

# Pickens Countywide Stormwater Consortium



## Annual Report of Activities

May 2010 - April 2011



Pickens Countywide  
STORMWATER CONSORTIUM

June 2011



# Executive Summary

In the fourth year of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from regulated Small Municipal Separate Storm Sewer Systems (SMS4s) for Pickens County, the Cities of Easley, Liberty, Pickens, and Pickens County along with educational partner organizations continued stormwater education initiatives as the Pickens Countywide Stormwater Consortium (PCSC). The PCSC partnership, which began in 2008, is responsible for addressing the minimum control measures one and two stated within the NPDES permit. These measures direct MS4 communities to deliver public education and outreach programs while having public involvement and participation.

Using the 303(d) List of Impaired Waterbodies, the Public Perception Survey results (Appendix A), and feedback from stormwater professionals in the county, the PCSC identified target pollutants and audiences to draft the adaptive Annual Education Plan (pages 5-6) for the Activity Year, May 1, 2010 through April 30, 2011. The plan was targeted at key interest groups including the general public, professionals involved in land use and development, homeowners, youth, and the business community. Overall, stormwater awareness was retained as the major focus of the educational process, with emphasis placed on pollutants of concern including bacteria, sediment, and nutrients.

The PCSC grew with the addition of new educational partners and worked together to increase awareness of stormwater issues. The consortium remains dedicated to protecting water resources and increasing water stewardship throughout Pickens County by providing stormwater educational and involvement opportunities to all citizens.



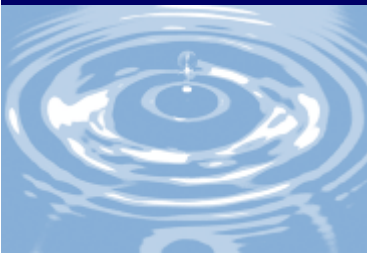
*“We are excited about this collaborative educational opportunity being facilitated by Clemson University and Carolina Clear. We feel strongly that a regional approach, along with the cities of Easley, Pickens and Liberty will allow us to convey our important water quality messages in a more efficient manner.”*

**-Scottie Ferguson**  
Stormwater Manager  
Pickens County

*“If there is magic on this planet,  
it is contained in water.”*

**-Loren Eiseley**

## Executive Summary

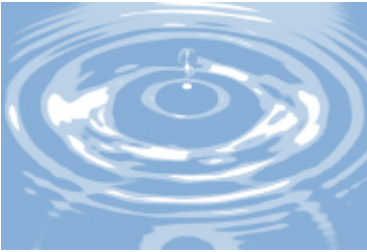


# Annual Report of Activities

## TABLE OF CONTENTS

Executive Summary.....	i
PCSC SMS4's.....	1
Education Partners.....	2
Goals and Objectives .....	3
Pickens County TMDLs.....	4
Adaptive Education Plan.....	5
<b>Public Education</b>	
Mass Media.....	7
Publications .....	10
Exhibit/Poster.....	12
Presentations.....	14
Storm Drain Marking .....	18
Brochure/Outreach Materials .....	19
Programs .....	23
<b>Public Involvement</b>	
Community Clean-Ups .....	27
Workshops.....	29
Public Perception Survey.....	32
PCSC Partner Meetings .....	33
Conclusions .....	34
Appendix A - Public Perception Survey .....	A 1-3
Appendix B - Stormwater Luncheon Summary.....	B 1-2

### Table of Contents



# PCSC SMS4s

The SMS4 consortium members are dedicated to the regional stormwater education concept. The consortium members work together to better facilitate the development of a unified approach to education and outreach in the county.

## Local SMS4 Consortium Representatives

MS4	Consortium Representative
Pickens County	Scottie Ferguson
City of Easley	Land Planning Associates, Inc.
City of Liberty	Olen Hamlin
City of Pickens	Michael Tate



# Education Partners

The PCSC members have continued to recruit agencies, organizations and individuals that share an interest in educating the public about stormwater pollutant issues to become members of the consortium team. This educational partnership ensures a uniform and consistent message while leveraging valuable resources, organizational strengths, and collaboration to reduce duplication of efforts. With these partnerships established, the PCSC remains dedicated to developing and delivering effective, outcome-based educational programming throughout the watershed.

Education Partners
Clemson University Carolina Clear Program
Clemson University Center for Watershed Excellence
The Cliffs at Lake Keowee
Friends of Lake Keowee Society
Pickens County Beautification
Clemson Extension Master Naturalists & Master Gardeners
South Carolina Botanical Gardens
Upstate Forever
South Carolina Department of Health and Environmental Control
South Carolina Department of Natural Resources
Pickens County Library System
Lake Hartwell Association
Clemson University Cooperative Extension Service
4-H Youth Development



## Education Partners

Activity Year '10-11 Annual Report  
Pickens Countywide Stormwater Consortium



# Goals & Objectives

## Strategic Goal

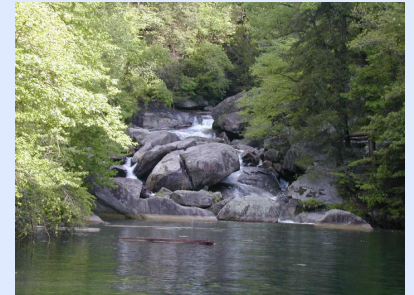
To develop and implement a broad-based education program that informs citizens about the issues of stormwater management and explains the role they and the business community can play in solving these issues.

## Core Objectives

1. Maximize efficiency of stormwater education efforts using a county-wide regional approach.
2. Help local SMS4s meet NPDES Phase II Stormwater Program permit requirements for public stormwater education, public involvement, and illicit discharge detection by providing educational resources and services such as public education, outreach and community involvement.
3. Develop a comprehensive stormwater education plan for the region that capitalizes on local training resources to meet the needs of local SMS4s.
4. Serve as a model for collaborative stormwater education.



*Lake Keowee*



*“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**

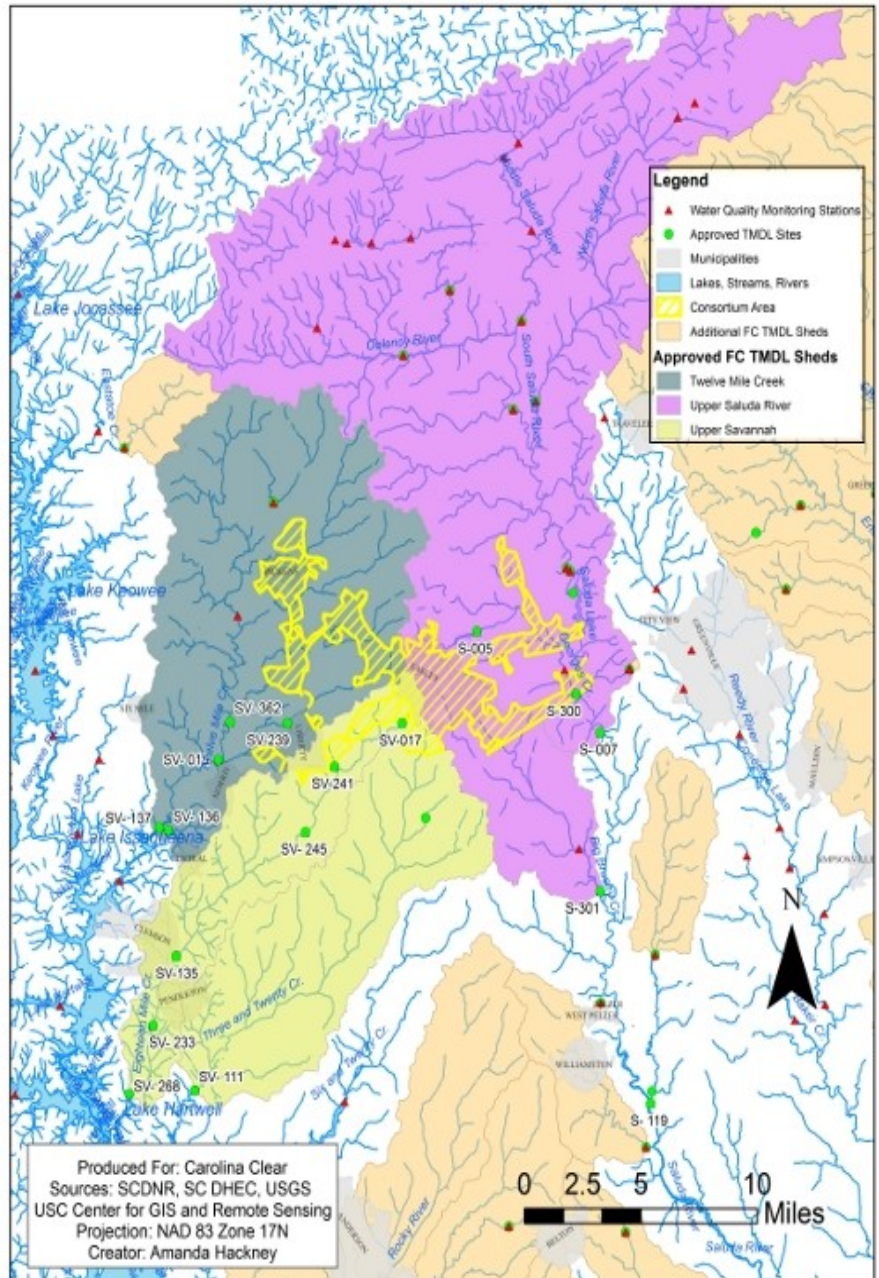
# Pickens County TMDLs

In compliance with Section 303(d) of the Clean Water Act, each state and territory submits a list of monitored waterways that do not meet their designated water quality standard for one or more parameters as per available guidance. This list is also known as the list of Impaired Waterbodies, and it is used to determine if the waterway's impairment can be addressed through designating a Total Maximum Daily Load, or TMDL. Therefore, TMDL may refer to the calculation of a pollutant entering a waterbody as well as a document which outlines potential sources of that pollutant within a watershed, information on the calculation, and relevant information including maps, figures and pictures.

The map to the right shows the TMDL watersheds that have been approved and affect the Pickens region. The Pickens region has several other listed impaired waters on the 303(d) list with TMDL target dates ranging from 2010-2019. Listed waters' causes of impairments include turbidity, macroinvertebrates, copper, fecal coliform, polychlorinated biphenyls, and hydrogen ion concentration.

The TMDL process is a regulatory process; therefore, there are many ways in which a TMDL can play a role in local government decision-making. For our regional education effort, the TMDL process is an important consideration because it offers data on what the water quality concerns are within the region and potentially, if they are related to stormwater. Using this information, the consortium can better decide what pollutants or behaviors should be targeted for education and public involvement.

Pickens Countywide Stormwater Consortium  
Fecal TMDL Watersheds



## Pickens County TMDLs

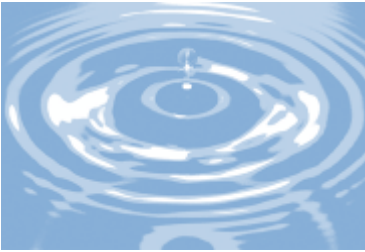
# Adaptive Education Plan

The PCSC Adaptive Education Plan is a fluid document that is designed to bring about partnerships and educational programming about water quality and water resource stewardship for the citizens of Pickens County.

## Adaptive Education Plan, Page 1 of 2 May 2010-April 2011

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
2	ADAPTIVE Stormwater Education Plan (May revolving)													
	Year 4 (2010-11) -Pickens County, City of Easley, City of Liberty, City of Pickens													
3						Target Pollutant(s)								
4	Lead Service Provider	Activity-Program ( <i>Italics include participation elements</i> )	Target Geography/ Land Use	General Stormwater Awareness	Bacteria	Toxic Contaminants, Petroleum products, Pesticides, heavy metals	Sediment	Nutrients	Pollutants resulting in low Dissolve Oxygen	Droasis	Temperature	Other	Participation by other Service Providers	Location and Date Delivered
5	General Public													
6	Clemson Carolina Clear	Earth Day Project (looking for ideas)	Pickens County			x							Solid Waste	22-Apr-10
7	Clemson Carolina Clear	Billboards	Pickens County	x										
8	Clemson Carolina Clear	Water Quality Publications	Pickens County	x	x			x	x		x		Pickens County, City of Easley	Ongoing
9	Clemson Carolina Clear	Recycle Day (consult with Lou Holder)	Pickens County			x							Solid Waste	15-Nov-10
10	Carolina Clear	River/Beach Clean up	Upstate	x		x					x		Carolina Clear, Pickens County	18-Sep-10
11	City of Pickens	Azalea Festival	Pickens County	x									Carolina Clear, Clemson University	16-Apr-10
12														
13	Youth / K-12 / Teachers													
14	Pickens County	Trash Bash	Pickens County		x	x	x	x			x		Clemson Carolina Clear; Pickens Beautification	Spring 2011
15	Clemson Carolina Clear	Green Step School in Pickens County emphasizing water quality protection	Pickens County	x									SCDHEC, SDPC	SY 2010-2011
16	Clemson Carolina Clear	Junior Naturalist Program	Upstate	x	x			x	x		x	x		Fall 2010-Spring 2011
17	Clemson Carolina Clear	4-H2O Pontoon Classroom	Pickens County	x	x	x	x	x	x	x	x			June 14-16, 2010
18														
19	Elected and Appointed Officials and High-Level Staff													
20	Pickens County & Clemson Carolina Clear	Stormwater Luncheon for Elected and appointed Officials	Pickens County	x		x						TMDLs		Jan-11
21	Pickens County & Upstate Forever	Attend Comprehensive Plan Meetings and supply input as requested												
22														
23	Professionals: Contractors, Engineers, Developers													
24	Clemson University	CEPSCI (Certified Erosion Prevention and Sediment Control Inspector)	Pickens County	x				x	x					
25	Carolina Clear	Rain Garden Workshop and Installation	City of Pickens	x	x	x	x	x		x			Pickens County	Spring 2010
26	Pickens County	Best Management Practices (BMP's) Training for municipal employees	Pickens County	x				x	x		x	x	City of Pickens, City of Liberty, City of Easley, LPA	
27	Pickens County	Pesticide program for renewal of Pesticide Licenses	Pickens County			x								Fall 2010
28	Clemson University	Forestry Continuing Education Courses	Pickens County			x	x	x	x		x			2010-2011
29	City of Pickens	Cistem Installation @ City Administration Building	City of Pickens	x									LPA, Carolina Clear	2010-2011
30	Upstate Forever	Stormwater Speaker Series	Upstate	x	x	x	x	x				water quality, LID	Pickens County/Carolina Clear	Fall 2010

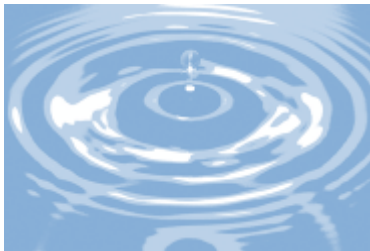




# Adaptive Education Plan

## Adaptive Education Plan, Page 2 of 2 May 2010-April 2011

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3	Target Pollutant(s)												Participation by other Service Providers	Location and Date Delivered
4	Lead Service Provider	Activity-Program ( <i>Italics include participation elements</i> )	Target Geography/ Land Use	General Stormwater Awareness	Bacteria	Toxic Contaminants	pesticides, herbicides, heavy metals	Sediment	Nutrients	Pollutants resulting in low Dissolved Oxygen	Debris	Temperature		
31	Homeowners & Homeowner Associations													
32	Homeowners & Homeowner Associations													
33	LPA	Storm drain marking, accompanied by Stormwater awareness door hanger.	Pickens County	x	x	x-home pesticide use	x	x		x			Easley, Liberty, City of Pickens	
34	Pickens County	Promote storm drain marking already completed by the county through newspapers, newsletters and local channels.	Pickens County	x	x	x-home pesticide use	x	x		x			Clemson Carolina Clear	
35	Clemson University Carolina Clear	Library Lecture series	Upstate	x	x	x		x	x		x		Pickens County Libraries	May, September, November
36	Clemson University Extension Service	Master Naturalist Program	Upstate	x	x	x		x	x	x	x		Clemson University Carolina Clear	August through October
37	Clemson Extension	Master Gardener Program	Upstate	x		x		x						Early Spring 2011
38	Clemson University Carolina Clear	Build your own rain barrel workshop and rain barrel demonstration	Pickens County	x									Upstate Forever	7/26/2010 and 8/28/2010
39	Commercial Citizens													
40	Commercial Citizens													
41	Clemson Carolina Clear	Partnering for Water Quality presentation to the Chamber of Commerce - how businesses can get involved in water quality protection.	Pickens County			x		x	x		x		Clemson Cooperative Extension Service, Pickens County	Liberty/Pickens/Easley
42	Carolina Clear	Pet Waste Campaign with Vet Offices and Humane Society	Pickens County	x	x								Pickens County	
43	PCSC Program Management													
44	PCSC Program Management													
45	Clemson University Carolina Clear	Create Annual Report												
46	Clemson University Carolina Clear	Survey of Pickens County Residents	Pickens County											
47	Clemson University Carolina Clear	Maintain Pickens county Stormwater Consortium website												
48	Clemson University Carolina Clear	Maintain digital database to collect and analyze programmatic information												
49	Clemson University Carolina Clear	Recruit additional education providers to broaden and enhance activities												



# Public Education

The public education section of this document is organized by outreach methods, with these sub-section titles:

- Mass Media
- Publications
- Exhibit/Poster
- Presentations
- Storm Drain Marking
- Brochure/Outreach Materials
- Programs

## MASS MEDIA: Billboards

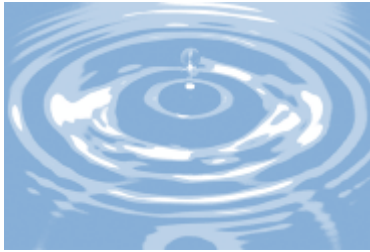
Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Two Billboards are located in Pickens County with information about what storm water is and how it affects our water resources.	2010-2011	37,930	N/A

Billboards were created for the Pickens Countywide Stormwater Consortium and were displayed during the 2010-2011 year. Total impacts for the combined billboard space were 37,930 people per day based on daily estimated traffic counts.



### Public Education

Activity Year '10-11 Annual Report  
Pickens Countywide Stormwater Consortium



# Public Education

## MASS MEDIA: Radio and TV

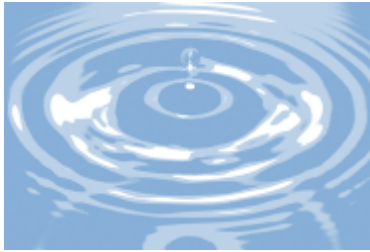
Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Katie Giacalone was interviewed on <i>Your Day</i> and discussed the impacts of stormwater and homeowner solutions.	12/9/2010	30,000	Your Day



Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Appeared on <i>Making it Grow!</i> To discuss rain barrels, rain gardens and ways to mitigate stormwater on the home landscape.	8/3/2010	8,658	SC ETV

WMYA Channel 40	Teresa Young interviewed on Focus on the Palmetto State. Discussed the impact of stormwater and homeowner solutions.	4/19/2011	1,000	Clemson Extension
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# Public Education

## MASS MEDIA: Internet

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Pickens County	Pickens County Stormwater webpage	Ongoing	1,374	N/A
Clemson Extension	Carolina Clear website	Ongoing	19,498	N/A
Clemson Extension	Stewardship Map pages	Ongoing	1,333	N/A
Clemson Extension	LID Atlas pages	Ongoing	446	N/A
Clemson Extension	Pickens Countywide Stormwater Consortium website	Ongoing	200	N/A

The screenshot shows the Pickens Countywide Stormwater Consortium website. At the top, there is a navigation bar with links for 'Text', 'A-Z Index', 'Calendar', 'Map', and 'Phonebook', along with a search box. Below this is the 'CLEMSON PUBLIC SERVICE ACTIVITIES' header. The main content area features the PCSC logo and a text block stating: 'Pickens County along with the cities of Easley, Liberty, and Pickens have collaborated with Clemson University's Carolina Clear program to educate and involve residents in stormwater management.' Below this, a text block describes a broad-based education plan. To the right, an 'Upcoming Events' sidebar lists: 'Saturday, May 21 Jr. Wildlife Biologist', 'Saturday, June 18 (note change of date) Jr. Geologist', and 'Thursday, June 16 Carolina Yards & Neighborhoods Program'. At the bottom left, there are download links for 'ADOBE READER' and 'ADOBE FLASHPLAYER'.

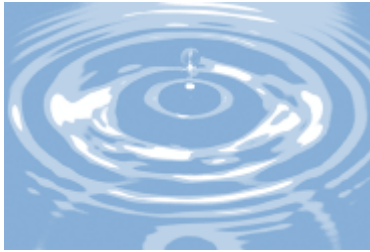
The PCSC website page was posted on October 7th, 2008. The website was designed to be a resource for information about stormwater management in the community. The website also serves as one of the many locations where upcoming programs are listed.

Each municipal partner's and educational partner's website is linked to this website. The PCSC website links back into the overall Carolina Clear website which provides TMDL maps, a toolbox for visitors and much more information on stormwater management.

[www.clemson.edu/carolinaclear/pcsc/](http://www.clemson.edu/carolinaclear/pcsc/)

## Public Education

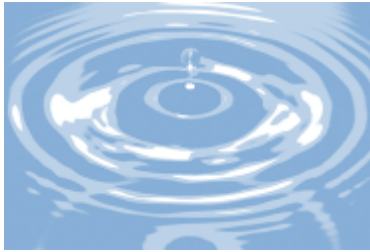
Activity Year '10-11 Annual Report  
Pickens Countywide Stormwater Consortium



# Public Education

## PUBLICATIONS

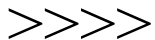
Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
The Greenville News, The Pickens Sentinel	“Pickens wades into next cleanup effort” featured in the Greenville News and the Pickens Sentinel about cleanups in the City of Pickens.	5/17/2010	50,500	City of Pickens
The Liberty Focus	“What is a Rain Garden?” featured in The Liberty Focus.	6/2010	3,600	City of Liberty
The Pickens Sentinel	“Pickens County helps Six Mile with its septic tank problems” article about how county officials have stepped in to help with the installing of a new drain field for the septic tank system that services Town Hall and the Six Mile Fire Department.	7/14/2010	3,500	Pickens County
Easley Progress	“Easley encourages recycling” article featured in the Easley Progress.	7/23/2010	4,000	City of Easley
Pickens County News	“Pickens tightens City Lake’s rules” article explaining the new policies about the city-owned reservoir that serves as Pickens’ primary water source.	8/10/2010	5,000	City of Pickens
The Liberty Focus	“What is a Rain Barrel?” featured in The Liberty Focus.	9/2010	3,600	City of Liberty
Easley Progress	“Adopt-A-Highway plan in full force” article about Pickens County and their hopes to increase knowledge and participation in the Adopt-A-Highway program.	9/22/2010	4,000	Palmetto Pride
City of Easley	“Take the stormwater runoff challenge” crossword puzzle featured in the Easley City News.	10/2010	8,500	N/A



# Public Education

## PUBLICATIONS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Pickens County News	“Work continues to clean lakes’ feeder streams” explains how upstate volunteers are looking to identify pollution hot spots.	11/16/2010	5,000	N/A
Easley Progress	“Forest Commission guidelines protect water quality” article featured in the Easley Progress.	12/29/2010	4,000	N/A
Anderson Independent Mail	“Storm-drain marking” article featured in the Anderson Independent Mail.	2/23/2011	5,000	Clemson Extension
Clemson Extension	“We all live downstream...” flyer featured in The Lake Hartwell Association newsletter about what stormwater is and ways a homeowner, pet owner, or car owner reduce stormwater pollution.	4/2011	2,150	N/A
The Pickens Sentinel	“Cleanup Day held at Jaycee Park, Town Creek” article featured in the Pickens Sentinel about the cleanup day held for Jaycee Park’s Playground of Promise and Town Creek and Trail.	4/13/2011	3,500	Clemson Extension



*Excerpt from the Pickens Sentinel*

### Cleanup Day held at Jaycee Park, Town Creek

By Jason Evans

PICKENS — A group of dedicated volunteers turned out Saturday morning to clean up two local landmarks.

Pickens hosted a Clean Up Day for Jaycee Park’s Playground of Promise and Town Creek Trail Saturday morning.

Participants were encouraged to bring the tools

needed for the job. Palmetto Pride provided volunteers with gloves and trash bags.

After a quick briefing, the group split up, each focusing on their particular task.

Wayne Kelley and Community Oriented Police Officer Craig Sapp picked up litter from the parking lot, playground and picnic shelter.

Others, such as Councilman Carlton Holley and

Ruth Vorpapel, picked up a brush and began touching up the paint on the playground equipment and shelter.

Foster and C.B. Hayes hit the Town Creek Trail, picking up litter and clipping unruly brush that overhung the trail.

Billy Crawford took a dip in the chilly waters of Town

See **CLEANUP, Page 11A**

### CLEANUP

(Continued from Page 1)

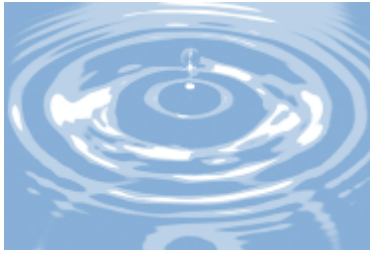
Creek, picking up litter directly from its waters.

The city was recently awarded two \$4,000 Palmetto Pride grants. One grant will fund the construction and installation of a new Welcome sign on SC 183; the other will help pay for mulch, dirt and trees, part of the city’s effort to beautify W. Main Street.

Each person that participated in the cleanup was given a free rain gauge courtesy of the Pickens County Stormwater Consortium.

Cathy Reas Foster, a Clemson extension agent, said that litter prevention is a part of keeping the county’s stormwater clean.

“We try to take care of the water, and litter’s a part of that,” Foster said.



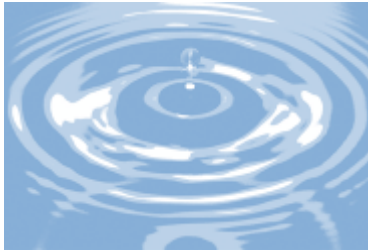
# Public Education

## EXHIBIT/POSTER

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Presented poster at SC Water Resources Conference on Low Impact Development Atlas, current inventory of projects and use of Atlas.	10/13/2010-10/14/2010	350	SC Sea Grant, NI-WB NERRS, ACE Basin NERRS, Clemson Center for Watershed Excellence
Clemson Extension	Presented poster at SC Water Resources Conference on the online Watershed Stewardship Map, developed to encourage participation and support for grassroot watershed outreach.	10/13/2010-10/14/2010	350	Clemson Center for Watershed Excellence, CCIT
Clemson Extension	“An evaluation of changes in water conservation habits of homeowners in the upstate of SC” poster presentation at the SC Water Resource Conference.	10/13/2010-10/14/2010	300	N/A
Pickens County	Get Fit Pickens County Day was held at the Pickens County YMCA to inform people on some healthy lifestyle options and clean water. PCSC kitchen sponges were distributed.	3/3/2011	1,000	Pickens County YMCA
Clemson Extension	PCSC stormwater exhibit at the Pickens Azalea Festival.	4/15/2011-4/16/2011	10,000	N/A



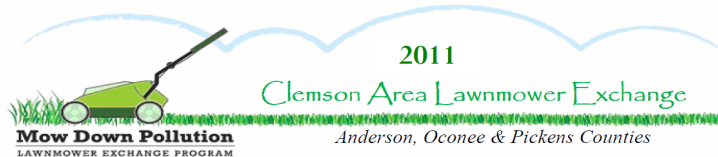
*Azalea Festival Exhibit*



# Public Education

## EXHIBIT/POSTER

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
DHEC	Clemson Area Lawnmower Exchange was held at Tri-County Technical College for residents to trade in their gasoline-powered lawnmowers for a discount off the purchase of a new, energy-efficient cordless electric lawnmower. Grasscycling, recycling used motor oil, and PCSC rain gauges were distributed.	4/16/2011	20	Pickens County, Duke Energy, Anderson County, Clemson University



### DID YOU KNOW?

- Exchanging 1,000 gasoline-powered lawnmowers for an electric one has the potential of reducing volatile organic compound (VOC) emissions by 9.8 tons per year, which is equivalent to removing 230 cars from the highways. (Source: U.S. Environmental Protection Agency)
- Hourly, a push mower emits as much pollution as 11 cars and a riding mower, as much as 34 cars. (Source: U.S. Environmental Protection Agency)
- In the U.S., each year, approximately 17 million gallons of gasoline are spilled refueling lawn equipment. Spillages release harmful fumes into the air and contaminate ground water. (Source: NY Department of Environmental Conservation)

### So, what can YOU do about it?

Residents of Anderson, Oconee & Pickens counties are invited to trade in their gasoline-powered lawnmowers for a discount off the purchase of a new, energy-efficient, cordless electric lawnmower.

**Saturday, April 16<sup>th</sup>**  
**8 a.m. to 11 a.m.**  
**Tri-County Technical College-Pendleton Campus**  
 (7900 Highway 76 ~ Pendleton, SC)

**BE ONE OF THE FIRST 35 PEOPLE TO TRADE IN A LAWNMOWER AND RECEIVE AN ADDITIONAL \$100 OFF THE EVENT PRICE!**

Participating Vendor	CE5 Neuton	CE6 Neuton	CY1 C Enterprise	DM20 C Enterprise
MSRP	\$399	\$499	\$229	\$449
Event Price	\$274	\$359	\$175	\$335

Price includes taxes and shipping

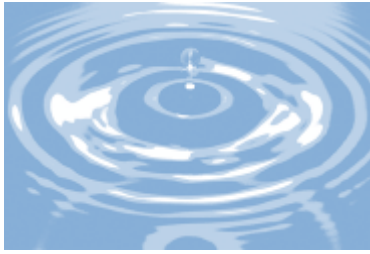
*Participating Vendors will also have additional lawn and garden equipment for sale at a discounted price.*

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• The day of the event, you will receive a coupon to purchase a mower at the event price with instructions on how to place the order directly with the participating vendor of your choice.</li> <li>• Lawnmowers will be shipped directly to customer from participating vendor.</li> </ul> | <ul style="list-style-type: none"> <li>• There will be no lawnmowers on site for sale.</li> <li>• You will have until <u>May 31, 2011</u> to purchase lawnmowers and lawn &amp; garden equipment.</li> <li>• You do not need to drain the fuel from your old lawnmower.</li> </ul> |
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For more information visit, [www.scdhec.gov/lawnmowerexchange](http://www.scdhec.gov/lawnmowerexchange)







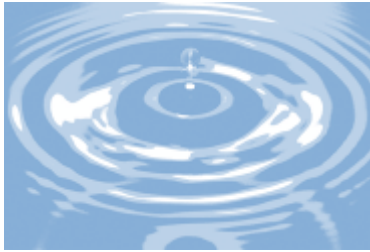
# Public Education

## PRESENTATIONS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	A seasonal garden series discussing mulching, water harvesting, and other techniques for maintaining a garden in the summer.	5/23/2010	9	N/A
Clemson Extension	A demonstration on how to build a rain barrel was given at the Easley Farmers Market.	8/28/2010	15	N/A
Upstate Forever	The first event of the Stormwater Solutions Speaker Series informed attendees on the use of native vegetation for site stabilization.	9/29/2010	30	PCSC
Duke Energy	Enviroscape presentation to Pickens and Oconee County school children.	10/1/2010	90	Clemson Extension
Upstate Forever	The second event of the Stormwater Solutions Speaker Series informed attendees about the impacts of construction on water quality.	10/19/2010	18	PCSC
Upstate Forever	The third event of the Stormwater Solutions Speaker Series about designing an LID project for the Upstate.	11/10/2010	27	PCSC
Clemson Extension	Presented on purpose, growth and updates of South Carolina's Carolina Yard & Neighborhood Program.	1/18/2011	84	University of Florida



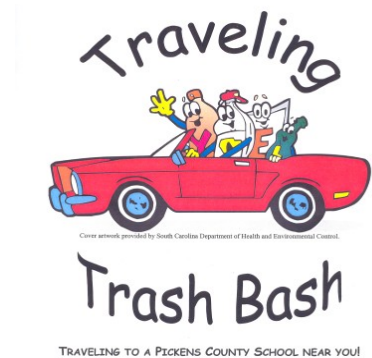
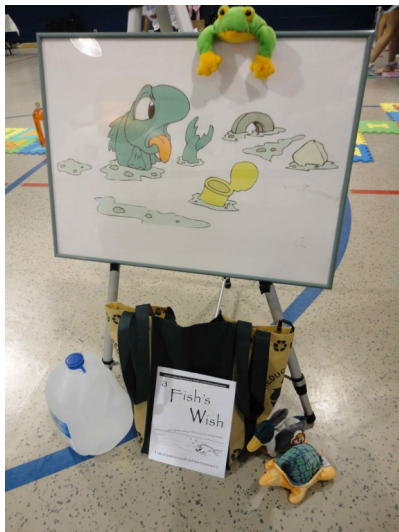
*Enviroscape*

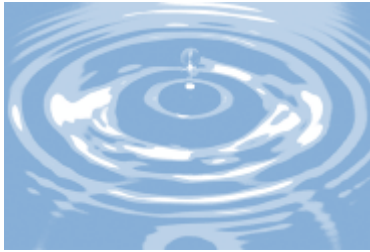


# Public Education

## PRESENTATIONS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Pickens County Beautification & Environmental Advisory Committee	Traveling Trash Bash 2011 traveled to 3rd grade classes in all schools in Pickens County.	2/15/2011-3/2/2011	1,250	Clemson Extension, Pickens Co. Solid Waste Office





# Public Education

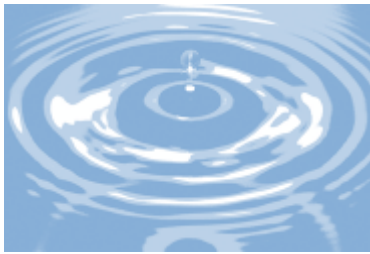
## PRESENTATIONS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
SC DHEC Office of Solid Waste Reduction and Recycling	Green Driver presentation focusing on motor oil recycling and the impacts to waterways if motor oil is dumped into a storm drain for environmental science class at Daniel High School.	4/26/2011	24	Pickens County Solid Waste Office
Clemson Extension	Water quality and stormwater presentations given at Pickens Elementary & Middle Schools.	9/1/2010-4/30/2011	180	N/A



*Science Day at Pickens Elementary School*





# Public Education

## PRESENTATIONS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
PCSC	PCSC hosted a stormwater elected and appointed officials luncheon to discuss upcoming changes to stormwater permits.	3/2/2011	33	Carolina Clear



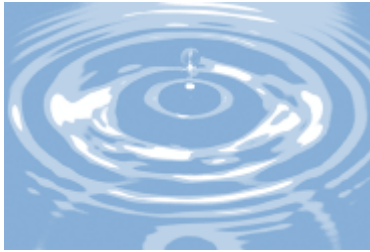
*Elected and Appointed Officials Stormwater Luncheon Meeting*

**Summary is found in Appendix B.**



### Public Education

Activity Year '10-11 Annual Report  
Pickens Countywide Stormwater Consortium



# Public Education

## STORM DRAIN MARKING

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
City of Easley	Easley has installed 200 storm drain markers on neighborhood and city street storm drain inlets.	Ongoing Began 11/2010	200	N/A

### Some Pickens County towns marking storm drains to alert public to pollution solutions.

BY VINCE JACKSON  
Special to Independent Mail

EASLEY — A project to educate the public on the dangers of pollutants entering storm drains is under way in Easley and other towns in Pickens County.

Easley and the Pickens County Stormwater Consortium have joined forces to mark storm drains as part of a national effort to increase awareness of pollution runoff. The message Easley and the consortium want to convey is that what goes down storm drains or into roadside ditches runs untreated into streams and lakes.

"We have a problem with people pouring old motor oil and other liquids down storm drains. That is a no-no," said David Lappin, city of Easley streets and recycling supervisor.

Katie Giacalone, statewide coordinator for Carolina Clear, a Clemson University stormwater education center, said people often do not realize that stormwater is untreated.



Submitted photo

An effort to educate the public about pollution runoff has begun in towns in Pickens County.

"We know of situations where people carefully gather pet waste and then toss it down the storm drain," she said.

Collaboration between the city of Easley and Carolina Clear is sending the message that the leading contributor to degrading water quality is storm water runoff. Carolina Clear

has produced a public service television spot using the slogan "We All Live Downstream," emphasizing that stormwater runoff is everyone's problem.

Lappin said the city plans to install four-inch medallions that say "Only Rain—Down the Drain" on thousands of

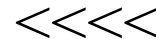
storm drains in the town. The installation is under way across the city, he said.

The awareness campaign is part of the Environmental Protection Agency's requirement that at least 72 municipalities in the state educate residents on the program for eliminating stormwater pollution. The program is also getting under way in Central, Liberty and Pickens.

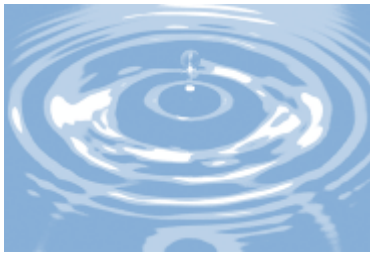
"We see all kinds of debris stacked on storm drains," Lappin said. "Trash, leaves and grass cuttings. These things should never be placed on a storm drain, but instead placed on the curb for pickup."

Giacalone agrees, "Stormwater and watershed protection has to begin at the local level," she said.

Carolina Clear will provide storm drain markers to churches, neighborhoods and interested groups in Pickens County. To request its service, call Cathy Reas Foster at (864) 878-1394, ext. 111 for details.



*Excerpt from the  
Anderson Independent  
Mail*



# Public Education

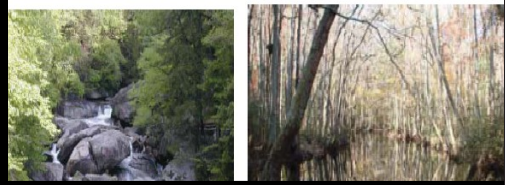
## BROCHURE/OUTREACH MATERIALS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
City of Easley	Easley distributed storm related handouts during their fall fire prevention promotion.	11/9/2010	720	N/A
Clemson Extension	Created educational tabletop displays for county and city administrative offices with materials to be distributed to public.	4/4/2011-4/11/2011	450	City of Easley, City of Liberty, City of Pickens, Pickens County



### We All Live Downstream...

Stormwater pollution is the runoff that occurs from rain, irrigation and snow melt and everything that is picked up along the way as it travels downhill to the nearest stream, river, lake and beach. This runoff does not get treated, but goes straight to the waterways that we use for fishing, bathing, and even drinking. What is picked up by stormwater runoff is "people pollution" - fertilizers and pesticides, motor oil, sand and dirt, pet waste, trash and so on. All of this can amount to one dirty waterway; the Environmental Protection Agency actually considers stormwater the greatest threat to our water quality. Since stormwater is "people pollution," we all play a role in contributing to the problem as well as fixing it!



#### So, what can you do as a homeowner, pet owner, or car owner to reduce stormwater pollution?

1. Test your soil before applying fertilizer to your lawn - your lawn may already have enough nutrients. Excess nutrients from excess fertilizing ends up in our lakes and rivers leading to algae blooms and fish kills. This tip can save you some green and keep the green out of our ponds.
2. Pick up pet waste to keep it from contaminating water supplies. You can flush the waste, bag it for trash or build a doggie-loo (pet waste septic system).
3. Wash your car on the lawn instead of the driveway to minimize runoff into the storm drain and use low-phosphorus, biodegradable soaps. Remember to check your car for leaks - these chemicals wash off road surfaces into the waterway.
4. Bag grass clippings and leaves or use them as compost. Don't sweep them into the street or down storm drains as that leads to nutrient issues and potential clogging and flooding.
5. Don't over-water your lawn, doing so sends more pollutants into nearby drains. Plus, your lawn only requires little more than inch of rain per week. A rain gauge will help you keep track of how much rain your lawn is receiving.

For more helpful tips, check online at [www.clemson.edu/carolinaclear](http://www.clemson.edu/carolinaclear). Remember, we all live downstream.



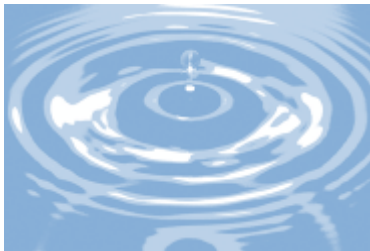
Stormwater Education

Because We All Live Downstream...



**CLEMSON**  
PUBLIC SERVICE

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# Public Education

## BROCHURE/OUTREACH MATERIALS



Image capture of the consortium's educational flyer with general lawn care tips.

**Pickens Countywide Stormwater Consortium**

PICKENS COUNTYWIDE STORMWATER CONSORTIUM

**Lawn Care Tips for the Responsible Homeowner**

“Remember...we all live downstream”

- 1-2” of water per week will keep your law healthy and green. Use a rain gauge to make sure you’re not overwatering.
- Plants do not like to be watered at night. The best time for watering is in the early morning.
- Over application of fertilizer does nothing extra for your lawn. Instead, read the directions so that fertilizers do not end up “greening” your local lakes and streams.
- Half of a household’s water use is typically outside of the home. Be a responsible homeowner by conserving this precious resource and saving yourself some money at the same time!

PICKENS COUNTYWIDE STORMWATER CONSORTIUM  
222 West Main Street  
POB 995  
Pickens, SC 29671

Phone: 864-678-1394 ext111  
Fax: 864-678-6712  
E-mail: marguer@clemson.edu

For more information on how you can help keep your water clean visit [www.clemson.edu/carolina\\_clear](http://www.clemson.edu/carolina_clear)



# Public Education

## BROCHURE/OUTREACH MATERIALS



Image capture of the consortium's educational flyer and poster with general stormwater information and ways to reduce stormwater pollution.



**Stormwater** is the runoff from rain or irrigation systems and everything it picks up along the way. As stormwater travels across the landscape, it picks up oil, sediment, metals, debris, nutrients and bacteria and deposits them in our lakes, streams and rivers. *Stormwater pollution is the greatest threat to our water resources* – our drinking water supplies, fishing holes, swimming beaches and the waterbodies that we use and enjoy.



### Here are things you can do as a homeowner to reduce stormwater pollution:

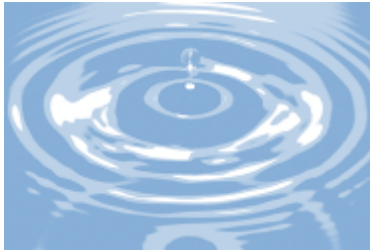
- BE CAREFUL NOT TO OVER-FERTILIZE OR FERTILIZE RIGHT BEFORE IT RAINS.** You may be throwing money down the drain by over-fertilizing. Your soil can be tested by your local Clemson Cooperative Extension office. The results of the test will tell you if your soil has enough nutrients already stored away to maintain a healthy lawn. If you need to amend your lawn with nutrients, read the directions. You may be applying more fertilizer than needed, and the excess nutrients end up in our lakes and rivers and lead to algae blooms and often to fish kills.
- PICK UP AFTER YOUR PET.** Pet waste contains harmful bacteria that affect our drinking water supplies. Plus, nutrients in the waste also add to potential algae blooms in our lakes. As for managing waste in your yard, there are several solutions – picking it up and putting it in the trash, flushing it down the toilet or purchasing/making a doggie loo or pet waste septic system.
- WASH YOUR CAR ON THE LAWN OR GRAVEL DRIVEWAY.** By washing your automobile this way, the runoff that includes soap and dirt infiltrates and is treated naturally by the environment. You will minimize the runoff that goes to the storm drain and flushes directly to our lakes, rivers and estuaries. There are also low-phosphorus, biodegradable soaps that can be used that will do less harm to the environment.
- GRASS CLIPPINGS AND LEAVES DO NOT BELONG ON THE STREET.** Grass and leaves take time to decompose and can cause clogs in drains and outlets causing backups and flooding. The nitrogen and nutrients in these materials can also harm the natural balance in waterways. There are several alternative solutions for what to do with leaves and clippings such as bagging them for recycling, using a mulching mower to spread them on your lawn as natural fertilizer, or placing them in a compost pile to speed the microbial process.

To learn more, visit [www.clemson.edu/carolinaclear](http://www.clemson.edu/carolinaclear)



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# Public Education

## BROCHURE/OUTREACH MATERIALS

### RAIN GARDENS

Rain gardens are landscaped depressions that receive stormwater runoff and allow the runoff to slowly infiltrate to the groundwater table. As well as intercepting stormwater runoff that could have added to potential flooding problems, the rain garden allows nature to play a role, removing some of the pollutants that would have otherwise affected downstream water quality. During infiltration, plants use excess nutrients for growth, sediment is trapped in the garden and biological and physical processes remove pathogens. Dissolved metals and nutrients bind or adsorb to soil particles and are removed temporarily out of the system. Rain gardens also create important habitat for bees, butterflies and birds.



RAIN GARDENS ARE A GREEN SOLUTION TO STORMWATER POLLUTION. ANY HOME OR BUSINESS CAN INSTALL ONE TO HELP REDUCE THEIR IMPACT ON THE ENVIRONMENT.  
 FIND OUT HOW AT [WWW.CLEMSON.EDU/CAROLINACLEAR](http://WWW.CLEMSON.EDU/CAROLINACLEAR) (OR KEYWORD SEARCH CAROLINA CLEAR)



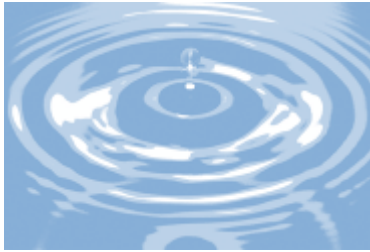
*Rain Garden Sign*



*Rain Gauge*



*Kitchen Sponge*

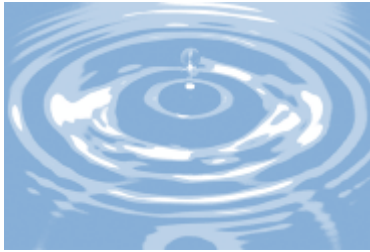


# Public Education

## PROGRAMS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	4-H2O Pontoon Classroom	6/14/2010-6/20/2010	12	N/A





# Public Education

## PROGRAMS

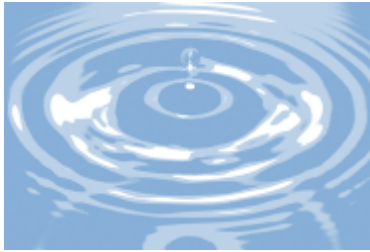
Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Upstate Master Naturalist Program	7/19/2010-11/4/2010	20	SCPRT, SCDNR, SC Botanical Gardens



*The South Carolina Master Naturalist Program is a statewide corps of volunteers providing education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities. Interested South Carolinians become Master Naturalists through training and volunteer service.*



Photos by Pat Hensley



# Public Education

## PROGRAMS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Junior Naturalist Program	9/2010-3/2011	29	SCPRT, SCDNR, SC Botanical Gardens



*The Junior Naturalist Program is a series of several half day Saturday sessions covering nature and the environment.*

*Youth will gain hands on experience in each of the subject areas taught.*

*Corresponds to science curriculums for grades 3-6*

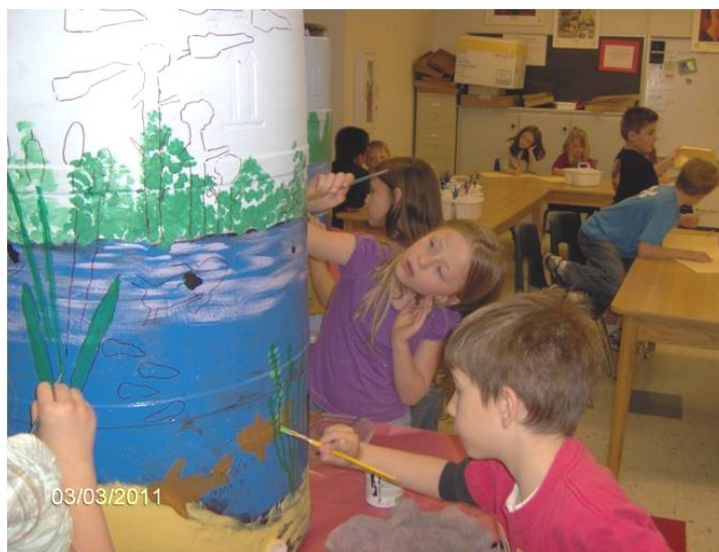
*Complete 5 of the 10 offered programs in 2 years and earn your status as a Junior Naturalist!*



# Public Education

## PROGRAMS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Educated Hope Garden Club students about water quality and conservation for a Green Steps protect water quality project. Students painted rain barrels for the Hope Garden & learned about water habitats.	9/1/2010-6/1/2011	120	SC DHEC



Photos by Susan Bridges-Smith

### Public Education

Activity Year '10-11 Annual Report  
Pickens Countywide Stormwater Consortium

# Public Involvement

The public involvement section of this document is organized by participation activities, with these sub-section titles:

- Community Clean-Ups
- Workshops
- Public Perception Survey
- PCSC Partner Meetings

## COMMUNITY CLEAN-UPS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
City of Pickens	Clean up day for Pickens Town Creek Trail, Town Creek, and city streets.	5/22/2010	28	N/A

## Pickens wades into next cleanup effort

Volunteers will pick up trash May 22 in Town Creek, on trail

By Julie Howle  
STAFF WRITER  
jhowle@greenvillenews.com

PICKENS — Volunteers will be asked to get wet next weekend when the city of Pickens completes a spring cleanup of much of the city.

After picking up trash around the downtown area in March, area residents are being asked to bring rakes and waterproof footwear to spruce up Town Creek Trail and Town Creek.

Cleanups are scheduled for May 22 from 9 a.m. to noon in that area, with volunteers also fanning out to several city streets, Pickens City Administrator Katherine Brackett said.

She said these cleanups will serve as the second and third of three required as part of \$12,000 in Palmetto Pride grants the city received earlier this year.

The work is part of ongoing efforts to increase the city's appeal to residents, visitors and businesses.

"I think it's important for the community to come together at least once a year and take pride in their streets and the way things

### YOU CAN HELP

For more information on the cleanup, call 878-6421. Pizza for the volunteers will be provided for free by Pizza Inn of Pickens after the cleanup.

look," Brackett said.

About 30 people participated in a cleanup in March, the first of the three required, that targeted downtown areas, including West Main Street, the site for a proposed park and the Bradley-Boggs House.

Marguerite Porter, who is the natural resources and 4-H extension agent for Pickens County with Clemson Extension, was one of those volunteers.

"It needed cleaning up," said Porter, who lives just outside the Pickens city limits. "I volunteered because it's better for stormwater and helps protect our water sources."

She said cleanups like these are important for getting rid of the debris and garbage but also for public involvement, education and outreach.

"If you spend two hours picking up cigarette butts then you're probably going to be less likely to throw one out your (car) window," Porter said.

Brackett said for this upcoming cleanup volunteers will meet at Legacy Square

downtown and will be sent to Town Creek Trail and Town Creek in Jaycee Park or to a street of their choice.

Bags, gloves and safety vests will be provided, but Brackett said if people want to do the creek and trail cleanup they might want to bring a rake as well as boots or waders.

She said the Palmetto Pride grants were for a new four-tier fountain in Legacy Square, planters to be put on West Main Street and improvements at the front of property the city purchased for a park near the Bradley-Boggs House.

Work on the fountain and that section of land for the proposed park has been completed, and the city is getting ready to order benches for the park entrance.

Planters will be built along West Main Street once sidewalk improvements are completed, Brackett said.

In a separate effort, the city has applied for a \$200,000 grant through the state Department of Parks and Recreation for further development of the park near the Bradley-Boggs House.

Plans there would include a covered picnic shelter, walking trails, amphitheater and fountain.



*Photo of Clean Up Day in Pickens, May 2010*

# Public Involvement

## COMMUNITY CLEAN-UPS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Pick Up Pickens! A river sweep was held at Town Creek Trail in coordination with the International Beach/River Sweep.	9/18/2010	60	N/A
City of Pickens	Clean up day for Pickens Playground of Promise, Town Creek Trail, and Town Creek.	4/9/2011	16	N/A



*Photos of Clean Up Day at Town Creek, April 2011, by Jason Evans Pickens Sentinel*

# Public Involvement

## WORKSHOPS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
NC Cooperative Extension	Southeastern region workshop was held to provide an overview about water quality in urban watersheds and rainwater harvesting systems.	5/10/2010	19	Clemson Extension, SC Botanical Garden, PCSC



*Southeastern Region Urban Watersheds Workshop*

### Public Involvement

Activity Year '10-11 Annual Report  
Pickens Countywide Stormwater Consortium



# Public Involvement

## WORKSHOPS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	Rain garden workshop was held to show participants how to design rain gardens and how rain gardens work.	5/11/2010	16	NC State Cooperative Extension, PCSC
Clemson Extension	Project Wet training	6/7/2010	9	SC DNR
Clemson Extension	The rain barrel workshop was held to learn about how rain barrels work and to show how to build your own rain barrel.	7/26/2010	8	N/A



*Rain Garden Workshop*

# Public Involvement

## WORKSHOPS

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
IECA Southeast Chapter	IECA Southeast Chapter held a erosion and sediment control training and field day to educate the audience on the products available to supplement or replace traditional erosion prevention and sediment control BMPs.	10/7/2010	210	Upstate Forever, Anderson County Environ. Services, Carolina Clear, Clemson Univ. Ag & Bio Eng. Dept., Greenville County Land Development, PCSC, SC Department of Transportation, Spartanburg County Public Works



IECA Southeast Chapter  
South Carolina  
Erosion & Sediment Control  
Training and Field Day

### **Sediment Control Systems**

#### **Sponsors**

**IECA Southeast Chapter**  
**Anderson County Environ. Services**  
**Carolina Clear**  
**Clemson Univ. Ag & Bio Eng. Dept.**  
**Greenville County Land Development**  
**Pickens County Stormwater Consortium**  
**SC Department of Transportation**  
**Spartanburg County Public Works**  
**Upstate Forever**

October 7, 2010

TRI/Environmental's  
Denver Downs Research Facility  
Anderson, SC

Time	Thursday, October 7th (6 PDH Credits) Technical Presentations & Field Demonstrations @ Denver Downs Research Facility
7:30 – 8:15	<b>Registration + Coffee + Exhibitors</b>
8:15 – 9:45	Opening: Sediment Control BMPs – An Overview <i>J.P. Johns, Woolpert</i> TP1: Traditional Sediment Control Technologies & The 80% Trapping Rule <i>Dr. J.C. Hayes, Clemson University</i> TP2: Proposed EPA ELGs. <i>Flint Holbrook, Woolpert</i>
9:45 -10:15	<b>Break + Exhibits</b>
10:15 – 11:45	TP3: Construction Site Turbidity Control – An Overview- <i>Dr. Charles Privette &amp; Dr. Cal Sawyer, Clemson University</i> TP 4: Sediment Control Technologies for Reducing Effluent Turbidity <i>Dr. Britt Faucette, Filtrex International</i> TP 5: Measuring Turbidity - <i>Dr. Charles Privette &amp; Dr. Cal Sawyer, Clemson University</i>
11:45 – 12:30	<b>Lunch (provided) &amp; Exhibits</b>
12:30 – 1:00	Demo 1: Silt Fence Installation / Ponding Demo 2: Silt Fence Materials / Filtration & Seepage
1:00 – 2:00	Demo 3: Fiber Rolls & Bales and Inlet Filters Demo 4: Turbidity Control / Contact Treatment
2:00 – 2:30	<b>Break + Exhibits + Demo 5: Index Properties</b>
2:30 - 3:30	Demo 6: Area Inlet Protection Systems Demo 7: Slope Interrupters / Perimeter Controls
3:30 – 4:00	Demo 8: Baffled Sediment Trap / Discharge Piping Demo 9: Channel Check Structures
4:00 – 4:15	<b>Wrap-up &amp; Certificates</b>

## Public Involvement

Activity Year '10-11 Annual Report  
Pickens Countywide Stormwater Consortium



# Public Involvement

## PUBLIC PERCEPTION SURVEY

Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
Clemson Extension	A survey was conducted to find out environmental attitudes, knowledge and behaviors of residents of Pickens County.	10/2010-12/2010	85	N/A



Findings from the survey are published in a report,  
*Environmental Attitudes, Knowledge and Behaviors of Surveyed Residents of  
 Pickens County*

See Appendix A for Executive Summary

# Public Involvement

## PCSC PARTNER MEETINGS

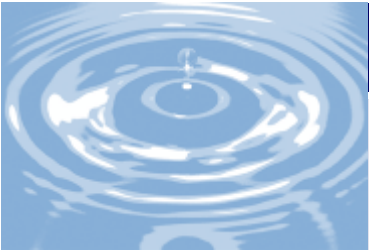
Lead Provider	Activity	Date	Number of Impacts	Supporting Partner(s)
PCSC	Consortium member and educational partners meeting	7/19/2010	8	N/A
PCSC	Consortium member and educational partners meeting	11/19/2010	6	N/A



*Example of an SMS4 Stormwater Education Display*

*“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”*

-Margaret Mead



# Conclusions

The PCSC remains committed to helping the citizens of Pickens County understand stormwater issues as well as how to protect the quality of their water by preventing stormwater pollution. The emphasis of efforts this past Activity Year, May 1, 2010 to April 30, 2011, was to continue and build on collaboration of stormwater education in the county. The primary audiences reached included the general public, professionals involved in land use and development, homeowners, youth, and the business community.

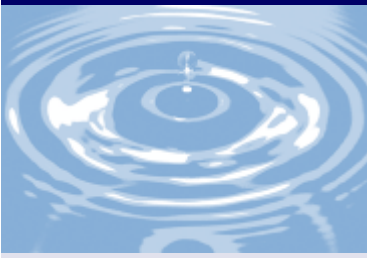
Stormwater education efforts focused on general stormwater awareness with emphasis on fecal coliform bacteria from pet waste, nutrients from landscape practices, and sediment from erosion on construction sites and from diffuse sources. Efforts also take into account other pollutants moving through the Pickens County watersheds due to stormwater runoff.

As we enter into the next activity year, the PCSC will continue to strengthen its partnerships and education plan to reach its strategic goal. Working together to educate, the PCSC helps citizens learn about and gain an appreciation of water resources which results in increased involvement in water resource protection and stewardship within the watersheds of Pickens County.



*“However far  
the stream flows,  
it never forgets  
its source.”*  
—Proverb of the Yoruba people

## Conclusions



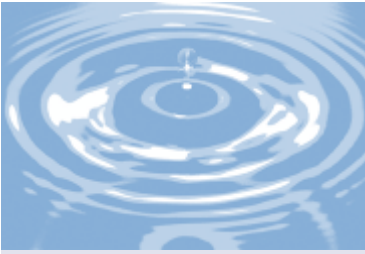
# Appendix A– Public Perception Survey

**Environmental Attitudes,  
Knowledge and Behaviors of Surveyed  
Residents of Pickens County, SC**



**January 2011**

i



# Appendix A– Public Perception Survey

## Executive Summary

The Pickens Countywide Stormwater Consortium and Clemson’s Carolina Clear program conducted a survey of Pickens County residents from October-December 2010. The primary goal of the survey was to assess the knowledge and attitudes of Pickens County residents toward stormwater and the environment, which could serve as the foundation for developing and measuring the future success of a targeted regional stormwater education program.

The sample consisted of 85 residents of Pickens County. Given the sample size, the margin of error is  $\pm 11\%$  at a 95% confidence level.

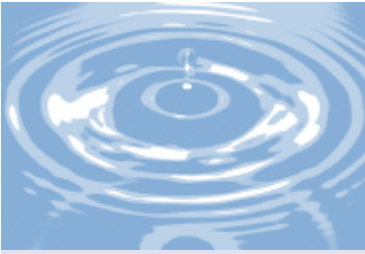
## Brief Description of Sample

The sample of respondents differs somewhat from the general population of Pickens County. The survey respondents were 57% male and 39.2% female, compared with 49.8% females in the general population of Pickens County (numbers reported by U.S. Census Bureau). Of the survey respondents, 96.2% were Caucasian, compared with 90.2% of the general population of Pickens County. With respect to age, 32.9% of respondents were 65 years old and older, compared to 13.7% of the general population. The homeownership rate of Pickens County (in year 2000) was 73.5%, compared to 83.5% of survey respondents. The education level of residents completing the survey was slightly higher than the county average (19.1% having a Bachelor’s degree or higher) with 36.7% having a Bachelor’s degree or higher.

## Summary of Findings

The summary below presents some research findings:

- **Pickens County residents are concerned about water quality and place a high value on local waterways.** 65% of respondents are “very concerned” and 30% are “somewhat concerned” about pollution in local waterways. More than 96% of respondents indicated water resources are important to the livelihood and quality of life in Pickens County.
- **Residents have a basic understanding about various causes of poor water quality.** 97.5% of respondents indicated that what people do on the land affects local water quality. Approximately 77% of respondents “strongly agreed” or “agreed” that inspection and pump out of septic tanks protects water quality but 16.5% indicated they did not know. Nearly 70% indicated they “strongly agreed” or “agreed” that pet waste is a source of bacteria pollution in local waterways. Nearly 80% of respondents did not believe that stormwater was treated before being discharged to local waterways.



# Appendix A– Public Perception Survey

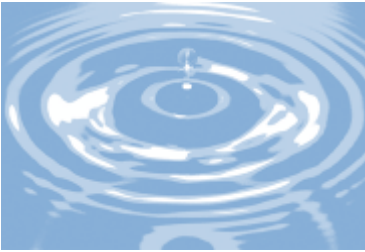
Respondents were asked to rate the extent to which eight activities impacted local waterways. More than 50% of respondents indicated that each activity had “great impact” or “some impact”

with industrial sites, fertilizers and lawn care chemicals that people use on their lawns and gardens, and fuel and oil leaks from trucks, buses, or automobiles all above 85%.

Respondents were most likely to say the following sources of pollution had “very little impact” or “no impact” on water quality: runoff from people washing their cars (40.5%) and pet waste (35%).

- **Concern is not equivalent to the level of knowledge regarding watersheds.** Only 32.9% of respondents selected the most correct definition of a watershed.
- **Pickens County residents are engaging in some environmentally responsible behaviors, although some residents are engaging in behaviors that could have a negative impact on water quality.** In regards to driving a vehicle with a motor oil leak, disposing of oil, paint, or other chemicals in storm drains, dumping grass clippings or leaves down storm drains or backyard creeks, and storing fertilizers and pesticides in leaking containers, more than 90% of respondents indicated they “hardly ever” or “never” engage in the behavior or “does not apply”. On the other hand, 34% of respondents said they “hardly ever” or “never” pick up after their pets while walking. 20% also indicated they “hardly ever” or “never” consider the likelihood of rain before treating the lawn with fertilizer or pesticide.
- **Respondents use a variety of media to obtain local/regional information and news.** The most frequently selected source of information was the TV-Evening News (74.7%). The internet and local newspaper were the next most frequently selected sources of information (45.6% and 34.2%). Billboards/posters and events/workshops were the least frequently selected sources (6.3% and 3.8%).





# Appendix B– Stormwater Luncheon Summary



March 21, 2011

**Re: Elected and Appointed Officials Stormwater Luncheon Meeting Summary**

Dear Officials and Consortium Members:

On behalf of the Pickens Countywide Stormwater Consortium, I would like to thank you for attending the Stormwater Elected and Appointed Officials Luncheon. Ms. Jill Stewart, P.E., Stormwater Permitting Section Manager with the SC Department of Health and Environmental Control (DHEC) presented stormwater background information and the proposed changes to the General Permit for small Municipal Separate Storm Sewer Systems (MS4s). The existing permit for MS4s expired on February 28, 2011. The new small MS4 permit went on public notice on March 3, 2011, and written comments will be taken until April 1, 2011. The permit is posted on the DHEC website at [www.scdhec.gov/environment/water/swnpdes.htm](http://www.scdhec.gov/environment/water/swnpdes.htm).

**Meeting Summary:**

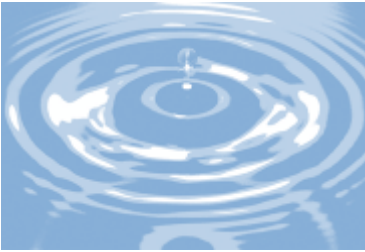
Ms. Scottie Ferguson, Stormwater Manager for Pickens County, and Ms. Katie Giacalone, Clemson University Carolina Clear Coordinator welcomed attendees and introduced Ms. Ann Clarke, Director of Stormwater, Construction, Agricultural and Dams Permitting, SC DHEC and Ms. Stewart.

The following are highlights from the presentation given by Ms. Jill Stewart, P.E.:

*Stormwater runoff is a significant threat to water quality. It is untreated water that reaches waterbodies by means of flowing across impervious surfaces, picking up pollutants that degrade water quality and harm or kill fish and other wildlife.*

*The Clean Water Act of 1970 and its amendments are implemented through the National Pollutant Discharge Elimination System (NPDES). SCDHEC is delegated by the Environmental Protection Agency to administer the state NPDES program, which includes issuing stormwater permits for MS4s. An MS4 is a conveyance or system of conveyances owned by a public body designed to collect or convey stormwater and includes storm drains, pipes, catch basins, and ditches. The NPDES program for stormwater was implemented in two phases:*

- *Phase I issued in 1990, requires a permit for cities or counties with populations of 100,000 or greater as defined by the Census Bureau. The SC Department of Transportation is designated a large MS4 and the City of Columbia, Greenville Co., Lexington Co., and Richland Co. are medium MS4s; each is covered under an individual permit.*
- *Phase II issued in 1999, requires a permit for small MS4s in urbanized areas with populations less than 100,000 as well as small MS4s outside the urbanized areas that are designated by DHEC. South Carolina has 70 small MS4s that were issued coverage under a general permit in 2006 including Pickens County and the cities of Easley, Liberty and Pickens.*



# Appendix B– Stormwater Luncheon Summary

*Section 303(d) of the Clean Water Act requires states to submit a list of waterways not meeting their designated water quality standard, also known as the 303(d) list. From this list, calculations are completed to determine the amount of a pollutant that can be tolerated in a waterway without exceeding the water quality standard for that waterbody's designated use. This procedure is part of establishing a Total Maximum Daily Load, or TMDL. The new small MS4 permit currently includes requirements for a community to better understand and characterize their stormwater discharges to waterways with a TMDL so that the MS4 discharge and its relationship to water quality impairment can be better understood. The permit outlines monitoring requirements and watershed management planning when a TMDL is within the MS4 boundary.*

*Six minimum control measures are required by stormwater permits to reduce pollutants discharged into waterways:*

1. **Public Education and Outreach**
2. **Public Participation/Involvement**
3. **Illicit Discharge Detection and Elimination**
4. **Construction Site Runoff Control**
5. **Post-Construction Runoff Control**
6. **Pollution Prevention/Good Housekeeping**

The major changes to the General Permit discussed in the presentation are highlighted in the attached worksheet, "SC NDPES General Small MS4 Permit, Anticipated Changes According to Permit on Public Notice."

Based on the survey, the overall evaluation of the program presented was "excellent," and lunchtime was the preferred time. Future workshop topics that are most popular included:

- 1<sup>st</sup>: Watershed Management Plan Development
- 2<sup>nd</sup> tie: Total Maximum Daily Loads
- 2<sup>nd</sup> tie: New Technologies in Stormwater Management
- 2<sup>nd</sup> tie: Water Quality Monitoring Program Development

Please feel free to contact me with any questions or concerns. I look forward to our work together educating and involving the public on improved stormwater management in Pickens County.

Sincerely,

Cathy Reas Foster  
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Enclosures