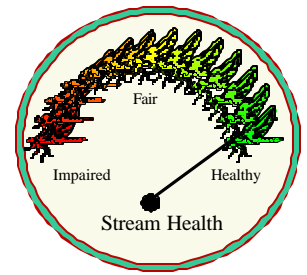




# EcoSummary

Suwannee River at Woodpecker Rd.

01/23/01



## Background

Florida DEP selected the Suwannee River, as well as five other streams that flow across the Georgia-Florida line, for biological and water quality evaluation. Data from these efforts will be used for documenting potential out-of-state pollution sources for the Total Maximum Daily Load (TMDL) program. The Suwannee River drains the Okefenokee Swamp, Georgia, and forms the Hamilton-Columbia county line as it flows into Florida. (See Figure 1.) The sampling area is in the Okefenokee Swamps and Plains subregion of the Southern Coastal Plain ecoregion. This subregion is characterized by peat and muck deposits with swamps and marshes.

Samples were collected in all six selected interstate streams in January 2001. Water chemistry samples were taken for ammonia, nitrate-nitrite, total Kjeldahl nitrogen (TKN), total phosphorus, color, turbidity, total suspended solids (TSS), total organic carbon (TOC), biochemical oxygen demand (5-day, BOD), *Enterococci*, *Escherichia coli*, fecal coliform, and total coliform analysis; see Figure 2. Habitat assessment and benthic invertebrate Biorecon sampling were conducted.

## Results

Water in the Suwannee River at Woodpecker Road was very low in ammonia, nitrate-nitrite, and total phosphorus; see Figure 2. The TKN level (0.92 mg/L) was lower than the values found in 50% of Florida streams. The habitat assessment total score (124) was in the optimal range (>120), with substrate availability and water velocity receiving marginal scores. Substrate diversity received a sub-optimal score. *Enterococci* concentration was below the EPA single-sampling guideline value of 108 col/100 mL for "infrequently used full body contact recreation areas." *Escherichia coli* concentration was below the EPA light-use guideline value (406 col/100 mL). Fecal and total coliform levels complied with Class III water quality standards.

All three Biorecon metrics passed the expected criteria for streams in the area, confirming that the site was biologically healthy. Overall, the Suwannee River at Woodpecker Road had good water quality and was biological healthy.

Figure 1: Overview Map of Sampling Area

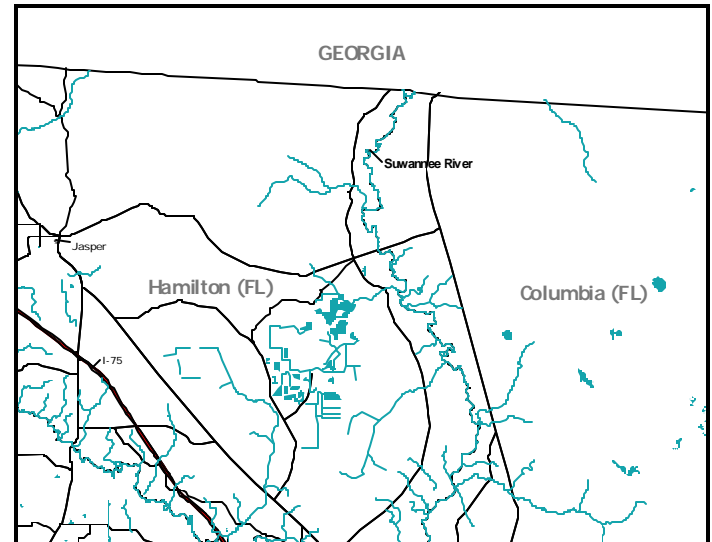


Figure 2: Data Table

Station		Suwannee @ Woodpecker	
Station Nick Name		SUWR@WOOD	
STORET		INRSTATESTRM02	
Sampling Date		01/23/01	
Macroinvertebrate Parameters		Physical-Chemical Data	
Biorecon	3 passed	Habitat Assessment Total Score	124
Evaluation	healthy	Specific Conductance (umho/cm)	76
Number of Taxa	24	Dissolved Oxygen (mg/L)	12.7
Number of Ephemeroptera	3	pH (SU)	4.0
Number of Plecoptera	0	Temperature (deg. C)	10.0
Number of Trichoptera	4	Nutrient Data	
EPT Index	7	Ammonia (mg/L)	0.014 I
Florida Index	6	Nitrate-Nitrite (mg/L)	0.01 I
Bacteria Parameters		TKN (mg/L)	0.92
<i>Enterococci</i> (col/100 mL)	14 O	Total Phosphorus (mg/L)	0.043
<i>Escherichia coli</i> (col/100 mL)	36 O	TOC (mg/L)	48
Fecal Coliforms (col/100 mL)	20 Q	TSS (mg/L)	4 U
Total Coliforms (col/100 mL)	100 Q	Color (PCU)	250 A
BOD (mg/L)	1.3	Turbidity (NTU)	0.8

A = an average value, I = below practical quantitation limit, J = Estimated value,

Q = outside holding time, U = below minimum detection limit



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