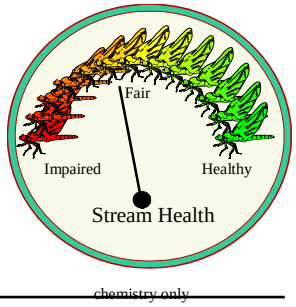


EcoSummary

De Leon Springs

5/8/2007

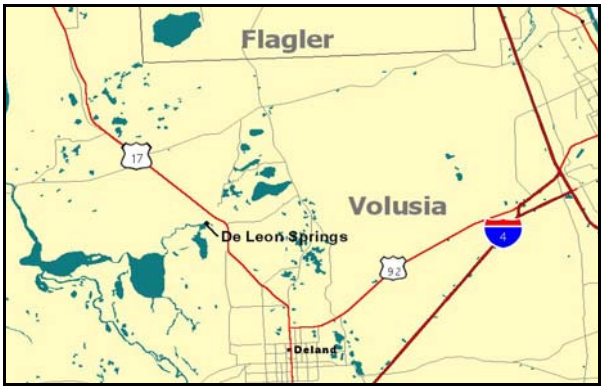


Background

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, and turbidity analysis; see Figure 2.

Figure 1: Map of the De Leon Springs Area



Results

The nitrate-nitrite concentration (0.39 mg/L) at the sampling site was higher than the values found in 80% of other Florida streams, but lower than most springs.The moderately elevated nitrate-nitrite level in De Leon Springs is related to nitrogen loading in the recharge basin. The ammonia concentration (0.075 mg/L) was average compared to typical Florida streams, and the TKN concentration (0.36 mg/L) was low. Total phosphorus was below the practical quantitation limit. There were no results for bacterial analysis from this sampling event.

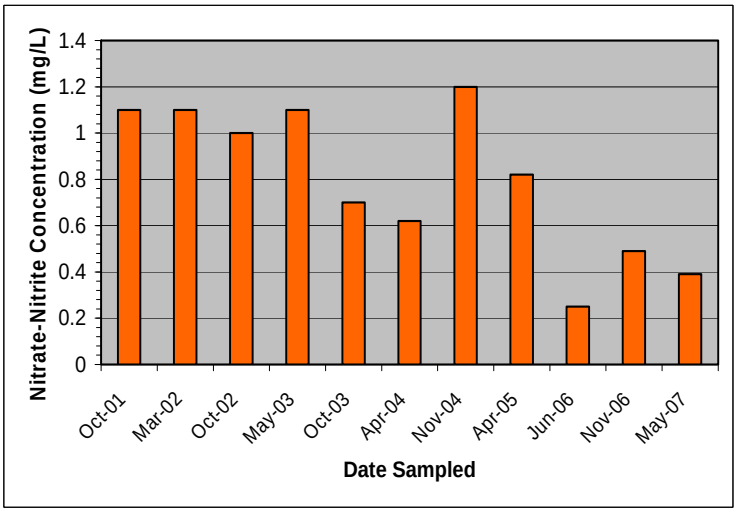
In conclusion, moderately enriched nitrate-nitrite levels continue to be a concern in De Leon Springs.

Figure 2: Data Table

DeLEON SPRINGS	
Sampling Date	5/8/2007
Chemistry Data	
Turbidity (NTU)	0.40 A
Color (PCU)	5
Ammonia (mg/L)	0.075
Nitrate-Nitrite (mg/L)	0.39
TKN (mg/L)	0.36 J
Total Phosphorus (mg/L)	0.048 I
Physical-Chemical Data	
Temperature (deg. C)	22.4
pH	7.7
Dissolved Oxygen (mg/L)	7.6
Specific Conductance (umhos/cm)	668
Bacteria Data	
Escherichia coli (col/100 mL)	No result, Q
Enterococci (col/100 mL)	No result, Q
Fecal Coliforms (col/100 mL)	No result, Q
Total Coliforms (col/100 mL)	No result, Q

"A"= Value reported is the mean of two or more determinations; "J"= Estimated value; "I" = Below practical quantitation limit; "Q"= Outside of holding time

Figure 3: Nitrate-Nitrite Values Over Time



FOR MORE INFORMATION, CONTACT:
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