

Mystic (Liberty County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°22'59", Longitude 84°58'57"

Period of record: 56 sampling dates; October 30, 1996 to December 8, 2001

Surface Area (Shafer et al. 1986): 112 acres

Lake Region (Griffith et al. 1997): Tifton/Tallahassee Uplands (65-04)

Geologic formation (Brooks 1981a):

The geology is dominated by sand, silty sand, and shelly silty sand of the Jackson Bluff Formation

Physiographic region (Brooks 1981b):

The lake lies in the Hosford Delta subdivision of the Paleodelta Relics division of the Apalachicola Delta District

Supplemental water chemistry data

Data reported are means from 1 sampling date:

pH	6.8	Total alkalinity (mg/L as CaCO ₃)	4.0
Conductance (µS/cm @ 25 °C)	27	Color (Pt-Co units)	4
Chloride (mg/L)	4.9	Silicon (mg/L)	0.3
Sulfate (mg/L)	7.0	Calcium (mg/L)	1.4
Magnesium (mg/L)	0.5	Sodium (mg/L)	2.4
Potassium (mg/L)	4.3	Iron (mg/L)	0.1

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 4 sampling dates:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	3	5	6

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 56 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	3	6	10
Long-term total nitrogen concentrations (µg/L)	137	256	410
Long-term total chlorophyll concentrations (µg/L)	1.0	2.3	5.0
Long-term Secchi depth (ft)	7.7	12.1	17.7

2001 Florida LAKEWATCH Data

Numbers reported below are monthly averages calculated from 3 stations for total phosphorus (TP, µg/L), total nitrogen (TN, µg/L), chlorophyll (CHL, µg/L) and Secchi depth (SECCHI, ft) during 2001:

<u>Date</u>	<u>TP (µg/L)</u>	<u>TN (µg/L)</u>	<u>CHL (µg/L)</u>	<u>SECCHI (ft)</u>
Jan-15	7	350	5.0	10.5
Feb-18	7	307	1.7	14.5
Mar-26	9	410	4.7	11.0
May-04	7	300	1.0	15.0
Jun-22	5	287	1.0	13.0
Jul-22	7	230	1.3	10.5
Sep-29	7	310	4.0	9.0
Oct-28	6	297	3.3	9.5
Dec-08	8	205	2.0	12.5
2001 Average	7	299	2.7	11.7