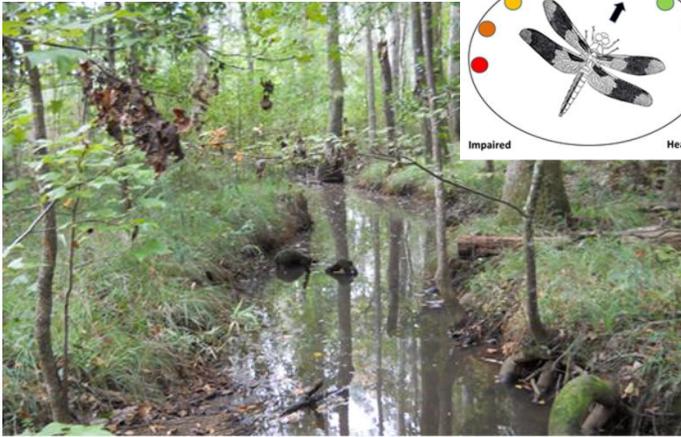


Waterbody: Lexington Creek



waterbody degradation. Human stressors may include increased inputs of nutrients, sediments, and/or other contaminants from watershed runoff, adverse hydrologic alterations, undesirable removal of habitat or riparian buffer vegetation, and introduction of exotic plants and animals. Water quality standards are designed to protect designated uses of the waters of the state (e.g., recreation, aquatic life, fish consumption), and exceedances of these standards are associated with interference of the designated use.

Methods

Surface water was collected to determine the health of Lexington Creek and met the requirements of the Florida Department of Environmental Protection (FDEP).

Results

Nutrients

According to FDEP requirements, Numeric Nutrient Criteria (expressed as an annual geometric mean) cannot be exceeded more than once in a three year period. The nutrient thresholds and results are found in Table 1. Due to low water conditions, four temporally independent samples per year could not be collected from this station from 2006-2008 and 2011-2013. The State criteria were not exceeded for either parameter when sampling requirements were met.

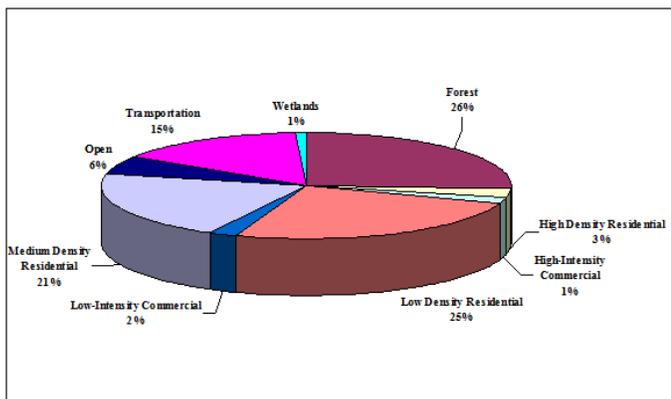
Table1. FDEP's total nitrogen and phosphorus criteria for streams applied to Lexington Creek.

Lexington Tributary	Total Nitrogen Threshold 1.03 mg/L	Total Phosphorus Threshold 0.18 mg/L
2007	-	-
2008	0.43	0.15
2009	0.13	0.14

Basin: Lake Jackson

Lexington Creek is a moderately altered stream located in the northern part of Tallahassee and drains into Fords Arm of Lake Jackson. The watershed extends to Thomasville Road at I-10 on the east, and is bounded by Maclay Road and Live Oak Plantation Road on the north and south, respectively.

As shown in the following pie chart, residential, commercial, and transportation uses make up approximately 67% of the watershed. Increases in stormwater runoff, and waterbody nutrient loads can often be attributed to these types of land uses.



Background

Healthy, well-balanced stream communities may be maintained with some level of human activity, but excessive human disturbance may result in

Lexington Tributary	Total Nitrogen Threshold 1.03 mg/L	Total Phosphorus Threshold 0.18 mg/L
2010	0.42	0.15
2011-2013	-	-

Fecal coliforms

Fecal coliform bacteria exceeded both Class III water quality standards of a daily maximum of 800 colonies/100 mL and the 400/100 mL in 10% of samples several times during the period of record (Figure 1). Aging septic tanks, leaking sewer lines or possibly wildlife could be contributing to the elevated coliform levels.

Metals

Copper levels exceeded Class III water quality criteria during the 4th quarter at Lexington Creek. The Lexington Tributary station also exceeded water quality criteria for lead during the 3rd quarter, which may be due to recent rain in the area. The source of copper is unknown at this time.

[Click here for more information on metal levels in Leon County waterbodies.](#)

Other Parameters

Other water quality parameters appear to be normal for the area and no impairments were noted.

Conclusions

Based on ongoing sampling, Lexington Creek met the nutrient thresholds for the East Panhandle region. Fecal coliform bacteria exceeded both Class III water quality standards several times during the period of record. Aging septic tanks, leaking sewer lines or possibly wildlife could be contributing to the elevated coliform levels. Copper levels exceeded Class III water quality criteria during the 4th quarter at Lexington Creek. The Lexington Tributary station

also exceeded water quality criteria for lead during the 3rd quarter, which may have been due recent rain in the area. The source of copper is unknown at this time.

Thank you for your interest in maintaining the quality of Leon County’s water resources. Please feel free to contact us if you have any questions.

Contact and resources for more information

www.LeonCountyFL.gov/WaterResources

[Click here to access the results for all water quality stations sampled in 2013.](#)

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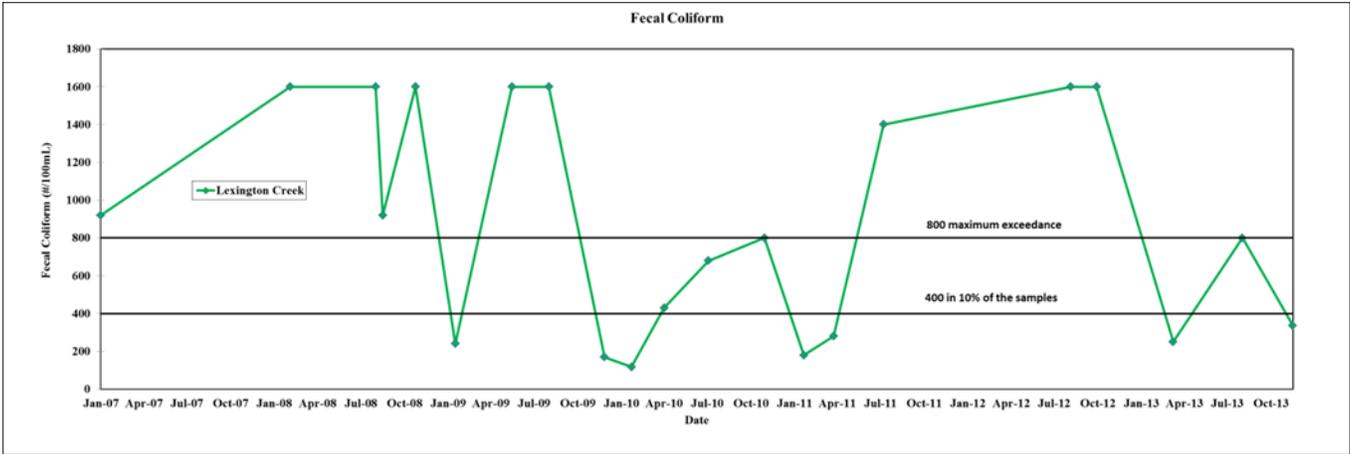


Figure 1. Fecal coliform results for Lexington Creek.