

Issue 17: Fall 2019
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Staff Changes



Photo © S.Summers

Staff Changes

We recently said farewell to our Program Manager, Karli.

She has been with Coosa Riverkeeper since 2018! She brought so many smiles to our team and data to our followers.

She managed our Swim Guide program, organized events, and grew our Citizen Science Initiative. The Coosa and our organization is stronger because of her hard work! We wish her the best of luck in the next steps of her career.



Karli takes lab work seriously!

Meet Tucker Watson, our new Program Coordinator!

Tucker grew up in Auburn and learned to love the outdoors at an early age. He is a Senior in Ecological Engineering at Auburn University. He worked at Environmental Resource Analysis as a lab tech testing industrial wastewater for 3 years until he joined our team.

As the full-time Program Coordinator and Americorps member, he focuses on issues pertaining to water quality in the Coosa River watershed. He coordinates the popular Coosa River Swim Guide program and is responsible for the organization's data collection, laboratory protocol, and managing interns.



Tucker in his element.

A Swim Down Memory Lane

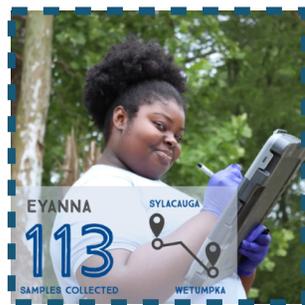
This summer marks five successful years of sampling, analyzing and sharing water quality data at 28 of the most popular swimming holes along the Coosa River. Throughout the summer we analyzed 489 water quality samples and issued 51 water quality alerts through [Swim Guide](#).

Big Canoe Creek, Little Canoe Creek & Big Wills Creek are collectively responsible for 80% of the total alerts issued for this entire season. The major sources of these alerts: agricultural run off & livestock in the creek.

Since 2015, we have collected 1,693 Swim Guide samples and issued 186 alerts in total. On average, about 10% of the total samples we collected over the years do not meet Alabama's Water Quality Standards for recreation (or if you look at it in a creek half-full sort of way- 90% of all samples are safe for splashin'!).

Whether you follow Swim Guide as a science nerd, a caring parent or a business owner— our Swim Guide data tells a story far past the end of summer. We use our data three ways: submit it to the state, determine future restoration projects and investigate sources of pollution.

Most importantly though, we believe that it is YOUR right to know what you are swimming in...and that's exactly why you can depend on us to sample again next year.



Thank you to our Summer 2019 Swim Guide Samplers, who spend their Thursdays sweatin' and collectin' so you can get the skinny before you dip!

Thank you to the Foundations who supported the 2019 Coosa River Swim Guide:



Thank you to our Lead Swim Guide Intern and Outreach Intern. They both played vital role in lab work and raising awareness about the Swim Guide!

2017 Toxic Release Inventory Data

At Coosa Riverkeeper we believe that people have the right to know what's in the water that they are drinking, fishing, and swimming in.

Each year, we dig through tons of data to see which facilities are responsible for releasing toxins into the Coosa River. The most recent data from 2017 is publicly available on the Environmental Protection Agency (EPA) Toxic Release Inventory database.

Despite the level of harm to both wildlife and human health, most of the releases included on the Toxic Release Inventory are technically legal and permits are issued by Alabama Department of Environmental Management. Even though this information is publicly available, the government makes little to no effort to inform the public about these toxins in our waterways.

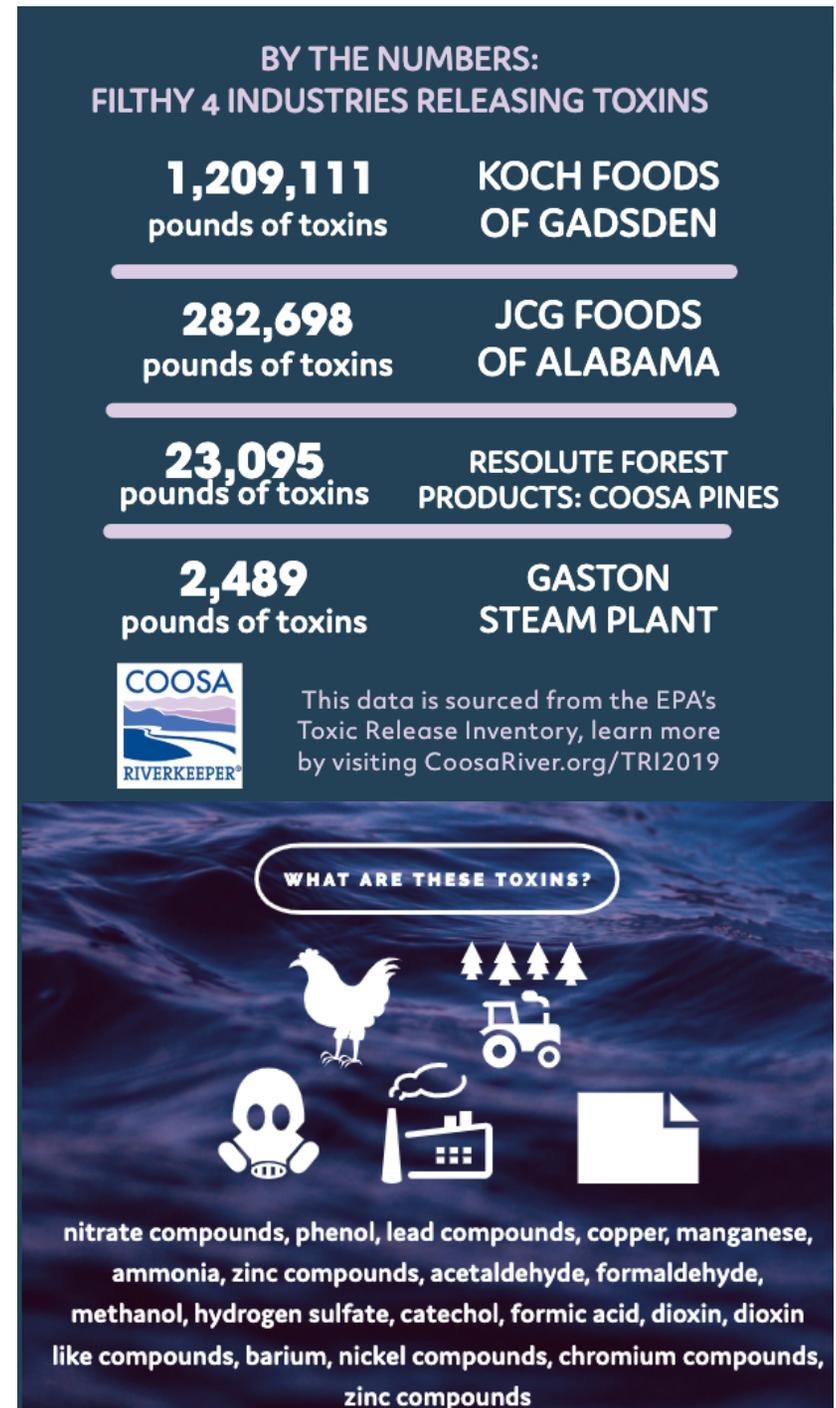
The total amount of toxic materials released from 29 facilities into the Coosa is just over 1.5 million pounds. Of that amount, about 858 pounds are known carcinogens. [See the full facilities list and rankings here.](#)

Coal Ash in Your Backyard? Gaston Steam Plant is home to a coal ash pond that's contaminating groundwater. What is crazy is that coal ash ponds are exempt from reporting to the Toxic Release Inventory even though the releases from coal ash ponds are toxic.

Concerned about toxic algal blooms? Nitrates from chicken processing plants are one of sources of excess nutrients that contribute to problematic algae such as lyngbya.

Just a few of the toxins that are released into the Coosa ...

- **Nitrate Compounds:** adverse effects on both wildlife and human health. Studies have shown an association between nitrates and various cardiovascular, reproductive, developmental, and carcinogenic issues
- **Barium:** has shown to have adverse respiratory, gastrointestinal, and musculoskeletal effects
- **Manganese:** has shown to cause adverse neurological effects
- **Nickel:** can cause allergic reactions and has adverse respiratory and carcinogenic effects



Mercury & Steam Plants

Atmospheric deposition of mercury is a leading cause of fish contamination on the Coosa River and every single river in Alabama

There are two major steam plants on the Coosa in Alabama: Ernest C. Gaston Steam Plant in Wilsonville on Lay Lake and the Gadsden Steam Plant in Gadsden on Lake Neely Henry. **When any plant burn fossil fuels, mercury is released into the atmosphere, falls with rain/dust, and then enters the food chain.**

Gaston Steam Plan and their relationship with mercury:

- In 2008, the Environmental Integrity Project, ranked the **Gaston Steam Plant second in the nation in the amount of arsenic dumped** on-site.
- The plant was also **Alabama's largest polluter in 2009** when it sent 3.8 million pounds of toxins into the air.
- Gaston Steam Plant was ranked as **second in the nation for air emissions of mercury** in 2008.

How Mercury Impacts Your Health:

It is a **neurotoxin**. When methylmercury is present in fish tissue, it can cause damage to your nervous system, kidneys, and lead to heart disease. Women who consume fish with mercury before/during pregnancy **increase their risk for developmental issues in their children.**

Portions Matter When it Comes to Mercury!

For fish consumption advisories for mercury, it doesn't matter how you prepare your catch or how you cook it. Mercury is stored in the fish tissue so you there is not much you can do you reduce your exposure... except for following the advisories themselves and maintaining the recommended portion (the size of a deck of cards)!

ALL ADVISORIES ASSUME A MEAL PORTION OF

6

ounces of cooked fish

8

ounces of raw fish

There are 34 advisories on the Coosa River in Alabama. To learn more about the advisories, visit CoosaRiver.org/FishGuide or call 844-219-RISK to hear your local advisories for each major river in Alabama!

History of PCBs in the Coosa

Anniston is home to the first place PCBs were commercially manufactured in the U.S. Polychlorinated biphenyls (PCBs) have no odor and range from colorless to light yellow. They are mixtures of 209 individual chlorinated compounds. PCBs can enter the air, water, and soil during the manufacture, use, and disposal as well as accidental leaks or spills during transport. **PCBs were used as an industrial lubricant in heavy machinery and were banned by 1979.** They were also used in paints, newspaper adhesives, deep fat fryers, and bread wrappers.

History of PCBs in Anniston: In the 1930s, electrical appliances were growing in popularity across the nation, which also increased the need for PCB manufacturing. From 1935-1971, Monsanto purchased the Swann Chemical Company in Anniston and began commercially manufacturing PCBs. During its forty years of manufacturing, **the Monsanto Company (now called Eastman) flushed tens of thousands of pounds of PCBs into tributaries of Choccolocco Creek, and buried in a landfills.**

Impacts of PCBs on Your Health:

Studies conducted in the late 1970s have provided conclusive evidence that PCBs cause cancer in animals. **Studies done on humans strongly suggest PCBs are a probable carcinogen.** The types of PCB compounds that bioaccumulate in sediment, fish, and other animals are said to be the most carcinogenic. As a result, folks who eat these fish and animals are exposing themselves to more toxic PCB compounds. **PCBs also impact reproductive systems, the immune system, causes neurological deficiencies, and negatively impacts the endocrine system.**

How it Impacts Your Catch & Cookin'...

REDUCE EXPOSURE

? PCB's **accumulate in the fatty tissue** of the fish. You need to clean and cook the fish in ways that **reduce fat**. Don't know where to find the fat in the fish? See the image below.

? Mercury **builds up in the muscle tissue** of the fish, so you can NOT reduce your exposure by following specific preparation or cooking instructions...so follow the advisories!

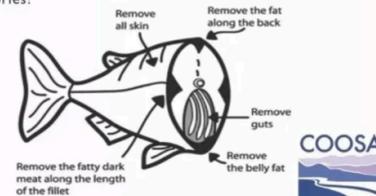


Image Courtesy of AL Dept. of Public Health

Choccolocco Creek has a **NO CONSUMPTION ADVISORY** for ALL SPECIES of fish.

PCBs are a fat soluble contaminant, so be mindful of how you prepare and cook your catch! **In order to reduce your PCB exposure you need to clean the fish to remove all the skin and fat.** Remember, **DO NOT** reuse your frying oil multiple times, the contaminant will accumulate with each fry.