



Annual Report

Watershed Stewardship Program
2018-2019

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During the
2018-2019 reporting year,
18,864 community members participated
in the Watershed Stewardship Program.

Volunteer Programs:
1,415 participants,
1,270 training hours,
4,743 volunteer service hours

Community Programs:
2,998 participants, 126 hours

School Programs:
14,451 students, 348 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 behaviors, and to promote an ethic of respect for and a connection to our natural resources.

Cobb County's Watershed Stewardship Program is 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 Watershed Stewardship Program (WSP) Staff

Education, volunteering, and conservation have always been at the center of Cobb County Water System's Watershed Stewardship and Water Efficiency Programs. For many years, these award-winning programs have operated independently, maintaining a different primary focus of pollution prevention and water conservation respectively. During the spring of 2019, the Watershed Stewardship Program and Water Efficiency Program, along with the Water System Communications Unit combined to form a new team, the Communications & Education Division. As pollution prevention and conservation are closely related, this combination is a natural fit.

The Communications & Education Division will continue to offer programs, contests, and volunteer opportunities previously offered through Watershed Stewardship and Water Efficiency. These efforts include Adopt-A-Stream, storm drain marking, stream cleanups, rain barrel workshops, the toilet rebate program, indoor/outdoor water efficiency information and resources, WaterSmart program contests, school programs, and adult education workshops. Current staff with both programs will continue facilitating programs and events, with a continued commitment to education, quality programs, and safety.

Our newsletter, *The Thalweg*, will also be combined with the Water Efficiency's newsletter *Water Saver*. The new publication will continue to be issued quarterly and will incorporate more specific information about water conservation as well as highlight stewardship and ecological features as usual. The rebranded newsletter is titled *Water Matters* and the first issue will be released for the summer of 2019's June, July, and August quarter.

We are excited about joining the conservation and stewardship programs and feel both program missions, goals, and messages will be aligned to effectively have a stronger impact on our community as we work as a cohesive division within the Water System.

-The Cobb County Watershed Stewardship Program

SUMMARY OF ACTIVITY BY WATERSHED

	Water Quality Monitoring	Waterway Clean-ups	Storm Drain Marking	Frog Monitoring	Privet Pulls	Community Education	School Outreach
Chattahoochee	•	•		•		•	•
Buttermilk							•
Mud	•	•	•	•		•	•
Mulberry	•					•	
Nickajack	•	•		•	•	•	•
Noses	•					•	•
Olley	•	•		•		•	•
Poplar	•			•			•
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 2018-2019 reporting year, the value of Cobb's volunteer watershed stewards is estimated at \$120,615. *Based on the 2019 estimated value of volunteer time for Georgia (\$25.43 published by Independent Sector).*

Volunteer Opportunities

Adopt-A-Stream Chemical Monitoring

263 volunteers trained, 301 monitoring events, 1,710 service hours

Chemical monitoring consists of collecting 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

36 volunteers trained, 16 monitoring events, 237 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

89 volunteers trained, 139 monitoring events, 298 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 & Getting Started

9 volunteers trained, 24 monitoring events, 38 service hours

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

Frog and Toad Monitoring

16 volunteers trained, 106 monitoring events, 37 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.

Waterway Clean-ups

793 volunteer participants, 73 events, 1,619 service hours*

Cobb County asks residents to help clean local waters and raise awareness about waterway health. Scout groups, church groups, schools, and homeowner associations across the county are provided with gloves, bags, and planning assistance throughout the year to encourage trash removal efforts. *Calculation includes GA AAS's volunteer reporting of cleanup activities during monitoring events. 47 small collection events were recorded via this mechanism.





Storm Drain Marking

110 volunteer participants, 23 events, 995 drains marked, 234 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 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, gloves, garbage bags, and education materials.

Watershed Stewardship Fair - March 27, 2019

80 volunteer participants

The Watershed Stewardship Fair is a data sharing event that showcases volunteer 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 Volunteer Group of the Year, School of the Year, and Water Efficiency "Every Volunteer Counts" Award. This was also the first year we implemented awarding certificates to volunteers for 5, 10, and 15 years of service.

Wildlife and Rain Garden

76 volunteer participants, 50 events, 173 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

21 participants, 5 events, 53 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 Internships and Mentorships

3 volunteer participants, 344 service hours

WSP hosted two student interns during the summer of 2018. One was full-time, from UGA, and paid through our Experiencing Cobb County Hands On (ECCHO) program. The second student, from Louisiana State University, was a part time volunteer. Duties included assisting with community outreach programs, prepping for service projects, and shadowing field staff with routine duties. In addition, we hosted two high school seniors as student interns this year. In the fall, our intern was from Wheeler High School. In the spring, our intern was from Kennesaw Mountain High School.



Chattahoochee Volunteer Challenge

*500 participants, 48 events, 589 service hours**

We continued our partnership with National Park Service to incentivize service project participation. 7 registered groups competed to receive a free ranger-led rafting trip. Osborne High School logged the most service hours this year. We plan to continue offering the *Chattahoochee Challenge* in the 2019-2020 school year. *This data is reflected in each of the volunteer service programs, so numbers are not included again in our summary calculations.

Summary of Volunteer Activities by Watershed

Stewardship Projects - Chattahoochee

WATERSHED	GROUP	# SITES	YEAR INITIATED	ACTIVITY TYPE
Mud Creek	Morica Bellotto & Kevin Ranke	2	2017	SD
Mud Creek	Dew Place	1	2017	CH, BAC
Mud Creek	McEachern High AP Environmental Science	1	2007	CH, CL
Mud Creek	Troco5	1	2019	CH
Mud Creek	Boss Environmental	1	2018	CH, BAC, MAC, CL
Mulberry Creek	Friends of Mulberry Creek	1	2003	CH, BAC
Nickajack Creek	Keep Smyrna Beautiful	9	2010	CH, BAC, CL
Nickajack Creek	SG5	1	2011	CH
Nickajack Creek	GA Native Plant Society	1	2014	CL, PP
Nickajack Creek	Concord Woolen Mill	1	2019	CH
Nickajack Creek	Griffin Middle School	1	2017	CL
Noses Creek	T. Washburn	1	2019	CH
Noses Creek	Ochala Family	1	2015	BAC
Noses Creek	Pic	1	2018	CH, VS
Noses Creek	Nancy Payne	1	2017	CH, BAC
Olley Creek	Donna-n-Carmen	1	2012	CH
Olley Creek	WSP/Rivers Alive	2	2014	CL
Olley Creek	Riverstone Montessori School	1	2018	CH, CL
Olley Creek	Osborne High School	1	2017	CH, CL
Poplar Creek	Keep Smyrna Beautiful	2	2012	CH
Poplar Creek	Anne Ledbetter	1	2012	CH, MAC, BAC, AN
Poplar Creek	Anthony Ray	1	2019	CH
Powder Springs	Ranke	1	2019	SD
Rottenwood Creek	Sierra Club Centennial Group	3	2004	CH, MAC, BAC, CL
Rottenwood Creek	Rosco Peters	4	2017	CH, BAC, MAC
Sewell Mill Creek	Walton HS AP Environmental Science Class	1	2006	CH, PP, CL
Sewell Mill Creek	Rotary Club of East Cobb	1	2010	SD
Sewell Mill Creek	Pope High School	2	2013	CH, CL
Sewell Mill Creek	Bushart	1	2012	CH
Sewell Mill Creek	Stewardship Mob	1	2018	PP
Sope Creek	Walton High School Environmental Club	1	1995	CH
Sope Creek	Friends of Gable Creek	1	2009	CH
Sope Creek	Salty	1	2012	CH
Sope Creek	Sedalia Park Elementary School	1	2012	CH, BAC, CL
Sope Creek	Sydney Stream	1	2018	CH
Trib of Chattahoochee	Crooked Branch	1	2011	CH, BAC
Trib of Chattahoochee	ERM Atlanta	1	2015	CH, VS, CL
Ward Creek	West Side Elementary School	1	2017	CL
Ward Creek	Cobb Progressives Earth First	1	2017	CH, BAC, CL

Stewardship Projects - Chattahoochee continued

Willeo Creek	AJ Hampton	1	2019	CH
Willeo Creek	GA Connections Academy	1	2019	SD
Willeo Creek	WSP/Stewardship Mob	1	2018	SD
Willeo Creek	Loch Highland HOA	1	2019	SD
Willeo Creek	Willeo Watershed Alliance of Loch Highland	1	2001	CH, BAC, CL
Willeo Creek	Tritt River Kids	1	2004	CH, BAC, CL
Willeo Creek	Bishop Lake	6	2008	CH, BAC
Willeo Creek	Village North Highlands Subdivision	1	2012	CH, BAC
Willeo Creek	Girl Scout Troop 14436	1	2019	SD

Stewardship Projects - Etowah

WATERSHED	GROUP	# SITES	YEAR INITIATED	ACTIVITY TYPE
Allatoona Creek	Kahle	1	2010	CH, CL, AN
Allatoona Creek	Richard's Creek	1	2014	CH, CL
Allatoona Lake	Beving on Allatoona	2	2018	CH, BAC
Allatoona Creek	John Keiler	1	2015	CH
Allatoona Creek	The Awesomes	1	2018	CH, BAC, MAC
Allatoona Lake	Ford Elementary School	1	2014	CL
Allatoona Creek	WSP/PARKS Stewardship Mob	1	2014	PP
Allatoona Creek	Dominion Christian School	1	2017	CH, MAC
Butler Creek	Butler Creek Kennesaw	1	2009	CH, BAC, VS, CL
Butler Creek	Seigla Family	1	2015	CH
Butler Creek	T. Washburn	1	2019	CH
Lake Acworth	George Aycock	2	2014	CH
Lake Acworth	Cobb Progressives Earth First	1	2017	CH, BAC, CL, AN
Noonday Creek	Family Frog Walk	1	2017	AN
Noonday Creek	Angie's NE Cobb Streams	2	2018	CH
Noonday Creek	WSP Mob/Projects	2	2017	AN, CL, BEA
Noonday Creek	Garden School of Marietta	1	2018	CH, CL, SD
Noonday Creek	Cobb Progressives Earth First	1	2017	CH, BAC, CL, AN
Powder Springs	WSP Stewardship Mob	1	2019	SD
Proctor Creek	Cobb Progressives Earth First	1	2017	CH, BAC, CL
Rubes Creek	Keheley Elementary	1	2017	CH, CL
Rubes Creek	McCleskey Middle School	1	2006	CH, MAC, BAC, CL, SD
Rubes Creek	David Zandstra	1	2008	CH, BAC
Rubes Creek	Lassiter High School	1	2010	CH, BAC, CL, PP
Rubes Creek	Mabry Middle School	1	2011	CL
Rubes Creek	Stewardship Mob	1	2012	PP
Rubes Creek	Rocky Mount Elementary School	1	2017	CL

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 Privat Pull
	BEA Beautification Project	PSA Video Contest	

Community Ecology Programs

Rain Barrel Make & Takes

100 participants

Urban runoff causes bank erosion, siltation, and water quality impairment. It is one of the hardest sources of stream pollution to control. In this free 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 (HHW) Reduction, Community Recycling and Medication Disposal

HHW from 930 households
Recycling from 2,600 households*
Medication from 269 households*

Several efforts are implemented to educate Cobb County residents on hazards in the home including disposal events. Organized in partnership with Keep Cobb Beautiful (KCB), 930 households participated in Cobb County's HHW Amnesty Day on June 23, 2018. KCB facilitated one pharmaceutical disposal event, held on April 13, 2018. 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. KCB also hosted Community Recycling Events where residents were provided fall and spring opportunities to recycle textiles, scrap metal, polystyrene and electronics (for a fee), and participate in document shredding. Collection totals include approximately 819 pounds of textile, 63,340 pounds of appliances, scrap metals, and electronics, 1,000 cubic feet of polystyrene, and 24,000 pounds of shredded paper. *Data not included in our participant totals.

Library Programs

162 participants

During June and July of 2018, the Watershed Stewardship Program partnered with Cobb County's Library System for their summer reading program. As the theme was "Libraries Rock," WSP staff presented our frog call program, focusing on sounds in nature, local wildlife and ecology, at 6 local libraries. 2019 programming is scheduled around the theme of "A Universe of Stories" where we will be focusing on nature music using our Incredible Journey water cycle activity.

Family Programs, Therapeutic Recreation & Summer Camps

393 participants

Staff continued to offer Creek Stomping, Fairy House Building, and Sunset Frog Walks for kids and families. Ten events were conducted during the reporting year. We also continued our Kennesaw Mountain Battlefield National Park summer camp partnership with 253 participants attending 5 days of programming. Communications & Education staff will schedule additional frog and creek stomp programming for the coming year, including continuing to host our annual fall pumpkin fairy house building workshop in early November.

Lunch & Learn Programs

60 participants

Staff resumed providing opportunities for County employees and members of the community to learn about water related topics during the lunch hour. The five programs were facilitated with Cobb-focused themes that included *Snakes and Frogs*, *Water/Wastewater 101*, *Watersheds of Cobb County*, *Rain Gardens*, and *Household Hazardous Waste*.



Professional Presentations and Partnerships

125 participants

WSP staff routinely provide expertise and support at conferences, professional development meetings, and seminars. In the 2018-2019 reporting year, we presented at several events including the GAWP Fall Conference, Metro North Georgia Water Planning District Education TCC, Environmental Education Alliance of Georgia Annual Conference, and NPDES Trainings with AGC Georgia. Classroom teacher-focused event numbers are noted on page 12, under professional development for educators.

Pet Waste Education Initiatives

850+ recipients

WSP continues to support volunteer *E. coli* testing, distribute pet waste education materials (approx. 2,250 brochures) during storm drain marking projects, and implement our *Pick It Up Pals Pledge Program* to increase pet owner awareness of the pollution problems associated with pet waste. Staff explicitly discusses proper pet owner stewardship during our *What Is A Watershed?* school outreach programs. In addition, staff worked with students to facilitate Pledge Signing events at schools and community events this year. We also setup pet waste pollution prevention tabling events at the Back to the Hooch Festival and Woof-Stock. In addition, a local real estate team hosting has started organizing monthly pet vaccination clinics where we are setting up education tables and getting pledge signatures.

Senior Programs

145 participants

WSP continues to develop programs for local seniors at both private as well as county facilities. The sessions are focused on water and nature and have included topics on pollinators, birds, frogs, water 101, monarchs and gardening. Stewardship components are imbedded in the content. Depending on the audience and weather, some session content is facilitated outdoors.

Invited Speaker Presentations and Tabling Events

129 participants

In addition to facilitating public programs, WSP staff continues to accept invitations to speak to community clubs on various topics. This year we fulfilled requests for talks on watersheds and water quality, seasonal gardening, butterflies, and frogs from local nature and garden clubs, scouts and church/synagogue groups. Also, we setup displays and spoke to community members at events at several locations including local parks, recreation centers, schools, churches, and the North Georgia State Fair.

Wildlife & Rain Garden (and Water Quality Laboratory) Programming/Tours 104 participants*

While the demonstration gardens at Cobb's Water Quality Lab are always open for visitors, we do organize and facilitate guided tours and programs with age appropriate content developed for PreK-Senior adult audiences. The garden is also utilized by the Cobb County Extension Services for their community and professional training workshops throughout the year. *Only participant numbers for CCWS-facilitated events are reflected in our totals.

National Park Service Tire Disposal Partnership

108 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.



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 2018-2019 school year, our programs reached 14,451 students at 96 schools, serving 631 classrooms, and providing 348 instructional hours. We estimate the cost of this service at \$16,343.

Ecoregions of Georgia

1,130 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?

1,544 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 affect our drinking water and wildlife while encouraging discussion about watershed protection and pollution prevention.

Erosion & The Hydrologic Cycle

1,152 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.

Ecosystems & Adaptations

963 participants

Explore ecosystems by looking at living and nonliving factors affecting interdependency, determine plant and animal adaptations and limitations, follow energy as it moves through food chains and food webs, and conclude how human impacts on the watershed can make a difference. In this 60 minute program, we look at skulls to determine the *-vore* type of certain animals, look at slides of various ecosystems and adaptations, investigate the decomposer box, and apply knowledge with a live corn snake!

Adopt-A-Stream Water Chemistry Study

243 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

68 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

36 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?

188 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.

Investigating Urban Streams and Ponds

507 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.

River to River

77 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.

Snakes of Georgia & Their Adaptations

334 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.

Monarchs & Butterfly Life Cycle

419 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.

Non-point Source Pollution & Stewardship

92 participants

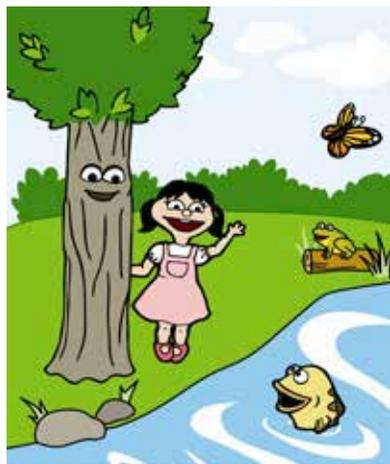
Offered in preparation for a stewardship activity, students participate in a discussion about non-point source pollution typical of local neighborhoods. They are provided training on the purpose of and how to safely engage in stewardship practices such as rain gardening, storm drain marking, rain water harvesting, and waterway cleanups.

Water/Wastewater 101: What You Need To Know About Your Water System

332 participants

Allatoona Lake and the Chattahoochee River is the source of drinking water for Cobb residents. CCWS delivers it and treats the wastewater. Learn about the distribution and collection processes, our in-home water systems, water careers, and ways we can protect water quality before and after we use it.





Brooke & Branch Puppet Show 6,782 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.

Every Kid In A Park 436 participants
 With funding from The National Parks Foundation and in partnership with Chattahoochee River National Recreation Area (CRNRA) and Chattahoochee Parks Conservancy, six Title-One schools from Cobb County participated in water quality and stewardship education. Students received multiple lessons (wildlife, decomposers, food web, pond study, water safety and paddling rafts on Sibley Pond, and nature journaling) at the Sope Creek Unit. The grant covered the transportation costs to bus students to the park for a day of lessons. Funding is secured for the 19-20 school year and anticipate serving another 400+ students.

Homeschool Science Series 49 participants*
 WSP continues offering programming for local homeschool students. Free to participants, students learn about local stream ecology, water quality and wildlife. Although registration was high, actual participation was about 40% of those who signed up, even with reminders. *This data is reflected in family programs on page 8, not school outreach calculations.

Traveling Treasure Trunk 16 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 33 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. The increase in checked out lessons accounts for a drop in participation numbers from last year.

Children’s Water Festival 780 participants
 On May 7th, one hundred forty-eight 5th graders from Brumby Elementary, along with students from six other schools, were invited to attend this annual event. It was held in partnership with other local governments, Metro N. GA Water Planning District (MNGWPD), Georgia Association of Water Professionals, and the National Park Service (NPS) at the Chattahoochee River National Recreation Area. Participants attended several hands-on water education sessions including topics on local wildlife and conservation, watersheds and pollution prevention, water source and distribution, FOG, and utility trucks with equipment demonstrations. NPS staff also provided *Every Kid In A Park* passes to each 4th grade student, allowing their families to visit federal property for free through the summer of 2019.

Green Schools 37 schools, 687 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 2018-2019, 31 schools achieved Gold Status (15 or more Green Classrooms) and the teachers logged over 6,000 EE hours.



Professional Development for Educators 202 participants
 Staff continues to facilitate education opportunities for teachers. WSP staff also helped organize the Annual Outdoor Learning Symposium on October 19-20, 2018 and presented at the Environmental Education Alliance (EEA) Conference on March 8-9, 2019.

Trainings included:

- Life Is A River
- Adopt-A-Stream for Teachers
- Monarchs In The Classroom
- Outdoor Learning Symposium
- EEA Conference
- Project WET
- COOL Waters

UPDATE ON RESOURCE DEVELOPMENT

Septic Tank Education

In conjunction with MNGWPD's septic-focused campaign during Pollution Prevention/Septic Smart Week, the third week of September, WSP included EPA's septic system education materials in our social media postings. We also included septic maintenance content in our Water 101 workshop presented as a community lunch and learn, at several senior centers, and in a high school career education course.

Fats, Oil and Grease (FOG) Education

WSP continues to promote FOG education as a content area during our Water 101 program. We also conducted a holiday campaign about FOG, reaching community members via Cobb County's *CobbLine* newsletter and on social media. CCWS also continues to distribute our FOG factsheet through the storm drain marking program, reaching over 2,200 homes.

Wildlife and Rain Garden Demonstration Site

WSP continues developing the garden as an educational resource by 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.

Newsletter, www.cobbstreams.org, and social media

Four issues of the quarterly newsletter, *The Thalweg*, were published this year. Approximately 1,700 paper and more than 6,100 electronic issues were distributed to our local contacts. The Watershed Stewardship website provides education and promotional information to the community and averages approximately 350 hits per month. Our social media efforts include the use of Eventbrite, Blogger, YouTube, Facebook, Pinterest, and LinkedIn. We are exploring how to effectively utilize Nextdoor Neighbor as well. Starting the summer 2019, *The Thalweg* will be combined with the *Water Saver*, Cobb's Water Efficiency newsletter, and will be rebranded into one periodical called *Water Matters*. This new format will incorporate content from both WE and WSP as well as the Water System's Communication and Education Division.



Watershed Profiles and Signage

The watershed profile project, creating narratives that provide history, statistics, and points of interest for the major watersheds in Cobb County, has developed into a GIS Story Mapping effort. We continue to develop content to enable the creation of individual fact sheets in the future. Our signage program, in cooperation with Cobb County DOT, installs watershed and stream name signage at Adopt-A-Stream locations across the county, remains a priority. Volunteer groups are recognized on blades at each monitoring location.

T-shirt Design Contest with Kennesaw State University

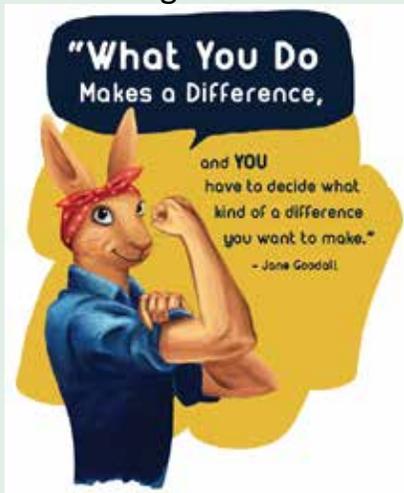


Image: The winning 2019 design.

Since 2002, WSP has partnered with local graphic design professors to incorporate a real-world project for students into their course curriculum. Our staff and volunteers become clients of the class with the students creating designs to be voted on for production on our annual volunteer t-shirt. This opportunity has developed into a portfolio assignment that senior level students incorporate into their final semester, with a client meeting and a culminating critique where each design is presented for comment and the selection of finalist designs. The inspirational quote selected to be incorporated into the design this year was from scientist Jane Goodall, **“What you do makes a difference and you have to decide what kind of difference you want to make”**. This year, seventeen students participated in the client meeting and all submitted designs for consideration at our design critique in March. The selected design was chosen by staff in honor of our longtime volunteer Lois Morrison who was a riveter during WWII, has been volunteering in her community for more than 50 years, and turns 99 in June. The winning design was created by Bryan Brasuk.

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

- Environmental Education Alliance of Georgia: Advisory Council
- Georgia Association of Water Professionals: Public Education Committee 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, Conference Planning Committee
- Southeast Environmental Education Alliance: Past-chair
- Our Shared Forest Committee: Co-Chair
- Chattahoochee Parks Conservancy: Education Committee Chair

Partnerships

- Georgia EPD Outreach Unit
- National Park Service
- Georgia Association of Water Professionals
- Environmental Education Alliance of Georgia
- Metro North Georgia Water Planning District
- Cobb County DOT
- Cobb County School System
- Cobb County P.A.R.K.S.
- Keep Cobb Beautiful
- Keep Marietta Beautiful
- Keep Smyrna Beautiful
- 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
- City of Atlanta
- City of Marietta - Marietta Water
- City of Roswell
- City of Smyrna - Keep Smyrna Beautiful
- Cherokee County
- DeKalb County
- Fulton County
- Gwinnett County
- Marietta City Schools
- UGA Cooperative Extension

Program History

2019

- Water Efficiency and Communications join WSP to form Communication & Education Division
- Cobb County Water System (CCWS) awarded Comprehensive Education Program of Excellence from GAWP.
- WSP Volunteers (Tritt Elementary) receives Rivers Alive School of the Year Award from EPD.
- WSP Volunteer group (Pope High School) receives AAS School of the Year Award from EPD.
- WSP recognizes Cobb Progressives Earth First as Watershed Group of the Year.
- WSP recognizes Osborne High School as Watershed School of the Year.
- WSP staff receives Trainer of the Year Award from EPD.

2018

- Cobb County Water System (CCWS) awarded Comprehensive Education Program of Excellence from GAWP.
- WSP Volunteers (Tritt Elementary) receive Rivers Alive Clean-up Award.
- WSP recognizes Eddie Richards as Garden Volunteer of the Year.
- WSP recognizes Rosco Peters as New Volunteer of the Year.
- WSP recognizes Richard and Nancy Cole for Excellence in Data Collection.

2017

- Cobb County Water System (CCWS) awarded Comprehensive Education Program of Excellence from GAWP.
- WSP receives Watershed Award from EPD.
- WSP Volunteer (Anne Ledbetter) receives Red Flag Award.
- WSP Volunteers (ERM Atlanta) receives Nymph Award.
- WSP Volunteers (Ford Elementary) receive Rivers Alive Clean-up Award.
- WSP recognizes Keep Smyrna Beautiful as Group of the Year.
- WSP recognizes Keheley Elementary as School of the Year.
- WSP recognizes Anne Ledbetter with a Stewardship In Action Award.

2016

- WSP staff recognized by Cobb County Board of Commissioners for Excellence in Customer Service.
- WSP Volunteer (Norm Fagge) receives Excellence in Data Collection Award.
- WSP Volunteers (Pope High School) receive Rivers Alive Clean-up Award.
- WSP recognizes Norm Fagge as Volunteer of the Year.
- WSP recognizes GA AAS as Partner of the Year.
- WSP recognizes Sedalia Park as School of the Year.
- WSP recognizes Simon Locke with a Stewardship In Action Award.

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

- CCWS receives 2014 Best Direct Media Award for *The Thalweg* from 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 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 Innovative Initiative Program Award for *Eco-Logical...Tips to Reduce Your Footprint* 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.
- Cobb County Water System (CCWS) receives Public Education Award from GA Assoc. of Water Professionals (GAWP) - 2002 & 2006.
- Cobb Adopt-A-Stream (AAS) Program Coordinator is hired and program is launched.

REFLECTIONS

We continue to facilitate family and library programs .



We encourage school groups to participate in experiential learning and community service.



Programs with our local National Parks:
Every Kid In A Park at Sibley Pond, the 2019
Children's Water Festival at Paces Mill Unit, and
Summer Camps at Kennesaw Mountain learn
about local wildlife and ecology.



We continue to offer
community workshops,
displays and teacher
trainings.



THANK YOU

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

April Adams	Jake Ehrie	Sylvia Jud	Michael O'Shield	Braden Troccoli
Jo Adang	Joan Ellars	John Keiler	Janice Overbeck	Shannon Troccoli
Ina Allison	Katey Evans	Monica Kilpatrick	Ash Owen	Ashley Turner
Cheryl Ashley-Serafine	Norman Fagge	Ann Kirk	Luke Owen	Elizabeth Umanah
George Aycock	Dolly Fehd	Julie Knight	Marge Owens	Timmy Vaughn
Seirisse Baker	Erin Feichtner	Jennifer Lana	Tamatha Papadeas	Virma Velez
Delon Barfuss	Jimmy Flynn	Donna Leavell	Nancy Payne	Henning Von Schmeling
Jenny Bartee	Aida Ford	Jesse LeBoeuf	Kelly Paynter	Allie Walker
Julie Barwig	Cynthia Foster	Anne Ledbetter	Jana Pearce	Amy Warnock
Rick Bauer	Katie Gaudette	Eric Lee	Sabrina Pemberton-Piper	Morning Washburn
Judy Beard	Sylvia Gerbovaz	Dana LeFever	Diego Perez	Tyler Washburn
Morica Bellotto	Connie Ghosh	Janet Liberman	Pic Petelle	Lyn Watts
Linda Beving	Alicia Giddens	Kathleen Lemley	Rosco Peters	Debra Whatley
Becky & Jerry Blades	Amy Gilbert	Renaee Lemon	Frenando Pharr	Jack White
Bill Blythe	Frank Gipson	Simon and Patti Locke	Tim Phillips	Kim White
Joe Boland	Diego Gomez	Carla Loosier	Brad Plumley	Amy Whitney
Jacob Boling	Guy Gray	Bill Lovelace	Cornelius Pope	Kelley Williams
Angie Bolton	Amy Gutierrez	Joe Lukas	Diane Powell	Michael Williams
Roger Boss	Kristina Ha	Sonya Wood Mahler	Tim Pugh	Trimanda Williams
Robert Bourne	Stacey Haire	Mark Mandica	John Purcell	Mary Winder
Mike Boyce	Terrilyn Hannah	Meridith Marchbank	Kevin Ranke	Bill Witherspoon
David Breaden	Susan Hansen	Sydney Marks	Anthony Ray	Jeff Wix
David Bridges	Harold Harbert	Linda Martin	Mark Ray	Karan Wood
Sally Brooking	Hillary Herlinger	Jennifer Martinez	Eddie Rhoades	Denise Wright
Kodi Brown	Judy Huguenard	Linda May	Eddie Richards	Chuck Youmans
Roger Buerki	Bill Higgins	Gayle McAllister	Marvin Richards	David Zandstra
Paige Bushart	Jerry & Penny Hightower	Ray McClellan	Shannnon Robertson	Wayne Zhang
Sharon Camp	Christy Hill	Jason McCoy	Susan Ryan	
JJ Campbell	Kevin Hill	Steve McCullers	Daryl Sawyer	
Cheney Carter	Jeff Hite	Jennifer Mercure	Chelsea Sexton	... And to anyone
Chris Clay	Kim Holland	Susan Meyers	Pradip Shah	we inadvertently
Richard and Nancy Cole	Glen Holley	Angela Mbagwu	Rachel Sheldon	forgot!
Ryan Coover	Amanda Howard	Bramlett Micklow	Steve Shelton	
Annie Couch	Jody Hubbell	Viktoria Mihan	Jackie Sherry	
Cheri Craft	Judy Huguenard	Jackie Miller	Annette Simpson	
Sally Creel	John Huth	Catherine Mills	James Simpson	
Stacy Cromer	Kristine Hwang	Charlie Monroe	Chris Skelton	
Vicki Culbreth	Patty Ingalsbee	Heather Moody	Sarah Skinner	
Tiffany Davidson	Nathalie Jegg	Cara Mooty	Jamie Slafkosky	
Elizabeth Davis	John Jennings	Dimelina Mora	Emily Steeves	
Gretchen Davis	Alexandra Johnson	Lois & Nancy Morrison	Heidi Stephens	
Kelley Davis	Karen Johnson	Sarah Murphy	Kevin Stephens	
Jaap DeRoode	Brooke Jones	Tamera Neal	Jamie Stones	
Gourav Divon	Judy Jones	Jessica Neely	Pam Subalusky	
Ric Donato	Jeremy Kahle	Connie Nelson	Adam Sukenick	
Harrison Drome	Nikeya Kaiser	Steve Nestor	Dave Thomas	
Jermaine Duncan	Rebecca Kapala	Travis Neumuller	Jennifer Thomas	
Katrina Dunn	Cora Keeber	Frank Newton	Marjorie Thomas	
Jeremy Eaves	John Keiler	Kathy Nguyen	Stephen Thomas	
Eric Eberly	Nathalie Jegg	Dave & Diane Ochala	Phoebe Torres	

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, Environmental Programs 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 20 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, Master Gardener

Mike Kahle, Environmental Programs Specialist

Mike joined our team in October 2011, initially 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, Master Gardener, Monarchs In the Classroom, Trail Crew Leader

Educator Certifications: Wonder of Wetlands, Our Shared Forest, Certified Interpretive Guide, MS4 Compliance & Enforcement Certified Inspector, Leave No Trace

Lori Watterson, Program Specialist

Taylor joined our team in August 2017. After finishing her undergraduate degree, she spent a year working in Montana as an AmeriCorp member with The Nature Conservancy.

Education:

Bachelor of Science (Geography), University of West Georgia, 2016

Certification: Geographic Information Systems

Angie Marcus, Program Assistant

Angie joined our team in July 2015. Her background includes work in youth counseling as well as environmental education with Virginia 4-H and Learning Tree Farms.

Education:

Master of Social Work (Family & Children), Kennesaw State University, 2014
Master of Education (Outdoor Education Administration), Georgia College & State University, 2000
Bachelor of Arts (Sociology), Lenoir-Rhyne University, 1997

Facilitator Certifications: Project WET, Project Learning Tree, Project WILD, Challenge Course Trainer

Educator Certifications: Outdoor Wildlife Leadership School, Leave No Trace

Deb Kay, Program Assistant

Deb came to WSP in October 2018. She served in the Peace Corp in Ecuador teaching sustainable community practices and worked in Venezuela assisting with an anaconda census and manatee preservation project.

Education:

Bachelor's Degree in Agriculture from Ohio State University

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

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Connecting Community to Local Ecology
www.cobbstreams.org

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Cobb County...Expect the Best!

Michael H. Boyce, Chairman
Keli Gambrell, District One
Bob Ott, District Two
JoAnn Birrell, District Three
Lisa Cupid, District Four
Rob Hosack, County Manager

June 2019