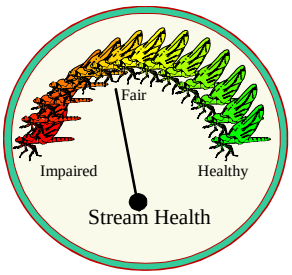


EcoSummary

De Leon Springs
11/8/2004



chemistry only

Background

Florida DEP's Division of Recreation and Parks selected De Leon Springs for biological and water quality monitoring. Data from these efforts will be used for documenting existing conditions and for making resource protection decisions. De Leon Springs, located in Volusia County, flows into Spring Garden Lake; see Figure 1. De Leon Springs is a Floridan Aquifer-dominated system known for its recreational and aesthetic qualities.

Water chemistry samples were taken for ammonia, nitrate-nitrite, total Kjeldahl nitrogen (TKN), total phosphorus, color, turbidity, *Enterococci*, *Escherichia coli*, fecal coliform, and total coliform analysis; see Figure 2.

Results

The nitrate-nitrite concentration (1.2 mg/L) at the sampling site was higher than the values found in 95% of other Florida streams (0.97 mg/L); see Figure 2. Elevated nitrate-nitrite levels in De Leon Springs are related to nitrogen loading in the recharge basin. Ammonia (0.043 mg/L), TKN (0.29 mg/L), and total phosphorus (0.06 mg/L) continued to be non-problematic. Bacteria parameters were not reported for this sampling due to holding time issues.

In conclusion, elevated nitrate-nitrite levels continue to be of concern in De Leon Springs.

Figure 1: Overview Map of the De Leon Springs Area

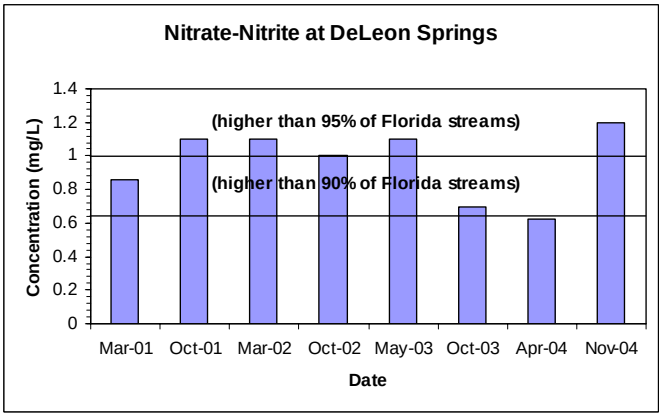


Figure 2: Data Table

DeLEON SPRINGS	
Sampling Date	11/8/2004
Chemistry Data	
Turbidity (NTU)	0.2 Q
Color (PCU)	10 Q
Ammonia (mg/L)	0.043
Nitrate-Nitrite (mg/L)	1.2
TKN (mg/L)	0.29
Total Phosphorus (mg/L)	0.06
Physical-Chemical Data	
Temperature (deg. C)	22.3
pH	7.3
Dissolved Oxygen (mg/L)	3.4
Specific Conductance (umhos/cm)	1112

"Q"= Outside of holding time

Figure 3: Nitrate-Nitrite Values Over Time



FOR MORE INFORMATION, CONTACT:
Amy Wheeler, FDEP Environmental Assessment Section
2600 Blair Stone Road MS#6511 Tallahassee, FL 32399-2400 (850) 245-8070 amy.wheeler@dep.state.fl.us