

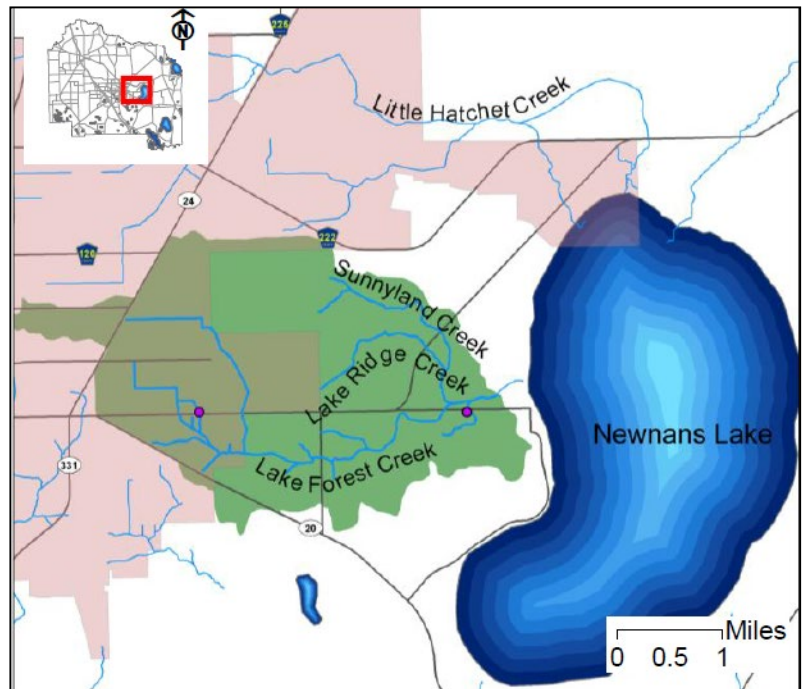


Lake Forest Creek

Fact Sheet

The Watershed

- Lake Forest Creek watershed spans 8.9 square miles across urban and rural Gainesville.
- The dominant land use in Lake Forest Creek's watershed are 27% residential, 26% silviculture, 15% wetlands, and 9% transportation infrastructure.
- Lake Forest Creek, Little Hatchet Creek, and Hatchet Creek are the three largest tributaries discharging to Newnans Lake.



Lake Forest 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 flows.
- Failing septic systems, failing wastewater infrastructure, wildlife, and pets can introduce fecal material which is a source of nitrogen, phosphorus, and fecal coliform bacteria.



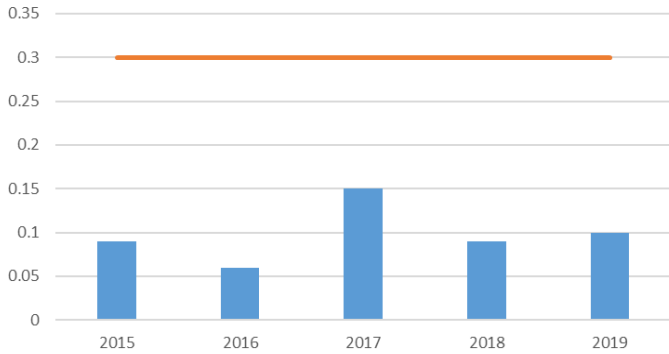
Lake Forest Creek.

In-Stream Biology

The 2013 Habitat Assessment conducted on Lake Forest Creek resulted in an Optimal rating, the same rating given in the 2009 sampling event. The biodiversity results are also similar to the 2009 sampling event, scoring a Healthy rating for the BioRecon assessment. During long periods of drought, Lake Forest Creek may have reduced or no flow, potentially resulting in lower numbers of long-lived species.

Water Quality

Lake Forest Creek TP (mg/L) A



Lake Forest Creek TKN (mg/L) B

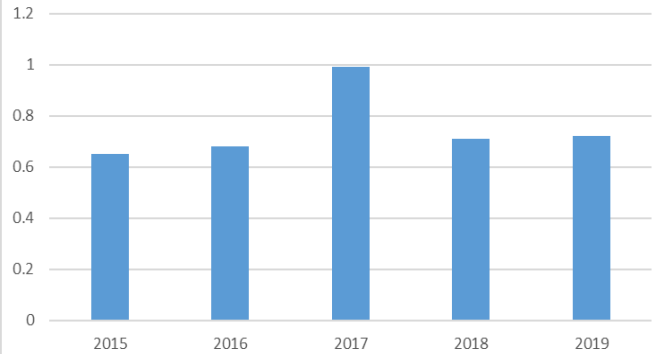


Figure 1. Annual geometric mean of A) total phosphorus (TP) and B) total Kjeldahl nitrogen (TKN). Orange line denotes Numeric Nutrient Criteria (NNC). Data from ACEPD and SJRWMD.

Nutrients: The FDEP water quality rule on nutrient standards went into effect February 2016. Lake Forest Creek is below the Numeric Nutrient Criteria (NNC) threshold for total phosphorus (TP). Total Kjeldahl Nitrogen (TKN) is the combination of ammonia-nitrogen and organically bound nitrogen.

Current Human Impacts

- Fertilizer from agricultural and silvicultural operations.
- Possible leaky sanitary lines, sewer connections, urban campers, and failing septic tanks.



Photos of Lake Forest Creek including sampling (left).

