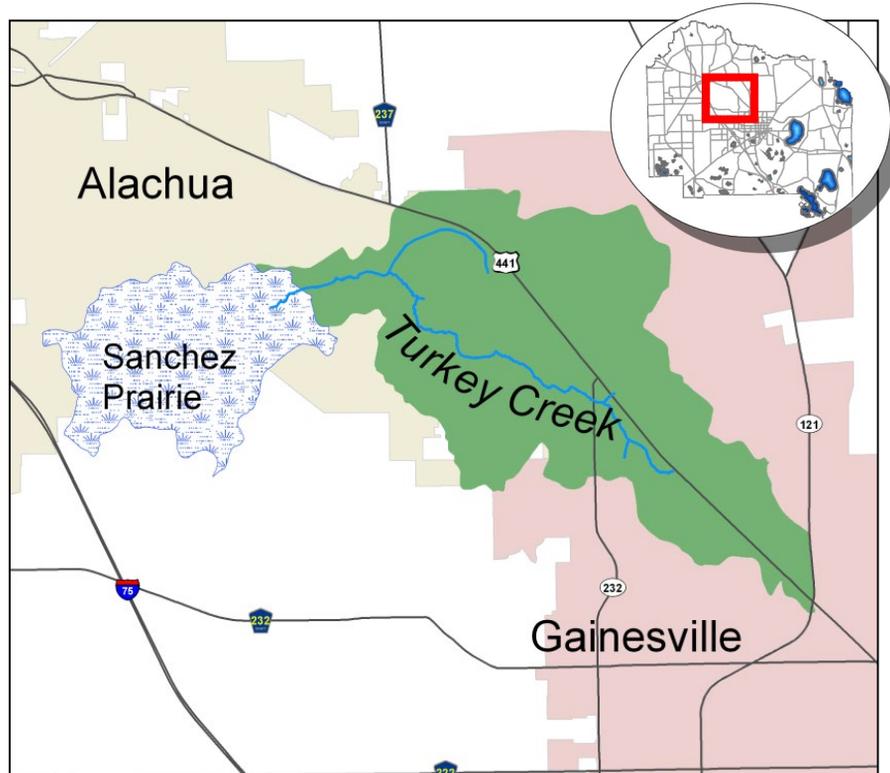




# Turkey Creek Fact Sheet

## The Watershed

- The Turkey Creek watershed is ~ 12.4 square miles.
- Turkey Creek flows northwest into San Felasco Hammock State Preserve and into Sanchez Prairie, where it recharges the Floridan aquifer through Split Rock Sink.
- Land use in the area includes residential, silviculture, pasture, and a coal-fired electric plant.



Map of Turkey Creek watershed (green).

## Potential Pollution

- Naturally occurring phosphorus from the Hawthorn Group formations may contribute to elevated phosphorus levels due to cutting and scour.
- Failing septic systems, failing wastewater infrastructure, wildlife, and pets are sources of nitrogen, phosphorus, and fecal coliform bacteria.



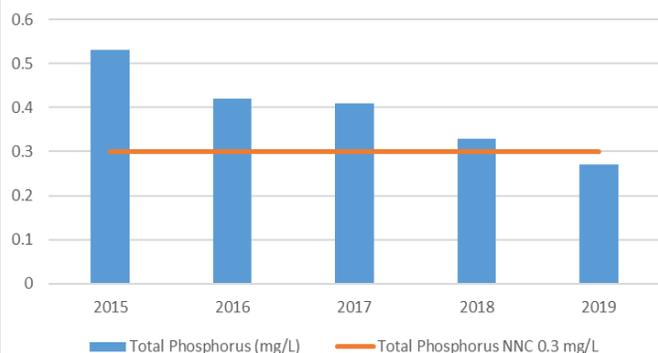
Turkey Creek.

## In-Stream Biology

Biological surveys of Turkey Creek indicated that the stream has a healthy population of benthic macroinvertebrates with ample habitat. The 2014 survey scored Turkey Creek as healthy for the Stream Condition Index (SCI). Since 2003, habitat condition and macroinvertebrate diversity has increased thanks to land conservation in the watershed. This has reduced the influence of stormwater in the creek by reducing erosion with the creation of the Turkey Creek Hammock Preserve.

# Water Quality

Turkey Creek Total Phosphorus A



Turkey Creek Total Nitrogen B

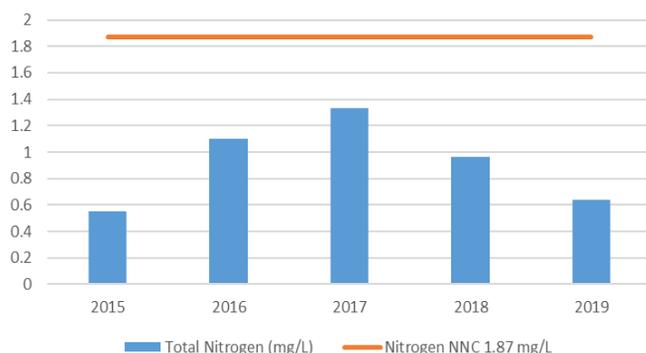


Figure 1. Annual geometric mean of A) total phosphorus (TP) and B) total nitrogen (TN).

**Nutrients:** The current FDEP water quality rule on nutrient standards went into effect February 2016. Turkey Creek has been above the Numeric Nutrient Criteria (NNC) threshold for total phosphorus (TP) but not for total nitrogen (TN). Potential phosphorus sources are the erosion of phosphorus rich soils that compose the Hawthorn clays which underlay the stream bed and agricultural inputs of fertilizer and storm water runoff. It does not appear that the elevated TP concentrations are influencing the stream biota.

Turkey Creek *E. coli* Concentration

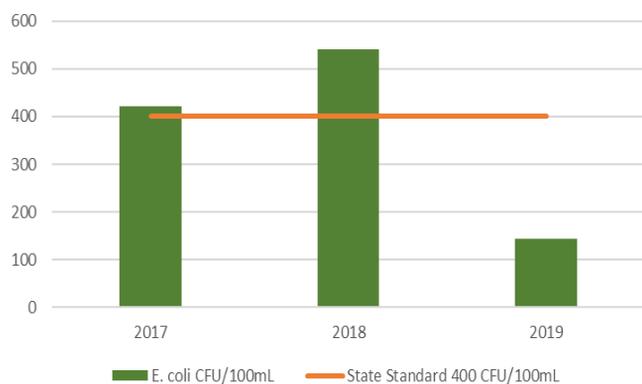


Figure 2. Annual Geometric Mean fecal coliform colony forming units (CFU)/ 100 mL.

**Bacteria:** Turkey Creek has had high abundance of *E. coli* bacteria, an indicator of fecal contamination. State standards for a single sample are 400 colony forming units (CFU)/100mL. Possible sources of this bacteria include domestic and wild animal waste, leakage from sanitary sewer lines, faulty private sewer connections and overflows, persistence and regrowth of bacteria in creek sediments, and failing septic systems. Decreased coliform abundance in 2019 most likely resulted from increased creek flow diluting the number of fecal coliforms present. Turkey Creek is listed as impaired for fecal coliform abundance.

## Current Human Impacts

- Fertilizer runoff from yards.
- Possible leaky sewer lines and connections, as well as failing septic tanks.
- Positive impacts on water quality result from preservation within the watershed by Alachua County Forever and the San Felasco Hammock Preserve State Park.



Turkey Creek in San Felasco Hammock Preserve State Park.