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Program At A Glance

Program Update:

Progress 2

Workshops and Activities 3-4

New Happenings 5

Under Development 6-7

Summary Tables 8-9

Reflections 10-11

History 12-13

Cobb's Watershed Stewardship Program (WSP) provides free water quality programs for classrooms, community groups and businesses within Cobb County. These hands-on programs teach community members about the sources and impacts of water pollution and what individuals can do to protect rivers, lakes and streams. We also provide community service projects, teacher workshops and education resources for checkout and distribution.

WSP is housed in the Water Quality Laboratory of the Cobb County Water System in the Office of Environmental Compliance. We work closely with the staff from Cobb's Stream Monitoring Program and Stormwater Management Water Quality Unit to ensure our outreach education programs are accurate and fulfill the needs of the community.

During the summer of 2007, we expanded our team of two full-time educators to include a part-time educator. This addition has allowed for a greater opportunity to work with the community and school groups as well address federal and state mandated compliance education for specifically targeted industries. The current status of these programs is summarized in this report.

Special Events of Interest...

Our program received three awards this year.

1. GA EPD Watershed Award
2. Rivers Alive Cleanup Award
3. GA Conservancy Facilitator of the Year Award

Cobb County Watershed Stewardship

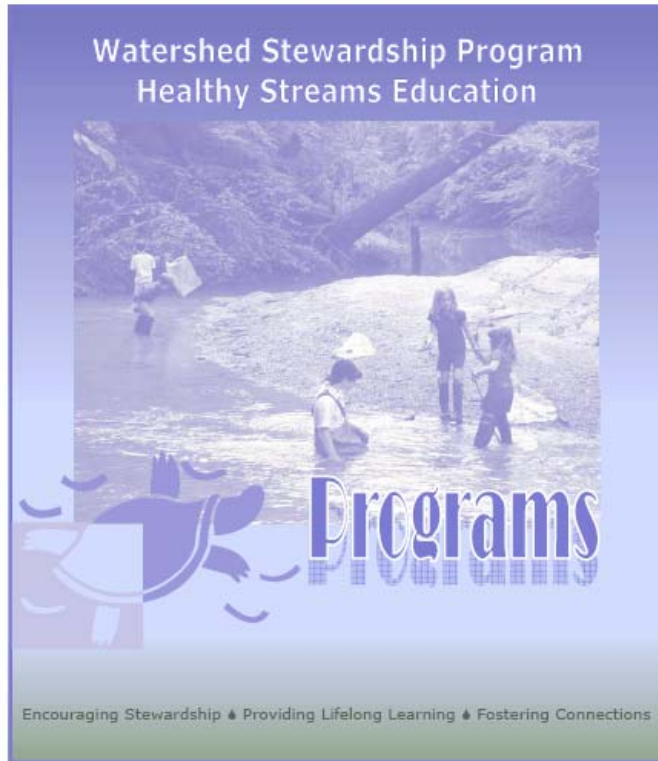
Connecting community with local ecology

- ◆ Biodiversity Preservation
- ◆ Habitat Creation
- ◆ Pollution Prevention
- ◆ Data Collection



Program Progress

The addition of staff to both the WSP and the Water Quality Unit has allowed for further development and implementation of our school outreach and auto shop education programs.



School Outreach Programs - To reach more students, we developed age specific activities that correlate to Georgia Performance Standards and include lesson appropriate vocabulary that would appeal to Cobb teachers looking for assistance in teaching about water quality. We created hands-on resource kits available for check-out that contain complete lessons that teachers can use to teach about various topics including the water cycle, macroinvertebrates, groundwater pollution, non-point source pollution and water chemistry. We expanded program promotional efforts by publishing a brochure that describes our classroom activities, field trips, grants, and resources. The publication has helped recruit new school participants for our program. We will be updating and revising this document over the summer in preparation for the coming school year. We are also in the process of creating a new bioindicators-themed bookmark and poster or distribution in the classroom.

Publication Attached (1)

Auto Shop Self Audit - Addressing auto shops is an ongoing project. We decided to take a new approach with the industry and are working with Stormwater staff. We developed a self-evaluation tool that provides basic pollution prevention education to share with businesses prior to compliance staff visiting an establishment for an official inspection. We piloted this program in the Mableton area, as that area was identified as a potential "hot spot" due to the density of automotive shops in the area. The audit form along with a letter was mailed to all business within the focus area encouraging them to voluntarily participate in preparation for a site visit. It served to raise awareness about proper chemical storage and disposal and notifies the industry that inspectors have a presence in the area and will be looking to see if facilities are compliant with local code. *Publication Attached (2)*



Workshops and Activities

WSP offers a variety of water quality training opportunities for the community.

Clean Water Campaign Programs– Each year we partner with the Metro North Georgia Water Planning District and University of Georgia Cooperative Extension Service to host a series of Clean Water Workshops. During the 2007-2008 reporting year we offered six landscaping-themed workshops. Both composting and tree planting were canceled due to low interest. As a result, we are switching from evening workshops to mid-day *Brown Bag* lunch time sessions to see if attendance will increase.

Community Ecology Programs - During the summer of 2007, WSP partnered with local dragonfly expert, Giff Beaton, to offer a dragonfly workshop series. The program was well received by the community. We also presented science programs to youth at local libraries and summer camps and continued to publish our quarterly newsletter. *Publications Attached (3)*

EE Curriculum Workshops- Eight classes were offered for teachers this year including Project WET, *Healthy Water, Healthy People* and Project Learning Tree. Cobb also hosted GAWP's Cool Waters Workshop in June of 2007.

Adopt-A-Stream Events– Numerous AAS workshops were presented during the reporting period. Our volunteers were invited to showcase their projects at our Annual Watershed Stewardship Fair. 140 volunteers from 12 Cobb County monitoring groups participated this year. Cobb also implemented our first River Rendezvous. Volunteers sampled thirty sites across the Rottenwood Creek Watershed. *Publication Attached (4)*



Stormdrain Marking Project - Cobb County has been utilizing the Clean Water Campaign stencil kits with the "Keep It Clean, Drains To Stream" message since 2001. We switched this year to a more attractive and longer lasting alternative, stainless steel curb markers. When installed in residential areas, we are distributing water quality education materials in door hanger bags. The new markers have been a popular stewardship project for community groups. They are also being installed by staff during inspections.

Waterway Cleanups - By supporting volunteer efforts (providing bags, gloves and litter sticks), trash removal events occur across the county throughout the year. Cobb also donated \$1000.00 to Rivers Alive in 2007, participated on the Rivers Alive Advisory Board, covers the disposal fee for tires pulled from local streams, and organizes a large cleanup event each fall.

Rain Barrel Project - Providing free make-and-take rain barrel workshops for residents has been one of our programs for several years. We've expanded this project to provide up to 5 barrels per school and have implemented a Community Stewardship Grant that can be used to assist with funding to bring the program to a group. We have also partnered with Cobb County Parks, Recreation and Cultural Affairs (Natural Resources Unit) to install Rain Barrel Demonstrations Sites in area parks to showcase how the barrels function. Each site includes a functioning rain barrel, educational signage and a weatherproof flyer box containing our Rain Barrel Fact Sheet. *Publication Attached (5)*

Workshops and Activities continued...



Green Schools Program - In cooperation with Cobb County Parks, Recreation and Cultural Affairs (Natural Resources Unit), Keep Cobb Beautiful and Cobb's Water Efficiency Programs, Cobb County teachers and schools that offer environmental education in the classroom are supported and recognized. *Publication Attached (6)*

Children's Water Festival - Each year Cobb WSP partners with Fulton County Public Works, Marietta Water, and National Park Service to plan and host a festival for 4th graders during Drinking Water Week. This year the event was held at the Paces Mill Unit of the Chattahoochee National Recreation Area. Three schools attended with students from each school district represented. *Publication Attached (7)*

In addition to community programs, WSP also supports Stormwater Management's mandated compliance education programming focused on pollution prevention.



Community Partners for Healthy Streams - This voluntary program encourages local business to take a critical look at the practices taking place in their facility, specifically addressing potential stormwater pollution problems. Participating businesses complete a series of handbooks that result in the creation of a water quality assessment and action plan that documents current practices, evaluates alternative measures and schedules corrective actions to improve the stormwater management practices at the facility. *Publications Attached (8)*

Pet Waste Stations - As part of a continuing effort to reduce bacteria levels in local waterways, Cobb WSP partnered with Cobb County Parks, Recreation and Cultural Affairs (Natural Resources Unit) several years ago to install pet waste stations along the Silver Comet Trail and other county parks experiencing high pet traffic. We continue to maintain these sites and plan to install several additional stations in the coming year.



Municipal Employee Stormwater Pollution Prevention Training - Cobb County has purchased *Storm Watch, Everyday Best Management Practices*, a training video produced by Excal Visual, that is being utilized at all eight of Cobb's MS4 facilities: Noonday WRF, Northwest WRF, Sutton WRF, South Cobb WRF, Cobb County Transit Facility, Cobb Compost Facility, Cobb County Waste Transfer Station, McCollum Airport. Training is being documented through sign-in sheets that the facility is keeping record of onsite.

Cobb County Water System Staff Lunch & Learn Sessions - These monthly workshops are educating employees about water quality issues being addressed within the Water System. Topics have included: stream monitoring, wastewater plant tour, illicit discharge detection, detention pond inspections, FOG, industrial pretreatment, laboratory analysis. The sessions have been very popular. Upcoming topics include collection system repair and overflow cleanup, septic tank maintenance and stormwater plan review.

Stormwater Pollution Found In Your Area - Using an EPA door hanger as a model, we have created a neighborhood information tool that we are using to notify customers when impacts have been found in the area. These are distributed along with applicable education materials to ensure the community is aware of the problem and that behaviors are modified. *Publication Attached (9)*

New Happenings

Frog Monitoring - Each year the Water Quality Lab receives questions from the community about the state of local frog populations and inquires about what has happened to the peepers. This year, being the "Year of the Frog", seemed the ideal time to address concerns and curiosities about our amphibian diversity. After researching several programs across the nation and consulting with regional experts, we have determined which species are likely to be found in Cobb County and have developed a protocol for monitoring frogs based on vocalizations. WSP has also developed a frog lab that is available to schools as an outreach program. Both the monitoring workshop and the school program have been well received. *Publication Attached (10)*

Wild In The Watershed - Unlike frogs, which most people are hoping to find, there are concerns in our community about encountering other animals. Most of the wildlife calls and questions we receive are about snakes. Everyone claims with absolute conviction that they have water moccasins in their creek and that every snake they see is venomous. To address this widespread fear of snakes, we have obtained two non-venomous snakes to help educate our customers about snakes and importance of reptiles in the watershed. We are hoping to help people understand that removing all the riparian vegetation along the stream is not an effective management practice and will not eliminate snakes from the creek. We have also developed a school wildlife program using our snakes, frogs and other preserved specimens.

Wastewater Education - Waste Reclamation Facility Tours continue to be a popular field trip for classrooms and other community groups interested in learning about sewage treatment. For those that can't come to a plant, we have purchased the new Drinking Water Sources, Uses and Wastewater Treatment Enviroscape Model and have staff available to present this resource and discuss water treatment. We plan to further develop this aspect of our school programs by creating a wastewater focused, hands-on resource kit for check-out. We also have several Non-point Source Enviroscape models available for check-out.

Grants and Sponsorships - While we continue to offer the *Color Your Watershed* mural grant, we have had several teachers ask if they could use the money for other types of non-art related projects. To respond to these requests we have created a Community Stewardship Grant that provides up to \$500.00 in funding for projects. The grant is open to any Cobb County based organization. This year we funded a garden project at a local school and partnered with Sierra Club to reduce the cost of a rain barrel project for their members. We also implemented Educator Training Grants and Sponsorships. We facilitated free training for over 20 educators in Project WET, subsidized the registration cost of several curriculum courses, and sponsored a teacher to attend the Outdoor Classroom Symposium as well as a teacher at the Environmental Education Alliance of Georgia Conference.

Under Development

Community Programs

Household Hazardous Waste - We have obtained permission from the Massachusetts Water Resources Authority to reproduce their *A Healthy Environment Starts At Home: A Guide to Reducing Our Use of Household Hazardous Products* (www.mwra.com). We plan to revise the document to include Georgia and Cobb County specific water facts and develop a hands-on outreach program, including a make-and-take cleaning product activity. We have already scheduled two community events this summer where we will share alternative cleaning product recipes and make them with participants.

Senior Programs - Several outreach programs are scheduled with Cobb Senior Services. We are in the process of developing hands-on activities appropriate for this audience. The summer programs are wildlife focused and the fall will be pollution prevention and household hazardous waste.

Website - A Watershed Stewardship website is under development by Cobb County's Water System staff. The site is designed to provide water quality education and promote our programs. Stormwater Management is also working on a site intended to keep the community informed about stormwater programs, current projects, county maps, FAQs and proper stormwater BMPs.

Girl's Inc. Partnership - We are working with Girls Inc. of Marietta, a non-profit organization that focuses on mentoring lower income and minority females, to create ecologically minded programs. We are also organizing a series that promotes girls working in the sciences by recruiting professional women speakers from Cobb Water.

School Programs

Georgia's Geographic Regions - We already spend a great deal of time talking to kids about different aquatic habitats, the physical features of landscape and how areas of the state look different. It seems appropriate to move forward and develop a program that takes the time to educate fully about the diversity of Georgia's landscape, explores the unique features of each ecoregion and discusses the aquatic habitats that can be found in our state. We plan to offer this new program in the coming school year.

Leopold Education Project - We are sponsoring and hosting an educator workshop this summer based on the classic writings of Aldo Leopold. His work on the land ethic teaches about our ties to the natural world and promotes the conservation and protection of natural resources. Participants will receive curriculum to use with their students. This workshop also provides a training opportunity for WSP staff as well as other Cobb County employees. Upon completion of the class, we will be developing outreach activities to share Leopold's work with the students we teach.

Animal Classification - Appropriate for younger students, our new animal classification outreach program explores the differences and similarities between insects, amphibians, reptiles, fish, birds, and mammals. Animal artifacts and like specimens are used to facilitate learning.

Monarch Lab - Butterfly education has proven to be a popular topic and provides an open-minded audience when discussing the reduction and even elimination of landscape chemicals. Our Rain Garden Demonstration site is an excellent example of how plant selection can attract wildlife to an urban setting. With the butterfly host plants we have installed, we have a great setting to stage butterfly classes. Last fall we facilitated a Monarch-themed educator class and received several requests from teachers to create an outreach program that could come to their schools and share the information they learned in our class. One of the projects we are working on is the assembly of a mobile butterfly lab. It will only be available in the fall when Monarch caterpillars are available in our garden.

Stormwater Compliance Education Programs

Stormwater Education CD - To ensure businesses operating in Cobb County have received industry specific education materials, we are in the process of developing an education CD that will be distributed through Cobb's Business License Office. The CD contains general stormwater education materials such as a pdf of EPA's *After the Storm* brochure as well as folders containing industry specific materials targeted at car washes, auto shops, landscapers, carpet cleaners, construction, painters, pressure washers, food service providers, etc. We are in the process of setting up the distribution with our Business License Office and expect to have this project in place during the summer of 2008.

Dentist Offices - The dental industry is an area Cobb County has not previously addresses as a potential source of pollution. During the 2009 reporting year, we will be contacting all dental offices operating in Cobb County to ensure they are properly disposing of waste materials. Specifically we are looking for those facilities still using silver nitrate to ensure they have proper storage and disposal practices.

Landscapers/Detention Pond Maintenance - During participation on Cobb County Cooperative Extension's Advisory Board, while planning the agenda for the quarterly Green Industry Updates it became apparent that due to the drought local landscapers are looking for new areas where their services could be utilized. At the same time, with the added staff in the Water Quality Unit, Stormwater Management has expanded maintenance inspection efforts at commercial detention ponds and has been working with those commercial landscapers contracted to maintain the facilities on what needs to be done to ensure compliance with Cobb County code. We are in the process of utilizing this niche as an avenue for educating landscapers about water quality and proper pond maintenance. We hope this will help improve the state of commercial detention ponds and facilitate greater understanding among landscape professionals regarding the water quality impact of the industry.



Watershed Stewardship Adoptions - Chattahoochee

STREAM NAME	GROUP NAME	# SITES MONITORED	YEAR ADOPTED
Gilmore Creek	Kevin Rose	1	2006
Mud Creek	Riverstone Montessori Middle School	1	2007
Mulberry Creek	Friends of Mulberry Creek	1	2003
Nickajack Creek	Cub Scout Pack 61	1	2007
Nickajack Creek	Griffin Middle School	2	2008
Noses Creek	Walker School	1	2007
Noses Creek	McEachern High School	2	2007
Rottenwood Creek	CCWS-Laboratory	1	2001
Rottenwood Creek	Sierra Club Centennial Group	3	2004
Rottenwood Creek	Marietta Center for Advanced Academics	2	2007
Sewell Mill Creek	Dodgen Middle School	8	2002
Sewell Mill Creek	Boy Scout Troop 955	1	2004
Sewell Mill Creek	East Side Elementary	1	2007
Sewell Mill Creek	Emerson Universalist Unitarian Congregation	1	2008
Sewell Mill Creek	Tritt River Kids	1	2007
Sewell Mill Creek	Alyssa Tornroos	1	2006
Sope Creek	Walton High School	3	1999
Sope Creek	The Ellis Family	1	2007
Sope Creek	Walker School	1	2007
Sope Creek	Rock Griswold	1	2007
Unnamed Tributary	Vinings Rotary	1	2005
Ward Creek	Durham Street Stream Preservation Society	1	2007
Ward Creek	North Cobb Rotary	1	2007
Willeo Creek	Loch Highland Watershed Alliance	1	2001
Willeo Creek	Higgins Family	1	2003
Willeo Creek	Mt. Bethel Elementary School	1	2007

Watershed Stewardship Adoptions - Etowah

STREAM NAME	GROUP NAME	# SITES MONITORED	YEAR ADOPTED
Allatoona Creek	The Lindsey Family	1	2007
Allatoona Creek	Due West River Kids	1	2007
Butler Creek	North Cobb Christian School	1	2002
L. Allatoona Creek	Girl Scout Troop 2441	3	2007
L. Noonday Creek	Karan's Magnet Group	1	2004
Rubes Creek	Boy Scout Troop 479	1	2004
Rubes Creek	McCleskey Middle School	1	2006
Rubes Creek	Nicholson Target Stars	1	2006
Rubes Creek	Keheley Elementary School	1	2006
Rubes Creek	David Zandstra	1	2008

Watershed Stewardship Adoption Breakdown

GROUP TYPE	# IN CHATTAHOOCHEE	# IN ETOWAH	TOTAL
Schools	25	6	31
Scouts	2	4	6
Families	6	3	9
Community	8	0	8
Total	41	13	54



Reflections



Griffin MS students practice chemical monitoring.



Teachers tour a wastewater treatment plant during the 2007 Cool Waters Workshop.

Didi Johnson, 2007 Volunteer of the Year, monitors Rottenwood Creek.



Keheley ES used the Watershed Mural Grant to create a series of stained glass windows.



Dodgen MS 7th graders monitor their pond for macroinvertebrates.



4th graders make edible aquifers and learn about water scarcity during the Children's Water Festival.





Teachers learn about non-point source pollution during a Project WET workshop.



KSU student Stephanie Cline shows off her winning 2008 Watershed Stewardship t-shirt design.

Preschoolers learn about dragonflies during a summer library reading program.



Adopt-A-Stream groups (MCAA Rockets, below) shared their monitoring experiences during the 2008 Watershed Stewardship Fair. Attendees also toured the laboratory (right).



Due West ES painted an idyllic scene with their Watershed Mural Grant.

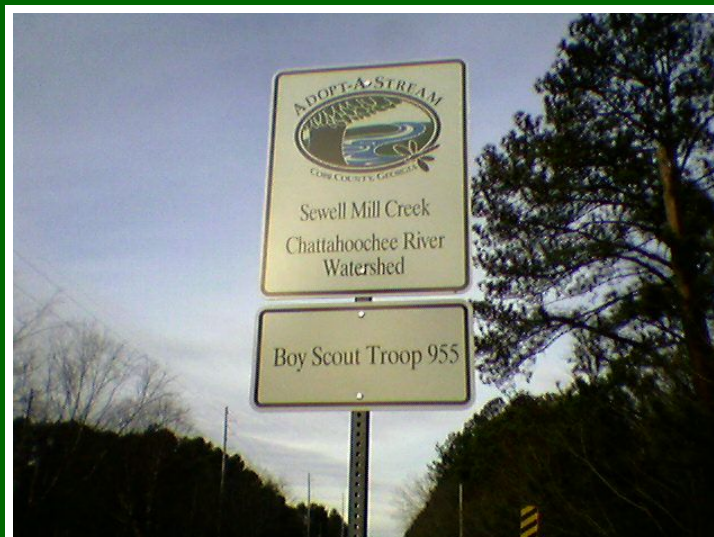


Mt. Paran Christian School students spend a volunteer day working in the laboratory's rain garden.

Program History

- 💧 1975 Cobb County Water System starts collecting stream data
- 💧 1986 Stream Monitoring Program is established
- 💧 1995 Biological Monitoring is added to routine data collection
- 💧 1998 R. L. Sutton Watershed Study
- 💧 2000 GA EPD accepts stream monitoring data for the Stormwater Permit
- 💧 2000 Stream Monitoring staff is expanded to two full time employees
- 💧 2001 Adopt-A-Stream Program Coordinator is hired
- 💧 2002 Adopt-A-Stream Program is launched
- 💧 2002 Cobb AAS recognized by GA EPD
Outstanding Outreach and Partnership Award
- 💧 2002 Cobb County Water System recognized by GW&PCA
Public Education Award
- 💧 2003 Cobb County Watershed Protection Plan implemented
- 💧 2003 Cobb County Water System implements Watershed Staff meetings
- 💧 2003 In-house Fish Monitoring is added to data collection
- 💧 2003 Etowah Watershed Assessment Agreement signed
- 💧 2004 Demonstration Rain Garden installed
- 💧 2004 Cobb AAS and citizen volunteer recognized by GA EPD
Watershed Award & Excellence in Data Collection Award
- 💧 2005 Adopt-A-Stream staff is expanded to two full time employees
- 💧 2005 Cobb County receives *Water First Community* designation from GA DCA
- 💧 2005 Cobb AAS recognized by Rivers Alive
Outstanding Cleanup, large category (over 200 participants)
- 💧 2005 Cobb AAS Volunteer recognized by GA EPD
Red Flag Award

- 💧 2006 Rain Garden Demonstration Site certified as a *Back Yard Wildlife Habitat*, a *Monarch Waystation* and a *Pollinator Garden*.
- 💧 2006 Cobb County Water System recognized by GAWP *Public Education Award*
- 💧 2007 Cobb AAS and citizen volunteer recognized by GA EPD *Adopt-A-Stream in Action Award*, for Our Color Your Watershed Mural Grant Program & *Outstanding Outreach Award*
- 💧 2007 Watershed Stewardship Program staff is expanded to include a part-time Program Assistant
- 💧 2008 Cobb AAS and citizen volunteer recognized by GA EPD *Watershed Award & Outstanding Outreach and Partnership Award*
- 💧 2008 Cobb WSP staff recognized by Georgia Conservancy *Teaching Conservation Facilitator of the Year*
- 💧 2008 Cobb WSP staff recognized by Rivers Alive *Most Cleanups Attended*



Cobb County Watershed Stewardship Program 2008 Annual Report

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Cobb County...Expect the Best!