

Bedford (Bradford County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°48'34", Longitude 82°3'5"

Period of record: 32 sampling dates; March 20, 1999 to October 21, 2001

Surface Area (LAKEWATCH 2000): 109 acres

Lake Region (Griffith et al. 1997): Trail Ridge (75-04)

Geologic formation (Brooks 1981a):

The geology is dominated by quartz sand and quartzite gravel with sandy clay beds of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Interlachen Sand Hills division of the Central Lake District

Supplemental water chemistry data

Data reported are means from 2 sampling dates:

pH	6.0	Total alkalinity (mg/L as CaCO ₃)	1.7
Conductance (µS/cm @ 25 °C)	44	Color (Pt-Co units)	18
Chloride (mg/L)	9.7	Silicon (mg/L)	0.8
Sulfate (mg/L)	8.5	Calcium (mg/L)	1.4
Magnesium (mg/L)	1.0	Sodium (mg/L)	4.4
Potassium (mg/L)	0.3	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)	6	8	12

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 32 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	13	33	165
Long-term total nitrogen concentrations (µg/L)	360	648	1440
Long-term total chlorophyll concentrations (µg/L)	2.0	11.8	36.0
Long-term Secchi depth (ft)	4.5	5.5	6.4

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	42	1077	6.3	5.1
Feb-25	15	387	7.3	5.3
Mar-18	16	370	21.3	6.3
Apr-22	18	387	18.3	5.0
May-20	34	557	11.7	5.2
Jun-17	35	665	2.3	5.0
Jul-22	22	440	5.3	5.0
Aug-19	32	517	6.7	5.2
Sep-23	18	360	6.0	5.2
Oct-21	24	413	6.3	4.7
2001 Average	26	517	9.2	5.2

Bedford (Bradford County)
Florida LAKEWATCH Bacteria Summary

The following table lists bacteria concentrations found in Bedford (Bradford County). These data are part of a statewide survey that Florida LAKEWATCH is conducting to determine patterns in the abundance of total coliforms and fecal coliforms among Florida water bodies. This is a one-time sample and can be used to describe the bacteria concentrations for that day and not throughout a year. It is important to remember that results could differ over the course of one year or several years based on varying environmental factors such as changes in water temperature, rainfall, aquatic plant abundance, algae blooms and others.

May 31, 2000

Lake	County	Station	Station Location	Total Coliforms (MPN)	Fecal Coliforms (MPN)
Bedford	Bradford	1	Off vegetation	600	200
Bedford	Bradford	2	Off vegetation	700	0
Bedford	Bradford	3	Off vegetation	1000	0
Bedford	Bradford	4	Off vegetation	900	0
Bedford	Bradford	5	Off vegetation	3100	100
Bedford	Bradford	6	Off vegetation	1000	0
Bedford	Bradford	7	Off vegetation	400	0
Bedford	Bradford	8	Off vegetation	1000	0
Bedford	Bradford	9	Off vegetation	300	100
Bedford	Bradford	10	Open water	500	100
Bedford	Bradford	11	Open water	2100	0
Bedford	Bradford	12	Open water	1300	0

The Florida Administrative Code (FAC), Section 62-302.530 defines criteria for both total and fecal coliform bacteria for Class III waters. The FAC states that total coliform bacteria shall not exceed a count or Most Probable Number (MPN) of 1,000 bacteria per 100 milliliters of water in 20% or more of the samples examined during any month, nor exceed a MPN of 2,400 at any individual station. The FAC also states that fecal coliform bacteria shall not exceed a MPN of 400 in 10% or more of the samples, nor exceed a MPN of 800 at any individual station.

Total coliform bacteria counts for Bedford on May 31, 2000 ranged from 300 to 3100 MPN. Total coliform bacteria exceeded 1,000 MPN in 25% of the samples. Total coliform bacteria did exceed 2,400 at one station. Total coliform bacteria were not within the acceptable range as defined by the Florida Administrative Code (FAC), Section 62-302.530.

Fecal coliform bacteria counts for Bedford on May 31, 2000 ranged from 0 to 200 MPN. Fecal coliform bacteria exceeded 400 MPN in 0% of the samples. Fecal coliform bacteria did not exceed 800 at any station. Fecal coliform bacteria were within the acceptable range as defined by the Florida Administrative Code (FAC), Section 62-302.530.

Bedford (Bradford County)
Florida LAKEWATCH Aquatic Plant Summary

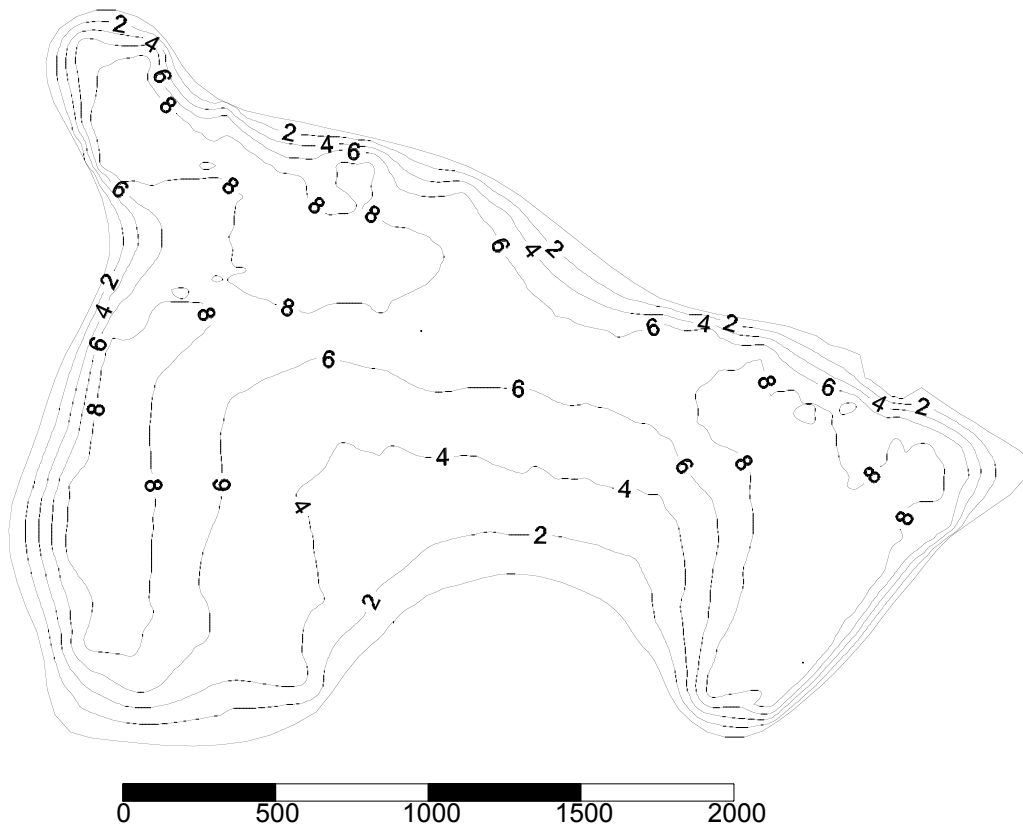
Aquatic plant data collected on May 31, 2000

Percent area covered with aquatic vegetation (PAC, %)	1.9
Percent of lake's volume filled with vegetation (PVI, %)	0.1
Average emergent plant biomass (kg wet wt/m ²)	2.3
Average floating-leaved plant biomass (kg wet wt/m ²)	1.0
Average submersed plant biomass (kg wet wt/m ²)	0.0
Average width of emergent and floating-leaved zone (ft)	23.7
Average lake depth (m)	2.2

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

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
maidencane	<i>Panicum hemitomon</i>	100
slender spikerush	<i>Eleocharis baldwinii</i>	90
rush fuirena	<i>Fuirena scirpoidea</i>	90
red ludwigia	<i>Ludwigia repens</i>	80
pickerelweed	<i>Pontederia cordata</i>	70
cat-tail	<i>Typha spp.</i>	40
water-shield	<i>Brasenia schreberi</i>	30
water-pennywort	<i>Hydrocotyle umbellata</i>	30
flat sedge	<i>Cyperus polystachyos</i>	30
smartweed	<i>Polygonum densiflorum</i>	30
fragrant water-lily	<i>Nymphaea odorata</i>	20
wax myrtle	<i>Myrica cerifera</i>	20
buttonbush	<i>Cephalanthus occidentalis</i>	20
willow	<i>Salix spp.</i>	20
smartweed	<i>Polygonum hydropiperoides</i>	10
southern naiad	<i>Najas guadalupensis</i>	10
southern cutgrass	<i>Leersia hexandra</i>	10
St. John's wort	<i>Hypericum spp.</i>	10

**Bedford (Bradford County)
Florida LAKEWATCH Bathymetric Map**



Florida LAKEWATCH personnel created this map using differentially corrected global positioning equipment (GPS). Data were collected May 31, 2000. Map contours and map scales are in feet and were generated using kriging technique in Surfer® software package (Golden CO). The center of the lake is located at Latitude 29°48'34" and Longitude 82°3'5". On this date, the lake surface area was calculated at 109 acres (44 hectares). This is only an approximate bathymetric map and should not be used for navigation.

Bolt (Bradford County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°47'51", Longitude 82°3'14"

Period of record: 2 sampling dates; July 19, 2000 to August 23, 2000

Surface Area (unpublished lakewatch 2001): 40 acres

Lake Region (Griffith et al. 1997): Trail Ridge (75-04)

Geologic formation (Brooks 1981a):

The geology is dominated by quartz sand and quartzite gravel with sandy clay beds of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Interlachen Sand Hills division of the Central Lake District

Supplemental water chemistry data

Data reported are means from 2 sampling dates:

pH	5.9	Total alkalinity (mg/L as CaCO ₃)	0.7
Conductance (µS/cm @ 25 °C)	33	Color (Pt-Co units)	8
Chloride (mg/L)	8.6	Silicon (mg/L)	0.5
Sulfate (mg/L)	0.8	Calcium (mg/L)	0.7
Magnesium (mg/L)	0.6	Sodium (mg/L)	3.5
Potassium (mg/L)	0.1	Iron (mg/L)	0.0

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 2 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	15	16	16
Long-term total nitrogen concentrations (µg/L)	403	422	440
Long-term total chlorophyll concentrations (µg/L)	8.0	8.8	9.7
Long-term Secchi depth (ft)	6.5	7.0	7.5

2001 Florida LAKEWATCH Data

No samples collected in 2001

Bolt (Bradford County)
Florida LAKEWATCH Bacteria Summary

The following table lists bacteria concentrations found in Bolt (Bradford County). These data are part of a statewide survey that Florida LAKEWATCH is conducting to determine patterns in the abundance of total coliforms and fecal coliforms among Florida water bodies. This is a one-time sample and can be used to describe the bacteria concentrations for that day and not throughout a year. It is important to remember that results could differ over the course of one year or several years based on varying environmental factors such as changes in water temperature, rainfall, aquatic plant abundance, algae blooms and others.

August 23, 2000

Lake	County	Station	Station Location	Total Coliforms (MPN)	Fecal Coliforms (MPN)
Bolt	Bradford	1	Off vegetation	900	0
Bolt	Bradford	2	Off vegetation	200	0
Bolt	Bradford	3	Off vegetation	500	0
Bolt	Bradford	4	Off vegetation	200	0
Bolt	Bradford	5	Off vegetation	700	0
Bolt	Bradford	6	Off vegetation	900	0
Bolt	Bradford	7	Off vegetation	300	0
Bolt	Bradford	8	Off vegetation	1000	0
Bolt	Bradford	9	Off vegetation	500	0
Bolt	Bradford	10	Open water	100	0
Bolt	Bradford	11	Open water	300	0
Bolt	Bradford	12	Open water	100	0

The Florida Administrative Code (FAC), Section 62-302.530 defines criteria for both total and fecal coliform bacteria for Class III waters. The FAC states that total coliform bacteria shall not exceed a count or Most Probable Number (MPN) of 1,000 bacteria per 100 milliliters of water in 20% or more of the samples examined during any month, nor exceed a MPN of 2,400 at any individual station. The FAC also states that fecal coliform bacteria shall not exceed a MPN of 400 in 10% or more of the samples, nor exceed a MPN of 800 at any individual station.

Total coliform bacteria counts for Bolt on August 23, 2000 ranged from 100 to 1000 MPN. Total coliform bacteria exceeded 1,000 MPN in 0% of the samples. Total coliform bacteria did not exceed 2,400 at any station. Total coliform bacteria were within the acceptable range as defined by the Florida Administrative Code (FAC), Section 62-302.530.

Fecal coliform bacteria counts for Bolt on August 23, 2000 ranged from 0 to 0 MPN. Fecal coliform bacteria exceeded 400 MPN in 0% of the samples. Fecal coliform bacteria did not exceed 800 at any station. Fecal coliform bacteria were within the acceptable range as defined by the Florida Administrative Code (FAC), Section 62-302.530.

DeValerio (Bradford County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°54'27", Longitude 82°10'19"

Period of record: 4 sampling dates; January 18, 1996 to April 29, 1996

Lake Region (Griffith et al. 1997): Upper Santa Fe Flatwoods (75-03)

Geologic formation (Brooks 1981a):

The geology is dominated by deeply weathered clayey sand and granular sand of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Perched Lake and Prairies division of the Central Lake District

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 4 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	30	33	35
Long-term total nitrogen concentrations (µg/L)	607	678	723
Long-term total chlorophyll concentrations (µg/L)	9.3	11.4	14.3
Long-term Secchi depth (ft)	3.1	3.3	3.5

2001 Florida LAKEWATCH Data

No samples collected in 2001

Hampton (Bradford County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°51'34", Longitude 82°10'8"

Period of record: 124 sampling dates; September 23, 1991 to December 15, 2001

Surface Area (LAKEWATCH 1998): 1092 acres

Lake Region (Griffith et al. 1997): Upper Santa Fe Flatwoods (75-03)

Geologic formation (Brooks 1981a):

The geology is dominated by deeply weathered clayey sand and granular sand of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Perched Lake and Prairies division of the Central Lake District

Supplemental water chemistry data

Data reported are means from 5 sampling dates:

pH	5.5	Total alkalinity (mg/L as CaCO ₃)	1.2
Conductance (µS/cm @ 25 °C)	57	Color (Pt-Co units)	38
Chloride (mg/L)	10.4	Silicon (mg/L)	0.1
Sulfate (mg/L)	7.2	Calcium (mg/L)	2.5
Magnesium (mg/L)	3.3	Sodium (mg/L)	6.0
Potassium (mg/L)	0.4	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)	10	10	11

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 124 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	6	11	20
Long-term total nitrogen concentrations (µg/L)	320	505	697
Long-term total chlorophyll concentrations (µg/L)	1.0	5.4	18.3
Long-term Secchi depth (ft)	3.2	6.5	12.8

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-16	13	543	5.3	6.3
Feb-15	16	650	4.7	4.5
Apr-19	16	607	5.3	3.2
May-16	12	623	5.0	5.7
Jun-15	13	583	.	4.3
Jul-14	18	620	10.0	4.2
Aug-16	13	560	6.3	6.3
Sep-19	14	540	7.0	7.3
Oct-13	11	517	6.0	6.5
Nov-17	16	570	7.7	4.0
Dec-15	14	527	9.7	3.8
2001 Average	14	576	6.7	5.1

Hampton (Bradford County)
Florida LAKEWATCH Aquatic Plant Summary

Aquatic plant data collected on June 4, 1992

Percent area covered with aquatic vegetation (PAC, %)	47.1
Percent of lake's volume filled with vegetation (PVI, %)	11.4
Average emergent plant biomass (kg wet wt/m ²)	2.8
Average floating-leaved plant biomass (kg wet wt/m ²)	0.9
Average submersed plant biomass (kg wet wt/m ²)	0.0
Average width of emergent and floating-leaved zone (ft)	38.3
Average lake depth (m)	3.4

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

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
maidencane	<i>Panicum hemitomom</i>	90
banana-lily	<i>Nymphoides aquatica</i>	80
slender spikerush	<i>Eleocharis baldwinii</i>	70
spatterdock	<i>Nuphar luteum</i>	70
buttonbush	<i>Cephalanthus occidentalis</i>	70
sawgrass	<i>Cladium jamaicense</i>	70
pickerelweed	<i>Pontederia cordata</i>	60
water-pennywort	<i>Hydrocotyle umbellata</i>	40
water primrose	<i>Ludwigia octovalvis</i>	40
rush fuirena	<i>Fuirena scirpoidea</i>	30
St. John's wort	<i>Hypericum spp.</i>	20
alligator-weed	<i>Alternanthera philoxeroides</i>	10
fragrant water-lily	<i>Nymphaea odorata</i>	10
red ludwigia	<i>Ludwigia repens</i>	10
cat-tail	<i>Typha spp.</i>	10
variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>	10
giant bulrush	<i>Scirpus californicus</i>	10
red root	<i>Lachnanthes caroliniana</i>	10

Hampton (Bradford County) Florida LAKEWATCH Aquatic Plant Summary

Aquatic plant data collected on July 2, 1993

Percent area covered with aquatic vegetation (PAC, %)	20.0
Percent of lake's volume filled with vegetation (PVI, %)	1.6
Average emergent plant biomass (kg wet wt/m ²)	5.2
Average floating-leaved plant biomass (kg wet wt/m ²)	1.9
Average submersed plant biomass (kg wet wt/m ²)	0.4
Average width of emergent and floating-leaved zone (ft)	65.2
Average lake depth (m)	3.2

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

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
slender spikerush	<i>Eleocharis baldwinii</i>	100
banana-lily	<i>Nymphoides aquatica</i>	90
wax myrtle	<i>Myrica cerifera</i>	90
sawgrass	<i>Cladium jamaicense</i>	90
maidencane	<i>Panicum hemitomon</i>	90
buttonbush	<i>Cephalanthus occidentalis</i>	80
pickerelweed	<i>Pontederia cordata</i>	70
spatterdock	<i>Nuphar luteum</i>	60
red ludwigia	<i>Ludwigia repens</i>	60
water-pennywort	<i>Hydrocotyle umbellata</i>	50
water-moss	<i>Fontinalis spp.</i>	40
variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>	40
St. John's wort	<i>Hypericum spp.</i>	40
dwarf arrowhead	<i>Sagittaria subulata</i>	30
alligator-weed	<i>Alternanthera philoxeroides</i>	20
common salvinia	<i>Salvinia rotundifolia</i>	10
fragrant water-lily	<i>Nymphaea odorata</i>	10
tapegrass	<i>Vallisneria americana</i>	10
cone-spur bladderwort	<i>Utricularia gibba</i>	10
purple bladderwort	<i>Utricularia purpurea</i>	10
slender naiad	<i>Najas minor</i>	10
water primrose	<i>Ludwigia octovalvis</i>	10
willow	<i>Salix spp.</i>	10
giant bulrush	<i>Scirpus californicus</i>	10
southern water-grass	<i>Hydrochloa caroliniensis</i>	10
rush fuirena	<i>Fuirena scirpoidea</i>	10

Hampton (Bradford County) Florida LAKEWATCH Aquatic Plant Summary

Aquatic plant data collected on July 1, 1998

Percent area covered with aquatic vegetation (PAC, %)	12.0
Percent of lake's volume filled with vegetation (PVI, %)	1.2
Average emergent plant biomass (kg wet wt/m ²)	5.4
Average floating-leaved plant biomass (kg wet wt/m ²)	5.4
Average submersed plant biomass (kg wet wt/m ²)	2.5
Average width of emergent and floating-leaved zone (ft)	51.1
Average lake depth (m)	3.3

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

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
banana-lily	<i>Nymphoides aquatica</i>	100
maidencane	<i>Panicum hemitomon</i>	100
pickerelweed	<i>Pontederia cordata</i>	80
variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>	80
wax myrtle	<i>Myrica cerifera</i>	80
buttonbush	<i>Cephalanthus occidentalis</i>	80
bald cypress	<i>Taxodium distichum</i>	80
sawgrass	<i>Cladium jamaicense</i>	70
knot grass	<i>Paspalum distichum</i>	70
slender spikerush	<i>Eleocharis baldwinii</i>	60
fragrant water-lily	<i>Nymphaea odorata</i>	60
cone-spur bladderwort	<i>Utricularia gibba</i>	50
St. John's wort	<i>Hypericum spp.</i>	50
spatterdock	<i>Nuphar luteum</i>	40
red ludwigia	<i>Ludwigia repens</i>	40
purple bladderwort	<i>Utricularia purpurea</i>	40
rush fuirena	<i>Fuirena scirpoidea</i>	40
sweetbay	<i>Magnolia virginiana</i>	40
red maple	<i>Acer rubrum</i>	40
bladderwort	<i>Utricularia foliosa</i>	30
water-pennywort	<i>Hydrocotyle umbellata</i>	20
baby-tears	<i>Micranthemum umbrosum</i>	10
tapegrass	<i>Vallisneria americana</i>	10
fanwort	<i>Cabomba caroliniana</i>	10
pipewort	<i>Eriocaulon spp.</i>	10
respuinata bladderwort	<i>Utricularia resupinata</i>	10

Hampton (Bradford County)

Florida LAKEWATCH Largemouth Bass Mercury Summary

The following table lists mercury concentrations found in largemouth bass collected from Hampton (Bradford County). These data were collected in cooperation with Florida Fish and Wildlife Conservation Commission (FFWCC) to evaluate mercury concentrations in largemouth bass for water bodies that have several years of water chemistry data. These data can be used to estimate concentrations in the largemouth bass collected on an individual date and not necessarily all fish in the water body. It is important to remember results could differ over the course of one year or several years based on varying environmental factors.

April 19, 2001

Lake	County	Total Length (mmTL)	Total Weight (g)	Sex*	Age	Mercury Concentration (ppm)
Hampton	Bradford	301	335	F	3	0.42
Hampton	Bradford	300	325	F	4	0.34
Hampton	Bradford	334	402	M	4	0.42
Hampton	Bradford	334	418	M	3	0.23
Hampton	Bradford	345	488	M	5	0.55
Hampton	Bradford	358	516	M	6	0.64
Hampton	Bradford	360	590	M	5	0.50
Hampton	Bradford	360	522	M	4	0.45
Hampton	Bradford	366	589	M	5	0.42
Hampton	Bradford	357	547	M	3	0.25
Hampton	Bradford	400	695	M	6	0.57
Hampton	Bradford	430	910	F	5	0.63

The Florida Department of Health (FDOH) has established guidelines for three consumptive use advisories that are issued by FDOH. If the average mercury concentration of harvested fish is below 0.5 ppm, then an *Unrestricted Consumption of Fish Advisory* is issued and there is no limit set to the amount of fish that you should eat in a given amount of time. If the average mercury concentration is between 0.5 ppm to 1.5 ppm, then a *Limited Consumption of Fish Advisory* is issued. A *Limited Consumption of Fish Advisory* means that fish "should not be eaten more than once a week by adults. If you are pregnant, a nursing mother, a woman who intends to have children, or a child under 15 years old, you should not eat those fish more than once a month (One portion equals 8 ounces or one-half pound of fish)". If the average mercury concentration is above 1.5 ppm, then a *No Consumption of Fish Advisory* is issued. A *No Consumption of Fish Advisory* means that no fish should be eaten from the lake sampled.

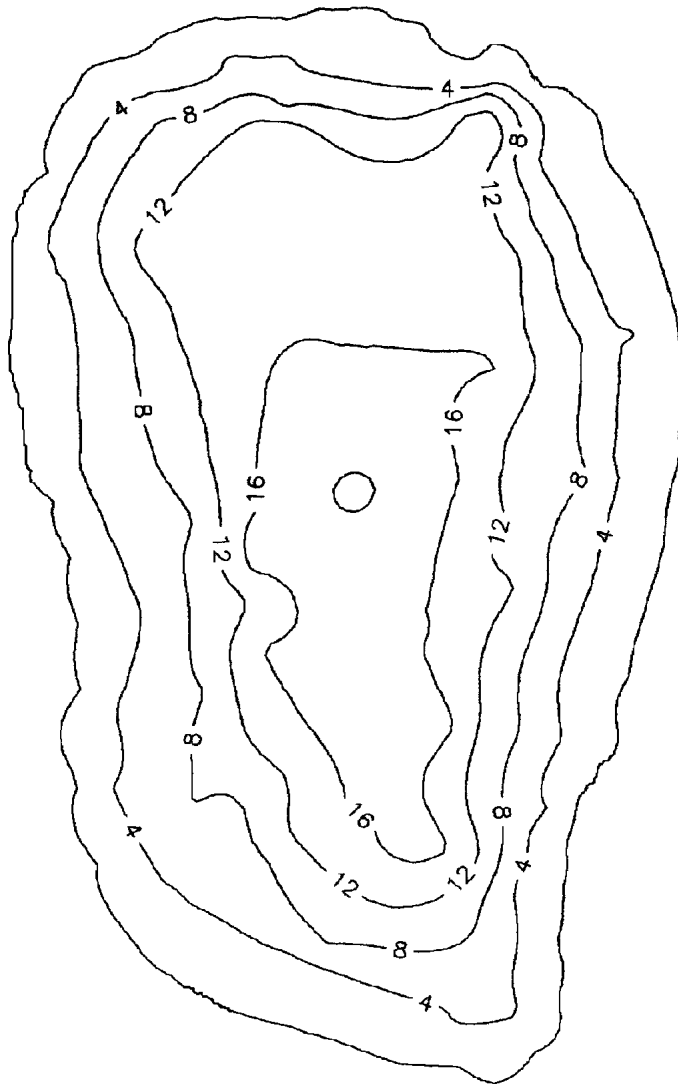
This data was provided to the FDOH by the FFWCC. To find out if an advisory was issued on this water body, please contact either:

Florida Fish and Wildlife Conservation Commission
 Ted Lange
 601 West Woodward Avenue
 Eustis, FL 32726
 (352) 742-6438
tlange@mail.state.fl.us

Bureau of Environmental Epidemiology
 Dr. Joe Sekerke
 4052 Bald Cypress Way, Bin A08
 Tallahassee, FL 32399-1712
 850-245-4248
joe.sekerke@doh.state.fl.us

* M represents male, F represents female, U represents unidentified; a dot "." represents data not available.

Hampton (Bradford County)
Florida LAKEWATCH Bathymetric Map



5000ft

Florida LAKEWATCH personnel created this map using differentially corrected global positioning equipment (GPS). Data were collected July 1, 1998. Map contours are in feet and were generated using kriging technique in Surfer® software package (Golden Software, Golden CO). The center of the lake is located at Latitude 29°51'34" and Longitude 82°10'8". On this date, the lake surface area was calculated at 1,092 acres (442 hectares). This is only an approximate bathymetric map and should not be used for navigation.

Paradise (Bradford County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°47'17", Longitude 82°2'51"

Period of record: 1 sampling date; February 12, 1998

Surface Area (Shafer et al. 1986): 46 acres

Lake Region (Griffith et al. 1997): Trail Ridge (75-04)

Geologic formation (Brooks 1981a):

The geology is dominated by quartz sand and quartzite gravel with sandy clay beds of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Interlachen Sand Hills division of the Central Lake District

Supplemental water chemistry data

Data reported are means from 1 sampling date:

pH	8.0	Total alkalinity (mg/L as CaCO ₃)	33.0
Conductance (µS/cm @ 25 °C)	99	Color (Pt-Co units)	6
Chloride (mg/L)	8.9	Silicon (mg/L)	0.3
Sulfate (mg/L)	5.2	Calcium (mg/L)	12.0
Magnesium (mg/L)	0.9	Sodium (mg/L)	4.3
Potassium (mg/L)	0.4	Iron (mg/L)	0.0

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 1 month sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	7	7	7
Long-term total nitrogen concentrations (µg/L)	537	537	537
Long-term total chlorophyll concentrations (µg/L)	1.0	1.0	1.0
Long-term Secchi depth (ft)	12.8	12.8	12.8

2001 Florida LAKEWATCH Data

No samples collected in 2001

Sampson (Bradford County)

Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°55'40", Longitude 82°11'18"

Period of record: 33 sampling dates; April 16, 1999 to December 26, 2001

Surface Area (LAKEWATCH 1999): 1865 acres

Lake Region (Griffith et al. 1997): Upper Santa Fe Flatwoods (75-03)

Geologic formation (Brooks 1981a):

The geology is dominated by deeply weathered clayey sand and granular sand of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Perched Lake and Prairies division of the Central Lake District

Supplemental water chemistry data

Data reported are means from 5 sampling dates:

pH	6.8	Total alkalinity (mg/L as CaCO ₃)	9.3
Conductance (µS/cm @ 25 °C)	143	Color (Pt-Co units)	66
Chloride (mg/L)	17.9	Silicon (mg/L)	1.6
Sulfate (mg/L)	37.7	Calcium (mg/L)	12.6
Magnesium (mg/L)	5.7	Sodium (mg/L)	11.9
Potassium (mg/L)	0.8	Iron (mg/L)	0.1

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)	8	13	17

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 33 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	10	18	40
Long-term total nitrogen concentrations (µg/L)	347	502	737
Long-term total chlorophyll concentrations (µg/L)	1.0	4.1	20.3
Long-term Secchi depth (ft)	2.0	6.4	11.3

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-26	10	410	1.0	11.0
Feb-28	13	427	2.3	8.7
Mar-30	15	407	2.3	6.7
Apr-27	16	463	2.7	6.3
May-25	16	470	3.3	5.3
Jun-23	12	433	3.0	6.5
Jul-28	13	467	3.7	7.7
Aug-26	16	447	4.0	7.7
Sep-22	19	473	4.7	8.0
Oct-25	12	527	2.3	11.3
Nov-30	12	413	1.7	.
Dec-26	13	443	1.7	9.0
2001 Average	14	448	2.7	8.0

**Sampson (Bradford County)
Florida LAKEWATCH Aquatic Plant Summary**

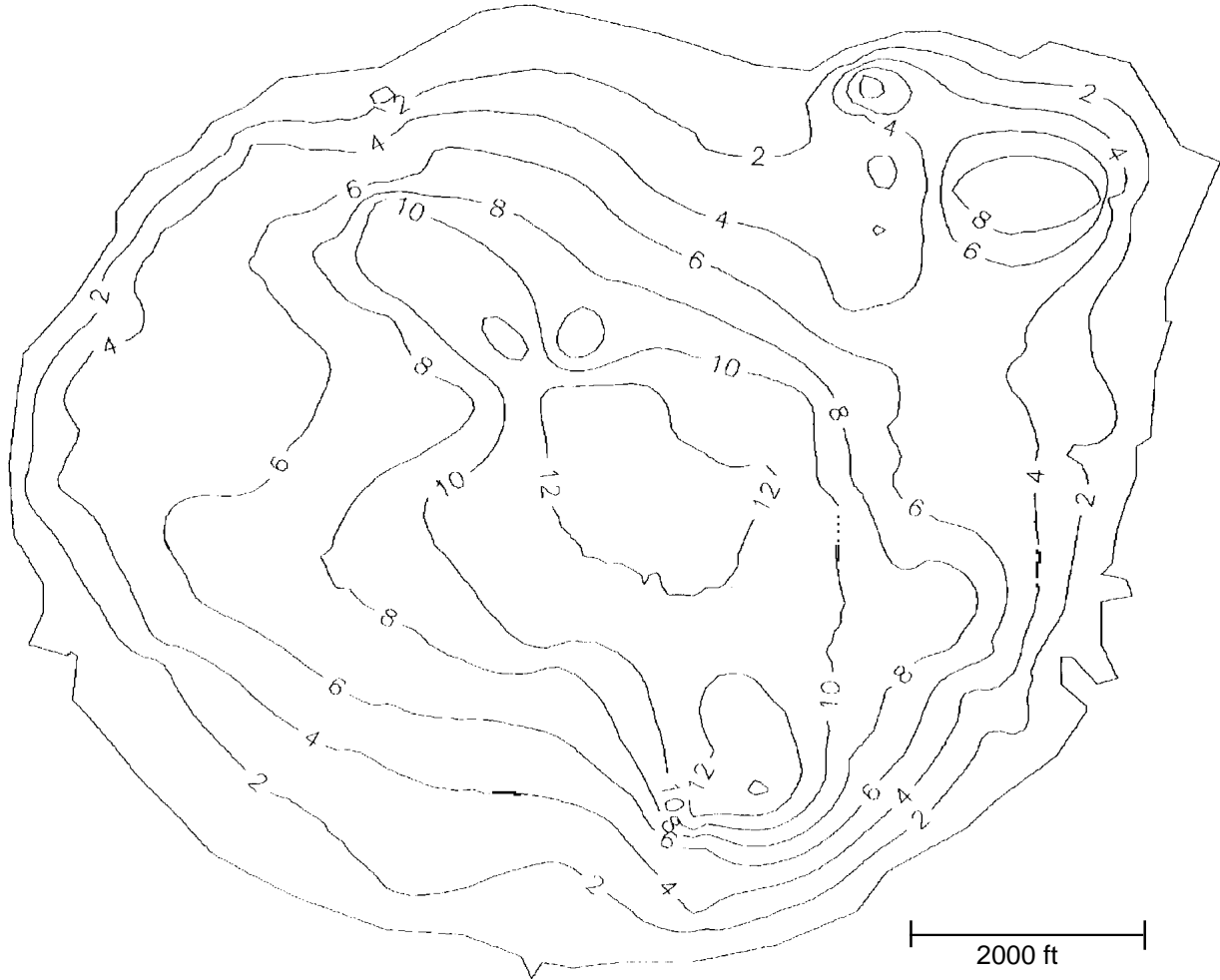
Aquatic plant data collected on June 24, 1999

Percent area covered with aquatic vegetation (PAC, %)	38.0
Percent of lake's volume filled with vegetation (PVI, %)	11.8
Average emergent plant biomass (kg wet wt/m ²)	7.1
Average floating-leaved plant biomass (kg wet wt/m ²)	2.8
Average submersed plant biomass (kg wet wt/m ²)	5.5
Average width of emergent and floating-leaved zone (ft)	163.5
Average lake depth (m)	1.6

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

<u>Common Name</u>	<u>Plant Species</u>	<u>Frequency (%)</u>
pickerelweed	<i>Pontederia cordata</i>	100
lemon bacopa	<i>Bacopa caroliniana</i>	100
bald cypress	<i>Taxodium distichum</i>	100
fragrant water-lily	<i>Nymphaea odorata</i>	90
tapegrass	<i>Vallisneria americana</i>	90
American lotus	<i>Nelumbo lutea</i>	80
maidencane	<i>Panicum hemitomon</i>	80
cat-tail	<i>Typha spp.</i>	70
hydrilla	<i>Hydrilla verticillata</i>	70
coontail	<i>Ceratophyllum demersum</i>	50
southern naiad	<i>Najas guadalupensis</i>	50
buttonbush	<i>Cephalanthus occidentalis</i>	50
stonewort	<i>Nitella spp.</i>	50
cone-spur bladderwort	<i>Utricularia gibba</i>	40
Egyptian paspalidium	<i>Paspalidium geminatum</i>	40
spatterdock	<i>Nuphar luteum</i>	30
wax myrtle	<i>Myrica cerifera</i>	30
willow	<i>Salix spp.</i>	30
.	<i>Ludwigia spp.</i>	30
slender spikerush	<i>Eleocharis baldwinii</i>	20
banana-lily	<i>Nymphoides aquatica</i>	20
water primrose	<i>Ludwigia octovalvis</i>	20
common salvinia	<i>Salvinia rotundifolia</i>	10
water-moss	<i>Fontinalis spp.</i>	10
purple fanwort	<i>Cabomba pulcherrima</i>	10
green algae	<i>Chlorophyta</i>	10
swamp titi	<i>Cyrilla racemiflora</i>	10
red maple	<i>Acer rubrum</i>	10

**Sampson (Bradford County)
Florida LAKEWATCH Bathymetric Map**



Florida LAKEWATCH personnel created this map using differentially corrected global positioning equipment (GPS). Data were collected June 24, 1999. Map contours are in feet and were generated using kriging technique in Surfer® software package (Golden Software, Golden CO). The center of the lake is located at Latitude 29°55'40" and Longitude 82°11'18". On this date, the lake surface area was calculated at 1,865 acres (755 hectares). This is only an approximate bathymetric map and should not be used for navigation.

Silver (Bradford County) Florida LAKEWATCH Water Chemistry Summary

Location: Latitude 29°47'51", Longitude 82°3'36"

Period of record: 6 sampling dates; November 27, 1994 to June 26, 1995

Lake Region (Griffith et al. 1997): Trail Ridge (75-04)

Geologic formation (Brooks 1981a):

The geology is dominated by quartz sand and quartzite gravel with sandy clay beds of the Hawthorne Formation

Physiographic region (Brooks 1981b):

The lake lies in the Interlachen Sand Hills division of the Central Lake District

Supplemental water chemistry data

Data reported are means from 1 sampling date:

pH	6.3	Total alkalinity (mg/L as CaCO ₃)	1.0
Conductance (µS/cm @ 25 °C)	42	Color (Pt-Co units)	7
Chloride (mg/L)	8.9	Silicon (mg/L)	0.7
Sulfate (mg/L)	5.4	Calcium (mg/L)	1.9
Magnesium (mg/L)	0.8	Sodium (mg/L)	4.4
Potassium (mg/L)	0.4	Iron (mg/L)	0.0

Long-term Florida LAKEWATCH Data

Numbers reported below are the minimum, average and maximum value for the 6 months sampled:

	<u>Minimum</u>	<u>Average</u>	<u>Maximum</u>
Long-term total phosphorus concentrations (µg/L)	6	10	16
Long-term total nitrogen concentrations (µg/L)	107	171	277
Long-term total chlorophyll concentrations (µg/L)	1.3	7.9	25.0
Long-term Secchi depth (ft)	9.5	10.7	12.5

2001 Florida LAKEWATCH Data

No samples collected in 2001