

PICKENS COUNTY
stormwater
PARTNERS



Final Report for the 2006 SMS4 Permit

PUBLIC EDUCATION & INVOLVEMENT ACTIVITIES
MAY - DECEMBER 2013

Pickens County and the cities of Easley, Liberty, and Pickens, together with education partner organizations, continued stormwater education initiatives as the Pickens County Stormwater Partners (PCSP) as part of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from regulated Small Municipal Separate Storm Sewer Systems (SMS4s). The year 2013 was the sixth year of the PCSP partnership, which is responsible for addressing Minimum Control Measures (MCMs) one and two stated within the permit. These measures direct regulated SMS4 communities to deliver public education and outreach programs with public involvement and participation.

This report covers activities from May 1, 2013 through December 31, 2013, and is the final report for the SMS4 permit issued in 2006 by the South Carolina Department of Health and Environmental Control (SC DHEC). The new SMS4 permit was issued on January 1, 2014 and expires on December 31, 2019. Future reports will follow the new permit requirements and guidelines.

Using the 303(d) List of Impaired Waterbodies, Total Maximum Daily Loads (TMDLs), workshop and event surveys, and feedback from citizens and stormwater professionals in the county, the PCSP identified target pollutants and audiences. Education was targeted at key interest groups including the general public, professionals involved in land use and development, homeowners, youth, and the commercial community. Overall, stormwater awareness was retained as the major focus of the educational process with emphasis placed on developing programs for water pollution concerns including bacteria, sediment, nutrients, oils, and litter.

The PCSP grew not only with the addition of new education partners, but also by strengthening partnerships while working together on projects and events. The partners remain dedicated to protecting water resources in the Upper Savannah and Upper Saluda River Basins and increasing water stewardship throughout Pickens County by providing stormwater education and involvement opportunities to all citizens.



Scottie Ferguson
*Stormwater Manager,
Pickens County*

“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.”

2013 Highlights

- Mascots: Gilli the Stormwater Fish & Finn the Storm Drain Dog
- Publications & Articles
- Displays & Outreach Materials
- Meadow & Prairie Restorations
- Rain Gardens
- Palmetto Pride Grant - Pickens County Beautification & Environmental Education Center
- Champions of the Environment State Champion - The Prairie Project - Pickens County Career Center
- Champions of the Environment Merit Award - Natural Resource Courtyard - Pickens Middle
- Programs:
 - Car Wash Kits
 - Carolina Yards & Rain Gardens
 - Fats, Oil & Grease
 - Litter Sweeps
 - Pet Waste Projects
 - Rain Barrels & Watersheds
 - Storm Drain Marking

TOTAL OUTREACH ACTIVITIES AND TOTAL NUMBER REACHED (*estimated*)

1. Brochures/Newsletters (Outreach Materials): 45,268
2. Workshop/Seminars (Presentations): 3,946
3. Posters (Exhibits, Fairs, & Festivals): 13,104
4. Newspaper/Magazine Articles: 119,807
5. Websites (hits/likes): 29,003
6. Utility Bill Inserts: 2,129
7. Television: 43,025
8. Other: Billboard: 27,571
9. Other: Public Involvement: 3,801



Pickens County promotes clean air, land & water!

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The Small Municipal Separate Storm Sewer Systems (SMS4s) community partners in Pickens County are dedicated to providing stormwater education county-wide. The partners work together to better facilitate the development of a unified approach to stormwater education and outreach throughout the county.

Local SMS4 Partner Representatives

MS4	Partner Representative
Pickens County	Scottie Ferguson
City of Easley	Land Planning Associates, Inc.
City of Liberty	Olen Hamlin
City of Pickens	Katherine Hendricks



The education partners include agencies, organizations and individuals that share an interest in educating the public about stormwater and water quality. These educational partnerships ensure a uniform and consistent message while leveraging valuable resources, organizational strengths, and collaborations. PCSP is grateful to all of the partners and to the citizens of Pickens County who are helping to keep our waterways clean and beautiful.



Mission & Goals; SMS4 Permit Requirements

MISSION STATEMENT

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.

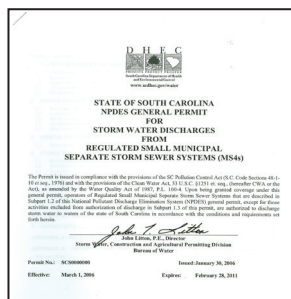
GOALS

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

SMS4 Permit Requirements:

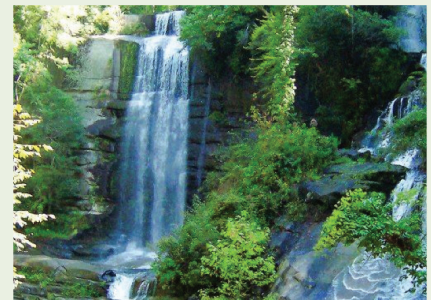
SMS4s are expected to reduce pollutants to the maximum extent practicable (MEP) through six minimum control measures (MCMs):

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge, Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping for Municipal Operations



“Water is the most critical resource issue of our lifetime and our children’s lifetime. The health of our waters is the principal measure of how we live on the land.”

-Luna Leopold



Twin Falls, Pickens County

Stormwater - water that runs off the land, generated by precipitation, snow melt, or even irrigation, and all the pollutants that this runoff picks up as it makes its way to lower points in the landscape - typically rivers, streams, and lakes. Some stormwater flows over the land; other times, it’s piped out to the stream. Polluted stormwater runoff is not treated by a treatment plant, and therefore, it is considered by the Environmental Protection Agency to be the greatest threat to our nation’s water quality.



2010 Census

Pickens County Population

- Total - 119, 224

Urbanized Areas

- Pickens County - 30,243
- City of Easley - 19,974
- City of Liberty - 3,120
- City of Pickens - 3,067

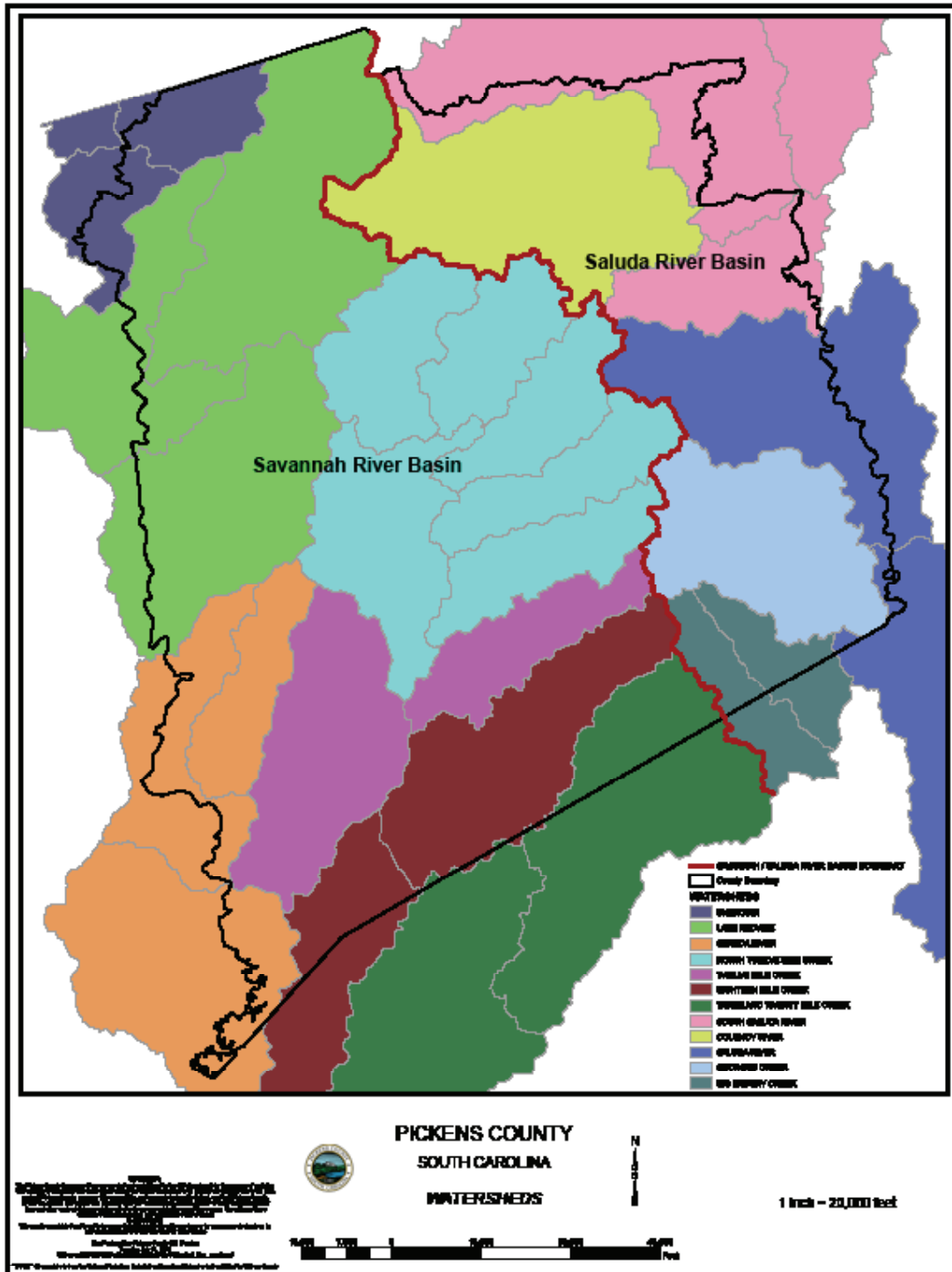
A regulated Small Municipal Separate Storm Sewer System (SMS4) is any small MS4 located in an “urbanized area” (UA), as defined by the Bureau of the Census, or located outside of an UA and brought into the NPDES stormwater program by SC DHEC. Regulated SMS4s are required to have a stormwater permit and a stormwater management program that uses best management practices (BMPs) that effectively reduce or prevent the discharge of pollutants into receiving waters of the state.

Water Quality

- TMDLs County-wide: Bacteria
- Three Bacteria TMDLs in MS4 Area
- 303(d) List Impairments County-wide: Bacteria, Macroinvertebrates, pH, PCBs, Turbidity (2012 List)

In compliance with Section 303(d) of the Clean Water Act, SC DHEC submits a list of monitored waterbodies that do not meet water quality standards to the EPA every two years. The 303(d) list is the list of impaired waterbodies and it is used to determine if the impairment can be addressed through designating a Total Maximum Daily Load (TMDL), which is the amount of a single pollutant (such as bacteria, nutrients, metals) that can enter a waterbody on daily basis and still meet state water quality standards. “TMDL” refers to both a calculation of a pollutant entering a waterbody as well as a document with source assessments, watershed and land use information, maps, figures, and pictures. Using this information, PCSP can better decide what pollutants or behaviors should be targeted for public education and involvement concerning local stormwater issues.

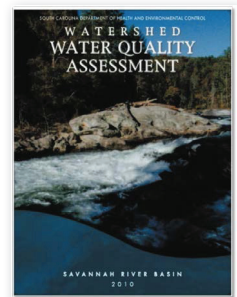
Pickens County Watershed Map



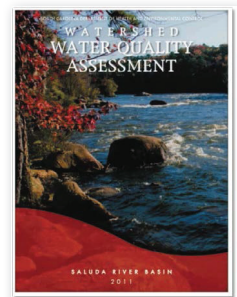
Watershed - an area of land where all of the water, on the surface and underground, drains to a specific waterbody such as a creek, river, lake or the ocean.

River Basin - the entire geographical area drained by a river and its tributaries.

Savannah River Basin



Saluda River Basin



[www.scdhec.gov/
 HomeAndEnvironment/
 Water/Watersheds/
 ArchivedAssessments/](http://www.scdhec.gov/HomeAndEnvironment/Water/Watersheds/ArchivedAssessments/)

This report provides a detailed outline of the activities that took place in Pickens County over Activity Year 6: May 1, 2013 to December 31, 2013. Each activity is briefly described along with the lead provider, supporting partners, date, estimated number of impacts, and target audiences. This report categorizes activities into public education and involvement sections. All activities are recorded and stored in an online database that is managed by the Clemson University Carolina Clear program.

Legend

Abbreviation	Report
BMP	Best Management Practice
BSGSA	Biological Sciences Graduate Student Association
CEPSCI	Certified Erosion Prevention & Sediment Control Inspector
CY	Carolina Yards
EPA	Environmental Protection Agency
FOG	Fats, Oil and Grease
FOJ	Friends of Jocassee
FOLKS	Friends of Lake Keowee Society
FTC	Foothills Trail Conference
GA AAS	Georgia Adopt-A-Stream
IECA	International Erosion Control Association
LEAF	Leading for our Environment and Future
LHA	Lake Hartwell Association, Inc.
LPA	Land Planning Associates, Inc.
NPDES	National Pollutant Discharge Elimination System

Abbreviation	Report
NRCS	Natural Resources Conservation Service
PCBEAC	Pickens County Beautification and Environmental Advisory Committee
PCSP	Pickens County Stormwater Partners
SCBG	South Carolina Botanical Garden
SC ETV	South Carolina Education Television
SC DHEC	South Carolina Department of Health and Environmental Control
SC DNR	South Carolina Department of Natural Resources
SCNPS	South Carolina Native Plant Society
SDPC	School District of Pickens County
SMS4	Small Municipal Separate Storm Sewer System
SOS	Save Our Saluda
STEEP	Secondary Transition Education and Employability Program
TMDL	Total Maximum Daily Load
UA	Urbanized Area

Abbreviation	Target Audience
B	Boat Owners, Operators, and Marinas
C	Commercial
EA	Elected and Appointed Officials
GP	General Public
HE	Higher Education
M	Municipal
NR	Natural Resources Staff
P	Pet Owners
R	Residential - Homeowners and Renters
T	Technical - Engineers, Contractors, Developers, Staff
YT	K-12 Youth and Teachers

Overview of Year 6

Water quality education and involvement continues to build momentum in Pickens County! The Pickens County Stormwater Partners (PCSP) strengthened current and added new partnerships by working together at local events and festivals, and continued to build on programs such as pet waste projects, car wash kits, Carolina Yards, litter pick ups, and storm drain marking to involve and educate the community about stormwater pollution. The partners also worked together on installing and maintaining meadows, rain gardens and rain barrels, which included hosting public workshops. Outreach materials, articles, displays and presentations remained a focus for PCSP. Recognitions and awards during 2013 included the SC DHEC Champions of the Environment Award for a piedmont prairie restoration at the Pickens County Career Center, a Champions of the Environment Merit Award, and various Palmetto Pride Grants. These activities provided water quality and water resource education and involvement throughout the county.



Report Categories

The Public Education section of this report is organized by outreach methods with these sub-section titles: mass media, publications, outreach materials, exhibits, presentations and workshops, and programs. The Public Education & Involvement section of this report is organized by program titles.

Mass Media (Billboard)

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY
Clemson Carolina Clear	Outdoor Advertising Association of SC	One watershed awareness billboard is located in Pickens County, Hwy 123/153 intersection
DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
2013	27,571	B, C, GP, M, R, T



Mass Media (Websites, Facebook)

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
Pickens County		Pickens County Stormwater webpage	Ongoing	997	B, C, GP, P, R, T
Clemson Carolina Clear		Carolina Clear webpage	Ongoing	15,402	B, C, GP, P, R, T
Clemson Carolina Clear		Carolina Yards webpage	Ongoing	11,275	C, GP, R
Clemson Carolina Clear	PCSP	PCSP webpage	Ongoing	385	GP, M, R, T
Clemson Carolina Clear		Stormwater Pond webpage	Ongoing	467	B, C, GP, P, R, T
PCSP	Clemson University	PCSP Facebook page	Ongoing	477 (Likes)	GP, HE, R, YT

Mass Media (Television)



LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
Clemson Extension	SC ETV	Featured segments on Making It Grow by Carolina Clear agent Terasa Lott	2013	27,025	GP, R

Publications

ARTICLES - NEWSPAPERS, MAGAZINES, E-NEWS

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
The South Carolina Nurseryman	Clemson Extension	<i>Ecologically Based Water Treatment Systems: Part II - Small-scale Systems</i> article by Dr. Sarah White featured in The South Carolina Nurseryman	May - June 2013	535	C, GP
The South Carolina Nurseryman	Clemson Extension	<i>Rain Garden Plant Selections - Choosing Plants Tolerant of Drought & Flooding</i> article featured in the South Carolina Nurseryman	September - October 2013	535	C, GP
The Easley Progress	Duke Energy	<i>World of Energy hosts hunting, fishing day</i> article featured in The Easley Progress	September 11, 2013	13,300	GP, R
From the Lion's Den	Daniel High School, PCBEAC	<i>Environmental Club contributes to our school and environment in multiple ways</i> article featured in the Daniel High School newsletter	Fall 2013	1,037	YT
The Easley Progress	PCSP, Holly Springs, SCNPS	<i>Volunteers support Pickens through iHOPE Day of Service</i> article featured in The Easley Progress	September 27, 2013	13,300	GP, R, YT
Pickens County Courier	PCSP, Holly Springs, SCNPS	<i>iHOPE volunteers work at Holly Springs Elementary</i> article featured in the Pickens County Courier	October 9, 2013	7,200	GP, R, YT
Pickens County Courier	PCBEAC	<i>Making Pickens County more beautiful</i> article featured in the Pickens County Courier	November 13, 2013	7,200	GP, R
Pickens County Courier	Pickens Middle, PCSP	<i>PMS students help city with storm drain marking</i> article featured in the Pickens County Courier	December 11, 2013	7,200	GP, R, YT
The Greenville News - Pickens County Edition	PCBEAC, PCSP	<i>Volunteers beautify Pickens County Recycling Center</i> article featured in the Greenville News Pickens County Edition	December 16, 2013	49,000	GP, R
Pickens County Courier	PCBEAC, PCSP	<i>Pickens County Committee keeping area clean and beautiful</i> article featured in the Pickens County Courier	December 18, 2013	7,200	GP, R
The Easley Progress	Easley High, PCBEAC	<i>Easley High School students going green</i> article featured in the Easley Progress	December 20, 2013	13,300	GP, R, YT

Publications

COMMUNITY & ORGANIZATION NEWSLETTERS, BILL STUFFERS

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
SC DNR		<i>Friends of Jocassee group now underway</i> article featured in the Jocassee Journal; Protecting water resources	Spring - Summer 2013	3,000	B, GP, NR, R
Keowee Key		<i>Earth Day Trash to Treasures Auction...what a Hoot!</i> article featured in the Keowee Key newsletter, Scuttlebutt	June 2013	400	B, R
City of Pickens	PCSP	Car Wash Flier bill stuffer	June 2013	2,129	GP, R
City of Liberty	PCSP	<i>For Your Information...</i> article featured in The Liberty Buzz newsletter discussing water runoff and Gilli's Car Wash Tips	June - July 2013	3,600	GP, R
City of Liberty	PCSP	<i>The Buzz About Town... and Notices & Reminders...</i> articles featured in The Liberty Buzz discussing a new pet waste station and information on limbs/brush, water runoff and pet waste	August - September 2013	3,600	GP, R
SC DNR	PCSP, SCNPS	<i>Holly Springs Elementary is gardening for clean water; A meadow... not just for bears</i> articles featured in the Jocassee Journal	Summer - Fall 2013	3,000	GP, NR, R
City of Liberty	PCSP	<i>Finn's Yard Care Tips</i> article featured in The Liberty Buzz	October - November 2013	3,600	GP, R
Easley City News	City of Easley, LPA	<i>Protect Our Water Pick Up Pet Waste and Easley Community Garden</i> articles featured in the Easley City News	Fall - Winter 2013	8,800	GP, R



Publications

LAKE ASSOCIATION NEWSLETTERS

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
FOLKS	PCSP, Clemson Extension	<i>Don't Let Pollution Go Down The Drain!</i> and PCSP biz cards in the FOLKS newsletter, The Sentinel	May - June 2013	1,775	B, GP, R
FOLKS		<i>Loving Them To Death</i> article featured in the FOLKS newsletter, The Sentinel discussing water quality and native plants	July - August 2013	1,775	B, GP, R
LHA	PCSP, Clemson Extension	<i>What is a Rain Garden?</i> postcard featured in the LHA newsletter	Summer 2013	2,150	B, GP, R
FOLKS	PCSP, Clemson Extension	<i>Friends of Jocassee Thank Volunteers</i> article and <i>Don't Let Pollution Go Down the Drain!</i> in the FOLKS newsletter, The Sentinel	September - October 2013	1,775	B, GP, R
LHA	PCSP, Clemson Extension	<i>Leaf it on the Lawn: Tips for Proper Yard Debris Disposal</i> poster featured in the LHA newsletter	Fall 2013	2,150	B, GP, R
FOJ	PCSP	<i>FOJ hosts VIP Day</i> article featured in the FOJ newsletter about litter pick up & protecting water quality	Fall 2013	100	B, GP, R
FOLKS	PCSP, Clemson Extension	<i>Don't Let Pollution Go Down The Drain, The Effects of Blowing Leaves into Lake Keowee, Second Annual Thank you Picnic for Lake Sweepers & Island Keepers, FOLKS Lake Sweep</i> articles featured in the FOLKS newsletter, The Sentinel	November - December 2013	1,775	B, GP, R



Outreach Materials

BROCHURES, BOOKLETS, MANUALS

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
Clemson Carolina Clear		Pool Discharge postcard (new)	Ongoing	75	B, C, GP, R
Clemson Carolina Clear		Postcard Series	Ongoing	150	GP
Clemson Carolina Clear		SC Waterways Stormwater Fact Sheets	Ongoing	50	B, C, GP, R
Clemson Carolina Clear	PCSP	Illicit Discharge Biz Cards & Posters	Ongoing	60	C, GP, M, R

One More Pool Rule



Although draining a swimming pool is sometimes necessary for maintenance or safety, where you drain that water can impact our environment and us. Pool water is treated with chlorine and other chemicals, which are toxic to fish and aquatic animals and plants. Improper pool discharge may also contribute to localized flooding issues around our homes and roads. When it's time for you to drain your pool, take the following precautions to help protect your community and downstream water quality.

Where should I drain my pool water?

- Contact your utility operator to find out if they will accept discharge to the sanitary sewer system. Do not drain your pool to a septic tank system.
- If the sanitary sewer is not an option, once you have taken the steps listed on the back of this card, slowly discharge your pool to a vegetated area of ground that allows water to soak into the earth. You must seek permission from your local municipality or county stormwater sewer authority prior to discharge to the stormwater system.

Remember, it is illegal for backwash or chlorinated pool water to be discharged to the storm drain system or a waterway!



IF YOU SEE ANY OF THE FOLLOWING IN A LOCAL WATERWAY, STORMDRAIN, OR DITCH, THESE ARE ILLICIT (ILLEGAL) DISCHARGES:

- Septic or sewer overflow
- Construction or paint waste
- Pesticides or fertilizers
- Leaves or grass clippings
- Litter or debris
- Oily, soapy or discolored water
- Household or cleaning chemicals
- Cooking grease
- Chemical or oil spills
- Pet waste

TO REPORT POLLUTION CALL
Pickens County Stormwater Department
(864) 898-5789

PICKENS COUNTY stormwater PARTNERS



For more information, please visit
www.co.pickens.sc.us
www.clemson.edu/carolinaclear/pcsp

SC WaterWays

answering today's water resource challenges for future generations

Rain Garden Plants: Introduction

Sarah A. White, Nursery Extension Specialist, Clemson Extension Service December 2012

Choosing Plants Tolerant of Drought and Flooding

The series of brochures provides in-depth cultural and design-based information for selection and use of rain garden plants. This information helps you decide when and where it is appropriate to use a particular plant species.

The main purpose of rain gardens is to slow and detain nonpoint runoff from impervious surfaces such as roadways, parking lots, and sidewalks, preventing excess rainfall from the ground surface and reducing runoff into surface waters. If water running off of these impervious surfaces is stored using plants, such as native bacteria, we can reduce pollution potential, improve water quality, and benefit our nearby surface waters and help to improve the health of the environment, while reducing stress on water management infrastructure.

"Rain gardens are landscaped depressions that receive stormwater runoff and allow the runoff to slowly infiltrate to the groundwater table."
Rain Gardens & Rain Garden Manual for South Carolina

Typical conditions in watersheds rain gardens include extended periods of drought interspersed with periods of rainfall where flooded conditions might occur. Most ornamental plant species are not adapted to such fluctuating moisture conditions and would not survive in the specific changing environments. Some rain garden areas designed to slow and gradually permit water infiltration, flooded conditions should not persist over those days. The design also helps to reduce the likelihood of overtopping, flooding and erosion, and also to provide a large buffer to excess runoff from lawns, parking, wet lawns, storm events.

An informational series from Clemson University's Water Resources Program Team

SC WaterWays

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Illicit Discharges and Water Pollution

Mary Gaffney, Water Resources Agent, Clemson Extension October 2012

What is an illicit discharge?

Having enough clean water is important to everyone. However, sometimes chemicals, waste, and other pollution end up in streams and rivers, making the water no longer safe for families. When this happens, on paper or in reality, it is called an illicit discharge. The Environmental Protection Agency (EPA) defines an illicit (or illegal) discharge as any discharge into a storm sewer system that is not a permitted discharge.

The storm sewer system is the collection of storm drains, pipes, and ditches that carry water from roads, parking lots, and homes to natural bodies of water. This infrastructure is different from the sanitary sewers that take wastewater from your home or business (sewerage) to a treatment plant. The purpose of storm sewer infrastructure is to move rainwater away from streets and buildings as efficiently as possible to prevent flooding. As rainwater enters storm drains, it can easily carry pollution from parking lots, streets, and lawns, such as leaves, oil, or fertilizer. Such pollution is linked to negative health and environmental impacts on waterways that we see in drinking water, fishing, swimming, shellfish harvesting, and so on.

How does an illicit discharge happen?

Illicit discharges can happen when pollutants are poured directly into a storm drain, ditch, or stream, as well as when pollutants are left out on the ground and picked up by runoff. Illicit discharges can also happen when a physical connection like a pipe is installed to carry pollutants from a source into a storm sewer system without a permit. An example might be a pipe connecting a house's dishwasher to a storm drain. This is considered the only allowable discharge to a storm drain a homeowner doing with a specific non-stormwater discharge identified below.

It is essential that we all recognize the difference between sanitary and stormwater pipes, know how to identify suspected illicit discharges and contact the appropriate authority, and do our part in minimizing the likelihood of illicit discharges to our shared water resources.

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Shorescaping Freshwater Shorelines

Bertram Powell, Natural Resources Agent, Clemson Extension November 2012

Shorescapes

South Carolina is blessed to have an abundance of water resources in the form of rivers, lakes, ponds and streams, and many residents own properties that adjoin these beautiful waterways. This presents the waterfront owner with a unique opportunity to discover a largely unexplored area of landscaping: SHORESCAPING. A shoreline is a landscaped shoreline that uses attractive plants to protect and beautify the waterfront. A well-landscaped shoreline uses native plants to provide a functional solution to problems such as shoreline erosion, poor water quality, nuisance weeds, and wildlife harassment. Also, like a flower bed in the yard, a shoreline that uses a mixture of flowering plants can serve as a waterfront garden that improves the appearance of the shoreline and adds value to the property. Luckily, there are many very attractive plants that are easy to grow, native to South Carolina, and suitable for use in a storm-shorecape.

Before Planting

Before planting, you should consider carefully what your designed use is for the body of water. For instance, residential stormwater ponds and recreational lakes should not have open shorelines with few trees so that they can be viewed easily for maintenance and use. On the other end of the spectrum, trees may be necessary for protection along roads and large reservoirs to withstand the strong erosional forces present in those large systems. Also, the waterfront owner should consider how the shoreline is used by neighbors and the community. Plants should be placed in areas that may receive recreational use or recreation. In the case of recreational ponds, the community relies on the ponds to enjoy recreational use from the neighborhood through a system of pipes and canals. The waterfront owner should be careful how

Shorescaped pond built in community near York, S.C. to enhance these conventional shorelines. If a dike could cause flooding. In some cases, it is the responsibility of the home owner to determine what plants are suitable for nonpoint runoff beds. For more information about protecting water resources, visit www.clemson.edu/extension

Right Plant, Right Place

Knowing what to plant and where to plant them is the greatest challenge for designing a shoreline because the shoreline is an ever-changing area (in terms of erosion between two seasons). Waterways have four distinct zones which characterize the transition from water to land. Each zone is suitable to different plants based on the water levels of each zone. The different zones provide the decrease of the planting zones and lists of plants suitable for each zone. When purchasing plants, check the variety names and match them to the plants on this list. Many plant species share common names, but may differ from those described here.

An informational series from Clemson University's Water Resources Program Team

Outreach Materials

GIVE-AWAYS:



ACTIVITY	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
PCSP Pen/Highlighter	500	GP, M, T
Recycled Newspaper Pencils - Trash Bash	1,300	YT
Gilli Ornaments	100	M, T
PCSP Gilli I Love Clean Water Stickers	2,000	YT
PCSP Finn I Love Clean Water Stickers	2,000	YT
Gilli & Finn Coloring Book Pages	200	YT
Rain Gauges with PCSP Stickers	550	GP, R



TREASURES:



ITEM	TARGET AUDIENCE
Stormwater Water Wheel Game, Stool & Treasure Box	GP, YT
Finn's Doghouse with Rain Barrel	GP
PCSP & Gilli Event Tent	GP
Cornhole Board Game	GP, YT
Standup Gilli	GP
Standup Finn	GP



Exhibits

FAIRS AND FESTIVALS

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
Pickens County Hagood Mill	PCSP	Stormwater education booth at Nature Discovery Day	May 4, 2013	200	GP, R, YT
SC Agricultural Museum	Clemson Extension, PCSP	Stormwater education booth at the Agricultural Museum of South Carolina Grand Opening Event	June 21, 2013	150	GP
City of Easley	PCSP	Stormwater education booth at the Easley Farmers Market	August 24, 2013	250	GP
Duke Energy	PCSP, Clemson Extension	Stormwater education booth at the National Hunting and Fishing Day Event	September 21, 2013	1,000	GP, YT
Clemson University Restoration Institute	Carolina Clear and multi-partner conference hosts	Booth at the Next Step for STEM Schools three-day institute - water cycle, landscape changes and pollution, pollution prevention, and bioaccumulation	September 30 - October 2, 2013	300	T, YT
City of Easley	PCSP	Stormwater education booth at the Easley Fire Department Event	October 10, 2013	1,000	GP, R, YT
Clemson University	PCSP	Stormwater education booth at the Clemson University FallFest Event	October 18, 2013	125	HE
City of Pickens	PCSP	Stormwater education booth at Trick or Treat on Main	October 26, 2013	2,000	GP
City of Liberty	PCSP	Stormwater education booth at the Fall for Liberty Festival	October 26, 2013	800	GP



Exhibits - County & City Displays

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
PCSP	Pickens County, City of Easley, City of Liberty, City of Pickens	Stormwater displays & posters at county and city administrative offices with materials available to public	Ongoing	600	EA, GP, M
Pickens County	PCSP	Clean Water Christmas Door Display at the County Administrative Facility	December 2013	400	EA, GP, M, T



Stormwater education displays are a highlight for the municipal partners and are located at the Pickens County Administrative Facility and City Halls of Easley, Liberty and Pickens. Each display is unique and appropriate to the location, and includes handouts, fliers, posters, reports, and other documents relevant to the stormwater education program.



The annual Christmas Door decorating contest held at the County Administrative Facility is a special time for creativity in stormwater and watershed education! First prize was awarded to the Pickens County Stormwater Department for the Winter Waterland and Snowman Clean Water display.



Presentations and Workshops

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
SCASM	PC Stormwater Department, PCSP	Pickens County Stormwater Department presentation at SC Association of Stormwater Managers Meeting	June 6, 2013	134	T
Clemson Extension, 4-H, PCSP		Enviroscape presentation at the Jr. 4-H Forestry Camp	July 16, 2013	10	YT
PCSP	Grace Church	<i>Composting and Caring for the Earth</i> presentation at Grace Church	July 31, 2013	60	GP, R
Clemson Extension, SCBG	Center for Watershed Excellence, Clemson School of Agricultural, Forest, and Environmental Sciences	<i>Managing Riparian Invasive Species: Kudzu, and Privet, and English Ivy-Oh My!</i> Workshop at the SC Botanical Garden	August 8, 2013	30	R
Pickens County 4-H, PCSP	SCBG	Project Wild Workshop	August 12 - 13, 2013	15	GP, HE, YT
FTC	PCSP	Furman Students - Leave No Trace presentation	September 10, 2013	16	HE
Duke Energy	PCSP	Enviroscape presentation at Duke Energy Hunting and Fishing Days	September 20, 2013	108	YT
Southeastern Water Education Summit	PCSP, Clemson Extension	<i>"Litter"acy Campaign</i> presentation at the Water Education Summit Conference	September 25, 2013	50	HE, T
Clemson University	PCSP	Leave No Trace presentation for Clemson Forest Honors Class	October 24, 2013	18	HE
Clemson University	PCSP	EcoPlex Tour with the Clemson University EcoReps	November 4, 2013	12	HE
Clemson Extension	City of Easley	2013 Ornamental Plant School	December 6, 2013	37	C, GP, R, T



Presentations and Workshops



CERTIFICATIONS

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
Clemson University		Certified Erosion Prevention & Sediment Control Inspector Program Certifications	May - December 2013	314	T
Clemson University		Certified Erosion Prevention & Sediment Control Inspector Program Recertifications	May - December 2013	364	T

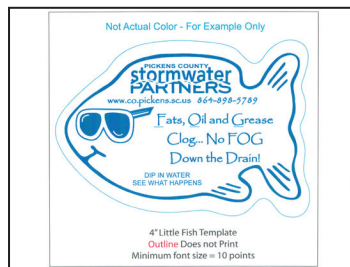
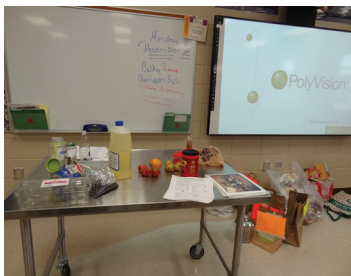
TRAININGS

IECA Southeast Chapter	Denver Downs	IECA Southeast Chapter South Carolina Erosion & Sediment Control Training and Field Day	September 19, 2013	135	T
GA AAS	PCSP, Greenville Zoo	Adopt-A-Stream program training at the Greenville Zoo	December 14, 2013	21	GP, HE, YT
City of Easley	LPA	City of Easley Public Works Quarterly Meetings	May - December 2013	135	M
City of Easley	LPA	City of Easley Parks and Recreation Quarterly Meetings	May - December 2013	45	M
City of Easley	LPA	City of Easley Fire Department Monthly Meetings	May - December 2013	320	M



Programs: Fats, Oil, Grease (FOG)

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
PCSP		FOG Sponges	Ongoing	150	C, GP, R
PCSP	Pickens County	FOG Packets (posters & handouts)	Ongoing	14	C
PCSP	Pickens High School	Clean water and FOG presentation for Pickens High Food Science Class	December 2-3, 2013	150	YT



Soil Samples

Clemson Extension	Clemson Agricultural Lab	Soil samples analyzed for residents and commercial audiences in Pickens County to determine the correct amount of fertilizer application	2013	155	C, R
Clemson Extension		Plant Problem Clinic Submissions at the Pickens County Clemson Extension Office	2013	14	C, R

Action in the Classroom



SC DHEC	Pickens County Recycling	Action in the Classroom presentation at McKissick Elementary	November 4, 2013	75	YT
SC DHEC	Pickens County Recycling	Action in the Classroom presentation at Clemson Elementary	November 8, 2013	136	YT

Public Education & Involvement Highlight

Programs:

What's in Our Waters

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
Clemson University BSGSA	PCSP, 4-H	What's in Our Waters presentation - Easley High School Environmental Club	September 12, 2013	14	HE, YT	1
Clemson University BSGSA	PCSP, 4-H	What's in Our Waters Equipment: Pencils, Sampling Equipment, Trays and Boots	Ongoing	N/A	HE, YT	1
Clemson University BSGSA	PCSP, 4-H	What's in Our Waters field trip with Easley High School Environmental Club	December 6, 2013	10	HE, YT	1, 2

A water quality education program “What’s in our Waters?” (WOW) was piloted in 2013 by the Clemson University Biological Graduate Student Association (BSGSA) with support and guidance from PCSP and Clemson Extension Service 4-H. This outreach service project gives BSGSA the opportunity to assist with educating and involving high school students in the Pickens area about water pollution concerns.

Students learn to

- Identify major kinds of fresh water pollution.
- Name and describe four basic water quality monitoring parameters—pH, dissolved oxygen, conductivity, particulates and temperature.
- Identify local aquatic insect macroinvertebrates used as biological indicators of water quality.
- Make inferences about what, if any, kind of pollution is affecting the fresh water ecosystem.

FACEBOOK Page link:

<https://www.facebook.com/groups/1613862448838923/>



Public Education & Involvement

Programs: Storm Drain Marking - "Rain & Drains"

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
PCSP	Girl Scouts	Water bottle stormwater pollution presentation for Clemson girl scout troop	May 15, 2013	7	YT	1
PCSP	Pickens Middle School	Enviroscape and Waterwheel presentation at Pickens Middle School	September 23, 2013	45	YT	1
PCSP	Girl Scouts	Enviroscape presentation for Powdersville girl scouts	October 22, 2013	26	YT	1
PCSP	Pickens County Career Center	Pickens County Career Center students marked storm drains	May 14, 2013	10	YT	2
PCSP	Girl Scouts	Daisy scout troop in Clemson marked storm drains	May 20, 2013	28	YT	2
PCSP	Pickens County Career Center	Storm drain marking with Pickens County Career Center students	October 15, 2013	7	YT	2
PCSP	Pickens Middle School	Storm drain marking with Pickens Middle School students	October 31, 2013	19	YT	2
PCSP	Girl Scouts	Storm drain marking with Daisies Troop, Powdersville	November 4, 2013	24	YT	2

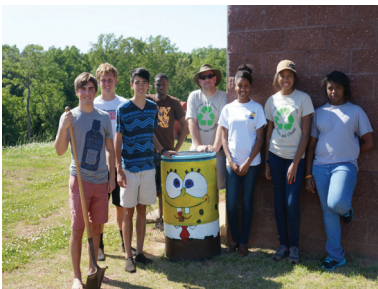


Public Education & Involvement

Programs:

Rain Barrel Painting - “Barrels & Sheds”

The PCSP program “Barrels and Sheds” is designed to educate and involve citizens about stormwater, watersheds and water conservation. Rain barrels collect and store water to use later for watering plants, gardens, compost piles, and more. Water is collected that would typically flow off a roof or downspouts into the storm drain system, thereby reducing stormwater runoff and many times erosion. Participating groups paint and install the rain barrel, and learn about watersheds and stormwater pollution from an enviroscape presentation.



LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
PCSP	EcoReps	Stormwater Pollution and Conservation presentation for the Clemson University EcoReps	August 16, 2013	13	HE	1
PCSP	LEAF	Stormwater presentation for the Clemson University LEAF students	September 9, 2013	11	HE	1
Clemson Carolina Clear		Rainwater Harvesting for Homeowners Booklet	Ongoing	22	GP, R	1
PCSP		Do Not Drink Labels for Rain Barrels	Ongoing	22	GP	1
PCSP	Multi-partners	Barrels & Sheds Program - Painted and installed Rain Barrels	Ongoing	22 Barrels	C, GP, HE, M, NR, YT	2

Public Education & Involvement

Programs: Rain Barrel Painting - "Barrels & Sheds"

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
PCSP	Girl Scouts	Rain barrel program with Brownie troop #1178 in Easley	May 4, 2013	21	YT	1, 2
PCSP	Pickens High, Pickens Chamber	Rain barrel program with Pickens High students at Chamber of Commerce	June 4, 2013	7	GP	1, 2
PCSP	Liberty Elementary	Rain barrel program with Liberty Elementary School students	June 10, 2013	22	YT	1, 2
PCSP	Clemson Art Center	Rain barrel program with Clemson Art Center students	July 29, 2013	14	GP	1, 2
PCSP	Easley High	Rain barrel program with Easley High Environmental Club	August 13, 2013	16	YT	1, 2
PCSP	LEAF	Rain barrel program with LEAF on Clemson Campus	September 12, 2013	8	HE	1, 2
PCSP	Daniel High	Rain barrel program with Daniel High School Environmental Club	September 17, 2013	8	YT	1, 2
PCSP	City of Easley	Rain barrel program with Girl Scout troop #1178 at Easley Community Garden	September 17, 2013	21	YT	1, 2
PCSP	Clemson Downs, Girl Scouts	Rain barrel program at Clemson Downs with Girl Scout troop #1010	October 5, 2013	25	GP, YT	1, 2



Public Education & Involvement

Programs: Green Steps Schools



Green Steps Schools is an environmental education and action initiative that recognizes schools in South Carolina who take annual sustainable steps toward becoming more environmentally responsible.

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
SC DHEC, Sonoco Recycling, PCSP	Liberty High, PCBEAC	Restore Habitat Projects - Gardens	Ongoing	14	YT	1, 2
SC DHEC, Sonoco Recycling, PCSP	Pickens Middle	Conserve - Recycling Projects; Conserve - Reuse; Protect Air; Protect Water - Town Creek Monitoring & Stream Cleanup, Created water bingo & water wheel game questions	Ongoing	90	YT	1, 2
SC DHEC, Sonoco, Recycling, PCSP	Pickens Elementary, PCBEAC	Protect Water - Rain Barrels & Native Plants; Restore Habitat Projects - Hope Garden	Ongoing	73	YT	1, 2
SC DHEC, Sonoco, Recycling, PCSP	Holly Springs Elementary	Protect Water - Rain Barrel & Rain Garden; Protect Air; Restore Habitat Projects - Garden	Ongoing	48	YT	1, 2
SC DHEC, Sonoco Recycling, PCSP	Central Elementary	Protect Air and Restore Habitat Projects	Ongoing	52	YT	1, 2



Public Education & Involvement

Programs: Green Steps Schools



LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
SC DHEC, Sonoco Recycling, PCSP	Daniel High, PCBEAC	Conserve Recycle; Protect Air; and Restore Habitat Projects	Ongoing	42	YT	1, 2
SC DHEC, Sonoco Recycling, PCSP	Easley High, PCBEAC	Conserve Recycle Projects	Ongoing	16	YT	1, 2
SC DHEC, Sonoco Recycling, PCSP	Pickens High, PCBEAC	Conserve Recycle Projects	Ongoing	45	YT	1, 2
SC DHEC, Sonoco Recycling, PCSP	Pickens County Career Center, PCBEAC	Protect Water and Restore Habitat Projects	Ongoing	20	YT	1, 2



Public Education & Involvement Highlight

Holly Springs School Rain Gardens

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
PCSP	Holly Springs Elementary	Clean Water Thank You Presentation at school award ceremony	June 5, 2013	525	YT	1
PCSP	Holly Springs Elementary	Rain garden installation	September 16, 2013	58	YT	2



The Holly Springs Garden Club of 50 students, along with teachers, parents and community volunteers with assistance from PCSP, planned and installed a bioswale and a woodland rain garden. Water quality, watershed and stormwater education was included during the entire process of planning and planting both a bioswale in a courtyard to decrease flooding, and a rain garden to capture stormwater runoff from the school rooftop and parking lot. These activities involved enviroscape demonstrations, tree tagging the environmental benefits of trees, watershed maps, water bingo, native seed paper making with eco-messages, native plant planting, and bluebird house painting. The entire Holly Springs School community learned that rain gardens and bioswales renourish and replenish the soil and groundwater, and by using plants native to the region, provide erosion and flooding control, uptake of nutrients and chemicals, water infiltration and wildlife habitat. Education outreach beyond the garden club was through the school website, newsletters, and newspaper articles. In addition, a school-wide “clean water thank you” speech was delivered to all students, teachers and parents at the end of year award ceremony, reaching out to 500 people. A big thank you to the Holly Springs School garden club and community as they continue to “garden for clean water!”



Public Education & Involvement

Rain Garden & Meadow Installations

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
Clemson Carolina Clear		Rain Garden Manual	Ongoing	12	GP, R	1
PCSP	PCBEAC	Rain garden & barrel installation at the Pickens County Beautification & Environmental Education Center	November 13, 2013	11	GP, R	1, 2
PCSP	Clemson Extension	Boy Scout conservation project rain garden installation at the Clemson Extension Pickens Office	June 1, 2013	10	YT	1, 2
PCSP	Holly Springs Elementary	Rain garden workday with Holly Springs Garden Club	July 8, 2013	24	YT	1, 2
PCSP	Clemson Extension	Meadow restoration workday at the SC DNR Clemson Office	October 29, 2013	11	GP, R	1, 2
SCNPS	Pickens County Career Center, PCSP	Native seed collection for the Pickens County Career Center prairie	November 12, 2013	16	YT	1, 2



Buffer Restoration

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
Pickens County	SCNPS, PCSP	Buffer Restoration & Erosion Control at Mile Creek Park on Lake Keowee	Ongoing	16	GP, M	1, 2

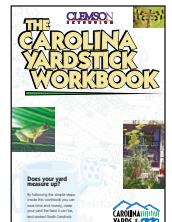
Public Education & Involvement Highlight

Programs: Carolina Yards



The Carolina Yards program focuses on low-maintenance, low-cost actions that can be taken to make positive changes in the environmental quality of yards, neighborhoods, and surrounding waterways. The Carolina Yard actions include maintaining healthy soil, mulching, recycling yard waste, using native plants, removing invasives, watering wisely, using rain as a resource, reducing runoff and providing for wildlife. Pickens County has 16 certified yards as of December 2013. Updates on yard tips, classes, how-to videos and certifications are available at www.clemson.edu/cy.

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
Clemson Extension, Clemson Carolina Clear		Carolina Yards (CY) Yardstick Workbook	Ongoing	40	GP, R	1
PCSP		Finn's Yard Care Tip Sheet	Ongoing	105	GP, R	1
Clemson Carolina Clear	PCSP, SCNPS	Rain Garden & Certified Carolina Yard at Holly Springs Elementary School Demonstration Site	Ongoing	210	R, YT	1
Clemson Carolina Clear	PCSP	Certified Carolina Yard at Pickens Elementary School Demonstration Site	Ongoing	530	R, YT	1
SCBG	PCSP, Clemson Carolina Clear	Rain Garden, Rain Barrel, Cistern, Prairie & CY Demonstration Sites at the SC Botanical Garden	Ongoing	5,000	GP, HE, R, YT	1
PCSP	SC DNR, Clemson Extension, SCNPS	Rain Garden, Rain Barrel, Meadow, Rain Chains & CY Demonstration Site at the SC DNR building in Clemson	Ongoing	150	B, GP, NR, R	1
Clemson Extension	PCSP	Rain Garden & Rain Barrel at Pickens Extension Service/Chamber of Commerce Building Demonstration Site	Ongoing	150	C, GP, R	1
Clemson Carolina Clear	PCSP	Certified Carolina Yard at the Unitarian Universalist Fellowship of Clemson Church Demonstration Site	Ongoing	175	GP, R	1
Clemson Carolina Clear	PCSP	Carolina Yard TV Commercial	2013	16,000	GP, R	1
PCSP	Holly Springs Elementary	Carolina Yard Presentation to Holly Springs Garden Club	June 5, 2013	18	YT	1
Clemson Extension	PCSP	Carolina Yards - Certified Yards in Pickens County	2013	14	GP, R	2



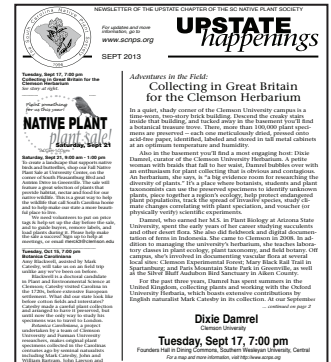
Public Education & Involvement

Programs: Native Plants

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
SCNPS		Bi-monthly Native Plant Education presentation with guest speakers at Southern Wesleyan University	May - December 2013	300	GP, R	1
SCNPS		Native Plant Sale	September 21, 2013	75	GP, R	2



Native Plant - a plant species that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions.



Car Wash Kits

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
PCSP		Car Wash kits -Bucket, Gilli Sponges, Fliers, Poster	Ongoing	20	C, R	1
Pickens High Science Club	PCSP	Eco Friendly Car Wash hosted by the Pickens High Science Club, 30 cars washed	October 19, 2013	30	GP, YT	1
Pickens High Science Club	PCSP	Eco Friendly Car Wash hosted by the Pickens High Science Club, 24 student volunteers	October 19, 2013	24	GP, YT	2



Public Education & Involvement

Programs: Pet Waste Projects

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE	MCM
PCSP		Finn's Pet Waste Tip Sheet	Ongoing	100	GP, R	1
PCSP		Pet Waste Pledge Cards	Ongoing	24	P	1
Clemson Carolina Clear	PCSP	Clean Water, Clean Yards, Clean Shoes! When Dooty calls, pick it up! dog bandanas	Ongoing	60	P	1
PCSP		Pet Waste Fliers & Posters	Ongoing	114	GP, P	1
PCSP		Pet Waste Frisbees	Ongoing	100	P, R	1
PCSP	SC State Parks, SC Forestry Commission, Humane Society, City & County Parks	Pet Waste Stations located in Pickens County	Ongoing	20 Stations	GP, NR, P	1
PCSP	Humane Society, Veterinary Offices, Mile Creek Park	Pet Waste Educational Poster Displays	Ongoing	7 Displays	C, GP, M, P	1
PCSP	SC State Parks, SC Forestry Commission, Humane Society, City & County Parks	Pet Waste Bags	Ongoing	1,500	GP, NR, P	2
PCSP, Boy Scouts	Devils Fork State Park	Pet waste station installation at Devils Fork State Park with Boy Scout troop	September 14, 2013	22	YT	2



Programs: Community Litter Sweeps

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
SC DOT	Pickens County	Adopt-A-Highway Program	2013	681	GP, R, YT
FOJ	PCSP	Litter Pick-up at Friends of Jocassee VIP Day	September 14, 2013	250	B, GP
Save Our Saluda		Save Our Saluda Litter pick-up	September 21, 2013	7	GP
FTC	PCSP	Trail maintenance and litter pick-up with Furman University students	September 23, 2013	14	HE
FOLKS		Friends of Lake Keowee Cleanup Picnic	October 5, 2013	100	B, GP, R
LHA		Lake Hartwell Association meeting and litter pick-up	October 5, 2013	110	B, GP, R
FOJ		Friends of Jocassee Litter pick-up	December 7, 2013	8	B, R



SC DOT ADOPT - A - HIGHWAY 2013

County	Total Pounds Collected	Total Miles Adopted	Total Groups Participating
Pickens	16,545	190	681

Partner Committee Meetings

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
PCSP		Quarterly Meetings	Quarterly	20	M, T
PCBEAC	Pickens County, PCSP	Committee Meetings	Monthly	15	M, R, T
FOLKS		Board Meetings	Bi-monthly	8	B, R
LHA		Board & Technical Committee Meetings	Monthly	14	B, R, T
Clemson University Solid Green		Board Meetings	Monthly	17	HE
Upstate Forever		Upstate Stormwater Managers Meetings	Quarterly	8	M, T
FOJ		Board Meetings	Bi-monthly	19	B, NR, R, T
SCNPS		Board Meetings	Monthly	14	GP, R
Clemson University PCS		President's Commission on Sustainability Meetings	Monthly	12	HE
Carolina Clear		Carolina Clear Team Meeting	September 26, 2013	9	T



Clemson Extension Programs

LEAD PROVIDER	SUPPORTING PARTNER	ACTIVITY	DATE	ESTIMATED # OF IMPACTS	TARGET AUDIENCE
Clemson Extension	SC DNR, SCBG	Master Gardener - Upstate; 40 volunteer hours required per year	2013	24	GP, R
Clemson Extension	SC State Parks, SC DNR, PCSP, SCBG	Master Naturalist - Upstate; 30 volunteer hours required per year	2013	20	GP, R
Pickens County 4-H, SCBG	PCSP	Jr. Naturalist program introducing children to natural resources	2013	8	YT

South Carolina
Master Gardener
a Clemson Extension Program



The Pickens County Stormwater Partners (PCSP) worked together with education partners to increase awareness of stormwater and water quality concerns. Stormwater education efforts focused on general stormwater awareness with emphasis on bacteria from pet waste, livestock and wildlife; nutrients from landscape practices; oils from automotive and cooking sources; sediment from erosion on construction sites, home landscapes and others sources; and litter. Public education methods included mass media campaigns, website pages, publications, articles, presentations, workshops, event exhibits, programs, and outreach materials. Public involvement included community litter pick ups, storm drain marking, surveys, partner meetings, rain barrel painting, rain garden installations, meadow & buffer restorations, and youth programs. These activities help reach the PCSP goal to implement a broad-based education program throughout the county that informs citizens about stormwater management and clean water, and explains the important role of each individual in protecting our valuable water resources.



View of Lake Jocassee from Jumping Off Rock in Pickens County

“Our rivers and streams are under significant stress. Reducing nutrient pollution and improving habitat will significantly improve the biological health of rivers and streams and support important uses such as swimming and fishing. This survey suggests that, although many actions are underway to protect our rivers and streams, we need to address the many sources of pollution - including runoff from urban areas, agricultural practices, and wastewater - in order to ensure healthier waters for future generations.”

Implications of the National Rivers & Streams Assessment, 2008 - 2009: A Collaborative Survey, EPA

Appendix A - Highlighted Articles

Articles

Community

6A Pickens County Courier

Wednesday, October 9, 2013

iHOPE volunteers work at Holly Springs Elementary



I HELP OUT PICKENS EVERYDAY

PICKENS — Volunteers from the Pickens area came together again for a Day of Service on Sept. 28, this time at Holly Springs Elementary School.

Parents and students of the school, Pickens County Stormwater Partners, Pickens County Clemson Extension Service, SC Native Plant Society, Pickens Garden Club, Cliffs at Keowee Vineyards Outreach and iHope volunteers worked to create a woodland rain garden at the school.

The rain garden will allow storm water runoff from the school parking lot and rooftop to infiltrate into the soil instead of flowing into storm drains and ditches that empty into the local creek. The rain garden was planted with native perennial plants to restore a woodland

wildlife habitat and prevent soil erosion. The student Jr. Master Gardeners and volunteers will continue to maintain the gardens.

The next iHOPE Day of Service will be in January 2014 and volunteers will work on household repairs and yard work for senior citizens. If you would like to volunteer or if you know seniors in need of help, go to <http://www.wpickens.org> or call 864 364-0649.

iHOPE Day of Service was created by a group of committed community volunteers who love Pickens and feel a responsibility to give back. Working with the Pickens County agencies and churches in our area, the goal is to match the many needs with those who are willing to help.



The woodland rain garden at Holly Springs Elementary School allows stormwater runoff from the school parking lot and rooftop to infiltrate into the soil instead of flowing into storm drains and ditches that empty into the local creek. The rain garden was planted with native perennial plants to restore a woodland wildlife habitat, filter out pollutants, and prevent soil erosion. Above left, students put the finishing touches on the garden. At right, all those that volunteered and made the garden possible are shown.

Community Calendar

• Vendor apps now available for Fall

ings are open to anyone interested in joining the club or simply finding out more about the club

• Tankersley reunion planned for Oct. 13

favorite dish and join them. Any questions call 868-4183 or 868-2855.

Appendix A - Highlighted Articles

Articles

Friday, December 20, 2013

The Easley Progress

Easley High School students going green

Joe Toppe
Staff Writer

EASLEY - The focus on environmental impact is growing at Easley High School.

"The environmental club has been off and on in the past," said Sarah Taylor, faculty member and environmental club sponsor. "This year we have seen rejuvenation in the program here at Easley High School and we are currently involved in a variety of projects we hope will make a difference."

Environmental Club President and junior, Rachel Mendieta, said the students are beginning to realize their actions today will have consequences tomorrow.

"We, the students of Easley High School, are coming to the realization that all of our actions today will have consequences tomorrow," she said. "If we are to be the future, we must ensure that our future is to be. The group's motto this year is to live simply so that others may simply live."

According to Mendieta, the club's focus is to set an example to their fellow students.

"The Easley High School Environmental Club is setting an example to all students to show how to live more simply and be more contentious about environment," Mendieta said. "While our numbers are small, our passion for this cause is grand. Our team of motivated, young environmentalists has been working hard to change the recycling habits of our peers. We really want our school to become much more environmentally friendly and recycling is just the beginning of our efforts."

Junior I'Yanna Cox said the school's environmental efforts have improved each year.

"I think the recycling efforts at EHS are getting bigger and better each year," she said. "We have started environmental announcements, placed bins for recycling paper, plastic, and aluminum in every classroom and the cafeteria, bins for batteries, ink cartridges,



Members of the Easley High School Environmental Club dress up to show their support.

and cell phones, and have students spreading the word about recycling. The Environmental Club has been very active and I can't wait to see what they do next."

Taylor said she is excited to see her students becoming proactive in environmental care.

"It is great to see the students becoming aware of the human impact on the environment," she said. "They have become inspired to make a difference and minimize our footprint on the planet."

The students at Easley High School are working together to clean up their environment and help the planet.

"The word about recycling is spreading through Easley High School, and we are all chipping in together as a school to do our part in helping the planet," Mendieta said. "We'll save our environment one recyclable bottle at a time. The Green Wave is finally going green."

Appendix A - Highlighted Articles

Articles

From the Lions' Den

Environmental Club contributes to our school and environment in multiple ways

The Daniel Environmental Club is building a Carolina Fence Garden in the median adjacent to the car rider loop. This garden uses split-rail cedar fence, native SC plants including Yellow Jessamine, the state stone Blue Granite, a Carolina Wren birdhouse, and other elements of SC history in its design. The area will hopefully add aesthetic beauty to our new campus and provide new niches for wildlife. Cathy Reas Foster, with Pickens County Extension Service and Palmetto Pride, provided a grant of \$1,200 for supplies and plants to fund the project. This support is greatly appreciated. The club hopes to complete the garden this spring.

In addition to its work on the Garden, the club started a campaign to limit idling for cars in the pickup lane. DWD

received a \$400 grant to collect data and promote cleaner air through DHEC's B2 (Breathe Better) program. Signs have been put up in the traffic lanes and brochures and paper fans have been given out promoting cleaner air for our students.

This club continues to recycle weekly at our school and has recycled over 12,000 pounds of material since 2012, keeping those materials out of landfills. They have expanded their recycling efforts and have organized a recycling program for the football stadium and gymnasium areas on campus.

We appreciate all that this very active club does for our school campus and for our environment!

DWD Environmental Club



Appendix B - Highlighted Fliers and Posters

Better Manage Fats, Oils and Grease: Don't clog our communities' arteries!

Storm drains and ditches throughout our communities function much like the arteries of our bodies. When fats, oils and grease (FOG) flow through the stormwater system, it poses a serious threat to the health of the receiving rivers, lakes and ocean downstream. FOG can also solidify, leading to blockages that cause localized flooding. This ultimately impacts the waters we use for swimming, fishing and drinking!



Stormwater is not treated before it is released to local waters!



Where does FOG come from?

FOG is a by-product of cooking produced by restaurants and homes. FOG contamination and clogged drains lead to expensive fines and cleanup costs! However, there are many things you can do to prevent this environmental cardiac arrest.

How you can help:

- Outdoor grease containers should be kept in well-lit and accessible locations.
- Properly maintain grease containers at restaurants and replace leaking containers.
- Protect containers with a properly closed lid or roof to prevent spills or overflow from rainwater.
- Restaurant staff should notify managers when the grease container is full.
- Schedule regular container cleanout or pickup - use a service for high volume operations.
- Utilize spill containment products around grease containers to avoid leaking into storm drains.
- At home, never put FOG down the drain or a storm drain. Cool FOG down and dispose of it in your household trash or recycle it.
- Educate others of the threat that FOG poses to our rivers, lakes and ocean.






Appendix B - Highlighted Fliers and Posters



Finn's Yard Care Tips









Yard debris, which includes leaves, grass clippings, soil, fertilizer, pesticides, litter and pet waste, can be transported to stormwater pipes and our local waterways during a rainstorm by water runoff. This water runoff is called stormwater and flows untreated into our creeks, rivers and lakes.

-  Yard debris can clog stormwater drains and pipes, causing flooding and costly maintenance.
-  As yard debris decomposes, nutrients such as nitrogen and phosphorus are released into the water which can cause algae blooms.
-  Pesticides and fertilizers contain chemicals, nitrogen and phosphorus which can pollute groundwater and surface water.

Learn how to create a healthy, watershed- friendly yard and prevent stormwater pollution by visiting www.clemson.edu/cyn.



Tips To Help Keep Our Waterways Clean...

-  Leave grass clippings and leaves on your lawn to return nutrients and water to the soil.
-  Use a blower or broom to keep grass clippings and leaves in the yard instead of blowing them into the street.
-  If you need to dispose of yard waste, compost it or bag it for pick up.
-  Follow label directions when using pesticides or other lawn care products.
-  Test your soil before applying fertilizer to your lawn.
-  Plant native plants on erosion areas and use mulch.
-  Don't overwater your lawn.
-  Pick up pet waste, bag it and trash it.



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For more information visit www.clemson.edu/pcsp.

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Appendix C - Education Plan

Pickens County Stormwater Partners (PCSP) ADAPTIVE Stormwater Education Plan													
May 1, 2013 - December 31, 2013			Pickens County, City of Easley, City of Liberty, City of Pickens										
Lead Service Provider	Activity--Program (<i>Italics include participation elements</i>)	Target Geography/ Land Use	Target Pollutant(s)										Participation by other Service Providers
			General Stormwater Awareness	Bacteria	Toxic Contaminants: petroleum products, pesticides, heavy metals	Sediment	Nutrients	Pollutants resulting in low Dissolve Oxygen	Debris	Temperature	Other		
General Public													
Carolina Clear	Television Commercials and Public Access Channels	Pickens County	x										
Carolina Clear	Billboards	Pickens County	x										
Carolina Clear, PCSP	Water Quality Publications & Articles, Newsletters, Bill Stuffers	Upstate	x	x	x	x	x			x			
PCSP	Stormwater Education Displays in City Halls & County Administration Facility	Pickens County	x	x	x	x	x			x			Carolina Clear
PCBEAC	Pickens County Environmental Education Center	Pickens County	x	x	x	x	x			x			PCSP, Pickens County Solid Waste & Recycling, Clemson Extension
PCSP	Barrels and Sheds Program - Rain Barrel Painting and Watershed Education	Pickens County	x	x	x	x	x	x	x	x	x		Carolina Clear, Clemson Extension
PCSP, Carolina Clear	Carwash Program - Posters, Fliers, Bucket Kits	Pickens County	x		x		x						
PCSP, Carolina Clear	Pet Waste Projects - Stations, Educational Signs & Posters, Pledge Cards	Pickens County	x	x									SCPRT, SCDNR
City of Pickens	Cruisin in Pickens	Pickens County	x		x								PCSP
City of Easley	City of Easley Farmers Market	City of Easley	x				x						PCSP
Save Our Saluda	Saluda River Cleanup	Anderson County	x		x					x			Clemson Extension
SCPRT	Lake Oolenoy Clean Up	Upstate	x							x			PCSP
City of Pickens	Pickens Heritage Festival	Pickens County	x										PCSP
FOJ	VIP Litter Sweep Day & Bellfest	Pickens & Oconee Counties	x							x			PCSP, Clemson Extension
City of Easley	Easley Fire Department	City of Easley	x	x	x								PCSP
City of Liberty	Fall for Liberty	Pickens County	x										PCSP
Duke Energy, SC DNR	Family Outdoor Adventure Days	Upstate	x										PCSP, Clemson Extension
Pickens County Solid Waste & Recycling	Rain Barrel/Compost Bin Sale	Pickens County	x										Pickens County, PCSP, Carolina Clear, Clemson University, SCBG
Greater Pickens Chamber	Azalea Festival	Pickens County	x										PCSP, Carolina Clear, Clemson Extension
Pickens Revitalization Committee	Street Sweep	City of Pickens	x		x	x				x			Carolina Clear
Youth / K-12 / College / Teachers													
Sonoco Recycling, PCSP	Green Steps Schools Program	Pickens County	x										SCDHEC, SDPC
PCSP	Storm Drain Marking Program	Pickens County	x	x	x	x	x			x	x		Carolina Clear
PCBEAC	Litter Sweeps	Pickens County High Schools	x							x		water conservation	PCSP, Pickens Co. Recycling Dept., SDPC
SCDHEC	Action in the Classroom Environmental Program	Pickens Co. Schools	x	x	x	x	x	x	x	x	x		PCSP, Pickens Co. Recycling Dept., SDPC
Clemson Extension, Carolina Clear, PCSP	4-H2O Pontoon Classroom	Pickens County	x	x	x	x	x	x	x	x	x		USACE, SCDNR, LHA, SCBG
Clemson Extension, SCBG	Junior Naturalist Program	Upstate	x	x		x	x			x	x		PCSP, SCPRT, SCDNR
PCBEAC	Trash Bash	Pickens County	x	x	x	x	x			x		water conservation	Pickens County, PCSP, Clemson Extension

Appendix C - Education Plan

Elected and Appointed Officials and Community Staff											
PCSP, City of Easley	Stormwater Luncheon for Elected and Appointed Officials	Pickens County	x								Carolina Clear
Commercial/Technical/Municipal Professionals											
Pickens County Dept. of Public Works, PCSP	Best Management Practices (BMP's) Training for Municipal Employees	Pickens County	x		x	x			x		Carolina Clear
Clemson Extension	Forestry Continuing Education Courses	Pickens County			x	x	x		x		
Upstate Forever	Upstate Stormwater Managers Meetings	Upstate	x							Permits	Pickens County
Clemson Extension	Pesticide program for new licenses and recertification	Pickens County			x						
IECA, Clemson University	IECA Erosion & Sediment Control training and field day	Upstate	x		x	x			x		Upstate Forever, PCSP
Pickens County Public Service Commission, PCSP	Fats, Oils, Greases Education Materials for Break Rooms at Industries in County	Pickens County	x		x					Fats, Oils, Greases	Carolina Clear
Clemson University	CEPSCI (Certified Erosion Prevention and Sediment Control Inspector)	Statewide				x	x				
Homeowners & Homeowner Associations											
PCSP, Clemson Extension, SCBG, SCDNR	Rain Garden, Meadow & Rain Barrel Installations & Demonstration Workshops	Pickens County	x		x		x			x	Master Gardeners, Master Naturalists, Native Plant Society
PCSP, Carolina Clear	Carolina Yards Training, Certifications & Promotions	Upstate	x			x	x				Clemson Extension
Clemson Extension	Master Naturalist Program	Upstate	x	x	x	x	x	x	x	x	SCPRT, SCDNR, Carolina Clear
LHA	Lake Cleanups	Lake Hartwell	x							x	PCSP, Clemson Extension
FOLKS	Lake Cleanups	Lake Keowee	x		x					x	PCSP, Duke Energy
Clemson Extension	Master Gardener Program	Upstate	x		x		x				
PCSC Program Management											
Carolina Clear	Create Annual Report										
Carolina Clear	Maintain Pickens County Stormwater Partners website										
Carolina Clear	Maintain digital database to collect and analyze programmatic information										
Carolina Clear	Recruit additional education providers to broaden and enhance activities										
Legend:											
	FOJ - Friends of Jocassee										
	FOLKS - Friends of Lake Keowee										
	IECA - International Erosion and Control Association										
	LHA - Lake Hartwell Association										
	PCBEAC - Pickens County Beautification & Environmental Association Committee										
	PCSP - Pickens County Stormwater Partners										
	SCBG - South Carolina Botanical Garden										
	SC DHEC - South Carolina Department of Health and Environmental Control										
	SC DNR - South Carolina Department of Natural Resources										
	SC PRT - South Carolina Parks, Recreation, & Tourism										
	SDPC - School District of Pickens County										
	USACE - United State Army Corps of Engineers										

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PICKENS COUNTY
stormwater
PARTNERS

Thanks to all of our partners for
a successful year of stormwater
education and involvement!



Finn

The Storm Drain Dog



www.clemson.edu/carolinaclear



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The Stormwater Fish

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