

Annual Report

Watershed Stewardship Program
2014-2015

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During the
2014-2015 reporting year,
18,645 community members participated
in the Watershed Stewardship Program.

Volunteer Programs:
1,341 participants,
857 training hours,
4,517 volunteer service hours

Community Programs:
2,449 participants, 193 hours

School Programs:
14,855 students, 397 instruction hours

This report summarizes Cobb County Water System's program to educate the community about issues impacting local water quality, to foster good habits and responsible behavior, and to promote an ethic of respect for and a connection to our natural resources.

Cobb County's Watershed Stewardship Program is a part of Cobb County Government's effort to educate residents of the county on various issues related to improving the quality of life for ourselves and future generations. The activities and events facilitated by the Watershed Stewardship Program are designed to fulfill Cobb County Water System's education requirements as outlined by the Metro North Georgia Water Planning District and the Georgia Environmental Protection Division.

Vision

We envision all Cobb County residents becoming ecologically literate, understanding their role in water quality and environmental health.

Mission

Cobb County's Watershed Stewardship Program promotes respect for our environment by educating the community about the connection between behavior and water quality.

Message From Program Staff

Throughout the past year, our staff has spent a great deal of time evaluating the content, delivery, and effectiveness of our community and school educational programming. The process of self, peer, and client evaluation has indicated we have successfully met the expectations of our clientele, yet it has provided insight for the need of program redirection and growth. Reflecting on these evaluations has allowed us to deepen our understanding of the importance of efficiently delivering meaningful content within the confines of school hours, while providing the community with opportunities to independently participate in stewardship activities on a daily basis (how to reduce or eliminate NPS pollution at home - such as FOG, pet waste, HHW, reducing storm water runoff with the use of rain barrels and gardens, etc.). Focusing on client needs allows us to more effectively provide resources and opportunities to instill water-wise and ecologically sound habits that will leave a cleaner, healthier earth for future generations. We continue to strive to improve and seek new ways of fulfilling our vision through methods that deliver the mission we set out to achieve.

The 2014-2015 reporting year brought about several new programs to help promote a broader perspective on watershed stewardship: The Chattahoochee Basin Volunteer Challenge, an employee Earth Day event, and the groundwork for hosting Cobb County's first Household Hazardous Waste Amnesty Day. The Chattahoochee Basin Volunteer Challenge engaged participants in a friendly competition wherein the group with the most hours dedicated to stewardship service projects receives a rafting trip on the Chattahoochee River with the National Park Service. The County Employee Earth Day Festival brought together fourteen county programs with a theme of promoting opportunities for better environmental sustainability practices in the workplace and at home. The HHW Amnesty Day will provide Cobb County Water System customers with a responsible disposal method for their accumulated household hazards. We are especially excited to help bring this opportunity to the community.

Our program received two awards this year: Georgia Association of Water Professional's 2014 Public Education Best Direct Media Award for The Thalweg newsletter; and staff member Kathleen Lemley was recognized as Georgia Adopt-A-Stream's 2014 New Trainer of the Year.

We look forward to continuing and growing our outreach efforts into 2016, and embracing the new opportunities that await us.

-The Cobb County Watershed Stewardship Program

SUMMARY OF ACTIVITY BY WATERSHED

	Water Quality Monitoring	Waterway Clean-ups	Storm Drain Marking	Privet Pulls	Community Education	School Outreach
Chattahoochee	●		●		●	●
Mud					●	●
Mulberry	●					
Nickajack	●	●		●	●	●
Noses	●	●	●		●	●
Olley	●		●		●	●
Popular	●	●				●
Powder Springs	●	●			●	●
Rottenwood	●	●			●	●
Sewell Mill	●	●	●		●	●
Sope	●	●	●			●
Sweetwater	●				●	●
Ward	●	●	●		●	●
Willeo	●	●	●			●
Etowah	●				●	
Allatoona	●	●	●		●	●
Butler	●	●	●		●	●
Noonday	●	●			●	●
Proctor	●	●			●	●
Rubes	●	●	●			●

COMMUNITY PROGRAM ACCOMPLISHMENTS

Cobb County Watershed Stewardship offers free ecology workshops throughout the year including providing the training and tools needed to be a monitoring volunteer.

During the 2014-2015 reporting year, the value of Cobb's volunteer watershed stewards is estimated at \$105,065. *Based on the 2014 estimated value of volunteer time for Georgia (\$23.26) published by Independent Sector.*

Volunteer Opportunities

Adopt-A-Stream Chemical Monitoring

239 volunteers trained, 428 monitoring events, 1,315 service hours

Chemical monitoring consists of taking water samples and testing for pH, levels of dissolved oxygen, temperature, and conductivity. These chemical tests gather information about the aquatic habitat and its ability to sustain life. Participants are required to attend a certification workshop and adopt their site for monthly monitoring.

Adopt-A-Stream Macroinvertebrate Monitoring

24 volunteers trained, 21 monitoring events, 684 service hours

Participants monitor the population and diversity of benthic macroinvertebrates, aquatic insects, and mollusks that act as bioindicators of water quality. Studying the diversity of organisms at a site gives a general picture of water quality. Individuals interested in macroinvertebrate monitoring are required to attend a certification workshop, adopt their waterway site, and commit to monitoring once per quarter.

Adopt-A-Stream Bacteria Monitoring

104 volunteers trained, 184 monitoring events, 297 service hours

Volunteers learn how to monitor *E. coli* levels in their streams. *E. coli* is an indicator organism that is often used to assess the water quality. Monitoring levels of *E. coli* can help identify possible sources of pollution. This workshop focuses on proper collection of a water sample, processing samples for incubation, and interpretation of results. Volunteers must attend a certification workshop and adopt their site for monthly monitoring.

Adopt-A-Stream Watershed & Visual Monitoring

5 volunteers trained, 41 monitoring events, 36 service hours

This is two workshops in one! We start with "Getting to Know Your Watershed", which includes mapping your watershed, how human activity can impact a watershed, identifying sources of pollution, and how to address non-point source pollution. Next, we learn to assess the physical health of your stream and its habitats using the Adopt-A-Stream protocol for Visual Stream Assessment.

Anuran Monitoring

7 active volunteer groups, 76 monitoring events, 154 service hours

Cobb County residents are learning to identify frog and toad vocalizations and recording their observations to collect data on local amphibian populations. Once trained, and a monitoring route is registered, participants take a walk and complete a frog call survey once a week.

Waterway Clean-ups

421 volunteer participants, 82 events, 807 service hours*

Cobb County asks residents to help clean local waters and raise awareness about waterway health. Scout groups, church groups, schools, and homeowners associations across the county are provided with gloves, bags, and planning assistance throughout the year to encourage trash removal efforts. *GA Adopt-A-Stream added cleanup as a volunteer reporting option during this reporting year. 66 small collection events were recorded via this mechanism.





Storm Drain Marking

273 volunteer participants, 37 events, 734 service hours, 996 drains marked

Rain water runs off the landscape from roads, driveways, lawns, rooftops, and parking lots and carries pollution into our water. In addition, any litter on roads will wash into streams through the storm drain system. To emphasize the connection between runoff and water pollution, volunteers are helping mark storm drains around Cobb County. Participants are provided with marking kits including aluminum markers, adhesive glue, gloves, garbage bags, and education materials.

Watershed Stewardship Fair - March 31, 2015

125 volunteer participants

The Watershed Stewardship Fair is a data sharing event that showcases volunteer stream projects. Volunteer groups are invited to create a display

and share their initiatives during the event. Participants are given a chance to tour the Water Quality Laboratory. Watershed Stewardship Awards were presented for the Stewards of the Year, Monitoring Group of the Year, and Partnership of the Year.

River Rendezvous - May 2, 2015

21 participants, 75 service hours

The Sierra Club Cobb Centennial Group partners with the Water Quality Laboratory each year to monitor 30 sites along Rottenwood Creek. Parameters include dissolved oxygen, pH, conductivity, temperature, biological oxygen demand, *E. coli*, nutrients, metals, and turbidity. The results are shared on GA Adopt-A-Stream's online database. This event provides a comprehensive look at the Rottenwood Creek Watershed.

Wildlife and Rain Garden

59 volunteer participants, 33 events, 130 service hours

Community volunteers continue to assist with site maintenance including new plant installations, pruning, seed propagation, weeding, labeling, and leading tours. Participants include local master gardeners, community members seeking service hours, and those interested in gaining practical gardening experience. Weekly project days, currently every Thursday morning from 9-11, provide a consistent opportunity for those interested in helping. Participants also learn about stormwater pollution prevention and stewardship practices.

Privet Pulls

62 participants, 2 events, 124 service hours

The removal of invasive Asian privet has become a popular stewardship project, especially with older students seeking community service hours. Volunteers seeking to organize a project are asked to complete a project proposal, identifying the site location and vegetative waste disposal plan. WSP assists by providing tools and logistical support. In addition, we are working with GA Native Plant Society and Cobb County Parks to help recruit volunteers for ongoing privet removal efforts at Heritage Park along Nickajack Creek.



Watershed Internship

1 volunteer participant, 161 service hours

In partnership with South Cobb High School, WSP hosted a student intern over the summer of 2014. The position was filled just as the school year came to a close. He worked with staff 25 hours per week through July. Duties included assisting with community outreach programs, prepping for service projects, and shadowing field staff with routine duties.

Summary of Volunteer Activities by Watershed

Stewardship Projects - Chattahoochee

WATERSHED	GROUP	# SITES	YEAR INITIATED	ACTIVITY TYPE
Mulberry Creek	Friends of Mulberry Creek	1	2003	CH, MAC, BAC
Nickajack Creek	Keep Smyrna Beautiful	10	2010	CH, CL
Nickajack Creek	SG5	1	2011	CH, CL
Nickajack Creek	Chattahoochee Challenge	1	2014	PP
Nickajack Creek	Bells	1	2014	BAC
Nickjack Creek	Kahle	1	2014	CH, BAC, CL
Noses Creek	McEachern High AP Environmental Science	1	2007	CL
Noses Creek	Walker School's 5th Grade	1	2007	CH
Noses Creek	Cheatham Hill 4th Grade Target Class	6	2014	SD
Noses Creek	Pack 675, Webelos Den 10	1	2015	SD
Noses Creek	Cyrrier Family	1	2015	AN
Noses Creek	The Trumble Family	1	2015	SD
Olley Creek	Donna-n-Camen	1	2012	CH
Olley Creek	Chattahoochee Challenge	1	2014	SD
Popular Creek	Keep Smyrna Beautiful	2	2012	CH
Popular Creek	Anne Ledbeter	1	2012	CH, MAC, BAC, CL
Powder Springs Creek	Fairfax Consulting Group	1	2010	CH, BAC, CL
Rottenwood Creek	Friends of Victory Heights Subdivision Park	1	2002	CH, BAC, VS, CL
Rottenwood Creek	Sierra Club Centennial Group	3	2004	CH, MAC, BAC, CL
Rottenwood Creek	Water Quality Laboratory	1	2009	CL, BEA
Rottenwood Creek	Marriott Hotels	1	2014	CL
Rottenwood Creek	Marietta Center for Advanced Academics	1	2014	CL
Rottenwood Creek	PACE Academy	1	2015	BEA
Sewell Mill Creek	Dodgen Middle School	9	2002	MAC
Sewell Mill Creek	Walton HS AP Environmental Science Class	1	2006	CH
Sewell Mill Creek	Rotary Club of East Cobb	1	2013	CL
Sewell Mill Creek	Bushart	1	2012	CH, CL
Sewell Mill Creek	Pope High School	3	2013	CH, CL, SD
Sewell Mill Creek	Pam Barker	1	2013	CH
Sewell Mill Creek	Carla Bell	1	2014	AN
Sewell Mill Creek	Stream Testers of Birdsnest Court	1	2014	CH
Sewell Mill Creek	Green Family Homeschool	1	2014	CH, BAC
Sope Creek	Walton High School Environmental Club	1	1995	CH, CL
Sope Creek	Isabel Ott	1	2008	CH
Sope Creek	Friends of Gable Creek	1	2009	CH, CL
Sope Creek	Salty	1	2012	CH, CL
Sope Creek	Sedalia Park Elementary School	1	2012	CH, CL
Sope Creek	Pollywog in a Bog	1	2013	CH
Sope Creek	Sentinel Lake ACC	1	2015	SD
Sope Creek	Fielding Lewis Chapter of DAR	3	2014	SD

Sweetwater Creek	Dragon Frog	1	2014	AN
Trib of Chattahoochee	Crooked Branch	1	2011	CH, BAC
Trib of Chattahoochee	ERM Atlanta	1	2015	CH
Ward Creek	Seth Meador	1	2014	CH
Ward Creek	Fielding Lewis Chapter of DAR	2	2014	CL, SD
Ward Creek	Cheatham Hill 4th Grade Target Class	2	2014	SD
Willeo Creek	Willeo Watershed Alliance of Loch Highland	1	2001	CH, BAC, CL
Willeo Creek	Tritt River Kids	1	2004	CH, CL, SD
Willeo Creek	Bishop Lake	6	2008	CH, BAC, CL
Willeo Creek	Village North Highlands Subdivision	1	2012	CH, BAC, AN
Willeo Creek	Rotary Club of East Cobb	1	2010	SD
WilleoCreek	Fielding Lewis Chapter of DAR	9	2014	SD
Willeo Creek	Girl Scout Troop #11437	7	2015	SD

Stewardship Projects - Etowah

WATERSHED	GROUP	# SITES	YEAR INITIATED	ACTIVITY TYPE
Allatoona Creek	Kahle	1	2010	CH, AN, BAC, CL
Allatoona Creek	Richard's Creek	1	2014	CH, CL
Allatoona Creek	Ford Elementary School	1	2014	CL
Allatoona Creek	Frey Elementary School	1	2014	CL
Allatoona Creek	Hickory Springs Subdivision	1	2015	SD
Allatoona Creek	Allatoona High School	1	2015	PSA
Butler Creek	Butler Creek Kennesaw	1	2009	CH, BAC, VS, CL
Butler Creek	Ridgecrest Drive @ NE Butler Creek Tributary	2	2014	CH, MAC, BAC, VS, CL, AN
Butler Creek	Cheatham Hill 4th Grade Target Class	1	2014	SD
Lake Allatoona	GA Lake Monitoring	4	2013	CH
Noonday Creek	Devereux Georgia Treatment Network	1	2013	CH
Noonday Creek	Girl Scout Troop 383	1	2014	CL
Noonday Creek	Emerson Unitarian Universalist Congregation	1	2014	CL
Noonday Creek	Kennesaw Mountain High School	1	2015	PSA
Proctor Creek	North Cobb High School SAVE Club	1	2008	CL
Rubes Creek	Keheley Elementary 3rd Grade Target Class	2	2004	CH, MAC, VS
Rubes Creek	McCleskey Middle School	1	2006	CH, MAC, BAC
Rubes Creek	David Zandstra	1	2008	CH, BAC
Rubes Creek	Ric & Sharon Donato	1	2009	AN
Rubes Creek	Girl Scout Troop 2910	11	2010	SD
Rubes Creek	Lassiter High School APES classes	1	2010	CH, MAC, BAC
Rubes Creek	Mabry Middle School	1	2011	CL
Rubes Creek	Olde Man of the Creek	1	2014	CH
Rubes Creek	Fielding Lewis Chapter of DAR	2	2014	SD

Activity Type Key

CH Adopt-A-Stream Chemical Monitoring BAC Adopt-A-Stream Bacteria Monitoring AN Anuran Monitoring CL Cleanup
MAC Adopt-A-Stream Macroinvertebrate Monitoring VS Adopt-A-Stream Visual Monitoring SD Storm Drain Marking PP Privet Pull
BEA Beautification Project PSA Video Contest

Community Ecology Programs

Rain Barrel Make & Takes

73 participants

Urban runoff, causing bank erosion, siltation, and water quality impairment, is one of the hardest sources of stream pollution to control. In this workshop, participants build their own rain water harvesting barrel (donated by Coca-Cola Bottling) using power tools and provided supplies. The collected water can be used to irrigate ornamental plants, shrubs, and trees while preventing non-point source pollution and saving potable water.

Household Hazardous Waste Reduction and Medication Disposal

1,700+ participants
drugs from 413 households

Several efforts have been developed to educate Cobb residents on hazards in the home including disposal events. Organized by Keep Cobb Beautiful, two pharmaceutical disposal events were held. Education focused on the importance of removing expired and unused medications from the home and the problems associated with flushing these products into the sewer system. Residents were also provided fall and spring opportunities to recycle textiles, paint (for a fee), batteries, scrap metal, and electronics (for a fee), and participate in document shredding. Collection totals include approximately 2,100 pounds of textile, 4,700 gallons of paint, 83,000+ pounds of batteries, metals, and electronics, and 47,000 pounds of shredded paper.

Library Programs

119 participants

During June and July of 2014, the Watershed Stewardship Program partnered with Cobb libraries for the summer reading program. WSP staff presented a program about the water cycle and pollution prevention called 'Raindrops and Sticks', which included a reading of Mark Graber's *A Raindrop's Journey*, and concluded with participants making their own rain stick to take home.

Scout Programs

135 participants

For the past several years, WSP has honored requests from scouts to provide opportunities for scouts to earn badges, to participate in speaking engagements at pack/daisy troop meetings, and to provide consultation for Eagle Scout projects. In addition, Girl Scout and Boy Scout groups often participate in watershed stewardship activities to obtain service hours.

Summer Camp Outreach

98 participants

Watershed Stewardship Program supported 2014 summer camp programming for Girls Inc. and a Montessori school. These programs included fairy house building, garden tours, creek stomps, and Raindrops and Sticks.

Summer Family Programs

235 participants

In partnership with Cobb County Parks, Recreation, & Cultural Affairs, we continued to offer Outdoor Romping and Creek Stomping Summer Series for kids and families. The four sessions included Macroinvertebrates in the Stream, Family Frog Monitoring, Pollinator Day Festival, and Fairy House Building.



Professional Presentations and Partnerships

100+ participants

WSP staff routinely provide expertise and support at conferences, professional development meetings, and seminars. In the 2014-2015 reporting year, we presented at several events including the Georgia Adopt-A-Stream Conference, Metro North GA Water Planning District Education TCC, Outdoor Learning Symposium, and the Georgia Association of Water Professionals Annual Conference. In addition, the Environmental Education Alliance of Georgia requested a member of our team to serve on their Executive Committee this year, providing leadership and guidance to the organization as a past-president.

Pet Waste Education Initiatives

3,000+ recipients

In addition to supporting volunteer *E. coli* testing, distributing pet waste education materials during storm drain marking projects, and implementing our *Pick It Up Pals Pledge Program* to increase pet owner awareness of the pollution problems associated with pet waste, WSP was also actively involved in promoting and reviewing PSA submissions for the MNGWPD High School Video Contest. Cobb students were selected for both 1st and 3rd place in the pet waste-focused education messaging. Cobb County's TV23 will be airing the top three Cobb submissions locally. We continue to maintain the *Pick It Up Waste Stations* that were installed along the Silver Comet Trail and explicitly discuss proper pet owner stewardship during our *What Is A Watershed?* school outreach programs.

National Park Service Tire Disposal Partnership

55 tires

As in previous years, we offer the Chattahoochee National Recreation Area tire disposal services for all tires removed from the river and contributing tributaries within the Cobb County jurisdiction. National Park Service delivers the tires to our waste transfer station and Cobb County Water System pays the disposal fees for the transaction.

Earth Day - Employee Green Expo

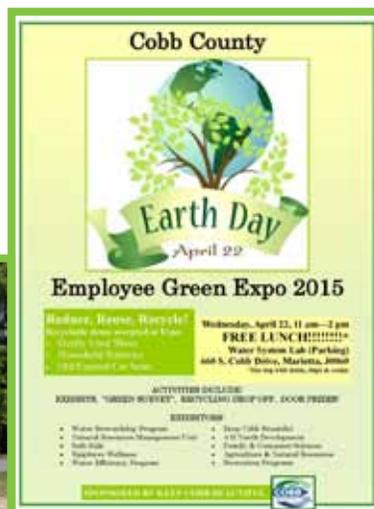
100+ participants

This year we launched an employee environmental education effort. In partnership with Keep Cobb Beautiful, the Watershed Stewardship Program developed this event targeting an internal audience with our stewardship messages. The goal was to raise awareness among staff members regarding the programs and services Cobb County offers to ensure they are aware of the efforts, educated about why the county is invested in stewardship, and encouraged to practice responsible behaviors.

Senior Services Programs

30 participants

WSP continues to develop programs for local seniors. We are piloting a quarterly nature club with clients from North Cobb Senior Center in addition to continuing our work with the garden club, helping implement a community garden for the center.



SCHOOL OUTREACH ACCOMPLISHMENTS

Program staff visited local schools routinely, offering free water-related education programs to K-12 students in Cobb County, Marietta City, and private schools. In the 2014-2015 school year, our programs reached 14,855 students at 84 schools, serving 639 classrooms, providing 397 instructional hours. We estimate the cost of this service at \$15,235.

Ecoregions of Georgia 965 participants
Georgia ranks sixth in the nation for overall species diversity, particularly due to our five distinctive ecoregions! Learn the characteristics and natural history facts about each ecoregion by exploring how geographical topography contributes to biological diversity.

What is a Watershed? 1,819 participants
We all live in a watershed - upstream and downstream. During this interactive session, students use a watershed model to demonstrate the impacts of pollution on streams and lakes while learning about local water quality issues. This hands-on program reveals how everyday activities can affect our drinking water and wildlife while encouraging discussion about watershed protection and pollution prevention.

Erosion & The Hydrologic Cycle 1,073 participants
Erosion and Weathering - what's the difference? Students visit lab stations to study the causes and effects of erosion, weathering, and sediment deposition while discovering how these forces change the landscape and aquatic habitats. Using a wetland model, students decide how to mitigate the consequences of human impacts and how natural systems are beneficial to the hydrologic cycle.

Campus Explorer 362 participants
Nature is everywhere - offering the perfect setting and basis for instruction! Let us guide your class on an engaging and inquiry-based interpretive walk on your campus. Students use their senses to explore, apply scientific processes, and journal observations.

Adopt-A-Stream Water Chemistry Study 745 participants
Learn to collect water samples and perform water quality experiments including dissolved oxygen, pH, temperature, and conductivity. This hands-on chemistry activity incorporates the scientific method. Data collected from monitoring groups will be entered into the Georgia Adopt-A-Stream statewide database.

Macroinvertebrate Lab 424 participants
Macroinvertebrates (stream bugs) are excellent indicators of water quality. Learn to identify and categorize aquatic insects by pollution tolerance levels to determine stream health. Introduce your students to these fascinating water bugs before taking a water monitoring field trip to a local pond or stream. Data collected from monitoring groups will be entered into the Georgia Adopt-A-Stream statewide database.

Bacteria Monitoring Lab 64 participants
This program explores different diseases present in the U.S. and in other countries and their impact on environmental health. Students will have the opportunity to practice laboratory procedures by monitoring their local environment for *E. coli*, and determining what levels exceed a healthy baseline.

What Do You Know About Where You Live? 157 participants
What is a community? Students develop a working definition of a community and identify essential elements/ characteristics of the community they live in. What biotic and abiotic factors are found in your community? Explore your campus to see what other organisms share their community.

Snakes of Georgia & Their Adaptations 781 participants
Some people fear them, some are attracted to them, but almost nobody is indifferent toward snakes. How have snakes adapted to survive in their environment? Which species in Georgia are venomous and how can you tell? Most importantly, how do they benefit our ecosystem? This lab includes the use of live specimens.

Visual Stream Survey

180 participants

A healthy stream is a busy place and constantly changing. Learn how to assess a stream by examining different factors, such as stream bank, stream vegetation, stream channel, and substrate type to better understand how your stream is functioning.

River to River

1,196 participants

Where does our drinking water come from? What happens to our water after we use it? Explore how a drinking water and wastewater treatment facility function.

Monarchs & Butterfly Life Cycle

269 participants

This program explores how a butterfly grows from a tiny egg into an adult, features the amazing annual migration of the Monarch from Canada to Mexico, and discusses habitat needs and conservation efforts to address human impact.

Wild in the Watershed

556 participants

How are reptiles different from amphibians? Are there mammals that lay eggs? Learn about beavers and their impact on water quality and habitat. Students will examine animal artifacts, such as skins and bones. This program focuses on Georgia species and may include live or preserved specimens.

Investigating Urban Streams and Ponds

78 participants

Join us at a stream, pond or wetland to conduct a study about water quality and habitat. Activities may include water quality testing, sampling for aquatic insects, and investigating physical characteristics of the waterway. The group is responsible for its own transportation to the site. This program can be done at a schoolyard stream or pond, or at a local park.

Ticket to Ride

470 participants

With funding from The National Parks Foundation and in partnership with Chattahoochee River National Recreation Area (CRNRA), four Title-One schools from Cobb County, with 90+% students on free or reduced lunch, participated in water quality and stewardship education. Students received three sessions, one at CRNRA and two in the classroom. The grant covered the transportation costs to bus students to the park for a day of lessons at the Chattahoochee River. We are exploring alternate funding for the 2015-2016 school year and anticipate serving another 300+ students.





Brooke & Branch Puppet Show 5,465 participants
 Brooke is a little girl who goes on a big adventure! Join her as she learns about water quality and biodiversity from the friends she meets along the way. This program emphasizes ecological concepts and vocabulary in a fun and engaging way while demonstrating how we can help the environment.

Homeschool Science Series 57 participants
 WSP continues offering programming for local homeschool students. Free to participants, students learn about local stream ecology and benthic macroinvertebrates. Sessions include both classroom and field experiences.

Traveling Treasure Trunk 18 participating schools
 A collection of water and nature resources including books, field guides, games, music, and videos. The trunk is loaned to K-5 classrooms for three week periods.

Other Shared Resources 19 participating schools
 Our program loans educational resources to teachers for use in their classroom, including water testing kits, nets, curriculum activities, preserved insect specimens, the Our Shared Forest Science Night Kit, and Enviroscape tabletop models.

Children’s Water Festival 410 participants
 On May 5th, 4th graders from Blackwell Elementary, along with students from three other school districts, participated in this annual event. It was held in partnership with other local governments, Metro N. GA Water Planning District, and the National Park Service at the Chattahoochee River National Recreation Area. Participants attended several hands-on water education sessions including topics on local wildlife and conservation, pollution prevention, water source and distribution, and FOG.

Green Schools
31 schools, 596 classrooms
 Cobb’s Green School Initiative continues to draw interest and provide encouragement for teachers to integrate environmental education activities into their classrooms. Those that participate, complete, and log five EE activities are recognized as Green Classrooms. When five teachers in a school participate, the school is recognized as a Green School. In 2014-2015, 22 schools achieved Gold Status (15 or more Green Classrooms) and 54 more classrooms participated in the program.



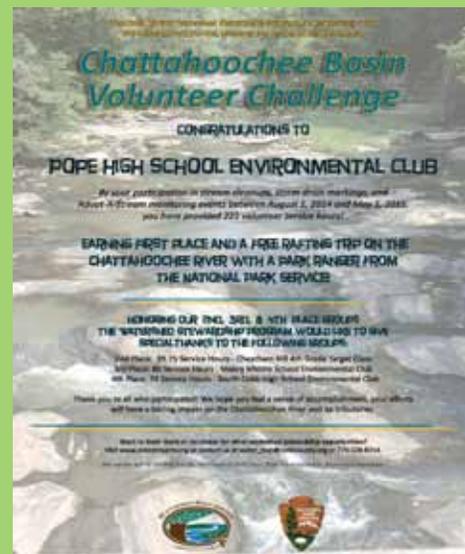
Professional Development for Educators
131 participants
 Staff continues to facilitate education opportunities for teachers. In addition to our routine efforts, during the summer of 2014, we facilitated a special program in partnership with Georgia River Network, National Park Service, and Captain Planet Foundation to bring 12 formal educators on the week-long Paddle Georgia trip exploring the Chattahoochee River.

- Life Is A River
- Monarchs In The Classroom
- Project WET
- Cobb County Science Preservice Workshops
- Empowering Educators to Paddle GA with Students

UPDATE ON RESOURCE DEVELOPMENT

Chattahoochee Basin Volunteer Challenge

In exploring new volunteer engagement strategies, this year we partnered with National Park Service to incentivize service project participation. We asked groups to register for the event and the group with the most service hours at the end of the school year would receive a free ranger-led rafting trip. Six groups registered to compete: one elementary school class, two middle school clubs, two high school clubs, and one HOA. Participants reported over 500 service hours. We are pleased with the response and hope to continue offering the *Chattahoochee Challenge*.



Water and Wastewater 101 Implementation

In addition to displaying our water and wastewater education materials at public events, the new fact sheet is now being distributed in the community with storm drain marking education materials. We also developed a two-part video for *Eco-Logical...Tips to Reduce Your Footprint* focused on this content.

Household Hazardous Waste Reduction

CCWS has allocated funding to organize, in partnership with Keep Cobb Beautiful Cobb's first HHW Amnesty Day. We are in the process of finalizing logistics for the event to be held mid-July 2015.

Cobb County Pollinator Week Celebration

June 2014 was the first year we organized community education specifically during National Pollinator Week. Activities included facilitating a Monarchs In The Classroom educator workshop, broadcasting a butterfly documentary on Cobb TV23, developing pollinator gardening tip videos, and hosting a family pollinator day at our Wildlife and Rain Garden. These efforts were organized in partnership with Cooperative Extension and Cobb Parks. We plan to continue similar programming in 2015, adding NRSC as a partner.

Wildlife and Rain Garden Demonstration Site

We continue developing the garden as an education resource, installing new plantings, creating informational displays, designing interpretive programs, and recruiting volunteers to assist with our educational efforts. Ongoing relations with Cobb County Master Gardeners remain strong with volunteers continuing to assist with site maintenance. We are in the process of completing development of interpretive signage which is being purchased from grant funds received from Royal Bank of Canada.

Newsletter and www.cobbstreams.org

Four issues of the quarterly newsletter, *The Thalweg*, were published this year. Approximately 2,000 paper and more than 4,300 electronic issues were distributed to our local contacts. The Watershed Stewardship website provides education and promotional information to the community and averages approximately 22,000 hits per month. We are in the process of converting the site to a content management system and are using this opportunity to re-design the organization and update the content. We hope to launch the new and improved site later this year.

Watershed Profiles and Signage

The watershed profile project, creating documents that provide history, statistics, and points of interest for the major watersheds in Cobb County, is under development. We continue working with Cobb County DOT to install watershed and stream name signage at Adopt-A-Stream locations across the county. Volunteer groups are identified on separate blades at each location.

COMMUNITY CONNECTIONS

As active practitioners in Georgia's environmental education community, the Watershed Stewardship Program partners with many organizations and staff serves on numerous boards and committees. These activities enrich local program offerings and ensure Cobb County remains engaged with other water and environmental professionals.

Boards, Committees, Leadership Roles

- Cooperative Extension - Cobb County Office: Green Industry Advisory Board
- Environmental Education Alliance of Georgia: Executive Committee, Advisory Council Chair
- Georgia Association of Water Professionals: Public Education Committee Vice Chair
- Georgia No Child Left Inside Coalition: Member
- Metro North Georgia Water Planning District: Education Technical Coordinating Committee
- Monarchs Across Georgia: Steering Committee Member
- Rivers Alive: Advisory Board, Education and Messaging Committee
- Council of Outdoor Learning: Steering Committee
- Georgia Adopt-A-Stream: Coordinator, Technical Advisor
- Southeast Environmental Education Alliance: Secretary

Partnerships

- Georgia EPD Outreach Unit
- National Park Service
- Georgia Association of Water Professionals
- Environmental Education Alliance of Georgia
- Georgia River Network
- Captain Planet Foundation
- Metro North Georgia Water Planning District
- Cobb County DOT
- Cobb County School System
- Cobb County Health Department
- Cobb County Parks, Recreation & Cultural Affairs
- Keep Cobb Beautiful
- Keep America Beautiful
- City of Roswell
- City of Atlanta
- City of Marietta - Marietta Water, Keep Marietta Beautiful
- City of Smyrna - Keep Smyrna Beautiful
- DeKalb County
- Fulton County
- Gwinnett County
- Marietta City Schools
- UGA Cooperative Extension
- Cobb County Master Gardeners
- Coca-Cola Bottling Company
- Vickery Hardware
- Emory University
- Kennesaw State University
- Sierra Club Cobb Centennial Group
- State Botanical Gardens of Georgia
- RBC (Royal Bank of Canada)
- Georgia Southern University

Program History

2015

- Watershed Stewardship Program (WSP) staff receives New Trainer of the Year Award from EPD.
- WSP Volunteers (Fairfax Consulting Services) receives Excellence in Data Collection Award.
- WSP recognizes Fairfax Consulting Services as Monitoring Group of the Year.
- WSP recognizes Chattahoochee River National Recreation Area as Partner of the Year.
- WSP recognizes Daughters of the American Revolution Fielding Lewis Chapter as the Stewards of the Year.

2014

- Cobb County Water System (CCWS) receives 2014 Public Education Best Direct media Award for *The Thalweg* from Georgia Association of Water Professionals (GAWP).
- WSP receives Watershed Award from EPD.
- WSP staff receives New Trainer of the Year Award from EPD.
- WSP receives Rivers Alive Club Award from EPD.
- WSP Volunteer (Ina Allison) receives Excellence in Data Collection Award.
- WSP Volunteers (Pope High School) receives Nymph Award.
- WSP recognizes Ina Allison as Volunteer of the Year.
- WSP recognizes Kennesaw State University School of Art and Design as Partner of the Year.
- WSP recognizes Pope High as School of the Year.

2013

- WSP in partnership with KCB receives a \$2000 grant for our Cigarette Litter Prevention.
- WSP Volunteer (Morning Washburn) receives AAS in Action Award.
- WSP Volunteer Group (Sierra Club Centennial Group) receives Extraordinary Volunteer Watershed Effort Award.
- WSP recognizes Simon Locke as Volunteer of the Year.
- WSP recognizes David Zanstra and Ric & Sharon Donato as Monitoring Group of the Year.
- WSP recognizes Lassiter High as School of the Year.

2012

- CCWS receives 2012 Public Education Innovative Initiative Program Award for *Eco-Logical...Tips to Reduce Your Footprint* program from GAWP.
- WSP Volunteer (Eric Lee) receives Excellence in Data Collection Award.
- WSP Volunteer (Cheryl Ashley-Serafine – Nicholson Elementary School) receives Adopt-A-Stream in Action Award.
- WSP recognizes Carla Loosier as Community Organizer of the Year.
- WSP recognizes Eric Lee as AAS Volunteer of the Year.
- WSP recognizes Nicholson Elementary as School of the Year.
- WSP recognizes Diane Powell as Rain and Wildlife Garden Volunteer of the Year.
- WSP staff serves as President of Environmental Education Alliance of Georgia (EEA).

2011

- WSP staff is expanded to include additional part-time Program Assistants to perform the Brooke and Branch Puppet Show.
- WSP receives Watershed Award from GA Environmental Protection Division (EPD).
- WSP Volunteer (Connie Ghosh - McCleskey Middle School) receives Red Flag Award.
- WSP recognizes Amy Boggs as Community Organizer of the Year.
- WSP recognizes Pam Subalusky AAS Volunteer of the Year.
- WSP recognizes Tritt Elementary as School of the Year.
- WSP staff serves as President of EEA.
- WSP staff receives Volunteer Service Award from EEA.
- WSP receives \$5000 grant from Royal Bank of Canada for the Demonstration Rain Garden.

2010

- WSP receives Adopt-A-Stream in Action Award from EPD for the Brooke & Branch Puppet Show.
- WSP staff receives Georgia Project WET 2009 Facilitator of the Year.
- WSP recognizes The Donnelly Family as Storm Drain Markers of the Year.
- WSP recognizes Ric and Sharon Donato as Anuran Monitors of the Year.
- WSP recognizes Terri Tornroos as AAS Volunteer of the Year.
- WSP recognizes Walton High as School of the Year.

2009

- WSP staff recognized by Cobb County Board of Commissioners for Excellence in Customer Service.
- WSP Volunteers (Tim Phillips and Stacey Haire) receives Excellence in Data Collection Award.
- WSP staff receives 2008 Monarch Across GA Service Award.
- WSP recognizes Girl Scout Troop 21 as Storm Drain Markers of the Year.
- WSP recognizes Connie Ghosh as Anuran Monitor of the Year.
- WSP recognizes Tim Phillips and Stacey Haire as AAS Volunteers of the Year.

2008

- WSP receives Watershed Award from EPD.
- WSP Volunteer (Didi Johnson) receives Outstanding Outreach and Partnership Award.
- WSP staff receives Teaching Conservation Facilitator of the Year from GA Conservancy.
- WSP staff recognized by Rivers Alive for Most Cleanups Attended.
- WSP recognizes Didi Johnson as AAS Volunteer of the Year.

2007

- WSP staff is expanded to include a part-time Program Assistant.
- Cobb Adopt-A-Stream Program (AAS) changes name to Watershed Stewardship Program.
- AAS receives Adopt-A-Stream in Action Award, for Our Color Your Watershed Mural Grant Program from EPD.
- AAS Volunteer (Judy Cox - Dodgen Middle School) receives & Outstanding Outreach Award.
- WSP recognizes Judy Cox as AAS Volunteer of the Year.

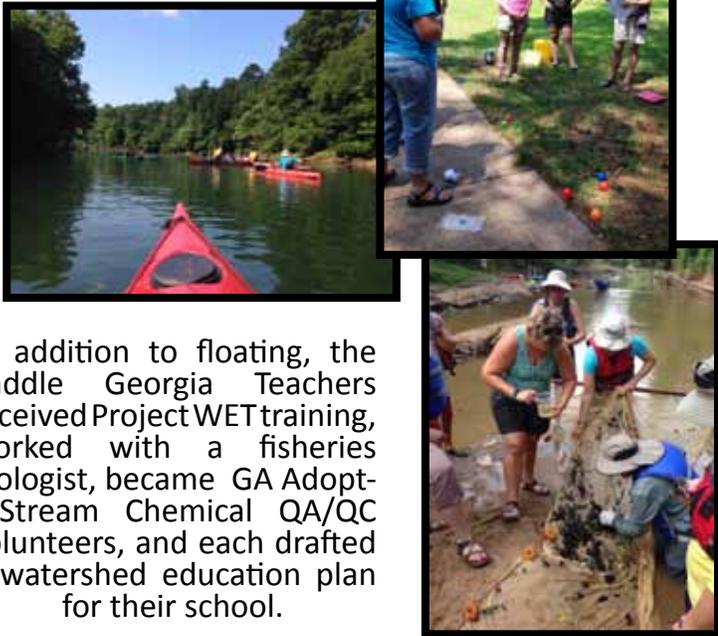
2006-2001

- Demonstration Rain Garden is certified as a Back Yard Wildlife Habitat, a Monarch Waystation, and a Pollinator Garden.
- AAS staff is expanded to two full-time employees.
- AAS receives Rivers Alive: Outstanding Large Cleanup Award.
- Demonstration Rain Garden is installed.
- AAS receives Watershed Award from EPD.
- AAS Volunteer (Greg Linton) receives Excellence in Data Collection Award.
- AAS receives Outstanding Outreach and Partnership Award from EPD.
- AAS Program is launched.
- CCWS receives Public Education Award from GA Assoc. of Water Professionals (GAWP) - 2002 & 2006.
- Cobb Adopt-A-Stream (AAS) Program Coordinator is hired.

REFLECTIONS



Several education programs and stewardship projects were facilitated. Activities included teacher trainings, invasive plant removal, natural history, local wildlife, and water quality.



In addition to floating, the Paddle Georgia Teachers received Project WET training, worked with a fisheries biologist, became GA Adopt-A-Stream Chemical QA/QC volunteers, and each drafted a watershed education plan for their school.

Three groups were recognized locally this year at our Watershed Stewardship Fair. In addition, GA Adopt-A-Stream selected one of Cobb's monitoring groups for state-wide recognition for their efforts.



We continue to facilitate monthly Adopt-A-Stream workshops as well as work one-on-one with volunteers to support their monitoring projects.



2015 Children's Water Festival
Approximately 400 kids,
including Cobb students
from Blackwell Elementary,
participated in our annual
water celebration at the
Chattahoochee River.



THANK YOU

The Watershed Stewardship Program would like to thank our volunteers and supporters:

April Adams
Jo Adang
Ina Allison
George Aycock
Seirisse Baker
Delon Barfuss
Pam Barker
Israel Baryeshua
Brett Bass
Rick Bauer
Carla Bell
Steve and Linda Bell
Bill Blythe
Robert Bourne
Angie Bolton
David Bridges
Sally Brooking
Roger Buerki
Paige Bushart
Sharon Camp
JJ Campbell
Melissa Carlsen
Amy Chambers
Jamie Cint
Annette Clark
Carmen Cantero
Richard and Nancy Cole
Matt Cone
Joe Cook
Ryan Coover
Cheri Craft
Sally Creel
Stacy Cromer
Vicki Culbreth
Alan and Rita Cyrier
Steve Dark
Elizabeth Davis
Gretchen Davis
Jaap DeRoode
Ric and Sharon Donato
Cindy Driemeyer
Jeremy Eaves
Joan Ellars
Katey Evans
Nancy Ernestes
Norm Fagge
Karen Faucett
Jennifer Farace
Dolly Fehd
Erin Feichtner
Martha Figg
Cynthia Foster
Rita Furness
Denise Gadd
Mitzy Gann

Sharika Gavin
Sylvia Gerbovaz
Connie Ghosh
Alicia Giddens
Frank Gipson
Katherine and Trevor Green
Nekeshia Griffin
Amy Gutierrez
Kristina Ha
Stacey Haire
Phillip Hannaford
Terrilyn Hannah
Harold Harbert
Nicole Harrison
Bill Higgins
Jerry Hightower
Rick Hitchcock
Jeff Hite
Kevin Hill
Nancy Hoalst-Pullen
Kim Holland
Misty Holm
Chelsea Hopkins
John Huth
April Ingle
Ken Jacob
Carmen Johnson
Eric Johnson
Judy Jones
Rebecca Kapala
Monica Kilpatrick
Anne Kirk
Julie Knight
Chet Kolakowski
Jennifer and Daniel Kunz
Donna Leavall
Jesse LeBoeuf
Anne Ledbetter
Eric Lee
Judith Lee
Renaee Lemon
Simon and Patti Locke
Carla Loosier
Judy Madonia
Maria Maldonado
Linda May
Jason McCoy
Steve McCullers
Seth Meador
LaToi Mercer
Jennifer Mercure
Susan Meyers
Heather Moody
Lois and Nancy Morrison
Tamera Neal

Jessica Neely
Connie Nelson
Leslie Nelson
Steve Nestor
Travis Neumuller
Kathy Nguyen
Carina O'Bara
Michael O'Shield
William Ostrozynski
Isabel Ott
Myles Parker
Mark Patterson
Sabrina Pemberton-Piper
Tim Phillips
Ed Plansker
Brad Plumley
Cornelius Pope
Diane Powell
David Price
Marvin Richards
Teresa Roby
Miguel Angel Sanchez
Kim Sanders
Nikeya Savala
Daryl Sawyer
Charles Scott
Pradip Shah
Steve Shelton
Anne Shenk
John Shimmin
Annette Simpson
Rusty Simpson
Dana Skelton
Dennis Smith
Kevin Smith
Robert Smith
Sharon Smith
Anne Stahley
Jamie Stones
Pam Subalusky
Adam Sukenick
Allison Sweetman
Cornelius Tarver
Dave Thomas
Jennifer Thomas
Marjorie Thomas
Susie Throop
Christina Trumble
C.J. Turner
David Tyler
Timmy Vaughn
Amy Warnock
Morning Washburn
Jzsanettae Webster
Debra Whatley

Michael Williams
Jeanine Whitmire
Kaye Wilson
Jeff Wix
Karan Wood
David Zandstra

**... And to anyone
we inadvertently
forgot!**

OUR TEAM

The Watershed Stewardship Program is housed in the Water Quality Laboratory of the Cobb County Water System's Environmental Compliance Division.

Jennifer McCoy, Program Coordinator

Jennifer has worked for Cobb County since 2000 as an environmental educator and as an environmental compliance inspector. Her work as a naturalist at a nature center, an instructor at a science museum, and a biologist for an environmental consultant contributes over 15 years of professional experience to our program.

Education:

Master of Public Administration, Kennesaw State University, 2011
Master of Science (Ecological Teaching & Learning), Lesley University, 2007
Certificate (Geographic Information Systems), Kennesaw State University, 2000
Bachelor of Science (Biology), Kennesaw State University, 1997

Facilitator Certifications: Project WET, Project Learning Tree, Project Wild, Monarchs in the Classroom, Leopold Education Project, Native Waters, Native Seasons, Biodiversity Basics, Healthy Water Healthy People, Adopt-A-Stream Chemical/Macroinvertebrate/Bacteria Trainer

Mike Kahle, Environmental Programs Specialist

Mike joined our team in October 2011 as a part-time educator. He previously worked as program coordinator with The Nature Conservancy and as a naturalist with the Orange County Department of Education in California and Chattahoochee Nature Center.

Education:

Bachelor of Science (Geography), University of Nevada, 2008

Facilitator Certifications: Project WET, Project Wild, Project Learning Tree, Adopt-A-Stream Chemical/Macroinvertebrate/Bacteria Trainer

Coral Bass, Environmental Programs Specialist

Coral was hired in March 2015. Most recently she worked as a volunteer coordinator with Gwinnett County's Environmental and Heritage Center. Prior experience includes working as an environmental educator, ranger, and peace corp volunteer.

Education:

Bachelor of Arts (Environmental Studies), Eckerd College, 2006

Facilitator Certifications: Adopt-A-Stream Chemical/Macroinvertebrate Trainer

Lori Watterson, Program Assistant

Lori joined our team in July 2012 as an educator performing our water quality puppet show. She has worked as a community education coordinator for Pine Jog EE Center in West Palm Beach, a fisheries biologist for Florida DNR, and as a naturalist at Chattahoochee Nature Center.

Education:

Bachelor of Arts (Zoology), University of South Florida, 1982

Facilitator Certifications: Adopt-A-Stream Chemical/Macroinvertebrate/Bacteria Trainer, Master Naturalist, Certified Interpretive Guide

Penny Costanzo, Program Assistant

Penny came to WSP in January 2015. She has been an environmental educator and professional actress for over thirty years, having taught at the Harvard University Zoology Museum and for Young Audiences, an arts in education program.

Education:

Master of Education (Elementary), Tufts University, 1975
Bachelor of Arts (English), Kenyon College, 1974

Facilitator Certifications: Master Naturalist, Brain Education Teacher/Trainer, Dahn Yoga Master

Cobb County Water System
Watershed Stewardship Program
662 South Cobb Drive
Marietta, Georgia 30060

This is an official publication of the Cobb County Water System, an agency of the Cobb County Board of Commissioners.



Connecting Community to Local Ecology
www.cobbstreams.org

Cobb County Watershed Stewardship is funded through the Cobb County Board of Commissioners, available grant programs, and sponsors.



Cobb County...Expect the Best!

Tim Lee, Chairman

Bob Weatherford, District One

Bob Ott, District Two

JoAnn Birrell, District Three

Lisa Cupid, District Four

David Hankerson, County Manager

June 2015