Annual Report of Activities

Year 2

September 2009 - August 2010

September 2010
The Florence Darlington Stormwater Consortium (FDSC) is comprised of the City of Florence, Darlington County and Florence County, as well as several important partnering organizations. This regional education partnership began in the fall and winter of 2008 to 2009, and this watershed-based approach was officially adopted on November 18, 2009 with the signing of a joint resolution by officials from each of the three MS4s.

Using the 303(d) List of Impaired Waterbodies, feedback from stormwater professionals immersed in the region, and knowledge of local behaviors that potentially add to stormwater pollution, the group identified target pollutants and target audiences to draft the adaptive Annual Education Plan. Overall, stormwater awareness was retained as a part of the educational process, with special focus placed on infiltration, bacteria from pet waste and failing septic tanks, and sediment. Sources of bacteria were selected due to the upcoming TMDL on Black Creek expected next year and the current listing on Gully Branch in Florence. Consortium members felt that the following audiences should remain a focus in this regional education strategy:

- General Public
- Youth (including youth groups such as boy/girl scouts)
- Teachers
- Professionals (such as developers, engineers, builders and contractors)
- Planning Commissions
- Commercial Citizens (farmers)
- Homeowners/Homeowners Associations

This year also brought a local coordinator to the group, Ms. Terasa Young. Terasa is an experienced educator familiar with the watersheds, local agencies and the public. Prior to this time, Ms. Katie Giacalone, Carolina Clear Statewide Coordinator, had served as the group’s coordinator.

During this second year, the FDSC grew with the addition of three new education partners and worked diligently to pool collective resources to deliver an effective stormwater message across the Pee Dee. Lessons learned from Year One’s implementation of the Annual Education Plan served as important guidance. The consortium remains dedicated to enhancing water resources protection and stewardship throughout Florence and Darlington Counties and developing education and outreach strategies that will incur measurable behavior change, in as much as possible.
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Florence Darlington Stormwater Consortium
The FDSC is comprised of three small MS4s whose representatives provided the major guidance in determining the direction and purpose of the Consortium in its second year. Their commitment to protecting the water resources of the Pee Dee Region was strengthened with the signing of a joint resolution to adopt a regional stormwater education strategy on November 18, 2009.

Local SMS4 Consortium Representatives

<table>
<thead>
<tr>
<th>SMS4</th>
<th>Consortium Representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Florence</td>
<td>Drew Griffin, Alvin Ard, Michael Hemingway, Amanda Pope, Forrest Whittington</td>
</tr>
<tr>
<td>Darlington County</td>
<td>Doug Reimold, Charles Brooks, Dana Hamilton, Julie Ritz</td>
</tr>
<tr>
<td>Florence County</td>
<td>James Griffin (formerly with the county), Brian Hicks, Chris Moats, Benjamin Smith</td>
</tr>
</tbody>
</table>
The FDSC’s education partners play a vital role in developing and delivering outreach programs that align with the Consortium’s mission of enhancing water resource protection and stewardship. Collaboration with these universities, government agencies, and non-profits enables the FDSC to deliver consistent and effective outreach programs throughout the watershed. New to the Consortium are the Florence Area Humane Society and the Darlington County Humane Society.

**Education Partners**

<table>
<thead>
<tr>
<th>Education Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolina Clear</td>
</tr>
<tr>
<td>Clemson University Cooperative Extension Service</td>
</tr>
<tr>
<td>Clemson University Center for Watershed Excellence</td>
</tr>
<tr>
<td>4-H Youth Development</td>
</tr>
<tr>
<td>Kalmia Gardens of Coker College</td>
</tr>
<tr>
<td>BP Barber</td>
</tr>
<tr>
<td>Environmental Discovery Center at Lynches River County Park</td>
</tr>
<tr>
<td>Pee Dee Land Trust</td>
</tr>
<tr>
<td>SC Department of Health and Environmental Control</td>
</tr>
<tr>
<td>Florence Area Humane Society</td>
</tr>
<tr>
<td>Darlington County Humane Society</td>
</tr>
</tbody>
</table>
FDSC Goals and Objectives

Goal Statement

To enhance water resource protection and stewardship throughout Florence and Darlington Counties through stormwater education, public involvement and outreach, and by fostering partnerships with local governments, citizens, businesses, schools, and organizations to support healthy waterways.

Objectives

1. Maximize efficiency of stormwater education efforts in the upper Pee Dee region of South Carolina by using a regional/watershed approach.

2. Develop and implement a cohesive education strategy that addresses the range of stormwater pollutants using a prioritized approach that capitalizes on local training resources.

3. Foster and expand upon citizen involvement in stormwater management through this effort's education and participation programs.

4. Encourage behavioral change towards improved environmental protection and awareness through stormwater education.

5. Facilitate collaboration among local organizations interested in watershed-related education to best meet the educational needs of local communities and their public.

6. Through partnerships with MS4s, leverage local education resources and organized outreach programs to meet the NPDES Phase II permit requirements for public stormwater education and outreach to achieve greater water resource protection.

7. Actively participate in collaborative stormwater education that can be presented and applied in South Carolina and nationwide.

“A river is more than an amenity—it is a treasure that offers a necessity of life that must be rationed among those who have the power over it.”

-Oliver Wendell Holmes
In addition to regular communication through a list serve, the consortium also met three times this year to recruit and discuss partnering organizations, evaluate educational needs, and develop an education strategy for implementation. Meetings included all MS4s, education partners, local agencies and on some occasions, interested citizens; feedback, discussion and consistent communication truly made this a regional decision-making process. The 2008 list of impaired waterbodies and TMDLs approved and upcoming have been a major consideration at meetings. This information has been used to develop an education strategy that reflects known water quality impairments. Discussions have included the identification of audiences that may be involved with actions related to the known impairment and those audiences who may be involved in preventing that type of pollution.
The public education segment of this document is organized by outreach methods, with major headings including: Mass Media, Publications, Presentations, Joint Resolution Signing, Workshops, Conference, and Brochure/Outreach Media.

Target audiences that are tracked in the FDSC Activity Database have been abbreviated; additional target audiences not in the database are listed in full. Abbreviations are identified in the table to the right.

<table>
<thead>
<tr>
<th><strong>Audience Abbreviations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Public</td>
</tr>
<tr>
<td>K-12 Students/ Youth</td>
</tr>
<tr>
<td>Teachers</td>
</tr>
<tr>
<td>Elected &amp; Appointed Officials</td>
</tr>
<tr>
<td>Directly-Involved Staff (Maintenance, Facilities, Custodians, Ground-keepers, etc.)</td>
</tr>
<tr>
<td>Supervisory Staff (Administrators, Stormwater Managers, etc.)</td>
</tr>
<tr>
<td>Contractors</td>
</tr>
<tr>
<td>Developers</td>
</tr>
<tr>
<td>Landscapers or Landscape Architects</td>
</tr>
<tr>
<td>Marina Owners and/or Boat Owners</td>
</tr>
<tr>
<td>Homeowners</td>
</tr>
<tr>
<td>Engineers</td>
</tr>
</tbody>
</table>

**MASS MEDIA: Billboard**

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting Partner(s)</th>
<th>Activity</th>
<th>Date</th>
<th>Number of Impacts</th>
<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Billboard Media Campaign - Florence Co. W. Palmetto St. 0.1 miles East of Five Points, north side</td>
<td>3/8/2010-8/31/2010</td>
<td>30,400 per day</td>
<td>GP</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Billboard Media Campaign - Darlington Co. I-20 875’ East of S-16-33, south facing</td>
<td>3/8/2010-8/31/2010</td>
<td>17,500 per day</td>
<td>GP</td>
</tr>
</tbody>
</table>
MASS MEDIA: Radio and TV

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting</th>
<th>Activity</th>
<th>Date</th>
<th>Number of Impacts</th>
<th>Target Audience (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td>Time Warner Cable / Palmetto People</td>
<td>A stormwater commercial aired 10 times per week on 17 shows.</td>
<td>8/3/2009-12/21/2009</td>
<td>&lt;184,267</td>
<td>GP</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Time Warner Cable (FX, Fox News, TNT, USA, Spike, Weather Channel)</td>
<td>A stormwater commercial was aired on Time Warner cable channels (20 spots per week for four weeks).</td>
<td>8/12/2009-9/12/2009</td>
<td>&lt;184,267</td>
<td>GP</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>City of Florence</td>
<td>Interviewed by Tom Kinard on “Kinard-n-Koffee” show which is aired on 1310 AM and 93.7 FM radio stations.</td>
<td>9/19/2009</td>
<td>12,000</td>
<td>GP</td>
</tr>
</tbody>
</table>

The mass media campaign which began in 2009 was carried out on television via spots purchased from Time Warner Cable. At the time of publication of the 2008-2009 Annual Report, impact numbers were still being calculated by the cable network. Impact numbers reported in this annual report fall reflect a period of time that spans the 2008-2009 and 2009-2010 reporting year.

The 30-second commercial for television has the following educational message: there is a limited amount of clean, fresh water and actions that people take on a daily basis can affect the quality of that water supply. The PSA specifically identifies pollutant sources from over-fertilizing lawns, hazardous household materials, oils washing off driveways and parking lots, and pet waste—and the need to manage these potential pollutants. The commercial encourages the viewer to remember that “We ALL live downstream.”

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

Public Education
September 2009—August 2010 Annual Report
Florence Darlington Stormwater Consortium
## MASS MEDIA: Radio and TV

<table>
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<tr>
<th>Lead Provider</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td>City of Florence</td>
<td>Interviewed by Tom Kinard on &quot;Kinard-n-Koffee&quot; show which is aired on 1310 AM and 93.7 FM radio stations.</td>
<td>7/21/2010</td>
<td>12,000</td>
<td>GP</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>SC ETV</td>
<td>Appeared on <em>Making It Grow!</em> to discuss rain barrels, rain gardens, and ways to mitigate stormwater on the home landscape.</td>
<td>8/3/2010</td>
<td>2850</td>
<td>GP</td>
</tr>
</tbody>
</table>
The Carolina Clear website was redeveloped in September 2008 and serves as a statewide educational resource and hub for the FDSC website. The FDSC website has been created and is undergoing changes as this consortium evolves. The viewship of the website is monitored by Google Analytics, which developed the numbers included above.

The FDSC website features information on the consortium, its goals and objectives, links to partnering organization, municipality and county websites, information on upcoming events, a copy of the education plan and mass media information. Future website improvement projects will include total maximum daily load information, watershed maps and partnering organization project and event announcements.

<table>
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<tr>
<th>Lead Provider</th>
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<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td>This is the total number of visits to the pages of the Florence Darlington Stormwater Consortium section of the Carolina Clear website.</td>
<td>9/1/2009-8/31/2010</td>
<td>775</td>
<td>GP</td>
<td></td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>This is the total number of visits where user accessed information on the Carolina Clear web pages from Florence and Darlington Counties.</td>
<td>9/1/2009-8/31/2010</td>
<td>499</td>
<td>GP</td>
<td></td>
</tr>
<tr>
<td>Darlington County</td>
<td>This numbers represents visit to the Darlington County Stormwater Management webpage. The page dives the definition of stormwater, identifies potential pollutants, relates stormwater pollution to the local watershed, and lists things that the general public can do to protect water resources. Citizens are also given a pollution prevention hotline to call if they spot illicit discharges.</td>
<td>9/1/2009-8/31/2010</td>
<td>293</td>
<td>GP, YT, EA</td>
<td></td>
</tr>
</tbody>
</table>

“If you could tomorrow morning make water clean in the world, you would have done, in one fell swoop, the best thing you could have done for improving human health by improving environmental quality.”

William C. Clark
## Public Education

### PUBLICATIONS

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<tr>
<td>Clemson Extension</td>
<td>Darlington News &amp; Press</td>
<td>Follow up article in Darlington News &amp; Press on rain barrel workshop.</td>
<td>9/2/2009</td>
<td>6200</td>
<td>GP</td>
</tr>
<tr>
<td>US Department of Agriculture</td>
<td>Kalmia Gardens</td>
<td>Regional stormwater education partnership announced in USDA's &quot;Eat Smart...It's in the Garden&quot; September 2009 Newsletter.</td>
<td>9/10/2009</td>
<td>200</td>
<td>GP, YT, TE, Farmers</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Florence Morning News</td>
<td>Article announcing joint resolution signing by the City of Florence, Darlington County, and Florence County featured in the Florence Morning News.</td>
<td>11/18/2009</td>
<td>33000</td>
<td>GP</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Florence Morning News</td>
<td>&quot;Science educator Young joins Carolina Clear&quot; featured in Florence Morning News.</td>
<td>4/18/2010</td>
<td>33000</td>
<td>GP</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Florence Morning News</td>
<td>&quot;Stormwater compliance workshop coming to Pee Dee&quot; article featured in Florence Morning News.</td>
<td>5/20/2010</td>
<td>33000</td>
<td>CO, DE, LA, EN, SS</td>
</tr>
<tr>
<td>Clemson Extension / Kalmia Gardens</td>
<td>Florence Morning News</td>
<td>“Camp 4-H2O teaches children about watersheds, safety” featured in Florence Morning News.</td>
<td>6/18/2010</td>
<td>33000</td>
<td>GP, YT</td>
</tr>
</tbody>
</table>
## Public Education

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<th>Number of Impacts</th>
<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td>Florence Morning News</td>
<td>&quot;Keep water clean, save money at the same time&quot; column written by Terasa Young featured in Florence Morning News.</td>
<td>7/4/2010</td>
<td>33000</td>
<td>GP, HM</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Darlington News &amp; Press</td>
<td>&quot;Drinking with dinosaurs&quot; article featured in Darlington News and Press. Article highlights the presentations by Alma Harris at the Darlington Library teaching children about the water cycle and the importance of water conservation.</td>
<td>7/21/2010</td>
<td>6200</td>
<td>GP, YT</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Florence Morning News</td>
<td>&quot;Harvesting rainwater offers benefits&quot; column written by Terasa Young featured in Florence Morning News.</td>
<td>8/1/2010</td>
<td>33000</td>
<td>GP, HM</td>
</tr>
</tbody>
</table>

Samantha Lyles from the Darlington News and Press wrote this article about Carolina Clear and the Florence Darlington Stormwater Consortium.
# Presentations: Exhibit/Poster

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<th>Number of Impacts</th>
<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Florence</td>
<td>Florence County, Clemson Extension</td>
<td>Stormwater education postcards and promotional items were given out at the Pecan Festival in downtown Florence.</td>
<td>11/7/2009</td>
<td>150</td>
<td>GP</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td>Clemson Extension</td>
<td>Kalmia Gardens set up a stormwater display and rain barrel give-away provided by Carolina Clear at their Earth Day Festival.</td>
<td>4/10/2010</td>
<td>Approx. 100</td>
<td>GP, YT</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Extension Agent Tony Melton set up a stormwater display and rain barrel give-away provided by Carolina Clear at the Rural Heritage Festival.</td>
<td>4/17/2010</td>
<td>Approx. 550</td>
<td>GP, YT, HM</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Carolina Clear set up a stormwater display and rain barrel give-away at the Just A Walk in the Park Earth Day Event at Williamson Park.</td>
<td>4/17/2010</td>
<td>Approx. 70</td>
<td>GP, YT, HM</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Use of rain barrels was discussed and barrels were sold during the Master Gardener Plant Sale.</td>
<td>4/24/2010</td>
<td>Approx. 100</td>
<td>HM</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Carolina Clear set up a stormwater display and rain barrel give-away at the Black Creek Canoe and Kayak festival at Lawton Park.</td>
<td>5/1/2010</td>
<td>Approx. 50</td>
<td>GP, YT, HM</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>The Enviroscape model was used to illustrate the concept of stormwater runoff and the things that we can do to prevent stormwater pollution.</td>
<td>6/8/2010</td>
<td>35</td>
<td>YT</td>
</tr>
</tbody>
</table>
Image capture of the consortium’s newest educational flyer describing proper yard debris disposal. The flyer is printed in English on one side and Spanish on the other.

Public Works Crews will be distributing these when they observe mismanagement of yard waste and debris.

Leaf it on the Lawn:
Tips for Proper Yard Debris Disposal

Did you know that stormwater is the leading threat to water quality?

Yard debris can be transported to stormwater pipes and waterways, causing problems for you and your community.

- Yard debris can clog stormwater pipes, causing flooding and costly maintenance, which may be passed on to homeowners.
- As yard debris decomposes, nutrients such as nitrogen and phosphorus are released into the water. This causes algae blooms, which are unsightly and can kill fish.

**Free Fertilizer, Anyone?**

- Grass clippings and leaves return nutrients and water to the soil. Mulching mowers may be more efficient but several passes with any rotary mower will yield the same results with no impacts on turf.
- Use a blower or broom to keep grass clippings and leaves in the yard instead of blowing them into the street.

If you must dispose of yard waste, compost it or bag it for pick up.

**Remember, South Carolina, we all live downstream!**

**You can be the solution to stormwater pollution!**

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For more information:
City of Florence Public Works Sanitation Division 665-3236
Darlington County Environmental and Recycling Services 398-4800
Florence County Environmental Services 665-3053

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**Public Education**
September 2009—August 2010 Annual Report
Florence Darlington Stormwater Consortium
# Presentations: Nature Oriented Tours

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting Partner(s)</th>
<th>Activity</th>
<th>Date</th>
<th>Number of Impacts</th>
<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Dan Hill led Scott Mixon’s 5th grade classes on a nature walk through Kalmia Gardens. They stopped at a storm drain pipe and talked about stormwater, runoff, water quality, and water conservation.</td>
<td>10/19/2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10/21/2009</td>
<td>58</td>
<td>YT, TE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10/22/2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Led a NC Garden Club on a nature Walk in Kalmia Gardens. On this walk he stopped at a stormwater culvert to talk with the group about storm water runoff. Explained the importance of keeping storm water runoff as “clean” as possible and talked about the benefits of rain gardens, collecting rain water in rain barrels, and water conservation in general.</td>
<td>10/20/2009</td>
<td>30</td>
<td>HM</td>
</tr>
</tbody>
</table>
## Public Education

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<th>Activity</th>
<th>Date</th>
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<th>Target Audience (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Dan Hill led a tour of 25 adults from First Baptist church around Kalmia Gardens stopping at the storm drain pipe to inform them about storm water runoff. Many thought stormwater went to treatment plants.</td>
<td>2/25/2010</td>
<td>25</td>
<td>HM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4th graders from Thomas Wood School toured Kalmia Gardens stopping at the storm water pipe to learn about storm water runoff. None of the kids realized where storm water went or the things it could carry. (Thomas Wood School)</td>
<td>3/26/2010</td>
<td>59</td>
<td>YT, TE</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Earth Day event at Kalmia Gardens. 60+ people were led on walking tours of the garden where storm water and runoff issues were talked about. 30 people were guided on Black Creek where watershed and conservation topics were discussed.</td>
<td>4/10/2010</td>
<td>90</td>
<td>GP, YT, TE, HM, EA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Led a tour from Carolina Elementary. We talked about storm water and runoff.</td>
<td>4/22/2010</td>
<td>24</td>
<td>YT, TE, HM</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Mecklenburg County NC Master Gardeners tour. On our tour we stopped at the storm water pipe and discussed issues with storm water runoff. Many thought the water would be treated and were surprised to hear otherwise. We also discussed rain barrels.</td>
<td>5/12/2010</td>
<td>30</td>
<td>GP, HM</td>
</tr>
</tbody>
</table>

“We’re doing everything we can to make sure that our future generation understands the process of water protection, and how important it is to save our water.”

Alma Harris  
Extension Agent, Darlington and Florence Counties

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<tbody>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>On this tour with 2nd grade students, we stopped at the storm drain pipe to discuss storm water and issues that affect the quality of the water, and the importance of protecting our water sheds.</td>
<td>5/13/2010</td>
<td>80</td>
<td>YT, TE</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>A group of special needs young adults toured the garden. We discussed storm water, water conservation, and wet lands at the storm drain pipe.</td>
<td>5/18/2010</td>
<td>18</td>
<td>GP</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Dan Hill led the women's league on Black Creek. On this trip we discussed storm water runoff, water conservation, the importance of swamps/watersheds and best ways to protect them.</td>
<td>5/23/2010</td>
<td>4</td>
<td>GP, HM</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>I guided the Darlington County economic committee down black creek. We discussed water sheds, and storm water runoff.</td>
<td>6/3/2010</td>
<td>16</td>
<td>GP, HM, EA</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Winners of the women's league auction canoe trip discussed storm water runoff and its impact on Black Creek, protecting watersheds and the importance of watersheds.</td>
<td>6/11/2010</td>
<td>2</td>
<td>GP, HM</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Florence Christian School toured the garden and stopped at the storm water pipe to discuss storm water and its impact on local water ways, watershed protection, and the importance of clean water to us and wildlife.</td>
<td>6/21/2010</td>
<td>60</td>
<td>YT, TE</td>
</tr>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>In conjunction with the Hartsville Library’s “Make a splash, Read” program, a group of children learned about the importance of water and ways to keep it clean. We looked at benthic macroinvertebrates, checked minnow traps, examined the fish we caught then released them. At the dock we discussed the ecology of Black Creek.</td>
<td>6/23/2010</td>
<td>70</td>
<td>YT, TE, HM</td>
</tr>
</tbody>
</table>
### Public Education

#### Activity
A group of 25 children (4-13 yrs.) from Florence toured the garden and we discussed storm water runoff and water pollution.

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting Partner (s)</th>
<th>Activity</th>
<th>Date</th>
<th>Number of Impacts</th>
<th>Target Audience (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td></td>
<td>8/10/2010</td>
<td>25</td>
<td>YT, TE</td>
</tr>
</tbody>
</table>

“Over the past year I have had great response when using the Enviroscape watershed model. It is one thing to talk to children, young adults, and even adults about stormwater runoff and the pollutants it can carry, but for them to actually see it is another. You can tell by the look on everyone’s faces when you make it “rain” over the model and see soil, animal waste, automotive spills, etc. wash into the waterways that it is a real an eye opener! I am very happy with how this model works and will continue to use it along with my other “tools” in teaching water conservation and stormwater runoff at Kalmia Gardens.”

---

Dan Hill  
Assistant Director, Kalmia Gardens
### PRESENTATIONS: Summer Programs

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting Partner(s)</th>
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<th>Number of Impacts</th>
<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td>Kalmia Gardens</td>
<td>Clemson Extension 4-H and Kalmia Gardens of Coker Colleges sponsored a 4-H20 water quality and outdoor adventure camp. The educational camp taught youth to understand, appreciate and protect life in and around the lake. Participants learned about the aquatic environment, how a watershed works, how it affects the quality of water resources and how to protect the water. They also learned about insects and their role in the ecosystem.</td>
<td>6/16/2010 - 6/18/2010</td>
<td>24</td>
<td>YT</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Clemson Extension</td>
<td>Staff from the City of Florence, Carolina Clear, and the Pee Dee REC spoke to a summer youth group about stormwater &amp; the adverse effect certain human behaviors have on our aquatic life &amp; their ecosystem. A model demonstrated how run off pollution traveled through underground pipes &amp; discharged into local creeks &amp; streams untreated. Terasa gave demonstration on water quality, water testing, and the effects on the health of aquatic life. A power point presentation was shown of our SWIM project and explained how certain processes in nature help remove pollutants.</td>
<td>7/09/2010</td>
<td>63</td>
<td>YT</td>
</tr>
</tbody>
</table>
## PRESENTATIONS: Summer Programs

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting Partner(s)</th>
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</thead>
<tbody>
<tr>
<td>Kalmia Gardens</td>
<td></td>
<td>Week in the Wild is a half day camp divided into 3 week sessions for rising 1st and 2nd graders/ rising 3rd and 4th graders/rising 5th and 6th graders. We discussed storm water, where it goes, and what it carries with it as well as the importance of water conservation.</td>
<td>7/12/2010-7/30/2010</td>
<td>60</td>
<td>YT</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Clemson Extension</td>
<td>Staff from the City of Florence, Carolina Clear, and the Pee Dee REC gave a tour of the City's SWIM project to a summer youth group. Four stations around the project was set up and each station demonstrated/spoke about a specific environmental topic. Station 1 explained the water cycle and students created bracelets using different trinkets that represent each part of the water cycle. Station 2 demonstrated water sampling for DO &amp; pH. Students were allowed to participate by gathering samples and reading results. It was explained how each test was an indicator of water quality and how the quality was important to the ecosystem. Station 3 introduced students to macro invertebrates. Students were allowed to use dip nets &amp; identify various aquatic life, this became one of the participants favorite stations. Station 4 was a model that demonstrated how run off pollution travels through underground pipes and is discharged untreated into our local streams and creeks. Students were taught how to properly pick up &amp; dispose of pet waste. Impact was gauged by allowing each student to individually tell one thing they learned before they left the project.</td>
<td>7/16/2010</td>
<td>49</td>
<td>YT</td>
</tr>
<tr>
<td>Environmental Discovery Center</td>
<td></td>
<td>Students from High School High Tech perform a chemical analysis of the Lynches River including temperature, pH, phosphate/nitrates and dissolved oxygen to determine the overall water quality.</td>
<td>7/30/2010</td>
<td>12</td>
<td>YT</td>
</tr>
</tbody>
</table>
## PRESENTATIONS

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Florence County Pesticide Training: re-certification for Pesticide License. Discussed runoff management, safety, and commercial application of pesticides.</td>
<td>9/2/2009</td>
<td>5</td>
<td>DIS</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>Students from McLaurin Elementary School toured the City of Florence wastewater facility. The event included tours of our treatment process and a brief description of the treatment steps. Water discharge from the plant and our storm water collection system was a key speaking topic in order to promote awareness that storm water was untreated and our personal behavior had an affect on the quality of water in our community.</td>
<td>9/25/2009</td>
<td>67</td>
<td>YT, TE</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>Michael Hemingway spoke to West Florence High School students about the importance of stormwater and pollution prevention. Each participant received a pet waste education card, stormwater awareness card, and City of Florence Land Disturbance &amp; Stormwater Management pamphlet. The feedbacks from the teacher and students as positive and they requested future visits.</td>
<td>10/20/2009</td>
<td>14</td>
<td>YT, TE</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>Michael Hemingway spoke to 26 students about stormwater and pollution prevention. Each participant received a pet waste pamphlet, stormwater awareness pamphlet, and City of Florence Land Disturbance &amp; Stormwater Management pamphlet.</td>
<td>11/17/2009</td>
<td>26</td>
<td>YT, TE</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Clemson Extension 4-H students and volunteers visited J&amp; W Greenhouse to learn about the daily operations of the greenhouse and how chemicals if not disposed of properly could affect water quality in the food chain.</td>
<td>4/24/2010</td>
<td>32</td>
<td>GP, YT, HM</td>
</tr>
</tbody>
</table>
## Public Education

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<th>Number of</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Worked with children from the Pee Dee Short Course 4H Camp at Francis Marion University to test the pond water from campus and talk about water quality and things they could do to protect and conserve water.</td>
<td>6/16/2010</td>
<td>81</td>
<td>YT</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>South Carolina Rural Water Association</td>
<td>Students at the Darlington County libraries learned the importance of the water cycle process and how to protect our water. Participants learned our to use water wisely. Limit use of household and garden chemicals, never pour chemicals or paint down the sink or storm drain, or on the ground, bring all hazardous wastes to a hazardous waste collection center. Students, were influenced to get involved with community efforts to protect and conserve water.</td>
<td>6/28/2010-7/2/2010</td>
<td>300</td>
<td>YT, GP, TE</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Terasa Young spoke to the residents at McLeod Family Medicine. The presentation talked about watersheds, stormwater and possible pollutants, and green solutions such as rain water harvesting, buffers, pervious surfaces.</td>
<td>6/18/2010</td>
<td>8</td>
<td>GP, HM</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>Florence elected officials and Planning Commission were presented updated material on the City of Florence NPDES Phase II stormwater permitting cycle.</td>
<td>6/18/2010</td>
<td>20</td>
<td>EA</td>
</tr>
</tbody>
</table>

### JOINT RESOLUTION SIGNING

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<th>Number of</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td>All MS4s</td>
<td>A joint resolution was signed at the Florence Civic Center by officials from each of the three MS4s officially adopting a regional stormwater education strategy through the Florence Darlington Stormwater Consortium.</td>
<td>11/18/2009</td>
<td>38</td>
<td>EA</td>
</tr>
</tbody>
</table>

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**Public Education**

September 2009—August 2010 Annual Report
Florence Darlington Stormwater Consortium

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## Public Education

### WORKSHOPS

<table>
<thead>
<tr>
<th>Lead Provider</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Clemson Extension 4-H, conducted water quality activities in the school during the school year. Student's learned how our activities on land can pollute water and how to keep our water safe.</td>
<td>9/01/2009-8/30/2010</td>
<td>400</td>
<td>YT, TE</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>The City of Florence Parks &amp; Beautification Commission held their annual retreat &amp; work session. The commission and city staff developed an annual plan to serves as a guide for policy development, beautification efforts, program implementation &amp; capital projects for the coming year. Commission also received a status report on projects currently including posting of signage at watershed management areas.</td>
<td>1/30/2010</td>
<td>21</td>
<td>DIS, GP, EA</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Kalmia Gardens</td>
<td>The Junior Master Gardener program is designed for 3rd through 5th graders and is modeled after the Mater Gardener Program offered through Clemson University Cooperative Extension Service. The horticultural and environmental science education included the watershed and water cycle activities.</td>
<td>3/4/2010</td>
<td>16</td>
<td>YT</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>35 students and adults of the Clemson Extension program learning the importance of being environmental stewards and how the zoo maintains high quality natural waters for the plants and animals that live on-site and everyone who lives downstream, through visiting the Riverbanks Zoo in Columbia.</td>
<td>4/16/2010</td>
<td>35</td>
<td>YT</td>
</tr>
</tbody>
</table>

“We have too long treated the natural world as an adversary rather than as a life-sustaining gift from the Almighty. If man has the genius to build, which he has, he must also have the ability and the responsibility to preserve.”

- *Gerald R. Ford*

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**Public Education**

September 2009—August 2010 Annual Report

Florence Darlington Stormwater Consortium
## WORKSHOPS

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<tr>
<th>Lead Provider</th>
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<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson Extension</td>
<td>All MS4s</td>
<td>Stormwater Compliance Support Workshop held for contactors, sub-contractors, Tier-B Surveyors, and Registered Landscape Architects. Workshop focused on NPDES Permit Requirements, BMPs, LID, and question and answer session with Jill Stewart from SC DHEC.</td>
<td>6/3/2010</td>
<td>58</td>
<td>CO, DE, EN, LA</td>
</tr>
<tr>
<td>SC Forestry Commission</td>
<td>Kalmia Gardens</td>
<td>Project Learning Tree (SC Forestry Commission) help a workshop at Kalmia Gardens. Topics discussed included: water conservation, the importance of and protecting water sheds, storm water runoff, and clean water.</td>
<td>6/22/2010</td>
<td>60</td>
<td>TE, GP, HM</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Through the Community Garden Project, participants learned the importance of water quality when it comes to planting and fertilizing a garden.</td>
<td>7/1/2010-8/31/2010</td>
<td>45</td>
<td>P, YT, TE, HM</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td>Kalmia Gardens</td>
<td>A build your own rain barrel workshop was held at Kalmia Gardens. Educational presentation focused on stormwater pollution and green solutions for homeowners.</td>
<td>8/28/2010</td>
<td>16</td>
<td>HM</td>
</tr>
</tbody>
</table>

## CONFERENCE

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Activity</th>
<th>Date</th>
<th>Number of Impacts</th>
<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darlington County</td>
<td>Charles Brooks invited Jill Stewart (SC DHEC) to the 2010 South Carolina Association for Hazard Mitigation conference to discuss the new regulations being proposed for the next permit cycle since many of our members not only regulate flood hazard ordinances for their jurisdiction but also work with stormwater management.</td>
<td>3/10/2010-3/12/2010</td>
<td>135</td>
<td>SS</td>
</tr>
<tr>
<td>Lead Provider</td>
<td>Supporting Partner(s)</td>
<td>Activity</td>
<td>Date</td>
<td>Number of Impacts</td>
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<tr>
<td>----------------------</td>
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<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Kalmia Gardens</td>
<td>Clemson Extension</td>
<td>Storm water runoff brochures were handed out at the Darlington County Master Gardener booth during the Hartsville Community Market.</td>
<td>10/3/2009</td>
<td>150</td>
</tr>
<tr>
<td>Darlington County</td>
<td>EPA</td>
<td>Children who accompany their parents to the Darlington County Planning Commission Office are given EPA water related coloring and activity pages.</td>
<td>12/1/2009-8/31/2010</td>
<td>883</td>
</tr>
<tr>
<td>Darlington County</td>
<td>Clemson Extension</td>
<td>Educational postcards on a variety of stormwater topics were given to people visiting the Darlington County Planning Commission office.</td>
<td>1/4/2010-8/31/2010</td>
<td>491</td>
</tr>
<tr>
<td>Darlington County</td>
<td></td>
<td>When developers for subdivisions or commercial sites come into the office to inquire about requirements there is an opportunity for education on a one-to-one basis. The other group that is an easy reach are the contractors pulling permits. Once the site is determined to be in or near a flood zone or impaired water, the brochure &quot;Stormwater Permits for Construction Activities&quot; is given to the individuals involved.</td>
<td>5/1/2010-8/31/2010</td>
<td>20</td>
</tr>
<tr>
<td>Darlington County</td>
<td>Clemson Extension</td>
<td>When children come into the office, they are offered a compressed sponge with a stormwater message and told about the importance of being a solution to pollution. Parents are encouraged to help their child and experiment with the sponge.</td>
<td>5/1/2010-8/31/2010</td>
<td>90</td>
</tr>
</tbody>
</table>
## COMMUNITY CLEAN-UPS

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting Partner (s)</th>
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<th>Date</th>
<th>Number of Impacts</th>
<th>Target Audience (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Florence</td>
<td></td>
<td>The City has established 4 used motor oil collection centers located at fire departments, which conveniently allow the community to safely dispose of used motor oil at no charge. <em>Oil collected is calculated based on the calendar year.</em></td>
<td><strong>1/1/2009-12/30/2009</strong></td>
<td>1596 gallons</td>
<td>GP</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>4-H Youth in Darlington County attack litter, during the 2009-2010, reporting period. In an effort to keep Darlington County Beautiful the Darlington County 4-H adopted two miles of highway in the city of Hartsville through the Adopt-A-Highway program offered by Keep Darlington County Beautiful, an affiliate of Keep America Beautiful.</td>
<td><strong>9/30/2009-8/31/2010</strong></td>
<td>80</td>
<td>GP, HM, YT</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>25 Clemson Extension 4-H youth participated in the Darlington County Animal Shelter Cleanup. The youth learned the importance of cleaning up pet waste.</td>
<td><strong>10/16/2009</strong></td>
<td>25</td>
<td>YT</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>The Special Litter Campaign was enacted in an effort to help maintain the beauty of Florence’s landscape and in part protect our rivers, lakes and streams from harmful litter. Target areas were prioritized weekly using factors as streets within close proximity to waterways, traffic flows, and requests from citizens.</td>
<td><strong>2/11/2010-6/30/2010</strong></td>
<td>2.32 tons of litter and debris</td>
<td>GP</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>All residents were asked to collect any scrap metal around their residence and place it curb side for pick up by City of Florence staff. It was estimated that 10% of residential customers participated. Approximately 1/2 ton of scrap metal was collected and disposed of properly.</td>
<td><strong>3/22/2010-3/26/2010</strong></td>
<td>.5 tons</td>
<td>GP, HM</td>
</tr>
</tbody>
</table>
### Public Involvement

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<th>Number of Impacts</th>
<th>Target Audience(s)</th>
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<tbody>
<tr>
<td>Great American Cleanup / Keep Florence Beautiful</td>
<td>City of Florence</td>
<td>This annual activity promotes public awareness of litter &amp; its impact on stormwater. The public meets at Timrod Park in Florence and is a part of the &quot;Keep Florence Beautiful&quot; campaign. 24 tons of litter &amp; debris, 2 tons of scrap metal, and 292 tires were collected within the city.</td>
<td>3/27/2010</td>
<td>650</td>
<td>GP, YT, HM</td>
</tr>
<tr>
<td>Great American Cleanup / BP Barber</td>
<td>City of Florence</td>
<td>Mike Hannah with BP Barber coordinated efforts with members of the City of Florence staff to clean litter and debris from 3 ponds located near West Florence High School. The participants collected approx. 20 bags of litter along with other items of debris. The event was recognized by Palmetto Pride who donated gloves and bags.</td>
<td>4/23/2010</td>
<td>13</td>
<td>CO, DE, DIS, SS</td>
</tr>
<tr>
<td>Clemson Extension</td>
<td></td>
<td>Darlington County 4-H members sponsored Liberty Lane as a cleanup project. Through this project youth learned the importance of the proper disposal of debris not only for aesthetic purposes but for protection of water quality.</td>
<td>5/16/2010-8/1/2010</td>
<td>35</td>
<td>YT</td>
</tr>
</tbody>
</table>

### ADVISORY BOARD MEETINGS

<table>
<thead>
<tr>
<th>Lead Provider</th>
<th>Supporting Partner(s)</th>
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<th>Number of Impacts</th>
<th>Target Audience(s)</th>
</tr>
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<tbody>
<tr>
<td>City of Florence</td>
<td></td>
<td>This stormwater advisory board is comprised of members of the community within the city's MS4 jurisdiction who assist in local efforts to review and address stormwater policy changes that will serve and protect the citizens of the community as well as local and state waterways.</td>
<td>11/19/2009</td>
<td>15</td>
<td>GP</td>
</tr>
</tbody>
</table>
### ADVISORY BOARD MEETINGS

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<tbody>
<tr>
<td>City of Florence</td>
<td></td>
<td>City officials met with community members to discuss Proposed Phase II permit changes regarding renewing the NPDES stormwater permit. Geoff Smith of BP Barber gave a brief description and outline of forecasted additional requirements and changes. Jill Stewart of SCDHEC was in attendance and Terasa Young of Carolina Clear was introduced to the board.</td>
<td>6/3/2010</td>
<td>21</td>
<td>GP, CO, DE, EN</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Clemson Extension</td>
<td>Drew Griffin presented a power point presentation titled &quot;MS4 Program Requirements Minimum Control Measures 1 &amp; 2&quot; to City officials &amp; board members present. Terasa Young gave a presentation about the role of Carolina Clear. Drew also discussed the new permit mandates &amp; requirements. Suggested targeted pollutants &amp; targeted audiences were presented to the board by Mr. Griffin.</td>
<td>7/15/2010</td>
<td>16</td>
<td>GP, CO, DE, EN</td>
</tr>
<tr>
<td>City of Florence</td>
<td></td>
<td>Drew Griffin opened the meeting with a power point presentation titled &quot;MS4 Program Requirements Minimum Control Measure 3&quot; after which a question &amp; answer session was held. Enforcement issues and violations were discussed and everyone was reminded of our responsibility to our permit &amp; community.</td>
<td>8/19/2010</td>
<td>21</td>
<td>GP, CO, DE, EN</td>
</tr>
</tbody>
</table>

“In the City’s endeavor to educate and develop codes, policies, and procedures to support the requirements of the NPDES permit coverage, a citizen board was organized to include local developers, engineers, realtors and other interested parties. The Stormwater Advisory Board was the single most powerful tool used in bringing understanding and acceptance of the new stormwater regulations to the Florence Community which in turn resulted in regulatory compliance in the stormwater arena.”

Drew Griffin
Public Works and Utilities Director, City of Florence
## WATERSHED AWARENESS SIGNS

<table>
<thead>
<tr>
<th>Lead Provider</th>
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<th>Target Audience(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Florence</td>
<td>Boy Scouts</td>
<td>The City of Florence in Conjunction with the Boy Scouts of America posted informational signage within our MS4 near water bodies. The project allowed troop members to earn credit towards obtaining Eagle Scout status. There were a total of 35 signs placed in areas of high visibility. The signs identify the water body and explain watershed management. Impacts are given for those along roads only. No estimate is available for sign on walking trails.</td>
<td>Installed 1/1/2010-1/31/2010</td>
<td>146,600</td>
<td>GP</td>
</tr>
</tbody>
</table>

### Estimated Average Daily Traffic Count

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Street</th>
<th>Estimated Average Daily Traffic Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaverdam Creek</td>
<td>David H McLeod Boulevard</td>
<td>26,000</td>
</tr>
<tr>
<td>Jeffries Creek</td>
<td>Palmetto Street</td>
<td>19,900</td>
</tr>
<tr>
<td>Jeffries Creek</td>
<td>Second Loop Road</td>
<td>18,200</td>
</tr>
<tr>
<td>Jeffries Creek</td>
<td>Edisto Drive</td>
<td>1800</td>
</tr>
<tr>
<td>Gully Branch</td>
<td>Cherokee Road</td>
<td>7300</td>
</tr>
<tr>
<td>Jeffries Creek</td>
<td>Irby Street</td>
<td>24,200</td>
</tr>
<tr>
<td>Jeffries Creek</td>
<td>Church Street</td>
<td>5100</td>
</tr>
<tr>
<td>Jeffries Creek</td>
<td>Freedom Boulevard</td>
<td>No Information</td>
</tr>
<tr>
<td>Middle Swamp</td>
<td>Pamplico Highway</td>
<td>18,800</td>
</tr>
<tr>
<td>Middle Swamp</td>
<td>Irby Street</td>
<td>20,400</td>
</tr>
<tr>
<td>Pye Branch</td>
<td>National Cemetery Road</td>
<td>4900</td>
</tr>
</tbody>
</table>
On November 18, 2009, officials from each of the three MS4s gathered at the Florence Civic Center to sign a joint resolution to adopt a regional stormwater education strategy. An article appeared in the Morning News and the event was taped and shown on the City Channel 11 for two weeks twice a day.
Image capture of the joint resolution signed by representatives from Darlington County Council, the City of Florence, and Florence County Council.
As is the case with all groups, the dynamics of the FDSC have evolved over time from individuals getting to know each other and exploring what tasks need to be done to acting as a cohesive group that is making progress toward achieving long-term goals. This strengthening of the group resulted in a more comprehensive education plan reached a larger audience in its second year. The table below shows a comparison of program outputs from year 1 to year 2. Year 2 demonstrated an increase in the number of activities for every target pollutant compared to Year 1.

As we enter year 3, the FDSC remains dedicated to enhancing water resources protection and stewardship throughout Florence and Darlington Counties and developing education and outreach strategies that will improve awareness, show changes in behavior, and ultimately improve water quality.

<table>
<thead>
<tr>
<th>Target Pollutant/ Topics Addressed</th>
<th>YEAR 1</th>
<th>YEAR 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater in general</td>
<td>49</td>
<td>93</td>
</tr>
<tr>
<td>Bacteria – failing sewer lines and illicit connections</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Bacteria-failing septic systems</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Bacteria – pet waste</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>Bacteria – runoff from livestock pastures and feed operations</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Nutrients from agricultural operations</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Nutrients from residential properties</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Pollutants resulting in low dissolved oxygen</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Sediment from agricultural operations</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Sediment from construction sites</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Sediment from forestry-related activities</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sediment in general and from diffuse sources</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Toxic contaminants, petroleum products, pesticides, and heavy metals</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>Debris</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Temperature</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

**Activities highlighted in green represent this year’s education priorities.**
Appendix A

Additional Photos
Science educator Young joins Carolina Clear

From local reports

FLORENCE — A seasoned science educator with more than 18 years experience has joined Clemson University’s Carolina Clear stormwater pollution education and awareness program in the Pee Dee.

Teresa Young will serve a Carolina Clear natural resources agent based at the Florence County Extension office and as coordinator of the Florence/Darlington Stormwater Consortium.

Before joining Clemson, Young was supervisor of the Environmental Discovery Center at Lynch’s River County Park. She also designed and conducted educational programs for the Children’s Museum of South Carolina and was a biology teacher at Carolina Forest High School in Myrtle Beach.

Young received a bachelor’s degree in biology, graduating magna cum laude, and Master of Education, both from Coastal Carolina University. She also earned a master naturalist certification through Clemson.

Representatives from Florence and Darlington counties and the city of Florence signed a resolution Nov. 18, 2009, to officially adopt a regional stormwater education strategy through the Florence/Darlington consortium.

The consortium is a partnership between communities and educators from universities, state agencies and nonprofits, and is the sixth regional collaboration involving the Carolina Clear program. It follows similar efforts in Lexington, Pickens and Richland counties; along the Grand Strand; and in the Lowcountry.

In her role with Carolina Clear, Young will work with consortium members to educate the public about ways to minimize polluted stormwater runoff in the region’s streams, rivers and basins.

Carolina Clear is a stormwater education and awareness program of the Clemson University Restoration Institute and the Center for Watershed Excellence. The program’s goal is to minimize polluted stormwater runoff by educating the public, youth, builders, developers, homeowners and government officials about how they can keep water in the state’s streams, rivers and basins as clean as possible.
Florence, Darlington counties partner on stormwater initiative

Samantha Shepard / Morning News
Chairman of the Darlington County Council, Wesley H. Blackwell, speaks to conservationists and other community leaders before signing a resolution to launch the Florence Darlington Stormwater Consortium.

By Samantha Shepard
Published: November 12, 2009
Updated: November 15, 2009
0 Comments | Post a Comment

Florence — Representatives from the city of Florence and Florence and Darlington counties gathered Wednesday morning to sign a resolution officially adopting a regional stormwater education strategy through the Florence Darlington Stormwater Consortium.

Darlington County Council Chairman Wesley H. Blackwell, Florence Mayor Stephen J. Walke and Florence County Council Chairman E.G. “Boots” Smith Jr. signed the joint resolution in front of a crowd of conservationists and local officials at Florence Civic Center.

This consortium is partnered with the Clemson University’s Carolina Clear program and is a regional collaborative effort to inform the public about how their behaviors have long-term effects on water quality.
Camp 4-H2O teaches children about watersheds, safety

By JOHN D. RUSSELL
Published: June 18, 2010
Updated: June 18, 2010

» 0 Comments | Post a Comment

HARTSVILLE — More than 20 children ranging in age from 8 to 14 took part in the Kalmia Gardens three-day 4-H2O Day Camp this week.

The camp culminated Friday with children learning about canoeing safety, fishing, watersheds and effects of runoff water at the Coker College boat house.

During the week, children learned about protecting life in and around Prestwood Lake. Topics covered during the
Harvesting rainwater offers benefits

By Terasa Young
Contributed

It is summer in South Carolina, and we are experiencing those typical afternoon thunderstorms, some of which can drop several inches of rain in a relatively short amount of time. Unfortunately, much of this rain does not have a chance to be absorbed and runs off the surface of the land. Wouldn't you like to be able to harvest this rain and use it to water your garden when needed?

You can do just that by installing a rain barrel. Rain barrels collect and store water from your roof that would otherwise be lost to runoff. This water can then be used to water flowers or gardens or even wash your car.

Using a rain barrel during times of drought might seem counterintuitive, but a small amount of rain can fill an average 55 gallon capacity rain barrel. In a 1 inch rain storm, 0.6 gallons of water could be collected from every square foot of rooftop. That means that a 1200 square foot roof with four rain barrels could collect more than 200 gallons of water from just 0.3 inches of rain!

Rainwater harvesting offers several benefits:

1. Use of rain barrels can lower water bills when using municipal water. It is estimated that a rain barrel will save most homeowners about 1,300 gallons of water during peak summer months.
2. Use of rain barrels reduces withdrawal of groundwater when using wells.
3. Use of rain barrels provides non-chlorinated water which is ideal for gardening.
4. Use of rain barrels reduces runoff. This reduces the chances of flooding and decreases the impact of runoff to streams.

Become a solution to stormwater pollution. For more information about rain barrels and rainwater harvesting, visit the Carolina Clear website at www.clemson.edu/carolinaclear.

— Terasa Young is a Natural Resources Agent with Clemson Extension, Carolina Clear Coordinator for the Florence/Darlington Stormwater Consortium, and a Master Naturalist. Clemson University Cooperative Extension Service offers its programs to people of all ages, regardless of race, color, gender, religion, national origin, disability, political beliefs, sexual orientation, marital or family status and is an equal opportunity employer.
# Appendix C
## Year 2 Adaptive Education Plan

### ADAPTIVE Stormwater Education Plan

<table>
<thead>
<tr>
<th>Lead Service Provider</th>
<th>Activity (Program Titles Include Participatory Elements)</th>
<th>Target Geographic/Local Area</th>
<th>General Public Participation</th>
<th>Other (Explain)</th>
<th>Expected Weekly Contact (F Data Source)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson</td>
<td>Rural Heritage Day (consortium and stormwater poster)</td>
<td>Pee Dee Region</td>
<td>X</td>
<td></td>
<td>October</td>
</tr>
<tr>
<td>Clemson</td>
<td>Broadway Park &amp; Flower Festival</td>
<td>Pee Dee Region</td>
<td>X</td>
<td></td>
<td>October</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Peace Festival, tabling, handouts</td>
<td>Florence County</td>
<td>X</td>
<td></td>
<td>November</td>
</tr>
<tr>
<td>Clemson</td>
<td>Sweet Potato Festival, tabling and handouts</td>
<td>Colleton County</td>
<td>X</td>
<td></td>
<td>October</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Black Creek Kayak Festival (provide and volunteer sign-up sheet/pamphlet)</td>
<td>Pee Dee Region</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Florence</td>
<td>Florence Fountain stormwater sites</td>
<td>City of Florence</td>
<td>X</td>
<td></td>
<td>September</td>
</tr>
<tr>
<td>Kathleen Gardens</td>
<td>Jefferies Creek Clean up (rehabilitation)</td>
<td></td>
<td>X</td>
<td></td>
<td>September</td>
</tr>
<tr>
<td>Clemson</td>
<td>Stormwater Billboards</td>
<td>Pee Dee Region</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Florence</td>
<td>Broad American Cleanup</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Florence</td>
<td>Adopt A Highway</td>
<td></td>
<td>X</td>
<td>Pnavbar: Public</td>
<td></td>
</tr>
<tr>
<td>City of Florence</td>
<td>World Project Open House: invite municipal and county officials, farmers, developers, businesses and general public to attend an opening day of the constructed wetland stormwater park</td>
<td>Pee Dee Region</td>
<td>X</td>
<td>X X X X X X</td>
<td>Watershed awareness: all involved: Age 10</td>
</tr>
</tbody>
</table>

### Youth (6-12) Activities

<table>
<thead>
<tr>
<th>Lead Service Provider</th>
<th>Activity (Program Titles Include Participatory Elements)</th>
<th>Target Geographic/Local Area</th>
<th>General Public Participation</th>
<th>Other (Explain)</th>
<th>Expected Weekly Contact (F Data Source)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemson</td>
<td>K-12 Outreach Education at Jocassee Education Center, Kathleen Gardens</td>
<td>Pee Dee Region</td>
<td>X</td>
<td></td>
<td>summer 2010</td>
</tr>
<tr>
<td>Clemson</td>
<td>Junior Master Gardener: 6th grade class focusing on water conservation, rainwater harvesting, and Children's Discovery Center</td>
<td>Pee Dee Region</td>
<td>X</td>
<td></td>
<td>Kathleen Gardens: summer 2010</td>
</tr>
<tr>
<td>Kathleen Gardens</td>
<td>Week in the Wet mini camp</td>
<td></td>
<td>X</td>
<td></td>
<td>Clemson: 3 weeks in July</td>
</tr>
<tr>
<td>Kathleen Gardens</td>
<td>Home School Science Classes: monthly, 3rd class with outdoor, environmentally focused activities</td>
<td></td>
<td>X</td>
<td></td>
<td>Clemson: year round</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Science Saturdays</td>
<td></td>
<td>X</td>
<td></td>
<td>Science South: year round</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Summer camp youth - presentation on wetlands/stormwater</td>
<td>Pee Dee Region</td>
<td>X</td>
<td>X X X X X X</td>
<td>Clemson: summer 2010</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Stormwater Make-a-Brand and Integrated Education</td>
<td>City of Florence</td>
<td>X</td>
<td>X X X X X X</td>
<td>Clemson, Boy Scouts</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Student trips to GWMW Constructed Wetlands and Stormwater Park</td>
<td>City of Florence</td>
<td>X</td>
<td>X X X X X X</td>
<td>year round</td>
</tr>
</tbody>
</table>
## Appendix C
### Year 2 Adaptive Education Plan

<table>
<thead>
<tr>
<th>Least Service</th>
<th>Activity/Program Details</th>
<th>Target Receiving Land Use</th>
<th>Least Service</th>
<th>Activity/Program Details</th>
<th>Target Receiving Land Use</th>
<th>Least Service</th>
<th>Activity/Program Details</th>
<th>Target Receiving Land Use</th>
<th>Expected</th>
<th>Initial Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration</td>
<td>Present at Planning Commission Meeting TED</td>
<td>City of Florence</td>
<td>Demonstration</td>
<td>Present event</td>
<td>Florence and Darlington Counties</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>City of Florence</td>
<td>18-Nov-08</td>
</tr>
<tr>
<td>City of Florence</td>
<td>Stormwater Advisory Board Meetings</td>
<td>City of Florence</td>
<td>C-2</td>
<td>Year round</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donaldson</td>
<td>Presentations at Stormwater Advisory Board</td>
<td>City of Florence</td>
<td>Donaldson</td>
<td>MERPS</td>
<td>Year round</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Florence</td>
<td>Stormwater Technical Workshops: Informational videos and implementation of constructive methods, presentation of a case study</td>
<td>Florence &amp; Darlington Counties</td>
<td>City of Florence</td>
<td>Year round</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donaldson</td>
<td>Consultations with contractors/developers, distribute brochures</td>
<td>Florence &amp; Darlington Counties</td>
<td>Donaldson</td>
<td>Technical Workshops on construction of new construction and stormwater</td>
<td>Florence &amp; Darlington Counties</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>City of Florence, Florence County, Darlington County</td>
<td>Full-time 9-10</td>
</tr>
<tr>
<td>Donaldson</td>
<td>Stormwater Feature at City Park, Tanglewood Drive</td>
<td>Florence and Darlington Counties</td>
<td>Donaldson</td>
<td>Stormwater education</td>
<td>Florence and Darlington Counties</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Florence and Darlington Counties</td>
<td>2010-01</td>
</tr>
<tr>
<td>Donaldson</td>
<td>Pet Waste Bag Dispenser and Information distributed through stormwater education</td>
<td>Florence and Darlington Counties</td>
<td>Donaldson</td>
<td>Pet Waste Bag Dispenser</td>
<td>Florence and Darlington Counties</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>City of Florence, Florence County</td>
<td>October 30-01</td>
</tr>
<tr>
<td>Donaldson</td>
<td>East Carolina Agricultural Fair</td>
<td>Florence and Darlington Counties</td>
<td>Donaldson</td>
<td>East Carolina Agricultural Fair</td>
<td>Florence and Darlington Counties</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>City of Florence, Florence County</td>
<td>October 30-01</td>
</tr>
<tr>
<td>Donaldson</td>
<td>Bike Rodeos</td>
<td>Florence and Darlington Counties</td>
<td>Donaldson</td>
<td>Bike Rodeos</td>
<td>Florence and Darlington Counties</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>City of Florence, Florence County</td>
<td>October 30-01</td>
</tr>
<tr>
<td>Donaldson</td>
<td>Pre-Der FSS Field Day &amp; Turfgrass Field Day</td>
<td>Florence and Darlington Counties</td>
<td>Donaldson</td>
<td>Pre-Der FSS Field Day &amp; Turfgrass Field Day</td>
<td>Florence and Darlington Counties</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>City of Florence, Florence County</td>
<td>October 30-01</td>
</tr>
</tbody>
</table>

**Notes:**
- **C-2:** Appendix C - Year 2 Activity Plan
- **SEP:NC:** September 2009—August 2010 Annual Report
- **Florence Darlington Stormwater Consortium**

*Florence Darlington Stormwater Consortium: Education Plan - Year 2*