Gills Creek Watershed Association	Public presentations on the Gills Creek Watershed	Richland County	x	x	x	x							5 presentations during the year	126	Feedback	
Richland County	Public Meeting on Little Jackson Creek Stream Restoration Project	Richland County	x					x				Carolina Clear, GCWA	2/8/11, Spring Valley Country Club	45	Feedback	
Gills Creek Watershed Association	Gills Creek Watershed Association Newsletter	Richland County	x										Distributed electronically, monthly	400	Feedback	
Gills Creek Watershed Association	Gills Creek Watershed Video	Richland County	x						x			Richland County	Completed 8/18/10, online and used at presentations	100	None	

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Appendix B - 2010-2011 Education Activity Data



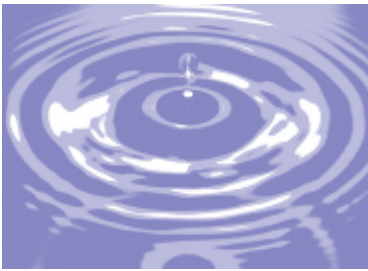
Appendix B - 2010-2011 Education Activity Data

Table 5. Education Plan of Work - 2010-2011 Activity Data, Page 2

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type		
			General Stormwater Awareness	Bacteria	Toxic Contaminants	Petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other							
General Public																		
Gills Creek Watershed Association	Gills Creek Watershed Association Annual Meeting	Richland County	x	x												10/17/10, Clemson Sandhills REC	30	None
Gills Creek Watershed Association	"Wine for Water" fundraiser building community support of the Gills Creek Watershed Association	Richland County	x												Carolina Clear	7/18/10, Cooks Mountain	130	Funds Raised
Richland County	Road signage marking Gills Creek crossings and points of entry into the watershed	Richland County	x												GCWA	19 signs posted	not assessed	None
Congaree Riverkeeper	Congaree Riverkeeper "River Watch" Newsletter	Midlands	x	x												Distributed electronically, monthly	400	None
Richland County, City of Columbia, Carolina Clear	Summer Celebration of Water Family Festival	Midlands	x	x	x	x	x	x							GCWA, RC Conservation District, KMB, Sonoco, Many others	8/28/2010 Riverfront Park	700	Post-survey
Congaree Riverkeeper	River Rocks Festival	Midlands	x													5/28/11, Riverfront Park	500	None
Richland County	Richland County Recycles Day	Richland County	x		x										Solid Waste	11/13/10 Sandhills REC	7750	None
Forest Acres, Gills Creek Watershed Association	Forest Acres Green Festival	Forest Acres	x													9/25/10, Multiple churches in Forest Acres	1500 (700 through recycling)	None
Richland County	Display at National Night Out	Richland County	x												Richland County Sheriff's Department	8/3/10, Lower Richland High School	150	None
Carolina Clear, Gills Creek Watershed Association	Display at Sweet Seasons	Forest Acres	x	x					x	x					Forest Acres	12/2/10, Richland Mall	150	None
Gills Creek Watershed Association	Display at Farmville Festival	Richland County	x	x					x						Edventure Museum	4/9/11, Edventure Museum, Columbia	120	None
Carolina Clear	Display at Big Nosh Festival	Richland County	x												Tree of Life	4/10/11, Tree of Life Synagogue	2000	None
Congaree National Park, GCWA	Display at Nature Fest	Richland County	x												Congaree National Park	4/16/11, Congaree National Park	100	Pre- & post-survey
Forest Acres, Gills Creek Watershed Association	Display at Rooftop Rhythms Festival	Forest Acres	x	x	x	x	x	x							Forest Acres	4/21/11, Richland Mall	3,000	None
Richland County	Display at Energy Expo	Midlands	x												Carolina Clear	4/29/11, Saluda Shoals Park	50	Pre- & post-survey
Richland County, GCWA	Displays at Sparkleberry Country Fair	Richland County	x													4/30/11, Sandhills REC	30,000	None
Gills Creek Watershed Association	Display at Rosewood Crawfish Festival	Richland County	x													4/30/11, Rosewood Neighborhood	100	None
Arcadia Lakes	Rain garden information at Arcadia Lakes Town Picnic	Arcadia Lakes	x													5/15/11, Tree of Life Synagogue	160	None
Carolina Clear, GCWA	Rain Barrel display and Enviroscape at FLPC Earth Sunday	Richland County	x	x											Forest Lake Pres. Church, Carolina Clear	5/15/11, Forest Lake Presbyterian Church	45	None

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Appendix B - 2010-2011 Education Activity Data



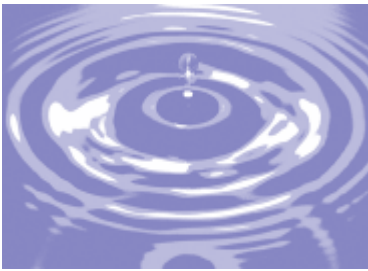
Appendix B - 2010-2011 Education Activity Data

Table 5. Education Plan of Work - 2010-2011 Activity Data, Page 3

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type
			General Stormwater Awareness	Bacteria	Toxic Contaminants, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other						
Youth / K-12 / Teachers																
Carolina Clear, GCWA, Carolina Children's Garden	Enviroscape Presentation at Richland County Schools	Richland County	x	x	x	x	x	x	x	x				6 presentations at public and private schools	494	None
Carolina Children's Garden	Enviroscape for Homeschoolers	Richland County	x	x	x	x	x	x					3/18/11, 4/13/11 Carolina Children's Garden	31	None	
Carolina Clear	Watershed Presentations for After School Programs	Richland County	x	x	x	x	x	x	x			Richland County Recreation Commission	2/7/11-2/9/11, Crane Creek Community Center	60	None	
Conservation District	Conservation Station Aquatic program - biological water quality monitoring	Richland County		x		x	x					Carolina Clear	8/3/10, 8/4/10, 9/23/10 Sandhills REC	110	None	
Carolina Clear	4H2O Pontoon Classroom day camps	Richland County	x	x	x	x	x	x	x			4-H Program	June, Lake Murray, Harbison State Forest	30	Post-survey	
Gills Creek Watershed Association	Gills Creek Watershed Concerns Tour with USC Political Science class	Richland County	x	x	x	x	x	x				University of South Carolina	9/13/10, Gills Creek Watershed	20	None	
Gills Creek Watershed Association	Gills Creek Tour on urban development with USC Geology class	Richland County	x		x	x	x	x				University of South Carolina	3/23/11, Trenholm Plaza & Decker Blvd. areas	20	None	
Gills Creek Watershed Association	Activities promoting student involvement with Gills Creek Watershed Association	Richland County	x									University of South Carolina	3/24/11, 3/29/11, USC campus	45	None	
Gills Creek Watershed Association	Sustainability Across the Curriculum - panel for USC faculty on involving students in environmental work	Richland County	x									University of South Carolina	5/10/11, USC Campus	20	None	
Sonoco Recycling Green Steps, SC State Museum	Rain Barrel Workshop for Green Steps Teachers	Richland County	x	x	x	x	x	x	x			Carolina Clear	7/16/10, SC State Museum	12	None	
Carolina Clear	Stormwater and Watershed Interactive Whiteboard lessons for teachers	Statewide	x		x								Available online from Jan. 2011	16 teachers, 2000 students	None	
Carolina Clear	Macroinvertebrates for Nature Navigators Club		x	x				x				Carolina Children's Garden	4/26/11 Sandhills REC	19	None	
Carolina Clear	Wonderful Watersheds Library Presentation	Richland County	x	x	x	x	x	x	x			Richland County Library	7/20/10, 4/18/11 Wheatley Branch Library	49	None	
Carolina Clear	Display at Dent Middle School Career Day	Richland County	x										11/19/10, Dent Middle School	1300	None	
Richland County	Richland 101 (Kids Day) Activities and information delivered to inform kids and their parents about Stormwater issues.	Richland County	x	x	x	x	x	x				Carolina Clear	7/29/10, Dutch Square Mall	2000	None	
Richland County	Public Works Week Kids Day	Richland County	x					x				Department of Public Works Divisions	5/17/11, Richland Co. Public Works	150	None	

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Appendix B - 2010-2011 Education Activity Data



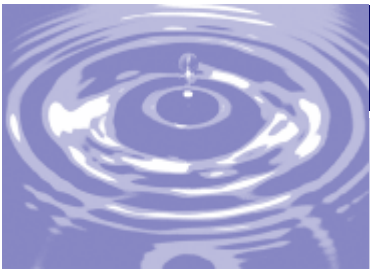
Appendix B - 2010-2011 Education Activity Data

Table 5. Education Plan of Work - 2010-2011 Activity Data, Page 4

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/Reached	Assess-ment Type		
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other								
Professionals: Contractors, Engineers, Developers																		
Clemson University	CEPSCI (Certified Erosion Prevention and Sediment Control Inspector) course	Statewide				x	x								Many	Ongoing	315	Exam
Center for Watershed Excellence	SC Water Resources Conference, including speakers from throughout the State, booth, presentation and posters by Carolina Clear	Statewide	x	x	x	x	x	x	x	x					Many	10/13/10, 10/14/10, Columbia Metropolitan Convention Center	350	Post Surveys for each session
Carolina Clear	Presentation on Carolina Yards & Neighborhoods program as part of University of Florida webinar.	Statewide	x	x	x	x	x	x						University of Florida	1/18/11, Online webinar	84	None	
Richland County	2 presentations at the South Carolina Environmental Conference	Statewide	x	x	x	x	x							WEASC	3/15/11, Myrtle Beach	100	None	
Richland County	Presentation for SCDHEC on Richland County's Stormwater Program	Richland County	x	x	x	x	x	x							4/12/11, SCDHEC Columbia office	24	None	
Elected and Appointed Officials and High-Level Staff																		
Richland County	Presentation for county administration on Richland County's Stormwater Program	Richland County	x	x	x	x	x	x							4/8/11, Richland County Admin. Bldg.	6	None	
Richland County	Development Roundtable to review county ordinances related to development and land use planning	Richland County	x			x									10 meetings, throughout the year	12	None	
Commercial Citizens																		
Richland County, Clemson Carolina Clear	Display at Green is Good for Business Conference	Midlands	x											Keep the Midlands Beautiful, City of Columbia	9/14/10, Columbia Metropolitan Convention Center	450	None	
Richland County	Stormwater display at Small Minority Business Conference	Richland County	x												5/12/11, Richland Co. Admin. Bldg	100	None	
Richland County	Pesticides, Herbicides, and Fertilizer (PHF) Inspections to bring awareness about proper use of these products and regulate storage of these products.	Richland County			x			x							Golf courses, exterminating companies, utility companies, county facilities	27 facilities inspected	none	

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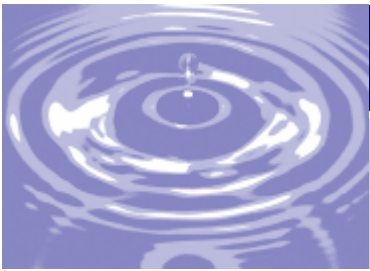
Appendix B - 2010-2011 Education Activity Data



Appendix B - 2010-2011 Education Activity Data

Table 5. Education Plan of Work - 2010-2011 Activity Data, Page 5

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assess-ment Type
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other						
Homeowners & Homeowner Associations																
Richland County, Arcadia Lakes	Storm drain marking, accompanied by Stormwater awareness door hanger.	Richland County	x	x		x	x	x					Carolina Clear	Completed Summer 2010	365,000	None
Richland County	Installation of trash racks to prevent trash from entering storm drains: pilot project.	Arcadia Lakes	x											6/28/10, Arcadia Lakes Neighborhoods	Not assessed	Pre- & Post-survey
Carolina Clear	Presentations for retirees on Gardening for Water Quality	Richland County	x	x	x	x	x	x	x					9/22/10 & 4/6/11, Sheppard Center	19	None
Carolina Clear	Build a Rain Barrel Workshops for Homeowners (10 barrels built)	Richland County	x	x	x	x	x	x	x				Richland County Public Works	12/11//10, Sandhills	13	Post-survey
Carolina Clear	Build a Rain Barrel Workshops for Master Gardeners (25 barrels built)	Richland County	x		x	x							Richland County Master Gardeners	11/2/10, Sandhills	32	Post-survey
Richland Master Gardeners	Article on Rain Barrel Workshop in <i>Gardening in Richland</i> newsletter	Richland County	x											Fall 2010	200	None
Carolina Clear	Pet Waste brochures included with Chimneyridge Neighborhood Association newsletter	Richland County	x	x						x				January 2011	200	None
Richland County	Central Midlands Lawn Mower Exchange	Midlands	x		x								Keep the Midlands Beautiful, RC Special Services	4/16/11, SC State Museum	100 mowers exchanged	Number of lawn mowers replaced
Carolina Clear	Carolina Yards & Neighborhoods Presentation for Forest Lake Presbyterian Church	Forest Acres	x	x	x	x	x	x						4/27/11, Forest Lake Presbyterian Church	26	None
Gills Creek Watershed Association	Presentations to Homeowner Associations on Gills Creek Watershed	Richland County	x	x	x	x	x	x						6 presentations to HOA's throughout the county	90	None
Richland County	Presentations to Homeowner Associations on Crane Creek Watershed	Richland County	x	x	x	x	x	x					Carolina Clear	3/17/11, Candlewood; 4/28/11 Spring Valley	26	None
Richland County	Neighborhood Planning Conference	Richland County											Carolina Clear, Conservation District, GCWA	10/2/10, SC Dept. of Archives & History	100	None



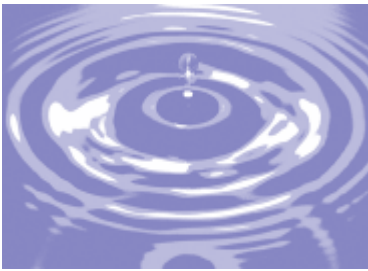
Appendix C - Year 4 Education Plan of Work: 2011-2012

Table 6. Education Plan of Work, Year 4, 2011-2012, Page 1

ADAPTIVE Stormwater Education Plan			Year 4 (2011-12) - Richland County, Arcadia Lakes and Forest Acres								Living Document (last revised: 8/1/2011)				
Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)								Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assessment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other					
General Public															
Carolina Clear	TV Commercials promoting water quality awareness and stewardship	Richland County	x									Richland County	Fall 2011		
Richland County & Carolina Clear	Public Access TV Slides	Richland County	x												
Clemson Extension	Articles in the <i>State</i> Newspaper	Richland County	x	x	x	x	x						Ongoing		
Richland County	Interviews on Richland Radio Program	Richland, Florence, & Darlington Counties	x									Carolina Clear			
Richland County	Outreach on Richland Revealed Television Program	Richland County	x									Carolina Clear			
Richland County	Promote the Stormwater hotline - distribute magnets at events and programs	Richland County	x	x	x	x	x	x				Carolina Clear	Ongoing		Calls received
Carolina Clear, Richland County	Promote reporting of sanitary sewer overflows	Richland County	x	x				x							
Carolina Clear, Gills Creek	Pet Waste Brochures distributed to veterinary offices & pet supply stores	Richland County	x	x				x							
Richland County Animal Care	Pet Waste Brochures distributed to with pet registration renewals	Richland County	x	x				x				Carolina Clear	Ongoing		
Keep the Midlands Beautiful	Adopt-A-Highway Program	Midlands							x				Ongoing		Pounds collected
Keep the Midlands Beautiful	Adopt-A-Waterway Program	Midlands	x							x			Ongoing		Pounds collected
Keep the Midlands Beautiful	Third Saturday Cleanups	Midlands								x			Ongoing		Pounds collected
Richland County	Public Presentations on the Crane Creek Watershed	Richland County	x	x	x	x	x	x				Carolina Clear			Post-Survey
Gills Creek Watershed Association	Public presentations on the Gills Creek Watershed	Richland County	x	x	x	x	x	x							Post-Survey
Richland County	Public Meeting on Little Jackson Creek Stream Restoration Project	Richland County	x						x			Carolina Clear, GCWA			Feedback
Richland County	Public presentations on Richland County capital improvement projects	Richland County	x									Carolina Clear			
Richland County	Street signs marking watershed boundaries and creek crossings	Richland County	x												
Gills Creek Watershed Association	Gills Creek Watershed Association Newsletter	Richland County	x										Monthly, electronic distribution		
Gills Creek Watershed Association	Gills Creek Watershed Association Annual Meeting	Richland County	x	x						x					
Gills Creek Watershed Association	Fundraisers building community support of the Gills Creek Watershed Association	Richland County	x									Carolina Clear			Funds Raised
Richland County, City of Columbia, Carolina Clear	Summer Celebration of Water Family Festival	Richland County	x	x	x	x	x	x				Many	8/6/11, Riverfront Park		Post-survey
Richland County	Richland County Recycles Day	Richland County	x		x					x		Solid Waste	Sandhills REC		Pounds collected

Continued...

Appendix C - Year 4 Education Plan of Work: 2011-2012



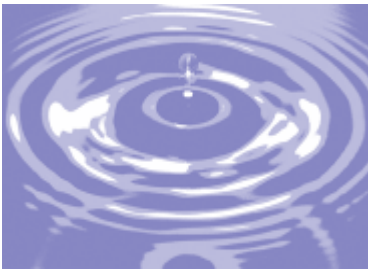
Appendix C - Year 4 Education Plan of Work: 2011-2012

Table 6. Education Plan of Work, Year 4, 2011-2012, Page 2

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assessment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other							
General Public																	
Congaree National Park, GCWA	Display at Nature Fest	Richland County	x											Congaree National Park	Congaree National Park		
Richland County	Displays at Sparkleberry Country Fair	Richland County	x											Master Gardeners, GCWA	Sandhills REC		
Forest Acres, GCWA	Display at Rooftop Rhythms Festival	Forest Acres	x											Forest Acres	Fall & Spring, Richland Mall		
Conservation District	Display at Sandhills Farmers Market	Richland County	x												6/28/11, Sandhills REC	30	
Forest Acres, Carolina Clear, GCWA	Display at Forest Acres Festival	Forest Acres	x											Forest Acres Rotary Club			
Youth / K-12 / Teachers																	
Carolina Clear	Enviroscape Presentation at Richland County Schools	Richland County	x	x	x	x	x	x	x								Worksheet or quiz
Carolina Clear	Watershed Presentations for After School Programs	Richland County	x	x	x	x	x	x	x				Richland County Recreation Commission	Crane Creek Community Center			
Conservation District	Rain Barrel programs for schools	Richland County	x										Carolina Clear				
Carolina Clear	4-H2OPontoon Classroom and Environmental Classroom water quality day camps	Richland County	x	x	x	x	x	x	x				4-H Program	6/13/11-6/17/11, Lake Murray; 6/27/11-7/1/11, Harbison Forest	39		Post-survey
Carolina Children's Garden	Carolina Children's Garden Presentations on Water Quality	Richland County	x	x	x	x	x							Sandhills REC			
Conservation District	Conservation Station Aquatic program - biological water quality monitoring	Richland County		x		x	x						Carolina Clear	6/15/11, 6/30/11, Sandhills REC	49		
Carolina Clear	Wonderful Watersheds Library Presentation	Richland County	x	x	x	x	x	x	x				Richland County Library				
Richland County	Display at Richland 101 for Kids Day	Richland County	x	x	x	x	x	x					Carolina Clear	7/28/11, Dutch Square Mall	1800		
Richland County	Public Works Week Kids Day	Richland County	x										Department of Public Works Divisions	RC Public Works			
Professionals: Contractors, Engineers, Developers																	
Carolina Clear, Richland County	Pamphlet on BMPs to be distributed at pre-construction conferences for new construction.	Richland County	x			x											Post-Survey
Clemson University	CEPSCI (Certified Erosion Prevention and Sediment Control Inspector) Course	Richland County	x			x								Ongoing			Exam
Clemson University	CSPR (Certified Stormwater Plan Reviewer) Course		x			x								6/22/11-6/23/11, Columbia	13		Exam
Richland County	Internal storm water management training for the storm water staff on best management practices for urban storm water treatment.		x											Richland County Public Works			

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Appendix C - Year 4 Education Plan of Work: 2011-2012



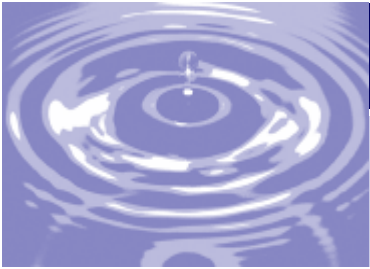
Appendix C - Year 4 Education Plan of Work: 2011-2012

Table 6. Education Plan of Work, Year 4, 2011-2012, Page 2

Lead Service Provider	Activity	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers	Location and Date Delivered	Number Impacted/ Reached	Assessment Type	
			General Stormwater Awareness	Bacteria	Toxic Contaminants, petroleum products, pesticides, heavy metals	Sediment	Nutrients	Debris	Temperature	Other							
Elected and Appointed Officials and High-Level Staff																	
Richland County & Clemson Carolina Clear	Presentation for Richland County Council to raise awareness of stormwater issues	Midlands	x											SC Sea Grant, KMB			Post-Survey
Central Midlands COG	Green Infrastructure Toolkit for land use planning	Richland County	x		x	x	x										
Central Midlands COG	Presentations to Council of Governments members on Green Infrastructure	Richland County	x		x	x	x							Carolina Clear			
Carolina Clear	Presentations for the Chamber of Commerce	Richland County	x											Richland County			
Homeowners & Homeowner Associations																	
Richland County	Storm drain marking volunteer program	Richland County	x	x		x	x	x						Ongoing			
Carolina Clear	Rain Barrel Workshops	Richland County	x	x	x	x	x	x									Post-survey
Richland County	Lawn Mower Exchange	Richland County	x														Number of mowers replaced
Carolina Clear	Promote Carolina Yards & Neighborhoods Recognition Program	Richland County	x			x	x	x						Ongoing			Number of yards recognized
Gills Creek Watershed Association	Presentations to Homeowner Associations on Gills Creek Watershed	Richland County	x														Feedback
Carolina Clear, Richland County	Presentations to Homeowner Associations on Crane Creek Watershed	Richland County	x														
Carolina Clear, Richland County	Richland County Neighborhood Council - include articles in electronic newsletter to HOAs across the county	Richland County	x	x			x	x	x								
Richland County	Display or presentation at Neighborhood Planning Conference	Richland County	x														
Commercial Citizens																	
Clemson Carolina Clear	"Partners for Healthy Watersheds" Business Recognition Program	Richland County	x	x	x	x	x	x	x					Richland County			Number of businesses recognized
Richland County, Clemson Carolina Clear	Display at Green is Good for Business Conference	Midlands	x										Keep the Midlands Beautiful	Sept. 13, Columbia Metropolitan Convention Center			None
Clemson Carolina Clear	Partnering for water quality presentation to the Chamber of Commerce	Richland County	x										Carolina Clear				
Richland County	Pesticides, Herbicides, and Fertilizer (PHF) Inspections to bring awareness about proper use of these products and regulate storage of these products.	Richland County			x			x						Ongoing			Post-survey
Richland County	Pesticide/Herbicide/Fertilizer Training	Richland County	x		x			x					Carolina Clear				
Clemson Carolina Clear	Brochure in Spanish for landscaping businesses and employees.	Richland County	x					x									

Continued...

Appendix C - Year 4 Education Plan of Work: 2011-2012



Appendix D - Example Newspaper Article



We all live downstream

Amanda McNulty, County Extension Agent

Published in The State Newspaper

Feb. 03, 2011

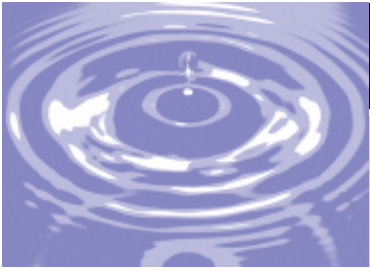
Stormwater runoff is a hot issue. For many years, construction sites have included detention basins. These “dry ponds” are designed to capture water that runs off the roofs of buildings, across parking lots, or closely mowed lawns and slowly release it into the drainage system. But if you’ve ever been in Five Points in Columbia or anywhere South of Broad in Charleston during a thunder shower, you know what happens when the storm-water system gets overloaded. Now cities and counties are required to test this water and report on what they find. Yuck-o-la, all over!

Besides possibly ruining those new suede shoes, stormwater picks up all sorts of debris. Fertilizer, soil, and pesticides, when in the wrong place, become pollutants. Almost all of us spend money, and a fair amount at that, for chemicals designed to make our yards and gardens more productive and less weedy. Well-meaning people far too often put out products that add to stormwater pollution. Weed and feed formulas are prime examples.

We’ve had some blessedly warmer days and the weeds that germinated back in October – henbit, mustard, and chickweed to name a few — are getting big. They look mighty green against that brown centipede lawn. Big box stores are promoting weed and feed products that promise a lush, weed-free lawn — even though those formulas are designed for northern, cool-season grasses.

Continued...

Appendix D - Example Newspaper Article



Appendix D - Example Newspaper Article

“We all live downstream” - Continued...

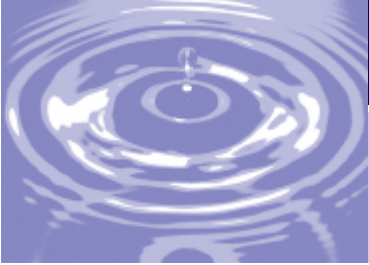
In the South, informed lawn lovers apply pre-emergent herbicides only, no fertilizer, when the redbuds and forsythia are in full bloom. They see good results in August when the summer weeds are reaching full glory in the yard next door. But many lawn lovers see the winter weeds growing now and think those combination products will zap those intruders and fertilize their lawns. Sadly, pre-emergent herbicides have no effect whatsoever against weeds that are up and growing. And the expensive fertilizer in that combo will simply wash away in stormwater as the roots of dormant warm-season grasses can't absorb those nutrients.

How about doing our beautiful streams, rivers and lakes a favor? Clemson may be in the far upper corner of the state but fine researchers there are concerned about what is flowing down stream to us flatlanders. The HGIC website (www.clemson.edu/extension/hgic) has maintenance calendar factsheets for any kind of grass you'd care to grow. Each gives you a schedule of when to fertilize, when to apply herbicides, and when to look for insects and diseases. A constant across the spectrum of grass varieties is the recommendation to apply no fertilizer before April 15 or after the end of August. You can call from 9 a.m. to 1 p.m. weekdays, and ask specific questions.

Carolina Clear is another Clemson-supported program that gives citizens and decision-makers information needed to keep our waters clean and healthy for fishing, swimming, canoeing or just lounging in an inner tube (some of us can even float without extra buoyancy devices). Their site has information on constructing rain barrels and rain gardens, how to use leaves and grass clippings as organic fertilizer, and even the importance of trailing behind Fido with a plastic bag. Visit www.clemson.edu/public/carolinaclear and help ensure that the only pollution at the lake this summer is from plump ladies from the country floating in their (thank the Lord) one-piece bathing suits.

Source: <http://www.thestate.com/2011/02/03/1676652/we-all-live-downstream.html#ixzz1D0RdJmm9>

Appendix D - Example Newspaper Article



**Appendix D -
NACo Achievement Award**



Appendix E - NACo Achievement Award



Appendix E - Partner Websites

Carolina Clear Websites

Richland Countywide Stormwater Consortium - <http://www.clemson.edu/carolinaclear/rcsc>

Carolina Clear - <http://www.clemson.edu/carolinaclear>

Carolina Clear on Facebook - <http://www.facebook.com/carolinaclear/141393752563116>

Midlands Stormwater Consortiums on Facebook - <http://www.facebook.com/midlandsstorwater>

Municipalities

Richland County Stormwater Management - <http://www.richlandonline.com/departments/publicworks/storm.asp>

City of Forest Acres - <http://www.forestacres.net/>

Town of Arcadia Lakes - <http://www.arcadialakes.net/index.asp>

Education Partners

BP Barber - <http://www.bpbarber.com/>

Carolina Children's Garden - <http://www.carolinachildrengarden.org/>

Central Midlands Council of Governments - <http://www.centralmidlands.org>

Congaree Riverkeeper - <http://www.congareeriverkeeper.org/>

East Piedmont Resource Conservation & Development - http://www.sc.nrcs.usda.gov/east_piedmont_rcd.html

Fuss & O'Neill - <http://www.fando.com/>

Gills Creek Watershed Association - <http://www.gillscreekwatershed.org/>

Green Steps Schools - <http://www.greenstepschools.com/>

Keep the Midlands Beautiful - <http://keepthemidlandsbeautiful.com/>

Richland County 4-H - <http://www.clemson.edu/extension/4h/>

Richland County Conservation Commission - <http://www.richlandonline.com/departments/conservation/commission>

Richland County Master Gardeners - http://www.scommga.org/richland_county.html

Richland Soil & Water Conservation District

- <http://www.richlandonline.com/departments/conservation/conservation.htm>

Sonoco Recycling - http://www.sonoco.com/sonoco/Services/Recycling/svc_sonoco_recycling.htm

South Carolina Department of Health & Environmental Control - <http://www.scdhec.gov/index.htm>

South Carolina Forestry Commission - <http://www.state.sc.us/forest/>

South Carolina State Museum - <http://www.museum.state.sc.us/>

Sustainable Carolina - <http://www.cas.sc.edu/greenquad>

Sustainable Midlands - <http://www.sustainablemidlands.org/>

Town of Blythewood - <http://www.townofblythewoodsc.gov/>

Appendix F - Partner Websites