

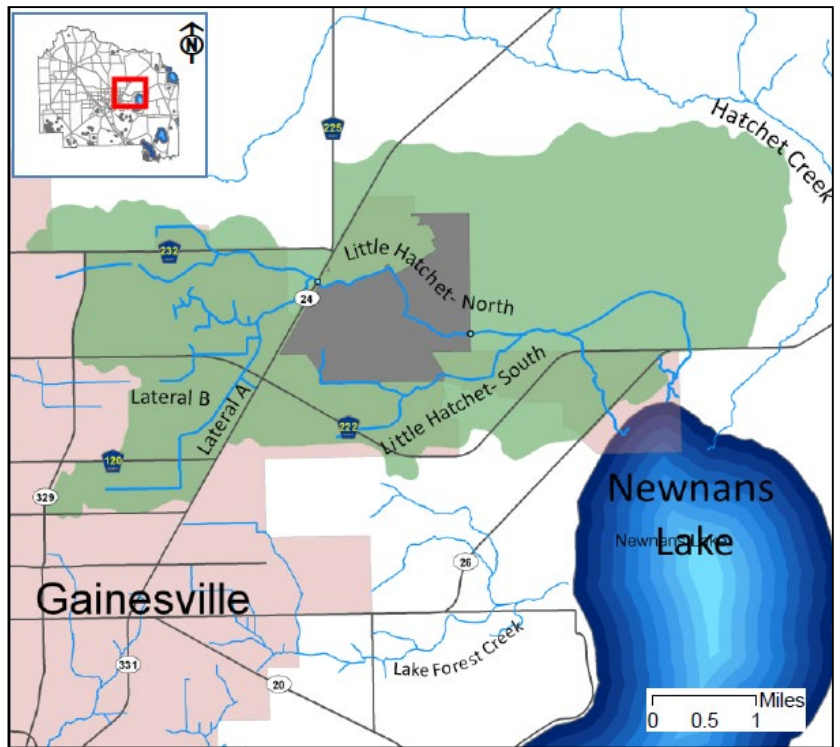


Little Hatchet Creek

Fact Sheet

The Watershed

- Little Hatchet Creek Watershed spans 19 square miles.
- It includes the Gainesville Regional Airport, Ironwood Golf Course, and the GRU Murphree well field.
- The creek flows through Gumroot Swamp to Newnans Lake.
- Baseflow of Little Hatchet Creek is from surficial and intermediate aquifer springs and seeps.
- Dominant land uses are 46% upland forest, 24% wetlands, and 8% residential.



Little Hatchet Creek watershed (green) with sampling sites (purple circles).

Potential Pollution

- Naturally occurring phosphorus from the Hawthorne Group formations may contribute to elevated phosphorus levels due to cutting and scour from stormwater flow.
- Failing septic systems, failing wastewater infrastructure, wildlife, and pets can introduce fecal material which is a source of nitrogen, phosphorus, and fecal coliform bacteria.



Little Hatchet Creek.

In-Stream Biology

Little Hatchet Creek has intact riparian vegetation, which helps reduce human disturbance on stream diversity. A biological survey of Little Hatchet Creek rated suboptimal in 2014 when it rated optimal in 2009, showing a decrease in ecosystem health. The 2013 Florida Index results were low but sensitive mayflies were the dominant organism, so a BioRecon method was used in 2014 and the results were healthy. The dynamic flow changes of Little Hatchet Creek seems to be affecting biodiversity and abundance.

Water Quality

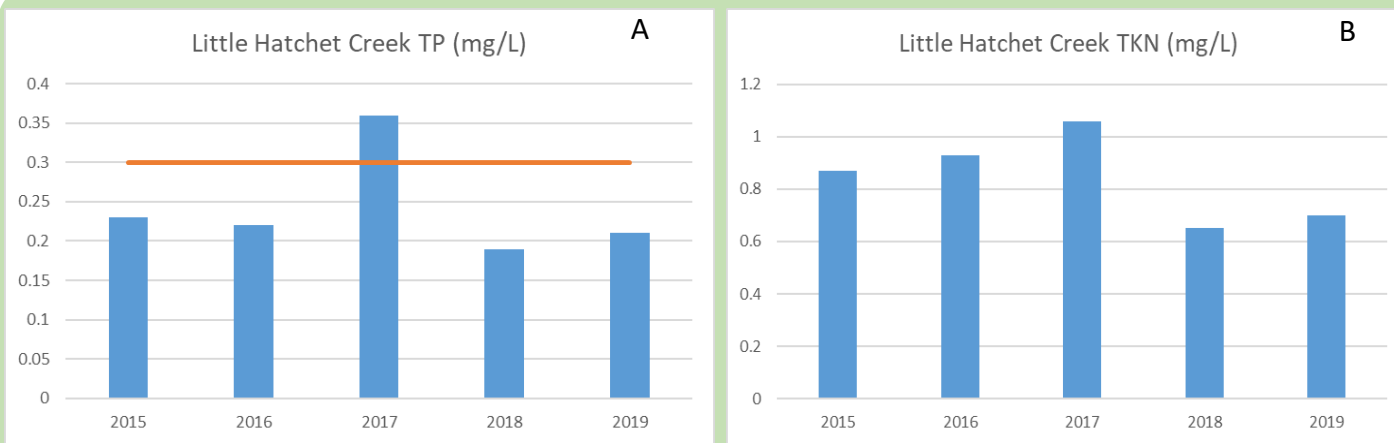


Figure 1. Annual average of A) total phosphorus (TP) with NNC denoted by orange line and B) total Kjeldahl nitrogen (TKN).

Nutrients: The FDEP water quality rule on nutrient standards went into effect February 2016. Little Hatchet Creek has historically been below the Numeric Nutrient Criteria (NNC) threshold for total phosphorus (TP) except for 2017. Total Kjeldahl Nitrogen (TKN) is the sum of organic nitrogen and ammonia-N.

Current Human Impacts

- Treated wastewater effluent from Brittany Estates mobile home community is discharged into the North Branch of Little Hatchet Creek.
- Stormwater from the airport erodes phosphorus-rich clays of the Hawthorn group formations in tributary ditches.
- Urban stormwater containing fertilizers from the nearby golf course as well as commercial and residential properties.



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Water moccasin perched on the bank of Little Hatchet Creek.