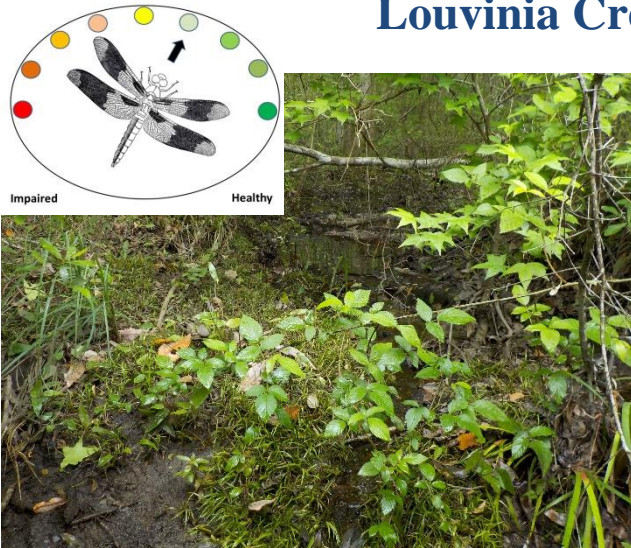


Louvinia Creek EcoSummary



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

Approximately 44% of the 2,981-acre watershed is made up of agriculture, rangeland, transportation and utilities, urban and residential uses (as shown in **Figure 1**). Increases in stormwater runoff and waterbody nutrient loads can often be attributed to these types of land uses.

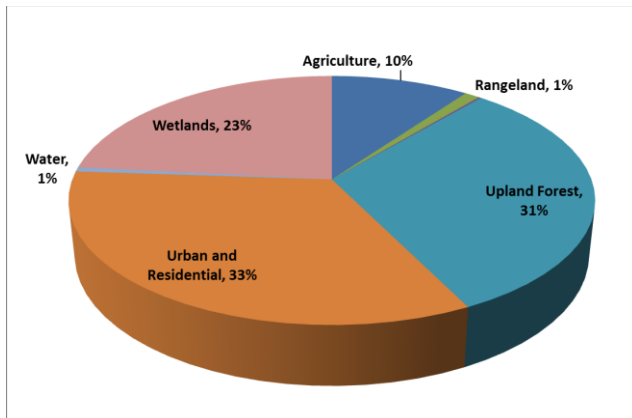


Figure 1. Louvinia Creek watershed land use.

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 increased inputs of nutrients, sediments, and/or other contaminants from watershed runoff. Stressors can also include 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 samples are collected quarterly (as field conditions allow). This information is used to determine the health of Louvinia Creek and meets the requirements of the Florida Department of Environmental Protection (FDEP).

Results

The State of Florida uses Numeric Nutrient Criteria (NNC) to evaluate nutrients in waterbodies. NNC thresholds are set based on waterbody-specific characteristics and are used to determine if a waterbody meets water quality standards. The results of the four quarterly samples from a single year are used to calculate the annual geometric mean. According to FDEP requirements, the NNC threshold 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. Because of the low water conditions in 2023, no samples were collected during the 2023 calendar year. 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 2 and 3**).

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 2023.](#)

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

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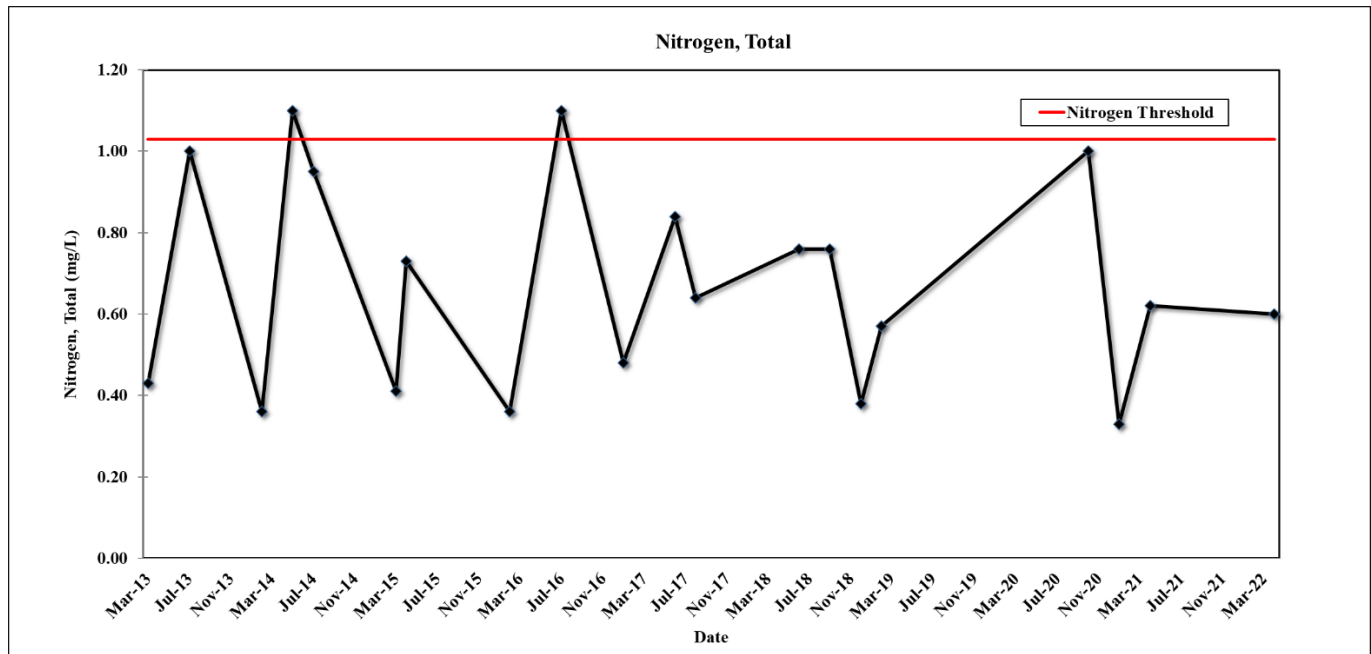


Figure 2. Total Nitrogen results for Louvinia Creek.

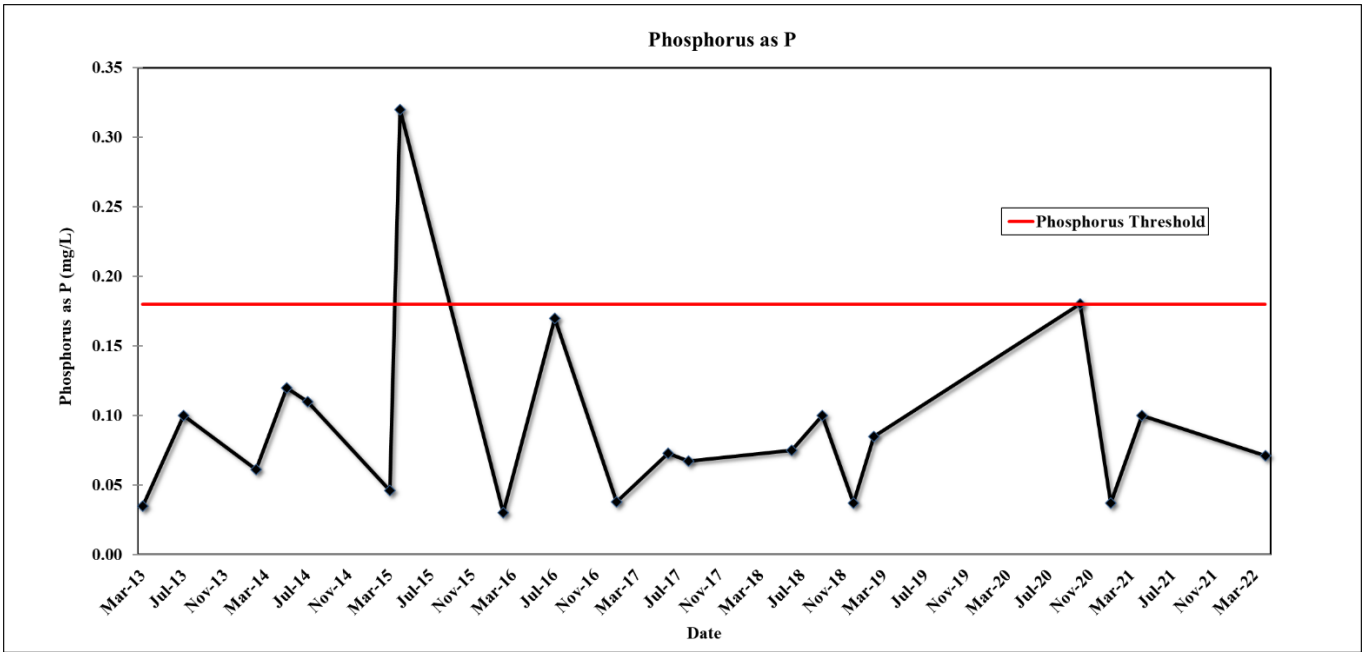


Figure 3. Total Phosphorus results for Louvinia Creek.