



# water matters

Cobb County Water System  
Fall 2022

Volume 19 Issue 4

## Cobb County Board of Commissioners

Lisa Cupid  
Chairwoman

Keli Gambrell  
District One

Jerica Richardson  
District Two

JoAnn K. Birrell  
District Three

Monique Sheffield  
District Four

Dr. Jackie McMorris  
County Manager

## Cobb County Water System Communications & Education

662 South Cobb Drive  
Marietta, Georgia 30060

770-528-1482  
water\_rsvp@cobbcounty.org

### Staff

Elizabeth Brewer

Kristina Ha

Mike Kahle

Julie Knobbe

Aminta Liu

Angie Marcus

Jennifer McCoy

Laurelle Panchoo

Virma Vélez

Gage Williams

[www.cobbstreams.org](http://www.cobbstreams.org)



## CCWS Celebrates 20 Years of Adopt-a-Stream

May of 2022 marked the 20th anniversary of Cobb County Water System's Adopt-A-Stream (AAS) Program. It is the longest running program that is currently coordinated by Cobb County Water System's CED Division. For more than two decades, the Adopt-A-Stream program continues to be a vital hub for both new and experienced volunteers seeking to make a meaningful contribution towards the monitoring and protection of our local streams and creeks. The AAS program and its volunteers in Cobb County remain among the most active in the metro-Atlanta area. The celebration of this milestone fills us with a spirit of optimism and resiliency for many years to come.

Are you interested in becoming a certified AAS volunteer? Each year multiple AAS trainings and certifications are conducted in the following areas:

**Bacterial Monitoring:** Volunteers learn how to monitor *E. coli* levels in their streams. *E. coli* is an indicator organism that is often used to assess 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.

**Chemical Monitoring:** 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.

**Macroinvertebrate Monitoring:** Participants monitor the population and diversity of benthic macroinvertebrates that act as bioindicators of water quality. Studying the diversity of organisms at a site gives a general picture of water quality.

**Visual Monitoring:** Volunteers learn how to use maps to delineate and assess their watershed. Land use and impervious surface are discussed as it pertains to the watershed survey data forms.

Following successful completion of a certification workshop, AAS volunteers adopt a local site and complete monthly monitoring. If you'd like to become an AAS volunteer, look for upcoming workshops on the calendar on our webpage [www.cobbwater.org](http://www.cobbwater.org).



# Animal Architects: Meet the Collectors

By: Ethan Hatchett  
<https://tinyurl.com/yckne35h>

Animals have evolved complex survival strategies to suit the demands of their habitats. Through these changes, some have become excellent architects. They work with the environment to meet their needs, including for protection and prey.

Many items are discarded in the natural world. Leaves fall, branches break and, sadly, animals die. But some creatures profit from this refuse. For these collectors, others' trash can be their treasure.

Take the case-building caddisfly, which lives in freshwater ecosystems across Georgia. Its larvae resemble caterpillars and feed on algae, aquatic vegetation and microfauna in the water. But even more novel, they create casings from objects they find.

In its larval stage, the caddisfly has a unique ability to spin silk underwater. The insect uses this sticky silk to create its case. The case then serves as a suit of armor that protects the creature's fleshy abdomen from predators. As for the armor pieces, the caddisfly larva takes advantage of its surroundings, using empty snail shells, sand, rocks and other material to fortify itself.

Case-building caddisflies belong to the order Trichoptera, which includes many species. These caddisflies are well adapted to survive underwater. But their success hinges on their ability to spin silk and the ease with which they then create cases out of available material.

The larvae undergo a complete metamorphosis. Adult caddisflies resemble moths and only live for about a month. Most don't even feed as adults. Individual species can be difficult to identify as adults, and most are identified as their more distinct larvae.

Green lacewing larvae use discarded material in a different but no less effective way.

The young of these insects spend their lives among vegetation throughout the state, preying on soft-bodied insects such as aphids. Yet instead of creating makeshift armor like the caddisfly larva does, the larval lacewing uses bits of organic matter and the carcasses of its prey as a disguise.

The species has earned the nickname trash bug for its interesting disguises!

The larva has bristles on its abdomen that allow debris to stick to it. The disguise serves two purposes: camouflage from predators and subterfuge for hunting. By utilizing debris, the trash bug can slip unnoticed among its favorite prey.



*Caddisfly larva with stick casing.*  
Photo By: DeWaine Tollefsrud  
<https://tinyurl.com/yh59bdz7>



*A common lacewing larva waits for some victim to try to get at the sweet pollen.*  
Photo Source: <https://tinyurl.com/2bmx8be>

The lacewing larva undergoes a complete metamorphosis into an adult green lacewing. These insects belong to the family Chrysopidae, which includes species common in North America and Europe. Most adults feed on pollen, honeydew and nectar, but some species also feed on insects.

Lacewing larvae are one the most beneficial animals to have in your garden. Their ferocious appetite has also earned them nicknames. One is the aphid wolf.

Collecting objects that would otherwise decay offers many advantages. The material can provide protection and also double as a disguise to get closer to prey. And while opportunistically using whatever they can find to build their structures, these animals create a testament to their ingenuity and their daily struggle for survival.





We all know that during Autumn leaves change their color and fall, and many animals start their hibernation or overwintering process. Monarch butterflies are no exception. Every Fall, these butterflies start their great migratory journey to their wintering grounds. Monarchs east of the Rockies will travel far south to a specific location in the Sierra Madre mountains of Mexico. There they settle in oyamel fir forests to wait out the winter season. But before they arrive in Mexico, Monarchs will visit many locations along the way, including our area. Cobb's peak in Monarch abundance tends to be between late September and early October.

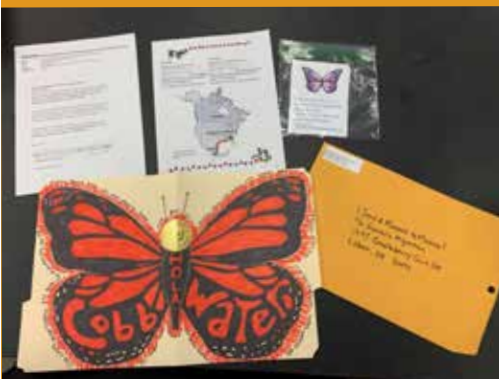
Some ways to support the Monarch migration, especially with their population significantly decreasing in the last decades, are:

- Planting native trees and wildflowers that bloom late Summer and into Fall. Fall blooming plants provide nectar for adult monarchs during their migration journey.
- Refraining from the use of pesticides and insecticides, especially on fall-blooming plants.
- Purchasing plants that have not been treated with neonicotinoids.
- Plant native milkweed, adult monarchs only lay their eggs on milkweed.

### Send an ambassador monarch to Mexico!

Join Journey North and The Environmental Education Alliance for the 27th annual "Symbolic Monarch Butterfly Migration" with youth from across North America. Families, home schools, nature centers, youth groups, and classrooms are welcome to participate.

In the fall of 2021, twenty-eight thousand youth in the United States and Canada created symbolic butterflies and sent them to Mexico for the winter. Students in schools near the Mexican monarch sanctuaries protected the butterflies and sent them north in the spring of 2022. These symbolic butterflies build bridges of communication between students in Mexico, the U.S., and Canada. United by the monarch butterfly, children across North America learn authentic lessons of conservation, cooperation, and ambassadorship.



This fall, students across the globe will create symbolic class and individual monarch butterflies and send them to Mexico. Once they arrive, students who live beside the monarchs' winter sanctuaries in Mexico will protect the paper butterflies through the winter. Sometime in March, the paper butterflies will be returned north carrying special messages from the students in Mexico. This symbolic migration is timed to correspond with the real monarchs' journey. **The deadline for this year's project being postmarked is October 7th.** During the paper butterflies' time in Mexico, participating students can read monarch butterfly news from Mexico, learn about living in the monarch sanctuary region, and read about their class butterfly in Mexico. When butterflies are returned in the spring, students do not receive their own class or individual butterflies, but will receive butterflies from other students in North America. After reporting in the fall and spring, classes are able to see where their butterflies landed!

To cover the costs of this important educational project, participants must buy a \$15 "Passenger Ticket" for each Ambassador Butterfly folder submitted. These funds will support school visits in Mexico to deliver the butterflies and provide conservation education.

## ECOPEDIA

### Phenotypic Plasticity

As defined by the Encyclopedia of Ecology, phenotypic plasticity is the ability of an organism to change in response to stimuli or inputs from the environment. The response may or may not be adaptive, and it may involve a change in morphology, physiological state, or behavior, or some combination of these. The phenotype being all of the characteristics of an organism other than its genes. For example, genetically identical water flea (*Daphnia*) clones can differ in their morphology depending on whether they were nurtured in the absence or presence of a potential predator. Fluctuating pond characteristics, such as size and amount of habitat, can contribute to tadpole size as shown in the picture to the right.



# How To Stop Household Water Leaks

By: Joanna Birns

<https://tinyurl.com/bdfxnfxb>

Household water leaks are responsible for an absolutely staggering amount of water waste with the average American household wasting an average of 10,000 gallons/year to leaks. All of this waste amounts to a whopping 1 trillion gallons of water/year or roughly 59 billion showers.

## How to stop a leaking pipe

Leaking pipes may be just a drop or two... but left attended, a leaking pipe might cause mold build up or erosion to the foundation of your home. Luckily, small leaks in your pipes can be pretty easy to fix!

Heads up: some leaks are best left up to the pros! To minimize further potential damage from a leak, please contact your local plumbing professional.

1. After locating the leak, turn off the water in that area (or in the entire house if you don't have the option to turn off just the area with the leak).
2. Next, drain the water in the pipe by running a faucet until water stops coming.
3. If you have some available, epoxy putty is a great way to patch up a pipe. Tear off the putty you need and knead it over the tear. Make sure you follow the instructions on the epoxy putty to be sure you're installing it correctly.
4. If you don't have any epoxy putty, you can use plumber's tape (also known as "pipe leak tape"). Wrap the tape around the tear, making sure to follow the instructions listed on the tape.
5. Once you think you've caught and fixed your leak, turn back on your water. Before using any appliances, check your meter or Flume Smart Home Water Monitor (see Recommended Resource on page 5) app to see if any water is being used. If no water usage appears – congrats! You're leak free!

## How to stop a running toilet

There are a couple problems that could contribute to your running toilet. Test all the following to make sure you put a stop to your running toilet.

1. First, turn off the water to your toilet. You can usually find a knob behind your toilet.
2. Then, remove the tank lid. Check the flapper by pressing your finger around the flapper's edges. If your toilet stops running, then it's likely that your flapper seal is bad. Head to your local hardware store to buy a replacement flapper. Here's a diagram of the parts of the toilet if you have questions!
3. If that doesn't solve your problem, try checking your float. Toilets have two types of floats: ball floats and cup floats. If the float is too high, the water level will rise above the overflow pipe and the tank will never stop draining. To fix this, you can either replace the float or adjust the length of the float.

## How to stop a major leak

We hope you never do... but if you find yourself face to face with a major leak, call a professional immediately and follow these steps to mitigate damage until they arrive.

1. After shutting off the main water valve, let a faucet run to drain the pipes.
2. Then, look for Plumber's tape or epoxy to fix the pipe. While these are the same materials you may use on a small pipe leak, you'll likely need significantly more for a major pipe leak.
3. If tape and epoxy aren't working, try grabbing a block of wood and a c-clamp. The block of wood will spread the pressure while the c-clamp holds the wood in place. This isn't a permanent solution, but will work until a professional arrives.
4. If your leak left a puddle of water behind, try to get rid of this using a mop or buckets. This will prevent any damage to your home and valuables.
5. Open doors or cabinets that cover the pipe to make sure the damp area can air out.

We hope your household stays leak-free! If you do run into a leak, there are DIY, quick ways to put a stop to the leak. If you don't feel comfortable, you can always call a professional.



## COBB'S CLIMATE UPDATE

### Declared Water Restrictions Status:

Non-Drought Status

**Outdoor water use:** Irrigation permitted daily before 10 AM and after 4 PM.

No restrictions on other outdoor water uses: car washing, pressure washing, and hand watering.

**U.S. Drought Monitor:** None

**Rainfall Level:** Below Normal

- 2022 Total: 42.5 inches
- Jan-Aug Historical Average: 49.71 inches

**Rainfall June - August 2022:**

- June: 3.30 inches
- July: 9.20 inches
- August: 3.70 inches

**Allatoona's current level:**

838.02 feet, below full pool

**Chattahoochee River and tributaries:**

At or below normal ranges

**Lake Lanier:**

1068.86 feet, below full pool

### Splash into a new service opportunity! Join our Outreach Volunteer Team!

Cobb County Water System is excited to announce we are now accepting applications for the 2023 Outreach Volunteer Program (OVP) training cohort.

If you're passionate about giving back to the community in a meaningful way, look no further than our Outreach Volunteer Program. Water is a vital resource that is interwoven into our everyday lives, from the water that runs from our faucets to the water that flows down the Chattahoochee River. Help us spread the critical message of water conservation and sustainable water practices in your Cobb County community by supporting our presence at outreach events and water education events. Everyday heroes are needed to connect residents with water-saving habits, technology, and water protection efforts.

Through a series of six in-person training workshops held weekly from February to mid-March, participants will become knowledgeable water ambassadors to the community. The training program covers topics such as indoor and outdoor water conservation, the human water cycle, watersheds, household hazardous wastes, and FOG (fats, oils, and grease). In addition to a working knowledge, participants will expand their communication skills through hands-on demonstrations. After the training is complete, outreach volunteers commit to giving back at least 20 hours of service, working alongside Cobb Water employees as they educate and interact with community members during public events.

To get involved, please fill out a volunteer application form on our website at [www.cobbcounty.org/wateroutreach](http://www.cobbcounty.org/wateroutreach), or email the coordinator at [Aminta.liu@cobbcounty.org](mailto:Aminta.liu@cobbcounty.org). We look forward to meeting you and serving the community together.



## RECOMMENDED RESOURCE

### Flume Smart Home Water Monitor

Cobb County Water System customers are now eligible to receive a Flume Smart Home Water Monitor for an out-of-pocket cost of \$80. After initial purchase of \$180 through <http://flumewater.com/cobbcounty>, CCWS residential customers will be eligible for a \$100 credit on their water bill after installation and completion of a simple online application.

By detecting existing and future leaks, separating both indoor and outdoor use, and tracking water use down to the minute, you will be empowered by your actual water use and not just through a bill at the end of the month. Installation is easy, the sensor straps around your existing water meter—no plumber or pipe cutting is needed.

Before you order your Flume Smart Home Water Monitor, make sure that you meet the requirements below:

1. Your home must have a wireless network (WiFi). You must also know your WiFi password.
2. You must have an iOS (Apple) or Android device and be willing to download the Flume app.
3. You are a CCWS Customer if you pay your water bill directly to CCWS.



2022 River of Words Winner

Lakeside Bridge

Jhanvi Momaya, grade 5

Sedalia Park Elementary School, Marietta

Teachers: Cheri Craft & Janequa Williams



## Stewardship Stars Excellence in Data Collection

*The following volunteers have submitted data each month during the June, July, and August quarter:*

**Angie's Northeast Streams** - Chemical Monitoring in Noonday Watershed  
**Beving** - Chemical & Bacterial Monitoring on Allatoona Lake  
**Bushart** - Chemical & Bacterial Monitoring on Olley Creek  
**Children of the Deer** - Chemical Monitoring in Noonday Watershed  
**Cobb Police Community Affairs Unit** - Chemical Monitoring on Butler & Proctor Creek  
**Cobb Progressives** - Chemical & Bacterial Monitoring on Noonday Creek  
**Concord Woolen Mill** - Chemical Monitoring on Nickajack Creek  
**Ernstes** - Chemical Monitoring on Ward Creek  
**Fox Creek** - Chemical Monitoring in Willeo Watershed  
**Good Guy Greg** - Chemical Monitoring in Proctor Watershed  
**Grams Collins Gals** - Chemical Monitoring in Willeo Watershed  
**Keep Smyrna Beautiful** - Chemical Monitoring in Nickajack Watershed  
**Lakewood Colony** - Chemical & Bacterial Monitoring in Rubes Watershed  
**Lesterosa** - Chemical Monitoring in Nickajack Watershed  
**Pic** - Chemical Monitoring on Noses Creek  
**Richard's Creek** - Chemical Monitoring in Allatoona Watershed  
**Sierra Club Centennial Group** - Chemical, Bacterial, & Macro Monitoring in Rottenwood Watershed  
**Simon Locke** - Chemical, Bacterial, & Habitat Monitoring on Butler & Proctor Creek  
**Team Salty** - Chemical Monitoring on Sope Creek  
**Turkey Feather** - Chemical & Bacterial Monitoring in Nickajack & Olley Watershed  
**Village North Highlands** - Chemical & Bacterial Monitoring in Willeo Watershed  
**The Wood Family** - Chemical & Bacterial Monitoring on Poplar Creek

**Thank you for your hard work and dedication!**

w e l c o m e

**Our Giving Garden**  
Chemical Monitoring  
in Nickajack Watershed

**AAS @ KSU**  
Chemical & Bacterial Monitoring  
on Noonday Creek

**Water Trooper**  
Chemical Monitoring  
in Allatoona Watershed



### Welcome to Elizabeth Brewer!

We would like to welcome Elizabeth Brewer as the new part-time Program Assistant working with the third grade Brooke and Branch puppet show. Elizabeth holds a Bachelor's in Biology with a minor in Anthropology. She has an extensive background in the water field, having spent over 10 years as a Water Quality Biologist, and most recently substitute teaching in Cobb County schools. In addition to professional experience, Elizabeth has extensive volunteer experience with Girl Scouts and Drum Corps International, Spirit of Atlanta. Welcome Elizabeth!



### Welcome to Gage Williams!

We are delighted to also be welcoming Gage Williams to our education team! Gage brings vast experience in environmental and cultural resource education. His past experience includes coordinating youth and community programming with The University of Georgia Cooperative Extension Service, Georgia Aquarium, and the Southern Conservation Trust. Welcome Gage!



### Welcome to Julie Knobbe!

We are extremely happy to have Julie Knobbe join our education team! Julie brings an incredible amount of experience and energy to our school and community programs. For the past twelve years, she was a STEM instructor at a Cobb County school, where she put her heart and soul into her work leading hands-on and engaging STEM activities for her students. Previously, she coordinated school and youth programs for the Missouri Botanical Garden and the Wyman Center in St. Louis, Missouri, and taught as a naturalist and garden educator in New York State and Maryland. Welcome Julie!



### 2022 Water Quality Report is available

The Cobb County Water System Annual Water Quality Report is available on our website at [www.cobbcounty.org/waterqualityreport](http://www.cobbcounty.org/waterqualityreport). This federally mandated report, covering the period of January – December 2021, provides residents with information regarding the quality of their drinking water. To request a hard copy of this report visit <https://cobbcounty.seamlessdocs.com/f/WaterQualityReportRequest>. To view our recent Lunch & Learn, presented in partnership with Cobb County-Marietta Water Authority, explaining the information found in the CCR, visit <https://youtu.be/IB7EKehDsOw>.



### Farewell to Chrissy Rubel

The Water System wishes a fond farewell to our friend and colleague Chrissy Rubel. Since 2017, Chrissy facilitated school programming, community service projects, and tabling events for Cobb Water. We wish Chrissy well and best of luck in her new adventures!

### Thank You to Our Summer Intern!

We would like to thank our summer intern, Tiffanie Torrey, a Sophomore Ocean Science major at The University of Georgia. Throughout the summer, Tiffanie assisted with community and family outreach programs, led summer library programs, became Adopt-A-Stream certified, and designed activities to improve our tabling events. Thank you for your hard work!



### Cobb County River's Alive Cleanup

Join the National Park Service, Keep Smyrna/Marietta/Cobb Beautiful, and Cobb Water on Saturday, September 10th, as we come together to clean litter from the banks of the Chattahoochee River and Rottenwood Creek at Paces Mill Unit of the Chattahoochee River National Recreation Area. There are 5 cleanup sites to choose from ranging in difficulty levels of easy and flat to off-trail and somewhat strenuous.

This is always great fun and a rewarding experience. Removing litter from the land and water areas of the park will help protect wildlife, water quality, and improve the aesthetics and enjoyment for park users. Registration is required. We hope to see you there!



### SEASONAL HAPPENINGS

#### Storm Drain Marking

**September 15 • 6:00pm - 7:30pm • Hampton Ridge Subdivision, 4509 Ashmore Circle, Marietta**  
**October 8 • 10:30am - 12:00pm • Barrett Creek Subdivision, 65 Lakebrooke Lane, Marietta**  
**October 19 • 5:30pm - 7:00pm • Camden Place Subdivision, 4801 Upper Branden Place NE, Marietta**  
**November 5 • 10:30am - 12:00pm • Plantation North Subdivision, 4500 Quarter Horse Drive, Roswell**

Each group of volunteers will have a bucket full of supplies: maps, pens, storm drain markers, adhesive, educational material packets, and trash bags. Teams will mark the storm drains, pick up litter, and distribute packets to each home to educate residents about stormwater pollution prevention.

To register for these events, visit [www.cobbstreams.org](http://www.cobbstreams.org).



#### Fairy Pumpkin Habitat Workshops

**November 8 • 10:00am - 12:00pm • Water Quality Lab's Wildlife & Rain Garden, 662 South Cobb Drive, Marietta**  
 Our youngest environmental stewards fulfill a very important role in Cobb County. Participants in this workshop will learn what is necessary to create a habitat for small creatures, then practice their new knowledge by building a fairy house. Designed to foster a foundation of service, an appreciation for being outdoors, and a sense of wonder for the natural world, Fairy Habitat Workshops strive to ensure all creatures have a healthy and secure home place. **November Fairy Habitat Workshops are a special pumpkin workshop. Fairy pumpkin habitats will go home with participants to provide habitat for creatures at your home.**

#### Lunch & Learn Series

**September 23 • Septic Systems with Jen Birdsong from Cobb & Douglas Public Health**  
**October 21 • Backflow Prevention, Pressure Reduction, and Thermal Expansion 101**  
**November 18 • Fats, Oils, and Grease (FOG)**

In response to common questions and concerns about various topics related to water quality, pollution prevention, water conservation, and other issues that the Water System can help with, these Lunch & Learns will be presented in an in-person and virtual hybrid format, with time consideration for the typical lunch break. Cobb residents will better understand the ins and outs of our water supply, how to protect it, and how the system works for everyone. All Lunch & Learns are held from **12:00-12:45pm** and are presented in-person and virtually.

#### Stream Cleanup

**September 10 • 9:00am - 12:00pm • Rottenwood Creek at CRNRA-Paces Mill Unit, 3444 Cobb Pkwy, Atlanta**  
**October 11 • 4:30pm - 6:00pm • Olley Creek at Tramore Park, 2150 East-West Connector, Austell**

We will provide you with all the supplies needed to remove trash from local streams and help keep it from reaching our drinking water sources. For the stream cleanups, wear clothes that can get wet and closed-toes shoes like tennis shoes or water shoes.

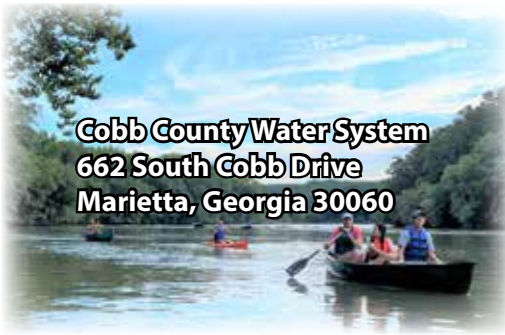
#### Privet Pull

**November 19 • 10:00am - 12:00pm • Leone Hall Price Park, 4715 Stilesboro Rd, Kennesaw**

Privet is a non-native, invasive plant that out-competes native species. We'll be removing privet from the landscape. Join us to improve habitat and native plant species. We will provide tools that pull the privet right out of the ground by its roots. We will provide gardening gloves.

#### Find out what we've been up to!

Our 2021-2022 Annual Report is now available online. Visit [www.cobbstreams.org](http://www.cobbstreams.org), under "About."



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

## Calendar of Events

### September

- 1 Rain Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 8 Rain Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 10 Rivers Alive Clean-up • 9:00am - 12:00pm • Chattahoochee River National Recreation Area-Paces Mill Unit
- 13 Rain Barrel Make & Take • 9:00am - 10:00am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 13 Rain Barrel Make & Take • 10:30am - 11:30am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 15 Storm Drain Marking • 6:00pm - 7:30pm • Hampton Ridge Subdivision
- 21 Rain Barrel Make & Take • 12:00pm - 1:00pm • Hyde Farm Park
- 22 Adopt-A-Stream Bacterial Monitoring Workshop • 6:30pm - 9:00pm • Cobb County Water Quality Laboratory
- 23 Lunch & Learn: Smart Septic Systems • 12:00pm - 12:45pm • In-person & Virtual Presentation

### October

- 8 Storm Drain Marking • 10:30am - 12:00pm • Barrett Creek Subdivision
- 10 Rain Barrel Make & Take • 9:00am - 10:00am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 10 Rain Barrel Make & Take • 10:30am - 11:30am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 11 Stream Clean-up • 4:30pm - 6:00pm • Olley Creek at Tramore Park
- 12 Adopt-A-Stream Chemical Monitoring Workshop • 6:30pm - 9:00pm • Cobb County Water Quality Laboratory
- 19 Storm Drain Marking • 5:30pm - 7:00pm • Camden Place Subdivision
- 20 Rain Garden Work Day • 8:30am - 10:30am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 21 Lunch & Learn: Backflow Prevention, Pressure Reduction, and Thermal Expansion 101 • 12:00pm - 12:45pm • In-person & Virtual Presentation

### November

- 2 Adopt-A-Stream Bacterial Monitoring Workshop • 6:30pm - 9:00pm • Cobb County Water Quality Laboratory
- 3 Rain Garden Work Day • 9:00am - 11:00am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 5 Storm Drain Marking • 10:30am - 12:00pm • Plantation North Subdivision
- 8 Fairy Pumpkin Habitat Workshop • 10:00am - 12:00pm • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 10 Rain Garden Work Day • 9:00am - 11:00am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 17 Rain Garden Work Day • 9:00am - 11:00am • Cobb County Water Quality Laboratory Wildlife & Rain Garden
- 18 Lunch & Learn: Fats, Oils, and Grease (FOG) • 12:00pm - 12:45pm • In-person & Virtual Presentation
- 19 Privet Pull • 10:00am - 12:00pm • Price Park

More information can be found on our calendar at [www.cobbstreams.org](http://www.cobbstreams.org).  
Programs are subject to cancellation based on public health conditions.  
Registrants will receive confirmations for all programs.