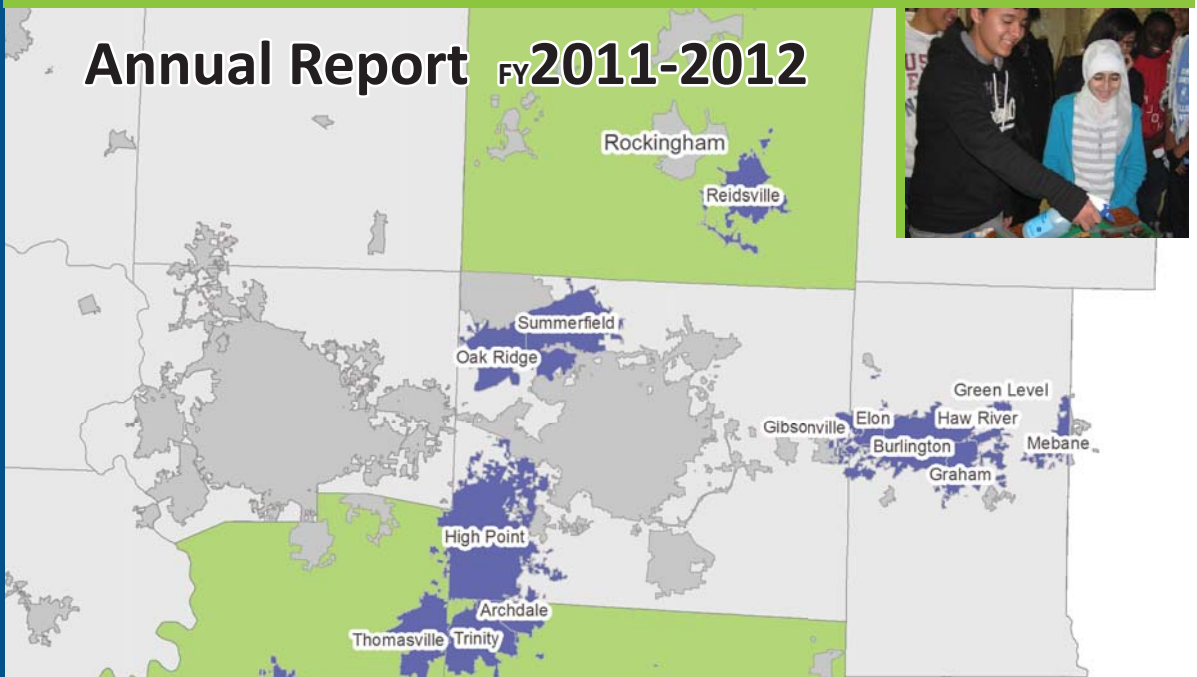


Stormwater SMART

Stormwater Management and Recovery of the Triad



Annual Report FY 2011-2012



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**PIEDMONT TRIAD
REGIONAL COUNCIL**



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Water is the driving force of all nature. -Leonardo da Vinci

Clean water begins with education. Stormwater SMART works with various community groups, schools, and government offices to inform the public about stormwater pollution and prevention. Because watersheds don't abide by municipal boundaries, working at a regional level is essential to ensure downstream communities are safe and livable. By working together, we can help protect the streams, rivers, and lakes of the growing Piedmont Triad.



A MESSAGE FROM THE PROGRAM COORDINATOR

In July 2011, the Piedmont Triad Council of Governments merged with the Northwest Piedmont Council of Governments to form the Piedmont Triad Regional Council (PTRC). The organization now covers twelve counties, has 72 member governments and serves 1.6 million citizens. While the merger did not result in new program participants, Stormwater SMART did host an informational meeting for potential participants. As our program continues to gain popularity and counties and municipalities become more aware of water quality needs in their communities, we hope to further expand our program to meet the outreach needs of western communities in the Yadkin-Pee Dee River Basin.

We were lucky enough to bring part-time employee Joy Fields on as a full-time employee in the Water Resources program. Joy's knowledge of botany and ecology has considerably increased the number and quality of stormwater programs offered. Her contributions to the Water Resources program have significantly improved Stormwater SMART, the Water Resources program, and the PTRC as a whole.

With the adoption of the Jordan Lake Rules in July, 2009 and other rules requiring stormwater education and participation coming down the pipeline, Stormwater SMART is poised to play an even stronger role in the Piedmont Triad in the upcoming years. Although mass media continues to be a component of stormwater education, decision makers are placing a much stronger emphasis on social marketing. A growing body of research indicates citizens are more likely to change their behaviors if targeted through social marketing techniques. What is social marketing? Social Marketing is based on the idea that behavior change is most effective when carried out at the community level and involves direct contact with people.

We are thrilled to report dramatic increases in the variety and number of programs we presented during the 2011-2012 year. While we weren't able to accomplish all our goals, we increased our school participation by 52%, became more involved with scout troops and got our feet with with StreamWatch trainings. We created new programs, including the popular "Buffer in a Bookmark,," and developed new materials including the new "Homeowners Information Packet." With the help of our board, we look forward to continuing to improve our programming. We are lucky to have such a tremendously supportive board, dedicated to providing the most effective outreach services to our communities. Thank you for your participation and I look forward to work with you in the coming year.

Sincerely,



Elizabeth Jernigan

Stormwater Outreach and Education Coordinator

PROGRAM SUMMARY

IN THE CLASSROOM

Stormwater SMART visits classrooms around the Triad, offering teachers a variety of programs based on the Project WET curriculum. We offer Elementary, Middle and High School students a variety of programs to choose from. All programs are aligned with the NC Standard Course of Study.

NC STREAMWATCH

Stormwater SMART provides a much needed connection between the North Carolina Department of Natural Resources and local citizen groups who want to adopt-a-stream. We provide three levels of training to ensure you're getting the most out of your StreamWatch experience.

PRESENTATIONS

Stormwater SMART speaks to civic clubs, garden clubs, homeowners associations, local nonprofits and other groups interested in learning more about what they can do to improve water quality.

STORMDRAIN MARKING

Stormwater SMART works with individuals and groups interested in installing stormdrain markers in communities around the Triad.

SCOUTS

Stormwater SMART works with Girl and Boy Scout troops to provide programming that meets patch requirements. We attend Boy Scout merit badge colleges and offer a Girl Scout Stormwater SMART patch program. This comprehensive program combines stormwater education and participation to ensure our girls take their water quality expertise well into the future.



NC BIG SWEEP

Stormwater SMART organizes the annual Big Sweep in Davidson County and supports efforts in other Stormwater SMART communities. NC Big Sweep is part of an international effort to clean the litter from our watersheds and educate citizens on stormwater runoff.

LIBRARY PROGRAMS

Stormwater SMART works with libraries across the Piedmont Triad to provide programming for citizens of all ages. From summer reading programs to public information sessions, we ensure our material is relevant to all.

FAIRS AND FESTIVALS

Fairs and Festivals continue to be one of the most effective ways to reach citizens from all backgrounds. Most participants are engaged through a stormwater presentation using the Enviroscope[®]. We also hand out rain gauges, give out prizes and encourage folks to sign up for the Stormwater Steward.

LANDSCAPE CONTRACTORS

Stormwater SMART provides public and private landscaping crews with the tools they need to reduce nutrients flowing into our waters.

RAIN GARDEN DESIGN

Stormwater SMART now offers rain garden design for homeowners, small businesses, and municipalities. Rain gardens provide numerous water quality benefits and the potential for education is tremendous. That's why we also offer custom rain garden sign design to accompany your rain garden if it's in a public location.



TOOLS OF THE TRADE

STORMWATER STEWARD



The Stormwater Steward is a quarterly publication covering current events, best practices, and Stormwater SMART programs. The newsletter is distributed to local officials, libraries, at fairs and festivals, and other events. The newsletter is available as a hard copy or electronically.

WWW.STORMWATERSMART.ORG

The Stormwater SMART website has come a long way in the last couple years. The website features up to date program and event information as well as access to the Stormwater Steward, Annual Reports, presentations and other outreach materials.

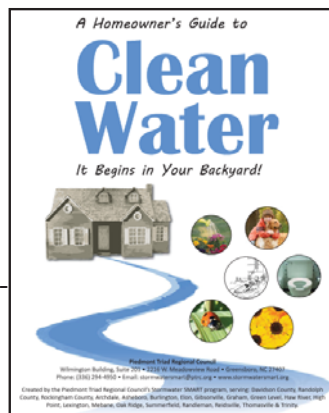


BROCHURES / HANDOUTS

Stormwater SMART designs and distributes brochures addressing a number of topics, from program areas to actions individuals can take to improve water quality. Many of our publications are available in English and Spanish.

HOMEOWNER GUIDES

Stormwater SMART developed a comprehensive Homeowner Education packet for members to distribute through any means they see fit. Packets address common residential water quality issues and how they can be addressed.



MONITORING

We offer participants the option to get as dirty as they want on our watch. Stormwater SMART provides water quality monitoring and training addressing both physical and chemical parameters.

PRIZES

Stormwater SMART distributes prizes to help participants spread the word about stormwater runoff. We choose to give out prizes that help reduce our impact on water quality. Reusable grocery bags and water bottles help prevent litter from ending up in our waters.



ENVIROSCAPE

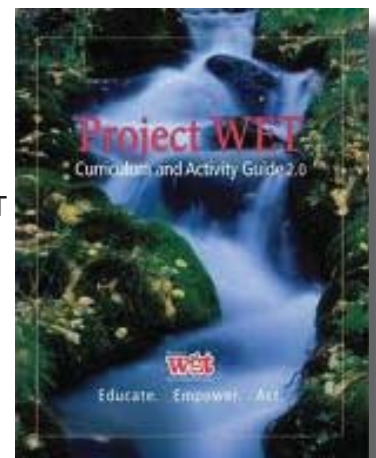
The Enviroscape® is a well known tool in the stormwater education world. If you come to a Stormwater SMART function, you're likely to see us using the model to help kids adults alike understand how we all contribute to stormwater pollution.



PROJECT WET

Project WET is the leading resource when it comes to water quality education. The curriculum provides educators with a number of tools to help students understand the role water plays in the environment and in society and what we can do to ensure healthy water for future generations!

This year, our program began to offer Project WET teacher trainings. The success of the program will result in additional trainings in the future.



BACKGROUND



PIEDMONT TRIAD REGIONAL COUNCIL

In response to the needs of member governments, the Piedmont Triad Regional Council (PTRC) created a regional stormwater education program for NPDES Phase II jurisdictions in 2004. The PTRC is a voluntary association of municipal and county governments, enabled by state law to promote regional issues and cooperation among members. PTRC serves 73 member governments in the following twelve

counties: Alamance, Caswell, Davidson, Guilford, Montgomery, Randolph, Rockingham, Surry, Stokes, Forsyth, Yadkin & Davie.

GOALS AND OBJECTIVES

The overall goal of the stormwater outreach and education partnership of local governments is to meet the needs of NPDES Phase II jurisdictions that otherwise would not have the resources to plan for and implement a strong outreach initiative. In 2009, Governor Beverly Purdue signed the Jordan Lake Rules into law. These Rules require additional communities in the PTRC region to address stormwater pollution through public outreach and education. Although not regulated by the NPDES Phase II program, Rockingham County, Reidsville, Summerfield and Oak Ridge utilize Stormwater SMART to meet Jordan Lake Rules outreach requirements. Additional communities opt to participate in Stormwater SMART, even though they are not required to do so by any governing body. These communities include Davidson County, Randleman, Asheboro and Lexington. These communities see a strong value in using water quality education to protect valuable resources including High Rock and Randleman Lakes.





STORMWATER SMART TODAY

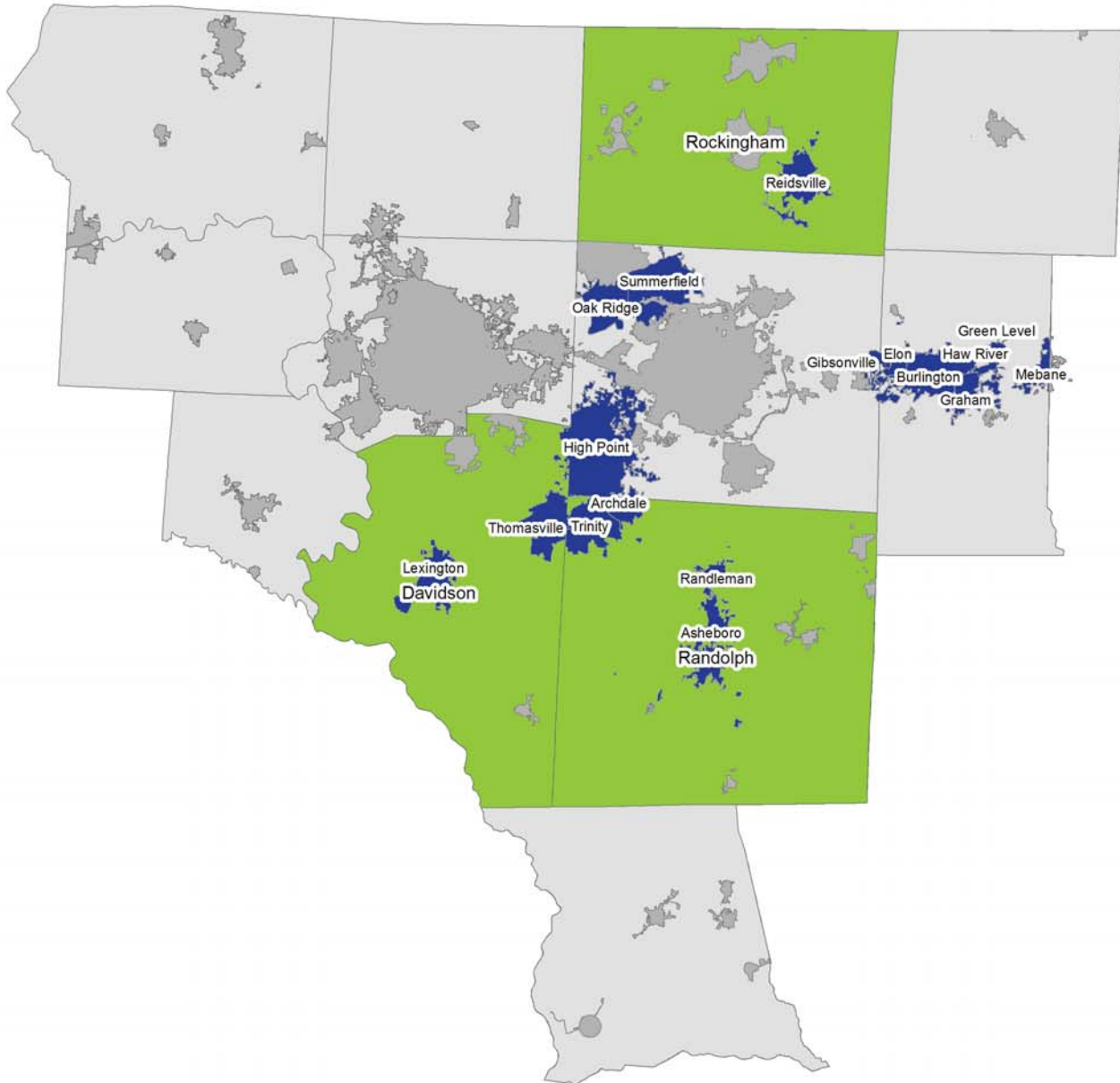
During fiscal year 2004-2005, through a 205j grant from the NC Division of Water Quality, PTRC organized a group of 24 local government representatives from Phase II cities and towns as part of the stormwater outreach program team with no upfront costs to local governments. Local government representatives originally directed the program coordinator to focus on educating the region's elected officials and the PTRC board of delegates. This was achieved through the development and presentation of a PowerPoint slideshow entitled "Stormwater in a Changing Landscape." PTRC created a unique, versatile animated PowerPoint presentation to demonstrate the stormwater problem. With the support of elected officials, the Stormwater SMART program was solidified through a second outreach and education effort targeting middle school students throughout the region.

Today Stormwater SMART works with citizens from all walks of life. From toddlers to senior citizens, teachers to elected officials and everyone in between, Stormwater SMART is known throughout the Piedmont Triad as the premiere hands on Stormwater Education program. Our constantly changing website, brochures and other materials reflect the nature of an organization dedicated to providing our constituents with the most up-to-date, relevant stormwater information and participation opportunities

The following Counties and Municipalities participated in Stormwater SMART in 2011-2012:

Davidson County, Randolph County, Rockingham County, Archdale, Asheboro, Burlington, Elon, Gibsonville, Graham, Green Level, Haw River, High Point, Lexington, Mebane, Oak Ridge, Randleman, Reidsville, Summerfield, Thomasville and Trinity.

STORMWATER SMART MEMBER GOVERNMENTS



Legend

- Non-Stormwater SMART Municipalities
- Stormwater SMART Municipalities
- Non-Stormwater SMART Counties
- Stormwater SMART Counties

STORMWATER SMART MEMBER GOVERNMENTS

Membership in Stormwater SMART is limited to PTRC member local governments within the PTRC twelve county region. Representatives from organizations and local governments from other regions, or non-PTRC member governments are welcome to attend meetings and access resources and information generated by Stormwater SMART.

Based on the 2010 US Census, 575,188 residents live within these cities and counties. Our programming reflects the diverse needs of our urbanized and rural communities. Through a letter of understanding with each participating local governments, the PTRC provided the following services beginning in July 2005:

- Facilitation of meetings with participating local governments when necessary to plan for and gain consensus on program direction, scope, and budget.
- Development and implementation of the regional outreach and education programs based on common NPDES Phase II permit requirements for participating local governments.
- Establishment of a Middle and High School outreach program.
- Continued relationships to schools, civic organizations, media and non profits.
- Attendance of local area festivals.
- Advancement of “Earth Day, Everyday”, library programming.
- Advancement of the Girl Scout Patch Program
- Establishment of Partnerships with Cooperative Extensions and other Environmental Organizations
- Maintenance and further development of the stormwater website www.stormwatersmart.org.
- Creation of Spanish-language versions of the educational components of the website and materials.
- Development and distribution of all outreach materials.
- Development of water quality volunteer opportunities.



FUNDING

FUNDING:

The cost to each local government is based on municipal populations. County population totals do not include municipalities. Total program costs for services, including materials, printing, distribution, staff time and travel is \$74,080 for FY 2011-2012. The following chart identifies member dues based on a combination of staff time and materials. Staff time is distributed equally throughout the members while expenditures (materials, travel, etc.) are population based. Additional information is included in Appendix A.

| Census 2010 Population | | Time (2PT) | Expenditures (population x \$0.016) | Time (2PT) + Expenditures (\$0.016) |
|------------------------|----------------|-----------------|-------------------------------------|-------------------------------------|
| Archdale | 11,415 | \$3,244 | \$183 | \$3,426 |
| Asheboro | 25,012 | \$3,244 | \$400 | \$3,644 |
| Burlington | 49,963 | \$3,244 | \$799 | \$4,043 |
| Davidson County | 107,828 | \$3,244 | \$1,725 | \$4,969 |
| Elon | 9,419 | \$3,244 | \$151 | \$3,395 |
| Gibsonville | 6,410 | \$3,244 | \$103 | \$3,346 |
| Graham | 14,153 | \$3,244 | \$226 | \$3,470 |
| Green Level | 2,100 | \$3,244 | \$34 | \$3,277 |
| Haw River | 2,298 | \$3,244 | \$37 | \$3,281 |
| High Point | 104,371 | \$3,244 | \$1,670 | \$4,914 |
| Lexington | 18,931 | \$3,244 | \$303 | \$3,547 |
| Mebane | 11,393 | \$3,244 | \$182 | \$3,426 |
| Oak Ridge | 6,185 | \$3,244 | \$99 | \$3,343 |
| Reidsville | 14,520 | \$3,244 | \$232 | \$3,476 |
| Randleman | 4,113 | \$3,244 | \$66 | \$3,310 |
| Randolph County | 88,465 | \$3,244 | \$1,415 | \$4,659 |
| Rockingham County | 55,009 | \$3,244 | \$880 | \$4,124 |
| Summerfield | 10,232 | \$3,244 | \$164 | \$3,408 |
| Thomasville | 26,757 | \$3,244 | \$428 | \$3,672 |
| Trinity | 6,614 | \$3,244 | \$106 | \$3,350 |
| Total: | 575,188 | \$64,877 | \$9,203 | \$74,080 |

JORDAN LAKE RULES REQUIREMENTS

North Carolina and the Environmental Protection Agency (EPA) have determined that Jordan Lake is impaired from high nutrient levels. The State conducted a TMDL assessment in 2007 that recommended a strategy to improve Lake conditions. The NC General Assembly created the Jordan Lake Rules from these recommendations. The Jordan Lake Rules require every municipality and county within the Haw River watershed to reduce their nitrogen and phosphorous contributions by 8% and 5%, respectively by 2017. This requires action by 19 Piedmont Triad counties and municipalities. The following 11 communities are required to participate in the Jordan Lake Rules: Burlington, Elon, Gibsonville, Graham, Green Level, Haw River, Mebane, Oak Ridge, Reidsville, Rockingham County and Summerfield.

In response to the Jordan Lake rules, Stormwater SMART stepped up our focus on nutrient management, including a program targeting landscape contractors and outreach to lawn and garden centers, pet stores and animal hospitals. We work hard to help citizens understand how their everyday actions have an impact on a lake 60 miles away.

JORDAN LAKE RULES OUTREACH REQUIREMENTS AND STORMWATER SMART COMPLIANCE

Outreach Strategy:

- Newspaper articles and/or inserts
- Kiosks and signage
- Direct mail
- Displays at the point-of-purchase in retail centers
- Utility bill inserts

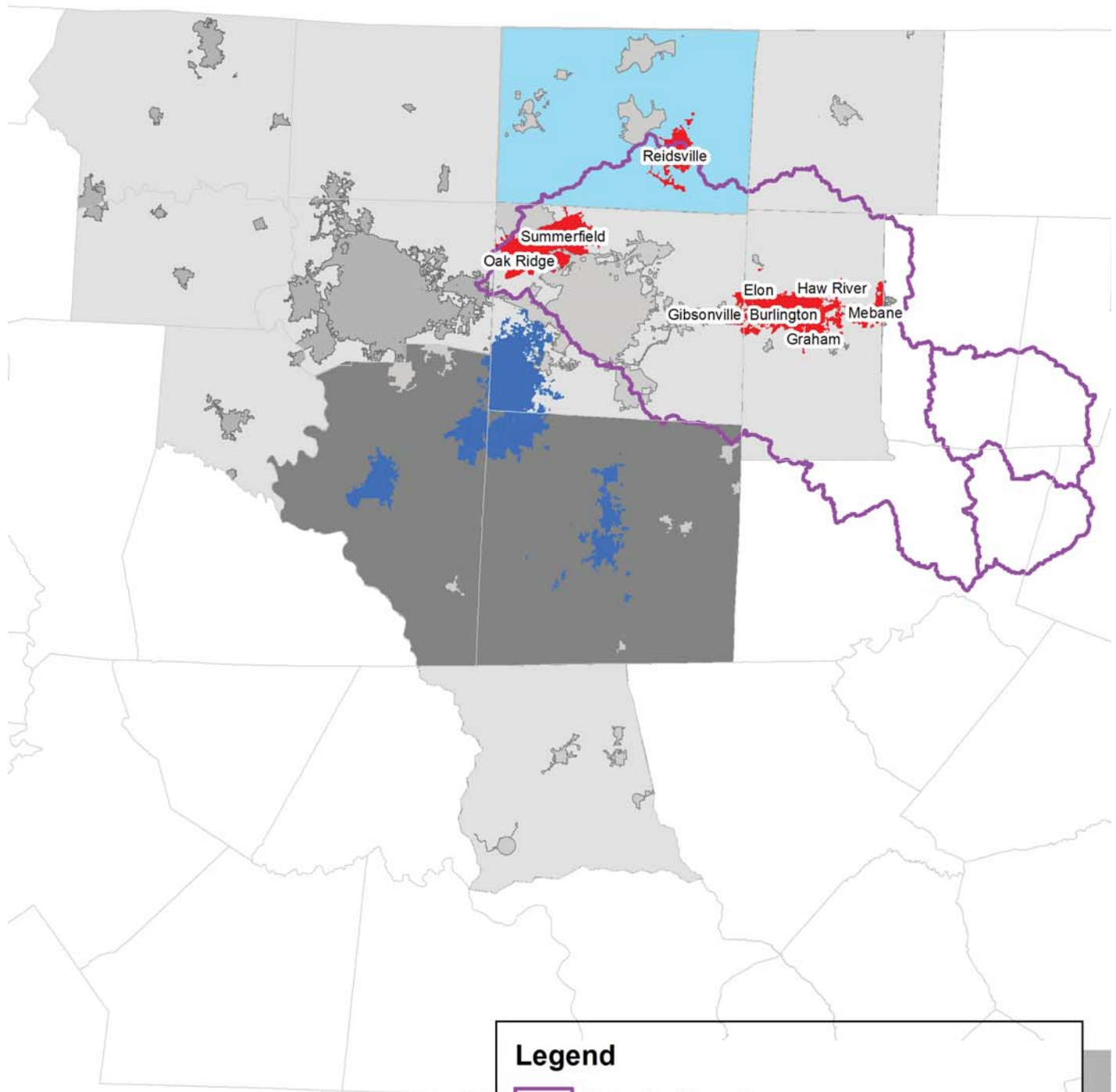
Outreach Program (1)

- Public meetings
- Community events
- Contests
- Storm drain marking
- Stream and Litter cleanups
- Group presentation and/or speeches

Outreach Program (2)

- News coverage
- Workshops and classroom outreach
- Distributing promotional giveaways and specialty items
- Brochures, displays, signs, welcome packets and pamphlets
- Local cable access
- Newsletters

JORDAN LAKE RULES JURISDICTIONS



Legend

- Watershed Boundary
- Non-Stormwater SMART Municipalities
- Non-Jordan Lake Stormwater SMART Municipalities
- Jordan Lake Stormwater SMART Municipalities
- Non-Stormwater SMART Counties
- Jordan Lake Stormwater SMART Counties
- Non-Jordan Lake Stormwater SMART Counties

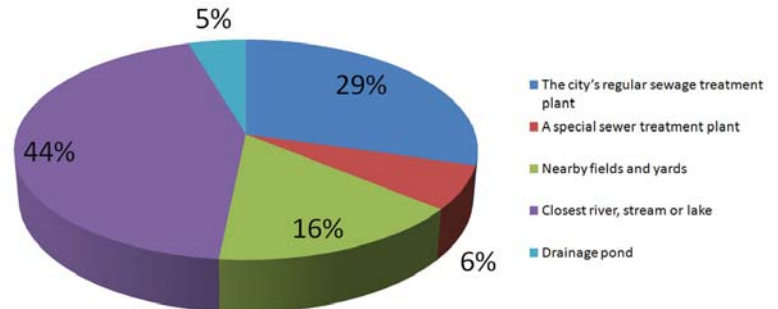


Stormwater SMART staff conducts surveys at most of the fairs and festivals we attend. We also have a link to the survey on our website. This year, we collected almost 500 responses.

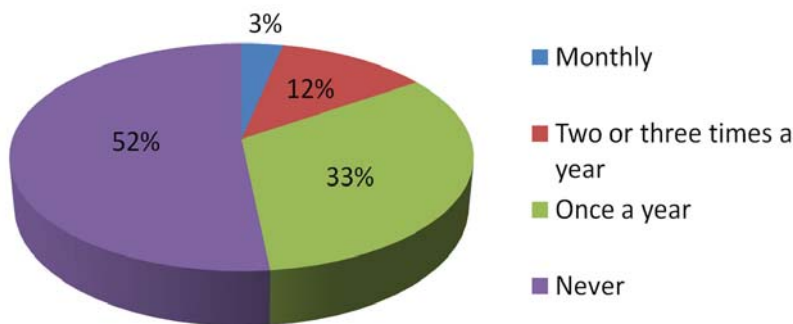
Area fairs and festivals are attended by a diverse group of individuals. Surveying these individuals provides Stormwater SMART with a strong sense of how aware a community is. The pie chart to the right indicates over 50% of our citizens believe the greatest impact to water quality is something other than stormwater runoff.

While this is common across North Carolina and

When it rains, stormwater is collected on streets and parking lots and runs into a storm drain. After stormwater runoff goes into a storm drain, it goes to . . .
 (% based on 434 answered questions)



How often do you use fertilizer on your lawn?
 (% based on 474 answered questions)

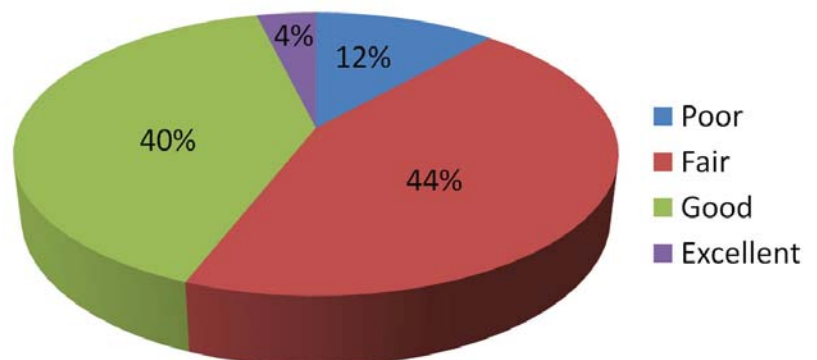


the Nation, other survey results indicate citizens' are paying more attention to their daily behaviors. For example, almost 50% of citizens with pets "Always" or "Often" pick up after their pets. Likewise, of the citizens surveyed, over half don't fertilize at all and of the remaining participants, 33% fertilize only once a year. These results are encouraging and as we move forward, we hope our citizens not only continue improving their daily behaviors, but deepen their understanding of how those behaviors can positively impact our waters. For complete survey results, please see Appendix D.

The short survey covers the following areas:

- Residential landscape (urban, suburban or rural)
- Overall water quality
- Biggest impact on water quality
- Fertilizer use
- Soil testing
- Motor Oil Disposal
- Car washing
- Pet waste
- Stormwater runoff

Do you think the overall water quality of the rivers, streams, and lakes in your area are:
 (% based on 474 answered questions)

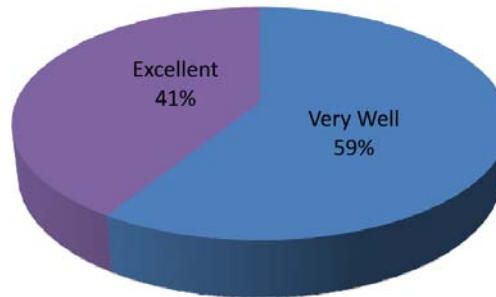


KEY ACCOMPLISHMENTS

IN THE CLASSROOM

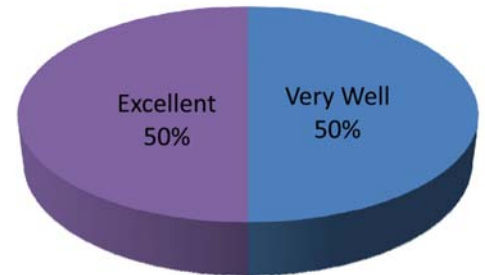
Stormwater SMART has established a widely respected presence in the Piedmont Triad. We were thrilled to work with teachers in Elementary, Middle and High Schools across our region. The following schools participated in our program:

- Harvey R. Newlin Elementary School
- Highland Elementary School
- Children's House Montessori
- North Graham Elementary School
- Southmont Elementary School
- Archdale Elementary School
- Bethany Elementary School
- Monroeton Elementary
- Wentworth Elementary
- Williamsburg Elementary
- Dillard Elementary
- Stoneville Elementary
- Northeastern Randolph Middle School
- South Asheboro Middle
- E. Lawson Brown Middle School
- Ledford Middle School
- Tyro Middle School
- North Davidson Middle School
- Northern Middle School
- Johnson St. Global
- Southwest Guilford Middle



How would you rate the Stormwater SMART Presentation Overall?

How well do you feel the presentation correlated to the NC Standard Course of study for the goals and objectives promised?



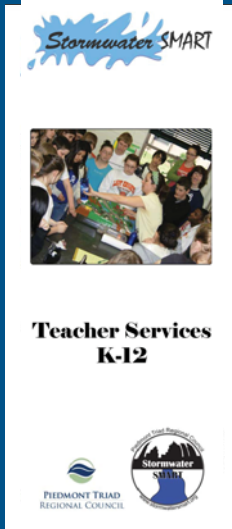
Almost 2,500 students participated in Stormwater SMART school presentations this year. Our presentations are customized to meet the needs of teachers. Teachers gave our program high marks for corresponding with the NC Standard Course of Study. Teachers have found our programs useful as a primer to their lesson plans, a follow-up lesson to reiterate knowledge, and an end of the year program designed to prep students for End of Grade testing.

The Enviroscape® is a portable model used to help people of all ages better understand point and nonpoint source pollution through hands-on demonstrations. Stormwater SMART uses the Enviroscape® to help students understand the concept of a watershed and how pollution flows downstream. Hydrology is a lesson many teachers find difficult to teach effectively. While the Enviroscape® is a perfect tool for teaching hydrology, the model is too expensive for most public schools. Stormwater SMART uses the enviroscape to connect students to pollution sources in their own backyard, including parking lots, construction sites, dog waste and agricultural impacts. Students draw cards identifying them as certain pollutants ensuring lots of participation. The presentation is wrapped up by discussing how students and their families can limit the number of pollutants they are unknowingly contributing to our waters.



KEY ACCOMPLISHMENTS

While the 8th Grade Enviroscope® program is our most popular, Stormwater SMART offers a number of other programs to meet the needs of teachers in the Piedmont Triad. Additional programs include:



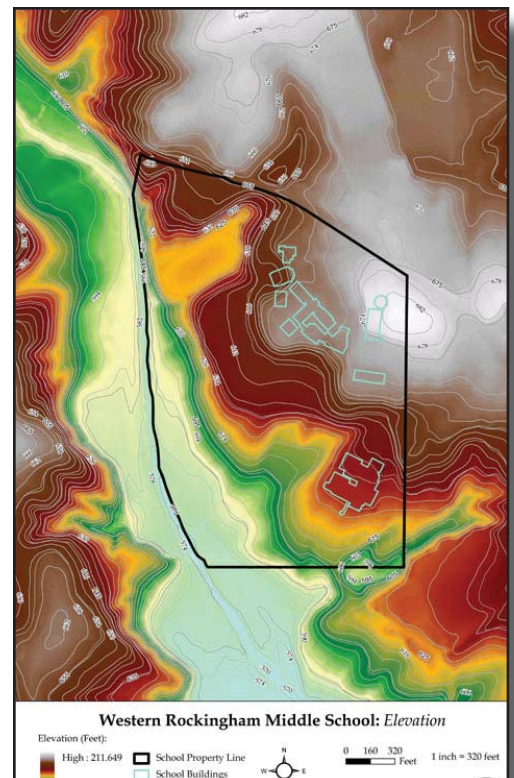
- **Enviroscope Program:** Learn about watersheds, landforms, and ecosystems using an interactive 3-D model.
- **The Incredible Journey:** All the water that will ever be is right now. How much water is there, and what happens when it's polluted?
- **Water Quality Monitoring:** Learn about chemical and biological water quality monitoring techniques. Be ready to head out doors and get your hands dirty.
- **Macroinvertebrate Mayhem:** Don't have a stream near your school, but want to learn about the bugs that determine our stream health? Try this fun outdoor activity distinguishes pollution tolerant from intolerant species.
- **Soil to Seed:** Understand how different types of soil affect water quality & what we can do about it.
- **Water Address:** Use your senses to learn about animals and their natural habitat.

Our programs are completely adaptable to any age group and apply across curriculums. We even fit some physical fitness in during Project WET activities including "Macroinvertebrate Mayhem," "The Incredible Journey," and "Just Passing Through."

We make every effort to help students understand the connection between their local environment and water quality downstream. One method to accomplish this is by customizing maps for each school we visit. Printed out on poster-sized paper, our maps helps students assess how much of their school's footprint is impermeable and where the water that runs off those surfaces ends up. If teachers are willing, we work with students to track the flow of water to a local stream where we teach students about stream health by testing the chemical and biological parameters of that waterbody.



For more information on our school programs, please see the "Teacher Services Brochure" in Appendix C.



KEY ACCOMPLISHMENTS

NC STREAMWATCH

Members in Stormwater SMART communities are eligible to participate in a StreamWatch program. StreamWatch or Adopt-a-Stream programs are one of the most effective tools for engaging the public in watershed issues. Participating in water quality monitoring increases awareness and helps citizens connect their everyday actions to the health of their watershed.

Our program is designed to accommodate a variety of groups, including schools, civic groups, homeowner associations and scouts. We trained groups in each of our three river basins this fiscal year.



PRESENTATIONS

Stormwater SMART offers a variety of presentations to meet the needs of a diverse audience. We customize each presentation to the age, size of the group and length of the presentation. Our presentations range in length from 15 minutes to two or more hours. We always provide plenty of handouts so our audience never leaves empty-handed. In a single day, you might catch up at a summer camp in the morning, a rotary meeting in the afternoon and a garden club in the evening. Many groups opt for a PowerPoint presentation, while others prefer a questions and answer format. A few of the topics covered in FY 2011-2012 were:

Many citizens do not understand the many ways they are impacted by water. Our presenters strive to connect people to their local water resources, as well as provide connections between water resources in the Piedmont Triad as well as the rest of the nation, and the world. With children, we work use Project WET activities to help make these connections. With adults, we have real conversations about water in our communities and how privileged we are to have clean and safe water to drink, irrigate our crops and splash in during the summer, and the importance of maintaining those waters for future generations.



- General Stormwater Education
- EnviroScape Presentation
- Rain Gardens & Native Plants
- Soils
- Macroinvertebrates
- Jordan Lake Rules Requirements
- Local Water Quality Updates

KEY ACCOMPLISHMENTS



STORMDRAIN MARKING

Many citizens believe water flowing into storm drains is treated before draining back into our waterways. Stormwater SMART works to dispel this myth through storm drain marking.

Storm Drain Marker Kits are available at no cost to organizations interested in installing them in member communities. The kits contain flexible full-color storm drain markers that are easily applied to storm drains or adjacent sidewalks. The markers alert passers-by that a storm drain sends rainwater directly into nearby creeks, rivers, and lakes.

The kits also contain an educational brochure about stormwater that provides helpful tips about how residents can prevent nonpoint source pollution. The brochure is intended to be distributed to residents in the neighborhoods where storm drain markers are installed.

SCOUTS

Stormwater SMART works with scout programs around the Triad. Whether scouts are trying to fulfill badge requirements, or work with the community to improve water quality project, our staff is always available to arrange for stream cleanups, assist with designing a rain garden, or conduct a water quality presentation. These projects are perfect for Eagle Scout projects or community service projects. Stormwater SMART Staff are also trained as Merit Badge counselors and are able to help troops obtain their soil and water conservation or environmental science badges.

We also offer a Girl Scout Patch Program. Not only are they fun to work with, they're great stewards of the environment. Girl Scouts are not afraid to take what



they learn out into the world. The patch program includes an activity book and additional resources to help students earn their patch. The varied experiences offered reinforce important concepts in nonpoint source pollution. Stormwater SMART hopes these girls take their newfound knowledge home and encourage parents, friends, and neighbors to take action!

KEY ACCOMPLISHMENTS

NC BIG SWEEP

Across the State, groups gather every fall to clean our waters. The Piedmont Triad Regional Council organizes events in Davidson County and assists citizens in other jurisdictions connect with their local Big Sweep Coordinator. On October 1st, school groups and citizens gathered at the Buddle Creek Access on High Rock Lake. Between the Buddle Creek Cleanup and some local schoolyard events, 130 volunteers clean trash from the High Rock Lake watershed.




PROJECT WET TEACHER TRAINING

This year, Stormwater SMART facilitated our first-ever teacher training. Sixteen teachers from across the Piedmont Triad participated in this free training. We spent the day learning different ways to teach students about water quality and had a lot of fun in the process! The teachers provided excellent feedback in how to adapt activities to best meet their needs. Each attendee was provided Project WET 2.0 Guide. Teacher were thrilled with the updated, full color version




which provides all the info they need to quickly find activities that align with their lesson plans. We couldn't be happier with the success of our first pilot program, and we look forward to working with more teachers in the next fiscal year.

While putting on a workshop is hard work, “teach the teacher” type trainings are ultimately our goal. If we can provide educators with the tools they need to effectively teach nonpoint source pollution, it is ultimately the best use of our time. These teachers can use the knowledge gained through Project WET for years to come. In the future, we hope to offer separate trainings in each of our river basins and focus on the issues specific to that basin.



**Project WET Educators' Workshop Agenda
Polluted Runoff**

Piedmont Triad Regional Council • June 22, 2012



9:00 Getting Our Feet Wet

- ◆ Welcome, Pretest, Workshop Goals & Agenda Review
- ◆ Water Drop: Ice Breaker
- ◆ A Drop in the Bucket: (pg 238) Calculate the availability of fresh water on Earth
- ◆ Imagine: Imagine a water molecule on its water journey
- ◆ Incredible Journey/Blue Traveler: (pg 161) Simulate the movement of water through Earth's systems. Repeat the exercise integrating pollution.

12:00 -12:30 Lunch

12:30-3:30 Diving Back Into WET

- ◆ Branching Out: (pg 129) Learn about river basins and construct a watershed model
- ◆ Sum of the Parts: (pg 267) Demonstrate nonpoint source pollution through art.
- ◆ Macroinvertebrate Mayhem: (pg 322) Illustrate, through a game of tag, how macroinvertebrate populations indicate water quality.
- ◆ A-maze-ing Water: (pg 219) Negotiate a maze to investigate nonpoint source pollution.
- ◆ Guide Overview & A Hike Through the Guide: Understand how to use the Project WET

KEY ACCOMPLISHMENTS

LIBRARIES

What better place to reach a diverse crowd than at the library? This year, we implemented a new program in our community libraries. Our “Buffer in a Bookmark” program was a huge hit! Using paper seeded with native wildflowers, we created bookmarks detailing the important role buffers play in protecting our water quality.

- May Memorial Library
- Mebane Public Library
- Graham Public Library
- North Park Library
- Gibsonville Public Library
- Lexington Branch Library
- Thomasville Branch Library
- North Davidson Branch Library
- West Davidson Branch Library
- Asheboro Public Library
- Archdale Public Library
- Randleman Library
- Reidsville Library
- High Point Public Library

PLANTING FOR WATER QUALITY

This year, we offered some new educational programs designed to improve water quality through landscaping techniques. This presentation outlines how traditional gardening techniques can degrade water quality, how people can improve water quality using rain gardens, buffer networks, and other best

management practices, and how native plants can benefit wildlife, water quality, and neighborhoods and green spaces. This and other programs focusing on native plants were presented in public meetings, with gardening clubs, and with various other civic and community groups. We’re thrilled with the level of interest citizens are showing in landscaping with native plants and using eco-friendly designs in their yards and neighborhoods.



KEY ACCOMPLISHMENTS

DESIGN SERVICES

Stormwater SMART works with communities to promote and advertise projects designed to improve water quality. We assist communities in designing customized signs, flyers and other promotional materials to help citizens understand how Best Management Practices (BMPs) improve local water quality.

OUT AND ABOUT

Stormwater SMART continues to work with local businesses to help employees and customers understand the role they play in local water quality. Pet stores in particular



love our “Pick up the Poop” dog treats, complete with a label helping pet owners understand the importance of picking up pet waste.

build rain gardens in their back yard. This year, Stormwater SMART worked with a Randleman Eagle Scout to install a rain garden in Randleman. Stormwater SMART assisted with the design and ten volunteers assisted with the construction and planting.



RAINGARDEN DESIGN

Stormwater SMART staff have a Residential Rain Garden Certification and are willing to help homeowners, garden clubs, scouts, and other groups



Stormwater SMART also worked with local residents and the City of Burlington to construct a large scale rain garden along Gant Branch, an impaired tributary of Little Alamance Creek. This project was highly successful, attracting participants from all across the community. We had a professional team working on the project including a number of master gardeners and native plant experts.

What is a Rain Garden?

Rain gardens are just what they sound like – gardens designed to soak up rain water. A shallow depression collects a few inches of water and allows it to be absorbed into the ground or by plants instead of flowing directly into nearby streams and lakes. Native plants and soil trap, absorb and filter pollutants found in stormwater runoff including fertilizers, pesticides, oil, grease and dog waste.

Much of Thomsville's rainwater runs off hard surfaces like roofs, driveways, sidewalks, and roads. Unlike a sewer system, stormwater flows untreated into underground pipes called stormdrains, then into nearby streams, rivers, and lakes. Stormwater carries fertilizers, pesticides and herbicides from our lawns, oil and grease from our roads and driveways, pet waste, litter, and other pollutants into our waters. This rain garden is designed to prevent some of these pollutants from making their way into High Rock Lake, but we need your help. How can you reduce your impact on water quality and be a stormwater steward?

What can you do?

- Don't put ANYTHING down the stormdrain. Homeowner water that flows into a stormdrain is UNTREATED.
- Pick up the Poop! Dog waste contains bacteria and nutrients that can make us sick and disrupt the natural ecosystem.
- Get your soil tested! This service is free through your Cooperative Extension office. Use only the recommended amount of fertilizer. Overfertilization can run off into our waters causing fish kills and other disasters.
- Wash your car on the lawn or at the car wash. Soak washing down your driveway often flow straight into the nearest stormdrain.

Water should stand in a rain garden no longer than 24 hours after the rain stops. Mosquitoes cannot complete their breeding cycle in this length of time, so a rain garden should not increase mosquito populations.

Rain Gardens help us:

- Improve water quality.
- Increase the amount of water that filters into the ground, recharging the aquifer.
- Prevent flooding, erosion and drainage problems.
- Protect streams and lakes from pollutants carried by urban stormwater.
- Enhance the beauty of our community.
- Provide valuable habitat for birds, frogs, butterflies and many beneficial insects.

