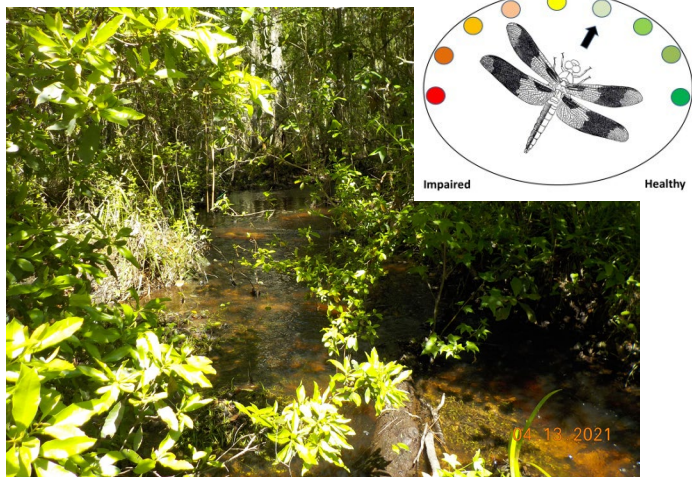


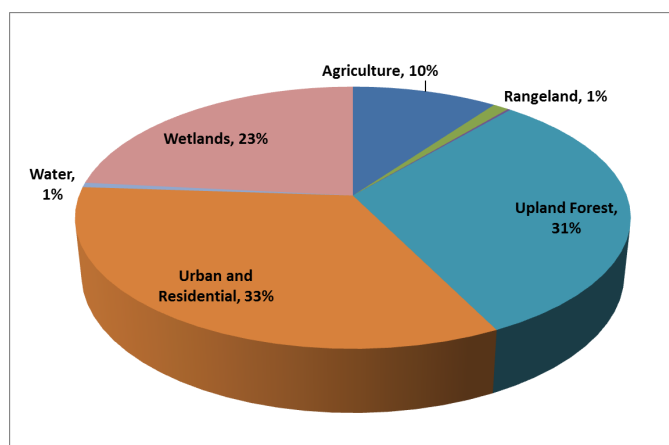
Waterbody: Louvinia Creek



Basin: St. Marks River

Louvinia Creek is an intermittently flowing creek located in eastern Leon County.

While the following pie chart shows the majority of the 2,981-acre watershed is relatively undeveloped, agriculture, rangeland, transportation and utilities, urban and residential uses make up approximately 44% 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 waterbody degradation. Human stressors may include in-

creased 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. State 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 sampling was conducted to determine the health of Louvinia Creek and met the collection and analysis requirements of the Florida Department of Environmental Protection (FDEP).

Results

According to FDEP requirements, Numeric Nutrient Criteria (NNC) (expressed as an annual geometric mean) cannot be exceeded more than once in a three-year period. Due to low water conditions and the ephemeral nature of the stream, four temporally independent samples per year have never been collected from this station. Even though staff was not able to collect the required number of samples, some conclusions can be made. Based on the samples taken during the study period, most total phosphorus and total nitrogen values did not exceed the total phosphorus and nitrogen thresholds (Figures 1 and 2).

Other Parameters

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

Conclusions

While sampling requirements were not met to calculate the NNC results, most total phosphorus and total nitrogen levels appear to meet the nutrient thresholds. Other water quality parameters appear

to be normal for the area and no other impairments were noted.

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.LeonCountyWater.org

[Click here to access the results for all water quality stations sampled in 2021.](#)

[Click here for a map of the watershed – Sample Site LC at WW.](#)

Johnny Richardson, Water Resource Scientist
(850) 606-1500
Richardsonjo@leoncountyfl.gov

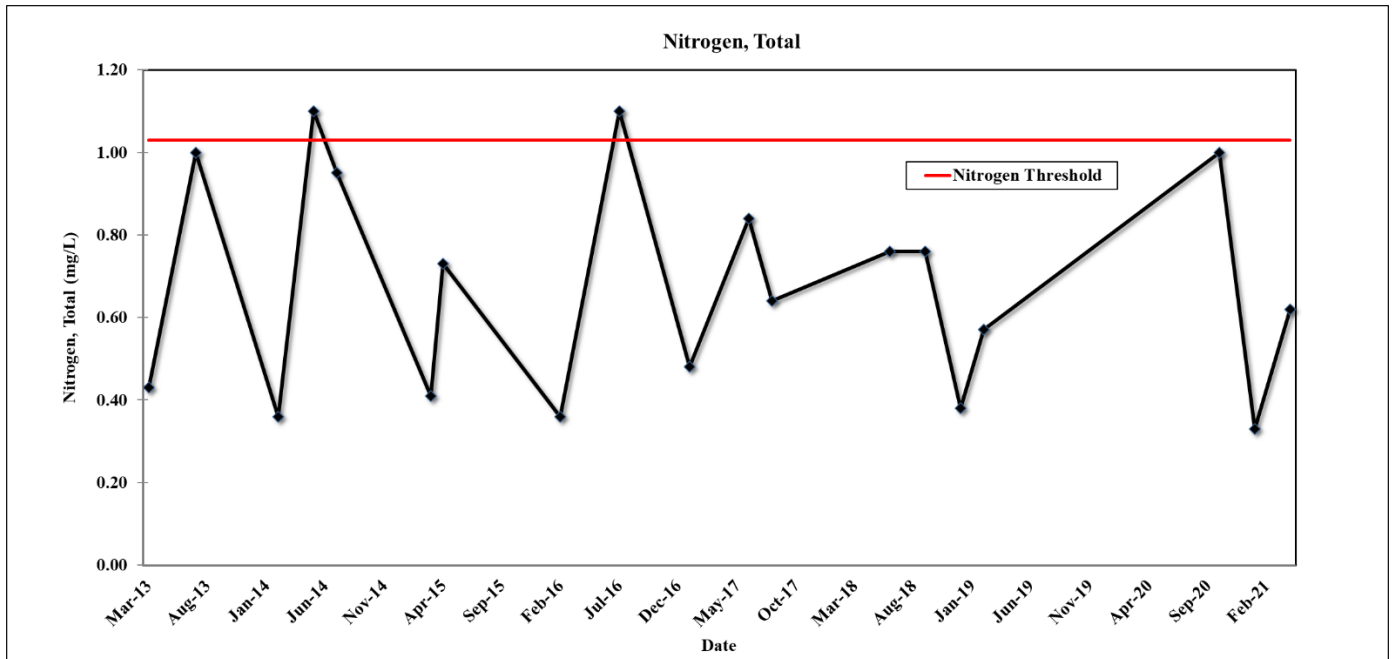


Figure 1. Total nitrogen results for Louvinia Creek.

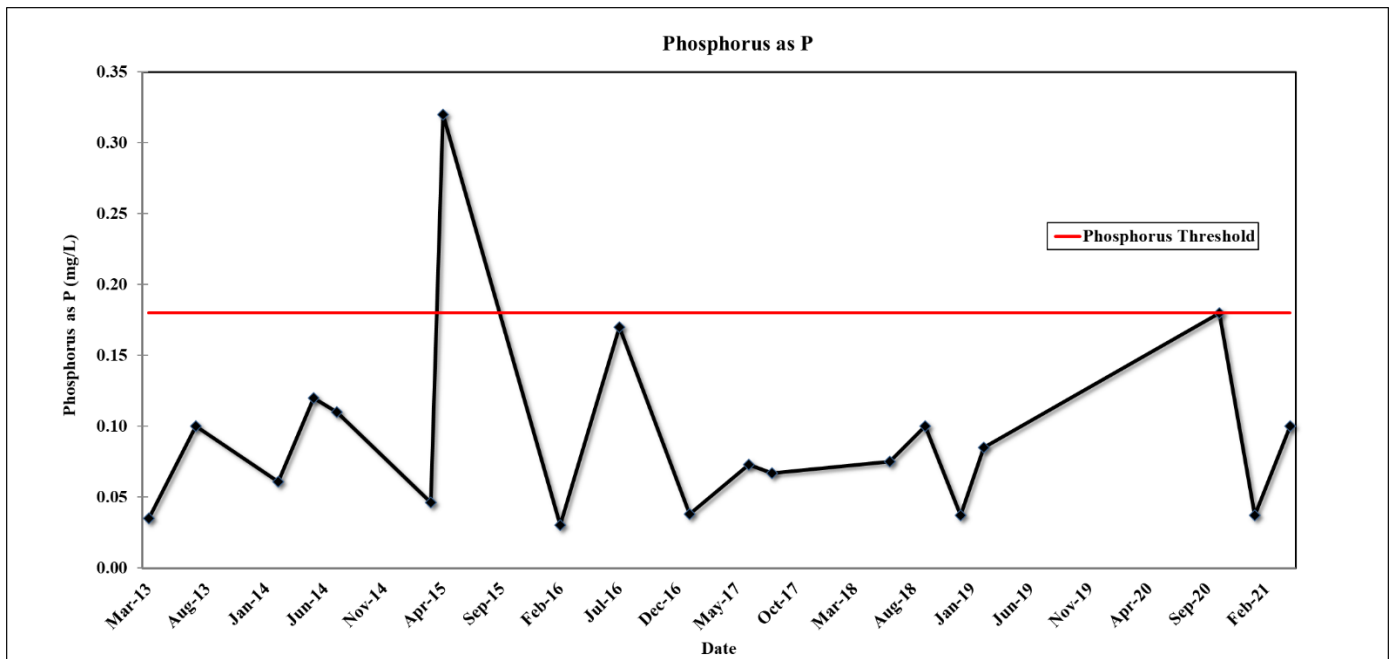


Figure 2. Total phosphorus results for Louvinia Creek.