



# 2021's Worst Offenses Against GEORGIA'S WATER

## CHATTAHOOCHEE RIVER

High Nutrient Levels Lead to Dangerous Toxic Algal Blooms

### INTRODUCTION:

The shocking, sad story was widely distributed: in January a beloved family pet died after swimming in Bull Sluice Lake on the Chattahoochee River near Roswell. Investigators ultimately laid the blame for the death on cyanobacteria, a blue-green algae that can produce cyanotoxins, and warned pet owners to use caution when visiting Bull Sluice Lake. Since then, Chattahoochee Riverkeeper has identified three separate locations along the Chattahoochee where harmful algal blooms have occurred, posing risks to both pets and their owners: Bull Sluice Lake, West Point Lake near LaGrange, and Lake Harding near Columbus. Cyanobacteria is a naturally occurring microscopic organism that thrives in warm, nutrient-rich water. The excessive nutrients in the Chattahoochee River, however, are not natural. Those nutrients stem from stormwater runoff that carries fertilizers from home lawns and gardens, golf courses, agricultural operations and failing septic systems, and the conditions for algal growth are enhanced by hotter weather linked to human-induced global climate change.

### THE WATER BODY:

Coursing 435 miles from the Blue Ridge Mountains to the Florida state line in southwest Georgia, the Chattahoochee River is Georgia's longest and most important river. It provides drinking water for more than five million people and carries away the treated wastewater of those same users. The river fills eleven reservoirs of varying size that provide water for drinking, energy generation, irrigation, and recreation—to anglers, swimmers and pleasure boaters. In the Atlanta area, the Chattahoochee River National Recreation Area hosts more than three million visitors annually who float the river's gentle rapids, cast for trout in its cold water and jog, walk and bike on riverside trails. The 48-mile long national park stretching from Buford Dam to Atlanta has an annual economic impact of \$125 million, and has been the impetus for broader plans to create public greenspace and river access along the Chattahoochee's route downstream from Atlanta to Coweta County. It is now a primary water recreation destination for the region and is poised in the future to be even more so.





## THE DIRT:

It is a pet owner's nightmare: a walk in the park turns deadly. Usually, the nightmare envisioned involves encounters with wild animals. Toxic microscopic bacteria aren't supposed to be the killers. But, currently, that's the danger at various points along the Chattahoochee, and perhaps, other waterways across Georgia.

What's more frustrating, there's not a single source that can be blamed for the harmful algal blooms. The high nutrient levels that have caused the algal blooms come from thousands of sources and are the cumulative result of the actions of millions of people. Thus, eliminating these sources of pollution requires actions not by a single water utility or local government, but by multiple individuals.

When it rains, fertilizer spread on lawns and gardens, chicken manure applied to farm fields, overflows from failing septic tanks and municipal sewage systems, pet waste and even lawn clippings and leaves all wash downhill to streams and rivers. If natural vegetative buffers along small creeks are not left in place, the likelihood of these nutrients entering waterways increases.

Once in the river, the nutrients coalesce where the flow slows, like in the Chattahoochee's many reservoirs, and algal blooms can proliferate, including blooms of cyanobacteria. Climate change may also play a role in spreading blooms as algal growth is greatest during warm weather, suggesting that this is a problem that will only be exacerbated by current climatic trends.



On the surface of the water cyanobacteria may appear blue, green, brown or red and look like foam, scum or large floating mats, especially along the shoreline, but there's no way to know visually whether an algae bloom contains cyanobacteria.

In 2013 in an effort to address high nutrient levels in the state's reservoirs, Georgia's Environmental Protection Division (EPD) completed a plan for adopting nutrient criteria standards for the state's waterways and committed to adopting specific standards by 2020. Now a year beyond that original timeline, EPD has not finalized those standards.

EPD has created a webpage providing resources to help citizens understand the causes of and identify potential harmful algal blooms, but there is no mechanism for reporting problems. Numerous states, including neighboring Tennessee and South Carolina have systems in place that allow citizens to report potential harmful algal blooms.

*Top: The Chattahoochee River and Bull Sluice Lake near Roswell are popular destinations for pet owners and their dogs, but harmful algal blooms containing cyanotoxins on the lake pose a risk to both pets and their owners. Nutrient-rich stormwater flowing into the river from multiple sources and warm weather provide the right conditions for cyanobacteria to proliferate. Above: Blue-green algae proliferates on a portion of Lake Harding, a Chattahoochee River reservoir located between West Point and Columbus. During the past year, testing by Chattahoochee Riverkeeper has identified locations on Lake Harding, West Point Lake and Bull Sluice Lake where harmful algal blooms have occurred.*

## WHAT MUST BE DONE:

Georgia and Alabama environmental regulators must develop harmful algal bloom reporting systems, and EPD must follow through with plans to develop nutrient criteria standards for Georgia's waterways. Individuals and property owners must take action to stem the flow of nutrients to streams and rivers, including minimizing use of fertilizers, maintaining septic systems, properly disposing of pet waste and protecting natural streamside buffers.



**For More Information Contact:**

**Jason Ulseth**, Chattahoochee Riverkeeper,  
404-352-9828, [julseth@chattahoochee.org](mailto:julseth@chattahoochee.org)