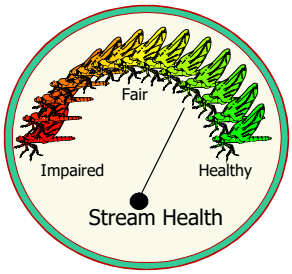


EcoSummary

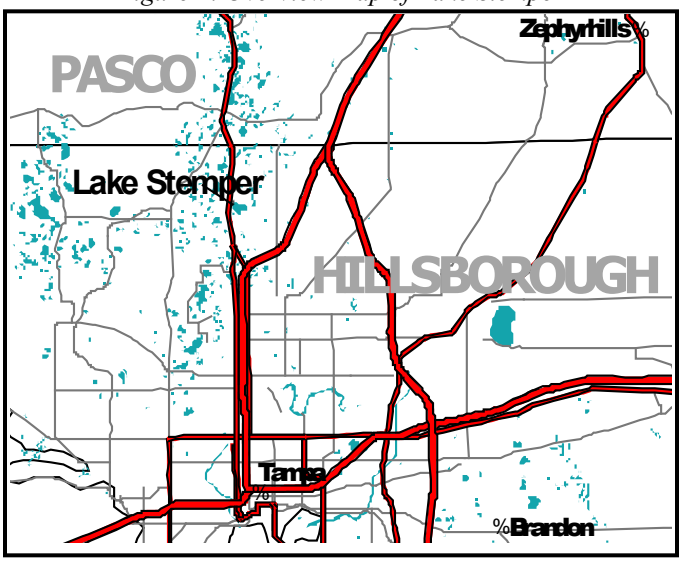
Lake Stemper
08/10/99



Background

Lake Stemper is located in Hillsborough County, between Interstate 75 and US 41 (see Figure 1). Lake Stemper is in the Southwestern Florida Flatwoods Subecoregion (75b). This area is characterized by Gulf coastal lowlands and valleys, with areas of pasture and rangeland, spreading urbanization, disturbed lands from phosphate mining, and citrus groves. Lakes in this region are generally clear and are characterized by low nutrient concentrations.

Figure 1: Overview Map of Lake Stemper



Results

Physical/chemical parameters and nutrients were sampled in August of 1999. Surface water samples were taken and analyzed for total ammonia, nitrite-nitrate, total Kjeldahl nitrogen (TKN), and total phosphorus. Samples were also analyzed for turbidity, total suspended solids (TSS), total organic carbon (TOC), algal growth potential (AGP), chlorophyll-*a*, and fecal and total coliform levels. Macroinvertebrates were sampled using petite ponar dredges.

All nutrient values for Lake Stemper were in the good or good-to-fair range, based on comparisons with concentrations found in other Florida lakes. Ammonia concentration was lower than the values in 95% of state lakes; the nitrate-nitrite value was less than is found in 90% of Florida lakes. (See Figure 2.) Total Kjeldahl nitrogen concentration (1 mg/L) was lower than is found in 60% of state lakes. Total phosphorus concentration (0.023 mg/L) was lower than is found in 70% of Florida lakes. The turbidity level (3.5 NTU) was in the fair range, lower than is found in 50% of other Florida lakes. Fecal (4 colonies/100 ml) and total (70 colonies/100 ml) coliform counts were within the acceptable range. The total number of Ephemeroptera, Trichoptera, and Odonate taxa (ETO) found was 2. The total number of invertebrate taxa found in Lake Stemper (20 taxa) was higher than the values seen in 90% of Florida lakes, well within the good range.

Figure 2: Data for Selected Parameters

Station	Date	pH (Std Units)	Cond. (umhos/cm^2)	Secchi depth (m)	Turbidity (NTU)	TSS (mg/L)	NH_3 (mg/L)	NOx (mg/L)	TKN (mg/L)	TP (mg/L)	TOC (mg/L)
Lake Stemper	08/10/99	7.2	117	1.1	3.5	6	0.01 BDL	0 BDL	1	0.023	14

Storet Code	Date	# ETO Taxa	# Macro-benthos Taxa	Chloro-phyll-*a* (mg/L)	AGP	Fecal coliforms (col/100 mL)	Total coliforms (col/100mL)
99LAKES07	08/10/99	2	20	1.12 BDL	1.1	4	70

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