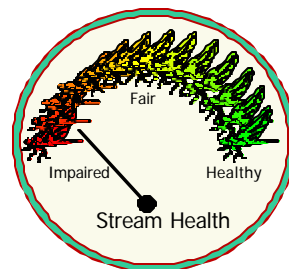




EcoSummary

Caney Creek

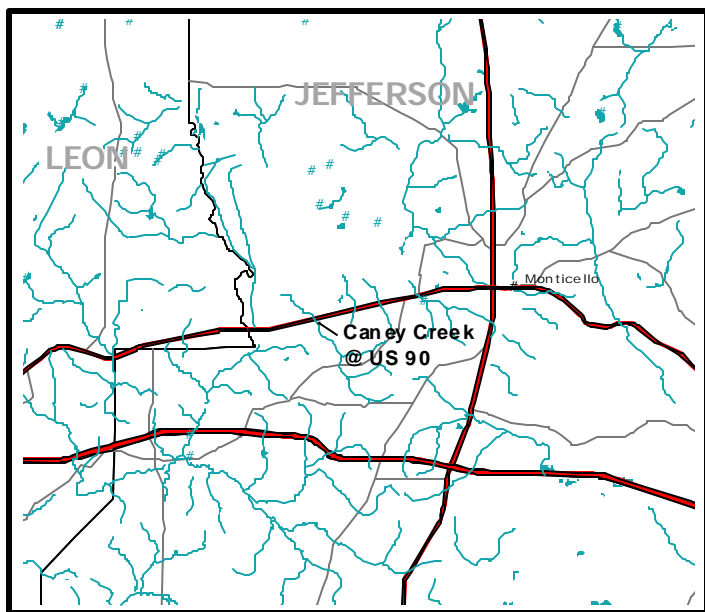
11/09/99



Background

Caney Creek is located in Jefferson County, west of Monticello, FL (see Figure 1). Caney Creek is in the Gulf Coast Flatwoods Subcoregion (75a). This area is characterized by heterogeneous areas, including swamps, marshes, terraces, deltas, paleo sand dunes, and limestone plains and rocklands. Inland areas are usually characterized by pine flatwoods, hardwood forest, and swamp vegetation. Many blackwater streams are found in this area.

Figure 1: Overview Map of Caney Creek



Results

Physical/chemical parameters and nutrients were sampled in Caney Creek at US 90 in November 1999. Surface water samples were analyzed for ammonia, nitrite-nitrate, and total phosphorus. Turbidity, total suspended solids (TSS), total organic carbon (TOC), and fecal and total coliform levels were also measured. Macroinvertebrates were sampled using four dipnet sweeps.

Ammonia and nitrate-nitrite values for Caney Creek were in the good range, defined as being at concentrations lower than those found in 70% of Florida streams. Ammonia concentration was lower than the values in 90% of state streams. (See Figure 2.) The nitrate-nitrite (NO_x) value was less than is found in 80% of Florida streams. Total phosphorus was in the fair-to-poor range with a concentration higher than is found in 60% of state streams. The turbidity in Caney Creek (9.6 NTU) was poor, higher than is found in 80% of Florida streams. Fecal (1000 colonies/100 ml) and total (28000 colonies/100 ml) coliform counts were in violation of Class III water body standards. The DEP Water Assessment Section took flow measurements the previous day. The average velocity (V) was 0.54 f/s, and flow (Q) was 0.972 cfs.

Biological Reconnaissance (BioRecon) was used to evaluate the macroinvertebrates at Caney Creek as an indicator of the overall ecological health of the system. Caney Creek is in the Panhandle East BioRecon region and is therefore evaluated based upon the threshold values (given in parentheses) for that area of Florida. The number of Ephemeroptera, Plecoptera, and Trichoptera taxa (EPT) was 3 (9). The total number of macroinvertebrate taxa was 16 (24). The Florida Index value was 15 (19). Caney Creek did not pass any of the three components of BioRecon and is therefore suspected to be impaired. A Stream Condition Index (SCI) survey is recommended to help determine the ecological health of Caney Creek.

Figure 2: Data for Selected Parameters

Station	pH (Std Units)	Conductivity (umhos/cm ²)	Dissol. Oxygen (mg/L)	Turbidity (NTU)	TSS (mg/L)	NH ₃ (mg/L)	NO _x (mg/L)	TP (mg/L)	TOC (mg/L)	V (f/s)	Q (cfs)
Caney Creek	7.0	73	7.2	9.6	20	0.016	0.01	0.22	6.6	0.54	0.972
		Storet Station	Sampling Date	# EPT Taxa	# Macro- invertebrate Taxa	Florida Index	Fecal Coliforms (col/100 ml)	Total Coliforms (col/100 ml)			
		22030068	11/09/99	3	16	15	1000	28000			



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