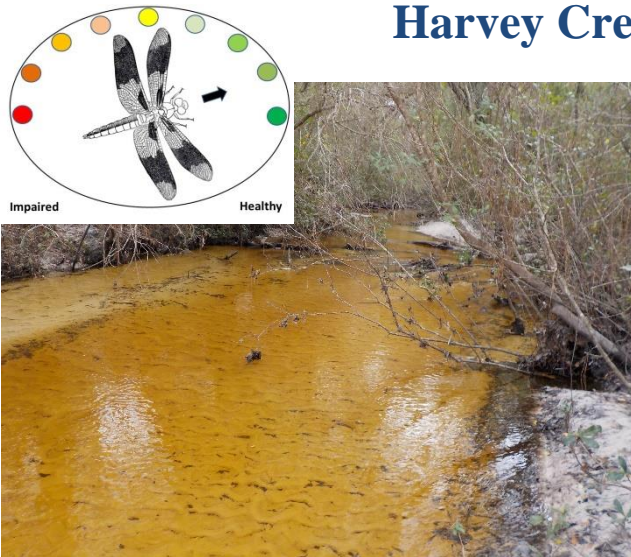


Harvey Creek EcoSummary



Harvey Creek is a tannic, slightly acidic, phosphorus-limited stream that flows into Lake Talquin and is located in western Leon County.

The majority of the 5,679-acre watershed is relatively undeveloped (as shown in **Figure 1**). Agriculture, urban and residential land uses make up approximately 4% of the watershed upstream of the sampling station. These types of land uses are often attributed to increases in stormwater runoff and higher nutrient loads.

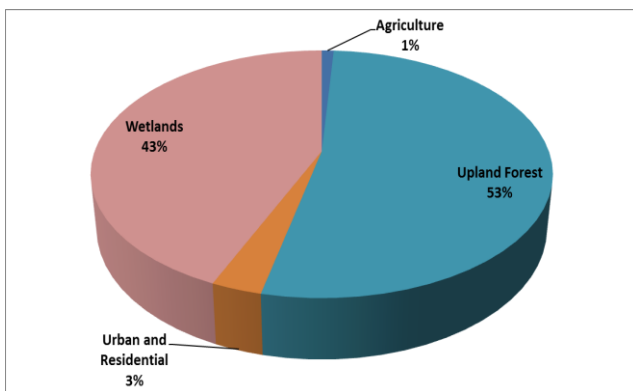


Figure 1. Harvey Creek watershed land use.

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 the 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.

Nutrients

The nutrient thresholds and results are found in **Table 1**. The NNC criteria were not exceeded for either parameter.

Table 1. Total Nitrogen results and thresholds for Harvey Creek.

Harvey Creek	Instream Protection Criteria			
	TN (1.03 mg/L)			
Year	39	HAR1	HAR2	HAR3
2006	0.11	-	-	-
2007	0.17	-	-	-
2008	0.15	-	-	-
2009	0.15	-	-	-
2010	0.33	-	-	-
2011	0.43	-	-	-
2012	0.39	-	-	-
2013	0.21	-	-	-
2014	0.35	-	-	-
2015	0.22	-	-	-
2016	0.29	-	-	-
2017	0.33	-	-	-
2018	0.40	-	-	-
2019	0.20	-	-	-
2020	0.29	-	-	-
2021	0.24	0.34	0.20	0.20
2022	0.27	0.36	0.24	0.23
2023	0.38	0.51	0.39	0.33

Table 2. Total Phosphorus results and thresholds for Harvey Creek.

Harvey Creek	Instream Protection Criteria			
	TP (0.18 mg/L)			
Year	39	HAR1	HAR2	HAR3
2006	0.00	-	-	-
2007	0.00	-	-	-
2008	0.00	-	-	-
2009	0.00	-	-	-
2010	0.00	-	-	-
2011	0.01	-	-	-
2012	0.00	-	-	-
2013	0.00	-	-	-
2014	0.00	-	-	-
2015	0.01	-	-	-
2016	0.01	-	-	-
2017	0.01	-	-	-
2018	0.01	-	-	-
2019	0.01	-	-	-
2020	0.01	-	-	-
2021	0.01	0.00	0.00	0.00
2022	0.01	0.01	0.00	0.00
2023	0.01	0.01	0.01	0.00

Escherichia coli

E. coli levels exceeded the Class III water quality standard daily limit of > 410, 10% threshold value of samples collected over a 30-day period in December 2016 (770/100 mL). The standard has not been exceeded since that time. Since the watershed is relatively undeveloped, the exceedance could be attributed to wildlife in the area, though FDEP, through their own sampling, have determined that anthropogenic sources were identified using genetic marker and tracer data. To better track potential sources of *E. coli*, Leon County added additional water quality stations to the watershed in 2021 (**Figure 2**). The standard has not been exceeded at the newly established stations (**Figure 3**).

Conclusions

Based on ongoing sampling, Harvey Creek met the nutrient thresholds for the Big Bend Bioregion. Additional water quality sampling showed no further water quality exceedances in *E. coli*. Other water quality parameters appear to be normal, 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 Sites 39, HAR1, HAR2, and HAR3.](#)

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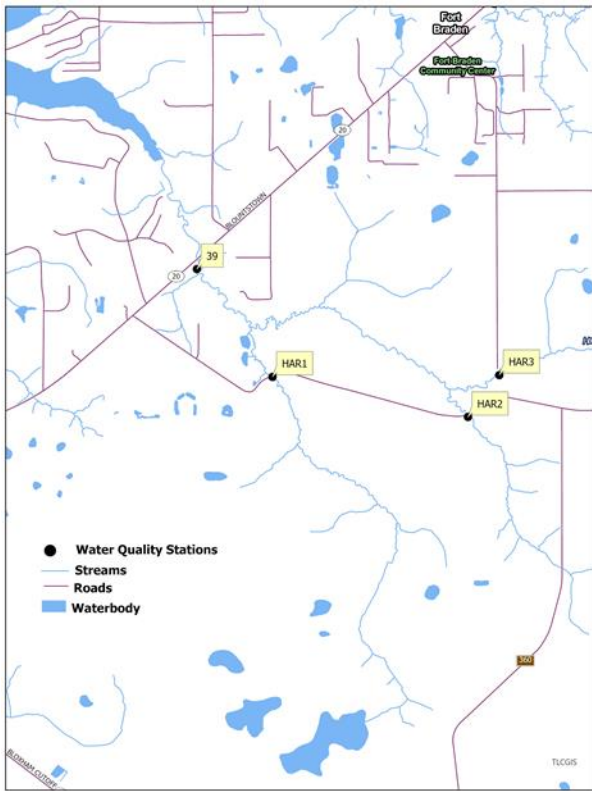


Figure 2. Locations of Water Quality Station 39 and the newly established HAR1, HAR2, and HAR3 on Harvey Creek.

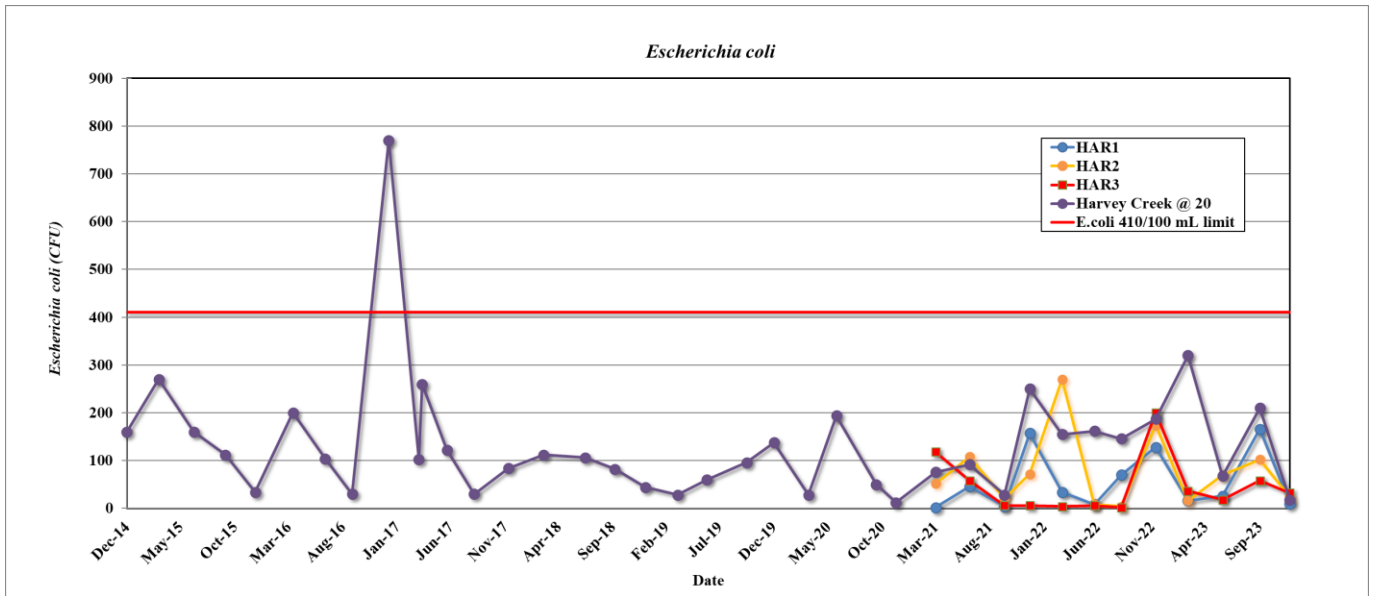


Figure 3. *E. coli* results for Harvey Creek.