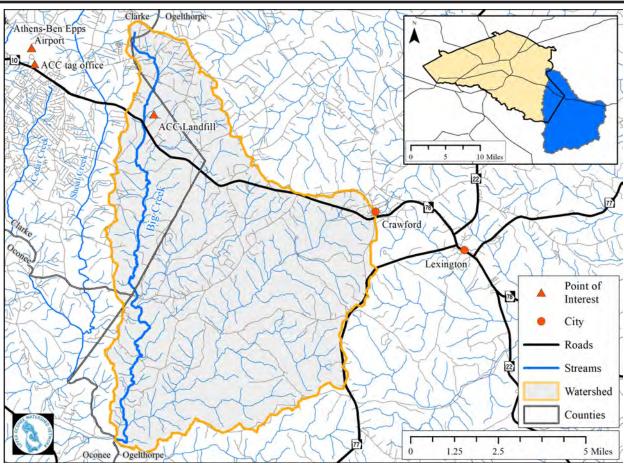


# Where's My Creek? **Big Creek**





# Where is Big Creek?

The Big Creek Watershed spans southeastern Athens-Clarke, a sliver of Oconee, and western Oglethorpe Counties. The creek originates south of Winterville from a lake on Robert Hardeman road, flows past the ACC Landfill, crosses back into Oglethorpe county, and joins the Oconee downstream of the confluence of Middle and North Oconee Rivers.

The watershed encompases 59 square miles of which 10.6 square miles is in Athens-Clarke County. 56% of the land is forested, 33% is grassland or shrubland, and 6% developed.

# Why Care?

Runoff carries pollutants from impervious surfaces such as parking lots, roads and other impervious surfaces into Big Creek. Runoff from agricultural land carries excess nutrients (fertilizer) and fecal matter into the creek. Big Creek flows into the Oconee River, a primary source of drinking water for many downstream users.

### 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**

Big Creek has elevated levels of nutrients, specifically nitrogen, which can be caused by overuse of fertilizer. This can cause algal blooms and deplete oxygen in the water.



#### **Buffer Zone Reduction**

It is unlawful to remove vegetation within 75 feet of a streem in Athens-Clarke County, 25 feet Oconee County. Riparian buffers stabilize soil, filter runoff, and slow down rushing water before it enters the stream.



#### **Poo-lution**

Big Creek has high levels of fecal coliforms (poop). This is due to poorly maintained septic systems, and animal waste.



#### **Overloaded with Sediments**

Most of Big Creek's stream bed is filled with sand and sediments which leads to poor stream health and reduced diversity of aquatic life.

## Water Quality in Big Creek?

UOWN collects water and biological samples to determe pH, specific conductivity, bacterial load, and the biological health of a stream.

Fecal coliform bacteria are an indicator of pollution from human and animal waste. E. coli is a species of coliform bacteria.

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.

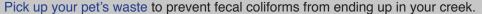
Biological scores are determined by diversity and abundance of macroinvertebrates (aquatic bugs) in a stream. The macroinvertebrates that are present in a stream can be used to determine stream health.

UOWN welcomes volunteers to help sample and analyze the waters of Big Creek.

# 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.







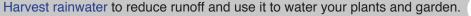
Plant native vegetation in riparian buffers along stream banks to help remove pollutants and reduce erosion.

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.







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.



Follow Us On Facebook



Follow Us On Twitter @UpperOconee



Go To Our Website www.UOWN.org