



2010-2011 Annual Report

Cobb County's Watershed Stewardship Program (CCWSP) is a part of Cobb County Government's effort to educate residents of Cobb County with respect to various issues related to improving the quality of life for ourselves and future generations. Specifically, the CCWSP is a portion of the Cobb County Water System's initiative to increase awareness of ecological concerns and provide guidance that will assist customers in behaving in an environmentally conscientious manner.

Vision

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

Mission

CCWSP promotes respect for our environment by educating the community about the connection between behavior and water quality.

Message From Program Staff

2010-2011 has been a year of great change and transition. Cobb's 2010 retirement incentive program resulted in several key staff members leaving the organization including Steve Shelton, our Water Quality Laboratory Superintendent. Additionally, the Water System implemented a reorganization plan, creating a new division called Environmental Compliance under the leadership of Steve Nestor. Although our office moved, our program is still physically housed in the Water Quality Laboratory and though we continue to work closely with the programs and staff managed by the Environmental Compliance Manager, Robert Bourne, we now report directly to the new Water Quality Laboratory Superintendent, Alicia Giddens.

In addition to working closely with our new managers, we are adapting to a challenging economic environment, one requiring careful and measured use of County funds and resources. We appreciate the patience and understanding of our volunteers and community participants as we navigate these new waters. We also experienced significant staff turnover this year, with Catherine (in December) and Vicki (in April) resigning to pursue promotions with other local governments. We will greatly miss their knowledge, skills, and abilities, and are happy that they were given the opportunity to grow their careers.

Fortunately, we have recently recruited an experienced educator to fill Catherine's position. Rachel Small joined us in April and brings fresh ideas and energy to our program. We will be introducing Rachel to our volunteers and partners over the coming months and exploring ways to better serve the needs of our community while adjusting to our current economic and staffing challenges. While we will strive to provide the tools and training participants need to implement watershed stewardship projects, please recognize that our capacity to fulfill requests may be limited. Thank you for your continued support and service as we work through these challenges.

The Cobb County Watershed Stewardship Program

Report Summary

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 Georgia Environmental Protection Division.

This annual report summarizes the efforts made to educate Cobb's community about the issues impacting local water quality, to foster good habits and responsible behavior, and to promote an ethic of appreciation for and connection to our natural resources.

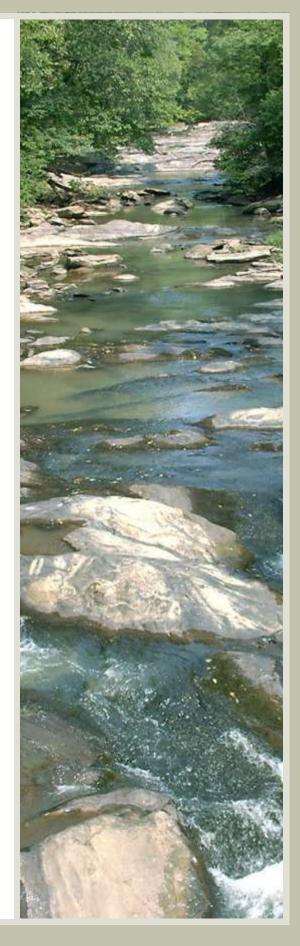
Milestones for 2010-2011 include being recognized by Georgia Adopt-A-Stream as the "most outstanding local program", receiving their Watershed Award, adopting 14 new volunteer stream monitoring sites, distributing over 940 storm drain markers to groups for installation, and reaching 18 new schools.

During the 2010-2011 reporting year, 8183 community members participated in the Watershed Stewardship Program.

Volunteer Programs:
986 participants,
597 training hours,
3971 volunteer service hours

Community Programs: 1631 participants, 77 hours

School Programs: 5566 students, 149 hours



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 2010-2011 reporting year, we estimate the value of Cobb's volunteer watershed stewards to be approximately \$82,800.

Volunteer Opportunities

Adopt-A-Stream Chemical Monitoring

210 volunteers trained, 324 monitoring events, 2103 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 Biological Monitoring

32 volunteers trained, 16 monitoring events, 96 service hours

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

Adopt-A-Stream Bacteria Monitoring

20 volunteers trained, 88 monitoring events, 88 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.

Anuran Monitoring

6 active volunteer groups, 89 monitoring events, 79 service hours

Cobb County residents are learning to identify frog and toad vocalizations and recording their observations to collect data on local amphibian populations. After attending training and identifying a monitoring route, participants take an evening walk and complete a frog call survey once a week.

Waterway Clean-ups

230 volunteer participants, 8 events, 695 service hours

Cobb County asks residents to help clean up 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.

Storm Drain Marking

394 volunteer participants, 33 events, 645 service hours

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 our roads will wash into our 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

44 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. In March, 2010 Watershed Stewardship Awards were presented for the School of the Year, Volunteer of the Year, and Community Event Organizer of the Year.

River Rendezvous

50 participants, 265 service hours (two events*)

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*, and turbidity. The results are shared on GA Adopt-A-**Stream's** online database. This provides a comprehensive look at the Rottenwood Creek Watershed. *Due to rain in May 2010, the event was postponed until July 2010.



Watershed Stewardship Projects - Chattahoochee

| WATERSHED | GROUP | # SITES | YEAR INITIATED | ACTI VI TY TYPE |
|----------------------|--|---------|-------------------|--------------------|
| Mulberry Creek | Friends of Mulberry Creek | 2 | 2003 | CH, BAC, SD |
| Nickajack Creek | Benton MacKaye Trail Association | 1 | 2010 | СН |
| Nickajack Creek | Nile Livingston | 1 | 2010 | CH, BAC |
| Nickajack Creek | Keep Smyrna Beautiful | 4 | 2010 | CH, BAC |
| Nickajack Creek | Rotary Club of East Cobb | 2 | 2010 | SD |
| Nickajack Creek | Campbell Middle School | 1 | 2011 | SD |
| Nickajack Creek | SW Austell Neighbors | 2 | 2010 | SD |
| Noses Creek | Walker School | 1 | 2007 | CH, CL |
| Noses Creek | JVH | 1 | 2009 | CH, BAC |
| Noses Creek | Girl Scout Troop 2068 | 1 | 2010 | SD |
| Noses Creek | AndersonFarmNoses | 1 | 2011 | СН |
| Powder Springs Creek | Fairfax Consulting Group | 1 | 2010 | CH, BAC |
| Powder Springs Creek | Girl Scout Troop 25255 | 2 | 2010 | SD |
| Olley Creek | Clarkdale Elementary/Cooper Middle PTA | 1 | 2010 | CL |
| Rottenwood Creek | Sierra Club Centennial Group | 3 | 2004 | CH, BIO, BAC, CL |
| Rottenwood Creek | MCAA Rockets | 2 | 2007 | CH, CL |
| Rottenwood Creek | Water Quality Laboratory | 1 | 2009 | CL |
| Rottenwood Creek | Keep Smyrna Beautiful | 2 | 2011 | CH, BAC |
| Rottenwood Creek | InfoMart | 1 | 2011 | CL |
| Sewell Mill Creek | Dodgen Middle School | 8 | 2002 | CH, BIO |
| Sewell Mill Creek | Boy Scout Troop 955 | 1 | 2004 | СН |
| Sewell Mill Creek | Sumter Lake | 1 | 2006 | CH, BAC |
| Sewell Mill Creek | Walton High School APES | 1 | 2006 | CH, BAC |
| Sewell Mill Creek | Isabel Ott | 1 | 2008 | СН |
| Sewell Mill Creek | Brian Duke | 2 | 2008 | СН |
| Sewell Mill Creek | Misty Forest Maniacs | 1 | 2011 | СН |
| Sewell Mill Creek | Dale Moller | 2 | 2010 | SD |
| Sope Creek | Friends of Gable Creek | 1 | 2009 | СН |
| Sope Creek | Walton High School Environmental Club | 1 | 1995 | CH, BAC |
| Sope Creek | Water Guardians | 1 | 2010 | CH, BAC |
| Sope Creek | Girl Scout Troop 2583 | 1 | 2011 | SD |
| Sope Creek | Girl Scout Troop 28289 | 2 | 2011 | SD |
| Sope Creek | Steve Shelton | 1 | 2008 | AN |
| Ward Creek | Riverstone Middle School | 1 | 2008 | CH, BIO |
| Ward Creek | Girl Scout Troop 2443 | 1 | 2010 | SD |

| Willeo Creek | Willeo Watershed Alliance of Loch Highland | 1 | 2001 | СН |
|--------------|--|---|------|-----------------|
| Willeo Creek | Higgins Family | 1 | 2003 | СН |
| Willeo Creek | Tritt River Kids | 1 | 2004 | CH, BIO, SD, CL |
| Willeo Creek | Bishop Lake | 7 | 2008 | СН |
| Willeo Creek | Connie Ghosh | 1 | 2008 | AN |
| Willeo Creek | Clary Lakes | 1 | 2010 | СН |
| Willeo Creek | Girl Scout Troop 2914 | 1 | 2010 | SD |

Watershed Stewardship Projects - Etowah

| WATERSHED | GROUP | # SITES | YEAR I NI TI ATED | ACTI VI TY TYPE |
|----------------------|---|---------|----------------------|--------------------|
| Allatoona Creek | Kahle | 1 | 2010 | CH, BAC |
| Allatoona Creek | Girl Scout Troop 2443 | 1 | 2010 | SD |
| Butler Creek | Butler Creek Kennesaw | 1 | 2009 | СН |
| Little Noonday Creek | Brownie Troop 2280 | 1 | 2011 | SD |
| Noonday Creek | Chestnut Hill Subdivision | 1 | 2009 | CH, SD, CL |
| Noonday Creek | Barfuss | 1 | 2007 | AN |
| Noonday Creek | Friends of Noonday Creek | 2 | 2011 | CH, BAC, AN |
| Proctor Creek | North Cobb High School SAVE Club | 1 | 2008 | CH, BIO |
| Rubes Creek | McCleskey Middle School | 1 | 2006 | CH, BIO, BAC |
| Rubes Creek | Nicholson Target Stars | 1 | 2006 | CH, BIO, AN |
| Rubes Creek | David Zandstra | 1 | 2008 | CH, BAC |
| Rubes Creek | Emerson Universalist Unitarian Congregation | 1 | 2008 | СН |
| Rubes Creek | Ric & Sharon Donato | 1 | 2009 | AN |
| Rubes Creek | Keheley Elementary School | 2 | 2004 | CH, CL |
| Rubes Creek | Girl Scouts Troop 2529 | 1 | 2010 | SD |
| Rubes Creek | Mabry Middle School | 1 | 2010 | CL |
| Rubes Creek | Girl Scout Troop 2910 | 1 | 2010 | CH, SD |
| Rubes Creek | Gleichweit Family | 1 | 2010 | SD |

Activity Type Key

CH Adopt-A-Stream Chemical Monitoring
BIO Adopt-A-Stream Biological Monitoring
BAC Adopt-A-Stream Bacteria Monitoring

AN Anuran Monitoring SD Storm Drain Marking

CL Cleanup



Community Ecology Programs

Rain Barrel Make & Takes

86 participants

Urban runoff is one of the hardest sources of stream pollution to control. It can cause bank erosion, siltation and contamination of the water. Harvesting rain water from the roof of buildings is an initiative to help curb the problem. In this workshop, participants build their own 55-gallon barrel (donated by Coca-Cola Bottling), using power tools and provided supplies. The water collected from the gutters can then be used to water plants while preventing non-point source pollution and saving potable water.

Household Hazardous Waste Reduction and Medication Disposal

563 participants + drugs from 800 households

Several efforts have been developed to educate Cobb residents on hazards in the home. HHW workshop participants learn about chemical labels and less harmful alternative cleaners. A residential FOG education campaign targeting youth was developed in winter 2010 and launched in spring 2011 to encourage proper disposal of food wastes. Participants engage in a relay race, scraping FOG and leftovers into the kitchen trash. The lesson was distributed to colleagues and implemented at the Children's Water Festival with approximately 500 4th grade students. Pharmaceutical Disposal Events were organized by Keep Cobb Beautiful to remove these hazards from the home and educate about the problems associated with flushing these products into the sewer system.

Library Programs

388 participants

As in previous years, the WSP partnered with Cobb libraries for their Summer Reading Program. During the summer of 2010, WSP staff presented the Brooke & Branch Puppet Show at 6 libraries. In addition to the show, children were encouraged to share their own experiences with nature and water, as well as express their creativity by making their own puppets. We also presented a nonpoint source pollution program at 6 libraries, demonstrating the *Enviroscape*, marking a storm drain at the site, and storytelling.

Parks Programs

252 participants

WSP partnered with Cobb County Parks, Recreation, & Cultural Affairs to offer the Outdoor Romping & Creek Stomping Summer Series for kids and families. The four sessions included a wetland walks, a stream study and critter search, wild about wildlife, and a family scavenger hunt.







Scout Programs 249 participants

Girl Scout and Boy Scout groups often participate in WSP led activities to earn badges and obtain service hours. In addition to the scout groups that participate in Adopt-A-Stream monitoring, storm drain marking, and waterway cleanups, we also participate in special events, such as the April 2011 Earth Day Festival.

Conference/Professional Presentations

632 participants

Staff routinely present at conferences and during professional development seminars. During the 2010-2011 reporting year, we presented at several events including the Georgia River Network Conference, Environmental Education Alliance of Georgia's Annual Conference, Outdoor Classroom Symposium, and for various Cobb County School System's teachers development meetings and community organization meetings including Keep Cobb Beautiful.

Special Topics—Trees

24 participants

Two workshops, Tree ID and a hands-on Pruning how-to session, were facilitated in the fall of 2010. The first, was a nature walk along the riparian corridor of the Chattahoochee River. Local natives were identified and the importance of maintaining a healthy buffer was discussed. The second session was a practice workshop that allowed participants to practice their newly learned pruning skills on some neglected CCWS trees. Participants learned about proper landscape management and tree care.



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 2010-2011 school year, our programs reached 50 schools, serving 247 classrooms. We estimate the value of this service to be approximately \$20,000.

Ecoregions of Georgia

532 participants

Georgia is ranked 6th in the nation in overall species diversity, partially due to our five distinctive ecoregions! Learn how these very distinctive regions were formed and natural history facts about the state we live in. This program explores how our geographical topography contributes to our biological diversity.

What is a Watershed?

468 participants

During this lesson on watersheds and sources of pollution, students learn about local water quality issues. Using an interactive watershed model, participants demonstrate pollution impacts on streams and lakes. This activity reveals to students how every day activities can affect our drinking water.

Slithery Snake Study

68 participants

Take a closer look at one of nature's most misunderstood animals. How do they move with no arms or legs? Is it true that the only good snake is a dead snake? Which species in Georgia are venomous and how can you tell? And most importantly, how do they benefit our ecosystem?

River to River - A Water Story

135 participants

Where does our drinking water come from? What happens to our water after we use it? After you flush, it doesn't just go away. Using a tabletop model, this program takes students through the process of drinking water treatment and wastewater treatment to understand the steps taken to clean our water. Follow this program with a trip to the wastewater treatment plant.

Wild in the Watershed

200 participants

Why is a bird a bird, and how are reptiles different from amphibians? Are there mammals that lay eggs? Learn about animal groups and classification by examining animal artifacts, such as skins and bones.

Water Molecules in Motion

149 participants

What makes water... well, water? How do you know if a clear liquid is water? Learn about the physical properties of our most precious resource through a series of activities and demonstrations.

Macroinvertebrate Lab

40 participants

You can assess water quality and stream habitat by surveying the life in a stream. 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.

Erosion & The Hydrologic Cycle

135 participants

Study the causes and effects of erosion through visual models and activities. How have erosion and deposition helped to construct Earth's various landforms? How have humans impacted this natural process, and what can we do to mitigate the consequences? This class can be extended into a two part session, with the second session focusing on how water moves through the earth to reach the aguifers under the surface.

Water Chemistry Study

163 participants

Learn to collect water samples and perform water quality experiments including dissolved oxygen, pH, temperature, and conductivity. This hands-on chemistry experiment not only demonstrates how we monitor our water, but can also incorporate the scientific method and data collection protocol. This program is highly recommended as a pre-activity to a water monitoring field trip. Data collected from monitoring groups will be entered into the Georgia Adopt-A-Stream statewide database.

Water Cycle

55 participants

Learn about the natural water cycle and how water moves across the globe in different forms including the human components of the water cycle, such as drinking water and recreation.



Life Cycles 125 participants

Some animals and plants have their own unique life cycles. Explore how a butterfly, dragonfly, frog, and tree grow from a tiny egg or seed into an adult through the use of specimens and artifacts.

Wonderful Watery Wetlands

68 participants

What are those muddy, yucky wetlands good for anyway? What kinds of animals and plants live in wetlands? Through an interactive tabletop model, students learn how wetlands play a very important role in water quality, flood prevention, and ecological habitat.

Bacteria Monitoring Lab

95 participants

Across the globe, waterborne diseases have become an increasing threat to community health. This program explores different diseases present in the U.S. and in other countries and their impact on environmental health. Students will also have the opportunity to practice laboratory procedures by monitoring their local waterway for *E. coli*, and determining what levels exceed a healthy baseline.

Investigating Urban Habitats

80 participants

Join us at a local park to conduct a nature study about wildlife habitats. Activities may include environmental sampling, journaling, investigating physical characteristics of the site, and a live animal experience.

Monarch Lab (August - October only)

160 participants

Discover the different stages of Monarch development from egg to adult. Uncover exciting facts about their extraordinary natural history, such as their annual migration to Mexico. The Monarch Lab incorporates several stations for hands-on, individual learning.

Anuran Lab (March - May only)

84 participants

Anurans are a special group of amphibians that include frogs and toads. But how do you tell the difference between frogs and toads? What habitats do they live in, why do they call, and how does a tadpole become an adult? Discover all of this as well as what anurans can tell us about our environment.





Brooke & Branch Puppet Show 2532 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.

Traveling Treasure Trunk 13 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.

FOG Program 28 participants

CCWSP developed a new lesson plan to teach students about proper disposal of kitchen scraps and FOG. This lesson was piloted with teachers and students before being launched at the Children's Water Festival and shared with the Metro N. GA Water Planning District.

Other Shared Resources

18 participating schools

CCWSP loans educational resources to teachers for use in their classroom, including water testing kits, nets, boots, curriculum activities, Macroinvertebrate Lab, preserved insect specimens, the Our Shared Forest Science Night Kit, and Enviroscape tabletop models.

Children's Water Festival

500 participants

On May 3rd, 4th graders from Brumby Elementary participated in this annual event held in partnership with other local utilities and the National Park Service at the Chattahoochee River National Recreation Area. Students attended several hands-on water education sessions including topics on pollution prevention, water source and distribution, FOG, and human impacts.

Green Schools

27 schools, 411 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 5 EE activities are recognized as *Green Classrooms*. When 5 teachers in a school participate, the school is recognized as a *Green School*. In 2010-2011, 12 schools achieved Gold Status and 61 more classrooms participated in the program.



91 participants

Professional Development for Educators

- Cool Waters Workshop Project WET & project Learning Tree
- Monarchs In The Classroom
- Leopold Education Project
- Georgia Native Seasons
- Soulful Landscape

Compliance Education Accomplishments

In our Stormwater Compliance Education efforts, we have been successful in reaching the community with our core messages and maintaining the programs previously implemented. We began tracking education material distribution through our inspection staff as well as our education staff. The adjacent table reflects the most widely distributed resources given to the community from our resource library of over fifty stormwater-related titles.

Staff Lunch and Learn Program

Routine sessions were planned to provide employees with opportunities to learn about pollution prevention and water quality. Topics included an update on our South Cobb Tunnel Project, Backflow Prevention, The Water Wars, FOG, and stream bank restoration. For the coming year we plan to continue offering special topics such as Septic Tank Maintenance and modify the program to include a series of short educational videos that can be shared county-wide. Our first topic will be on pets.

Fact Sheets

Three new education publications were developed to address specific water quality issues: detention pond maintenance, pharmaceutical disposal and rain gardens.

Community Partners for Healthy Streams

We elected to suspend the promotion of this program through the 2010-2011 reporting year. Based on staff availability, new program goals will be developed in 2011-2012 for the 2012-2013 reporting year.

Pet Waste Stations and Rain Barrel Demonstration Sites

In addition to continuing maintenance, a GPS inventory will be developed to map the location of all *Pick It Up* stations and Rain Barrel Demonstration Sites in Cobb County.

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 remains strong with volunteers continuing to assist with site maintenance. CCWS hosted their annual plant sale on May 7, 2011. Over 500 participants visited the site and obtained information rain gardens and pollution prevention.

Green Industry Updates

In partnership with Cobb County Cooperative Extension's landscape industry continuing education program, staff continues to participate in the planning of these ongoing sessions and presenting about water quality to professionals working on landscape projects, including providing training on detention pond maintenance.

| Resource | Description | Audience | # Distributed |
|---|--|----------------------|--------------------------------|
| Who To Call Rack Card | Local contact numbers for environmental problems | General Public | 5000+ |
| Pet Waste Tri-fold Brochure | Clean Water Campaign Document | General Public | 5000+ |
| A Healthy Environment Starts at Home Rack Card | A two-sided card focused on pollution prevention for HHW from yard, home improvement, and car care activities. | General Public | 5000+ |
| Stormwater Runoff Fact Sheet English & Spanish | What is the difference between the sanitary sewer and the stormwater sewer system? | General Public | 5000+ |
| FOG Fact Sheet | What is FOG and why should I care? | General Public | 5000+ |
| cobbstreams.org | Watershed Stewardship Program Website | General Public | Average 6000 hits/ month |
| Newsletter: The Thalweg | Community events and ecological articles (4 issues per year). | General Public | 4243 |
| Put the Brakes on Water Pollution | Clean Water Campaign Document | Targeted Industry | 1187 |
| Household Solutions for Preventing Water Pollution from Hazardous Wastes | Clean Water Campaign Document | General Public | 413 |
| What You Should Know About Easements | CCWS Brochure | General Public | 300 |
| Commercial Detention Pond Maintenance | CCWS Newsletter and Pamphlet | Targeted Industry | 140 |



Community Connections

Under Development

Watershed Profiles - formatting as fact sheets, these documents will provide history, statistics, and points of interest for the major watersheds in Cobb County. A template has been developed.

FOG Video - Sewer footage of grease blockages and cleanouts has been obtained and spliced. We are in the process of developing captions to explain the visual. This resource will be used online and in presentations.

Bottled Water Lesson - A GPS-correlated activity comparing tap and bottled water including costs, ecological foot print, drinking water regulations, and consumer choices.

Bookmark - A new stormwater-themed giveaway was developed and is ready for printing when the budget allows.

Stormwater Education Video Series - utilizing the expertise of Cobb's Communication Department, we will be developing a collection of short education films for both staff and the general public. Topic include: Pets, FOG, Outdoor Landscape, Indoor Chemical Use, Rain Gardens, and Detention Ponds. We hope to start production this summer.

Fact Sheet Series - We plan to continue developing our fact sheets (Dumpsters, Storage Tank Labeling, Drum Storage, and Illicit Discharges) to address problems encountered by our inspectors.

Pick It Up Pals - Expanding on our bacteria education efforts, we have proposed the creation of a *Pick It Up Pals Pledge* program that increases pet owner awareness of the pollution problems associated with pet waste by providing recognition and a reward mechanism. Participants will be tracked by watershed and provided with free pet waste bags. Images of participating pets will be published on our website. When funding allows, a *Pick it Up Pals* bandanna will also be given to each pet when the owners signs the *Pick It Up* pledge.

Boards, Committees, Leadership Roles

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

Partnerships

- Georgia Adopt-A-Stream
- Rivers Alive
- GA Project WET
- GA Conservancy
- GA Project WILD
- GA Forestry Association Project Learning Tree
- National Park Service
- Georgia Association of Water Professionals
- Monarchs Across Georgia
- American Rivers
- Council of Outdoor Learning
- Environmental Education Alliance of Georgia
- 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
- City of Kennesaw Smith-Gilbert Gardens
- City of Smyrna Keep Smyrna Beautiful
- City of Roswell
- DeKalb County
- Fulton County
- Marietta Water
- Marietta City Schools
- UGA Cooperative Extension
- Cobb County Master Gardeners
- Coca-Cola Bottling Company
- Vickery Hardware
- Emory University
- Sierra Club Cobb Centennial Group
- State Botanical Gardens of Georgia



Reflections



Teachers tour a wastewater facility and learn from water professionals during the 2010 Cool Waters Workshop.



Youth learn about stream bugs during a summer Program at a local park during our Summer Romping Creek Stomping Series.



Teachers learn about lichen while attending a Georgia Native Seasons educator workshop.



During our River Rendezvous, participants collect water samples and use the shallow water monitoring kit to determine pH, oxygen levels, conductivity, and temperature.

They also collect water for additional evaluation including *E. coli*, turbidity, and solids.



Students learn about stormwater pollution during a watershed lesson at a local park.





Citizens learn about pollinators and the life cycle of insects during a Monarchs In The Classroom workshop.



Park Street Elementary School and Brumby Elementary learning about sewer system maintenance at the Children's Water Festival.



Citizens learn about frog biology during an Anuran Monitoring workshop.



At the summer library programs, families watched the Brooke & Branch Puppet Show and then designed their own puppets to take home.



Students learn how to conduct a Winkler titration during an Adopt-A-Stream Chemical Monitoring session in the classroom.



Citizen volunteers shared their initiatives and efforts during the 2011 Watershed Stewardship Fair.

Program History

| Cobb County Water System starts collecting stream data |
|---|
| Stream Monitoring Program is established |
| Biological Monitoring is added to routine data collection |
| Adopt-A-Stream Program Coordinator is hired |
| Adopt-A-Stream Program is launched Cobb AAS recognized by GA EPD Outstanding Outreach & Partnership Award Cobb County Water System recognized by GW&PCA Outstanding Public Education Award |
| Cobb County Watershed Protection Plan implemented In-house Fish Monitoring is added to data collection |
| Demonstration Rain Garden installed Cobb AAS and citizen volunteer recognized by GA EPD Watershed Award & Excellence in Data Collection Award |
| Adopt-A-Stream staff is expanded to two full-time employees Cobb County recognized by GA Department of Community Affairs Water First Community Cobb AAS recognized by Rivers Alive Outstanding Cleanup, large category (over 200 participants) Cobb AAS Volunteer recognized by GA EPD Red Flag Award |
| Rain Garden Demonstration Site certified Back Yard Wildlife Habitat Monarch Waystation Pollinator Garden Cobb County Water System recognized by GAWP Outstanding Public Education Award |
| |

| WSP staff is expanded to include a part-time Program Assistant Cobb AAS and citizen volunteer recognized by GA EPD Adopt-A-Stream in Action Award (Color Your Watershed Program) Outstanding Outreach Award |
|--|
| Cobb AAS and citizen volunteer recognized by GA EPD Watershed Award Outstanding Outreach & Partnership Award Cobb WSP staff recognized by Georgia Conservancy Teaching Conservation Facilitator of the Year Cobb WSP staff recognized by Rivers Alive Most Cleanups Attended |
| Cobb WSP staff recognized by Cobb County Board of Commissioners Excellence in Customer Service Cobb citizen volunteer recognized by GA EPD Excellence in Data Collection Award Cobb WSP staff recognized by Monarchs Across Georgia 2008 MAG Service Award |
| Cobb AAS recognized by GA EPD Adopt-A-Stream in Action Award (Brooke & Branch Puppet Show) Cobb WSP staff recognized by Georgia Project WET 2009 Facilitator of the Year |
| WSP staff is expanded to include two part-time Puppet Show Assistants Cobb AAS and school volunteer group recognized by GA EPD Watershed Award Red Flag Award Cobb WSP staff recognized by Environmental Education Alliance of GA Volunteer Service Award |
| |

Thank You

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

Jo Adang Laura Aikens Ina Allison Debbie Amodeo Derek Angel Enrest Arvesen Cheryl Ashley-Serafine

Joni Atkinson Lacey Avery Gwen Baldwin Delon Barfuss **Brett Bass** Rick Bauer Michel Belland Terry Bennekou

Tom Bills Becky Blades Robert Bourne Amy Boggs Angie Bolton Lisa Bone Renate Boyer Steve Brady Mihaela Brooks Roger Buerki Dawn Byers **Edward Cammann** Sharon Camp

Jamie Cint

Annette Clark

Ryan Coover

Candice Crawford Sally Creel Janet Dalton Elizabeth Davis Gretchen Davis Jaap DeRoode Sue DeRosa Gloria deVarennes Suzanne Dlugosz Ric & Sharon Donato The Donnelly Family Darcy Douglas Virginia Douglas Brian Duke

Doug Eller

Lisa Ellison

Katey Evans Karen Faucett

Soosan Faulk

Erin Feichtner

Denise Gadd

Jeff Fulton

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The Higgins Family Jerry Hightower

Larry Hill Rick Hitchcock Jeff Hite Kim Holland Barbara Hopper Steve Hopper Kris Hough Allison Hughes John Huth Kimberly Hunt Ken Jacob **Emily Jacobson** Gray Johnson Nick Jokay Judy Jones Mike Kahle

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Stephanie Lewis

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Tina Stoffell

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C.J. Turner David Tyler

Carolyn Pusey Wade Bryan Waggoner Wayne Waldrip Morning Washburn Stephanie Wieder **Hubert Wieland** Debra Whatley Diana Whitlock Michael Williams Jeanine Whitmire Kaye Wilson

... And to anyone we inadvertently forgot!

David Zandstra

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 enables Jennifer to contribute over 10 years of professional experience to our team.

Education:

Master of Public Administration, Kennesaw State University, candidate
Master of Science (Ecological Teaching and Learning), Lesley University, 2007
GIS Certificate, Kennesaw State University, 2000
Bachelor of Science in 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/Biological/Bacteria Trainer

Vicki Culbreth, Program Specialist - resigned April, 2011

Vicki joined Cobb County in 2007 and enjoys working with students and residents in conservation education. Previously, she was a program assistant at the Georgia Environmental Protection Division, an environmental educator and nature center curator in the Blue Ridge Mountains, and interned at Zoo Atlanta and the Gwinnett County Department of Public Utilities.

Education:

Bachelor of Science in Forest Resources (Wildlife), University of Georgia, 2003

Facilitator Certifications: Project WET, Project Learning Tree, Project WILD, Monarchs in the Classroom, Leopold Education Project, Our Shared Forests, Native Waters, Native Seasons, Adopt-A-Stream Chemical/Biological/Bacteria Trainer

Catherine Mercier-Baggett, Program Assistant - resigned December, 2010

Catherine joined our team in 2009. Her training is in landscape architecture and urban planning. She has worked as a science educator with school children, assisted with research on stream ecology, studied amphibian distribution and conducted watershed assessments.

Education:

Master of Public Administration, Kennesaw State University, candidate
Bachelor of Landscape Architecture, Universite de Montreal, 2004
Master of Urban Planning (Urban Design), Universite de Montreal, 2002
Bachelor of Science in Biology (Ecology & Environment), Universite de Montreal, 1999

Educator Certifications: Monarchs In The Classroom,
Adopt-A-Stream Chemical/Biological/Bacteria Volunteer



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