

Cassidy (Holmes County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 30°49'0", Longitude 86°1'56"

Period of record: 13 sampling dates; August 28, 2000 to October 1, 2001

Surface Area (LAKEWATCH 2001): 351 acres

Lake Region (Griffith et al. 1997): Dougherty/Marianna Plains (65-02)

Geologic formation (Brooks 1981a):

The geology is dominated by gravel, sand and clay of the Citronelle Formation

Physiographic region (Brooks 1981b):

The lake lies in the De Funiak Karst division of the Dougherty Karst District

Supplemental water chemistry data

Data reported are means from 2 sampling dates:

pH	5.1	Total alkalinity (mg/L as CaCO ₃)	0.0
Conductance (µS/cm @ 25 °C)	21	Color (Pt-Co units)	4
Chloride (mg/L)	4.2	Silicon (mg/L)	0.4
Sulfate (mg/L)	3.0	Calcium (mg/L)	0.4
Magnesium (mg/L)	0.4	Sodium (mg/L)	1.9
Potassium (mg/L)	0.3	Iron (mg/L)	0.0

Periodic water chemistry data

Numbers reported below are the minimum, average, and maximum value for the 3 sampling dates:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term color concentrations (Pt-Co units)	1	1	2

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 13 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	3	4	6
Long-term total nitrogen concentrations (µg/L)	73	136	233
Long-term total chlorophyll concentrations (µg/L)	1.0	2.0	3.3
Long-term Secchi depth (ft)	14.3	17.2	24.0

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-28	5	117	1.3	16.3
Feb-15	3	123	2.0	17.0
May-08	4	103	1.0	17.7
Jun-24	4	110	1.0	21.0
Jul-09	5	103	1.0	24.0
Aug-14	5	147	2.7	17.3
Sep-01	6	170	3.3	14.3
Oct-01	5	163	2.3	17.5
2001 Average	5	130	1.8	18.1

Cassidy (Holmes County)
Florida LAKEWATCH Aquatic Plant Summary

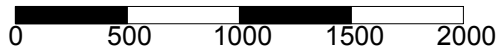
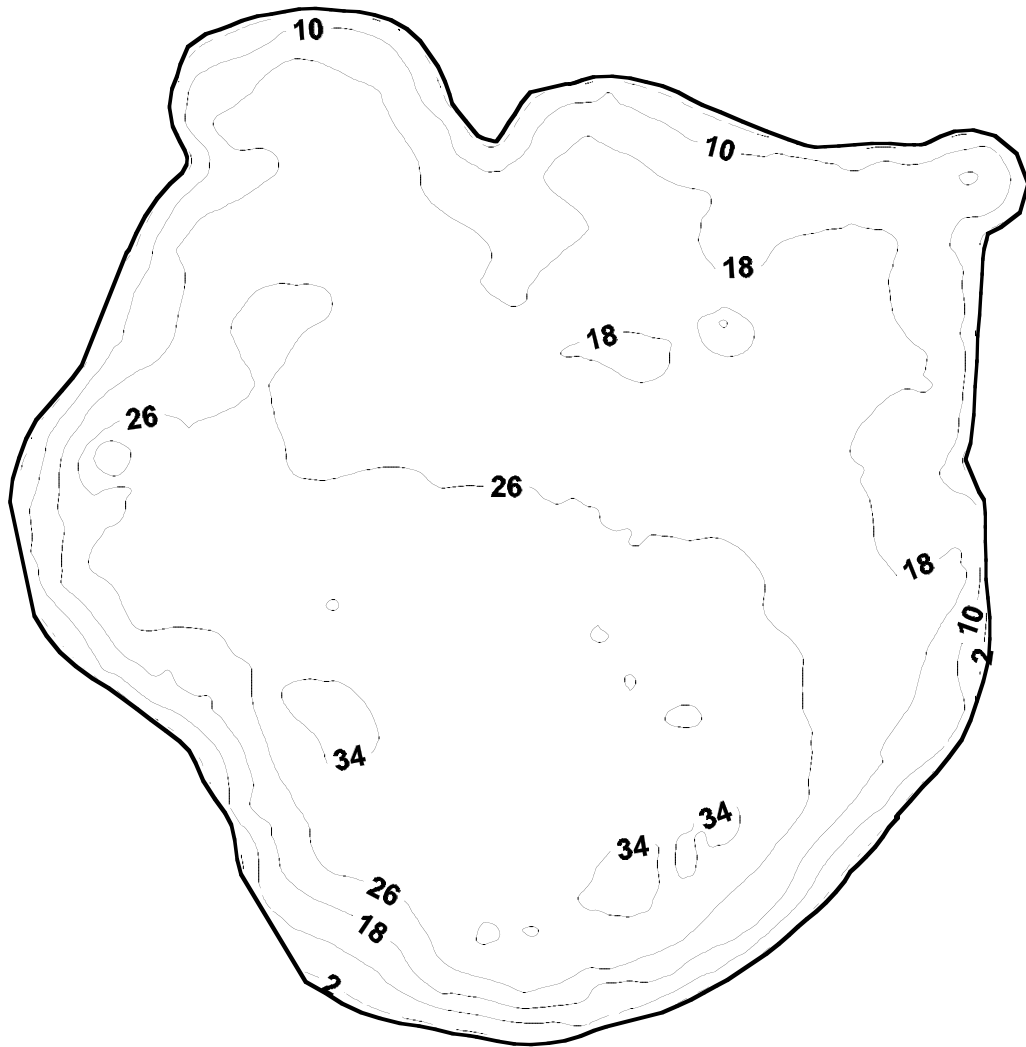
Aquatic plant data collected on July 25, 2001

Percent area covered with aquatic vegetation (PAC, %)	12.0
Percent of lake's volume filled with vegetation (PVI, %)	1.0
Average emergent plant biomass (kg wet wt/m ²)	6.7
Average floating-leaved plant biomass (kg wet wt/m ²)	0.1
Average submersed plant biomass (kg wet wt/m ²)	5.3
Average width of emergent and floating-leaved zone (ft)	25
Average lake depth (m)	6.8

Frequency that plant species occur in 10 evenly spaced transects around the lake.

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
bog-moss	<i>Mayaca fluviatilis</i>	100
maidencane	<i>Panicum hemitomon</i>	100
pond cypress	<i>Taxodium ascendens</i>	100
swamp tupelo	<i>Nyssa sylvatica</i>	80
St. John's wort	<i>Hypericum spp.</i>	70
spatterdock	<i>Nuphar luteum</i>	60
Florida bladderwort	<i>Utricularia floridana</i>	50
wax myrtle	<i>Myrica cerifera</i>	40
swamp titi	<i>Cyrilla racemiflora</i>	30
sweetbay	<i>Magnolia virginiana</i>	30
pickerelweed	<i>Pontederia cordata</i>	20
yellow-eyed grass	<i>Xyris spp.</i>	20
slender spikerush	<i>Eleocharis baldwinii</i>	10
banana-lily	<i>Nymphoides aquatica</i>	10
water-shield	<i>Brasenia schreberi</i>	10
red maple	<i>Acer rubrum</i>	10

**Cassidy (Holmes County)
Florida LAKEWATCH Bathymetric Map**



Florida LAKEWATCH personnel created this map using differentially corrected global positioning equipment (GPS). Data were collected July 25, 2001. Scale and map contours are in feet and were generated using kriging technique in Surfer® software package (Golden CO). The center of the lake is located at Latitude 30°49'0" and Longitude 86°1'56". On this date, the lake surface area was calculated at 351 acres (142 hectares). This is only an approximate bathymetric map and should not be used for navigation.