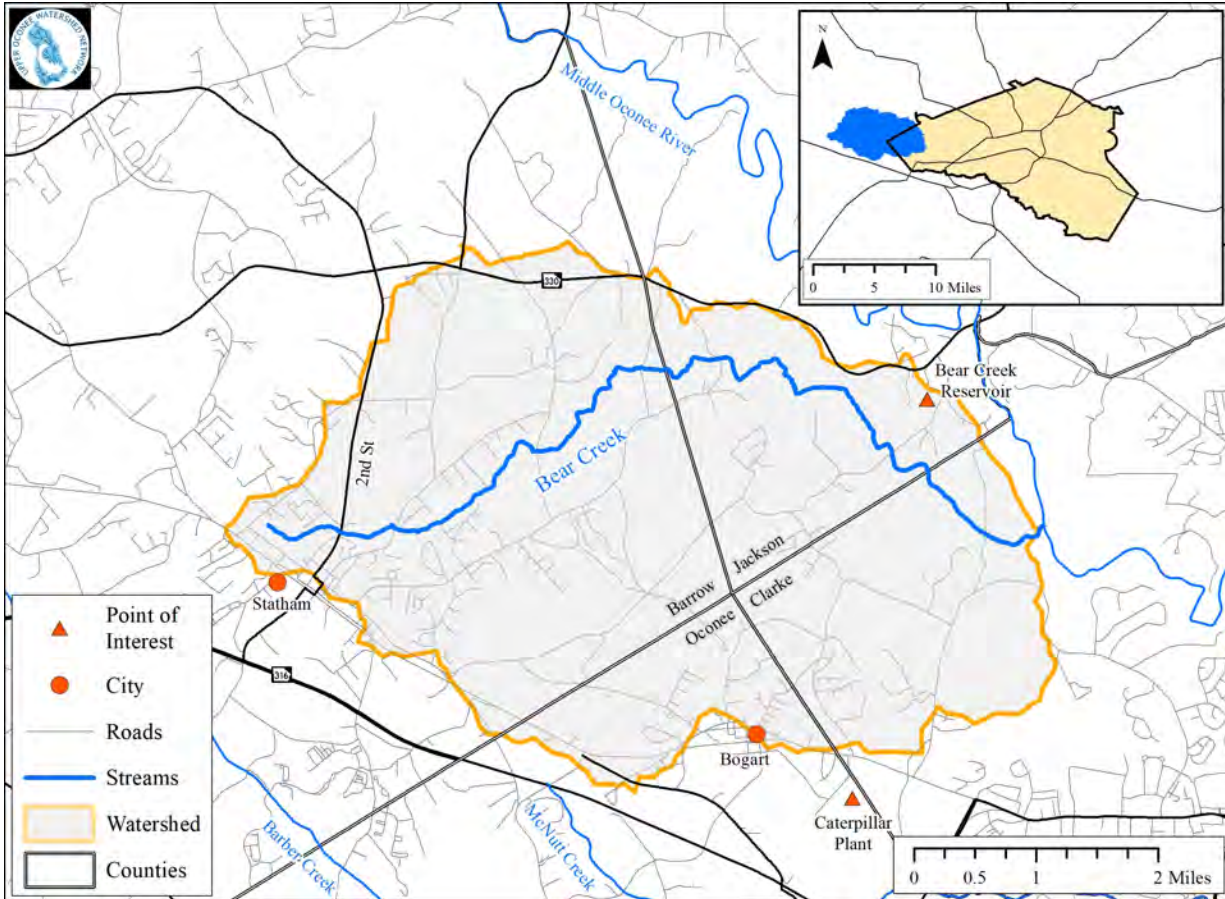


Where's My Creek?



Bear Creek



Where is Bear Creek?

The Bear Creek watershed is located in the northwest corner of ACC, north of Atlanta Highway. The watershed extends outside of ACC to the northwest with a total drainage area of 19.6 square miles.

Bear Creek is impounded just upstream of ACC, forming the 505-acre Bear Creek Reservoir, a regional water supply reservoir. Little Bear Creek is the only named tributary of Bear Creek within ACC. Bear Creek flows into the Middle Oconee River.

Land cover of the watershed is primarily forest and developed land, with about 2 percent impervious cover. Environmentally sensitive areas include corridors of wetlands along the edges of Bear Creek and the upper portion of Little Bear Creek.

Bear Creek has the designated use of Drinking Water from its headwaters to its confluence with the Middle Oconee River, including Bear Creek Reservoir.

Why Care?

Runoff carries pollutants from parking lots, roads and other impervious surfaces into Bear Creek, which flows into the Middle Oconee River. One of Athens' drinking water intake facilities is downstream of the confluence of Bear Creek and the Middle Oconee River.

Watershed Issues!



Impervious Surfaces

Due to development, there are some areas of impervious surface where water cannot soak into the ground. This can cause increased runoff which leads to erosion and sediment buildup in the creek.



Nutrient Pollution

Potential nonpoint sources of pollution in the Bear Creek watershed include stormwater runoff from ACC's municipal separate storm sewer system as well as runoff from agricultural lands.



Buffer Zone Reduction

It is unlawful to remove vegetation within 75 feet of a stream in Athens-Clarke County. Riparian buffers stabilize soil, filter runoff, and slow down rushing water before it enters the stream. Buffers in the Bear Creek watershed have been impacted by development.



Poo-lution

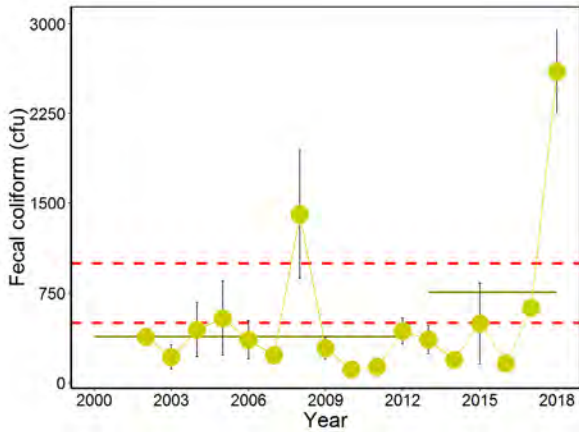
Fecal coliform measurements indicate that the Bear Creek exceeds ACC standards during low flow periods.



Overloaded with Sediments

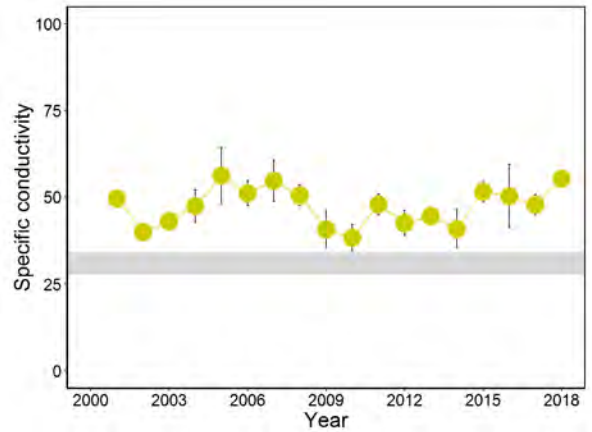
Sedimentation control and wetland preservation is needed throughout the watershed; however, most of the wetland areas along Bear Creek are privately owned.

Water Quality in Bear Creek



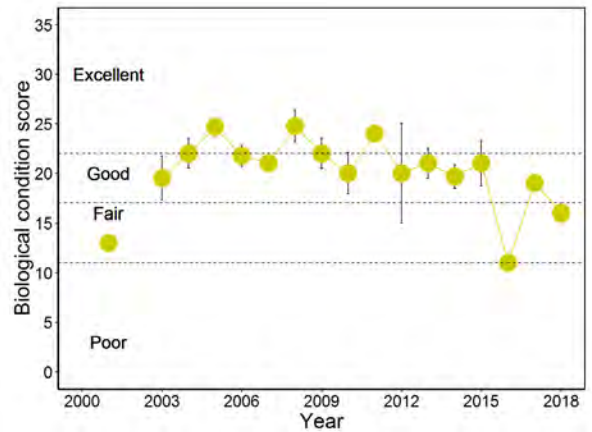
Fecal coliform bacteria are an indicator of pollution from human and animal waste. *E. coli* is a species of coliform bacteria. The horizontal lines show the average concentration during the previous 5 years and the historical average. The dashed red line at 500 cfu demarks threshold for recreational activity (not recommend above). The higher threshold indicates major contamination.

Specific conductivity is a measurement of dissolved solids in water. Regular monitoring helps determine baseline levels. Fluctuations in these levels are an indicator of pollution. The grey shading indicates baseline level of a typical minimally impacted stream in our region.











Biological scores are determined by diversity and abundance of macroinvertebrates (aquatic bugs) in a stream. The macroinvertebrates that are present in a stream can be used to determine stream health.

In the graphs above, each point represents the average concentration within a year. The vertical bars indicate the variation in that measurement. Bear Creek samples are taken from one of its tributaries because Bear Creek is surrounded by private property.



How You Can Help

- 
Reduce fertilizer application. Contact the UGA Cooperative Extension Office for a soil test kit to determine soil fertility in your lawn or garden.
- 
Pick up your pet's waste to prevent fecal coliforms from ending up in your creek.
- 
Plant native vegetation in riparian buffers along stream banks to help remove pollutants and reduce erosion.
- 
Use permeable pavement to allow infiltration of water when it rains.
- 
Disconnect roof downspouts from drainage systems to reduce the amount of concentrated stormwater runoff leaving your property.
- 
Harvest rainwater to reduce runoff and use it to water your plants and garden.
- 
Create rain gardens with plants and sandy soils to drain stormwater and filter nutrients and other pollutants.
- 
Pick up trash from your neighborhood and the stream.

Become a UOWN member today!

The Upper Oconee Watershed Network is dedicated to protecting water resources and improving stream health in your watershed through community-based advocacy, monitoring, education, and recreation.



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