CHAPTER 2

THE FLORIDA LAKES DATA BASE: RESOURCES, LITERATURE, CONTENTS

GENERAL INFORMATION

Florida has approximately 7,712 fresh water lakes and reservoirs and approximately 3500 named lakes. These lakes cover 2,290,000 acres, about six percent of the state's surface area. A total of 236 Florida lakes have been meandered (surveyed shortly after statehood) and determined navigable, thus imparting title to the lake bed as 'sovereignty lands' of the state (Heath and Conover, 1981).

Florida's relatively flat, low-lying topography contributes to the generally shallow morphology of its lakes (with the exception of sinkhole lakes). Lake level fluctuation is significantly influenced by predominant weather patterns, degree of interaction with aquifers, runoff, and streamflow inputs and outputs (Heath and Conover, 1981).

Although a large variation in lake types is encountered in Florida, attempts have been made to correlate the regional characteristics of lakes, namely mineral composition, surface geology, potentiometric surface of underlying aquifers, etc. with reasonable success. Oligotrophic sandhill lakes of the Trail Ridge region of north central Florida, eutrophic lakes of the phosphatic Hawthorne formation in the lower-lying areas of north central Florida, sinkhole lakes of central Florida, large marsh-like expanses and hard-water man-made real estate lakes in south Florida are typical, though not all inclusive, examples of regionally predominant lake types in Florida (Canfield, 1981).

Influences of man on lake systems are also important features in Florida lakes. Point source discharges, modification of non-point sources through land use, drainage and other water management practices, pesticides, introduction of exotic species and other perturbations also have important impacts on lake characteristics.

OBJECTIVES AND METHODS FOR DATA SEARCH

The major objectives for this literature review of Florida lakes are as follows:

1) Identify major water quality data sources for Florida lakes.

2) Describe the various methodologies used in these major lake studies and data sources. Particular attention is directed toward determining the compatibility of different data bases in the formulation of a trophic index, especially with regards to nitrogen, phosphorus, Secchi disk and chlorophyll a parameters.

3) Develop an extensive bibliography of Florida lakes, focusing on organizing these data by lake, and examining the possibility of applying information retrieval systems to guide in future literature searches of aspects regarding Florida lakes.

In accomplishing the above tasks the following steps were taken:

1) Computerized data sets were acquired when possible.

2) Other studies and sources deemed applicable and of high quality were added to form a broader data set (see below).

3) A one-time sampling of 30 urban lakes was performed by staff members during the summer of 1981. These data were also merged into the above data set.

4) A computer search of Florida lakes was obtained from the Office of Water Research and Technology and merged with "A Bibliography of Florida Lakes" by Robertson and Boody (1981) into a "by lake" bibliography. During the course of the project, additional references were added to the bibliography. Water Management Districts, the Florida Game and Freshwater Fish Commission, universities, and others also were contacted to determine other studies applicable to such a bibiliography. The resultant bibliography is presented in Appendix B.

5) A review of nitrogen, phosphorus, Secchi disk and chlorophyll a literature was undertaken to ascertain the comparability of measurements from various sources. This review focused primarily on nitrogen parameters. The results are given in Appendix E.

CRITERIA FOR DATA SELECTION

A large computerized data set was amassed that included many chemical, biological and physical parameters for numerous lakes. The Florida Lakes Data Base (FLADAB), described later, contains such parameters for 573 lakes with additional lakes covered only by macrophyte data. In addition, the Florida Lakes Gazetteer (Florida Board of Conservation, 1969, described later) has been expanded and updated with some new lake names and new lake entries (Dickinson et al., 1982).

Establishment of such a large volume of data (for use in calculating trophic state indices and other parameters) calls for access to computerized data sources, wherever possible. Hence, although no useful data resources were rejected because they were not computerized (i.e., available on punched cards or magnetic tape), some large sources such as EPA STORET could not have been used without this attribute.

Documentation is a second criterion. Ideally, all data included in the data base should have an associated report to describe the project and sampling methods. Unfortunately, some recent studies are undocumented, and others have only sketchy documentation. Still other sources, such as STORET, are a result of continuous monitoring by various agencies for which no documentation is available. However, in all cases, some knowledge of the source and quality of the data was available prior to inclusion in FLADAB.

The relative importance of individual lakes is a more subjective criterion since the status of any of several thousand lakes is important to local residents. Nonetheless, it is inconceivable that Florida's best known and most studied lakes would not be included in the study, and they have been to the extent of knowledge of the project staff and DER colleagues. The overall result of these liberal criteria has been to include almost all available data on Florida lakes that were accessible to the project.

DATA RESOURCES OF THIS STUDY

Introduction

The final Florida Lakes Data Base (FLADAB) includes data from the following sources:

1. The "55 Lake Study" of north central Florida lakes by the UF Department of Environmental Engineering Sciences (UF-EES).
2. The UF-EES "Acid Precipitation" lake study.
3. The EPA National Eutrophication Survey.
4. Florida Game and Fresh Water Fish Commission water quality studies.
5. US Geological Survey - Department of Environmental Regulation water quality data.
6. The UF-Center for Aquatic Weeds study.
7. Selected Florida urban lakes, sampled as part of this project.
8. Water management district studies.
9. Studies by State Universities.
10. EPA STORET data.
11. Department of Environmental Regulation Study of lake nutrient conditions.
12. Other Studies.
13. Florida Aquatic Flora Survey-Macrophyte Data.

Data from these various sources and studies are described below.

55 Lake Study

Water quality is an important aspect of Florida's economy, and the state's freshwater lakes are used intensively for fishing, boating and other water sports. Despite this fact, water quality data prior to 1970 were very sparse. For this reason Brezonik et al. (1969) began a survey of physical, chemical and biological attributes of lakes in north central Florida that resulted in the 55 lakes data set. The lakes are listed in Table 2-1.

Table 2-1. Lakes of the 55 Lake Study.

GES	COUNTY	LAKE	SOURCE
1	ALACHUA	ALICE	BREZONIK
2	ALACHUA	ALTHO	BREZONIK
3	ALACHUA	BEVILLES POND	BREZONIK
4	ALACHUA	BIVENS ARM	BREZONIK
5	ALACHUA	BURNT POND	BREZONIK
6	ALACHUA	CALF POND	BREZONIK
7	ALACHUA	CLEAR	BREZONIK
8	ALACHUA	CLEARWATER	BREZONIK
9	ALACHUA	COOTER POND7	BREZONIK
10	ALACHUA	ELIZABETH	BREZONIK
11	ALACHUA	HAWTHORNE	BREZONIK
12	ALACHUA	HICKORY POND	BREZONIK
13	ALACHUA	JEGGORD	BREZONIK
14	ALACHUA	KANAPAHA	BREZONIK
15	ALACHUA	LITTLE ORANGE	BREZONIK
16	ALACHUA	LITTLE SANTA FE	BREZONIK
17	ALACHUA	LOCHLOOSA	BREZONIK
18	ALACHUA	META	BREZONIK
19	ALACHUA	MIZE	BREZONIK
20	ALACHUA	MOSS LEE	BREZONIK
21	ALACHUA	NEWNANS	BREZONIK
22	ALACHUA	ORANGE	BREZONIK
23	ALACHUA	PALATKA POND	BREZONIK
24	ALACHUA	SANTA FE	BREZONIK
25	ALACHUA	STILL POND	BREZONIK
26	ALACHUA	TUSCAWILLA	BREZONIK
27	ALACHUA	UNNAMED 10	BREZONIK
28	ALACHUA	UNNAMED 20	BREZONIK
29	ALACHUA	UNNAMED 25	BREZONIK
30	ALACHUA	UNNAMED 27	BREZONIK
31	ALACHUA	WATERMELON POND	BREZONIK
32	ALACHUA	WAUBERG	BREZONIK
33	CLAY	BROOKLYN	BREZONIK
34	CLAY	GENEVA	BREZONIK
35	CLAY	KINGSLEY	BREZONIK
36	CLAY	MAGNOLIA	BREZONIK
37	CLAY	SAND HILL	BREZONIK
38	HIGHLANDS	ANNIE	BREZONIK
39	HIGHLANDS	CLAY	BREZONIK
40	HIGHLANDS	FRANCIS	BREZONIK
41	LAKE	EUSTIS	BREZONIK
42	LAKE	HARRIS	BREZONIK
43	LEVY	LONG POND	BREZONIK
44	MARION	WEIR	BREZONIK
45	PUTNAM	ADAHO	BREZONIK
46	PUTNAM	ANDERSON CUE	BREZONIK
47	PUTNAM	COWPEN	BREZONIK
48	PUTNAM	GALLILEE	BREZONIK
49	PUTNAM	LONG	BREZONIK
50	PUTNAM	MCCLOUD	BREZONIK
51	PUTNAM	SANTA ROSA	BREZONIK
52	PUTNAM	SUGGS	BREZONIK
53	PUTNAM	SWAN	BREZONIK
54	PUTNAM	WALL	BREZONIK
55	PUTNAM	WINNOT	BREZONIK

This study began with a number of goals. Since water quality had not been monitored continuously the data would assess present water quality conditions. With further monitoring these data would then serve as historical data in order to detect future trends in water quality. The data also would be used to investigate trophic dynamics specific to Florida and to develop a classification scheme for trophic conditions in Florida lakes. Present trophic conditions were assessed in relation to the factors controlling water quality degradation.

In order to have data representing the entire range of trophic states, specific groups of lakes were chosen. Sixteen oligotrophic lakes from the Trail Ridge area of north central Florida were selected to represent low productivity systems. Thirty three lakes of various trophic states were chosen from Alachua County, in part due to their proximity to the University of Florida. Six lakes from the eutrophic Oklawaha lakes also were included to represent the upper end of eutrophic conditions.

Most lakes were sampled four times per year (seasonally) but 19 lakes were sampled bimonthly to detect short term trends and periodicities. Samples were collected with a Van Dorn sampler and stored in refrigerated polypropylene bottles. Samples for nutrient analyses were preserved with 1 mL saturated mercuric chloride solution per liter water sample. Methods of analysis generally followed Standard Methods (A.P.H.A., 1965); however, some modifications were necessary. Exact methods are detailed in Table 1 of Appendix D.

Acid Rain Lakes

As part of a University of Florida study to characterize chemical aspects of Florida rainfall, a number of lakes were chosen to monitor effects of precipitation inputs, primarily with regard to pH (Brezonik et al., 1982). Twenty

lakes were chosen on the criteria of susceptibility to acid rain and the availability of historical data. These lakes were sampled seasonally during 1978 and 1979 and analyzed for a variety of physical, chemical and biological parameters. These data were then used to note trends in pH over time and to delineate determinative factors of pH in the lakes.

The studied lakes, listed in Table 2-2, were all softwater lakes located in two areas of Florida. Twelve lakes were chosen from the Trail Ridge area east of Gainesville, and eight lakes were chosen from the Highlands Ridge area located northwest of Lake Okeechobee. These two groups of lakes represent areas with differing amounts of acid deposition; the northern group showed a trend of decreasing pH over time, while the southern group did not show such a trend.

Sampling was done to determine the overall chemical and biological characteristics of the lakes. A station was set up at the deepest part of the largest pool. Samples were collected from three depths in the water column and composited for later analyses. Samples for nutrient analyses were preserved with 1 mL $HgCl_2$/L, placed on ice in the field and stored at $4^{o}C$. Chemical analyses were performed according to Standard Methods (A.P.H.A., 1976) and/or the EPA analytical manual (US EPA, 1974). Details of analyses are outlined in Table 2 of Appendix D.

National Eutrophication Survey

The National Eutrophication Survey (NES) was initiated in 1972 in response to a federal commitment to investigate increasing degradation of water quality in lakes caused by eutrophication. The survey was coordinated by the US EPA and

Table 2-2. Lakes of the Acid Rain Study.

DFS	COUNTY	LAKE	SOURCE
1	ALACHUA	ALTHO	HENDRY
2	CLAY	BROOKLYN	HENDRY
3	CLAY	GENEVA	HENDRY
4	CLAY	JOHNSON	HENDRY
5	CLAY	KINGSLEY	HENDRY
6	CLAY	MAGNOLIA	HENDRY
7	CLAY	SAND HILL	HENDRY
8	CLAY	SHEELER	HENDRY
9	HIGHLANDS	ANNIE	HENDRY
10	HIGHLANDS	CLAY	HENDRY
11	HIGHLANDS	FRANCIS	HENDRY
12	HIGHLANDS	JOSEPHINE	HENDRY
13	HIGHLANDS	JUNE-IN-WINTER	HENDRY
14	HIGHLANDS	LETTA	HENDRY
15	HIGHLANDS	PLACID	HENDRY
16	PUTNAM	ANDERSON CUE	HENDRY
17	PUTNAM	COWPEN	HENDRY
18	PUTNAM	GALLILEE	HENDRY
19	PUTNAM	MCCLOUD	HENDRY
20	PUTNAM	SANTA ROSA	HENDRY

used state agencies to gather information on nutrient sources and concentrations and impacts of nutrient loads on various state water bodies. This information was then compiled from all states in order to form a coordinated effort of eutrophication control. During the initial year of the survey Congress enacted the Federal Water Pollution Control Act Amendments of 1972, which reprioritized federal water quality research goals and charged the US EPA with the responsibility for leadership toward their achievement.

Lakes were selected for sampling according to susceptibility as defined by federal and state agencies. A number of factors were instrumental in this decision, including the number of municipal sewage treatment plants within 25 miles, whether the lake was 100 acres or larger and whether the mean hydraulic retention time was 30 days or more. Forty Florida lakes, (Table 2-3) were chosen on the basis of these factors.

Generally, sampling was done at discrete depths at the deepest part of the lake. Samples at each depth were analyzed for nutrients, alkalinity, pH, conductivity and dissolved oxygen. Nutrient samples were preserved with 0.25 mL of mercuric chloride solution. Samples for pH and conductivity analyses were collected in polyethylene bottles and refrigerated in the dark until the end of the sampling day. Details of analytical methods are listed in Table 3 of Appendix D. Results of the survey were presented in the form of a separate report on each lake and a series of summary working papers, e.g., (NES, 1977).

Florida Game and Fresh Water Fish Commission Water Quality Study

Florida's Game and Fresh Water Fish Commission (1967, 1968, 1969, 1970, 1971, 1972, 1973) conducted a comprehensive study of water quality in Florida lakes between the years 1966 and 1973. Through these years, 49 to 52 lakes

Table 2-3. Lakes of the National Eutrophication Survey Study.

OBS	COUNTY	LAKE	SOURCE
1	BREVARD	POINSETT	NES LAKES
2	BREVARD	SOUTH	NES LAKES
3	CLAY	DOCTORS	NES LAKES
4	COLUMBIA	ALLIGATOR	NES LAKES
5	FLAGLER	CRESCENT	NES LAKES
6	GADSDEN	TALQUIN	NES LAKES
7	HIGHLANDS	GLENADA	NES LAKES
8	HIGHLANDS	ISTOKPOGA	NES LAKES
9	HILLSBOROUGH	THONOTOSASSA	NES LAKES
10	LAKE	DORA	NES LAKES
11	LAKE	GRIFFIN	NES LAKES
12	LAKE	MINNEOLA	NES LAKES
13	LAKE	TROUT	NES LAKES
14	LAKE	YALE	NES LAKES
15	LEON	MUNSON	NES LAKES
16	OKEECHOBEE	OKEECHOBEE	NES LAKES
17	ORANGE	APOPKA	NES LAKES
18	ORANGE	LAWNE	NES LAKES
19	ORANGE	MINNEHAHA	NES LAKES
20	OSCEOLA	EAST TOHOPEKALIGA	NES LAKES
21	OSCEOLA	KISSIMMEE	NES LAKES
22	OSCEOLA	TOHOPEKALIGA	NES LAKES
23	PINELLAS	SEMINOLE	NES LAKES
24	PINELLAS	TARPON	NES LAKES
25	POLK	BANANA	NES LAKES
26	POLK	EFFIE	NES LAKES
27	POLK	ELOISE	NES LAKES
28	POLK	GIBSON	NES LAKES
29	POLK	HAINES	NES LAKES
30	POLK	HANCOCK	NES LAKES
31	POLK	JESSIE	NES LAKES
32	POLK	LULU	NES LAKES
33	POLK	MARION	NES LAKES
34	POLK	REEDY	NES LAKES
35	POLK	WEOHYAKAPKA	NES LAKES
36	PUTNAM	GEORGE	NES LAKES
37	SEMINOLE	HORSESHOE	NES LAKES
38	SEMINOLE	HOWELL	NES LAKES
39	SEMINOLE	JESSUP	NES LAKES
40	VOLUSIA	MONROE	NES LAKES

were examined in one year and 49 to 52 different lakes were examined the next year. This "alternating year" plan was repeated throughout the course of the investigation so that a total of 103 lakes were included in the report, with data covering a period of seven years. The lakes are listed in Table 2-4. Samples were collected semi-annually for various physical, chemical, and biological factors, with one sampling in spring (February-April) and one in fall (August-October). Collections were made at one mid-lake station, and 23 parameters typically were measured, although the number varied slightly from year to year. Also included in the analysis were lake surface area, elevation, drainage area, and a brief description of the lake itself. These descriptions included geographic location, all inflow and outflow points, local geology, and any major structures that were present in, or around the lake.

Additional, in-depth studies were also made periodically on a selected lake, or a group of lakes. For example, in 1968-69, Lakes Dora, Weir, and Yale were sampled on a weekly basis for 35 different parameters, including diversity and concentration of invertebrates. These three lakes were selected because they were thought to represent increasingly progressive stages of eutrophication.

Rodman Reservoir in Putnam County (also called Lake Oklawaha) was the subject of an intensive study in 1970-71. Monthly samples at ten different lake stations included 37 physical-chemical parameters, as well as phytoplankton, benthos, fish, and aquatic plant determinations. At that time the reservoir was only 2.5 - 3.5 years old, and it was considered a high quality lake. However, predictions of rapid eutrophication were being made by environmentalists (Florida Defenders of the Environment, 1970) based on high nutrient inflow from the Oklawaha River. The GFWFC hoped to document the process of eutrophication from its beginning.

Table 2-4. Lakes of the Florida Game and Fresh Water Fish Commission Study.

DES	COUNTY	LAKE	SOURCE
1	ALACHUA	ALTHO	FISH&GAME
2	ALACHUA	LOCHLOOSA	FISH&GAME
3	ALACHUA	NEWNANS	FISH&GAME
4	ALACHUA	ORANGE	FISH&GAME
5	ALACHUA	SANTA FE	FISH&GAME
6	BAKER	OCEAN POND	FISH&GAME
7	BAY	DEER POINT	FISH&GAME
8	BRADFORD	ROWELL	FISH&GAME
9	BRADFORD	SAMPSON	FISH&GAME
10	BREVARD	SOUTH	FISH&GAME
11	CHARLOTTE	WEBB AREA	FISH&GAME
12	CITRUS	TSALA APOPKA(F)	FISH&GAME
13	CITRUS	TSALA APOPKA(H)	FISH&GAME
14	CITRUS	TSALA APOPKA(I)	FISH&GAME
15	CLAY	BROOKLYN	FISH&GAME
16	CLAY	GENEVA	FISH&GAME
17	CLAY	KINGSLEY	FISH&GAME
18	CLAY	LOWERY	FISH&GAME
19	COLLIER	TRAFFORD	FISH&GAME
20	COLUMBIA	ALLIGATOR	FISH&GAME
21	COLUMBIA	WATERTOWN	FISH&GAME
22	DIXIE	GOVERNOR HILL	FISH&GAME
23	GADSDEN	TALQUIN	FISH&GAME
24	GULF	DEAD	FISH&GAME
25	HERNANDO	LINDLEY	FISH&GAME
26	HIGHLANDS	FRANCIS	FISH&GAME
27	HIGHLANDS	ISTOKPOGA	FISH&GAME
28	HIGHLANDS	JACKSON	FISH&GAME
29	HIGHLANDS	JUNE-IN-WINTER	FISH&GAME
30	HIGHLANDS	LETTA	FISH&GAME
31	HIGHLANDS	RED BEACH	FISH&GAME
32	HILLSBOROUGH	THONOTOSASSA	FISH&GAME
33	INDIAN RIVER	BLUE CYPRESS	FISH&GAME
34	JEFFERSON	MICCOSUKEE	FISH&GAME
35	LAFAYETTE	KOON	FISH&GAME
36	LAKE	BEAUCLAIR	FISH&GAME
37	LAKE	CATHERINE	FISH&GAME
38	LAKE	CHERRY	FISH&GAME
39	LAKE	DORA	FISH&GAME
40	LAKE	DORR	FISH&GAME
41	LAKE	EUSTIS	FISH&GAME
42	LAKE	GRIFFIN	FISH&GAME
43	LAKE	HARRIS	FISH&GAME
44	LAKE	LOUISA	FISH&GAME
45	LAKE	MINNEHAHA	FISH&GAME
46	LAKE	MINNEOLA	FISH&GAME
47	LAKE	YALE	FISH&GAME
48	LEON	JACKSON	FISH&GAME
49	LEON	MUNSON	FISH&GAME
50	MADISON	FRANCIS	FISH&GAME
51	MARION	KERR	FISH&GAME
52	MARION	OCKLAWAHA	FISH&GAME
53	MARION	WEIR	FISH&GAME
54	OKALOOSA	KARICK	FISH&GAME
55	OKEECHOBEE	OKEECHOBEE	FISH&GAME

Table 2-4. (Continued)

OBS	COUNTY	LAKE	SOURCE
56	ORANGE	APOPKA	FISH&GAME
57	ORANGE	BUTLER	FISH&GAME
58	ORANGE	CARLTON	FISH&GAME
59	ORANGE	JOHNS	FISH&GAME
60	ORANGE	KILLARNEY	FISH&GAME
61	ORANGE	LAWNE	FISH&GAME
62	ORANGE	MAITLAND	FISH&GAME
63	ORANGE	OLA	FISH&GAME
64	ORANGE	TIBET BUTLER	FISH&GAME
65	ORANGE	UNDERHILL	FISH&GAME
66	ORANGE	VIRGINIA	FISH&GAME
67	OSCEOLA	ALLIGATOR	FISH&GAME
68	OSCEOLA	EAST TOHOPEKALIGA	FISH&GAME
69	OSCEOLA	KISSIMMEE	FISH&GAME
70	OSCEOLA	MARIAN	FISH&GAME
71	OSCEOLA	MARION	FISH&GAME
72	OSCEOLA	TOHOPEKALIGA	FISH&GAME
73	PASCO	CLEAR	FISH&GAME
74	PASCO	MOON	FISH&GAME
75	PINELLAS	ALLIGATOR	FISH&GAME
76	PINELLAS	MAGGIORE	FISH&GAME
77	PINELLAS	SEMINOLE	FISH&GAME
78	PINELLAS	TARPON	FISH&GAME
79	POLK	CROOKED	FISH&GAME
80	POLK	EFFIE	FISH&GAME
81	POLK	ELOISE	FISH&GAME
82	POLK	GIBSON	FISH&GAME
83	POLK	HANCOCK	FISH&GAME
84	POLK	HOLLINGSWORTH	FISH&GAME
85	POLK	JESSIE	FISH&GAME
86	POLK	JULIANA	FISH&GAME
87	POLK	LULU	FISH&GAME
88	POLK	MATTIE	FISH&GAME
89	POLK	PARKER	FISH&GAME
90	POLK	PIERCE	FISH&GAME
91	POLK	REEDY	FISH&GAME
92	POLK	ROSALIE	FISH&GAME
93	POLK	SCOTT	FISH&GAME
94	POLK	STAR	FISH&GAME
95	POLK	TRACY	FISH&GAME
96	POLK	WALES	FISH&GAME
97	POLK	WEOHYAKAPKA	FISH&GAME
98	SANTA ROSA	BEAR	FISH&GAME
99	SUMTER	PANASOFFKEE	FISH&GAME
100	UNION	BUTLER	FISH&GAME
101	UNION	PALESTINE	FISH&GAME
102	VOLUSIA	WINONA	FISH&GAME
103	WASHINGTON	PORTER POND	FISH&GAME

The overall GFWFC project (initiated in 1966) included the following long-term objectives:

1) document changes of water quality in selected Florida lakes,

2) gather background data to further aid scientific understanding of rates of water quality changes in Florida lakes,

3) establish a guide for appropriate water quality criteria to evaluate Florida's fishery resources,

4) provide information that could be used in evaluating the effects of pollution in Florida lakes.

Starting with the 1969-70 sampling and continuing through the rest of the project, the Commission attempted to classify the survey lakes. The classification involved three parameters that were thought to reflect biological conditions present in the lakes:

1) turbidity difference (from filtered and unfiltered measurements),

2) chlorophyll a, and

3) particulate organic nitrogen content.

The lakes were arranged in order of the highest values for each parameter. Lowest values were assigned a rank of one, next lowest a rank of two, and so forth. The ranks for the three parameters were added up for each lake, and a final rank was established (the lowest possible final rank number being 3.0). It is quite obvious that this is strictly a relative classification system. The rankings do not necessarily reflect absolute values of turbidity, chlorophyll a, and organic nitrogen but only the relative values.

The GFWFC (1972) compared its trophic ranking system with the trophic index ranking scheme of Brezonik and Shannon (1971). Of 55 lakes sampled by the latter authors, 14 were included in the 51 lakes sampled by the GFWFC

in 1971. The Commission concluded that there was a strong similarity in trophic rankings computed by the two schemes. It should be emphasized, however, that the GFWFC scheme was merely a relative ranking procedure (based on three parameters), whereas the Brezonik-Shannon scheme assigned index values based on actual values for seven trophic indicators.

The parameters investigated and the laboratory methods for each are included in Table 4 of Appendix D.

U.S.G.S. - DER Lake Survey

The U.S. Geological Survey, in conjunction with the State of Florida Department of Environmental Regulation recently concluded a broad survey of Florida lakes. Sampling was conducted between February 1979 and May 1981 on 96 lakes in the state (Table 2-5). The study was designed primarily to initiate a statewide effort to classify Florida lakes in response to section 314 of the Clean Water Act (1977). Lakes were sampled based on suggestions from county and state officials. These lakes were either possible candidates for restoration studies or were the subject of numerous citizen complaints concerning water quality problems. Site-specific reports were written for each lake and a final statistical analysis of the data from all 96 lakes was prepared (personal communication, L. Edmiston, 1982).

The format for reporting results is almost identical for each of the lakes. The lake is identified by name, county, and location (center of lake given in terms of latitude and longitude). Physical parameters such as surface area, drainage area, maximum depth, mean depth, and lake volume are listed. The lakes were sampled at a varying number of points (three to eight) depending on the size of the lake. Secchi disk transparency was measured at

Table 2-5. Lakes of the USGS - DER Study.

DES	COUNTY	LAKE	SOURCE
1	ALACHUA	LOCHLOOSA	USGS-DER
2	ALACHUA	NEWNANS	USGS-DER
3	ALACHUA	ORANGE	USGS-DER
4	ALACHUA	SANTA FE	USGS-DER
5	BAKER	OCEAN POND	USGS-DER
6	BAY	DEER POINT	USGS-DER
7	BAY	MERIAL	USGS-DER
8	BRADFORD	ROWELL	USGS-DER
9	BRADFORD	SAMPSON	USGS-DER
10	BREVARD	HELEN BLAZES	USGS-DER
11	BREVARD	POINSETT	USGS-DER
12	BREVARD	SOUTH	USGS-DER
13	CITRUS	TSALA APOPKA(H)	USGS-DER
14	CITRUS	TSALA APOPKA(I)	USGS-DER
15	CLAY	GENEVA	USGS-DER
16	COLLIER	TRAFFORD	USGS-DER
17	COLUMBIA	ALLIGATOR	USGS-DER
18	GADSDEN	TALQUIN	USGS-DER
19	GULF	DEAD	USGS-DER
20	HERNANDO	MOUNTAIN	USGS-DER
21	HIGHLANDS	DAMON	USGS-DER
22	HIGHLANDS	DINNER	USGS-DER
23	HIGHLANDS	ISTOKPOGA	USGS-DER
24	HIGHLANDS	JACKSON	USGS-DER
25	HIGHLANDS	PLACID	USGS-DER
26	HILLSBOROUGH	BROOKER	USGS-DER
27	HILLSBOROUGH	KEYSTONE	USGS-DER
28	HILLSBOROUGH	THONOTOSASSA	USGS-DER
29	INDIAN RIVER	BLUE CYPRESS	USGS-DER
30	JACKSON	COMPASS	USGS-DER
31	JACKSON	OCHEESEE POND	USGS-DER
32	JEFFERSON	MICCOSUKEE	USGS-DER
33	LAKE	DENHAM	USGS-DER
34	LAKE	DORR	USGS-DER
35	LAKE	ENOLA	USGS-DER
36	LAKE	KATHRYN	USGS-DER
37	LAKE	LOUISA	USGS-DER
38	LAKE	MINNEOLA	USGS-DER
39	LAKE	TUTUOLA	USGS-DER
40	LEON	IAMONIA	USGS-DER
41	LEVY	ROUSSEAU	USGS-DER
42	LIBERTY	MYSTIC	USGS-DER
43	MARION	BRYANT	USGS-DER
44	MARION	KERR	USGS-DER
45	ORANGE	BASS	USGS-DER
46	ORANGE	BUTLER	USGS-DER
47	ORANGE	CLEAR	USGS-DER
48	ORANGE	DOWN	USGS-DER
49	ORANGE	FAIRVIEW	USGS-DER
50	ORANGE	HOLDEN	USGS-DER
51	ORANGE	HOURGLASS	USGS-DER
52	ORANGE	JOHNS	USGS-DER
53	ORANGE	MAITLAND	USGS-DER
54	ORANGE	MANN	USGS-DER
55	ORANGE	PEARL	USGS-DER
56	ORANGE	SHEEN	USGS-DER
57	ORANGE	STARKE	USGS-DER
58	ORANGE	SUSANNAH	USGS-DER
59	ORANGE	TIBET BUTLER	USGS-DER
60	ORANGE	UNDERHILL	USGS-DER
61	OSCEOLA	ALLIGATOR	USGS-DER
62	OSCEOLA	CYPRESS	USGS-DER
63	OSCEOLA	GENTRY	USGS-DER
64	OSCEOLA	HATCHINEHA	USGS-DER
65	OSCEOLA	MARIAN	USGS-DER
66	PALM BEACH	OSBORNE	USGS-DER
67	PASCO	THOMAS	USGS-DER
68	PINELLAS	MAGGIORE	USGS-DER
69	POLK	ALFRED	USGS-DER
70	POLK	ARBUCKLE	USGS-DER
71	POLK	ARETTA	USGS-DER
72	POLK	BUFFUM	USGS-DER
73	POLK	CLINCH	USGS-DER

Table 2-5. (Continued)

FLORIDA LAKES
USGS - FDER LAKE STUDY

OBS	COUNTY	LAKE	SOURCE
74	POLK	CROOKED	USGS-DER
75	POLK	ECHO	USGS-DER
76	POLK	GIBSON	USGS-DER
77	POLK	HANCOCK	USGS-DER
78	POLK	HOLLINGSWORTH	USGS-DER
79	POLK	HOWARD	USGS-DER
80	POLK	MATTIE	USGS-DER
81	POLK	PARKER	USGS-DER
82	POLK	PIERCE	USGS-DER
83	PUTNAM	COWPEN	USGS-DER
84	PUTNAM	GEORGE	USGS-DER
85	PUTNAM	GEORGES	USGS-DER
86	SEMINOLE	JESSUP	USGS-DER
87	SEMINOLE	LOTUS	USGS-DER
88	SEMINOLE	MILLS	USGS-DER
89	SEMINOLE	PEARL	USGS-DER
90	SEMINOLE	TRIPLET	USGS-DER
91	SUMTER	DEATON	USGS-DER
92	SUMTER	OKAHUMPKA	USGS-DER
93	SUMTER	PANASOFFKEE	USGS-DER
94	UNION	BUTLER	USGS-DER
95	VOLUSIA	ASHBY	USGS-DER
96	VOLUSIA	MOLLY	USGS-DER

all stations, and depth profiles of dissolved oxygen concentration and temperature were usually included for at least three stations.

Other physical and chemical meaurements were made on a depth-integrated water sample from a single station (usually mid-lake). Measured parameters included: ammonium, nitrate, nitrite, total organic nitrogen, total nitrogen, orthophosphate (soluble reactive phosphate, SRP), total phosphorus, turbidity, dissolved solids, specific conductance, pH, chlorophyll a, and phaeophytin. Also in each report was a section devoted to a qualitative analysis and description of the lake. The outline of this segment typically included:

1) lake setting - general topography of surrounding area;
2) major inflows, outflows, and control structures;
3) land use surrounding the lake and percentage of each use;
4) point sources of pollution;
5) non-point pollution sources and any controls on these;
6) recreational facilities, access roads, and ramps;
7) occurrence of algae, aquatic plants, sediments, and other such deterrents to recreational use;
8) historical information from local residents;
9) aerial photographs of lake.

Each lake report included two or three maps of the lake and surrounding areas that show station and aerial photo locations.

Aquatic Weeds Study

This study by the University of Florida Center for Aquatic Weeds sampled 165 Florida lakes (Table 2-6) between September 1979 and August 1980 (Canfield,

1981). The lakes ranged from ultra-oligotrophic to hyper-eutrophic and displayed vastly differing limnological conditions. Parameters and methods are listed in Table 5 of Appendix D. The study was designed to determine the chemical and trophic state characteristics of Florida lakes in different physiographic regions of the state and to determine relationships between mineral composition of lakes and the surface geology and physiography. Assessments were made of regional differences in chemical composition that may be of biological importance.

The State was divided into three major physiographic zones:

1) Northern zone - Region of continuous high ground which forms a broad upland in northern Florida. Most of the region is above the piezometric surface; thus it is characterized by features of dry highland or dead zone karst with large lake level fluctuations.

2) Central zone - Region of discontinuous highlands. Ridges are generally above the piezometric surface and valleys are generally below the piezometric surface.

3) Southern zone - Characterized by large expanses of wetlands. Large majority of region is below the piezometric surface. Other than Lake Okeechobee, there are few lakes in this region.

The report included 15 figures (isograms) showing statewide areal variation for the limnological parameters measured. Since only 165 out of the total 7700 lakes were examined, and because the measurements were infrequent all of the isograms must be considered as approximate. However, several noteworthy trends were distinguished from the data analysis.

For example, the physiographic region with the greatest variability in water quality is the central zone. The geology and physiography of this region are more diverse than is the case in the northern and southern zones. Additionally, except for total iron and color, there is a general increase in chemical concentrations (and in pH) from northwest to southeast

Table 2-6. Lakes of the Aquatic Weeds Study.

CBS	COUNTY	LAKE	SOURCE
1	ALACHUA	LOCHLOOSA	AQ.WEED
2	ALACHUA	NEWNANS	AQ.WEED
3	ALACHUA	ORANGE	AQ.WEED
4	ALACHUA	WAUBERG	AQ.WEED
5	BAKER	OCEAN POND	AQ.WEED
6	BAY	DEER POINT	AQ.WEED
7	BAY	MERIAL	AQ.WEED
8	BRADFORD	CROSBY	AQ.WEED
9	BRADFORD	HAMPTON	AQ.WEED
10	BRADFORD	ROWELL	AQ.WEED
11	BRADFORD	SAMPSON	AQ.WEED
12	BREVARD	POINSETT	AQ.WEED
13	BREVARD	WASHINGTON	AQ.WEED
14	BROWARD	TIGERTAIL	AQ.WEED
15	CALHOUN	DEAD	AQ.WEED
16	CALHOUN	MCKENZIE	AQ.WEED
17	CALHOUN	MIRROW	AQ.WEED
18	CALHOUN	TURKEY PEN POND	AQ.WEED
19	CITRUS	TSALA APOPKA	AQ.WEED
20	CLAY	GENEVA	AQ.WEED
21	CLAY	KINGSLEY	AQ.WEED
22	CLAY	LOWERY	AQ.WEED
23	CLAY	MAGNOLIA	AQ.WEED
24	COLLIER	TRAFFORD	AQ.WEED
25	COLUMBIA	ALLIGATOR	AQ.WEED
26	COLUMBIA	WATERTOWN	AQ.WEED
27	FLAGLER	CRESCENT	AQ.WEED
28	FLAGLER	DISSTON	AQ.WEED
29	FRANKLIN	CORN LANDING	AQ.WEED
30	GADSDEN	SUWANNEE	AQ.WEED
31	GADSDEN	TALQUIN	AQ.WEED
32	GULF	WIMICO	AQ.WEED
33	HERNANDO	LINDLEY	AQ.WEED
34	HERNANDO	MOUNTAIN	AQ.WEED
35	HIGHLANDS	DINNER	AQ.WEED
36	HIGHLANDS	HUNTLEY	AQ.WEED
37	HIGHLANDS	ISTOKPOGA	AQ.WEED
38	HIGHLANDS	JACKSON	AQ.WEED
39	HIGHLANDS	JOSEPHINE	AQ.WEED
40	HIGHLANDS	LITTLE RED WATER	AQ.WEED
41	HIGHLANDS	LOTELA	AQ.WEED
42	HIGHLANDS	PLACID	AQ.WEED
43	HIGHLANDS	RED BEACH	AQ.WEED
44	HIGHLANDS	SEBRING	AQ.WEED
45	HILLSBOROUGH	THONOTOSASSA	AQ.WEED
46	HOLMES	SUN	AQ.WEED
47	HOLMES	VICTOR	AQ.WEED
48	INDIAN RIVER	BLUE CYPRESS	AQ.WEED
49	JACKSON	COMPASS	AQ.WEED
50	JACKSON	MERRITTS MILL POND	AQ.WEED
51	JACKSON	OCHEESEE POND	AQ.WEED
52	JACKSON	ROUND	AQ.WEED
53	LAFAYETTE	TOWNSEND POND	AQ.WEED
54	LAKE	CRESCENT	AQ.WEED
55	LAKE	DORA	AQ.WEED
56	LAKE	DORR	AQ.WEED
57	LAKE	EUSTIS	AQ.WEED
58	LAKE	GRIFFIN	AQ.WEED
59	LAKE	HARRIS	AQ.WEED
60	LAKE	LOUISA	AQ.WEED
61	LAKE	MINNEHAHA	AQ.WEED
62	LAKE	MINNEOLA	AQ.WEED
63	LAKE	WILDCAT	AQ.WEED
64	LAKE	YALE	AQ.WEED
65	LEON	CARR	AQ.WEED
66	LEON	IAMONIA	AQ.WEED
67	LEON	JACKSON	AQ.WEED
68	LEON	MUNSON	AQ.WEED
69	LEVY	ROUSSEAU	AQ.WEED
70	MADISON	CHERRY	AQ.WEED
71	MADISON	MYSTIC	AQ.WEED
72	MANATEE	MANATEE RESERVOIR	AQ.WEED
73	MARION	EATON	AQ.WEED

Table 2-6. (Continued)

FLORIDA LAKES
CENTER FOR AQUATIC WEEDS

OBS	COUNTY	LAKE	SOURCE
74	MARION	KERR	AQ.WEED
75	MARION	SELLERS	AQ.WEED
76	MARION	SMITH	AQ.WEED
77	MARION	WEIR	AQ.WEED
78	OKALOOSA	HURRICANE	AQ.WEED
79	OKALOOSA	KARICK	AQ.WEED
80	OKEECHOBEE	OKEECHOBEE	AQ.WEED
81	ORANGE	APOPKA	AQ.WEED
82	ORANGE	BALDWIN	AQ.WEED
83	ORANGE	BUTLER	AQ.WEED
84	ORANGE	CONWAY	AQ.WEED
85	ORANGE	DOWN	AQ.WEED
86	ORANGE	FAIRVIEW	AQ.WEED
87	ORANGE	HART	AQ.WEED
88	ORANGE	JESSAMINE	AQ.WEED
89	ORANGE	JOHNS	AQ.WEED
90	ORANGE	LAWNE	AQ.WEED
91	ORANGE	MAITLAND	AQ.WEED
92	ORANGE	MARY JANE	AQ.WEED
93	ORANGE	UNDERHILL	AQ.WEED
94	ORANGE	VIRGINIA	AQ.WEED
95	OSCEOLA	ALLIGATOR	AQ.WEED
96	OSCEOLA	CYPRESS	AQ.WEED
97	OSCEOLA	EAST TOHOPEKALIGA	AQ.WEED
98	OSCEOLA	GENTRY	AQ.WEED
99	OSCEOLA	HATCHINEHA	AQ.WEED
100	OSCEOLA	KISSIMMEE	AQ.WEED
101	OSCEOLA	MARIAN	AQ.WEED
102	OSCEOLA	TOHOPEKALIGA	AQ.WEED
103	PALM BEACH	OSBORNE	AQ.WEED
104	PASCO	CREWS	AQ.WEED
105	PASCO	IOLA	AQ.WEED
106	PASCO	MOON	AQ.WEED
107	PASCO	PADGETT	AQ.WEED
108	PASCO	PASADENA	AQ.WEED
109	PINELLAS	MAGGIORE	AQ.WEED
110	PINELLAS	SEMINOLE	AQ.WEED
111	PINELLAS	TARPON	AQ.WEED
112	POLK	AGNES	AQ.WEED
113	POLK	ARBUCKLE	AQ.WEED
114	POLK	ARETTA	AQ.WEED
115	POLK	ARIANA	AQ.WEED
116	POLK	BUFFUM	AQ.WEED
117	POLK	CLINCH	AQ.WEED
118	POLK	EAGLE	AQ.WEED
119	POLK	GIBSON	AQ.WEED
120	POLK	HOWARD	AQ.WEED
121	POLK	LITTLE CROOKED	AQ.WEED
122	POLK	LOWERY	AQ.WEED
123	POLK	MARION	AQ.WEED
124	POLK	PARKER	AQ.WEED
125	POLK	PIERCE	AQ.WEED
126	POLK	REEDY	AQ.WEED
127	POLK	ROSALIE	AQ.WEED
128	POLK	TIGER	AQ.WEED
129	POLK	WALES	AQ.WEED
130	POLK	WEOHYAKAPKA	AQ.WEED
131	PUTNAM	BROWARD	AQ.WEED
132	PUTNAM	GEORGE	AQ.WEED
133	PUTNAM	MARGARET	AQ.WEED
134	PUTNAM	STELLA	AQ.WEED
135	SANTA ROSA	BEAR	AQ.WEED
136	SARASOTA	UPPER MYAKKA	AQ.WEED
137	SEMINOLE	JESSUP	AQ.WEED
138	SEMINOLE	SEMINOLE	AQ.WEED
139	SUMTER	DEATON	AQ.WEED
140	SUMTER	MIONA	AQ.WEED
141	SUMTER	OKAHUMPKA	AQ.WEED
142	SUMTER	PANASOFFKEE	AQ.WEED
143	SUWANNEE	LOUISE	AQ.WEED
144	SUWANNEE	SUSAN	AQ.WEED
145	UNION	BUTLER	AQ.WEED
146	UNION	PALESTINE	AQ.WEED

Table 2-6. (Continued)

FLORIDA LAKES
CENTER FOR AQUATIC WEEDS

OBS	COUNTY	LAKE	SOURCE
147	VOLUSIA	ASHBY	AQ.WEED
148	VOLUSIA	DEXTER	AQ.WEED
149	VOLUSIA	DIAS	AQ.WEED
150	VOLUSIA	HARNEY	AQ.WEED
151	VOLUSIA	MONROE	AQ.WEED
152	VOLUSIA	WINNEMISETT	AQ.WEED
153	WAKULLA	ELLEN	AQ.WEED
154	WAKULLA	OTTER	AQ.WEED
155	WAKULLA	SANTA FE	AQ.WEED
156	WALTON	JACKSON	AQ.WEED
157	WALTON	JUNIPER BAY	AQ.WEED
158	WALTON	OYSTER	AQ.WEED
159	WALTON	STANLEY	AQ.WEED
160	WALTON	WESTERN	AQ.WEED
161	WASHINGTON	CRYSTAL	AQ.WEED
162	WASHINGTON	DUNFORD POND	AQ.WEED
163	WASHINGTON	GAP POND	AQ.WEED
164	WASHINGTON	PATE POND	AQ.WEED
165	WASHINGTON	SMITH	AQ.WEED

and from highlands to lowlands. As a result, eutrophic conditions exist primarily in peninsular Florida. Relatively low alkalinity and hardness values and relatively high total nitrogen, total phosphorus, and chlorophyll a values in the lakes lead to the conclusion that Florida lakes can be generally characterized as soft-water, productive bodies of water. In agreement with findings of other regional limnology studies, the author concluded that a strong relationship exists between the mineral composition of Florida's freshwater lakes and surface geology and physiography. For example, lakes in the northern Central Valley of Florida, where there are major deposits of the phosphatic Hawthorn Formation, are naturally eutrophic, e.g., Lochloosa, Orange and Newnan's Lakes in Alachua County. In contrast, lakes located in nutrient-poor sandy soils, as occur in Washington and Jackson counties in the Panhandle, are naturally oligotrophic. A similar statement can be made about the Trail Ridge Lakes in Clay and Putnam Counties.

The use of empirical phosphorus loading models developed specifically for Florida was also stressed in the report.

Selected Florida Urban Lakes

This survey was done in summer of 1981 as part of the present (DER-sponsored) lake classification project. The purpose of the survey was to obtain water quality data on selected "urban" lakes deemed of interest due to potential problems and/or the desirability for restoration. Urban lakes generally have large amounts of stress from sewage effluent and/or other point source discharges, storm water runoff, and fertilizer losses from

residential lawns. An attempt was made to enlarge the small data base on urban Florida lakes by sampling a cross section of 30 urban lakes with varying morphology, proximity to urban centers, population density and impervious land in the watershed.

Lakes were sampled in four urban areas: Miami, Tampa, Orlando-Winter Park, and Lakeland (Table 2-7). The lakes were chosen by recommendation from various sources on the criteria of restoration need or lack of previous data. Locations, sizes, and land use features on topographic maps also were considered in making selections. Substitutes were identified and sampled when the primary lakes were found unacceptable for sampling (e.g., no access).

Temperature and dissolved oxygen profiles were obtained at meter intervals at mid-lake stations. A mid-lake water sample (depth-integrated at meter intervals) was utilized for chemical analysis and identification of dominant algae. Notes were taken regarding access, recreation, presence of filamentous algae, submerged or emergent macrophytes, and surrounding land use and point sources for each lake sampled. The parameters analyzed and evaluative methods are listed in Table 6 of Appendix D.

Water Management District Studies

Data for several lakes have been gathered by some of the state's five water management districts. Some of the sampling is routine and other sampling is conducted as part of special studies. A brief review of these data is given below.

A total of 53 lakes in the Southwest Florida Water Management District (SWFWMD) were sampled at least once during 1980-81 in an effort to provide background information on the water quality of the District's lakes. Data on the lakes listed in Table 2-8 are given by Attardi (1981).

Table 2-7. Urban Lakes Sampled During Project.

OBS	COUNTY	LAKE	SOURCE
1	DADE	BAMBI	LAKE CLAS
2	DADE	BLUE LAGOON	LAKE CLAS
3	DADE	CATALINA	LAKE CLAS
4	DADE	HENRY	LAKE CLAS
5	DADE	KATHARINE	LAKE CLAS
6	DADE	LAURENCE EAST	LAKE CLAS
7	DADE	LOUISE	LAKE CLAS
8	DADE	MYRTLE	LAKE CLAS
9	DADE	SKY	LAKE CLAS
10	DADE	SOUTH BASS	LAKE CLAS
11	HILLSBOROUGH	CARROLL	LAKE CLAS
12	HILLSBOROUGH	EGYPT	LAKE CLAS
13	HILLSBOROUGH	ELLEN	LAKE CLAS
14	HILLSBOROUGH	MAGDALENE	LAKE CLAS
15	ORANGE	CHEROKEE	LAKE CLAS
16	ORANGE	DAVIS	LAKE CLAS
17	ORANGE	DRUID	LAKE CLAS
18	ORANGE	HIGHLAND	LAKE CLAS
19	ORANGE	IRMA	LAKE CLAS
20	ORANGE	IVANHOE	LAKE CLAS
21	ORANGE	IVANHOE	LAKE CLAS
22	ORANGE	KILLARNEY	LAKE CLAS
23	ORANGE	LUCERNE	LAKE CLAS
24	ORANGE	MAN	LAKE CLAS
25	ORANGE	ROCK	LAKE CLAS
26	ORANGE	SILVER	LAKE CLAS
27	ORANGE	UNDERHILL	LAKE CLAS
28	POLK	BEULAH	LAKE CLAS
29	POLK	BEULAH	LAKE CLAS
30	POLK	HUNTER	LAKE CLAS
31	POLK	MAUDE	LAKE CLAS
32	POLK	WIRE	LAKE CLAS

A more detailed study of Sawgrass Lake in Pinellas County was undertaken from July 1977 to July 1979 by the SWFWMD in cooperation with the City of St. Petersburg and the USGS (Dooris, 1980). Samples were taken at approximately monthly intervals, and results are included in the data base.

A large quantity of data has been gathered on Lake Okeechobee over the past decade by the South Florida Water Management District (SFWMD). Data for April 1973 through March 1980 were summarized and analyzed in detail by Federico et al. (1981), and the data are included in the data base.

Other lake data gathered by the SFWMD and by the St. Johns River Water Management District were unavailable in computerized form and could not be included in the data base in a timely manner. Such data may be included in the future. (Some SFWMD data are included in the STORET system.) No data were available from the Suwannee River or Northwest Florida Water Management Districts.

University Studies

In addition to the three University of Florida studies described earlier, other studies on selected lakes have been conducted at the University of Florida and several other universities in the state.

A study on nonpoint source runoff by the University of Central Florida included detailed monitoring of Lake Eola in Orlando (Orange County), a classic example of a small lake surrounded by a large urbanized watershed (Wanielista, 1976, Wanielista et al., 1982). Data from this study and subsequent data through June 1981 are included in the data base. Another Orlando lake, Lake Ivanhoe, was studied from

Table 2-8. Lakes Sampled by the Southwest Florida Water Management District.

OBS	COUNTY	LAKE	SOURCE
1	HERNANDO	HUNTERS	SWFWMD
2	HIGHLANDS	ANGELO	SWFWMD
3	HIGHLANDS	ANOKA	SWFWMD
4	HIGHLANDS	FRANCIS	SWFWMD
5	HIGHLANDS	GLENADA	SWFWMD
6	HIGHLANDS	JUNE-IN-WINTER	SWFWMD
7	HIGHLANDS	LELIA	SWFWMD
8	HIGHLANDS	LETTA	SWFWMD
9	HIGHLANDS	LITTLE BONNET	SWFWMD
10	HIGHLANDS	LITTLE RED WATER	SWFWMD
11	HIGHLANDS	LOTELA	SWFWMD
12	HIGHLANDS	RED WATER	SWFWMD
13	HIGHLANDS	TULANE	SWFWMD
14	HILLSBOROUGH	GRADY	SWFWMD
15	HILLSBOROUGH	WIMAUMA	SWFWMD
16	PASCO	BLUE	SWFWMD
17	PASCO	CREWS	SWFWMD
18	PASCO	IOLA	SWFWMD
19	PASCO	JESSAMINE	SWFWMD
20	PASCO	MIDDLE	SWFWMD
21	PASCO	MOODY	SWFWMD
22	PINELLAS	ALLIGATOR	SWFWMD
23	PINELLAS	SALT	SWFWMD
24	POLK	AGNES	SWFWMD
25	POLK	ANN	SWFWMD
26	POLK	ARETTA	SWFWMD
27	POLK	ARIANA	SWFWMD
28	POLK	BONNETT	SWFWMD
29	POLK	BONNY	SWFWMD
30	POLK	BUFFUM	SWFWMD
31	POLK	CLEARWATER	SWFWMD
32	POLK	CONNIE	SWFWMD
33	POLK	FANNIE	SWFWMD
34	POLK	GARFIELD	SWFWMD
35	POLK	GIBSON	SWFWMD
36	POLK	GUM	SWFWMD
37	POLK	HAINES	SWFWMD
38	POLK	HANCOCK	SWFWMD
39	POLK	HELENE	SWFWMD
40	POLK	HENRY	SWFWMD
41	POLK	HUNTER	SWFWMD
42	POLK	LENA	SWFWMD
43	POLK	MATTIE	SWFWMD
44	POLK	MUD	SWFWMD
45	POLK	ROCHELLE	SWFWMD
46	POLK	SANITARY	SWFWMD
47	POLK	SCOTT	SWFWMD
48	POLK	SMART	SWFWMD
49	POLK	SWOOPE	SWFWMD
50	POLK	TENNESSEE	SWFWMD
51	POLK	THOMAS	SWFWMD
52	POLK	WHISTLER	SWFWMD
53	SEMINOLE	BANANA	SWFWMD

February through April 1979 as part of a highway runoff study for the Florida Department of Transportation (Wanielista et al., 1980), and these data are also included.

Lake Jackson, near Tallahassee in Leon County, was monitored from June 1971 through June 1981 by workers at Florida State University and the Florida Institute of Technology. Data from reports by Harris and Turner (1974), Mason and Belanger (1978) and Burnett and Donahue (1982) are included in the data base. Also included in the data base are data from a 1977-78 study of Lake Washington (Brevard County) by Mason and Belanger (1979).

The Lake Conway data set was developed as part of an investigation of the ability of the white amur (grass carp) to control aquatic weeds. The University of Florida, sponsored by the U.S. Army Corps of Engineers Waterways Experiment Station, conducted a number of studies to investigate the effect of the white amur (Crisman and Kooijman, 1981). As part of these studies water quality was monitored throughout the period of inquiry. Sampling was performed at meter intervals from the center of each pool in the lake system. Samples were analyzed for four nitrogen and two phosphorus forms and for routine limnological parameters (Sompongse, 1978). Nutrient data were used in various input-output and simulation eutrophication models (Blancher, 1979).

In addition to Lake Conway, 16 other lakes (Table 2-9) were sampled by the University of Florida in related studies (T.L. Crisman, personal communication, 1982). These data are also included in the data base.

As part of a large scale nutrient abatement and lake restoration program on Lake Apopka, a water quality monitoring study of the Oklawaha chain of lakes was undertaken by the University of Florida, Department of Environmental Engineering Sciences under contract to the Florida Department of Environmental

Regulation. Bimonthly and monthly samples were taken from the lakes over four years (1977-1980) to monitor changes in water quality (Brezonik et al., 1981). Lakes Apopka, Beauclair, Dora, Eustis and Griffin each were sampled at several stations and analyzed for numerous chemical and physical parameters. These data were later condensed to mean monthly values by lake for the four year period. Analytical methods were similar to those for the other University of Florida studies.

FDER Lake Study

The Florida Department of Environmental Regulation (L. Edmiston, personal communication, 1982) conducted a survey of 42 lakes around the state (Table 2-10) to evaluate limiting water quality and nutrients (by algal assays). The lakes, which ranged in area from 72 to 18,630 ha and had average depths between 2.0 and 3.0 m were sampled three times in summer and fall (of 1977). Trophic states of the lakes ranged from oligotrophic to hypereutrophic.

The primary purpose of the survey was to define nutrient concentrations and limiting nutrient conditions in the lakes. Nutrient limitation was assessed from N/P ratios and the EPA algal assay procedure (AAP), using the test alga Selenastrum capricornutum (Printz). Actual limiting nutrients were compared to nitrogen/phosphorus ratios to determine their relationships. Physical and chemical measurements analyzed on the lake samples included: Secchi disk transparency, pH, conductivity, dissolved oxygen, turbidity, chlorophyll a, ammonium, nitrate-nitrite, total Kjeldahl nitrogen, orthophosphate (SRP), and total phosphorus.

EPA STORET Data

As part of the project all Florida lake data contained in the massive EPA STORET data bank were retrieved and sent to UF on a magnetic tape.

Table 2-9. Lakes Sampled as Part of the Lake Conway Study.

Observation	County	Lake	Source
1	Alachua	Newnans	Crisman
2	Alachua	Santa Fe	Crisman
3	Baker	Ocean Pond	Crisman
4	Bradford	Sampson	Crisman
5	Clay	Kingsley	Crisman
6	Highlands	Annie	Crisman
7	Highlands	Francis	Crisman
8	Highlands	Jackson	Crisman
9	Highlands	Placid	Crisman
10	Hillsborough	Thonotosassa	Crisman
11	Indian River	Blue Cypress	Crisman
12	Lake	Eustis	Crisman
13	Marion	Kerr	Crisman
14	Osceola	East Tohopeka-liga	Crisman
15	Polk	Scott	Crisman
16	Sumter	Miona	Crisman

Table 2-10. Lakes Sampled by the Department of Environmental Regulation.

EBS	COUNTY	LAKE	SOURCE
1	ALACHUA	LOCHLOOSA	FDER
2	ALACHUA	NEWNANS	FDER
3	ALACHUA	ORANGE	FDER
4	BAKER	OCEAN POND	FDER
5	BAY	WHITE WESTERN	FDER
6	BRADFORD	CROSBY	FDER
7	BREVARD	POINSETT	FDER
8	CALHOUN	DEAD	FDER
9	CLAY	KINGSLEY	FDER
10	COLLIER	TRAFFORD	FDER
11	HIGHLANDS	ISTOKPOGA	FDER
12	HIGHLANDS	JACKSON	FDER
13	HIGHLANDS	JUNE-IN-WINTER	FDER
14	HIGHLANDS	LOTELA	FDER
15	HILLSBOROUGH	THONOTOSASSA	FDER
16	JACKSON	MERRITTS MILL POND	FDER
17	JACKSON	OCHEESEE POND	FDER
18	LAKE	DORA	FDER
19	LAKE	EUSTIS	FDER
20	LAKE	GRIFFIN	FDER
21	LAKE	HARRIS	FDER
22	LAKE	MINNEOLA	FDER
23	LEON	BRADFORD	FDER
24	LEON	JACKSON	FDER
25	MARION	WEIR	FDER
26	ORANGE	BAY	FDER
27	ORANGE	BUTLER	FDER
28	OSCEOLA	EAST TOHOPEKALIGA	FDER
29	OSCEOLA	HATCHINEHA	FDER
30	OSCEOLA	TOHOPEKALIGA	FDER
31	PINELLAS	TARPON	FDER
32	POLK	BANANA	FDER
33	POLK	HOLLINGSWORTH	FDER
34	POLK	LULU	FDER
35	POLK	REEDY	FDER
36	POLK	WEOHYAKAPKA	FDER
37	PUTNAM	GEORGE	FDER
38	SARASOTA	UPPER MYAKKA	FDER
39	SEMINOLE	JESSUP	FDER
40	SUMTER	PANASOFFKEE	FDER
41	VOLUSIA	MONROE	FDER
42	WALTON	JACKSON	FDER

Table 2-11. Lakes for Which Data Were Obtained from STORET.

1	ALACHUA	ALTHO	STORET	09J LAKE ALTHO AT WALDO FLA
2	ALACHUA	BIVENS ARM	STORET	BIVANS ARM NR GAINESVILLE FLA
3	ALACHUA	LITTLE SANTA FE	STORET	09J LITTLE SANTA FE LAKE NR WALD
4	ALACHUA	LOCHLOOSA	STORET	LOCHLOOSA LAKE AT LOCHLOOSA FLA
5	ALACHUA	NEWNANS	STORET	NEWNANS LAKE NR GAINESVILLE FLA
6	ALACHUA	ORANGE	STORET	ORANGE LAKE AT ORANGE LAKE, FLA.
7	ALACHUA	PAYNES PRAIRIE	STORET	PAYNE'S PRAIRIE LAKE (NO NAME)
8	ALACHUA	SANTA FE	STORET	SANTA FE LAKE NR KEYSTONE HTS, F
9	BAKER	OCEAN POND	STORET	OCEAN POND AT OLUSTEE, FLA
10	BAY	DEER POINT	STORET	DEER POINT LAKE NEAR PANAMA CITY
11	BAY	MERIAL	STORET	MERIAL LAKE NR GREENHEAD FL
12	BAY	POWELL	STORET	POWELL LAKE 3/4 DISTANCE UP WEST
13	BRADFORD	CROSBY	STORET	LAKE CROSBY #1 NORTH SHORE
14	BRADFORD	HAMPTON	STORET	LAKE HAMPTON #1 NEAR NORTH SHORE
15	BRADFORD	POWELL	STORET	09J LAKE ROWELL NR STARKE FLA
16	BRADFORD	SAMPSON	STORET	09J LAKE SAMPSON NR STARKE FLA
17	BREVARD	CLEAR	STORET	09E CLEAR L NR COCOA FLA
18	BREVARD	HELEN BLAZES	STORET	09E LAKE HELEN BLAZES NEAR DEER
19	BREVARD	LOUGHMAN	STORET	09E LOUGHMANS L NR MIMS FLA
20	BREVARD	POINSETT	STORET	LAKE POINSETT NR. COCOA, FLA.
21	BREVARD	SALT	STORET	09E SALT L AT HWY 46 NR MIMS FLA
22	BREVARD	SAWGRASS	STORET	09E SAWGRASS LAKE NEAR MELBOURNE
23	BREVARD	SOUTH	STORET	09E SO LAKE NR TITUSVILLE FLA
24	BREVARD	WASHINGTON	STORET	LAKE WASHINGTON NEAR EAU GALLIE,
25	BREVARD	WINDER	STORET	09E LAKE WINDER NEAR BONAVENTURE
26	BROWARD	GEORGE	STORET	10B LAKE GEORGE NR DANIA, FLA.
27	BROWARD	PROSPECT	STORET	10B FT LAUDERDALE PROSPECT LK NR
28	BROWARD	SYLVIA	STORET	LAKE SYLVIA - CENTER
29	CALHOUN	DEAD	STORET	DEAD LKS ST REC AR 100YD OFFSHOR
30	CHARLOTTE	40 ACRE POND	STORET	FORTY ACRE POND NR PLACIDA, FLA
31	CITRUS	MORRISON POND	STORET	MORRISON POND AT LECANTO,FLA.
32	CITRUS	TSALA APOPKA	STORET	TSALA APOPKA L AT HWY 39A BRIDGE
33	CITRUS	TSALA APOPKA(F)	STORET	TSALA APOPKA LAKE AT FLORAL CITY
34	CITRUS	TSALA APOPKA(H)	STORET	TSALA APOPKA LAKE AT HERNANDO, F
35	CITRUS	TSALA APOPKA(I)	STORET	TSALA APOPKA LK AT INVERNESS, FL
36	CLAY	BIG LAKE JOHNSON	STORET	BIG LAKE JOHNSON NR KEYSTONE HTS
37	CLAY	BLUE POND	STORET	09E BLUE POND NR KEYSTONE HGTS F
38	CLAY	BROOKLYN	STORET	BROOKLYN LAKE NR KEYSTONE HGTS F
39	CLAY	CRYSTAL	STORET	CRYSTAL LK NR KEYSTONE HGTS FLA
40	CLAY	DOCTORS	STORET	09E DOCTORS LAKE AT ORANGE PARK
41	CLAY	GENEVA	STORET	LAKE GENEVA AT KEYSTONE HEIGHTS
42	CLAY	HALL	STORET	HALL LAK NR KEYSTONE HGTS FLA
43	CLAY	JOHNSON	STORET	LT LAKE JOHNSON NR KEYSTONE HGTS
44	CLAY	KINGSLEY	STORET	KINGSLEY LAKE AT CAMP BLANDING F
45	CLAY	LOCH LOMMOND	STORET	09E LOCH LOMMOND NR KEYSTONE HGT
46	CLAY	MAGNOLIA	STORET	MAGNOLIA LAKE NEAR KEYSTONE HEIG
47	CLAY	PEBBLE	STORET	PEBBLE LAKE NR KEYSTONE HEIGHTS
48	CLAY	SAND HILL	STORET	SAND HILL LAKE NR KEYSTONE HEIGH
49	CLAY	SMITH	STORET	SMITH LK NR KEYSTONE HGTS FLA
50	COLLIER	CYPRESS POND	STORET	10B CYPRESS POND NW OF JETPORT N
51	COLLIER	LANTERN	STORET	10B LATERN LAKE AT NAPLES FLA
52	COLLIER	TRAFF	STORET	LK TRAFF S BOAT RAMP
53	COLUMBIA	ALLIGATOR	STORET	ALLIGATOR LAKE AT LAKE CITY FLA
54	COLUMBIA	WATERTOWN	STORET	WATERTOWN LAKE AT WATERTOWN FLA
55	DADE	BLUE	STORET	10B BLUE LAKE NR SW 60 ST AND 74
56	DADE	CAROLINE	STORET	10B L CAROLINE NR SW 56 ST AND 8
57	DADE	CATALINE	STORET	10B L CATALINE NR SW 56 ST AND 8
58	DADE	LAKE NO MIAMI BEACH	STORET	10B LAKE IN NO MIAMI BEACH
59	DADE	MAULE	STORET	10B MAULE LK NR SW 56 ST AND 74
60	DIXIE	GOVERNOR HILL	STORET	GOVENOR HILL LAKE NR OLD TOWN FL
61	DUVAL	IMESON POND	STORET	POND, IMESON
62	FLAGLER	CRESCENT	STORET	CRESCENT L 2 E TIP NEAR ISL
63	FLAGLER	DISSTON	STORET	LAKE DISSTON SE QUADRANT
64	GADSDEN	TALQUIN	STORET	LAKE TALQUIN NEAR BLOXHAM FLA
65	GLADES	HICPOCHEE	STORET	LAKE HICPOCHEE NR MOORE HAVEN, F
66	GULF	DEAD	STORET	DEAD LAKE NR WEWAHITCHKA FLA
67	GULF	WIMICO	STORET	LAKE WIMCO MOUTH
68	HAMILTON	BEE HAVEN BAY	STORET	BEE HAVEN BAY SR #6
69	HERNANDO	BYSTRE	STORET	09G LAKE BYSTRE NEAR BROOKSVILLE
70	HERNANDO	HIGHLAND	STORET	HIGHLAND LAKE NR BROOKSVILLE, FL
71	HERNANDO	HORSE	STORET	HORSE LAKE NR BROOKSVILLE, FLA.
72	HERNANDO	HUNTERS	STORET	HUNTERS LAKE NR ARIPEKA, FLA.
73	HERNANDO	LINDLEY	STORET	09G L LINDSEY NR BROOKSVILLE FLA
74	HERNANDO	NEFF	STORET	NEFF LAKE NR BROOKSVILLE, FLA.

Table 2-11. (Continued)

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* FLORIDA LAKES FROM STORET *
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OBS	COUNTY	LAKE	SOURCE	DESCRIPT
75	HERNANDO	SAND POINT POND	STORET	SAND POINT POND NEAR BROOKSVILLE
76	HERNANDO	SIMMONS PRAIRIE LAKE	STORET	09G SIMMONS PRAIRIE L NR BROOKSV
77	HERNANDO	SPARKMAN	STORET	SPARKMAN LAKE NEAR SPRING LAKE,
78	HERNANDO	SPRING	STORET	09G SPRING LAKE NR BROOKSVILLE F
79	HERNANDO	SQUIRREL PRAIRIE LAK	STORET	SQUIRREL PRAIRIE LAKE
80	HERNANDO	WHITFIELDS PRAIRIE L	STORET	WHITFIELD'S PRAIRIE LAKE
81	HERNANDO	ZEBRA	STORET	09G LAKE ZEBRA NEAR SPRING LAKE,
82	HERNANDO	ZULU	STORET	09G LAKE ZULU NEAR LAKE LINDSEY,
83	HIGHLANDS	ANNIE	STORET	LAKE ANNIE NR LAKE PLACID, FLA.
84	HIGHLANDS	CHARLOTTE	STORET	LAKE CHARLOTTE CENTER SECTION
85	HIGHLANDS	CLAY	STORET	LAKE CLAY-200 YDS OFF W. END
86	HIGHLANDS	DAMON	STORET	LAKE DAMON-OFF 200 YDS, OF U.S.2
87	HIGHLANDS	DINNER	STORET	DINNER L S SEBRING HIGHLANDS CO
88	HIGHLANDS	FRANCIS	STORET	LAKE FRANCIS NR LAKE PLACID, FLA
89	HIGHLANDS	GLENADA	STORET	GLENADA LAKE
90	HIGHLANDS	GRASSY	STORET	10B GRASSY LAKE NR L PLACID FLA
91	HIGHLANDS	HUNTLEY	STORET	LAKE HUNTLEY 1/4 MI OUT FROM M.H
92	HIGHLANDS	ISTOKPOGA	STORET	LAKE ISTOKPOGA NR DE SOTO CITY,
93	HIGHLANDS	JACKSON	STORET	LAKE JACKSON AT SEBRING, FLA.
94	HIGHLANDS	JAX	STORET	LK JAX CENTER NW ALC
95	HIGHLANDS	JOSEPHINE	STORET	LAKE JOSEPHINE NEAR DE SOTO CITY
96	HIGHLANDS	JUNE-IN-WINTER	STORET	LAKE JUNE-IN-WINTER NR LAKE PLAC
97	HIGHLANDS	LETTA	STORET	LAKE LETTA NR AVON PARK FLA
98	HIGHLANDS	LITTLE LAKE JACKSON	STORET	LITTLE LAKE JACKSON-CENTER
99	HIGHLANDS	LOTELA	STORET	LAKE LOTELA NR AVON PARK FLA
100	HIGHLANDS	MCCOY	STORET	10B LAKE MCCOY NR LAKE PLACID FL
101	HIGHLANDS	PEARL	STORET	10B LAKE PEARL AT L PLACID FLA
102	HIGHLANDS	PLACID	STORET	LAKE PLACID NR LAKE PLACID, FLA.
103	HIGHLANDS	RED BEACH	STORET	10B RED BEACH L AT DE SOTO CITY
104	HIGHLANDS	SEBRING	STORET	LAKE SEBRING-CENTER-HIGHLANDS CO
105	HIGHLANDS	SIRENA	STORET	LAKE SIRENA AT LAKE PLACID, FLA.
106	HILLSBOROUGH	BAY	STORET	BAY LAKE NR SULPHUR SPRINGS, FLA
107	HILLSBOROUGH	BURRELL	STORET	BURRELL LAKE TRIB LAKE (HWD) NR
108	HILLSBOROUGH	CALM	STORET	CALM LAKE NR ODESSA, FLA.
109	HILLSBOROUGH	CAMP DOROTHY THOMAS	STORET	CAMP DOROTHY THOMAS LAKE
110	HILLSBOROUGH	CARROLL	STORET	LAKE CARROLL NR SULPHUR SPRINGS,
111	HILLSBOROUGH	CHAPMAN	STORET	CHAPMAN LAKE NR LUTZ, FLA.
112	HILLSBOROUGH	CHARLES	STORET	LAKE CHARLES NR LUTZ, FLA.
113	HILLSBOROUGH	CHURCH	STORET	CHURCH LAKE NR CITRUS PARK, FLA.
114	HILLSBOROUGH	CITRUS PARK	STORET	CITRUS PARK LAKE NEAR CITRUS PAR
115	HILLSBOROUGH	CRENSHAW	STORET	LAKE CRENSHAW NR LUTZ, FLA.
116	HILLSBOROUGH	CRUM	STORET	CRUM LAKE NEAR LUTZ, FLA
117	HILLSBOROUGH	DAN	STORET	LAKE DAN NR ODESSA, FLA.
118	HILLSBOROUGH	DEER	STORET	DEER LAKE NEAR LUTZ, FLA
119	HILLSBOROUGH	DEUBELL	STORET	LAKE DEUBELL NEAR LUTZ, FLA
120	HILLSBOROUGH	DOSSEN	STORET	DOSSEN LAKE NR LUTZ, FLA.
121	HILLSBOROUGH	FAIRY	STORET	FAIRY LAKE AT CITRUS PARK, FLA
122	HILLSBOROUGH	GRADY	STORET	LAKE GRADY 1.5 MI. SO. OF ALAFIA
123	HILLSBOROUGH	HARVEY	STORET	LAKE HARVEY NR LUTZ, FLA.
124	HILLSBOROUGH	HOBBS	STORET	LAKE HOBBS NR LUTZ, FLA.
125	HILLSBOROUGH	HORSE	STORET	HORSE LAKE NR CITRUS PARK, FLA
126	HILLSBOROUGH	ISLAND FORD	STORET	ISLAND FORD LAKE NR ODESSA, FLA.
127	HILLSBOROUGH	JACKSON	STORET	10J LAKE JACKSON NR LUTZ
128	HILLSBOROUGH	KELL	STORET	LAKE KELL NR LUTZ, FLA.
129	HILLSBOROUGH	KEYSTONE	STORET	KEYSTONE LAKE NR ODESSA, FLA.
130	HILLSBOROUGH	LIPSEY	STORET	LAKE LIPSEY NR SULPHUR SPRINGS,
131	HILLSBOROUGH	LONG	STORET	LONG LAKE NEAR NOWATNEY, FLA
132	HILLSBOROUGH	MAGDALENE	STORET	LAKE MAGDALENE NR LUTZ, FLA.
133	HILLSBOROUGH	MARION	STORET	10B LAKE MARION SITE 2 NEAR MAIN
134	HILLSBOROUGH	MINE POND	STORET	MINE POND AT CHRISTINA PARK, FLA
135	HILLSBOROUGH	PIERCE	STORET	10B LK PIERCE SI 2 NR WAVERLY FL
136	HILLSBOROUGH	PRETTY	STORET	PRETTY LAKE NR CITRUS PARK, FLA.
137	HILLSBOROUGH	ROBERTA	STORET	LAKE ROBERTA AT TAMPA, FLA
138	HILLSBOROUGH	ROBLES	STORET	ROBLES LAKE AT TAMPA, FLA
139	HILLSBOROUGH	ROGERS	STORET	LAKE ROGERS NR CITRUS PARK,FLA.
140	HILLSBOROUGH	ROSALIE	STORET	10B LAKE ROSALIE SITE 1 NEAR LAK
141	HILLSBOROUGH	ROUND	STORET	ROUND LAKE NR LUTZ, FLA.
142	HILLSBOROUGH	SADDLEBACK	STORET	SADDLEBACK LAKE NR LUTZ, FLA.
143	HILLSBOROUGH	STARVATION	STORET	STARVATION LAKE NR LUTZ,FLA.
144	HILLSBOROUGH	STEMPER	STORET	LAKE STEMPER NR LUTZ, FLA.
145	HILLSBOROUGH	SUNSHINE	STORET	LAKE SUNSHINE NEAR LUTZ, FLA
146	HILLSBOROUGH	THONOTOSASSA	STORET	L THONOTOSASSA 400' FR NW SHORE
147	HILLSBOROUGH	TURKEY FORD	STORET	TURKEY FORD LAKE NR LUTZ, FLA.
148	HILLSBOROUGH	UNNAMED LAKE	STORET	UNNAMED LAKE AT LAKE PARK NR LUT

Table 2-11. (Continued)

* FLORIDA LAKES FROM STORET *

OBS	COUNTY	LAKE	SOURCE	DESCRIPT
149	HILLSBOROUGH	VALRICO	STORET	VALRICO LAKE AT VALRICO, FLA
150	HILLSBOROUGH	VAN DYKE	STORET	VAN DYKE LAKE NR LUTZ, FLA.
151	HILLSBOROUGH	WHITE TROUT	STORET	WHITE TROUT LAKE NR SULPHUR SPRI
152	INDIAN RIVER	BLUE CYPRESS	STORET	BLUE CYPRESS LAKE NR. FELLSMERE,
153	JEFFERSON	MICCOSUKEE	STORET	LAKE MICCOSUKEE NR MICCOSUKEE FL
154	LAFAYETTE	TOWNSEND POND	STORET	TOWNSEND POND NR MAYO FLA
155	LAKE	ALEXANDER SPRINGS	STORET	ALEXANDER SPRINGS NEAR ASTOR
156	LAKE	APSHAWA	STORET	LAKE APSHAWA NR MINNEOLA, FLA.
157	LAKE	BAY	STORET	09G BAY LAKE AT BAY LAKE, FLA.
158	LAKE	BEAUCLAIR	STORET	09E LAKE BEAUCLAIR NR ASTATULA F
159	LAKE	BRIGHT	STORET	09E LAKE BRIGHT NR OKAHUMPKA, FL
160	LAKE	BUGG SPRING	STORET	09E BUGG SPRING AT OKAHUMPLA FLA
161	LAKE	CATHERINE	STORET	CNTR L CATHERINE
162	LAKE	CHERRY	STORET	CHERRY LAKE NEAR GROVELAND, FLA.
163	LAKE	CHURCH	STORET	CHURCH LAKE NR GROVELAND, FLA.
164	LAKE	DENHAM	STORET	09E LAKE DENHAM NR OKAHUMPKA, FL
165	LAKE	DICIE	STORET	LAKE DICIE AT EUSTIS, FLA.
166	LAKE	DORA	STORET	LAKE DORA AT MOUNT DORA, FLA.
167	LAKE	DORR	STORET	LAKE DORR NEAR ALTOONA FLA
168	LAKE	EMMA	STORET	L EMMA MIDDLE
169	LAKE	EUSTIS	STORET	LAKE EUSTIS AT EUSTIS, FLA.
170	LAKE	FISH	STORET	09E FISH LAKE NR PINE LAKES FLA
171	LAKE	FLAT	STORET	09E FLAT LAKE NR OAKLAND, FLA.
172	LAKE	FLORENCE	STORET	LAKE FLORENCE AT MONTVERDE, FLA.
173	LAKE	GRASSY	STORET	09E GRASSY LAKE NR MINNEOLA, FLA
174	LAKE	GRIFFIN	STORET	LAKE GRIFFIN AT LEESBURG, FLA.
175	LAKE	HANCOCK	STORET	10B HANCOCK LAKE NR CLERMONT FLA
176	LAKE	HARRIS	STORET	LAKE HARRIS AT LEESBURG, FLA.
177	LAKE	HIAWATHA	STORET	L HIAWATHA 150 FT OFF W SHORE
178	LAKE	HOLLY	STORET	09E HOLLY LAKE NR UMATILLA FLA
179	LAKE	HORSESHOE	STORET	HORSESHOE LAKE NR TANGERINE FLA
180	LAKE	KATHRYN	STORET	09E LAKE KATHRYN AT KATHRYN HEIG
181	LAKE	LADY	STORET	LADY LAKE NR LADY LAKE, FLA.
182	LAKE	LITTLE LAKE HARRIS	STORET	09E LITTLE LAKE HARRIS AT HOWEY
183	LAKE	LOUISA	STORET	LAKE LOUISA NR CLERMONT, FLA.
184	LAKE	LUCY	STORET	L LUCY MIDDLE
185	LAKE	MARY	STORET	09E LAKE MARY AT UMATILLA, FLA.
186	LAKE	MELTON	STORET	09E LAKE MELTON NR ASTATULA, FLA
187	LAKE	MESSANT SPRING	STORET	MESSANT SPRING NR SORRENTO, FLA.
188	LAKE	MINNEHAHA	STORET	LAKE MINNEHAHA AT CLERMONT, FLA.
189	LAKE	MINNEOLA	STORET	09E LAKE MINNEOLA NR CLERMONT FL
190	LAKE	NORRIS	STORET	09E LAKE NORRIS NR PAISLEY, FLA.
191	LAKE	PINE	STORET	PINE LAKE NR. CASSIA, FLA.
192	LAKE	PITTS POND	STORET	09E PITTS POND NR OKAHUMPKA, FLA
193	LAKE	SCHIMMERHORN	STORET	09E LAKE SCHIMMERHORN AT ASTOR P
194	LAKE	SELLERS	STORET	L SELLERS CENTER OF EASTERN LOBE
195	LAKE	SEMINOLE SPRINGS	STORET	SEMINOLE SPRINGS NR SORRENTO, FLA.
196	LAKE	SILVER	STORET	09E SILVER LAKE NR LEESBURG, FLA
197	LAKE	SOUTH	STORET	LAKE SOUTH
198	LAKE	SWATARA	STORET	09E LAKE SWATARA NEAR EUSTIS, FL
199	LAKE	TROUT	STORET	TROUT LAKE NR CLERMONT, FLA.
200	LAKE	UMATILLA	STORET	LAKE UMATILLA AT UMATILLA, FLA.
201	LAKE	WEST CROOKED	STORET	WEST CROOKED LAKE NR EUSTIS, FLA
202	LAKE	YALE	STORET	LAKE YALE AT GRAND ISLAND, FLA.
203	LEE	CHATEAU SUR-MER	STORET	10B LAKE AT CHATEAU SUR-MER
204	LEE	LEELAND	STORET	10B LEELAND LAKE AT LEHIGH ACRES
205	LEON	BRADFORD	STORET	LK BRADFORD NR TALLAHASSEE FLA
206	LEON	ELLA	STORET	LAKE ELLA #1 SOUTH SHORE
207	LEON	IAMONIA	STORET	LAKE IAMONIA NR BRADFORDVILLE, F
208	LEON	JACKSON	STORET	LAKE JACKSON #1 100 YDS FR SHORE
209	LEON	LAFAYETTE	STORET	LK LAFAYETTE E SIDE SR 261
210	LEON	MEGGINNISS ARM	STORET	S END L N MAGGINNISS ARM
211	LEON	MUNSON	STORET	LK MUNSON NR TALLAHASSEE FLA
212	LEON	UNNAMED	STORET	UNNAMED LAKE NEAR TALLAHASSEE FL
213	LEVY	CHUNKY POND	STORET	CHUNKY POND NR BRONSON, FLA.
214	LEVY	ROUSSEAU	STORET	LAKE ROUSSEAU NEAR DUNNELLON, FL
215	MADISON	FRANCIS	STORET	LAKE FRANCIS #1 SW
216	MANATEE	MANATEE RESERVOIR	STORET	WMR-1 MANATEE R RESERVOIR
217	MANATEE	WARD	STORET	WARD LAKE NR BRADENTON, FLA.
218	MARION	BIG BASS	STORET	09E BIG BASS LAKE NR STARKES FER
219	MARION	CHARLES	STORET	LAKE CHARLES NEAR SILVER SPRINGS
220	MARION	EATON	STORET	LAKE EATON NEAR SILVER SPRINGS,
221	MARION	KERR	STORET	LAKE KERR NEAR EUREKA, FLA.
222	MARION	LITTLE LAKE WEIR	STORET	LITTLE LK WEIR CENTER

Table 2-11. (Continued)

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* FLORIDA LAKES FROM STORET *
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OBS	COUNTY	LAKE	SOURCE	DESCRIPT
223	MARION	MUD	STORET	09E MUD LAKE NR SALT SPRINGS FLA
224	MARION	OCKLAWAHA	STORET	LAKE OCKLAWAHA NEAR ORANGE SPRIN
225	MARION	SELLERS	STORET	SELLERS LAKE-SOUTH END
226	MARION	TOMAHAWK	STORET	09E TOMAHAWK LAKE NR OCALA FLA
227	MARION	UNNAMED	STORET	UNNAMED LAKE IN ROSS PRARIE NR S
228	MARION	WEIR	STORET	LAKE WEIR AT OKLAWAHA, FLA.
229	MONROE	CYPRESS POND	STORET	10B CYPRESS POND SOUTH OF JETPOR
230	MONROE	GUM SLOUGH POND	STORET	10B POND IN WESTERN PART GUM SLO
231	MONROE	U MIAMI POND	STORET	10B UNIVER OF MIAMI POND AT SR 9
232	OKALOOSA	KARICK	STORET	KARRICK LAKE NR BLACKMAN FLA
233	OKEECHOBEE	OKEECHOBEE	STORET	10B LAKE OKEECHOBEE AT POINT 6 F
234	ORANGE	ADAIR	STORET	LAKE ADAIR AT ORLANDO, FLA.
235	ORANGE	APOPKA	STORET	LAKE APOPKA AT WINTER GARDEN, FLA.
236	ORANGE	BASS	STORET	BASS LK NR ORLANDO FLA
237	ORANGE	BAY	STORET	BAY LAKE NR VINELAND, FLA.
238	ORANGE	BEAUTY	STORET	10B LAKE BEAUTY AT ORLANDO FLA
239	ORANGE	BIG SAND	STORET	10B BIG SAND LK CENTER AT DOCTOR
240	ORANGE	BLACK	STORET	L BLACK SW OF WINTER GARDEN
241	ORANGE	BRYAN	STORET	LAKE BRYAN, NR VINELAND, FLA.
242	ORANGE	BUENA VISTA	STORET	L BUENA VISTA CTR OF LAKE
243	ORANGE	BUTLER	STORET	LAKE BUTLER AT WINDERMERE, FLA.
244	ORANGE	CARLTON	STORET	09E LAKE CARLTON NR TANGERINE FL
245	ORANGE	CHARITY	STORET	LAKE CHARITY NR MAITLAND, FLA.
246	ORANGE	CLEAR	STORET	10B CLEAR LAKE AT ORLANDO FLA
247	ORANGE	CONWAY	STORET	LAKE CONWAY AT PINE CASTLE, FLA.
248	ORANGE	CROOKED	STORET	CROOKED LK NR CLARCONA FLA
249	ORANGE	DOWN	STORET	L DOWN SW ORNG CTY GEO MID OF LK
250	ORANGE	DOWNEY	STORET	LK DOWNEY - HIWAY 50 & DEAN RD U
251	ORANGE	EOLA	STORET	LK EOLA DOWNTOWN ORLANDO
252	ORANGE	FAITH	STORET	LAKE FAITH AT MAITLAND, FLA.
253	ORANGE	FANNY	STORET	09E LAKE FANNY NR ZELLWOOD FLA
254	ORANGE	FRANCIS	STORET	LAKE FRANCIS NR PLYMOUTH, FLA.
255	ORANGE	GEORGIA	STORET	L GEORGIA N OF HW 50 W OF DEAN R
256	ORANGE	HART	STORET	10B HART LAKE NR NARCOOSSEE, FLA
257	ORANGE	HERRICK	STORET	09E L HERRICK NR ORLANDO FLA
258	ORANGE	HICKORYNUT	STORET	10B HICKORYNUT LAKE NR OAKLAND F
259	ORANGE	HOPE	STORET	LAKE HOPE AT MAITLAND, FLA.
260	ORANGE	HORSESHOE	STORET	HORSESHOE LAKE NR CLARCONA FLA
261	ORANGE	HOURGLASS	STORET	10B HOURGLASS LAKE AT ORLANDO FL
262	ORANGE	INGRAM	STORET	10B LAKE INGRAM NR OAKLAND FLA
263	ORANGE	IRMA	STORET	L IRMA CTR OF NE LOBE
264	ORANGE	IVANHOE	STORET	LAKE IVANHOE-MIDDLE
265	ORANGE	JOHIO	STORET	09E LAKE JOHIO NR OCOEE FLA
266	ORANGE	JOHNS	STORET	JOHNS LAKE AT OAKLAND, FLA.
267	ORANGE	KEHOE	STORET	09E LAKE KEHOE NR UNION PARK FLA
268	ORANGE	KILLARNEY	STORET	09E L KILLARNEY AT WINTER PARK F
269	ORANGE	LAGOON	STORET	LAGOON AT S-405C
270	ORANGE	LAWNE	STORET	09E LAWNE LAKE NR ORLANDO FLA
271	ORANGE	LITTLE LAKE BRYAN	STORET	LIT LK BRYAN CTR OF LAKE
272	ORANGE	LITTLE SAND LAKE	STORET	10B LITTLE SAND LAKE NR VINELAND
273	ORANGE	LONG	STORET	L LONG W OF US 441 IN LOCHART
274	ORANGE	LOVELY	STORET	LK LOVELY N.W. ORLANDO
275	ORANGE	LUCERNE	STORET	10B LAKE LUCERNE AT ORLANDO FLA
276	ORANGE	LUCIEN	STORET	LAKE LUCIEN AT MAITLAND,FLA.
277	ORANGE	MABEL	STORET	L MABEL AT USGS GAGING STAT
278	ORANGE	MAITLAND	STORET	LAKE MAITLAND AT WINTER PARK FLA
279	ORANGE	MANN	STORET	L MANN SW ORLANDO SE LAKE
280	ORANGE	MARY JANE	STORET	LAKE MARY JANE NR NARCOOSSEE, FL
281	ORANGE	MINNEHAHA	STORET	LAKE MINNEHAHA
282	ORANGE	NEEDHAM	STORET	10B LAKE NEEDHAM NR OAKLAND FLA
283	ORANGE	OLA	STORET	09E LAKE OLA AT TANGERINE FLA
284	ORANGE	OSCEOLA	STORET	L. OSCEOLA - WINTER PK
285	ORANGE	POCKET	STORET	L POCKET SW ORNG CO GEO MID OF L
286	ORANGE	PORTER	STORET	LK PORTER EAST OF CONWAY GDS RD
287	ORANGE	SHADOW	STORET	LAKE SHADOW, DRNG CULVERT INTO L
288	ORANGE	SHEEN	STORET	L SHEEN SW ORNG CO GEO MID OF LK
289	ORANGE	SHERWOOD	STORET	09E L SHERWOOD NR ORLANDO FLA
290	ORANGE	SILVER	STORET	LK SILVER AT ORLANDO FLA
291	ORANGE	SPRING	STORET	SPRING LK AT ORLANDO FLA
292	ORANGE	SUE	STORET	LK SUE N.E. ORLANDO
293	ORANGE	SYLVAN	STORET	LAKE SYLVAN CENTER
294	ORANGE	TIBET BUTLER	STORET	10B LAKE TIBET NR WINDERMERE FLA
295	ORANGE	TURKEY	STORET	TURKEY LK SW ORLANDO VIC GEO-MID
296	ORANGE	UNDERHILL	STORET	10B LAKE UNDERHILL AT ORLANDO FL

Table 2-11. (Continued)

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* FLORIDA LAKES FROM STORET *
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OBS	COUNTY	LAKE	SOURCE	DESCRIPT
297	ORANGE	UNNAMED-WINDERMERE	STORET	10B UNNAMED L NR WINDERMERE FLA
298	ORANGE	VENUS	STORET	10B LAKE VENUS NEAR ORLANDO FLA
299	ORANGE	VIRGINIA	STORET	09E LAKE VIRGINIA AT WINTER PARK
300	ORANGE	WEKIVA	STORET	L WEKIVA N OF AH 50 NW ORLANDO
301	ORANGE	WESTON	STORET	L WESTON NW ORLANDO VICINITY
302	OSCEOLA	AJAY	STORET	10B AJAY LAKE NR MARCOOSSEE, FLA
303	OSCEOLA	ALLIGATOR	STORET	ALLIGATOR LAKE NR ASHTON, FLA.
304	OSCEOLA	BRICK	STORET	10B BRICK LAKE NR ASHTON, FLA.
305	OSCEOLA	CENTER	STORET	10B LAKE CENTER NR MARCOOSEE FLA
306	OSCEOLA	CONLIN	STORET	10B LAKE CONLIN NEAR ASHTON FLA
307	OSCEOLA	COON	STORET	10B COON LAKE NR ASHTON FLA
308	OSCEOLA	CYPRESS	STORET	CYPRESS LAKE NR ST. CLOUD, FLA.
309	OSCEOLA	EAST TOHOPEKALIGA	STORET	EAST LAKE TOHOPEKALIGA AT ST. CLOUD, FLA.
310	OSCEOLA	FISH	STORET	FISH LAKE, NW LOBE
311	OSCEOLA	FISH & COLLEEN	STORET	LAKE COLLEEN/FISH LAKE
312	OSCEOLA	FISH & MARK	STORET	LAKE MARK/FISH LAKE
313	OSCEOLA	GENTRY	STORET	10B LAKE GENTRY NR ST CLOUD FLA
314	OSCEOLA	HATCHINEHA	STORET	LAKE HATCHINEHA NR LAKE WALES, FLA.
315	OSCEOLA	JACKSON	STORET	10B LAKE JACKSON CENTER NR KENAN
316	OSCEOLA	JOEL	STORET	10B LAKE JOEL NR MARCOOSEE FLA
317	OSCEOLA	KISSIMMEE	STORET	LAKE KISSIMMEE NR LAKE WALES, FL
318	OSCEOLA	LIVE OAK	STORET	10B LIVE OAK LAKE AT ASHTON, FLA
319	OSCEOLA	LIZZIE	STORET	10B LAKE LIZZIE NR ASHTON FLA
320	OSCEOLA	MARIAN	STORET	LAKE MARIAN NR KENANSVILLE, FLA.
321	OSCEOLA	MYRTLE	STORET	10B LAKE MYRTLE CENTER NEAR MARC
322	OSCEOLA	PRESTON	STORET	10B LAKE PRESTON NEAR MARCOOSSEE
323	OSCEOLA	ROSALIE	STORET	10B LAKE ROSALIE SITE 2 NR LK WA
324	OSCEOLA	RUSSELL	STORET	10B LK RUSSELL NR CAMPBELL FLA
325	OSCEOLA	TIGER	STORET	10B TIGER LAKE NR LK WALES FLA
326	OSCEOLA	TOHOPEKALIGA	STORET	LAKE TOHOPEKALIGA AT KISSIMMEE,
327	OSCEOLA	TROUT	STORET	10B TROUT LAKE CENTER NR ASHTON
328	PALM BEACH	CLARKE	STORET	LAKE CLARKE AT PINE TREE LANE NR
329	PALM BEACH	CLEAR	STORET	10B CLEAR LAKE AT WEST PALM BEAC
330	PALM BEACH	OSBORNE	STORET	LAKE OSBORNE AT LAKE WORTH, FLA
331	PALM BEACH	WORTH	STORET	10B LAKE WORTH NR BOYTON BEACH F
332	PASCO	BELL	STORET	BELL LAKE NEAR DREXEL, FLA
333	PASCO	BIRD	STORET	BIRD LAKE AT LAND O'LAKES, FLA
334	PASCO	BLANTON	STORET	09G LAKE BLANTON AT BLANTON, FLA
335	PASCO	CAMP	STORET	CAMP LAKE NR DENHAM, FLA.
336	PASCO	CLEAR	STORET	CLEAR LAKE AT SAN ANTONIO, FLA.
337	PASCO	CREWS	STORET	CREWS LAKE (NORTH) NR LOYCE,FLA.
338	PASCO	DOWLING	STORET	09G LAKE DOWLING NEAR BLANTON, F
339	PASCO	FERGUSON	STORET	09G FERGUSON LAKE NEAR DADE CITY
340	PASCO	GOOSE	STORET	GOOSE LAKE NEAR LOYCE, FLA
341	PASCO	HANCOCK	STORET	HANCOCK LAKE NEAR DIXIE, FLA
342	PASCO	IOLA	STORET	LAKE IOLA NR SAN ANTONIO, FLA.
343	PASCO	KING	STORET	KING LAKE NR SAN ANTONIO, FLA
344	PASCO	LAKE Y	STORET	LAKE Y NR EHREN, FLA
345	PASCO	MOODY	STORET	MOODY LAKE NEAR SAN ANTONIO, FLA
346	PASCO	MOON	STORET	MOON LAKE NR NEW PORT RICHEY, FL
347	PASCO	OAKES	STORET	OAKES POND
348	PASCO	PADGETT	STORET	LAKE PADGETT NEAR LUTZ, FLA.
349	PASCO	PARKER	STORET	PARKER LAKE NR ODESSA, FLA.
350	PASCO	PASADENA	STORET	LAKE PASADENA NEAR DADE CITY, FL
351	PASCO	PIERCE	STORET	LAKE PIERCE AT FIVAY JUNCTION, F
352	PASCO	POND - BIG FISH	STORET	POND NEAR BIG FISH LAKE
353	PASCO	RAY POND	STORET	RAY POND NEAR SAN ANTONIO, FLA
354	PASCO	SAXON	STORET	10H SAXON LAKE NR DREXEL, FLA.
355	PASCO	THOMAS	STORET	LAKE THOMAS AT DREXEL, FLA.
356	PASCO	TWIN	STORET	TWIN LAKES NR LAND O'LAKES, FLA
357	PASCO	WHITE TURKEY POND	STORET	WHITE TURKEY POND NEAR DADE CITY
358	PINELLAS	ALLIGATOR	STORET	NW SHORE OF ALLIGATOR LK
359	PINELLAS	MAGGIORE	STORET	LAKE MAGGIORE AT ST PETERSBURG,
360	PINELLAS	SAWGRASS	STORET	SAWGRASS LAKE SITE # 2
361	PINELLAS	SEMINOLE	STORET	SEMINOLE LAKE NR LARGO, FLA
362	PINELLAS	TARPON	STORET	LAKE TARPON NR TARPON SPRINGS, F
363	POLK	ALFRED	STORET	LAKE ALFRED AT LAKE ALFRED, FLA.
364	POLK	ANNIE	STORET	LAKE ANNIE AT WAVERLY, FLA.
365	POLK	ARBUCKLE	STORET	LAKE ARBUCKLE NR AVON PARK, FLA.
366	POLK	ARIETTA	STORET	LAKE ARIETTA NR AUBURNDALE, FLA.
367	POLK	ARIANNA	STORET	ARIANNA LAKE POLK CO
368	POLK	BANANA	STORET	BANANNA LAKE NR HIGHLAND CITY, F
369	POLK	BLUE JORDAN SWAMP	STORET	10B BLUE JORDAN SWAMP NR FROSTPR
370	POLK	BONNY	STORET	LAKE BONNY POLK COUNTY

Table 2-11. (Continued)

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* FLORIDA LAKES FROM STORET *
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OBS	COUNTY	LAKE	SOURCE	DESCRIPT
371	POLK	BUFFUM	STORET	LAKE BUFFUM SITE 3
372	POLK	CANNON	STORET	LAKE CANNON POLK COUNTY
373	POLK	CLINCH	STORET	LAKE CLINCH AT FROSTPROOF, FLA.
374	POLK	CONNIE	STORET	LAKE CONINE POLK COUNTY
375	POLK	CROOKED	STORET	CROOKED LAKE NR BABSON PARK, FLA
376	POLK	DAISEY	STORET	LAKE DAISEY POLK CO
377	POLK	DEER	STORET	DEER LAKE NR WINTER HAVEN, FLA
378	POLK	DEESON	STORET	LAKE DEESON NR LAKELAND, FLA.
379	POLK	DEXTER	STORET	LAKE DEXTER POLK CO
380	POLK	EAGLE	STORET	EAGLE LAKE AT EAGLE LAKE, FLA.
381	POLK	EFFIE	STORET	LAKE EFFIE AT LAKE WALES, FLA.
382	POLK	ELBERT	STORET	POLK COUNTY LAKE ELBERT
383	POLK	ELOISE	STORET	LAKE ELOISE NR ELOISE, FLA
384	POLK	FANNIE	STORET	LAKE FANNIE NR FLORENCE VILLA, F
385	POLK	GARFIELD	STORET	LK GARFIELD NR ALTURAS, FLA.
386	POLK	GIBSON	STORET	LAKE GIBSON NR LAKELAND, FLA.
387	POLK	HAINES	STORET	LAKE HAINES AT LAKE ALFRED, FLA
388	POLK	HAMILTON	STORET	LAKE HAMILTON POLK CO
389	POLK	HANCOCK	STORET	LAKE HANCOCK NR HIGHLAND CITY, F
390	POLK	HARTRIDGE	STORET	LAKE HARTRIDGE AT WINTER HAVEN,
391	POLK	HELENE	STORET	LAKE HELENE NR POLK CITY, FLA.
392	POLK	HOLLINGSWORTH	STORET	LAKE HOLLINGSWORTH AT LAKELAND,
393	POLK	HOWARD	STORET	LAKE HOWARD AT WINTER HAVEN, FLA
394	POLK	HUNTER	STORET	LAKE HUNTER AT LAKELAND, FLA
395	POLK	IDYLWILD	STORET	IDYLWILD LAKE POLK CO
396	POLK	JESSIE	STORET	LAKE JESSIE NR AUBURNDALE, FLA
397	POLK	JULIANA	STORET	LAKE JULIANA NR POLK CITY, FLA.
398	POLK	LEE	STORET	LAKE LEE AT WAVERLY, FLA
399	POLK	LENA	STORET	LAKE LENA AT AUBURNDALE, FLA.
400	POLK	LINK	STORET	LAKE MARIAM POLK CO
401	POLK	LOWERY	STORET	LAKE LOWERY NR HAINES CITY, FLA.
402	POLK	LULU	STORET	LAKE LULU NR ELOISE, FLA
403	POLK	MARIANA	STORET	LAKE MARIANA NR AUBURNDALE, FLA.
404	POLK	MARION	STORET	LAKE MARION, NR HAINES CITY, FLA
405	POLK	MATTIE	STORET	096 LAKE MATTIE NR POLK CITY FLA
406	POLK	MAY	STORET	LAKE MAY MIDLAKE AT WINTER HAVEN
407	POLK	MAYO	STORET	LAKE MAYO POLK COUNTY
408	POLK	MCLEOD	STORET	LAKE MCLEOD POLK CO
409	POLK	MIRROR	STORET	LAKE MIRROR POLK CO
410	POLK	MORTON	STORET	25.2DA LAKE MORTON, POLK COUNTY
411	POLK	MOUNTAIN	STORET	MOUNTAIN LAKE NR LAKE WALES, FLA.
412	POLK	MYRTLE	STORET	LAKE MYRTLE NR LAKE WALES, FLA
413	POLK	OTIS	STORET	LAKE OTIS AT WINTER HAVEN, FLA
414	POLK	PARKER	STORET	LAKE PARKER AT LAKELAND, FLA.
415	POLK	PIERCE	STORET	LAKE PIERCE NR WAVERLY, FLA.
416	POLK	REEDY	STORET	REEDY LAKE NR FROSTPROOF, FLA.
417	POLK	ROCHELLE	STORET	LAKE ROCHELLE NR LAKE ALFRED, FL
418	POLK	ROSALIE	STORET	LAKE ROSALIE NR LAKE WALES, FLA.
419	POLK	ROY	STORET	LAKE ROY POLK CO
420	POLK	SARDEN	STORET	SARDEN LAKE POLK CO
421	POLK	SCOTT	STORET	SCOTT LAKE NR LAKELAND, FLA
422	POLK	SEARS	STORET	SEARS LAKE POLK CO
423	POLK	SHIPP	STORET	LAKE SHIPP AT ELOISE FLA MID-LAK
424	POLK	SILVER	STORET	LAKE SILVER POLK CO
425	POLK	SMART	STORET	LAKE SMART NR FLORENCE VILLA, FL
426	POLK	SPIRIT	STORET	SPIRIT LAKE POLK CO
427	POLK	SPRING	STORET	SPRING LAKE POLK CO
428	POLK	STAR	STORET	LAKE STARR AT WAVERLY, FLA
429	POLK	SUMMIT	STORET	LAKE SUMMIT POLK CO
430	POLK	SWOOPE	STORET	LAKE SWOOPE E OF IRRIG CANAL
431	POLK	THOMAS	STORET	LAKE THOMAS POLK CO
432	POLK	TRACY	STORET	LAKE TRACY POLK CO
433	POLK	WALES	STORET	LAKE WALES AT LAKE WALES, FLA.
434	POLK	WEOHYAKAPKA	STORET	LAKE WEOHYAKAPKA AT INDIAN LAKE
435	POLK	WHISTLER	STORET	LAKE WHISTLER NR AUBURNDALE, FLA
436	POLK	WINTERSET	STORET	LAKE WINTERSET
437	PUTNAM	CRESCENT	STORET	CRESCENT LK BY MARKER NO.2
438	PUTNAM	GEORGE	STORET	LAKE GEORGE NEAR SALT SPRINGS, F
439	PUTNAM	GEORGES	STORET	GEORGES LAKE 200 YDS FROM W BANK
440	PUTNAM	GRANDIN	STORET	LAKE GRANDIN NR INTERLACHEN, FLA
441	PUTNAM	LITTLE GEORGE	STORET	LITTLE L GEORGE CHAN MARK 53A
442	SANTA ROSA	BEAR	STORET	BEAR LK NR BAKER FLA
443	SARASOTA	LOWER MYAKKA	STORET	LOWER MYAKKA LAKE NR SARASOTA, F
444	SARASOTA	UPPER MYAKKA	STORET	UPPER MYAKKA LAKE-.7 MILES NE OF

Table 2-11. (Continued)

****
* FLORIDA LAKES FROM STORET *
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DES	COUNTY	LAKE	SOURCE	DESCRIPT
445	SEMINOLE	ADA	STORET	L ADA S END 50 YDS OFFSHORE
446	SEMINOLE	BEAR	STORET	BEAR LAKE CENTER OF NE END
447	SEMINOLE	BRANTLEY	STORET	L BRANTLEY NW OFFSHR HORSESHOE C
448	SEMINOLE	CATHERINE	STORET	L CATHERINE AT CHULUOTA CENTER
449	SEMINOLE	CRYSTAL	STORET	CRYSTAL L E END 200YD W OF PUB B
450	SEMINOLE	ELEVENTH HOLE	STORET	ELEVENTH HOLE POND AT ALTAMONTE
451	SEMINOLE	FAIRY	STORET	FAIRY L 50FT OFFSHORE ARNOLD LDR
452	SEMINOLE	FLORIDA	STORET	L FLORIDA AT 1000 FLA BLVD
453	SEMINOLE	FRANCIS	STORET	L FRANCIS CENTER
454	SEMINOLE	GOLDEN	STORET	L GOLDEN CENTER
455	SEMINOLE	HORSESHOE	STORET	LAKE HORSESHOE
456	SEMINOLE	HOWELL	STORET	L HOWELL OFFSHORE JAMES PROPERTY
457	SEMINOLE	JENNIE	STORET	L JENNIE S END APPROX 50YDS OFFS
458	SEMINOLE	JESSUP	STORET	LAKE JESSUP NEAR SANFORD FLA
459	SEMINOLE	KATHRYN	STORET	L KATHRYN CENTER
460	SEMINOLE	MARKHAM	STORET	L MARKHAM CTR OF S LOBE S OF SR4
461	SEMINOLE	MARY	STORET	S LAKE MARY CENTER
462	SEMINOLE	MILLS	STORET	MILLS L CTR OF E END 300YDS OFFS
463	SEMINOLE	MINNIE	STORET	L MINNIE CENTER
464	SEMINOLE	MIRROR	STORET	MIRROR L AT SR 436 20YDS OFFSHOR
465	SEMINOLE	PEARL	STORET	PEARL LAKE CENTER OF NW COVE
466	SEMINOLE	PRAIRIE	STORET	PRAIRIE L 50FT OFFSHR DRG DITCH
467	SEMINOLE	SILVER	STORET	SILVER LAKE CENTER
468	SEMINOLE	SPRING	STORET	SPRING LAKE C OF LAKE
469	SEMINOLE	SYLVAN	STORET	SYLVAN L CTR OF SOUTH END OF LAK
470	SEMINOLE	TRIPLET	STORET	L TRIPLET CENTER
471	SUMTER	DEATON	STORET	LAKE DEATON NEAR WILDWOOD, FLA.
472	SUMTER	OKAHUMPKA	STORET	LAKE OKAHUMPKA NR WILDWOOD, FLA.
473	SUMTER	PANASOFFKEE	STORET	LAKE PANASOFFKEE NR LAKE PANASOF
474	UNION	BUTLER	STORET	09J LAKE BUTLER AT LAKE BUTLER F
475	UNION	PALESTINE	STORET	PALESTINE LAKE NR OLUSTEE,FL
476	UNION	SWIFT CREEK POND	STORET	SWIFT CR POND NR RAIFORD FLA
477	VOLUSIA	ANGELA	STORET	LAKE ANGELA CENTER OF LAKE
478	VOLUSIA	ASHBY	STORET	LAKE ASHBY CENTER - VOLUSIA CO.
479	VOLUSIA	BATON	STORET	L BATON CTR N LOBE NR DELTONA
480	VOLUSIA	BERESFORD	STORET	L BERESFORD CENTER OFF W SHR MAR
481	VOLUSIA	BUTLER	STORET	LAKE BUTLER CENTER OF N W SECTOR
482	VOLUSIA	DEXTER	STORET	LAKE DEXTER, CENTER OF LAKE
483	VOLUSIA	DUPONT	STORET	LAKE DUPONT NR LAKE HELEN FLA
484	VOLUSIA	HARNEY	STORET	LAKE HARNEY, CENTER OF LAKE
485	VOLUSIA	HIRES	STORET	LAKE HIRES NEAR DE LAND FLA
486	VOLUSIA	HUTCHINSON	STORET	LAKE HUTCHINSON CENTER OF LAKE
487	VOLUSIA	LINDLEY	STORET	09E LINDSEY L NR DELAND FLA
488	VOLUSIA	LOUISE	STORET	09E LAKE LOUISE NR DELAND FLA
489	VOLUSIA	MOLLY	STORET	LAKE MOLLY CENTER OF LAKE
490	VOLUSIA	MONROE	STORET	L MONROE NR SANFORD STP EFF
491	VOLUSIA	PUZZLE	STORET	L PUZZLE, ST JOHNS R INF TO
492	VOLUSIA	TATUM	STORET	09E TATUM L NR DELAND FLA
493	VOLUSIA	THERESA	STORET	LAKE THERESA CENTER OF LAKE
494	VOLUSIA	THREE ISLAND	STORET	THREE ISLAND LAKE CENTER OF NORT
495	VOLUSIA	WINNEMISETT	STORET	LAKE WINNEMISSETT NEAR DELAND, F
496	VOLUSIA	WINONA	STORET	LAKE WINONA NR DE LAND, FLA.
497	WALTON	DEFUNEAK	STORET	DEFUNIAK LAKE AT DEFUNIAK SPRING
498	WALTON	JACKSON	STORET	LAKE JACKSON NR PAXTON FLA
499	WASHINGTON	CLARKS	STORET	CLARKS HOLE NR GREENHEAD FLA
500	WASHINGTON	GAP POND	STORET	GAP POND NR GREENHEAD FLA
501	WASHINGTON	GULLY	STORET	GULLY LAKE NR GREENHEAD FLA
502	WASHINGTON	HAMMOCK	STORET	HAMMOCK LAKE NR GREENHEAD FLA
503	WASHINGTON	PORTER	STORET	PORTER LK NR GREENHEAD FLA
504	WASHINGTON	STILL POND	STORET	STILL POND NR GREENHEAD FLA
505	WASHINGTON	WAGES POND	STORET	WAGES POND NR GREENHEAD FLA

These data were gathered by the USGS and by the DER and its predecessor agencies and cover the period 1950-1980. The 505 lakes included in the STORET data are listed in Table 2-11.

Lake Tohopekaliga Drawdown Data

An extreme drawdown of Lake Tohopekaliga in Osceola County was undertaken in 1969 as an experimental management effort to reduce nutrient contribution from organic sediment. The results were presented by Wegener and Williams (1974), and their post-drawdown data from January 1972 to April 1974 are included in the data base.

South Lake 314 Study

As part of a grant from the EPA Clean Lakes Program (Section 314), Brevard County monitored South Lake west of Titusville. Data from June to December 1981 were available for inclusion in the data base.

Effects of Eutrophication on Fish Communities in Florida Lakes

Correlations between trophic state and fish abundance for 20 Florida lakes (Table 2-12) were made by Kautz (1981). Three parameters (chlorophyll a, particulate organic nitrogen, and the difference between filtered and unfiltered turbidity) were used to develop a trophic state index. Data on fish populations were obtained through a block net and rotenone-poisoning program, and fish were grouped into sport, commercial, rough, and forage categories.

Based on the above data base, Kautz concluded that commercial and rough fish displace sport and forage fishes with increasing eutrophication. The displacement appears to be fairly rapid at a point in the trophic range just past maximum sport fish biomass, indicating a fine line between management of fisheries resources and nutrient and algae excess. Fish diversity also reaches a maximum in the middle trophic range. Kautz claimed that much

Table 2-12. Lakes Studied by Kautz (1981).

County	Lake
Alachua	Lochloosa
Alachua	Newnans
Alachua	Orange
Alachua	Santa Fe
Baker	Ocean Pond
Brevard	South
Citrus	Tsala Apopka
Highlands	Jackson
Lafayette	Koon
Lake	Dora
Lake	Griffin
Orange	Apopka
Orange	Carlton
Osceola	Kissimmee
Osceola	Tohopekaliga
Polk	Hancock
Polk	Lulu
Polk	Parker
Polk	Scott
Sumter	Panasoffkee

past the "optimal" concentration of 1.2 mg/L total N and a chlorophyll a of greater than 10 mg/m^3, adverse effects due to enrichment may occur.

Some smoothing was done on the fish population data, so that inferences made on the trends must take this into account. Only nitrogen data were used in the trophic index used by Kautz. Although the majority of the lakes were thought to be nitrogen-limited (based on N:P ratios less than 10:1) a more thorough analysis should take into account the possibility of phosphorus limitation as part of the trophic index.

Florida Aquatic Flora Survey -- Macrophyte Data

A 1979 study by the Florida Department of Natural Resources (Tarver et al., 1979) presents data on macrophytes in rivers, canals, and public lakes of over 100 acres in the State of Florida. A total of 1.16 million surface acres were surveyed, including 371 lakes and 60 rivers. This represented 41.4 percent of the total water acreage (2.8 million) in the state. The primary purpose of the aquatic vegetation report was to describe the distribution and abundance of aquatic plant species in Florida's public waters. A total of 70 genera (in 29 families) of aquatic plants were found in the rivers, lakes and canals included in the survey. The 70 genera include over 40 exotic plants that have been introduced to Florida; many of these plants are noxious weeds, but others are highly desirable components of the aquatic environment.

Tarver et al. (1979) did not list the specific water bodies surveyed, nor the extent and diversity of aquatic flora for site-specific lakes. Instead, the report is a summary of the actual survey, designed to present the results in relation to the state as a whole, not to individual rivers, canals, and lakes. Through the survey, it was concluded that the greatest aquatic problems lie with the three exotic aquatic plants hydrilla (Hydrilla verticillata royle),

waterhyacinth (Eichnornia crassipes (Mart.) solms.), and Eurasian watermilfoil (Myriophyllum spicatum L.).

A copy of the DNR comprehensive macrophyte data was obtained through the aid of DER personnel. These data included name and type of water body, surface area, county, problem aquatic plants, and acreage of each plant. From these, all lakes with aquatic flora were reviewed and keypunched with respect to the extent of coverage of major problem plants. A listing of these 299 lakes is given in Table 2-13.

The data used in this study are the coverage of twelve common plants, in acres for each lake. These twelve were chosen because of indications by the DER that they were primarily responsible for macrophyte problems in Florida lakes. Overlapping coverage was not distinguished by the observers, hence, the "total" area covered by the twelve plant types (TOTWDS in Table 2-13) can be greater than the total lake area, and the fraction covered ("COVER" in Table 2-13) can be greater then 1.0. Hence, the reader should not be misled by macrophyte coverages of greater than 100 percent for a few lakes.

THE FLORIDA LAKE DATA BASE

From all the previously described sources, the Florida Lakes Data Base (FLADAB) was constructed, with chemical data for 573 lakes. As shown in Table 2-14, 435 lakes are represented with more than one sample, and 138 lakes have more than 10 samples. Table 2-15 lists the 65 Florida lakes for which the largest number of water quality samples have been gathered. As expected, Lake Okeechobee heads the list with 621 samples.
Macrophyte data are additionally available for 299 lakes. To reiterate, the sources are listed as follows:

Table 2-13. Lakes With Macrophyte Data.

OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
1	ALICE	ALACHUA	73	1.0	0.013699
2	ALTHO	ALACHUA	540	50.0	0.092593
3	BIVENS ARM	ALACHUA	189	1.0	0.005291
4	HOLDEN	ALACHUA	80	2.0	0.025000
5	LITTLE LOCHLOOSA	ALACHUA	2642	1112.0	0.420893
6	LITTLE ORANGE	ALACHUA	818	8.0	0.009780
7	LITTLE SANTA FE	ALACHUA	1135	26.0	0.022907
8	LOCHLOOSA	ALACHUA	5705	2801.0	0.490973
9	MOSS LEE	ALACHUA	65	7.0	0.107692
10	NEWNANS	ALACHUA	7427	35.0	0.004713
11	ORANGE	ALACHUA	12706	2687.0	0.211475
12	SANTA FE	ALACHUA	4721	51.0	0.010803
13	TUSCAWILLA	ALACHUA	680	544.0	0.800000
14	WATERMELON POND	ALACHUA	531	158.0	0.297552
15	OCEAN POND	BAKER	1774	25.0	0.014092
16	BRIT	BAY	18	1.0	0.055556
17	DEER POINT	BAY	5000	1675.0	0.335000
18	RIVER POND	BAY	175	1.0	0.005714
19	WHITE WESTERN	BAY	1777	3.0	0.001688
20	BEDFORD	BRADFORD	196	2.0	0.010204
21	CROSBY	BRADFORD	536	139.0	0.259328
22	HAMPTON	BRADFORD	823	31.0	0.037667
23	ROWELL	BRADFORD	364	7.0	0.019231
24	SAMPSON	BRADFORD	2042	96.0	0.047013
25	CLARK	BREVARD	182	90.0	0.494505
26	HELEN BLAZES	BREVARD	381	37.0	0.097113
27	LOUGHMAN	BREVARD	557	35.0	0.062837
28	POINSETT	BREVARD	4334	290.0	0.066913
29	RUTH	BREVARD	210	105.0	0.500000
30	SALT	BREVARD	366	40.0	0.109290
31	SAWGRASS	BREVARD	407	41.0	0.100737
32	SOUTH	BREVARD	1101	221.0	0.200727
33	WASHINGTON	BREVARD	4362	47.0	0.010775
34	WINDER	BREVARD	1496	287.0	0.191845
35	FORT COOPER	CITRUS	150	10.5	0.070000
36	TSALA APOPKA	CITRUS	16000	11055.0	0.690937
37	BLUE POND	CLAY	202	3.0	0.014851
38	BROOKLYN	CLAY	645	8.0	0.012403
39	CRYSTAL	CLAY	408	6.0	0.014706
40	GATOR BONE	CLAY	280	6.0	0.021429
41	GENEVA	CLAY	1630	425.0	0.260736
42	HALL	CLAY	430	3.0	0.006977
43	JOHNSON	CLAY	480	4.0	0.008333
44	LOWERY	CLAY	1263	43.0	0.034046
45	MAGNOLIA	CLAY	205	3.0	0.014634
46	OLDFIELD POND	CLAY	266	22.0	0.082707
47	SMITH	CLAY	895	7.0	0.007821
48	SPRING	CLAY	146	1.0	0.006849
49	STEVENS	CLAY	230	3.0	0.013043
50	WHITE SAND	CLAY	320	6.0	0.018750
51	ALLIGATOR	COLUMBIA	338	50.0	0.147929
52	JEFFERY	COLUMBIA	114	24.0	0.210526
53	CRESCENT	FLAGLER	15960	70.0	0.004386
54	DEAD	FLAGLER	500	29.0	0.058000
55	DISSTON	FLAGLER	1844	144.0	0.078091
56	GORE	FLAGLER	85	3.0	0.035294
57	TALQUIN	GADSDEN	8850	115.0	0.012994
58	DEAD	GULF	3584	201.0	0.056083
59	WIMICO	GULF	4055	41.0	0.010111
60	OCTAHATCHEE	HAMILTON	195	20.0	0.102564
61	LINDLEY	HERNANDO	137	1.5	0.010949
62	APTHORPE	HIGHLANDS	219	32.0	0.146119
63	BONNETT	HIGHLANDS	260	17.5	0.067308
64	CLAY	HIGHLANDS	367	156.0	0.425068
65	DINNER	HIGHLANDS	379	30.0	0.079156
66	FRANCIS	HIGHLANDS	539	353.0	0.654917
67	GLENADA	HIGHLANDS	177	3.0	0.016949
68	GRASSY	HIGHLANDS	517	263.5	0.509671
69	ISTOKPOGA	HIGHLANDS	22000	2355.0	0.107045
70	JACKSON	HIGHLANDS	3412	30.5	0.008939
71	JOSEPHINE	HIGHLANDS	1236	575.0	0.465210
72	JUNE-IN-WINTER	HIGHLANDS	3504	2715.0	0.774829
73	LELIA	HIGHLANDS	165	3.0	0.018182
74	LETTA	HIGHLANDS	478	8.0	0.016736

Table 2-13. (Continued)

FLORIDA MACROPHYTE DATA

OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
75	LITTLE RED WATER	HIGHLANDS	329	10.0	0.03040
76	LOTELA	HIGHLANDS	802	15.0	0.01870
77	PLACID	HIGHLANDS	3320	345.0	0.10392
78	RED BEACH	HIGHLANDS	335	5.5	0.01642
79	SEBRING	HIGHLANDS	468	9.0	0.01923
80	THONOTOSASSA	HILLSBOROUGH	819	10.0	0.01221
81	BLUE CYPRESS	INDIAN RIVER	6555	108.0	0.01648
82	BATEAT POND	JACKSON	115	120.0	1.04348
83	COW PEN POND	JACKSON	230	260.0	1.13043
84	OCHEESEE POND	JACKSON	2225	251.0	0.11281
85	SEMINOLE	JACKSON	12000	176.0	0.01467
86	MICCOSUKEE	JEFFERSON	6226	3001.0	0.48201
87	BEAUCLAIR	LAKE	1111	30.4	0.02740
88	CHERRY	LAKE	396	9.0	0.02273
89	COOK	LAKE	20	4.0	0.20000
90	CRESCENT	LAKE	74	13.0	0.17568
91	DENHAM	LAKE	269	5.0	0.01859
92	DORA	LAKE	4475	112.0	0.02503
93	DORR	LAKE	1533	33.0	0.02153
94	ELLA	LAKE	467	18.0	0.03854
95	EMMA	LAKE	175	28.9	0.16514
96	EUSTIS	LAKE	7806	72.0	0.00922
97	GRIFFIN	LAKE	16505	60.0	0.00364
98	HARRIS	LAKE	13788	165.0	0.01197
99	HIAWATHA	LAKE	48	9.0	0.18750
100	HOLLY	LAKE	98	55.0	0.56122
101	JUNIPER SPRINGS	LAKE	40	20.0	0.50000
102	LITTLE LAKE HARRIS	LAKE	2739	137.0	0.05002
103	LOUISA	LAKE	3634	21.0	0.00578
104	LUCY	LAKE	335	60.0	0.17910
105	MINNEHAHA	LAKE	2261	43.0	0.01902
106	MINNEOLA	LAKE	1888	23.0	0.01218
107	PALATLAKAKA	LAKE	101	6.0	0.05941
108	SILVER GLEN SPRINGS	LAKE	30	14.0	0.46667
109	SUSAN	LAKE	81	8.0	0.09877
110	UMATILLA	LAKE	161	15.0	0.09317
111	WILDCAT	LAKE	232	43.0	0.18534
112	WILSON	LAKE	25	14.5	0.58000
113	YALE	LAKE	4042	530.0	0.13112
114	BRADFORD	LEON	193	10.0	0.05181
115	CARR	LEON	692	150.0	0.21676
116	HALL	LEON	172	42.0	0.24419
117	IAMONIA	LEON	5757	1613.0	0.28018
118	JACKSON	LEON	4004	1310.0	0.32717
119	MUNSON	LEON	255	40.0	0.15686
120	LONG POND	LEVY	254	125.0	0.49213
121	ROUSSEAU	LEVY	3657	3010.0	0.82308
122	CHERRY	MADISON	479	10.0	0.02088
123	DOBSON POND	MADISON	7	5.0	0.71429
124	ELBON	MADISON	64	7.0	0.10938
125	GINHOUSE POND	MADISON	3	1.0	0.33333
126	MADISON POND	MADISON	5	1.0	0.20000
127	MYSTIC	MADISON	47	9.0	0.19149
128	MANATEE RESERVOIR	MANATEE	1200	30.0	0.02500
129	BRYANT	MARION	767	35.0	0.04563
130	DELANCY	MARION	382	40.0	0.10471
131	EATON	MARION	307	110.0	0.35831
132	HALFMOON	MARION	340	51.0	0.15000
133	HAMMOCK POND	MARION	179	30.0	0.16760
134	JUMPER	MARION	305	7.0	0.02295
135	LITTLE LAKE WEIR	MARION	320	87.0	0.27187
136	MILL DAM	MARION	210	175.0	0.83333
137	MUD	MARION	470	9.5	0.02021
138	OCKLAWAHA	MARION	5280	7071.0	1.33920
139	SELLERS	MARION	1050	667.0	0.63524
140	WARNER	MARION	695	65.0	0.09353
141	WEIR	MARION	5685	45.0	0.00792
142	OKEECHOBEE	OKEECHOBEE	406042	40582.0	0.09995
143	APOPKA	ORANGE	30671	1200.0	0.03912
144	AVALON	ORANGE	162	12.0	0.07407
145	BALDWIN	ORANGE	196	120.0	0.61224
146	BARTON	ORANGE	233	40.0	0.24496
147	BIG SAND	ORANGE	1110	5.0	0.00450
148	BLACK	ORANGE	244	13.0	0.05328

Table 2-13. (Continued)

FLORIDA MACROPHYTE DATA

OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
149	BUTLER	ORANGE	1665	70.00	0.04204
150	CARLTON	ORANGE	382	7.81	0.02045
151	CATHERINE	ORANGE	63	30.00	0.47619
152	CLEAR	ORANGE	339	325.00	0.95870
153	COVE	ORANGE	255	1.00	0.00392
154	CONWAY	ORANGE	1833	185.00	0.10093
155	CROOKED	ORANGE	86	10.00	0.11628
156	DOWN	ORANGE	872	20.00	0.02294
157	DOWNEY	ORANGE	100	20.00	0.20000
158	FAIRVIEW	ORANGE	401	200.00	0.49875
159	FREDRICA	ORANGE	71	12.00	0.16901
160	GEORGIA	ORANGE	82	5.00	0.06098
161	HART	ORANGE	1850	65.00	0.03514
162	HAWASSA	ORANGE	200	13.00	0.06500
163	HICKORYNUT	ORANGE	550	17.00	0.03091
164	HOLDEN	ORANGE	252	11.00	0.04365
165	IRMA	ORANGE	123	20.00	0.16260
166	IVANHOE	ORANGE	125	15.00	0.12000
167	JESSAMINE	ORANGE	306	120.00	0.39216
168	JOHNS	ORANGE	2417	65.00	0.02689
169	LOUISE	ORANGE	145	5.00	0.03448
170	LUCIEN	ORANGE	57	5.00	0.08772
171	MAITLAND	ORANGE	451	200.00	0.44346
172	MANN	ORANGE	244	240.00	0.98361
173	MARTHA	ORANGE	30	25.00	0.83333
174	MARY JANE	ORANGE	1158	41.00	0.03541
175	MCCOY	ORANGE	133	25.00	0.18797
176	MIZELL	ORANGE	62	30.00	0.48387
177	OLA	ORANGE	442	20.00	0.04525
178	OSCEOLA	ORANGE	157	75.00	0.47771
179	PALMER	ORANGE	56	5.00	0.08929
180	PEARL	ORANGE	58	50.00	0.86207
181	PICKETT	ORANGE	742	25.00	0.03369
182	RATTLESNAKE	ORANGE	111	100.00	0.90090
183	SHADOW	ORANGE	77	2.00	0.02597
184	SHEEN	ORANGE	565	25.00	0.04425
185	SHERWOOD	ORANGE	119	7.00	0.05882
186	STARKE	ORANGE	203	20.00	0.09852
187	SUE	ORANGE	140	50.00	0.35714
188	SUSANNAH	ORANGE	76	10.00	0.13158
189	SYBELIA	ORANGE	84	80.00	0.95238
190	TIBET	ORANGE	1198	60.00	0.05008
191	TURKEY	ORANGE	323	15.00	0.04644
192	VIRGINIA	ORANGE	223	100.00	0.44843
193	WARREN	ORANGE	129	30.00	0.23256
194	WALKATTA	ORANGE	68	60.00	0.88235
195	ALLIGATOR	OSCEOLA	3406	716.50	0.21036
196	CENTER	OSCEOLA	410	10.00	0.02439
197	COOK	OSCEOLA	1448	7.00	0.00483
198	CYPRESS	OSCEOLA	4097	100.00	0.02441
199	EAST TOHOPEKALIGA	OSCEOLA	11968	252.00	0.02106
200	GENTRY	OSCEOLA	1791	38.50	0.02150
201	HATCHINEHA	OSCEOLA	6665	135.00	0.02026
202	JOEL	OSCEOLA	217	133.00	0.61290
203	KISSIMMEE	OSCEOLA	34948	1685.00	0.04821
204	LIZZIE	OSCEOLA	792	428.00	0.54040
205	MARIAN	OSCEOLA	5739	159.00	0.02771
206	MYRTLE	OSCEOLA	543	367.00	0.67587
207	PRESTON	OSCEOLA	690	470.00	0.68116
208	TOHOPEKALIGA	OSCEOLA	18810	2700.00	0.14354
209	TROUT	OSCEOLA	273	183.00	0.67033
210	BELL	PASCO	80	1.00	0.01250
211	BUDDY	PASCO	90	5.00	0.05556
212	CLEAR	PASCO	158	4.00	0.02532
213	IDLA	PASCO	107	42.00	0.39252
214	PADGETT	PASCO	200	370.00	1.85000
215	PASADENA	PASCO	373	45.00	0.12064
216	MAGGIORE	PINELLAS	380	13.00	0.03421
217	SALT	PINELLAS	193	175.00	0.90674
218	SEMINOLE	PINELLAS	716	58.00	0.08101
219	TARPON	PINELLAS	2534	755.00	0.29795
220	AGNES	POLK	386	11.00	0.02850
221	ALFRED	POLK	736	8.00	0.01087
222	ARENDELL	POLK	3828	117.00	0.03056

Table 2-13. (Continued)

FLORIDA MACROPHYTE DATA

OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
223	ARETTA	POLK	758	11.0	0.014512
224	ARIANA	POLK	1026	8.0	0.007797
225	BANANA	POLK	342	10.5	0.030702
226	BUFFUM	POLK	1543	70.0	0.045366
227	CANNON	POLK	336	15.0	0.044643
228	CLINCH	POLK	1207	44.0	0.036454
229	CROOKED	POLK	5538	220.0	0.039726
230	EASY	POLK	419	27.0	0.064439
231	ELOISE	POLK	1160	5.5	0.004741
232	FANNIE	POLK	829	37.0	0.044632
233	GARFIELD	POLK	655	287.0	0.438168
234	GIBSON	POLK	474	11.0	0.023207
235	HAINES	POLK	716	9.0	0.012570
236	HAMILTON	POLK	2162	50.0	0.023127
237	HANCOCK	POLK	4519	35.0	0.007745
238	HENRY	POLK	857	25.0	0.029172
239	HOLLINGSWORTH	POLK	356	13.0	0.036517
240	HUNTER	POLK	100	9.5	0.095000
241	JULIANA	POLK	926	11.0	0.011879
242	LIVINGSTON	POLK	1203	92.0	0.076475
243	LOWERY	POLK	720	4.5	0.006250
244	LULU	POLK	301	20.0	0.066445
245	MARION	POLK	2990	148.0	0.049498
246	MATTIE	POLK	1078	11.0	0.010204
247	MIRROR	POLK	123	10.0	0.081301
248	MOODY	POLK	391	22.0	0.056266
249	MUD	POLK	160	50.0	0.312500
250	OTIS	POLK	143	46.0	0.321678
251	PARKER	POLK	2272	37.0	0.016285
252	PIERCE	POLK	3729	3265.0	0.875570
253	REEDY	POLK	3486	250.0	0.071715
254	ROSALIE	POLK	4597	220.0	0.047857
255	SANITARY	POLK	503	110.0	0.218688
256	SHIPP	POLK	283	5.0	0.017668
257	SURVEYORS	POLK	293	6.0	0.020478
258	TIGER	POLK	2200	50.0	0.022727
259	WALES	POLK	326	220.0	0.674847
260	WEOHYAKAPKA	POLK	7532	255.0	0.033856
261	WINTERSET	POLK	548	8.5	0.015511
262	WIRE	POLK	25	11.0	0.440000
263	BROWARD	PUTNAM	480	12.0	0.025000
264	COLEMEN	PUTNAM	584	5.0	0.008562
265	GEORGE	PUTNAM	46000	550.0	0.011957
266	GEORGES	PUTNAM	816	15.0	0.018382
267	LITTLE GEORGE	PUTNAM	1416	22.0	0.015537
268	MARGARET	PUTNAM	380	15.0	0.039474
269	MCCARTHY	PUTNAM	110	2.0	0.018182
270	STELLA	PUTNAM	308	302.0	0.980519
271	JESSUP	SEMINOLE	10011	320.0	0.031965
272	MILLS	SEMINOLE	232	35.0	0.150862
273	MULLET	SEMINOLE	631	72.0	0.114105
274	ORIENTA	SEMINOLE	129	70.0	0.542636
275	DEATON	SUMTER	778	45.0	0.057841
276	MIONA	SUMTER	418	5.5	0.013158
277	OKAHUMPKA	SUMTER	670	236.0	0.352239
278	PANASOFFKEE	SUMTER	4460	700.0	0.156951
279	BUTLER	UNION	420	24.0	0.057143
280	PALESTINE	UNION	911	35.0	0.038419
281	SWIFT CREEK POND	UNION	568	7.0	0.012324
282	ASHBY	VOLUSIA	1030	24.0	0.023301
283	BERESFORD	VOLUSIA	800	66.0	0.082500
284	BETHEL	VOLUSIA	213	3.0	0.014085
285	HARNEY	VOLUSIA	6058	95.0	0.015682
286	LOUISE	VOLUSIA	257	25.0	0.097276
287	MONROE	VOLUSIA	9406	19.0	0.002020
288	NORTH TALMADGE	VOLUSIA	121	4.0	0.033058
289	PUZZLE	VOLUSIA	1300	325.0	0.250000
290	SOUTH TALMADGE	VOLUSIA	60	2.0	0.033333
291	OTTER	WAKULLA	133	2.0	0.015038
292	BEAR HAMMOND POND	WASHINGTON	40	3.0	0.075000
293	GAP POND	WASHINGTON	527	212.0	0.402277
294	HICKS POND	WASHINGTON	482	122.0	0.253112
295	LUCAS POND	WASHINGTON	455	107.0	0.235165
296	MCDANIEL LAKES	WASHINGTON	50	12.0	0.240000

Table 2-13. (Continued)

FLORIDA MACROPHYTE DATA

OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
297	PAYNE POND	WASHINGTON	30	3	0.10000
298	PORTER	WASHINGTON	943	612	0.64899
299	THE DEADLY LAKES	WASHINGTON	253	293	1.15810

Table 2-14. Frequency of Samples in Florida Lakes.

Number of Samples	Number of Lakes With Indicated Number of Samples
1	129
2	65
3	77
4	32
5	41
6	18
7	18
8	27
9	17
10	10
11-15	35
16-20	15
21-30	27
31-40	13
41-50	13
51-100	25
101-621	11
TOTAL	573

Table 2-15. Most Frequently Sampled Florida Lakes.

ORS	LAKE	COUNTY	NUMB
1	OKEECHOBEE	OKEECHOBEE	621
2	GRIFFIN	LAKE	275
3	APOPKA	ORANGE	265
4	EUSTIS	LAKE	250
5	JACKSON	LEON	167
6	TOHOPEKALIGA	OSCEOLA	165
7	DORA	LAKE	159
8	TARPON	PINELLAS	127
9	THONOTOSASSA	HILLSBOROUGH	119
10	JESSUP	SEMINOLE	110
11	BLUE CYPRESS	INDIAN RIVER	104
12	ISTOKPOGA	HIGHLANDS	100
13	BUTLER	ORANGE	97
14	KISSIMMEE	OSCEOLA	91
15	TSALA APOPKA	CITRUS	85
16	REEDY	POLK	84
17	MARION	POLK	70
18	WEOHYAKAPKA	POLK	69
19	MONROE	VOLUSIA	69
20	JUNE-IN-WINTER	HIGHLANDS	67
21	BEAUCLAIR	LAKE	66
22	MARY JANE	ORANGE	66
23	CYPRESS	OSCEOLA	64
24	MARIAN	OSCEOLA	64
25	OCKLAWAHA	MARION	63
26	ALLIGATOR	OSCEOLA	63
27	ANNIE	HIGHLANDS	61
28	EOLA	ORANGE	58
29	ROUSSEAU	LEVY	56
30	ROSALIE	POLK	56
31	FRANCIS	HIGHLANDS	55
32	YALE	LAKE	54
33	WEIR	MARION	54
34	PANASOFFKEE	SUMTER	54
35	ORANGE	ALACHUA	51
36	ARBUCKLE	POLK	51
37	CHARITY	ORANGE	50
38	FAITH	ORANGE	50
39	HOPE	ORANGE	50
40	KERR	MARION	49
41	KINGSLEY	CLAY	46
42	PORTER	ORANGE	46
43	WASHINGTON	BREVARD	44
44	POINSETT	BREVARD	43
45	MINNEOLA	LAKE	43
46	SANTA FE	ALACHUA	41
47	TALQUIN	GADSDEN	41
48	EAST TOHOPEKALIGA	OSCEOLA	41
49	LULU	POLK	41
50	DEER POINT	BAY	39
51	JACKSON	HIGHLANDS	39
52	PLACID	HIGHLANDS	39
53	UNDERHILL	ORANGE	38
54	HATCHINEHA	OSCEOLA	38
55	ELOISE	POLK	38
56	NEWNANS	ALACHUA	37
57	HARRIS	LAKE	37
58	MINNEHAHA	LAKE	36
59	LOWERY	POLK	35
60	MAITLAND	ORANGE	33
61	LOUISA	LAKE	31
62	LUCIEN	ORANGE	31
63	CANNON	POLK	30
64	JESSIE	POLK	30
65	HOWELL	SEMINOLE	30

Lakes	Source
55	55 Lake Study
20	Acid Rain Study
40	National Eutrophication Survey
103	Florida Game and Fish
96	USGS-DER
165	Aquatic Weeds Survey
30	Urban Lakes
54	SWFWMD
1	SFWMD
4	UCF, FSU, FIT
22	UF
505	STORET
42	DER
1	Florida Game and Fish
1	Brevard County
299	Macrophyte Data

Original data from the Aquatic Weeds Survey and from STORET frequently represented multiple samples of a lake on the same day and/or at different stations. Such data values were averaged to provide one mean value per lake per day. Hence, "raw" data in the data base from those two sources do not necessarily represent individual lake samples.

Lake areas are available for all lakes, using either recent measurements or a value from the Gazetteer (Florida Board of Conservation, 1969) as a default value. Limited additional physical data (e.g., elevation, mean depth) are available for about 100 lakes. Latitude and longitude are given for all lakes, although in practice it has been found that the county (included for all lakes) is the most useful location parameter.

The lake data are organized as a Statistical Analysis System (SAS, 1979) data set on the Northeast Regional Data Center (NERDC) computer network at the University of Florida, which operates two computer mainframes (an Amdahl 470 and an IBM 3033). The data set comprises 9914 entries as of June 1982.

A description of parameters and information in the data set is presented in Appendix C. The data set has been placed on a magnetic tape for storage and transferral to other users.

A large amount of project time and effort was spent in combining the several data sources into the one overall data base. A considerable number of discrepancies were found for spellings of names among different sources for the same lake. These discrepancies were caused both by misspellings and by differences in local practice. (For instance, Lake Hell'N Blazes and Lake Hellen Blazes are both used on maps and in the literature, but the former is the name originally given the lake.) Different sources also frequently used confusing or incorrect identification numbers, (e.g., as arbitrarily assigned in STORET or by various agencies), and there was not always unanimity on whether the word "lake" should precede or follow the name. (In FLADAB, the word "lake" is omitted.) These conflicts had to be resolved, usually on a painstaking, individual lake basis, before data from different sources for one lake could be combined. The most difficult source was the STORET data base, in which it is common to have the same lake given with different spellings and in different counties.

A further quality control procedure involved a visual check of data entries. In this manner obvious errors could be found. All data keypunched as part of the project were checked visually against the source; however, only a few of the data that were already computerized were so checked.

GAZETTEER

The Florida Lakes Gazetteer (Florida Board of Conservation, 1969) contains a listing of about 7,500 Florida lakes, man-made and natural, named and unnamed, including reservoirs and some ponds. The surface area, elevation and map number are given for almost all lakes along with location (county, river basin, section, township and range). Four hydrologic types of lakes are listed (surface inflow, surface outflow, both, neither [i.e. seepage]), and drainage area is listed for a few lakes. Finally, remark codes are given regarding access, meandering, gaging and miscellaneous. The Gazetteer remains a useful document even though some of the information may have changed since its publication.

During this project, punched cards containing some of the Gazetteer information for 6562 lakes with surface areas greater than or equal to 10 acres were obtained from the DER. (Cards for Highlands County were missing and subsequently punched during the project.) These cards were placed on a computer file at UF and used for needed information when required. Unfortunately, not all Gazetteer information was on the cards; for instance, remark codes were listed only as a letter "R". Hence, it is not possible to sort or search the file using the remark codes. The 1969 Gazetteer contained 160 italicized names from local usage for unnamed lakes on the USGS topographic maps used to compile the inventory. These names for 120 lakes were inserted into the computerized Gazetteer data. (An additional 40 italicized names in the NE and NW Florida quadrants were not represented among the 6562 punched cards.) Also approximately 800 named lakes smaller than 10 acres were subsequently added to the Gazetteer.

The result of these modifications is a revised Gazetteer, published separately (Dickinson et al., 1982) that includes computer listings of 7,320 lakes, containing: name, indication of a remark (R or blank), Florida Board of Conservation topographic map number, location, surface area, elevation, type, latitude-longitude and county. (Latitude and longitude may not agree exactly with more accurate values in the FLADAB.) The difference between (approximately) 7,712 total lakes in Florida and the 7,320 listed is that about 210 names refer to two or more multiple lakes. Including all multiple lakes gives the value 7,712. Approximately 200 fewer lakes are listed in the revised Gazetteer than in the 1969 edition because it was not possible to identify and include all unnamed lakes that were missing from computer cards. The revised Gazetteer does not replace the 1969 Gazetteer since it does not contain all the information contained in that publication. However, since it is computerized, the available data are more accessible in the revised than in the original form.

LOCATION MAPS FOR FLORIDA LAKES

It is not possible to place all of the nearly 3189 named Florida lakes or even the 573 lakes with nutrient data onto one report-sized map. The best single large scale map appears to be the 1:500,000 scale "State of Florida" map published by the USGS in Reston, Virginia (1967 edition). This 60 inch by 45 inch map contains most of the lakes discussed in this report and provides a base for section, township and range for the State. Almost all lakes can be located on 1:24,000 USGS quadrangle maps although there can be ambiguities if the lakes are unnamed. Lakes typically are identified by county within this report, and a map of counties is shown in Figure 2-1.

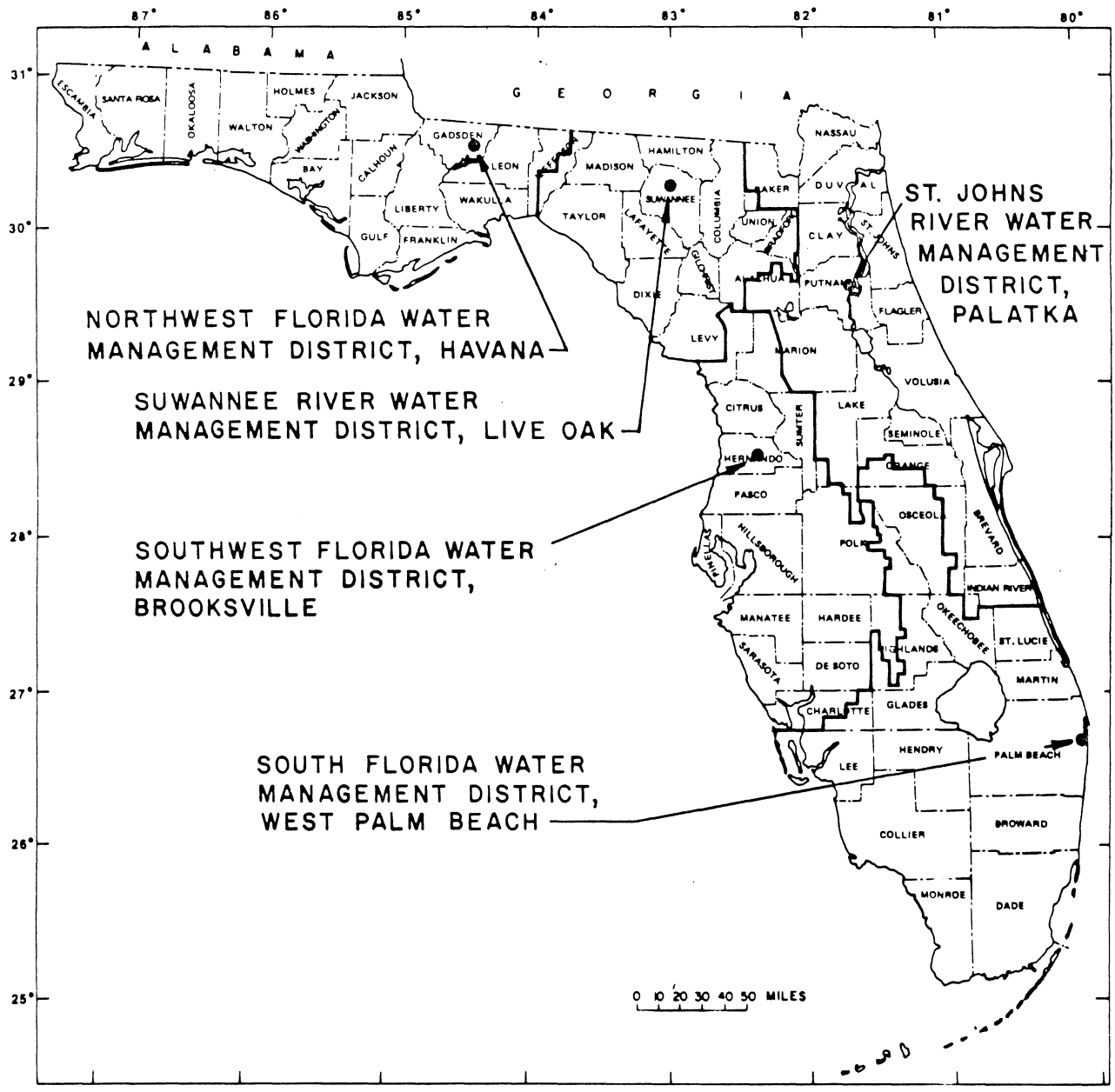

Figure 2-1. Location Map of Florida Counties and Water Management Districts. (after Heath and Conover, 1981, p. 5)

Boundaries of the State's five water management districts are also shown. Lakes may also be located by their latitude and longitude, which are presented in the new Gazetteer.

Special attention is given in Chapter 6 to the Oklawaha Lakes of Central Florida. These are shown in Figure 2-2.

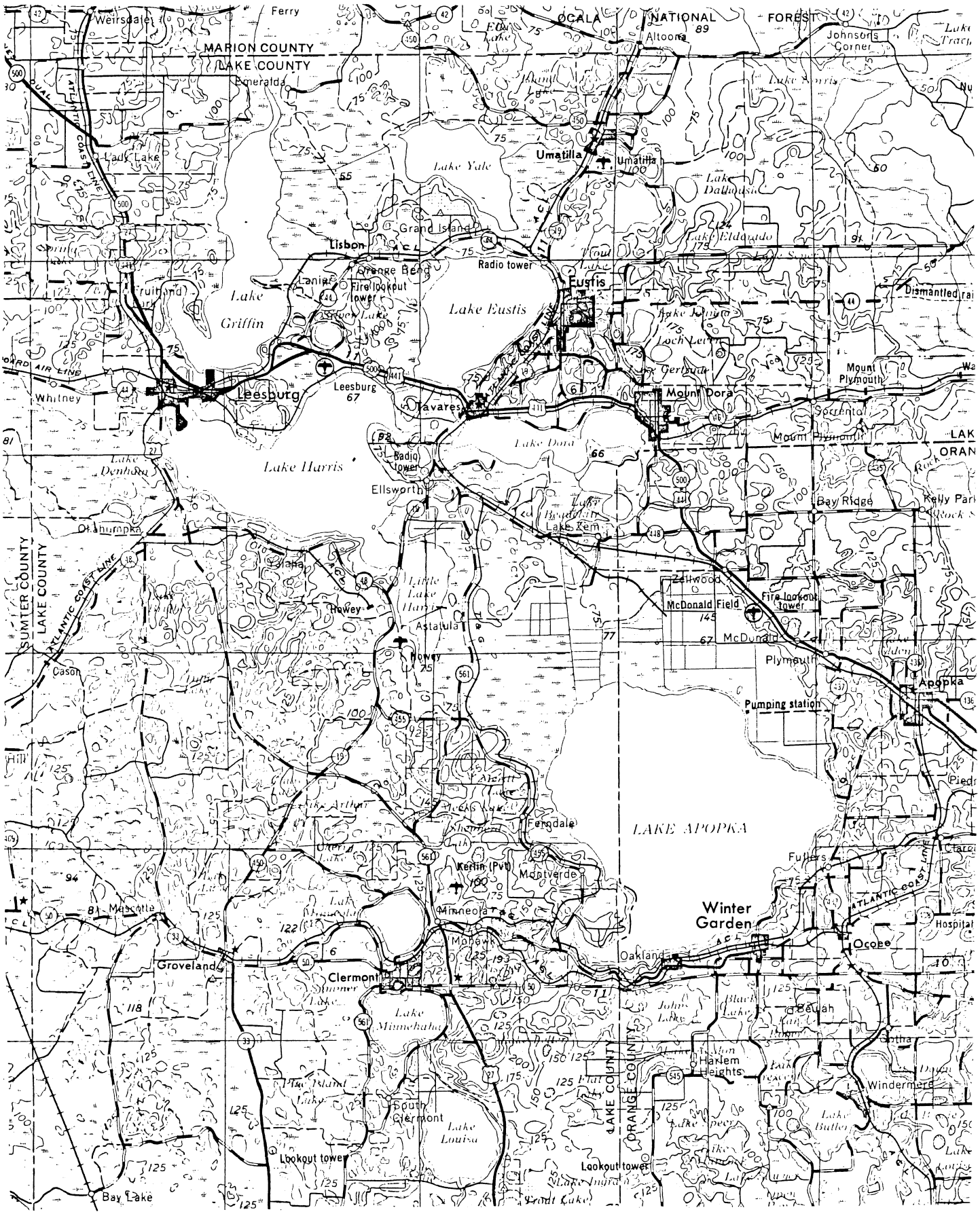

Figure 2-2. Map of the Oklawaha Lakes. Source: USGS 1:250,000 map, "Orlando-1962."

CHAPTER 3

DEVELOPMENT OF A TROPHIC INDEX SCHEME TO RANK FLORIDA LAKES

INTRODUCTION

Trophic state is the integrated expression of the nutritional status of a water body. As such, it is widely accepted that no single trophic indicator or parameter is adequate to completely describe and/or quantify the concept. Limnologists and water quality scientists have used a multiplicity of physical, chemical, and biological indicators to describe trophic state. The problem with this multivariable approach, of course, is that quantification of trophic state becomes difficult and often ambiguous. In the past, limnologists reviewed data on a variety of trophic state indicators and then assigned a lake to a certain trophic class in a simple nomenclatural system (e.g. most commonly based on oligotrophic, mesotrophic, eutrophic categories). This approach is now generally regarded as too subjective and too imprecise.

One approach to circumvent the above dilemma is to avoid nomenclatural classes altogether and to quantify the concept of trophic state by means of an index (or in some cases, by several indices). A large number of trophic indices have been proposed over the past 10-12 years. These indices vary widely in selection of indicator variables, method of development, mathematical complexity, precision and quantitativeness, and finally in acceptance by the limnological community. A review of indices developed through 1976 was prepared for the FDER by Brezonik (1976). Reckhow (1981) has described some more recent indices in a report for the United States Environmental Protection Agency Clean Lakes Program. The most important examples of these previously developed indices are described briefly in the following section.

TROPHIC INDEX SCHEMES REPORTED IN THE LITERATURE

Indices have long been used to simplify complicated phenomena. In essence an index reduces the dimensionality of a phenomenon to a single dimension or variable, which usually is a function of several measured variables. Perhaps the most commonly-cited index in our daily life is the gross national product (GNP). This single figure represents the entire economic activity of the country. Many other economic indices are also in common use; for example the Dow-Jones stock average is an index of conditions in the stock market.

Indices recently have become popular in the field of environmental quality. According to Brezonik (1976), at least four reasons can be given for developing trophic state indices:

1) a numerical index is helpful in conveying lake quality information to the non- and semi-technical public;

2) an index is useful in comparing overall trophic conditions between lakes;

3) in the dynamic process of lake trophic change, an index provides a means to evaluate the direction and rate of change; and

4) an index can be used to develop empirical models of trophic conditions as functions of watershed "enrichment" factors (e.g. Shannon and Brezonik 1972).

As Reckhow (1981) has pointed out, an index is a summary statistic; indices are used because the convenience of summarizing information in a single number outweighs the disadvantage of information lost in the act of summarization. Of course, it should be noted that the original data are not really lost; they can be retrieved and examined if the summary statistic (index) provides insufficient detail for the purpose of analysis.

Aside from semi-quantitative indices based on indicator organisms, which have been used in limnology for many years, the first indices used to compare lakes according to trophic state were simple ranking schemes for closed sets of lakes. For example, Lueschow et al. (1970) ranked 12 Wisconsin lakes based on five trophic indicators. The rankings of each lake according to each of the parameters were summed to yield a composite trophic ranking for each lake.

A somewhat more sophisticated approach involves the use of proportional rankings for individual parameters. These rankings can be obtained as the difference between the parameter value for a lake and the minimum (or maximum) value for all lakes in the data set, divided by the range for the parameter among all lakes. Michalski and Conroy (1972) developed such a proportional ranking scheme using six parameters for ten lakes in Ontario. The National Eutrophication Survey of the US EPA used a percentile ranking system to rank the survey lakes in each state based on six trophic indicators. The NES also developed a similar percentile ranking scheme for a composite of several hundred survey lakes in the eastern United States.

Although relative ranking schemes can be useful in comparing lakes within a closed data set, such relative rankings have obvious limitations for open data sets (where lakes may be added to the data set after the original rankings are made) and even for very large, closed sets. Consequently, most recent trophic ranking schemes involve indices based on an absolute scale. Some of these indices involve well-defined and easily quantified variables (like chlorophyll _a_ and Secchi disk transparency), whereas others involve ill-defined variables like aesthetics (Wisconsin DNR, 1975) and use impairment (Uttormark and Wall, 1975).

Parameters like use impairment are defined on an arbitrary dimensionless scale, and determination of the scale value for a given lake involves subjective considerations. For example, Uttormark and Wall (1975) developed a "Lake Condition Index" (LCI) based on numerical ratings of lakes in four categories: dissolved oxygen (0-6 points), transparency (0-4 points), fish kills (0-4 points), and use-impairment (0-9 points). In each category, zero represents the most desirable condition; penalty points are assigned based on a somewhat subjective evaluation of the severity of problems. The LCI is the sum of the penalty points for the four categories. A more complicated recreational index was devised by the Wisconsin DNR (1975) based on eleven criteria associated with four recreational categories (see Brezonik [1976] for further details).

The first quantitative TSI involving conventional indicators like transparency, chlorophyll and nutrient levels was developed by Shannon and Brezonik (1972). The authors used a data base of 55 lakes in north-central Florida with a range from very oligotrophic to hypereutrophic conditions. Trophic state was defined in terms of seven indicators: chlorophyll _a_, N, and P concentrations, transparency, primary productivity, conductivity, and a major cation ratio (divalent/monovalent ions). Shannon and Brezonik's index was developed by the multivariate statistical technique of principal component analysis, which reduces the dimensionality of a data set by deriving new (principal component) variables (PCV's) that are linear functions of the observed variables. The new variables are obtained from the characteristic roots and corresponding eigenvector of a correlation or covariance matrix of the original variables; the first PCV is the linear combination of the observed variables that explains the maximum variance in the original data. In Shannon and Brezonik's case, the first PCV accounted for about 70 percent of the variance, and this derived variable

thus was considered to best represent the single underlying concept (i.e. trophic state) described in part by each of the indicators. The Shannon-Brezonik TSI was a simple transformation of the first PCV, scaled to eliminate negative values. Further details on the index and a critique of its value and limitations are given by Brezonik (1976) and VanBelle and Meeter (1975).

This index has been used by various groups in the State of Florida over the past 10 years, but it suffers from several practical and theoretical problems, including the limited geographic extent of the data base, the difficulty in measuring some of the indicators (e.g. primary production), and the lack of an intrinsic relationship between some indicators (conductivity and the cation ratio) and the basic phenomenon of eutrophication, i.e. nutrient enrichment. Thus, use of this index is no longer recommended.

Of the recent attempts to develop trophic indices, the most widely used and best known is that of Carlson (1977). His approach was fundamental, and it is attractive because it has a good theoretical basis and relies on the three trophic indicators that are best understood and quantified. Separate indices were derived for each parameter from a data base of north temperate lakes. Because Carlson's approach was used to derive similar indices in the present study, his indices are described below in some detail.

Carlson's goal was to have each index related to algal biomass such that a 10 unit change in the index would represent a doubling or halving of algal biomass. Each of the three indices was derived for a single indicator; i.e. the indices are univariate. Carlson developed indices based on Secchi disk transparency (SD), chlorophyll _a_ concentration (Chl _a_), and total phosphorus concentration (TP), as the three best-quantified indicators of trophic state.

The three variables are highly inter-correlated, and as such each can be considered as an estimator or metric of the same underlying phenomenon (trophic state, or more narrowly, algal biomass).

Obviously, the most direct measure of algal biomass is obtained from chlorophyll a; nonetheless Carlson chose Secchi disk transparency as the primary indicator, and he derived an index [TSI(SD)] such that a doubling of transparency caused the index to increase 10 units. The index was scaled such that TSI=0 represents a transparency of 64 m, which is greater than any lake transparency reported in literature, and TSI=50 represents a transparency of 2 m, which is commonly accepted as the approximate demarcation between oligotrophic and eutrophic lakes.

Carlson then developed indices for Chl a and Chl a vs. TP into TSI(SD). The relationship between SD and Chl a was found to be nonlinear ($\ln SD = 2.04 - 0.68 \ln$ Chl a), and as a result the derived index for Chl a differs from those for SD and TP in that a 10 unit change in the former does not represent a factor-of-two change in Chl a concentration. Instead, Chl a doubles for each $\simeq 7$ unit increase in TSI(Chl a) (Carlson 1980).

Carlson (1977) recommended that his indices be used separately and argued that their use in combination (e.g. use of the average of the three indices) resulted in an undesirable loss of information. For a "well-behaved" lake (i.e. one in which the relationships among the three variables follow the regression relationships), the three indices should yield the same value. Carlson argued that in cases where the index values are different, the differences provide useful information on the lake. For example, if TSI(TP) > TSI(Chl a), phosphorus probably is not the limiting nutrient for the lake; TS(SD) > TSI(Chl a) indicates the presence of non-algal turbidity in the lake. On the other hand, these inferences could be made from the untransformed data without recourse to

use of indices. As mentioned previously, indices are usually integrative measures, and loss of detail is perhaps an inevitable trade-off for advantage of integration. The desire to express trophic state on a single numerical scale has led some water quality scientists to combine Carlson's three indices and to report their simple arithmetic average.

Several trophic state indices have been developed recently that rely on Carlson's approach. For example, Kratzer and Brezonik (1981) developed a TSI based on total nitrogen concentration to complement Carlson's TSI(TP). The TSI(TN) was developed from a data base of primarily nitrogen-limited Florida lakes. Kratzer and Brezonik proposed that the lesser value of TSI(TN) and TSI(TP) indicated which of the two nutrients was limiting in a lake, and they combined the lower of these values with TSI(SD) and TSI(Chl *a*) to produce an average TSI that integrates the major physical, chemical, and biological features of trophic state.

Porcella et al. (1980) outlined a "Lake Evaluation Index", LEI, based partially on Carlson's indices. This index, the development of which is incomplete, was described by Reckhow (1981). The index is composed of 5-6 variables that are transformed into subindices called X-values. The latter are combined to produce the LEI as follows:

$$LEI = 0.25\ [0.5(XCHA + XMAC) + XDO + XSD + XTP] \qquad (3\text{-}1)$$

where XCHA, XSD, and XTP are obtained from Carlson's TSI equations for chlorophyll, Secchi disk, and total phosphorus, XMAC is a macrophyte subindex determined from percent coverage information, and XDO is a dissolved oxygen subindex based on the volume-weighted deficit of O_2 in the lake. A subindex for nitrogen was proposed but not included in the LEI. The index of Porcella et al. has certain desirable features, but its usefulness and acceptance by limnologists remain to be determined. Direct application of the LEI to

Florida lakes probably would not be appropriate. For example, thermal stratification is uncommon, and thus dissolved oxygen deficits typically are not a problem in Florida lakes.

Walker (1979) developed a series of indices that are analogous to those of Carlson (1977) but offer some advantages over Carlson's TSI's. Walker's index is based on chlorophyll a, which probably is the best measure of the central problem resulting from eutrophication (i.e. an increase in algal biomass resulting from increased nutrient concentrations). The components of Walker's index are:

$$I_{Chl\ a} = 20 + 14.4\ \ln\ Chl\ a$$
$$I_{TP} = 15.6 + 20\ \ln\ TP \qquad (3\text{-}2)$$
$$I_{SD} = 75.3 + 19.5\ \ln\ (1/SD - \alpha)$$

The term α represents non-algal influences (e.g. clay, organic color) on transparency and has units of m^{-1}. Walker's index is the simple arithmetic average of the components (Reckhow 1981):

$$I_w = (I_{Chl\ a} + I_{TP} + I_{SD})/3 \qquad (3\text{-}3)$$

This index was developed from a data base on north temperate lakes, and thus it should not be applied directly to Florida lakes.

In summary, a large variety of trophic state indices and "lake condition" indices are available in the literature. Many have similar features; most have been derived from data on temperate lakes. For this reason, none of the recent indices (except perhaps for Kratzer and Brezonik's subindex for TN) should be applied directly to Florida lakes. The approaches and positive features of these indices are useful, nontheless, in developing a trophic state index suitable for Florida lakes.

BASIS FOR A TROPHIC STATE INDEX FOR FLORIDA LAKES

The approach used by Carlson in deriving his indices has many advantages, but direct application of his indices to Florida lakes has some potential and real disadvantages. The most important of these disadvantages are summarized below.

1. The indices were based on interrelationships among SD, TP, and Chl *a* derived from a data base of north temperate lakes. Previous studies on subtropical and warm-temperate Florida Lakes, e.g. Baker et al. (1981), indicate that these lakes have somewhat different relationships among these variables. Thus indices for Florida lakes should be based on regression relationships developed from data on Florida lakes.

2. Carlson's index system assumes phosphorus is the limiting nutrient, but many Florida lakes are known to be nitrogen-limited. As mentioned previously, Kratzer and Brezonik (1981) developed a TSI(TN) for nitrogen-limited Florida lakes, and they proposed that the limiting nutrient for a lake could be determined from the lower of TSI(TN) and TSI(TP). The lower of these values is used with TSI(SD) and TSI(Chl *a*) to produce an average TSI. This general approach seems appropriate for Florida lakes.

3. Carlson's indices were derived based on SD; i.e. a factor of two change in SD produced a 10 unit change in the index. Carlson and others have reported nonlinear relationshps between SD and Chl *a*, and a ten unit change in his TSI(Chl *a*) is not equivalent to a factor-of-two change in Chl *a* (hence presumably in algal biomass). An increase in plant biomass is the central phenomenon of eutrophication (i.e. the primary consequence of nutrient enrichment). Thus it seems more appropriate to base the index on a more direct measure of plant biomass (e.g. Chl *a*).

4. Carlson's indices do not account for macrophyte problems that may occur as a consequence of nutrient enrichment. Such problems are common in Florida lakes, and it would be desirable to be able to quantify macrophyte problems and relate them to nutrient loading.

Based on the above considerations, a series of indices has been developed herein to rank and classify Florida lakes according to trophic state. In each case, the index is multivariate and represents the <u>average</u> of the main physical, chemical and biological expressions of the trophic state concept. Secchi disk transparency is the physical measure of trophic state; chlorophyll *a* and macrophyte abundance (MAC) are the biological measures, and concentrations

of total phosphorus and total nitrogen are the chemical measures. Accordingly, four subindices TSI(i), where i=SD, Chl a, TP, or TN were developed. Macrophytes were considered separately and not as a subindex. Different average TSI's (and different nutrient subindices) were developed depending on whether the lake is primarily phosphorus-limited, primarily nitrogen-limited, or has a relatively well-balanced nutrient ratio.

DEVELOPMENT OF SUBINDICES

General Approach

An increase in plant biomass is the central phenomenon of eutrophication, and consequently plant biomass indicators were selected as the basis for the indices. For algal biomass an index was developed based on chlorophyll, which is the most easily and widely quantified measures of algal abundance. An index [TSI(Chl a)] was developed such that a doubling of chlorophyll a concentration (hence a doubling of biomass) produces a 10 unit increase in the index. Subindices for Secchi disk transparency and TP and TN concentrations were derived by substituting regression-derived relationships between these variables and chlorophyll a concentration into TSI(Chl a).

For macrophyte biomass a different approach was used; instead of developing a somewhat conjectoral TSI(MAC), percent macrophyte coverage was used directly to form this index. Quantitative relationships are not well-defined between macrophyte abundance and the other trophic indicators, and macrophyte coverage tends to be independent of the other subindices, as shown subsequently.

Relationships Between Chl a and SD, TP and TN

Relationships between chlorophyll a concentration and the above variables (taken one at a time) were determined by regression analysis using two procedures

in the Statistical Analysis System (SAS): Proc GLM and Proc LAV. Proc GLM estimates the linear parameters of a model by using least squares regression. In least squares regression the sum of the squares of the deviations between the predicted line and the data points is minimized. Proc LAV estimates the linear parameters of a linear model by using least absolute value regression. This method minimizes the sum of the absolute deviations between the predicted line and the data points.

Least absolute value regression is preferred in cases where the data are widely scattered, since it is less influenced by outlier data points. The least absolute value regression line is the median line of best fit, since half the data points are on either side of the line. In contrast, the least-squares regression line may not be even close to the median line, since the regression line will be skewed to the side with the greatest magnitude outliers. For this reason the least absolute value regression parameters were used in development of trophic state indices for Florida lakes.

In the regressions that follow, data from 313 lakes from the non-STORET data base were used. The lakes are tabulated in Appendix F (Table F-4), and they represent the best and most complete data set at the time of the analysis. Subsequent regression trials were made using all data from the 573 lakes in FLADAB. Results differed insignificantly from the earlier runs with the 313 lakes, primarily because most studies with multiple lake samples are contained among the 313 lakes.

Figure 3-1 is a plot of Secchi disk depth versus chlorophyll a concentration for the 313 lakes from the non-STORET Florida Lake Data Base. The plot is nonlinear and hints at a power function relationship between Secchi disk and chlorophyll a.

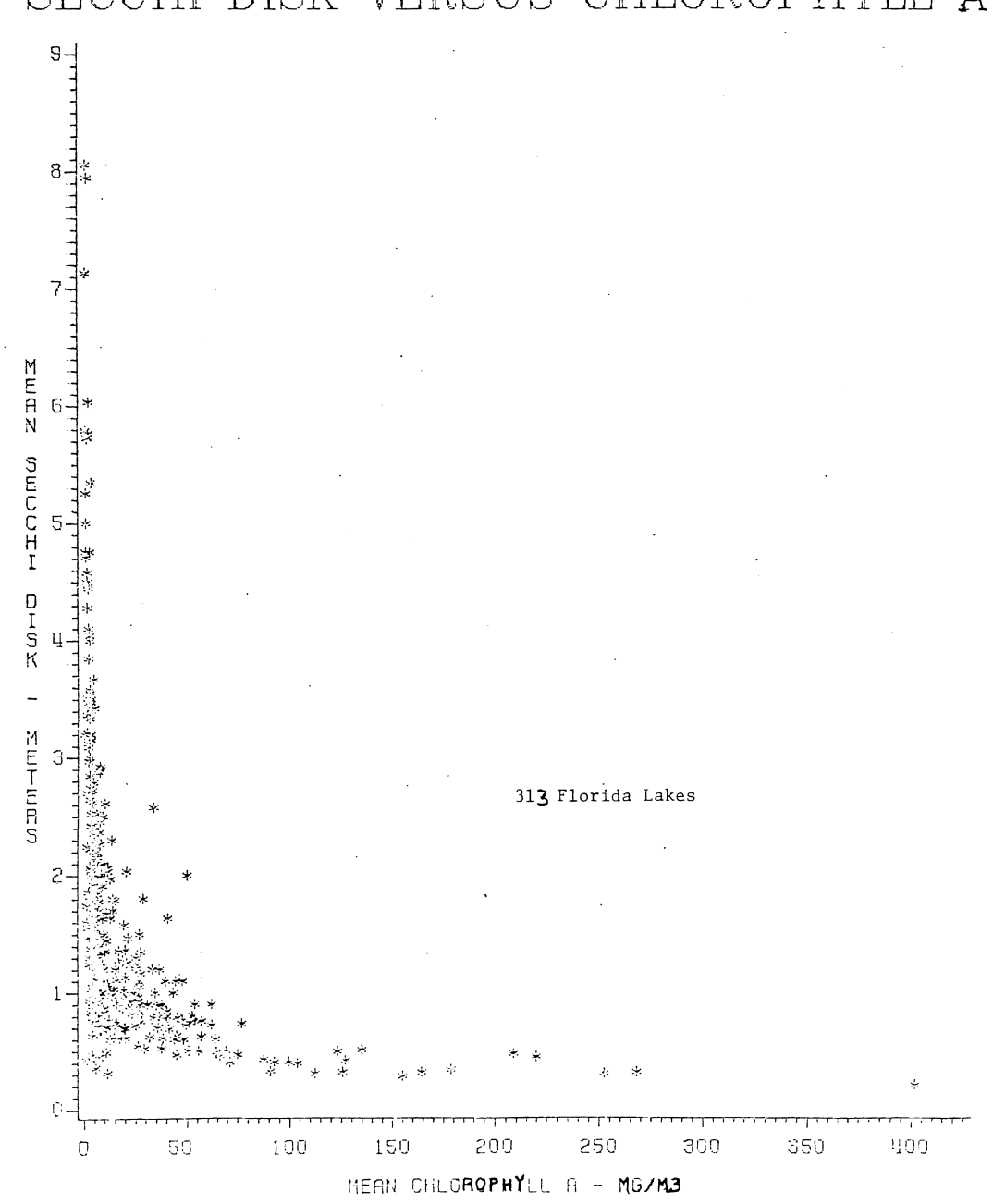

Figure 3-1. Secchi Disk vs. Chlorophyll a.

To linearize the model the natural log of both variables is taken. Because of the large range (several orders of magnitude) of values for each trophic indicator and the possibility of non-linear (power function) relationships between variables the (base e) log-log form was used for all regressions developed here.

TSI (Chl a)

As previously mentioned, the subindex for chlorophyll formed the basis for the subindices for SD, TP, and TN. TSI(Chl a) was developed based on two criteria: (1) a doubling of chlorophyll a concentration would produce a 10 unit increase in the index, and (2) the midpoint of the index scale [TSI(Chl a) = 50] would be equivalent to Chl a = 10 mg/m^3. The latter value generally is accepted as the approximate dividing line between eutrophic and non-eutrophic lakes. A TSI(Chl a) = 60 is equivalent to a chlorophyll a of 20 mg/m^3, which corresponds to the "ad hoc" desirable upper limit used by the Florida DER to define problem lakes (J. Hand, personal communication, 1980). The equation for TSI(Chl a) is:

$$TSI(\text{Chl } a) = 10\left(1.68 + \frac{\ln \text{Chl } a}{\ln 2}\right),$$

or $$TSI(\text{Chl } a) = 16.8 + 14.4 \ln \text{Chl } a \qquad (3\text{-}4)$$

where Chl a is in mg/m^3. The factor 1.68 is simply a scaling term so that Chl a = 10 mg/m^3 yields a TSI of 50; the ln 2 term converts the equation from base 2 logarithms and scales the equation so that a doubling of Chl a results in a 10 unit change in the index. Table 3-1 lists chlorophyll a concentrations corresponding to TSI values from 0 to 100 in units of 10.

TSI(SD)

The subindex for SD was obtained from a regression between SD and Chl a for data from the 313 selected lakes from the non-STORET Florida Lake Data

Table 3-1. Trophic Indicator Values Associated with TSI Sub-index Values.

TSI(i)	Chl a (mg/m^3)	SD (m)	P-limited* lakes TP (µg/L)	N-limited** lakes TN (mg/L)	Nutrient-balanced*** lakes TP (µg/L)	Nutrient-balanced*** lakes TN (mg/L)
0	0.3	7.4	2.7	.06	2.7	.060
10	0.6	5.3	4.1	.10	4.6	.1
20	1.3	3.8	6.3	.16	7.9	.16
30	2.5	2.7	9.6	.25	13.5	.27
40	5.0	2.0	15	.40	23	.45
50	10.0	1.4	23	.64	39.5	.74
60	20.0	1.0	34	1.02	67.7	1.23
70	40	0.72	52	1.62	116	2.04
80	80	0.51	80	2.58	198	3.4
90	160	0.37	122	4.11	340	5.6
100	320	0.26	185	6.54	581	9.3

* TN/TP > 30 (wt/wt)
** TN/TP < 10
*** $10 \leq TN/TP \leq 30$

Base. Secchi transparency data were in meters, and Chl *a* data were in mg/m^3. Uncorrected (total) chlorophyll *a* values were used since only about half of the studies comprising the data base reported corrected values (i.e. total chlorophyll *a* minus phaeophytin *a*).

Figure 3-2 depicts the Proc GLM output along with the confidence limits on the regression line. Figure 3-3 shows the data points and the Proc LAV line of best fit. The Proc GLM output is:

$$\ln SD = 1.28 - 0.434 \ln Chl\ a \qquad (3\text{-}5a)$$

or $$SD = 3.6\ Chl\ a^{-0.434} \quad (r^2 = 0.61) \qquad (3\text{-}5b).$$

The Proc LAV output is:

$$\ln SD = 1.46 - 0.484 \ln Chl\ a \qquad (3\text{-}6a)$$

or $$SD = 4.33\ Chl\ a^{-0.484} \quad (Pr < 0.0001) \qquad (3\text{-}6b).$$

Unfortunately, there is no widely accepted measure of goodness of fit for LAV regression. Instead, reliance must be placed on visual inspection and comparison of sums of absolute values of the residuals. In the case of the GLM and LAV regressions for SD vs. Chl *a*, visual comparison of Figures 3-2 and 3-3 clearly favors the Proc LAV regression line. The median line is less sensitive to the large outliers, and overall it yields a better description of the relationship between the two variables. The scatter of the data is due to many factors. First, there is the multiplicity of data sources. Second, some lakes are high in color and low in chlorophyll *a* and Secchi disk depth. The lake data points at the lower left of the figures fall into this category. Thirdly, there is the normal variation present in any random process.

Substitution of the LAV expression for SD vs. Chl *a* into eq. 3-4, rearranging and simplifying leads to the following TSI(SD):

$$TSI(SD) = 10[6.0 - 3.0 \ln SD] \qquad (3\text{-}7)$$

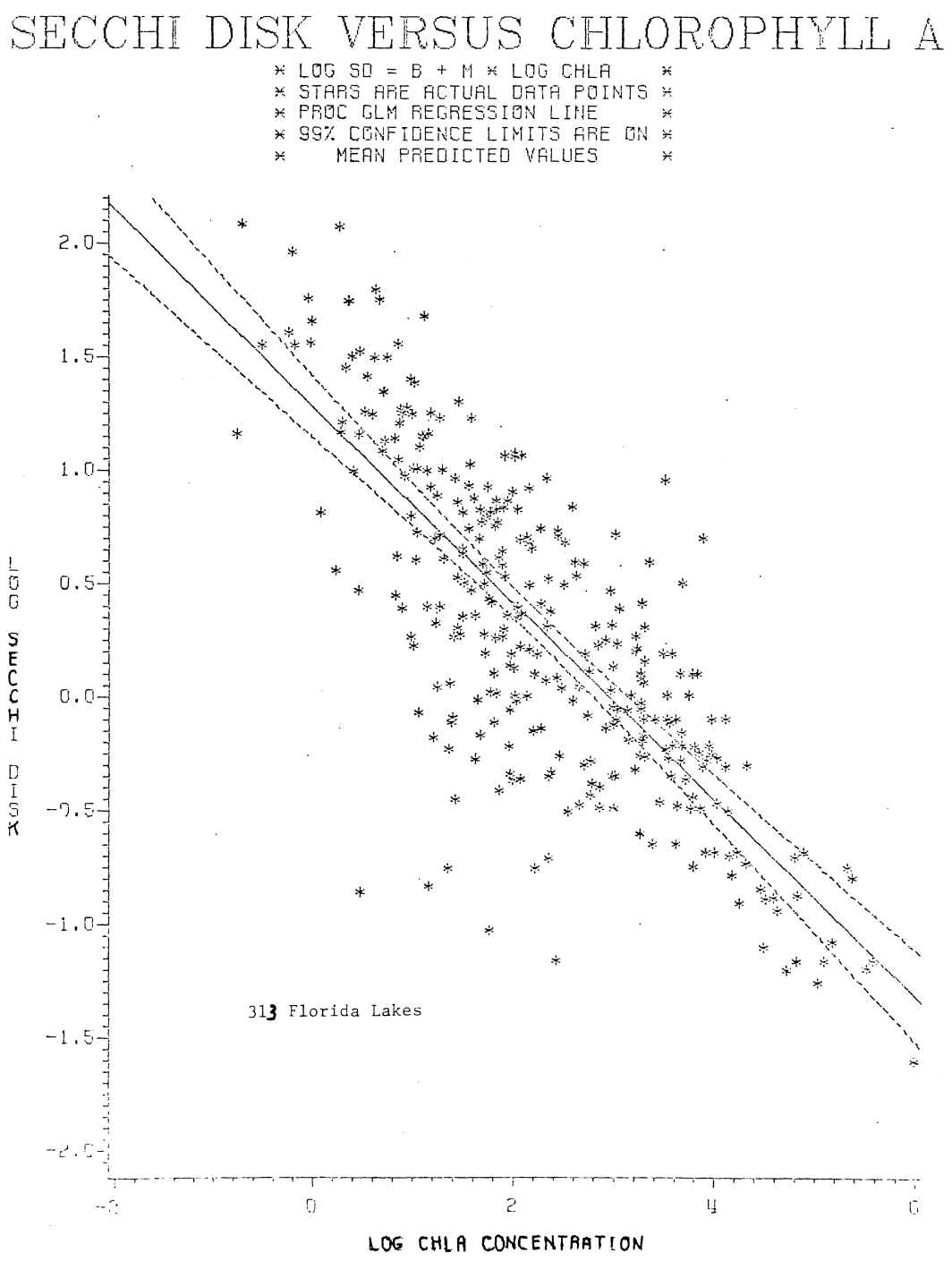

Figure 3-2. Ln Secchi Disk vs. Ln Chlorophyll a, Least Squares Fit.

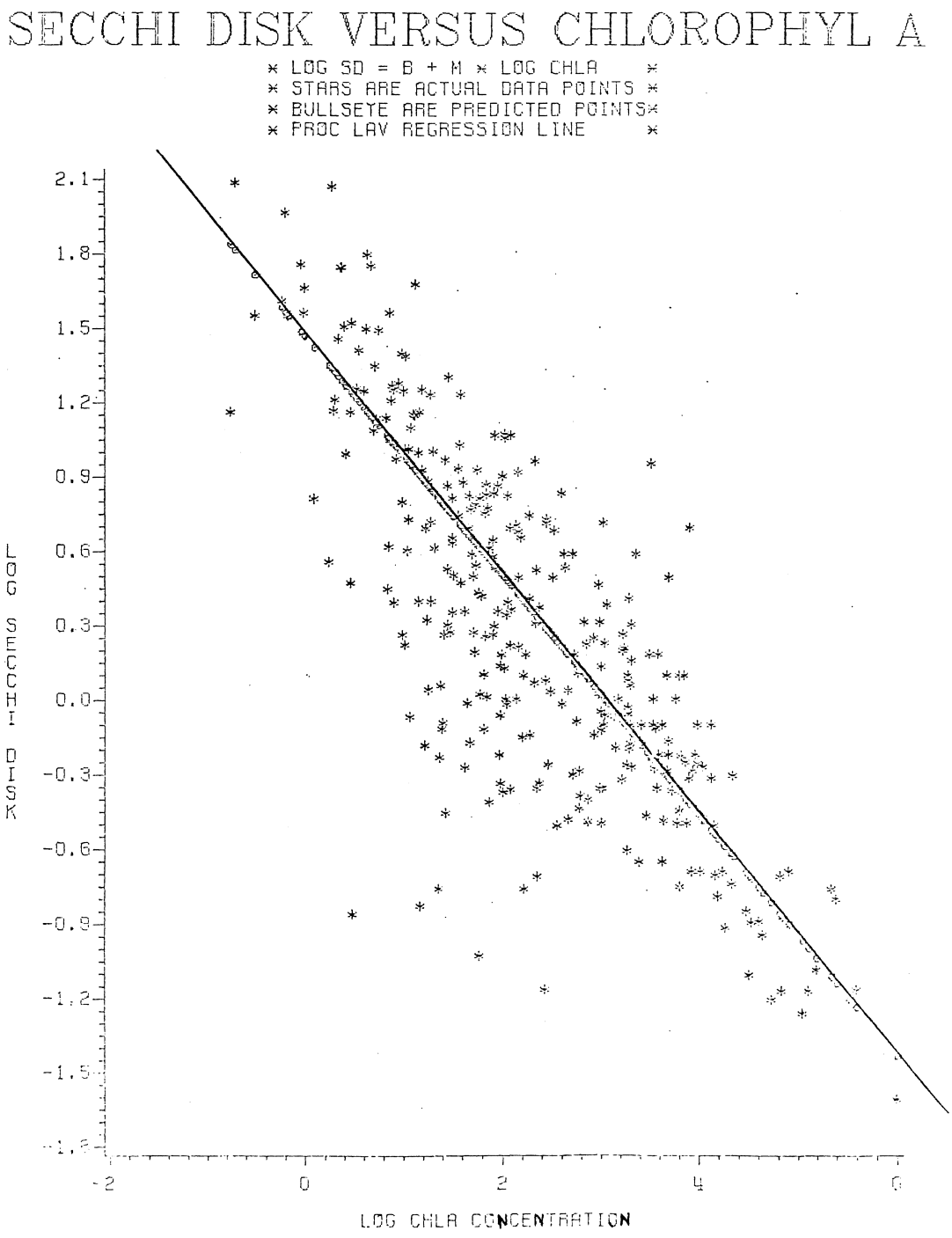

Figure 3-3. Ln Secchi Disk Depth vs. Ln Chlorophyll a Concentration, Least Absolute Value Fit.

Based on this equation, a transparency of 1.0 m corresponds to a TSI of 60, and a transparency of 2.0 m yields a TSI of 39. SD values associated with TSI values from 0 to 100 (in units of 10) are listed in Table 3-1.

Nutrient Subindices

TSI(TP). Based on a review of the literature (Smith, 1982), it was concluded that lakes with ratios of TN/TP > 30 (wt/wt basis) may be considered phosphorus-limited. Lakes with TN/TP < 10 (wt/wt basis) may be considered to be potentially nitrogen-limited, and lakes with intermediate TN/TP ratios ($10 \leq TN/TP \leq 30$), may be considered to have a relatively balanced nutritional status. Separate chlorophyll-nutrient regressions were developed for these three subsets of nutrient-limiting conditions in order to best express the relationship between algal biomass and concentration of the limiting nutrient.

A subset of 95 lakes with TN/TP ratios > 30 (i.e. phosphorus-limited lakes) was obtained from the 313 listed in Table F-4 (see Table F-1 for a listing of all P-limited lakes). A regression of uncorrected chlorophyll *a* vs. TP was obtained by the SAS LAV procedure (see Figure 3-4):

$$\ln \text{Chl } a = 1.64 \ln TP - 2.12 \qquad (3\text{-}8a)$$

or

$$\text{Chl } a = 0.06\ TP^{1.64} \qquad (3\text{-}8b)$$

where both Chl *a* and TP are expressed in µg/L (mg/m^3). Substitution of this regression relationship into eq. 3-4, rearranging and simplifying leads to the expression:

$$TSI(TP) = 10(2.36 \ln TP - 2.38) \qquad (TP \text{ in } \mu g/L) \qquad (3\text{-}9)$$

A TP of 20 µg/L corresponds to a TSI of 47; a value of 50 µg/L (generally accepted as in the eutrophic range [Vollenweider, 1968, Dillon and Rigler, 1975, Baker et al., 1981]) yields a TSI of 69. Table 3-1 tabulates values of TP corresponding to TSI values from 0 to 100 in units of 10. Because lakes with ratios of TN/TP > 30 reasonably can be assumed to be phosphorus-

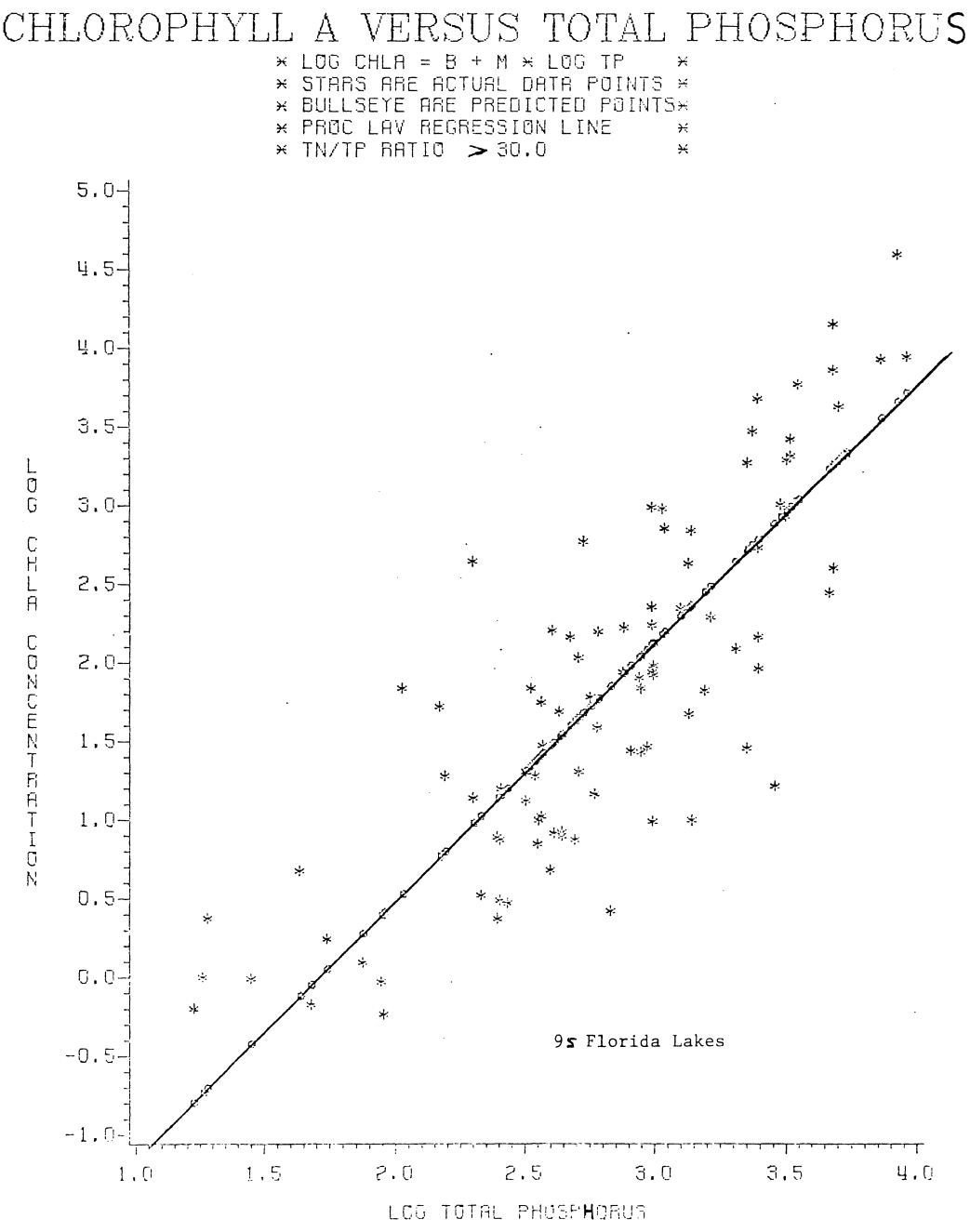

Figure 3-4. Chlorophyll a vs. Total Phosphorus, Least Absolute Value Fit.

limited, with little or no limitation by nitrogen, the regression in eq. 3-8 should be the best predictive relationship between chlorophyll *a* (or algal biomass) and in-lake limiting nutrient concentrations for such lakes. The corresponding TSI(TP) thus is the best nutrient-related estimator of trophic state for P-limited lakes (lakes with TN/TP > 30).

For informational purposes, a least-squares (Proc GLM) regression also was run for the subset of P-limited lakes (see Figure 3-5), and the resulting equation of best fit is:

$$\ln \text{Chl } a = 1.52 \ln TP - 2.48 \qquad (3\text{-}10a)$$

or

$$\text{Chl } a = 0.084\ TP^{1.52} \qquad (r^2 = 0.69) \qquad (3\text{-}10b)$$

Because of the impact of outliers on the slope and intercept of this regression line (as discussed earlier), it was not used to develop TSI(TP), but the r^2 value indicates that variations in TP concentration explain about 70 percent of the variance in Chl *a* concentration.

TSI(TN). For lakes that are potentially nitrogen-limited (TN/TP < 10), algal biomass should relate more closely to the concentration of TN than to TP. In general, the relationship between Chl *a* and TP will change and become less exact as the ratio of TN/TP decreases. Consequently, an index based on TP would be a poor predictor of algal biomass (and hence of trophic state) in N-limited lakes. Thus TN is the appropriate chemical measure of trophic state in N-limited lakes.

A subset of 50 lakes with TN/TP < 10 (wt/wt) was obtained from those listed in Table F-4 (see Table F-2 for a list of all N-limited lakes). A regression of uncorrected chlorophyll *a* vs. TN was obtained by the SAS LAV procedure (see Figure 3-6):

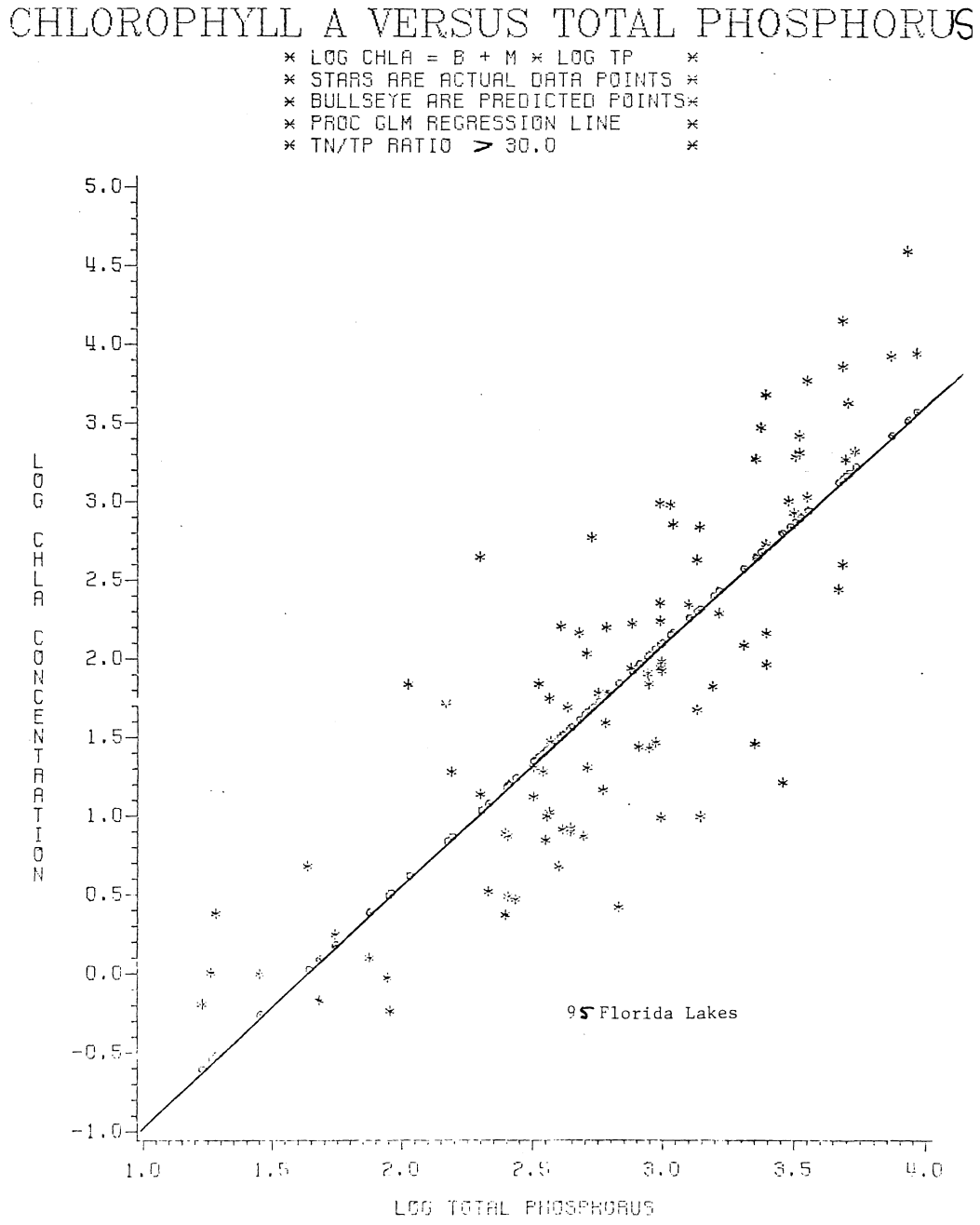

Figure 3-5. Chlorophyll a vs. Phosphorus, Least Squares Fit.

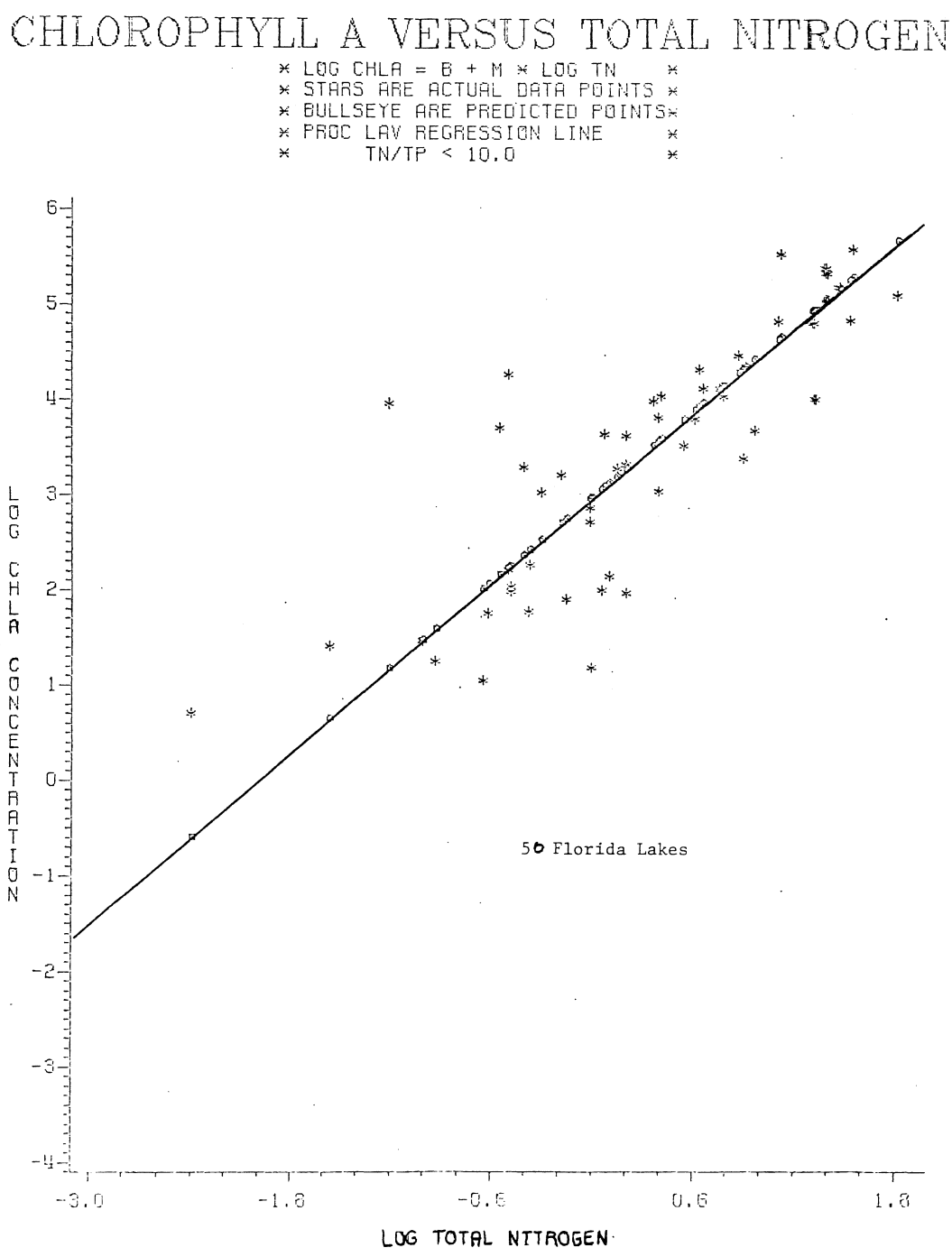

Figure 3-6. Chlorophyll a vs. Total Nitrogen, Least Absolute Value Fit.

$$\ln \text{Chl } \underline{a} = 2.97 + 1.49 \ln \text{TN} \qquad (Pr > 0.0001) \qquad (3\text{-}11)$$

where TN is in mg/L and Chl _a_ in mg/m^3. TN usually was determined as the sum of TKN plus NO_2^--N plus NO_3^--N or TON plus NH_4^+-N plus oxidized N forms, but in those studies where only TKN was measured, it was assumed that TKN was the total N. Since $NO_2^- << NO_3^-$, and NO_3^- concentrations were much lower than TKN levels in all lakes having such data, this assumption is reasonable and did not introduce significant error into the Chl _a_ - TN relationship. Substitution of the above regression relationship into eq. 3-4, rearranging, and simplifying results in the following TSI:

$$TSI(TN) = 10(5.96 + 2.15 \ln TN) \qquad (3\text{-}12)$$

A TSI of 50 corresponds to TN = 0.64 mg/L, and TSI of 60 implies TN = 1.02 mg/L. These values seem reasonable for slightly eutrophic Florida lakes. Table 3-1 lists values of TN corresponding to the range of TSI values from 0 to 100 (in units of 10).

For informational purposes, least-squares regression also was performed on this data set (see Figure 3-7), yielding the equation

$$\ln \text{Chl } \underline{a} = 3.06 + 1.215 \ln \text{TN} \qquad (3\text{-}13a)$$

or $$\text{Chl } \underline{a} = 21.3\ TN^{1.215} \qquad (r^2 = 0.66) \qquad (3\text{-}13b).$$

Thus variations in TN concentration explain 66 percent of the variance in Chl _a_ concentrations in N-limited lakes.

TSI(Nutrient Balanced Lakes). Lakes having a TN/TP ratio between 10 and 30 exhibit relatively well-balanced nutrition, and it is not possible to assign a single limiting nutrient to such lakes. Recent evidence (Smith 1982) suggests that lakes with N/P ratios in this approximate range respond to changes in loadings and concentrations of either N or P. Thus it is appropriate to relate chlorophyll _a_ levels to concentrations of both nutrients and to use

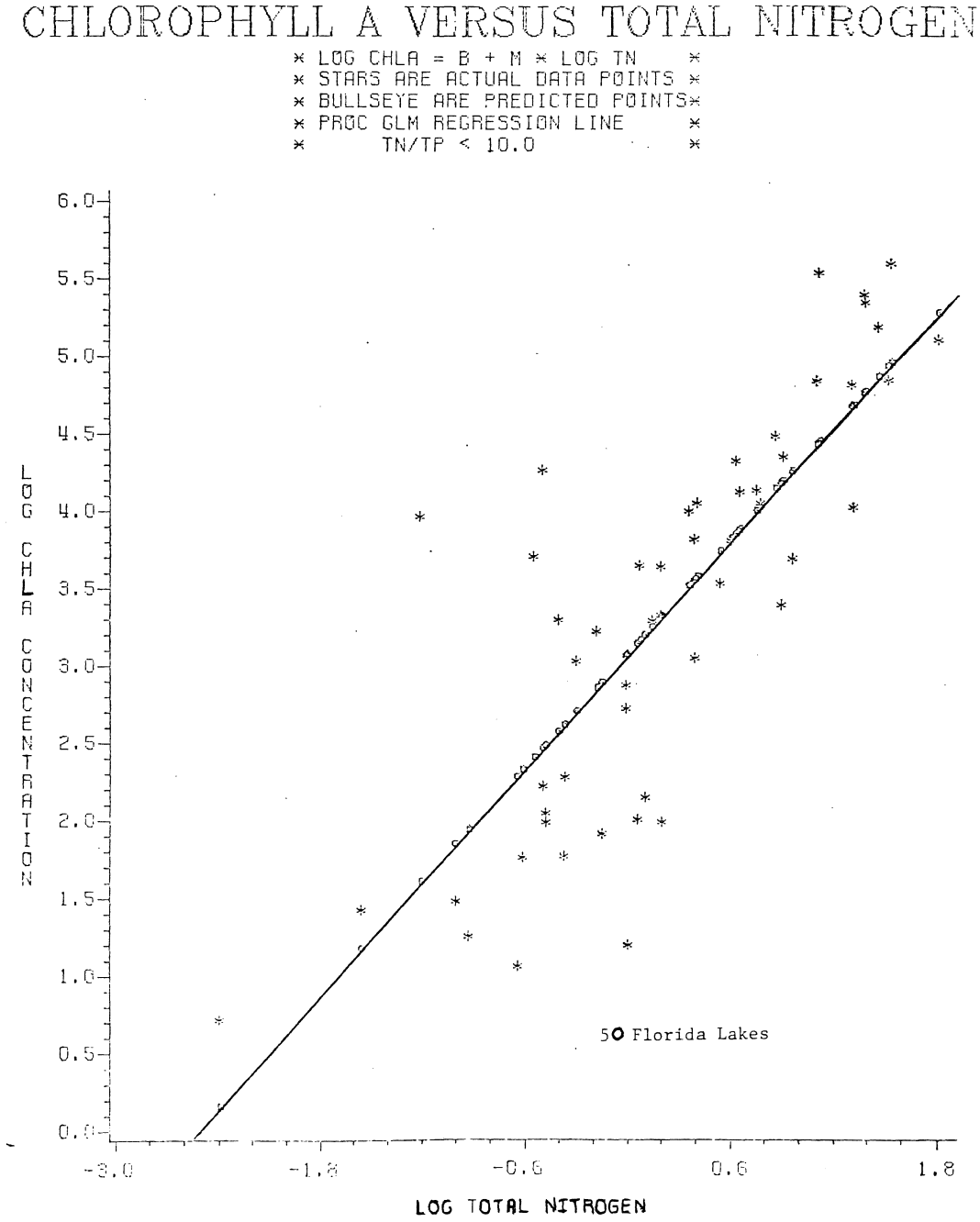

Figure 3-7. Chlorophyll a vs. Total Nitrogen, Least Squares Fit.

nutrients to define the chemical aspect of trophic state. To this end LAV regressions of Chl *a* vs. TN and Chl *a* vs. TP were obtained from a subset of 169 lakes listed in Table F-4 with TN/TP ratios between 10 and 30 (see Table F-3 for a list of all nutrient balanced lakes):

$$\ln \text{Chl } a = 1.29 \ln TP - 2.44 \quad (3\text{-}14a)$$

or

$$\text{Chl } a = .087\ TP^{1.29} \quad (3\text{-}14b)$$

$$\ln \text{Chl } a = 1.37 \ln TN + 2.7 \quad (3\text{-}15a)$$

or

$$\text{Chl } a = 15\ TN^{1.37} \quad (3\text{-}15b)$$

Figure 3-8 shows the regression of Chl *a* vs. TP for the nutrient-balanced lakes, and Figure 3-9 shows the corresponding regression for Chl *a* vs. TN for these lakes. Substitution of the regressions into eq. 3-4, and rearranging leads to the following subindices for TP and TN:

$$TSI(TNB) = 10(5.6 + 1.98 \ln TN) \quad (3\text{-}16)$$

$$TSI(TPB) = 10(1.86 \ln TP - 1.84) \quad (3\text{-}17)$$

These subindices are appropriate to the range of TN/TP ratios between 10 and 30, where neither nutrient is solely limiting. Table 3-1 lists TP and TN concentrations corresponding to subindex values from 0 to 100.

The best chemical measure of trophic state in the nutrient-balanced lakes is considered to be the average of the TSI's for TN and TP appropriate to this subset. Thus for lakes with TN/TP between 10 and 30 (wt/wt),

$$TSI(NUTR) = 0.5\ [TSI(TNB) + TSI(TPB)], \quad (3\text{-}18)$$

where TSI(TNB) is from eq. 3-16 and TSI(TPB) is from eq. 3-17.

Other Nutrient/Chlorophyll Relationships

For informational purposes several other regressions were performed on combinations of TN, TP and Chl *a* for the entire non-STORET data set of Florida lakes. These regressions were not used directly to develop subindices, but

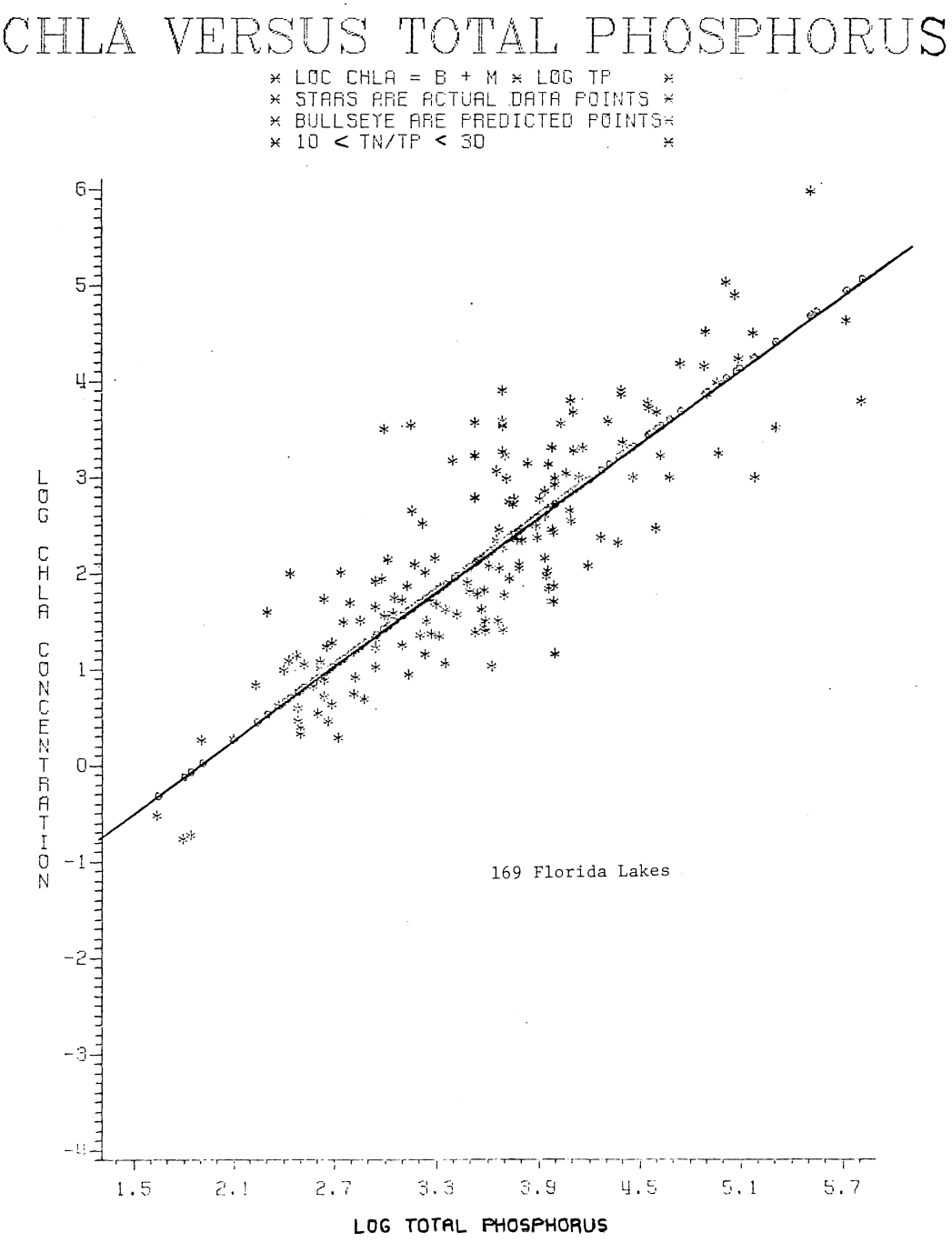

Figure 3-8. Ln Chlorophyll a vs. Total Phosphorus, Nutrient Balanced Lakes.

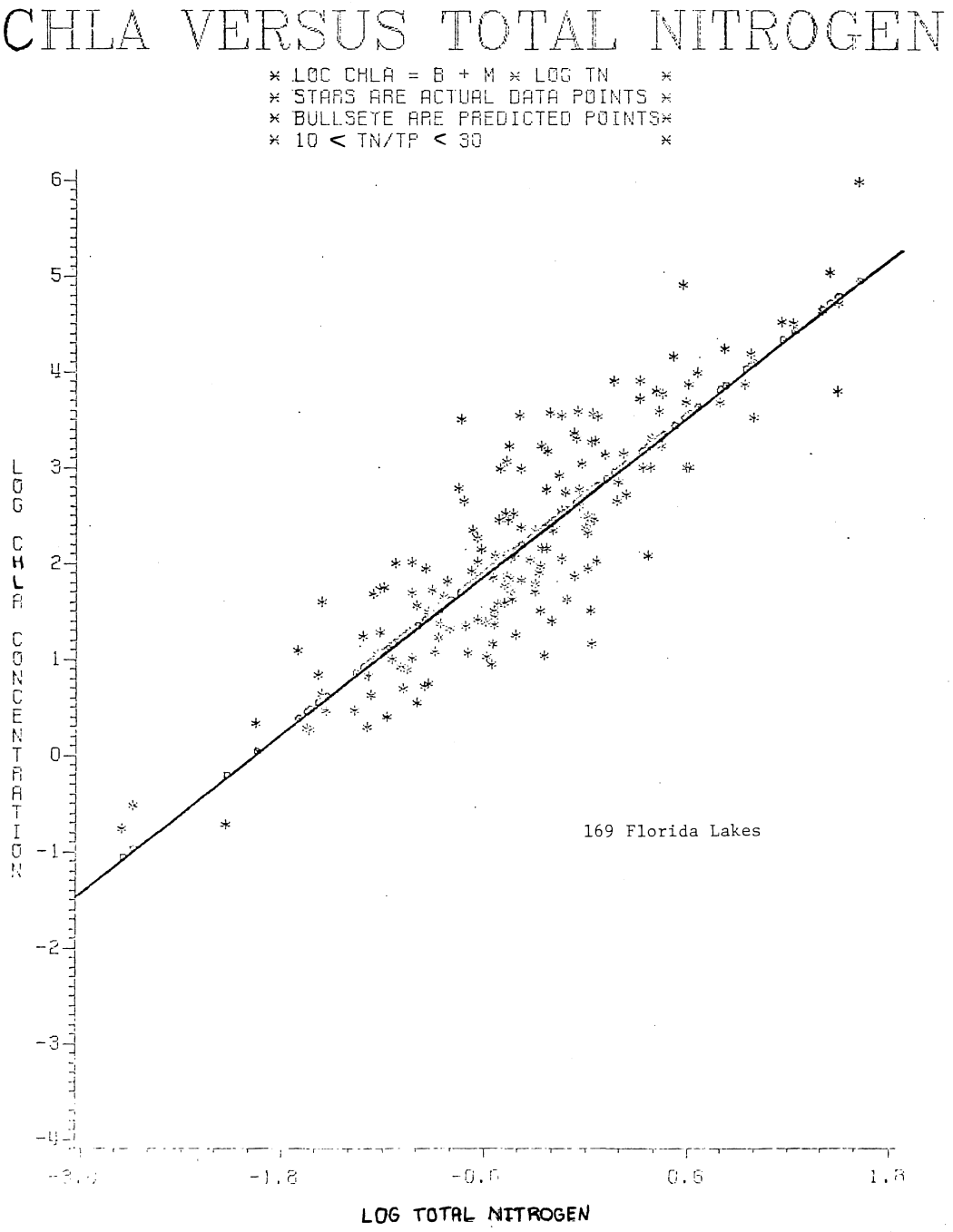

Figure 3-9. Ln Chlorophyll a vs. Ln Total Nitrogen, Nutrient Balanced Lakes.

they provide further insight into the data base and are described briefly below.

Regressions of Chl *a* vs. TN and vs. TP for 313 lakes were run by Proc GLM on log-transformed data. The resulting equations (Figures 3-10 and 3-11) are:

$$\ln \text{Chl } a = 0.833 \ln \text{TP} + 0.77 \quad (3\text{-}19a)$$

or

$$\text{Chl } a = 0.463\ \text{TP}^{0.833} \quad (r^2 = 0.61) \quad (3\text{-}19b)$$

and

$$\ln \text{Chl } a = 1.4 \ln \text{TN} + 2.65 \quad (3\text{-}20a)$$

or

$$\text{Chl } a = 14.15\ \text{TN}^{1.4} \quad (r^2 = 0.72) \quad (3\text{-}20b)$$

Thus it would appear that TN is a somewhat better predictor of Chl *a* for Florida lakes in general than is TP.

The relationship between TN and TP concentrations for 313 lakes was explored by LAV regression:

$$\ln \text{TP} = 1.16 \ln \text{TN} - 1.32 \quad (3\text{-}21a)$$

or

$$\text{TP} = 0.267\ \text{TN}^{1.16}, \quad (3\text{-}21b)$$

where both TP and TN are in mg/L. As the resulting plot in Figure 3-12 shows, the correlation between the two nutrients is widely scattered for the entire data set.

Index of Macrophyte Problems

Development of a subindex to quantify macrophyte problems in Florida lakes is more difficult and by necessity would be more subjective. No quantitative trophic indices based on macrophyte problems have been used to rank lakes in the literature, although Porcella et al. (1980), as cited in Reckhow (1981), proposed a macrophyte subindex based on percent coverage of the available (littoral) zone by macrophytes. The available zone was defined as the area encompassed by the lake margin and either the 10 m

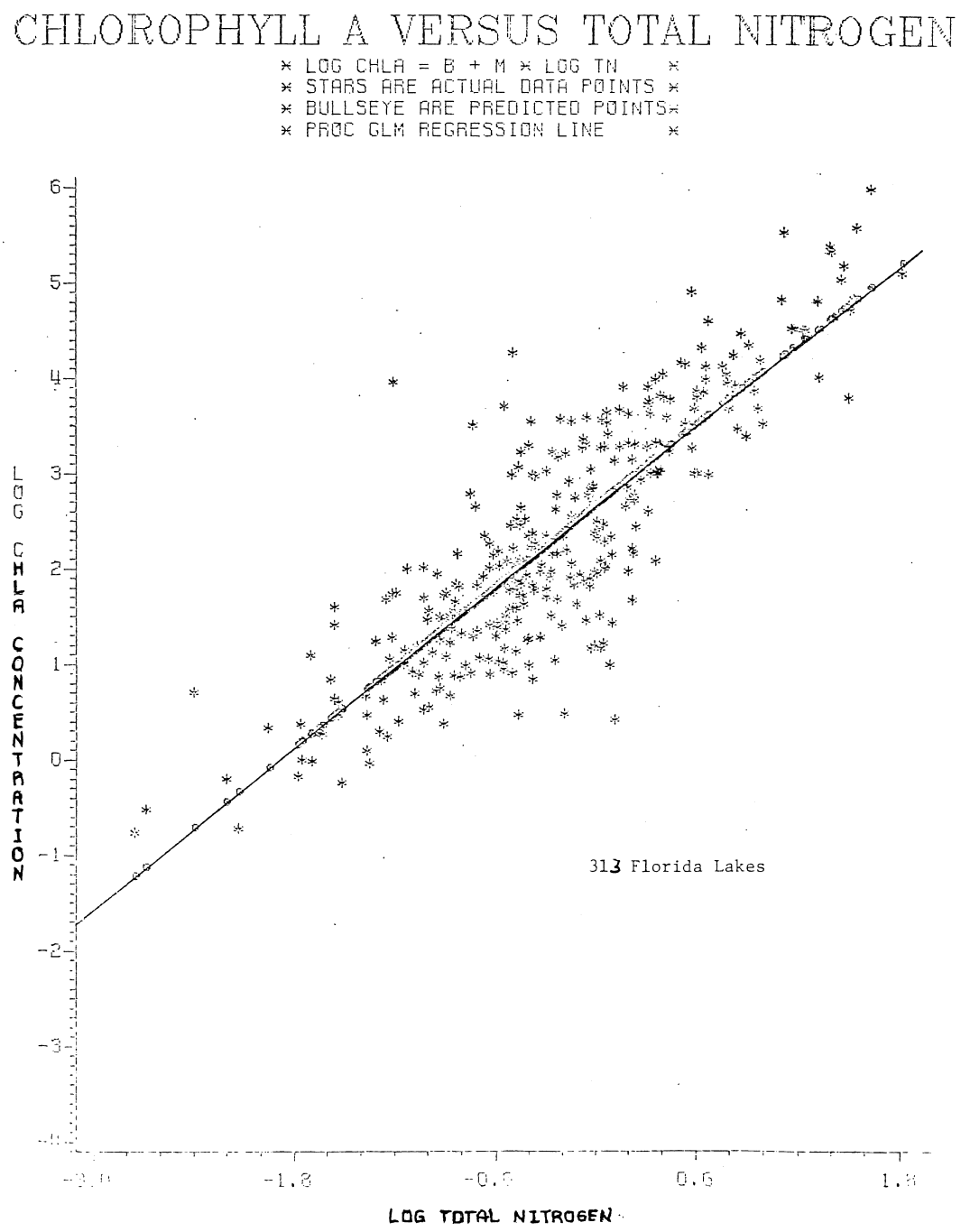

Figure 3-10. Ln Chlorophyll a vs. Ln Total Nitrogen, Larger Data Set, Least Squares Fit.

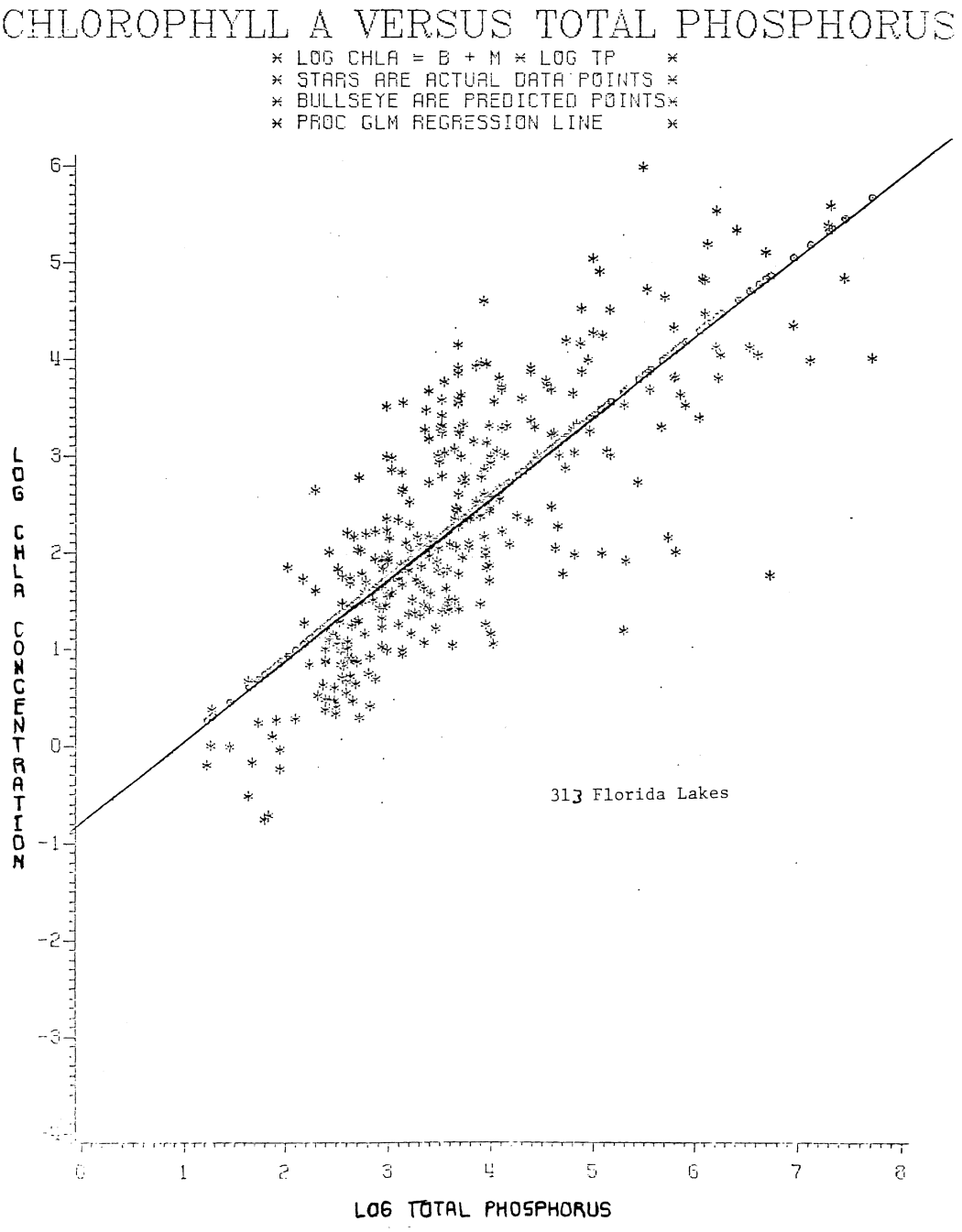

Figure 3-11. Ln Chlorophyll a vs. Total Phosphorus, Larger Data Set, Least Squares Fit.

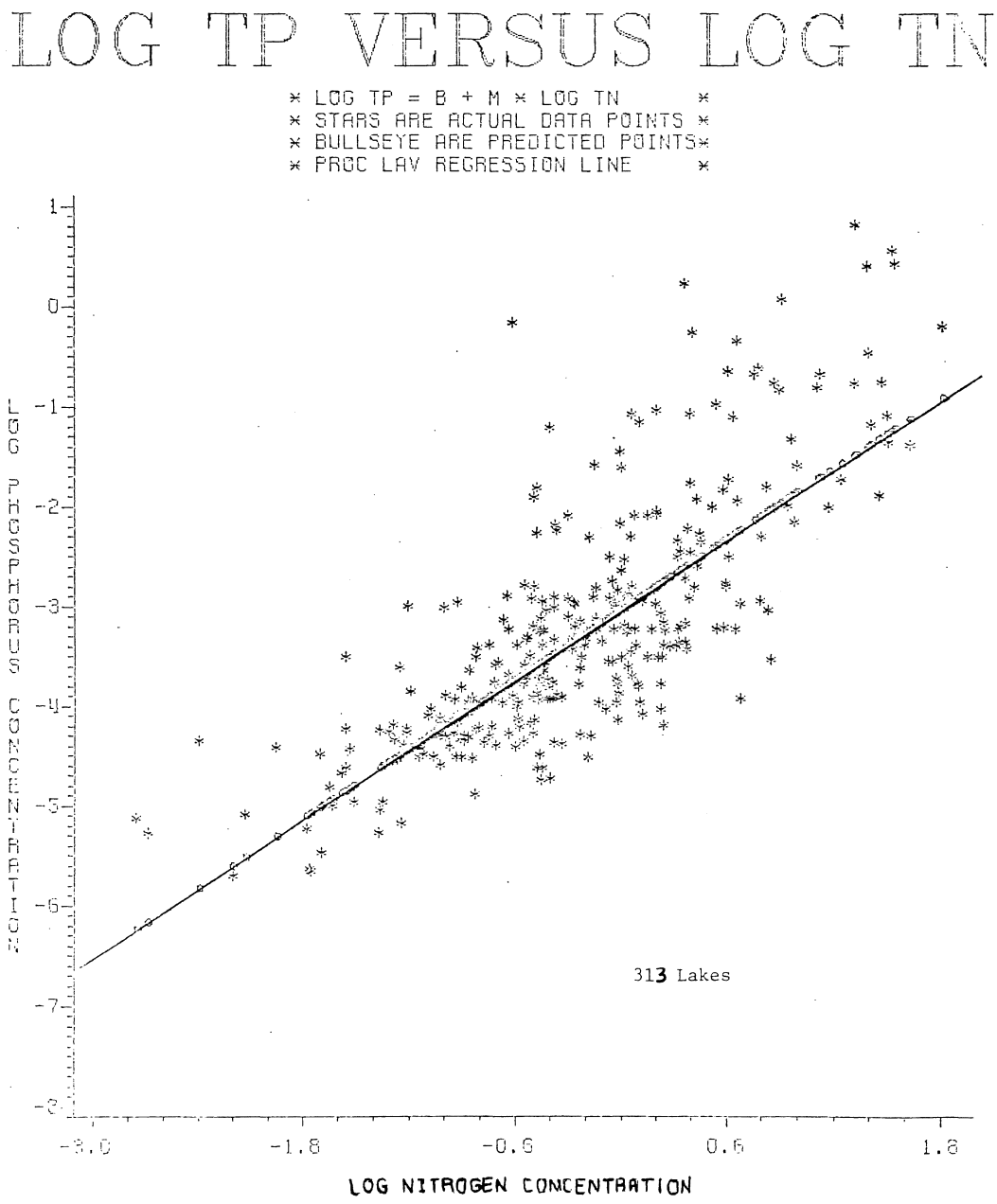

Figure 3-12. Ln Phosphorus vs. Ln Nitrogen, Larger Data Set, Least Absolute Value Fit.

line or the depth at which light limits vascular plant growth (≃ 2 times SD), which ever is shallower. The proposed subindex is linear in percent coverage, i.e. 50 percent coverage corresponds to a TSI(MAC) of 50, and 100 percent coverage yields a TSI(MAC) of 100.

There are several difficulties with this approach. First, the meaning of the term plant-cover is not defined precisely. A 100 percent coverage by submergent vegetation that has a low areal biomass or does not extend far above the sediment-water interface in general would not be considered objectional. In fact, such conditions may be desirable as habitat for fish. A healthy littoral plant community helps to maintain water clarity (both by removing nutrients from the water and by protecting shallow sediments from wind-induced resuspension). Thus the type and density of macrophyte cover needs to be specified. Quantitative measures are not well developed for the above purpose, but a high degree of accuracy in estimating biomass may not be needed to identify problem areas in a lake.

A second problem with the above index is that even a 50 percent dense cover of typical problem macrophytes (e.g. floating water hyacinths or submergent hydrilla) around the littoral zone of a lake would not be viewed as indicative of an <u>incipient</u> problem; instead that extent coverage likely would be considered indicative of relatively severe problems. Thus the scaling factor seems inappropriate compared to the other trophic indicators, for which TSI(i) values of 50 indicate only incipient eutrophy. The percentage coverage of the littoral zone with nuisance levels of macrophytes that corresponds to incipient eutrophy (hence with TSI=50) is undetermined, and any proposed value must be subjective.

It should be noted that a fundamental difference exists between macrophytes and the trophic indicators described in earlier subindices. The latter occur over the continuum of trophic states, although the nutrient and chlorophyll concentrations are lower and transparency values are higher in oligotrophic lakes. Nuisance macrophytes, on the other hand, do not occur (for all practical purposes) in oligotrophic lakes; i.e. there appears to be some (undefined) threshold level of trophic state below which nuisance macrophytes are absent. This makes it difficult to derive a TSI(MAC) with a scaling (especially for values < 50) comparable with the other indicators.

Ideal and theoretical considerations aside, the nature of any TSI(MAC) that may be developed will depend strongly on the type of information that has been or can be collected on macrophytes in lakes. In the present case, a fairly large data base is already in existence, and for reasons of efficiency and economy this data base should be used to develop TSI(MAC). Percent cover (of the total lake area) for each of 12 species of macrophytes in Florida lakes was determined by the Florida Department of Natural Resources (DNR) in surveys over the period 1979-1981.

The relationship between percent macrophyte cover and the chlorophyll *a* concentration in a lake was tested using Proc GLM of SAS. The relation assumed was of the form

$$\% \text{ Cover} = a[\text{Chl } a]^b \qquad (3\text{-}22)$$

which was converted to a log-log form for testing by Proc GLM.

There were 167 lakes that have both a measured chlorophyll *a* concentration; in µg/L, and an estimate of macrophyte coverage. The regression line has an r^2 of .027 indicating that no relationship exists, i.e. chlorophyll *a* (or algal biomass) and macrophyte coverage appear to be independent variables in Florida lakes. The log-log plot of the two variables in Figure 3-13 supports this conclusion.

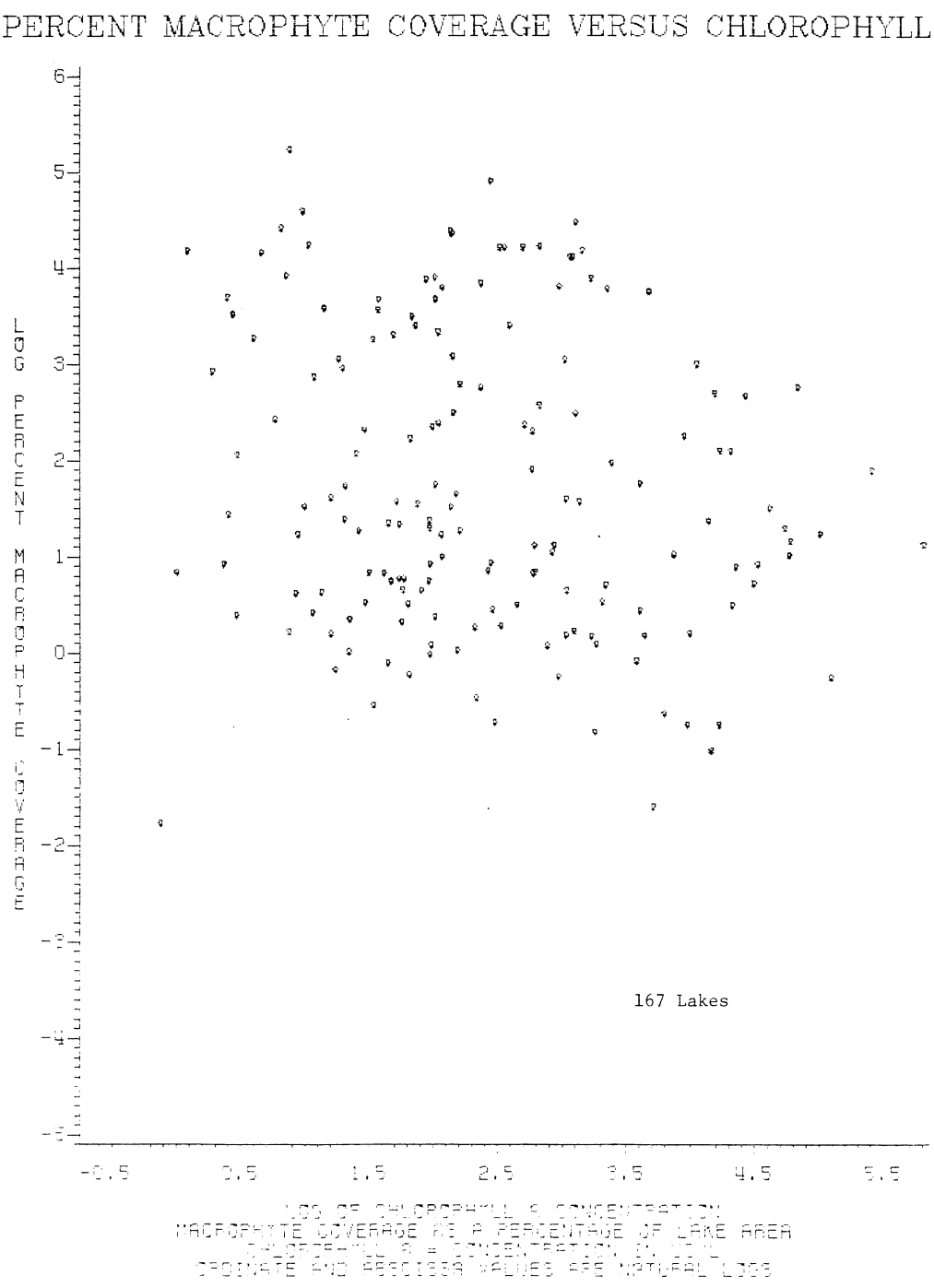

Figure 3-13. Ln Percent Macrophyte Coverage vs. Ln Chlorophyll a Concentration.

Relationships between macrophyte abundance and other trophic indicators are poorly understood, but some likely qualitative trends can be projected. Because increased algal abundance results in decreased water clarity and thus reduces the euphotic zone, in general an inverse relationship should exist between macrophyte and algal abundance and between macrophyte abundance and transparency. As noted above, however, there is no significant correlation between %(Mac) and Chl *a* for lakes in the data base. This may reflect the ill-defined nature of the macrophyte variable as much as or more than the lack of an intrinsic relationship. Experience shows that Florida lakes with severe algal bloom problems tend not to have macrophyte problems (except for floating species like water hyacinth). At intermediate levels (moderate eutrophy), however, algal and macrophyte problems may coexist, especially in shallow lakes. A prime example of this situation is Lake Okeechobee. Because rooted macrophytes obtain most of their nutrients from the sediments, macrophyte problems may occur in lakes with relatively low nutrient concentrations (and thus relatively low levels of algal biomass). As a result, close correlations may not exist between in-lake nutrient concentrations and macrophyte density. Because macrophyte nuisance problems can not be closely correlated (in a quantitive sense) with values for the other quantifiable indicators of trophic state, it may be more useful to consider macrophyte problems as a separate issue.

INTEGRATION OF SUBINDICES INTO AN OVERALL TSI

The overall trophic state index for a lake will be determined by combining the appropriate subindices to obtain an average for the physical chemical and biological features of trophic state. Although other, more sophisticated

techniques (e.g. principal component analysis) are available to combine multivariate data (such as the sub-indices) into a single, composite variable (or index), the additional effort probably is not warranted for several reasons. First, previous multivariate TSI's developed by such methods (e.g. Shannon and Brezonik, 1972) have similar weighting factors for the parameters to be used in the TSI developed here. The interpretation of this finding is that (from a statistical point of view) the individual parameters contribute approximately equally to the variance in the underlying, composite variable (i.e. the overall TSI). Simple arithmetic averages of the subindices thus approximate the results from more complicated multivariate methods for data sets of trophic state variables. Second, arithmetic averages are easier to compute, understand and interpret than are formulas resulting from other methods. If the index is to receive public acceptance, it should be simple to understand. Finally, the "true" weighting that should be assigned to the physical, chemical, and biological components comprising the overall concept of trophic state is unknown and essentially unknowable. Given this fact, only the simplest weighting procedures (e.g. simple averages) seem justified.

Because the relationships between macrophyte coverage (hence TSI(MAC)) and levels of the other trophic indicators are poorly defined at present, it seems best to develop a separate overall TSI for algal-related trophic problems and a separate index for macrophyte-related problems.

The algal-based average TSI's for the three ranges of TN/TP ratios described earlier are as follows:

Phosphorus-limited lakes (TN/TP > 30)

$$TSI(AVE) = 1/3[TSI(Chl\ a) + TSI(SD) + TSI(TP)] \quad (3\text{-}23)$$

where the subindices respectively are eqs. 3-4, 3-7, and 3-9.

Nitrogen-limited lakes (TN/TP < 10)

$$TSI(AVE) = 1/3[TSI(Chl\ a) + TSI(SD) + TSI(TN)] \quad (3\text{-}24)$$

where the subindices respectively are eqs. 3-4, 3-7, and 3-12.

Nutrient-balanced lakes (10 < TN/TP < 30)

$$TSI(AVE) = 1/3\ [\ TSI(Chl\ a) + TSI(SD) + 0.5[TSI(TPB) + TSI(TNB)] \quad (3\text{-}25)$$

where the sub-indices respectively are eqs. 3-4, 3-7, 3-16, and 3-17.

Thus overall trophic conditions in each lake should be expressed in terms of an algal related index (TSI(AVE)), as given by eq. 3-23, 3-24, or 3-25, depending on the TN/TP ratio in the water, and by consideration of macrophyte coverage separately.

The Florida lakes equations may be compared to those of Carlson (1977). His TSI equations are:

$$TSI(SD) = 10 \times (6 - \ln (SD)/\ln(2)) \quad (3\text{-}26)$$

$$TSI(Chl\ a) = 10 \times (6 - (2.04 - 0.68 \times \ln(Chl\ a)/\ln(2) \quad (3\text{-}27)$$

$$TSI(TP) = 10 \times (6 - \ln(48/TOTP)/\ln(2)). \quad (3\text{-}28)$$

The average TSI based on the above three Carlson TSI's were regressed versus the average TSI based on the Florida TSI equations. The regression line is

$$TSI(Carlson) = 0.70\ TSI(Florida) + 21.3 \quad (3\text{-}29)$$

with an r^2 of 0.78. The comparison is plotted in Figure 3-14.

RESULTS

Using the above equations (3-23, 24, 25) for calculating the Trophic State Index (TSI), the 573 lakes were ranked. The results, shown in Table 3-2, indicate TSI's ranging from a high of 124 (Banana Lake in Seminole County) to a low of -15 (Lake Theresa in Volusia County). Seventy lakes

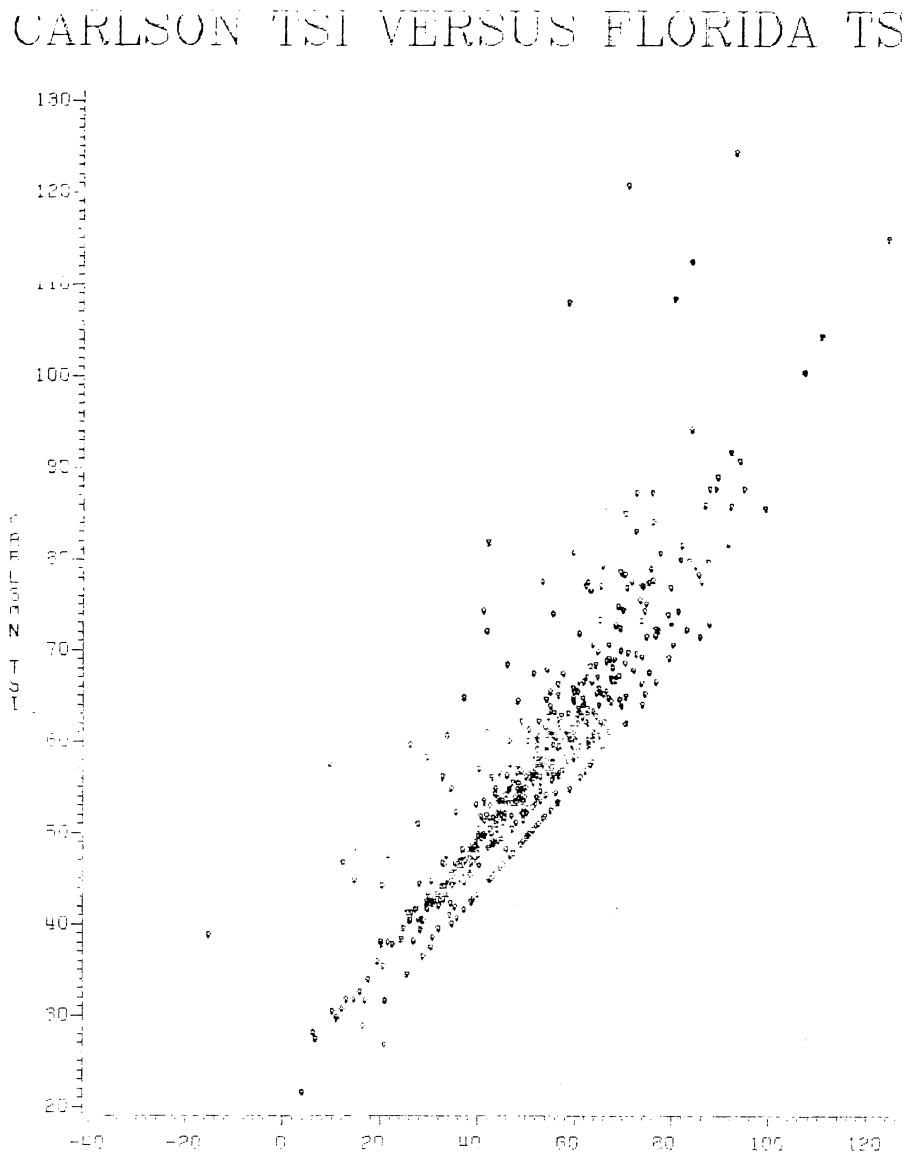

Figure 3-14. Comparison of Carlson TSI and Florida TSI. Apparent "lines" in the figure correspond to groups of lakes using only one of the four possible parameters (Chl *a*, SD, TN, TP) to compute the TSI. In such a case, the Carlson-Florida relationship reduces to one straight line.

Table 3-2. Trophic State Indices - 573 Florida Lakes.

```
* NUMB = MAXIMUM NUMBER OF PHOSPHORUS OR NITROGEN VALUES *
* NPRATIO = NITROGEN / PHOSPHORUS RATIO                  *
* TSI   = TROPHIC STATE INDEX                            *
* TSINUTR = TSI FOR NUTRIENT BALANCED LAKES              *
* TSICL   = TSI BASED ON CHLOROPHYLL A VALUE             *
* TSISD   = TSI BASED ON SECCHI DISK DEPTH               *
* TSITN   = TSI BASED ON NITROGEN FOR NITROGEN LIMITED LK*
* TSITP   = TSI BASED ON PHOSPHORUS FOR PHOS LIMITED LKS *
**********************************************************
```

OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
1	BANANA	SEMINOLE	1	.	124.434	.	.	124.434	.	.
2	GEORGE	BROWARD	1	.	110.694	.	.	110.694	.	.
3	IMESON POND	DUVAL	1	18.4650	107.262	.	.	107.262	.	.
4	DAVIS	ORANGE	1	20.5600	99.263	103.147	108.283	86.356	.	.
5	BANANA	POLK	11	6.3348	94.929	100.371	88.883	.	.	75.5340
6	EFFIE	POLK	13	2.7401	94.045	94.295	94.352	.	.	73.4871
7	WESTON	ORANGE	16	1.1495	93.211	.	.	.	.	73.2107
8	LULU	POLK	41	1.7948	92.243	95.715	71.783	.	.	69.2301
9	HANCOCK	POLK	23	6.1422	92.193	89.267	90.695	.	.	76.6176
10	MAGGIORE	PINELLAS	11	15.8434	91.623	89.672	99.167	86.031	.	.
11	MUNSON	LEON	23	2.2557	89.531	86.572	88.397	.	.	73.6254
12	GRADY	HILLSBOROUGH	1	.	89.122	.	.	89.122	.	.
13	SHIPP	POLK	4	31.1285	87.837	.	88.144	.	87.5302	.
14	SQUIRREL PRAIRIE	HERNANDO	2	14.3221	87.814	.	.	87.814	.	.
15	BEAUCLAIR	LAKE	66	13.8959	87.543	85.471	91.086	86.073	.	.
16	BONNETT	POLK	1	.	86.866	.	.	86.866	.	.
17	APOPKA	ORANGE	265	18.5542	86.103	76.516	98.154	83.641	.	.
18	MAY	POLK	1	36.3750	85.863	.	92.109	.	79.6158	.
19	SCOTT	POLK	20	12.5668	85.521	82.882	92.670	81.010	.	.
20	HOLLINGSWORTH	POLK	10	9.5633	84.766	85.102	81.745	.	.	87.4504
21	LOVELY	ORANGE	16	1.7140	84.055	.	.	.	.	84.0548
22	BROOKER	HILLSBOROUGH	1	6.0980	83.994	.	.	.	.	83.9944
23	JESSUP	SEMINOLE	110	7.4280	83.596	85.841	79.395	.	.	85.5516
24	DONNY	POLK	3	30.1761	83.176	84.183	83.479	.	81.8651	.
25	FRANCIS	MADISON	5	3.8523	82.097	71.584	86.547	.	.	88.1606
26	UNNAMED 20	ALACHUA	8	5.2371	81.820	81.222	85.670	.	.	78.5677
27	DORA	LAKE	159	23.9580	81.383	81.989	85.495	76.666	.	.
28	WEKIVA	ORANGE	9	1.9366	80.607	.	.	.	.	80.6074
29	HOWARD	POLK	26	44.8159	80.418	88.403	83.374	.	69.4761	.
30	CARLTON	ORANGE	14	29.6923	79.982	81.701	81.857	76.389	.	.
31	MARY	SEMINOLE	3	6.9500	79.792	.	107.807	.	.	51.7774
32	JAX	HIGHLANDS	7	23.8768	79.495	.	111.240	47.750	.	.
33	PARKER	POLK	15	16.2468	79.293	80.040	83.466	74.375	.	.
34	SEMINOLE	PINELLAS	15	2.7429	77.633	79.103	78.613	.	.	75.1817
35	ANNIE	POLK	2	16.6197	77.303	.	87.013	67.594	.	.
36	CENTER	OSCEOLA	3	30.4506	76.910	.	83.479	.	70.3400	.
37	CYPRESS	OSCEOLA	64	15.5292	76.838	81.103	81.305	68.104	.	.
38	GRIFFIN	LAKE	275	22.1267	76.751	76.776	80.152	73.325	.	.
39	JESSAMINE	PASCO	1	.	76.229	.	.	76.229	.	.
40	LAWNE	ORANGE	28	1.4393	76.183	75.658	58.594	.	.	74.2975
41	BRANTLEY	SEMINOLE	1	.	76.104	.	116.437	35.771	.	.
42	ALLIGATOR	COLUMBIA	26	3.3236	75.752	77.284	70.883	.	.	79.0873
43	MIRROR	POLK	12	36.9513	75.482	77.854	79.415	.	69.1754	.
44	BURNT POND	ALACHUA	5	4.1234	75.329	75.035	74.341	.	.	76.6104
45	HUNTER	POLK	2	10.5349	74.961	73.863	87.489	63.532	.	.
46	KANAPAHA	ALACHUA	5	5.7680	74.800	65.603	79.618	.	.	79.1795
47	POCKET	ORANGE	1	29.8000	74.672	.	107.807	41.537	.	.
48	MAYO	POLK	8	9.3039	74.517	.	74.849	.	.	74.1845
49	TROUT	LAKE	14	4.1179	74.384	81.574	70.304	.	.	71.2737
50	LEELAND	LEE	1	33.3158	74.102	.	.	.	74.1025	.
51	ELOISE	POLK	38	4.1276	74.053	77.711	66.883	.	.	77.5649
52	CANNON	POLK	30	27.7762	74.041	83.400	75.077	63.647	.	.
53	DRUID	ORANGE	1	48.3333	73.905	73.362	80.794	.	67.5603	.
54	DEE HAVEN BAY	HAMILTON	2	24.2083	73.881	.	.	73.881	.	.
55	DIVENS ARM	ALACHUA	8	3.5519	73.822	72.866	74.772	.	.	73.8287
56	CHARLOTTE	HIGHLANDS	1	.	73.515	.	.	73.515	.	.
57	PAYNES PRAIRIE	ALACHUA	1	1.3492	72.929	.	74.849	.	.	71.0085
58	NEWNANS	ALACHUA	37	17.4545	72.894	74.177	76.453	68.053	.	.

Table 3-2. (continued)

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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
59	CYPRESS POND	COLLIER	26	7.7954	72.6844	.	.	.	.	72.6844
60	EUSTIS	LAKE	250	28.9682	72.2715	68.4088	79.1845	69.2212	.	.
61	LOTUS	SEMINOLE	1	11.2500	71.8182	.	.	71.8182	.	.
62	WAUBERG	ALACHUA	11	13.6084	71.1719	74.2139	67.7349	71.5668	.	.
63	WHITE TURKEY POND	PASCO	1	0.5267	71.0470	.	.	.	.	71.0470
64	ALLIGATOR	PINELLAS	8	2.2861	70.8445	69.0957	80.3182	.	.	63.1195
65	ROY	POLK	1	.	70.7938	.	.	70.7938	.	.
66	DAN	HILLSBOROUGH	3	77.2920	70.7731	.	.	.	70.7731	.
67	CHEROKEE	ORANGE	1	41.8868	70.7054	73.5867	68.6305	.	69.8989	.
68	MARIAN	OSCEOLA	66	17.0764	70.5441	73.4133	69.3404	68.8786	.	.
69	BLACK	ORANGE	8	6.1458	70.5382	.	.	.	.	70.5382
70	MORRISON POND	CITRUS	3	52.8620	70.5335	.	.	.	70.5335	.
71	BERESFORD	VOLUSIA	4	9.7324	70.4252	.	.	.	.	70.4252
72	MORTON	POLK	0	.	70.3804	70.3804	.	.	.	.
73	HORSESHOE	ORANGE	3	14.1507	70.1025	.	.	70.1025	.	.
74	SUMMIT	POLK	7	.	69.9031	.	.	69.9031	.	.
75	DEATON	SUMTER	6	69.3665	69.8433	68.8619	79.7265	.	60.9416	.
76	CLAY	HIGHLANDS	14	10.0041	69.6974	68.7144	63.4516	76.9262	.	.
77	CLARKS	WASHINGTON	2	.	69.5842	.	.	69.5842	.	.
78	THONOTOSASSA	HILLSBOROUGH	119	1.4011	69.5114	74.4540	75.2900	.	.	58.7904
79	TURKEY	ORANGE	9	28.7445	69.4319	.	84.1106	54.7532	.	.
80	HATCHINEHA	OSCEOLA	38	17.0601	69.2974	66.1752	76.5975	65.1197	.	.
81	SHADOW	ORANGE	2	12.2143	69.1318	.	.	69.1318	.	.
82	LINK	POLK	1	.	69.1314	.	.	69.1314	.	.
83	TOHOPEKALIGA	OSCEOLA	165	5.0173	68.8681	80.8282	53.4285	.	.	72.3476
84	CLEAR	ALACHUA	8	4.6421	68.7292	67.5743	67.1668	.	.	71.4467
85	LUCERNE	ORANGE	1	22.3000	68.7153	69.8838	66.6943	69.5679	.	.
86	HAWTHORNE	ALACHUA	8	22.7496	68.6530	72.5040	67.6468	65.8084	.	.
87	MIZE	ALACHUA	8	8.8010	68.4232	69.2804	74.7062	.	.	61.2831
88	CALF POND	ALACHUA	4	10.4208	67.9898	60.1352	70.7002	73.1340	.	.
89	JACKSON	OSCEOLA	3	12.5921	67.8911	59.0858	80.3183	64.2692	.	.
90	HAMILTON	POLK	2	11.7229	67.7963	.	69.4311	66.1615	.	.
91	LITTLE CROOKED	POLK	3	19.0035	67.7083	51.8370	95.0282	56.2598	.	.
92	GEORGE	PUTNAM	22	14.9071	67.6260	69.3700	68.4010	65.1069	.	.
93	DENHAM	LAKE	3	50.5897	67.2749	.	76.1254	.	58.4245	.
94	MIDDLE	PASCO	1	.	67.2562	.	.	67.2562	.	.
95	HORSESHOE	LAKE	2	21.5771	67.2187	.	.	67.2187	.	.
96	BEULAH	POLK	2	30.0000	67.1519	69.8115	68.6305	63.0139	.	.
97	CROOKED	ORANGE	3	21.2416	66.7047	.	.	66.7047	.	.
98	CRESCENT	FLAGLER	20	17.2475	66.6953	65.4908	73.0873	61.5080	.	.
99	LOCHLOOSA	ALACHUA	23	35.3504	66.3293	62.8658	65.8677	.	70.2544	.
100	MYRTLE	DADE	1	20.6667	66.1560	68.4825	66.6943	63.2914	.	.
101	MILLS	SEMINOLE	4	28.1667	66.0945	.	88.9487	43.2403	.	.
102	CHARLES	MARION	2	32.3229	66.0372	.	.	.	66.0372	.
103	CONNIE	POLK	21	2.5088	65.8815	.	61.8626	.	.	69.9004
104	SPRING	POLK	12	30.6505	65.5383	67.8315	59.5238	.	69.2595	.
105	LONG	ORANGE	9	8.4299	65.5038	.	.	.	.	65.5038
106	OKEECHOBEE	OKEECHOBEE	621	14.2655	65.4655	56.8341	71.6850	67.8774	.	.
107	GARFIELD	POLK	3	10.0755	65.3624	.	.	65.3624	.	.
108	CLARKE	PALM BEACH	1	27.0000	65.3205	.	.	65.3205	.	.
109	RUSSELL	OSCEOLA	5	33.0595	65.2451	49.8850	77.4590	.	68.3912	.
110	DICIE	LAKE	15	26.8194	65.1438	.	66.6906	63.5971	.	.
111	DOCTORS	CLAY	25	12.3783	65.1389	64.2956	65.6010	65.5201	.	.
112	DEXTER	VOLUSIA	7	10.0504	65.0876	58.0887	72.1640	65.0102	.	.
113	HICPOCHEE	GLADES	1	8.5305	64.9414	.	61.0626	.	.	68.8202
114	OSBORNE	PALM BEACH	5	9.6600	64.8452	69.8958	60.3352	.	.	64.3045
115	JESSIE	POLK	30	15.0174	64.6543	69.7933	61.6106	62.5590	.	.
116	PORTER	ORANGE	47	23.5154	64.5277	.	75.4802	53.5753	.	.

Table 3-2. (continued)

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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
117	WIMAUMA	HILLSBOROUGH	1	.	64.4509	.	.	64.4509	.	.
118	BAMBI	DADE	1	48.0000	64.2541	72.3642	57.1407	.	63.2576	.
119	LITTLE LAKE HARRIS	LAKE	13	42.1127	64.0424	.	58.6006	.	69.4842	.
120	MARION	POLK	70	47.3285	63.9110	60.9670	67.1284	.	63.6377	.
121	WHITFIELDS PRAIRIE	HERNANDO	2	12.5807	63.9009	.	.	63.9009	.	.
122	REEDY	POLK	84	24.4231	63.8976	65.5662	64.7390	61.3874	.	.
123	CRENSHAW	HILLSBOROUGH	4	40.3904	63.7763	.	.	.	63.7763	.
124	WINTERSET	POLK	26	38.6539	63.7653	68.8555	58.0316	.	64.4090	.
125	GUM SLOUGH POND	MONROE	4	21.5177	63.6909	.	.	63.6909	.	.
126	COOTER POND7	ALACHUA	5	8.7135	63.5387	60.5862	61.8563	.	.	68.1737
127	FISH & MARK	OSCEOLA	1	7.9667	63.4301	.	.	.	.	63.4301
128	GIBSON	POLK	18	5.3597	63.3165	57.0809	68.6783	.	.	64.1904
129	FISH	OSCEOLA	1	7.9133	63.2857	.	.	.	.	63.2857
130	UNNAMED	MARION	2	80.2984	63.2575	.	.	.	63.2575	.
131	HARRIS	LAKE	37	41.0480	63.0923	60.1475	64.7260	.	64.4035	.
132	JOEL	OSCEOLA	2	43.0351	63.0053	61.3110	72.4473	.	55.2577	.
133	MARY JANE	ORANGE	66	32.9423	62.9193	51.5367	75.2644	.	61.9567	.
134	MAUDE	POLK	1	32.0588	62.8661	66.0153	63.1608	.	59.4221	.
135	HIGHLAND	ORANGE	1	23.8235	62.8305	68.2822	70.7002	49.5090	.	.
136	FISH & COLLEEN	OSCEOLA	1	7.2313	62.7354	.	.	.	.	62.7354
137	SEBRING	HIGHLANDS	5	11.5557	62.6779	41.9838	84.5790	61.4708	.	.
138	SOUTH	LAKE	3	20.7373	62.6573	.	62.6846	62.6300	.	.
139	SALT	PINELLAS	1	.	62.6348	.	.	62.6348	.	.
140	POINSETT	BREVARD	43	24.4030	62.5434	57.2462	69.0374	61.3467	.	.
141	HOWELL	SEMINOLE	30	1.0879	62.3045	74.2591	41.9916	.	.	70.6627
142	LIPSEY	HILLSBOROUGH	3	53.0786	62.2531	.	.	.	62.2531	.
143	ROWELL	BRADFORD	13	6.2998	62.1146	60.6185	69.0440	.	.	56.6812
144	IVANHOE	ORANGE	9	11.9087	62.0860	61.6410	61.5388	63.0781	.	.
145	HAINES	POLK	16	6.6911	61.8161	58.7574	63.7073	.	.	62.9835
146	GLENADA	HIGHLANDS	7	10.2416	61.7697	64.6113	55.4076	65.2901	.	.
147	ARIANA	POLK	9	18.7730	61.7043	62.0850	61.8326	61.1952	.	.
148	AJAY	OSCEOLA	4	17.5537	61.6588	.	59.5238	63.7938	.	.
149	SWOOPE	POLK	7	28.3449	61.5664	.	54.0542	69.0786	.	.
150	TURKEY FORD	HILLSBOROUGH	1	43.7044	61.2041	.	.	.	61.2041	.
151	SILVER	ORANGE	1	38.6667	61.1037	69.7022	57.1407	.	56.4683	.
152	HOURGLASS	ORANGE	1	25.5000	61.0876	.	.	61.0876	.	.
153	MATTIE	POLK	8	1.8064	60.9887	51.6132	70.8253	.	.	60.5275
154	LITTLE LAKE GEORGE	PUTNAM	3	16.1911	60.8752	.	.	60.8752	.	.
155	SAWGRASS	PINELLAS	2	15.4737	60.7323	.	60.0000	61.4646	.	.
156	IDYLWILD	POLK	13	19.9734	60.6254	67.6008	57.2768	56.9986	.	.
157	LITTLE BONNET	HIGHLANDS	1	.	60.6220	.	.	60.6220	.	.
158	EAGLE	POLK	6	61.3863	60.6180	62.0113	67.9711	.	51.8716	.
159	SOUTH	BREVARD	16	27.6787	60.5478	75.2643	35.4800	70.8989	.	.
160	SAWGRASS	BREVARD	5	26.4000	60.3662	.	66.6906	54.0419	.	.
161	PUZZLE	VOLUSIA	14	.	60.3474	.	.	60.3474	.	.
162	CHUNKY POND	LEVY	5	16.9841	60.2512	.	.	60.2512	.	.
163	ROCK	ORANGE	1	34.5238	59.9941	64.5765	50.9769	.	64.4090	.
164	PRESTON	OSCEOLA	2	40.0635	59.8725	57.5983	64.3994	.	57.6197	.
165	SEMINOLE	SEMINOLE	3	11.7848	59.8317	50.7206	81.4686	47.3060	.	.
166	PEARL	SEMINOLE	5	19.2215	59.8262	.	.	59.8262	.	.
167	MONROE	VOLUSIA	69	14.4001	59.8031	71.5106	29.8682	78.0304	.	.
168	LITTLE LAKE JACKSON	HIGHLANDS	1	16.5714	59.7804	.	.	59.7804	.	.
169	TIGER	POLK	4	19.6140	59.7494	56.8547	70.6572	51.7363	.	.
170	ROCHELLE	POLK	7	35.1635	59.7360	57.2554	60.7485	.	61.2042	.
171	FISH	LAKE	1	.	59.7146	.	.	59.7146	.	.
172	UNDERHILL	ORANGE	38	7.7743	59.6006	65.3632	40.0522	.	.	73.3865
173	MYSTIC	LIBERTY	1	5.0000	59.6000	.	.	.	.	59.6000
174	AGNES	POLK	4	14.4636	59.5093	58.9622	64.2930	55.2728	.	.

Table 3-2. (continued)

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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
175	ARBUCKLE	POLK	51	29.5125	59.3220	59.0049	64.0441	54.9169	.	.
176	WASHINGTON	BREVARD	44	22.0407	59.2688	58.7827	57.5275	61.4961	.	.
177	PRETTY	HILLSBOROUGH	2	.	59.1931	.	.	59.1931	.	.
178	DOWLING	PASCO	1	59.1289	58.9549	.	.	.	58.9549	.
179	KISSIMMEE	OSCEOLA	91	24.6702	58.9022	62.1376	54.0757	60.4932	.	.
180	LONG POND	LEVY	2	19.6552	58.8587	50.0862	68.6305	57.8593	.	.
181	LINDSEY	HERNANDO	9	25.6383	58.8249	62.0518	53.4558	60.9671	.	.
182	JOSEPHINE	HIGHLANDS	14	14.7256	58.8037	50.3621	69.4609	56.5880	.	.
183	ORANGE	ALACHUA	51	23.1465	58.6582	59.9419	60.0689	55.9637	.	.
184	VAN DYKE	HILLSBOROUGH	6	20.5528	58.6537	.	.	58.6537	.	.
185	U MIAMI POND	MONROE	2	0.7147	58.6438	.	.	.	.	58.6438
186	PIERCE	POLK	28	35.8218	58.6275	60.9009	55.0192	.	59.7624	.
187	HELEN BLAZES	BREVARD	6	19.1238	58.1495	.	58.0601	58.2389	.	.
188	EATON	MARION	5	17.9252	58.1364	33.4993	85.0874	55.8225	.	.
189	SILVER	POLK	10	.	57.9757	.	.	57.9757	.	.
190	WINDER	BREVARD	20	22.2279	57.6223	.	59.2749	55.9697	.	.
191	SYLVAN	ORANGE	1	10.1875	57.5276	.	.	57.5276	.	.
192	MINNIE	SEMINOLE	2	.	57.5238	.	.	57.5238	.	.
193	PALATKA POND	ALACHUA	5	32.6904	57.5123	51.9447	57.6912	.	62.9009	.
194	CULLY POND	WASHINGTON	2	.	57.2308	.	.	57.2308	.	.
195	ELIZABETH	ALACHUA	5	17.3704	57.1611	43.7540	72.4655	55.2639	.	.
196	LITTLE ORANGE	ALACHUA	5	9.8080	57.0611	45.3463	61.8563	.	.	63.9808
197	LITTLE RED WATER	HIGHLANDS	4	13.3141	56.8071	57.1231	69.1535	44.1446	.	.
198	MIONA	SUMTER	7	36.2970	56.7767	53.2852	56.8372	.	60.2055	.
199	SUWANNEE	PASCO	3	16.7452	56.7379	60.6106	53.1727	56.4305	.	.
200	TROUT	OSCEOLA	3	37.5349	56.7311	53.7353	61.0626	.	55.3953	.
201	GRASSY	LAKE	1	.	56.6917	.	.	56.6917	.	.
202	WATERMELON POND	ALACHUA	5	18.9063	56.6764	54.3426	60.6061	55.0804	.	.
203	CRUM	HILLSBOROUGH	3	44.4388	56.6424	.	.	.	56.6424	.
204	LOWERY	POLK	35	37.9382	56.6225	51.2226	57.2163	.	61.4206	.
205	EOLA	ORANGE	58	4.7645	56.5938	61.4374	57.2457	.	.	51.0983
206	TUSCAWILLA	ALACHUA	2	3.5254	56.5183	47.7014	60.0000	.	.	61.8534
207	BLUE CYPRESS	INDIAN RIVER	105	18.4812	56.5176	42.8862	65.8316	60.8351	.	.
208	KOON	LAFAYETTE	4	17.7772	56.4876	42.9569	63.5297	62.9763	.	.
209	PEARL	ORANGE	2	42.0000	56.4683	.	.	.	56.4683	.
210	SUSANNAH	ORANGE	1	41.3333	56.4683	.	.	.	56.4683	.
211	MCLEOD	POLK	3	47.4886	56.4682	.	.	.	56.4682	.
212	MARION	HILLSBOROUGH	1	76.0000	56.1065	.	75.4802	.	36.7328	.
213	TRAFFORD	COLLIER	21	19.4265	55.9705	61.4922	37.6055	68.8138	.	.
214	MIRROR	SEMINOLE	1	.	55.8010	.	.	55.8010	.	.
215	MAITLAND	ORANGE	33	7.4377	55.7675	48.5420	45.0628	.	.	73.6976
216	YALE	LAKE	54	35.3618	55.6904	58.2575	48.1188	.	60.6949	.
217	HARTRIDGE	POLK	18	33.1065	55.6702	60.5724	49.5370	.	56.9013	.
218	ELBERT	POLK	1	.	55.6538	.	.	55.6538	.	.
219	JULIANA	POLK	8	28.2480	55.6274	63.8029	53.5122	49.5670	.	.
220	ISTOKPOGA	HIGHLANDS	100	17.0055	55.5771	55.7903	49.2370	61.5021	.	.
221	WIRE	POLK	1	11.4634	55.5752	65.1894	42.3664	59.1699	.	.
222	ADAIR	ORANGE	1	20.7742	55.5578	.	.	55.5578	.	.
223	HORSESHOE	SEMINOLE	6	20.8904	55.5520	52.6624	58.8994	55.0941	.	.
224	SPIRIT	POLK	3	.	55.5321	.	54.0542	57.0100	.	.
225	CATHERINE	SEMINOLE	1	.	55.4978	.	88.9487	22.0470	.	.
226	BRICK	OSCEOLA	5	26.5432	55.4609	52.2795	56.6645	57.4386	.	.
227	SEARS	POLK	3	.	55.4122	.	54.0542	56.7702	.	.
228	MYRTLE	OSCEOLA	3	38.5125	55.3830	55.7959	56.6645	.	53.6886	.
229	HARVEY	HILLSBOROUGH	2	42.9784	55.1886	.	.	.	55.1886	.
230	LENA	POLK	5	85.5850	55.1193	.	.	.	55.1193	.
231	TALQUIN	GADSDEN	41	5.1899	55.0627	51.3646	62.6283	.	.	51.1952
232	LAFAYETTE	LEON	3	12.7714	55.0087	.	.	55.0087	.	.

Table 3-2. (continued)

```
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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
233	HENRY	POLK	2	.	55.0035	.	.	55.0035	.	.
234	WAGES POND	WASHINGTON	2	.	54.9735	.	.	54.9735	.	.
235	HORSE	HERNANDO	2	10.1889	54.9653	.	.	54.9653	.	.
236	BASS	ORANGE	1	29.7500	54.8287	.	.	54.8287	.	.
237	WIMICO	GULF	12	17.6403	54.6411	36.2330	79.7413	47.9490	.	.
238	DEXTER	POLK	3	.	54.6339	.	.	54.6339	.	.
239	ASHBY	VOLUSIA	6	22.5186	54.5959	51.8230	66.2805	45.6842	.	.
240	GRANDIN	PUTNAM	4	14.2024	54.5688	.	.	54.5688	.	.
241	DARSEY	POLK	2	.	54.5205	.	.	54.5205	.	.
242	WATERTOWN	COLUMBIA	8	16.6625	54.3991	55.9471	46.7651	60.4852	.	.
243	SILVER	LAKE	2	.	54.3637	.	.	54.3637	.	.
244	MUD	POLK	2	.	54.3636	.	.	54.3636	.	.
245	UNNAMED 27	ALACHUA	5	2.2424	54.3226	64.2707	47.8360	.	.	50.8610
246	BEAR	SANTA ROSA	10	4.4947	54.2541	70.1629	45.7128	.	.	46.8865
247	EGYPT	HILLSBOROUGH	1	18.8235	54.2099	63.3236	52.1291	47.1769	.	.
248	MARGARET	PUTNAM	3	35.5083	54.1837	45.2933	70.2278	.	47.0300	.
249	NEFF	HERNANDO	3	22.1256	54.1588	.	.	54.1588	.	.
250	STARVATION	HILLSBOROUGH	8	30.3997	54.0649	.	.	.	54.0649	.
251	BYSTRE	HERNANDO	1	15.7345	54.0462	.	.	54.0462	.	.
252	CYPRESS POND	MONROE	2	39.2930	53.6886	.	.	.	53.6886	.
253	RED BEACH	HIGHLANDS	8	16.4515	53.5608	55.1010	59.3519	46.2296	.	.
254	STARKE	ORANGE	1	26.0000	53.4949	.	.	53.4949	.	.
255	ELEVENTH HOLE	SEMINOLE	2	4.6688	53.3286	.	.	.	.	53.3286
256	DAMON	HIGHLANDS	3	21.6923	53.2384	.	.	53.2384	.	.
257	CONLIN	OSCEOLA	1	46.4445	53.1377	.	61.8627	.	44.4128	.
258	ADAHO	PUTNAM	5	25.3672	53.1332	40.2611	68.2331	50.9053	.	.
259	HOLDENS	ORANGE	1	25.0000	53.1066	.	.	53.1066	.	.
260	BLUE LAGOON	DADE	1	47.1429	53.0689	57.8502	53.3057	.	48.0507	.
261	ZEBRA	HERNANDO	1	29.3527	53.0251	.	.	53.0251	.	.
262	UNNAMED 10	ALACHUA	8	14.0035	52.7796	50.7651	48.8531	58.5206	.	.
263	MANATEE RESERVOIR	MANATEE	7	5.2131	52.7098	45.3815	54.5304	.	.	58.2175
264	CLEAR	ORANGE	1	24.0000	52.7024	.	.	52.7024	.	.
265	FANNIE	POLK	4	30.9896	52.6842	.	.	.	52.6842	.
266	HIAWATHA	LAKE	29	18.2572	52.6152	.	52.0075	53.2229	.	.
267	BALDWIN	ORANGE	3	16.2550	52.5921	61.0171	48.5102	48.2491	.	.
268	SPRING	HERNANDO	3	17.5833	52.5822	.	.	52.5822	.	.
269	IRMA	ORANGE	2	7.1806	52.4622	48.7565	57.1407	.	.	51.4893
270	BEAUTY	ORANGE	1	15.1890	52.4578	.	.	52.4578	.	.
271	MANN	ORANGE	3	23.3567	52.4335	.	.	52.4335	.	.
272	GUM	POLK	1	.	52.4039	.	.	52.4039	.	.
273	JACKSON	HILLSBOROUGH	1	27.0270	52.3815	.	.	52.3815	.	.
274	COON	OSCEOLA	2	37.1591	52.3541	52.5827	55.3310	.	49.1486	.
275	FRANCIS	HIGHLANDS	55	23.1271	52.3146	61.0412	42.9611	52.9414	.	.
276	WHISTLER	POLK	2	48.3652	52.1655	.	.	.	52.1655	.
277	BIG BASS	MARION	7	73.0509	52.0571	.	57.2150	.	46.8993	.
278	JEFFORDS	ALACHUA	5	5.9653	52.0299	46.2309	60.6061	.	.	49.2528
279	WEOHYAKAPKA	POLK	69	16.6117	51.8740	46.9070	58.9239	51.7911	.	.
280	SHERWOOD	ORANGE	2	.	51.7020	.	.	51.7020	.	.
281	SMART	POLK	2	.	51.7020	.	.	51.7020	.	.
282	MOLLY	VOLUSIA	2	28.0000	51.6647	.	.	51.6647	.	.
283	UMATILLA	LAKE	8	39.8598	51.6351	.	.	.	51.6351	.
284	SYLVIA	BROWARD	1	8.6250	51.6221	.	.	.	.	51.6221
285	LOUISA	LAKE	31	32.8268	51.5573	40.1008	61.8122	.	52.7589	.
286	DEESON	POLK	4	24.0811	51.4967	.	.	51.4967	.	.
287	DIAS	VOLUSIA	3	12.1337	51.4140	43.3293	59.6685	51.2441	.	.
288	JOHNS	ORANGE	12	16.1947	51.3680	46.7182	54.8169	52.5688	.	.
289	MYRTLE	POLK	2	13.0538	51.2753	.	.	51.2753	.	.
290	STAR	POLK	6	12.9437	51.1068	44.9746	51.1759	57.1700	.	.

Table 3-2. (continued)

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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
291	PANASOFFKEE	SUMTER	55	16.6644	51.0366	51.0511	53.0801	48.9785	.	.
292	PROSPECT	BROWARD	4	32.2271	50.8720	.	.	.	50.8720	.
293	BEVILLES POND	ALACHUA	5	5.9742	50.7432	60.4339	38.6115	.	.	53.1843
294	LAGOON	ORANGE	12	13.6047	50.6056	.	.	50.6056	.	.
295	GRASSY	HIGHLANDS	4	45.5714	50.5372	.	.	.	50.5372	.
296	MOUNTAIN	HERNANDO	3	37.8545	50.4565	44.0463	52.9083	.	54.4148	.
297	SUSAN	SUWANNEE	3	61.6287	50.3611	48.5286	64.6801	.	37.8746	.
298	SAMPSON	BRADFORD	28	13.8359	50.1993	44.2688	51.5351	54.7939	.	.
299	SUE	ORANGE	8	61.3739	50.1977	.	.	.	50.1977	.
300	ROSALIE	POLK	56	18.7550	50.1647	42.4243	56.3300	51.7398	.	.
301	ALFRED	POLK	3	69.9930	50.1596	.	.	.	50.1596	.
302	SUGGS	PUTNAM	8	22.6990	49.9609	36.9415	62.7470	50.1943	.	.
303	SOUTH BASS	DADE	1	42.4000	49.8893	49.6663	47.8360	.	52.1655	.
304	DOSSON	HILLSBOROUGH	2	25.5374	49.8166	.	.	49.8166	.	.
305	GENTRY	OSCEOLA	9	24.6609	49.6837	41.8964	62.2476	44.9071	.	.
306	PASADENA	PASCO	3	29.5058	49.6273	47.9886	53.7084	47.1849	.	.
307	HART	ORANGE	6	59.3694	49.5651	37.7170	66.9879	.	43.9903	.
308	PIERCE	HILLSBOROUGH	1	40.2667	49.5543	.	49.4297	.	47.6709	.
309	GEORGIA	ORANGE	8	50.3274	49.5538	.	.	.	49.5538	.
310	DORR	LAKE	17	14.8247	49.3715	42.5195	60.1909	45.4042	.	.
311	ANN	POLK	2	.	49.2591	.	.	49.2591	.	.
312	UPPER MYAKKA	SARASOTA	9	3.9480	49.1810	45.2243	38.9133	.	.	63.4053
313	BUTLER	UNION	10	20.5470	49.1131	47.3059	57.7408	42.2925	.	.
314	MOSS LEE	PUTNAM	5	19.7285	49.0868	46.3424	48.2387	52.6792	.	.
315	ELLEN	HILLSBOROUGH	1	34.3478	49.0531	54.5952	42.3664	.	50.1977	.
316	THOMAS	POLK	13	24.1410	49.0487	.	47.3598	50.7375	.	.
317	LADY	LAKE	8	38.1800	49.0462	.	.	.	49.0462	.
318	ALTHO	ALACHUA	15	12.7826	48.8923	43.6923	52.1314	50.8531	.	.
319	CAMP	PASCO	3	24.7399	48.8515	.	.	48.8515	.	.
320	OYSTER	WALTON	3	16.2823	48.6945	36.8026	63.5335	45.7474	.	.
321	MINNEHAHA	ORANGE	6	15.0200	48.6699	48.0069	45.1195	52.8834	.	.
322	EAST TOHOPEKALIGA	OSCEOLA	41	15.5621	48.4977	42.9828	50.0627	52.4406	.	.
323	KILLARNEY	ORANGE	6	9.9277	48.4959	54.1478	38.6362	.	.	52.7037
324	TSALA APOPKA(F)	CITRUS	10	10.9460	48.4683	37.6356	52.9799	54.7894	.	.
325	BUGG SPRING	LAKE	1	9.1539	48.4373	.	.	.	.	48.4373
326	VIRGINIA	ORANGE	15	11.1405	48.4132	59.7696	34.5376	50.9324	.	.
327	BRYANT	MARION	1	26.6667	48.2220	.	.	48.2220	.	.
328	FRANCIS	ORANGE	4	26.3695	48.1111	.	.	48.1111	.	.
329	WALL	PUTNAM	4	33.0609	48.0603	37.7201	50.9969	.	55.4639	.
330	TSALA APOPKA(I)	CITRUS	7	21.1609	47.9450	50.7282	44.3871	48.7196	.	.
331	CHURCH	LAKE	9	48.6843	47.5223	.	.	.	47.5223	.
332	TARPON	PINELLAS	127	11.8294	47.4111	44.5617	39.3676	58.3041	.	.
333	FAIRY	SEMINOLE	3	24.2267	47.2720	.	.	47.2720	.	.
334	OKAHUMPKA	SUMTER	7	46.7534	47.2510	39.5538	55.0066	.	47.1925	.
335	PALESTINE	UNION	7	22.7000	47.2026	41.8335	61.3515	38.4230	.	.
336	FERGUSON	PASCO	2	85.3130	46.8995	.	.	.	46.8995	.
337	PITTS POND	LAKE	2	57.4100	46.8995	.	.	.	46.8995	.
338	UNNAMED LAKE	HILLSBOROUGH	1	55.3043	46.8993	.	.	.	46.8993	.
339	MUD	MARION	1	41.7742	46.8993	.	.	.	46.8993	.
340	FLAT	LAKE	1	.	46.8221	.	.	46.8221	.	.
341	SCHIMMERHORN	LAKE	1	.	46.8221	.	.	46.8221	.	.
342	TUTUOLA	LAKE	1	13.2500	46.8213	.	.	46.8213	.	.
343	TRIPLET	SEMINOLE	1	13.2500	46.8213	.	.	46.8213	.	.
344	JACKSON	LEON	169	4.0658	46.6855	43.3970	44.1609	.	.	52.4905
345	ANOKA	HIGHLANDS	1	.	46.6350	.	.	46.6350	.	.
346	RED WATER	HIGHLANDS	1	.	46.6350	.	.	46.6350	.	.
347	WALES	POLK	12	20.6469	46.4007	54.5604	38.0802	46.5535	.	.
348	HARNEY	VOLUSIA	22	14.7073	46.2325	55.6458	12.4205	70.6230	.	.

Table 3-2. (continued)

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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
349	ALICE	ALACHUA	8	0.637	46.1997	43.4248	47.7424	.	.	47.4318
350	TENNESSEE	POLK	1	.	46.0627	.	.	46.0627	.	.
351	DISSTON	FLAGLER	4	123.290	46.0393	25.7592	84.5790	.	27.7798	.
352	CLEAR	PASCO	10	18.892	45.9729	51.2805	39.4889	47.1492	.	.
353	LITTLE SANTA FE	ALACHUA	5	21.050	45.8301	38.5226	49.4803	49.4873	.	.
354	OTTER	WAKULLA	3	17.446	45.7883	32.1318	62.0678	43.1633	.	.
355	OCKLAWAHA	MARION	63	19.430	45.5520	50.1272	37.9364	48.5922	.	.
356	MOODY	PASCO	2	39.728	45.4809	.	.	.	45.4809	.
357	BRADFORD	LEON	6	18.280	45.4674	48.2797	45.8977	42.2225	.	.
358	MINNEHAHA	LAKE	36	27.653	45.4036	44.5627	47.8647	43.7835	.	.
359	WEBB AREA	CHARLOTTE	4	14.088	45.3086	46.1936	39.4889	50.2432	.	.
360	ROSALIE	HILLSBOROUGH	1	20.656	45.2688	.	43.6050	46.9327	.	.
361	LETTA	HIGHLANDS	15	10.764	45.2449	38.0476	52.4990	45.1881	.	.
362	HICKORY POND	ALACHUA	5	23.252	45.1463	44.2761	42.7016	48.4611	.	.
363	CREWS	PASCO	6	33.715	45.0203	35.2009	48.1712	.	51.6807	.
364	SANTA FE	ALACHUA	41	13.392	44.9024	45.6189	37.6474	51.4389	.	.
365	BRIGHT	LAKE	1	.	44.8624	.	.	44.8624	.	.
366	MARY	LAKE	1	.	44.8624	.	.	44.8624	.	.
367	SWATARA	LAKE	1	.	44.8624	.	.	44.8624	.	.
368	OTIS	POLK	5	35.723	44.8458	.	.	.	44.8458	.
369	ROSALIE	OSCEOLA	1	17.844	44.7666	.	44.0474	45.4837	.	.
370	CROSBY	BRADFORD	13	6.421	44.6857	39.0208	42.5522	.	.	52.4840
371	CHARLES	HILLSBOROUGH	6	20.623	44.4988	.	.	44.4988	.	.
372	OCEAN POND	BAKER	28	9.727	44.4469	36.6124	52.4741	.	.	44.2541
373	MAGDALENE	HILLSBOROUGH	27	35.402	44.3534	39.6850	45.8999	.	47.4752	.
374	OSCEOLA	ORANGE	3	70.698	44.3413	.	-0.0610	.	88.7437	.
375	TRACY	POLK	11	15.803	44.3216	46.3794	34.1478	52.4377	.	.
376	HUNTLEY	HIGHLANDS	5	21.432	44.2294	41.2218	43.6271	47.8394	.	.
377	STEMPER	HILLSBOROUGH	3	25.957	44.0228	.	.	44.0228	.	.
378	META	ALACHUA	5	26.649	44.0144	38.4587	40.4302	53.1543	.	.
379	PARKER	PASCO	2	13.983	43.8535	.	.	43.8535	.	.
380	EMMA	LAKE	10	14.832	43.7672	.	36.7932	50.7413	.	.
381	APSHAWA	LAKE	5	34.493	43.7480	.	.	.	43.7480	.
382	SAXON	PASCO	2	45.484	43.7479	.	.	.	43.7479	.
383	SKY	DADE	1	51.053	43.5412	44.1903	40.7444	.	45.6888	.
384	WEST CROOKED	LAKE	8	41.289	43.4572	.	.	.	43.4572	.
385	LITTLE LAKE WEIR	MARION	7	47.246	43.4423	41.2762	43.9005	.	45.1503	.
386	LOUISE	DADE	1	54.348	43.4061	40.8150	39.2056	.	50.1977	.
387	CHERRY	LAKE	13	15.037	43.3817	43.4036	42.9343	43.8072	.	.
388	JENNIE	SEMINOLE	2	.	43.3358	.	.	43.3358	.	.
389	LIZZIE	OSCEOLA	4	32.248	43.1393	.	34.5365	.	51.7421	.
390	SYLVAN	SEMINOLE	4	.	43.0734	.	.	43.0734	.	.
391	KEYSTONE	HILLSBOROUGH	3	22.533	43.0541	.	.	43.0541	.	.
392	OLA	ORANGE	8	6.277	43.0093	47.7014	34.9745	.	.	46.3520
393	HELENE	POLK	4	33.332	42.9770	.	.	.	42.9770	.
394	LOUISE	SUWANNEE	3	27.570	42.9051	43.7046	41.6347	43.3761	.	.
395	HOPE	ORANGE	50	31.750	42.7544	.	35.4411	.	50.0678	.
396	LUCY	LAKE	9	19.075	42.7317	.	33.5739	51.8895	.	.
397	BAY	LAKE	2	.	42.6716	.	.	42.6716	.	.
398	GEORGES	PUTNAM	10	18.356	42.6417	30.2797	.	55.0036	.	.
399	GOOSE	PASCO	1	62.040	42.5967	.	.	.	42.5967	.
400	HANCOCK	PASCO	1	63.193	42.5967	.	.	.	42.5967	.
401	DEFUNEAK	WALTON	2	31.200	42.5966	.	.	.	42.5966	.
402	CHARITY	ORANGE	50	45.435	42.5748	.	36.8406	.	48.3011	.
403	CARR	LEON	3	30.168	42.3629	47.9427	39.7078	.	39.4362	.
404	WEIR	MARION	55	45.313	42.3359	43.0197	37.6875	.	46.3005	.
405	LANTERN	COLLIER	2	2.059	42.2443	.	.	.	.	42.2443
406	SPRING	SEMINOLE	18	1.516	42.0282	.	7.8408	.	.	76.2156

Table 3-2. (continued)

```
* NUMB = MAXIMUM NUMBER OF PHOSPHORUS OR NITROGEN VALUES *
* NPRATIO = NITROGEN / PHOSPHORUS RATIO                  *
* TSI   = TROPHIC STATE INDEX                            *
* TSINUTR = TSI FOR NUTRIENT BALANCED LAKES              *
* TSICL   = TSI BASED ON CHLOROPHYLL A VALUE             *
* TSISD   = TSI BASED ON SECCHI DISK DEPTH               *
* TSITN   = TSI BASED ON NITROGEN FOR NITROGEN LIMITED LK*
* TSITP   = TSI BASED ON PHOSPHORUS FOR PHOS LIMITED LKS *
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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
407	MOUNTAIN	POLK	4	8.6385	42.0231				.	42.0231
408	ANNIE	HIGHLANDS	61	18.6302	42.0221	54.8019	19.2639	52.0005	.	.
409	PLACID	HIGHLANDS	39	21.3524	41.8738	46.0467	37.9357	41.6391	.	.
410	ADA	SEMINOLE	1	.	41.6726	.	.	41.6726	.	.
411	BATON	VOLUSIA	1	13.7000	41.6284	.	.	41.6284	.	.
412	CHERRY	MADISON	3	10.1893	41.5442	44.0945	41.7554	38.7826	.	.
413	ALLIGATOR	OSCEOLA	63	24.3780	41.5277	34.4884	42.7493	47.3454	.	.
414	BUFFUM	POLK	6	6.6602	41.4965	31.2209	53.9690	.	.	39.2997
415	UNNAMED 25	ALACHUA	5	20.8511	41.3292	31.8308	42.0347	50.1220	.	.
416	TSALA APOPKA(H)	CITRUS	24	20.1895	41.3078	37.8041	37.4089	48.7104	.	.
417	MABEL	ORANGE	9	3.3166	41.2537	.	.	.	.	41.2537
418	HAMPTON	BRADFORD	5	23.4228	40.9524	41.9187	36.3463	44.5923	.	.
419	TSALA APOPKA	CITRUS	85	12.2340	40.8403	32.9713	28.2316	61.3181	.	.
420	HUNTERS	HERNANDO	1	.	40.7118	.	.	40.7118	.	.
421	BLUE	PASCO	1	.	40.7118	.	.	40.7118	.	.
422	CORN LANDING	FRANKLIN	3	43.9864	40.5436	31.5118	53.3057	.	36.8134	.
423	KARICK	OKALOOSA	8	3.5836	40.4286	41.9718	36.1535	.	.	43.1604
424	MOON	PASCO	11	13.1961	40.3663	34.3008	36.2914	50.5067	.	.
425	TOWNSEND POND	LAFAYETTE	4	72.0228	40.3158	41.5792	51.8738	.	27.4943	.
426	JACKSON	WALTON	8	21.9002	40.2290	41.0408	39.1224	40.5237	.	.
427	ISLAND FORD	HILLSBOROUGH	1	25.9677	40.1741	.	.	40.1741	.	.
428	SIRENA	HIGHLANDS	9	22.0298	40.1245	.	39.4890	40.7600	.	.
429	CHURCH	HILLSBOROUGH	4	35.3042	40.1101	.	.	.	40.1101	.
430	DOWN	ORANGE	21	29.9343	40.0912	18.0752	45.2580	56.9404	.	.
431	JOHNSON	CLAY	7	12.3836	39.8276	34.7158	50.3375	34.4294	.	.
432	CONWAY	ORANGE	25	7.7093	39.7876	35.5822	32.0273	.	.	51.7534
433	NAN	ORANGE	1	26.8421	39.6445	44.4037	35.0127	39.5172	.	.
434	ARETTA	POLK	8	19.7895	39.6109	45.9209	31.1560	41.7558	.	.
435	FAITH	ORANGE	50	30.9649	39.6092	.	31.6077	.	47.6106	.
436	BEAR	SEMINOLE	3	.	39.5940	.	.	39.5940	.	.
437	GOLDEN	SEMINOLE	2	.	39.5727	.	33.2597	45.8857	.	.
438	CLINCH	POLK	6	18.8053	39.4619	45.5201	38.3296	34.5360	.	.
439	HOBBS	HILLSBOROUGH	3	27.9841	39.2439	.	.	39.2439	.	.
440	CLEARWATER	ALACHUA	5	47.4138	39.1932	31.1028	36.0748	.	50.4020	.
441	SADDLEBACK	HILLSBOROUGH	5	39.7485	39.1056	.	.	.	39.1056	.
442	PATE POND	WASHINGTON	3	21.1041	38.9547	41.7783	43.6915	31.3944	.	.
443	LITTLE LAKE BRYAN	ORANGE	6	.	38.9519	.	.	38.9519	.	.
444	IAMONIA	LEON	5	38.8235	38.9006	47.3318	35.9948	.	33.3752	.
445	CARROLL	HILLSBOROUGH	7	26.9032	38.8659	46.9228	28.0587	41.6162	.	.
446	FLORENCE	LAKE	2	70.9845	38.7613	.	.	.	38.7613	.
447	CALM	HILLSBOROUGH	5	36.9206	38.7611	.	.	.	38.7611	.
448	JUNIPER	WALTON	3	19.6622	38.7586	44.9576	34.1555	37.1627	.	.
449	THREE ISLAND	VOLUSIA	1	24.7895	38.7296	.	.	38.7296	.	.
450	SMITH	WASHINGTON	3	34.6341	38.6876	29.8660	48.2838	.	37.9131	.
451	LOTELA	HIGHLANDS	12	32.1164	38.6445	34.6953	29.4274	.	51.8108	.
452	ROUND	HILLSBOROUGH	5	28.6729	38.4998	.	.	38.4998	.	.
453	DEAD	GULF	18	22.4633	38.4853	37.5462	40.9508	36.9588	.	.
454	ANGELO	HIGHLANDS	1	.	38.2281	.	.	38.2281	.	.
455	LELIA	HIGHLANDS	1	.	38.2281	.	.	38.2281	.	.
456	CLEARWATER	POLK	1	.	38.2281	.	.	38.2281	.	.
457	PRAIRIE	SEMINOLE	1	.	37.6918	.	.	37.6918	.	.
458	SANTA FE	WAKULLA	3	21.9388	37.5826	41.1728	36.9585	34.6165	.	.
459	ELLEN	WAKULLA	3	26.7349	37.3578	33.4490	48.0591	30.5654	.	.
460	VENUS	ORANGE	1	70.5937	37.3303	.	.	.	37.3303	.
461	SWIFTS CREEK POND	UNION	1	.	37.3206	.	.	37.3206	.	.
462	STILL POND	ALACHUA	5	53.4375	37.3150	28.9186	46.6594	.	36.3669	.
463	MARKHAM	SEMINOLE	1	5.3000	37.2326	.	.	.	.	37.2326
464	KATHARINE	DADE	1	22.1053	37.0743	34.4224	39.2056	37.5950	.	.

Table 3-2. (continued)

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* NPRATIO = NITROGEN / PHOSPHORUS RATIO                  *
* TSI   = TROPHIC STATE INDEX                            *
* TSINUTR = TSI FOR NUTRIENT BALANCED LAKES              *
* TSICL   = TSI BASED ON CHLOROPHYLL A VALUE             *
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* TSITN   = TSI BASED ON NITROGEN FOR NITROGEN LIMITED LK*
* TSITP   = TSI BASED ON PHOSPHORUS FOR PHOS LIMITED LKS *
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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
465	JACKSON	HIGHLANDS	39	17.629	36.9884	40.8319	28.378	41.7550	.	.
466	IOLA	PASCO	8	17.356	36.9081	39.7934	24.419	46.5120	.	.
467	BUENA VISTA	ORANGE	7	.	36.7815	.	.	36.7815	.	.
468	JUNE-IN-WINTER	HIGHLANDS	68	29.263	36.5173	47.8707	18.667	43.0141	.	.
469	TIBET	ORANGE	11	21.434	36.4585	34.2090	36.136	39.0301	.	.
470	DINNER	HIGHLANDS	6	35.951	36.3419	37.0400	28.059	.	43.9271	.
471	SILVER	SEMINOLE	1	.	36.3138	.	.	36.3138	.	.
472	PINE	LAKE	2	63.856	35.8075	.	.	.	35.8075	.
473	ANDERSON CUE	PUTNAM	12	22.824	35.6511	33.4727	30.045	43.4352	.	.
474	FLORIDA	SEMINOLE	5	11.906	35.6385	.	12.206	59.0711	.	.
475	SUNSHINE	HILLSBOROUGH	1	23.109	35.5193	.	.	35.5193	.	.
476	CROOKED	POLK	21	16.396	35.4724	34.6587	31.288	40.4702	.	.
477	MYSTIC	MADISON	3	44.800	35.4365	35.5532	.	.	35.3197	.
478	MINNEOLA	LAKE	43	25.513	35.3654	34.5108	31.088	40.4972	.	.
479	CATHERINE	LAKE	11	34.316	35.2137	53.5682	-10.586	.	62.6587	.
480	BAY	ORANGE	22	28.541	34.8520	38.2990	21.683	44.5737	.	.
481	JESSAMINE	ORANGE	3	37.887	34.8520	39.6195	23.091	.	41.8452	.
482	THOMAS	PASCO	5	36.978	34.8439	.	.	.	34.8439	.
483	DEER POINT	BAY	39	19.015	34.7674	23.5079	38.838	41.9560	.	.
484	ZULU	HERNANDO	1	9.415	34.6835	.	.	.	.	34.6835
485	HUTCHINSON	VOLUSIA	1	29.357	34.5405	.	.	34.5405	.	.
486	TIGERTAIL	BROWARD	3	42.982	34.3407	29.9946	.	.	38.6869	.
487	HANCOCK	LAKE	1	.	33.9296	.	.	33.9296	.	.
488	NORRIS	LAKE	1	.	33.9296	.	.	33.9296	.	.
489	JOHIO	ORANGE	2	.	33.9296	.	.	33.9296	.	.
490	LIVE OAK	OSCEOLA	1	63.200	33.9033	.	37.266	.	30.5410	.
491	ENOLA	LAKE	1	6.000	33.7146	.	.	.	.	33.7146
492	PORTER	WASHINGTON	10	8.597	33.6470	18.1725	46.135	.	.	36.6332
493	LAURENCE EAST	DADE	1	61.250	33.4293	33.5494	25.105	.	41.6331	.
494	CLEAR	PALM BEACH	3	41.283	33.3616	.	17.930	.	48.7083	.
495	ROUSSEAU	LEVY	57	11.944	33.3063	28.7242	25.806	45.3891	.	.
496	BUTLER	ORANGE	98	22.513	33.2847	22.7012	37.306	39.8469	.	.
497	STANLEY	WALTON	3	31.079	33.0803	33.9439	32.246	.	33.0511	.
498	CITRUS PARK	HILLSBOROUGH	1	7.873	32.8867	.	.	.	.	32.8867
499	LOUISE	VOLUSIA	1	13.737	32.8853	.	.	32.8853	.	.
500	BIG SAND	ORANGE	2	20.224	32.7113	.	41.683	23.7400	.	.
501	PADGETT	PASCO	9	39.171	32.4028	30.0797	23.814	.	43.3145	.
502	SMITH	MARION	3	31.730	32.1549	28.2504	30.910	.	37.3041	.
503	SUN	HOLMES	3	31.077	32.0911	26.5393	.	.	37.6429	.
504	TULANE	HIGHLANDS	1	.	31.9697	.	.	31.9697	.	.
505	WINNOTT	PUTNAM	5	25.043	31.5991	30.5594	21.739	42.4988	.	.
506	CRESCENT	LAKE	3	29.943	31.2584	32.3509	27.042	34.3826	.	.
507	WINORO	VOLUSIA	9	27.402	30.8951	33.9439	29.040	29.7018	.	.
508	MERIAL	BAY	4	66.596	30.8802	18.7428	.	.	43.0175	.
509	LUCIEN	ORANGE	31	31.120	30.7694	.	20.193	.	41.3458	.
510	VICTOR	HOLMES	3	23.607	30.5904	31.9374	29.713	30.1210	.	.
511	GENEVA	CLAY	28	11.518	30.5668	25.2700	24.590	41.8409	.	.
512	CHAPMAN	HILLSBOROUGH	4	103.132	30.5414	.	.	.	30.5414	.
513	DEER	HILLSBOROUGH	1	32.249	30.5414	.	.	.	30.5414	.
514	LONG	HILLSBOROUGH	1	59.124	30.5414	.	.	.	30.5414	.
515	BLANTON	PASCO	1	73.142	30.5414	.	.	.	30.5414	.
516	MARIANA	POLK	2	138.198	30.5414	.	.	.	30.5414	.
517	ECHO	POLK	1	64.000	30.5410	.	.	.	30.5410	.
518	BIG FISH	PASCO	1	72.000	30.5410	.	.	.	30.5410	.
519	OAKES POND	PASCO	1	90.000	30.5410	.	.	.	30.5410	.
520	OCHEESEE POND	JACKSON	7	21.998	30.4955	28.0156	25.472	37.9985	.	.
521	HENRY	DADE	1	29.474	30.1603	31.6265	18.411	40.4431	.	.
522	KINGSLEY	CLAY	47	22.757	29.9464	31.4156	15.033	43.3906	.	.

Table 3-2. (continued)

```
* NUMB = MAXIMUM NUMBER OF PHOSPHORUS OR NITROGEN VALUES *
* NPRATIO = NITROGEN / PHOSPHORUS RATIO                  *
* TSI   = TROPHIC STATE INDEX                            *
* TSINUTR = TSI FOR NUTRIENT BALANCED LAKES              *
* TSICL   = TSI BASED ON CHLOROPHYLL A VALUE             *
* TSISD   = TSI BASED ON SECCHI DISK DEPTH               *
* TSITN   = TSI BASED ON NITROGEN FOR NITROGEN LIMITED LK*
* TSITP   = TSI BASED ON PHOSPHORUS FOR PHOS LIMITED LKS *
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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
523	MELTON	LAKE	1	.	29.779	.	.	29.7792	.	.
524	BRYAN	ORANGE	7	5.864	29.755	.	.	.	.	29.755
525	CALLILEE	PUTNAM	9	19.175	29.721	26.8531	27.399	34.9106	.	.
526	KERR	MARION	49	22.951	29.686	24.2148	27.496	37.3467	.	.
527	BROOKLYN	CLAY	18	31.750	28.954	29.5154	23.023	.	34.3247	.
528	POWELL	BAY	2	79.089	28.913	.	.	.	28.9128	.
529	STELLA	PUTNAM	3	35.582	28.550	31.1028	18.038	.	36.5099	.
530	FAIRVIEW	ORANGE	4	39.866	28.542	30.7630	15.959	.	38.9029	.
531	MERRITTS MILL POND	JACKSON	6	48.665	28.373	11.2134	29.471	.	44.4346	.
532	MICCOSUKEE	JEFFERSON	17	22.547	28.117	45.3140	-16.142	55.1783	.	.
533	HURRICANE	OKALOOSA	3	28.626	27.894	31.2795	22.608	29.7958	.	.
534	PEBBLE	CLAY	3	8.923	27.818	.	.	.	.	27.818
535	KATHRYN	LAKE	2	15.750	27.439	.	.	27.4391	.	.
536	CRYSTAL	SEMINOLE	1	.	27.326	.	.	27.3262	.	.
537	WESTERN	WALTON	3	50.663	26.971	20.3298	43.307	.	17.2750	.
538	LOWERY	CLAY	18	14.089	26.584	27.5641	24.098	28.0916	.	.
539	SWAN	PUTNAM	8	17.861	26.306	23.5681	25.223	30.1285	.	.
540	DUPONT	VOLUSIA	2	4.548	26.199	.	.	.	.	26.199
541	MCCLOUD	PUTNAM	12	23.720	26.177	27.5591	15.196	35.7773	.	.
542	WHITE WESTERN	BAY	3	10.571	25.806	15.1225	28.059	34.2367	.	.
543	SHEEN	ORANGE	3	68.864	25.708	.	.	.	25.7079	.
544	COWPEN	PUTNAM	10	17.917	24.899	25.4909	22.513	26.6922	.	.
545	CATALINA	DADE	1	62.000	24.440	33.0922	9.687	.	30.5410	.
546	GAP POND	WASHINGTON	3	25.366	22.633	22.6387	14.878	30.3813	.	.
547	MAGNOLIA	CLAY	13	17.437	21.653	23.6458	14.320	26.9937	.	.
548	SELLERS	LAKE	1	8.550	21.629	.	.	.	.	21.629
549	KELL	HILLSBOROUGH	2	116.189	20.973	.	.	.	20.9726	.
550	BIRD	PASCO	1	98.320	20.973	.	.	.	20.9726	.
551	KATHRYN	SEMINOLE	2	.	20.882	.	-9.252	51.0169	.	.
552	WILDCAT	LAKE	3	28.578	20.597	18.8820	21.503	21.4077	.	.
553	GOVERNOR HILL	DIXIE	5	6.104	20.416	21.1215	-15.140	.	.	55.268
554	LONG POND	PUTNAM	5	11.639	20.255	21.6452	16.381	22.7393	.	.
555	SANTA ROSA	PUTNAM	9	14.301	20.157	26.0751	6.081	28.3137	.	.
556	SELLERS	MARION	4	25.842	19.489	26.5393	7.437	24.4901	.	.
557	WINNEMISETT	VOLUSIA	9	48.511	17.583	14.1746	5.660	.	32.9155	.
558	HOLLY	LAKE	2	.	16.887	.	.	16.8869	.	.
559	BUTLER	VOLUSIA	1	63.818	16.432	.	.	.	16.4320	.
560	DUNFORD POND	WASHINGTON	3	31.083	15.829	13.3853	11.717	.	22.3843	.
561	DEER	POLK	2	7.440	14.719	.	.	.	.	14.719
562	ROUND	JACKSON	3	31.470	14.573	14.3653	13.502	.	15.8529	.
563	SHEELAR	CLAY	4	28.963	12.992	20.7432	-2.167	20.4000	.	.
564	ANGELES	VOLUSIA	1	5.842	12.338	.	.	.	.	12.338
565	BROWARD	PUTNAM	3	47.870	12.102	22.2056	7.669	.	6.4300	.
566	COMPASS	JACKSON	4	43.242	11.097	10.5967	12.255	.	10.4397	.
567	MCKENZIE	CALHOUN	3	49.057	11.003	16.8000	10.221	.	5.9889	.
568	TURKEY PEN POND	CALHOUN	3	13.151	10.119	9.4441	13.502	7.4099	.	.
569	ALEXANDER SPRINGS	LAKE	2	2.445	9.614	.	.	.	.	9.614
570	MIRROR	CALHOUN	3	32.386	6.706	13.9813	1.057	.	5.0811	.
571	CRYSTAL	WASHINGTON	3	18.874	6.224	6.4951	-2.591	14.7682	.	.
572	BAY	HILLSBOROUGH	2	.	3.995	.	.	3.9948	.	.
573	THERESA	VOLUSIA	1	2.818	-15.086	.	.	.	.	-15.086

among the total of 573 did not contain both nitrogen and phosphorus measurements. These are indicated in Table 3-2 (and in Table F-3) by missing N:P ratios ("NPRATIO"). In order to evaluate their TSI's, these 70 lakes were arbitrarily assigned to the nutrient-balanced category, and eq. 3-25 was used with TSI(TPB) or TSI(TNB) as appropriate and without the factor of 0.5. Hence, the TSI for such lakes, including the two highest values in Table 3-2, are uncertain but are expected to be in the correct range, if not numerically exact. A similar procedure was used if chlorophyll a or Secchi disk measurements were not available for a lake. The TSI(AVE) was computed simply as an average of the one or two remaining TSI values.

A primary issue regarding application of the TSI to classification of Florida lakes for management purposes is the selection of a critical value for the TSI, i.e., a value above which a lake is considered to have trophic-related problems. A summary of the four TSI criteria discussed earlier in this chapter is presented below:

Secchi Disk: transparency < 1 m => (TSI = 60)

Chlorophyll: concentration > 20 mg/m^3 => problem (TSI = 60)

Phophorus: concentration > 50 µg/L => problem (TSI = 69)

Nitrogen: concentration > 1 mg/L => problem (TSI = 60)

Overall, it appears reasonable to use TSI = 60 as the cutoff. The frequency distribution of TSI values for the 573 lakes (Table 3-3) shows that 411 lakes have TSI values below 60, and these may be viewed as having no problems or less urgent problems. Of the remaining 162 problem lakes, many have only limited sampling data to support the conclusion that they have a problem. From Table 2-14, the median number of samples for the 573 lakes is about four. Arbitrarily, deleting lakes with less than five samples, and listing

Table 3-3. Trophic State Frequencies.

Trophic State Range	Number of Lakes
>100	3
90-100	7
80-89	19
70-79	44
60-69	89
50-59	139
40-49	129
30-39	91
20-29	34
10-19	13
0-9	5
TOTAL	573

only lakes with a TSI greater than 60 results in the abbreviated list of 90 "problem lakes" shown in Table 3-4. The highest ranking lake on this list is Bannana Lake in Polk County with a TSI of 95. Several familiar and well-studied lakes are included, such as Apopka, Griffin, Eustis, Thonotosassa and Okeechobee.

A summary of average TSI values for all FLADAB lakes in each county is presented in Table 3-5. The average TSI of 107 for Duval County is based on only one lake - Imeson Pond, and the average values for five other counties also are based on only one or two lakes.

Hydrologic type seems not to be a major factor influencing TSI values, although lakes with both surface inflows and outflows had the highest mean TSI value (54.0) (see Table 3-6). The range in mean TSI's for the other three hydrologic types was quite small (47.9 to 48.4). Similarly, there is little trend in mean TSI values as a function of lake surface area (Table 3-7). The lowest mean TSI occurred in relatively small lakes (48.2 in lakes of 101-250 acres) and the highest mean TSI (60.5) occurred in the largest lakes (area > 10^4 acres). A rather consistent trend of increasing minimum TSI values with increasing surface area is evident, however. The smallest lakes (area < 100 acres) had lakes with TSI's as low as 4.0, whereas the minimum TSI in the largest lakes (> 10^4 acres) is 40.8. More consistent trends in mean TSI as a function of size may occur if the small urban lakes were eliminated from the analysis.

Other supporting statistics for the entire 573 lake data base are in Table 3-8, which presents the beginning year and final year for data in the data bases and the means and standard deviations for chlorophyll a, Secchi

disk transparency, total nitrogen, and total phosphorus. Table 3-9 presents the number of data points for TN and TP concentrations and the minimum and maximum value for the four parameters (TN, TP, Chl *a*, and SD) used to derive the TSI values.

Table 3-4. Trophic State Indices - Potential Problem Lakes

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*****************************************************
*     TROPHIC STATE INDICES - PROBLEM LAKES         *
*                                                   *
*     NUMB = MAX OF PHOSPHORUS OR NITROGEN VALUES   *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO               *
*      TSI = MEAN TROPHIC STATE INDEX               *
*  TSINUTR= TROPHIC STATE INDEX FOR INTERMEDIATE LKS *
*    NUMB > 5          TSI > 60                     *
*****************************************************
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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
1	BANANA	POLK	11	6.3348	94.9294	100.371	88.883	.	.	95.5340
2	EFFIE	POLK	13	2.7401	94.0446	94.295	94.352	.	.	93.4871
3	WESTON	ORANGE	16	1.1495	93.2107	.	.	.	.	93.2107
4	LULU	POLK	41	1.7948	92.2429	95.715	91.783	.	.	89.2301
5	HANCOCK	POLK	23	6.1422	92.1931	89.267	90.695	.	.	96.6176
6	MAGGIORE	PINELLAS	11	15.8434	91.6232	89.672	99.167	86.0311	.	.
7	MUNSON	LEON	23	2.2557	89.5314	86.572	88.397	.	.	93.6254
8	BEAUCLAIR	LAKE	66	13.8959	87.5434	85.471	91.086	86.0733	.	.
9	APOPKA	ORANGE	265	18.5542	86.1035	76.516	98.154	83.6405	.	.
10	SCOTT	POLK	20	12.5668	85.5210	82.882	92.670	81.0105	.	.
11	HOLLINGSWORTH	POLK	10	9.5633	84.7658	85.102	81.745	.	.	87.4504
12	LOVELY	ORANGE	16	1.7140	84.0548	.	.	.	.	84.0548
13	JESSUP	SEMINOLE	110	7.4280	83.5960	85.841	79.395	.	.	85.5516
14	FRANCIS	MADISON	5	3.8523	82.0973	71.584	86.547	.	.	88.1606
15	UNNAMED 20	ALACHUA	8	5.2371	81.8200	81.222	85.670	.	.	78.5677
16	DORA	LAKE	159	23.9580	81.3832	81.989	85.495	76.6663	.	.
17	WEKIVA	ORANGE	9	1.9366	80.6074	.	.	.	.	80.6074
18	HOWARD	POLK	26	44.8159	80.4176	88.403	83.374	.	69.4761	.
19	CARLTON	ORANGE	14	29.6923	79.9824	81.701	81.857	76.3892	.	.
20	JAX	HIGHLANDS	7	23.8968	79.4951	.	111.240	47.7504	.	.
21	PARKER	POLK	15	16.2468	79.2933	80.040	83.466	74.3747	.	.
22	SEMINOLE	PINELLAS	15	2.7429	77.6326	79.103	78.613	.	.	75.1817
23	CYPRESS	OSCEOLA	64	15.5292	76.8375	81.103	81.305	68.1042	.	.
24	GRIFFIN	LAKE	275	22.1267	76.7512	76.776	80.152	73.3249	.	.
25	LAWNE	ORANGE	28	1.4393	76.1830	75.658	58.594	.	.	94.2975
26	ALLIGATOR	COLUMBIA	26	3.3236	75.7516	77.284	70.883	.	.	79.0873
27	MIRROR	POLK	12	36.9513	75.4815	77.854	79.415	.	69.1754	.
28	BURNT POND	ALACHUA	5	4.1234	75.3289	75.035	74.341	.	.	76.6104
29	KANAPAHA	ALACHUA	5	5.7680	74.8002	65.603	79.618	.	.	79.1795
30	MAYO	POLK	8	9.3839	74.5166	.	74.849	.	.	74.1845
31	TROUT	LAKE	14	4.1179	74.3839	81.574	70.304	.	.	71.2737
32	ELOISE	POLK	38	4.1276	74.0530	77.711	66.883	.	.	77.5649
33	CANNON	POLK	30	27.7762	74.0412	83.400	75.077	63.6472	.	.
34	BIVENS ARM	ALACHUA	8	3.5519	73.8222	72.866	74.772	.	.	73.8287
35	NEWNANS	ALACHUA	37	17.4545	72.8944	74.177	76.453	68.0527	.	.
36	CYPRESS POND	COLLIER	26	7.7954	72.6844	.	.	.	.	72.6844
37	EUSTIS	LAKE	250	28.9682	72.2715	68.409	79.184	69.2212	.	.
38	WAUBERG	ALACHUA	11	13.6084	71.1719	74.214	67.735	71.5668	.	.
39	ALLIGATOR	PINELLAS	8	2.2861	70.8445	69.096	80.318	.	.	63.1195
40	MARIAN	OSCEOLA	66	17.0764	70.5441	73.413	69.340	68.8786	.	.
41	BLACK	ORANGE	8	6.1458	70.5382	.	.	.	.	70.5382
42	SUMMIT	POLK	7	.	69.9031	.	.	69.9031	.	.
43	DEATON	SUMTER	6	69.3665	69.8433	68.862	79.726	.	60.9416	.
44	CLAY	HIGHLANDS	14	10.0041	69.6974	68.714	83.452	76.9262	.	.
45	THONOTOSASSA	HILLSBOROUGH	119	1.4011	69.5114	74.454	75.290	.	.	58.7904
46	TURKEY	ORANGE	9	28.7445	69.4319	.	84.111	54.7532	.	.
47	HATCHINEHA	OSCEOLA	38	17.0601	69.2974	66.175	76.597	65.1197	.	.
48	TOHOPEKALIGA	OSCEOLA	165	5.0173	68.8681	80.828	53.429	.	.	72.3476
49	CLEAR	ALACHUA	8	4.6421	68.7292	67.574	67.167	.	.	71.4467
50	HAWTHORNE	ALACHUA	8	22.7496	68.6530	72.504	67.647	65.8084	.	.
51	MIZE	ALACHUA	8	8.8010	68.4232	69.280	74.706	.	.	61.2831
52	GEORGE	PUTNAM	22	14.9071	67.6260	69.370	68.401	65.1069	.	.
53	CRESCENT	FLAGLER	20	17.2475	66.6953	65.491	73.087	61.5080	.	.
54	LOCHLOOSA	ALACHUA	23	35.3504	66.3293	62.866	65.868	.	70.2544	.
55	CONNIE	POLK	21	2.5088	65.8815	.	61.863	.	.	69.9004
56	SPRING	POLK	12	30.6505	65.5383	67.831	59.524	.	69.2575	.
57	LONG	ORANGE	9	8.4299	65.5038	.	.	.	.	65.5038
58	OKEECHOBEE	OKEECHOBEE	621	14.2655	65.4655	56.834	71.685	67.8774	.	.

Table 3-4. (continued)

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*******************************************************
*    TROPHIC STATE INDICES - PROBLEM LAKES            *
*                                                     *
*     NUMB = MAX OF PHOSPHORUS OR NITROGEN VALUES     *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                 *
*    TSI  = MEAN TROPHIC STATE INDEX                  *
*  TSINUTR= TROPHIC STATE INDEX FOR INTERMEDIATE LKS  *
*   NUMB > 5          TSI > 60                        *
*******************************************************
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OBS	LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR	TSITP	TSITN
59	RUSSELL	OSCEOLA	5	33.0595	65.2451	49.8850	77.4590	.	68.3912	.
60	DICIE	LAKE	15	26.8194	65.1438	.	66.6906	63.5971	.	.
61	DOCTORS	CLAY	25	12.3783	65.1389	64.2956	65.6010	65.5201	.	.
62	DEXTER	VOLUSIA	7	10.0504	65.0876	58.0887	72.1640	65.0102	.	.
63	OSBORNE	PALM BEACH	5	9.6600	64.8452	69.8958	60.3352	.	.	64.3045
64	JESSIE	POLK	30	15.0174	64.6543	69.7933	61.6106	62.5590	.	.
65	PORTER	ORANGE	47	23.5154	64.5277	.	75.4802	53.5753	.	.
66	LITTLE LAKE HARRIS	LAKE	13	42.1127	64.0424	.	58.6006	.	69.4842	.
67	MARION	POLK	70	47.3285	63.9110	60.9670	67.1204	.	63.6377	.
68	REEDY	POLK	84	24.4231	63.8976	65.5662	64.7390	61.3874	.	.
69	WINTERSET	POLK	26	38.6539	63.7653	68.8555	58.0316	.	64.4090	.
70	COOTER POND7	ALACHUA	5	8.7135	63.5387	60.5862	61.8563	.	.	68.1737
71	GIBSON	POLK	18	5.3597	63.3165	57.0809	68.6763	.	.	64.1904
72	HARRIS	LAKE	37	41.0480	63.0923	60.1475	64.7260	.	64.4035	.
73	MARY JANE	ORANGE	66	32.9423	62.9193	51.5367	75.2644	.	61.9567	.
74	SEBRING	HIGHLANDS	5	11.5557	62.6779	41.9838	84.5790	61.4708	.	.
75	POINSETT	BREVARD	43	24.4030	62.5434	57.2462	69.0374	61.3467	.	.
76	HOWELL	SEMINOLE	30	1.0879	62.3045	74.2591	41.9916	.	.	70.6627
77	ROWELL	BRADFORD	13	6.2998	62.1146	60.6185	69.0440	.	.	56.6812
78	IVANHOE	ORANGE	9	11.9087	62.0860	61.6410	61.5308	63.0781	.	.
79	HAINES	POLK	16	6.6911	61.8161	58.7574	63.7073	.	.	62.9835
80	GLENADA	HIGHLANDS	7	10.2416	61.7697	64.6113	55.4076	65.2901	.	.
81	ARIANA	POLK	9	18.7730	61.7043	62.0850	61.8326	61.1952	.	.
82	SWOOPE	POLK	7	28.3449	61.5664	.	54.0542	69.0786	.	.
83	MATTIE	POLK	8	1.8064	60.9887	51.6132	70.8253	.	.	60.5275
84	IDYLWILD	POLK	13	19.9734	60.6254	67.6008	57.2768	56.9986	.	.
85	EAGLE	POLK	6	61.3863	60.6180	62.0113	67.9711	.	51.8716	.
86	SOUTH	BREVARD	16	27.6787	60.5478	75.2643	35.4800	70.8989	.	.
87	SAWGRASS	BREVARD	5	26.4000	60.3662	.	66.6906	54.0419	.	.
88	PUZZLE	VOLUSIA	14	.	60.3474	.	.	60.3474	.	.
89	CHUNKY POND	LEVY	5	16.9841	60.2512	.	.	60.2512	.	.

Table 3-5. County Average TSI's. NUMBER refers to the number of lakes in each county having TSI values. Counties are omitted if no lakes have TSI values.

COUNTY INFORMATION

NUMBER --> NUMBER OF LAKES IN COUNTY
ACREAGE--> TOTAL ACREAGE OF LAKES IN COUNTY
TSI --> AVERAGE TSI OF LAKES IN COUNTY

OBS	COUNTY	NUMBER	ACREAGE	TSI
1	ALACHUA	32	44071	59
2	BAKER	1	1793	44
3	BAY	4	6044	30
4	BRADFORD	4	3793	49
5	BREVARD	6	10336	60
6	BROWARD	4	10	62
7	CALHOUN	3	16	9
8	CHARLOTTE	1	40	45
9	CITRUS	5	51484	50
10	CLAY	9	8693	31
11	COLLIER	3	1485	57
12	COLUMBIA	2	394	65
13	DADE	10	370	45
14	DIXIE	1	153	20
15	DUVAL	1	.	107
16	FLAGLER	2	19292	56
17	FRANKLIN	1	45	41
18	GADSDEN	1	6850	55
19	GLADES	1	300	65
20	GULF	2	10755	47
21	HAMILTON	1	.	74
22	HERNANDO	11	1181	55
23	HIGHLANDS	28	44927	50
24	HILLSBOROUGH	39	2994	48
25	HOLMES	2	110	31
26	INDIAN RIVER	1	6522	57
27	JACKSON	4	3051	21
28	JEFFERSON	1	6312	28
29	LAFAYETTE	2	221	48
30	LAKE	50	63220	48
31	LEE	1	.	74
32	LEON	6	10810	53
33	LEVY	3	5047	51
34	LIBERTY	1	118	60
35	MADISON	3	551	53
36	MANATEE	1	1200	53
37	MARION	12	19826	46
38	MONROE	3	.	59
39	OKALOOSA	2	70	34
40	OKEECHOBEE	1	436000	65
41	ORANGE	71	50096	54
42	OSCEOLA	25	99479	59
43	PALM BEACH	3	804	55
44	PASCO	24	3468	45
45	PINELLAS	6	3888	68
46	POLK	85	67334	61
47	PUTNAM	19	52957	39
48	SANTA ROSA	1	109	54
49	SARASOTA	1	933	49
50	SEMINOLE	28	10763	54
51	SUMTER	4	7376	56
52	SUWANNEE	2	104	47
53	UNION	3	1929	45
54	VOLUSIA	18	21332	39
55	WAKULLA	3	283	40
56	WALTON	6	1012	38
57	WASHINGTON	9	3147	38

Table 3-6. TSI by Lake Type.

Laketype	Number of Lakes	Mean TSI	Standard Deviation	Minimum TSI	Maximum TSI
Unspecified	171	52.3	17.9	-15.0	110.7
Inflow	44	48.4	13.5	16.9	83.2
Outflow	30	47.9	16.2	11.0	84.8
Inflow-Outflow	163	54.0	15.9	4.0	94.9
Seepage	165	48.5	18.9	6.2	124.4

Table 3-7. TSI by Lake Area (acres).

Lake Area Range	Number of Lakes	Mean TSI	Standard Deviation	Minimum TSI	Maximum TSI
Unspecified	65	51.2	21.4	-15.0	110.7
1-100	179	50.8	17.5	4.0	124.4
101-250	107	48.2	16.7	6.2	94.0
251-500	68	55.3	18.1	12.1	94.9
501-1000	53	49.6	14.8	11.0	80.4
1001-5000	68	51.9	15.2	19.5	92.2
5001-10000	19	54.3	15.1	28.1	83.6
>10000	14	60.5	13.0	40.8	86.1

Table 3-8. Statistics of 573 Florida Lakes - Means and Standard Deviations.*

*STD - PREFIX INDICATES STD DEVIATION *
* YR - BEGINNING OR ENDING SAMPLE DATES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
1	ALICE	ALACHUA	69	70	6.3531	5.2798	1.50469	0.25106	0.56781	0.13513	0.89094	0.383601
2	ALTHO	ALACHUA	66	79	6.4722	2.9542	1.29990	0.28335	0.64257	0.21420	0.05027	0.048092
3	BEVILLES POND	ALACHUA	68	70	20.7000	15.0275	2.04000	0.90443	0.74200	0.16053	0.12420	0.067106
4	BIVENS ARM	ALACHUA	65	79	49.0812	45.2593	0.61116	0.17469	1.93828	0.72806	0.54570	0.117072
5	BURNT POND	ALACHUA	68	70	57.0600	67.4469	0.62000	0.29496	2.20600	0.37899	0.53500	0.218975
6	CALF POND	ALACHUA	68	70	20.2750	13.2251	0.70000	0.11547	1.85750	0.38656	0.17825	0.051887
7	CLEAR	ALACHUA	68	70	33.9875	33.4581	0.78750	0.27999	1.73500	0.89739	0.37375	0.174923
8	CLEARWATER	ALACHUA	68	70	2.7000	0.6042	2.22000	1.39714	1.10000	1.07831	0.02320	0.016873
9	COOTER POND7	ALACHUA	68	70	20.9200	11.3819	0.94000	0.26077	1.49000	0.42988	0.17100	0.046422
10	ELIZABETH	ALACHUA	68	70	6.5000	3.8236	0.66000	0.15166	0.93800	0.28164	0.05400	0.032932
11	HAWTHORNE	ALACHUA	68	70	47.8625	31.9016	0.77500	0.34122	1.85125	0.71251	0.08137	0.035387
12	HICKORY POND	ALACHUA	68	70	6.7400	2.1267	1.78000	0.47645	0.75800	0.06340	0.03260	0.008532
13	JEFFORDS	ALACHUA	68	70	7.7200	3.4390	0.98000	0.26833	0.61800	0.19254	0.10360	0.023902
14	KANAPAHA	ALACHUA	68	70	29.6400	32.5936	0.52000	0.38987	2.48600	1.76502	0.43100	0.199198
15	LITTLE ORANGE	ALACHUA	68	70	7.2600	7.3323	0.94000	0.21909	1.22600	0.44501	0.12500	0.087178
16	LITTLE SANTA FE	ALACHUA	57	70	4.5200	1.3664	1.42000	0.23875	0.76200	0.22830	0.03620	0.037245
17	LOCHLOOSA	ALACHUA	58	80	24.5083	11.5562	0.82235	0.20355	1.90201	1.52635	0.05380	0.029855
18	META	ALACHUA	68	70	4.5000	1.9170	1.92000	0.84083	1.03400	0.17686	0.03880	0.013312
19	NIZE	ALACHUA	68	70	38.2625	27.9095	0.61250	0.26959	1.08143	0.39545	0.12287	0.063011
20	NEWNANS	ALACHUA	57	80	53.7608	31.8028	0.57785	0.16789	1.83019	0.84162	0.10485	0.042555
21	ORANGE	ALACHUA	56	81	20.0047	11.8260	0.99771	0.27230	1.11795	0.34194	0.04830	0.038000
22	PALATKA POND	ALACHUA	68	70	11.4800	12.3216	1.08000	0.81670	1.28800	0.42763	0.03940	0.025803
23	PAYNES PRAIRIE	ALACHUA	73	73	.	.	0.60960	.	1.70000	.	1.26000	.
24	SANTA FE	ALACHUA	57	81	7.3988	6.4028	2.10648	0.68167	0.67758	0.36577	0.05060	0.129489
25	STILL POND	ALACHUA	68	70	2.3200	1.3442	1.56000	1.06911	0.68400	0.08444	0.01280	0.003899
26	TUSCAWILLA	ALACHUA	68	69	8.5500	3.8891	1.00000	0.28284	1.11050	0.28355	0.31500	0.049497
27	UNNAMED 10	ALACHUA	68	70	10.7250	11.5931	1.45000	0.56061	1.00125	0.23817	0.07150	0.026657
28	UNNAMED 20	ALACHUA	68	70	87.6875	42.4990	0.42500	0.23755	2.41625	1.12341	0.46137	0.308194
29	UNNAMED 25	ALACHUA	68	70	2.8400	2.3448	1.82000	0.59749	0.78400	0.10213	0.03760	0.015043
30	UNNAMED 27	ALACHUA	68	70	27.0200	18.4948	1.50000	0.30822	0.66600	0.18703	0.29700	0.121326
31	WATERMELON POND	ALACHUA	68	70	13.5600	12.6154	0.98000	0.54498	0.96800	0.24712	0.05120	0.032859
32	WAUBERG	ALACHUA	68	80	53.8970	40.6609	0.77273	0.27961	1.94815	0.46609	0.14316	0.058564
33	OCEAN POND	BAKER	66	80	3.9585	3.1402	1.28513	0.42645	0.48980	0.23492	0.05035	0.032723
34	DEER POINT	BAY	66	80	1.5933	0.9853	2.02464	0.51016	0.49002	0.43728	0.02577	0.034134
35	MERIAL	BAY	62	80	1.1444	0.9483	.	.	1.12992	0.76852	0.01697	0.004800
36	POWELL	BAY	72	75	.	.	.	.	0.73817	0.29722	0.00933	0.010371
37	WHITE WESTERN	BAY	77	77	0.8900	1.5415	2.90000	0.52915	0.24667	0.13650	0.02333	0.005774
38	CROSBY	BRADFORD	73	81	4.6791	3.4340	1.78889	0.38567	0.71822	0.40130	0.11185	0.187686
39	HAMPTON	BRADFORD	73	80	5.7222	3.1256	2.20000	0.78599	0.62187	0.43695	0.02655	0.019780
40	ROWELL	BRADFORD	66	81	20.9671	9.3265	0.73973	0.17235	0.87306	0.19912	0.13858	0.069685
41	SAMPSON	BRADFORD	57	81	6.7366	3.6637	1.32599	0.46892	0.81982	0.54192	0.05925	0.038771
42	HELEN BLAZES	BREVARD	69	79	.	.	1.06680	0.17960	1.14743	0.29516	0.06000	0.017384
43	POINSETT	BREVARD	54	80	16.5894	16.4202	0.73990	0.18836	1.51811	0.47860	0.06221	0.023967
44	SAWGRASS	BREVARD	69	70	.	.	0.80010	0.16164	1.07800	0.62432	0.04083	0.006310
45	SOUTH	BREVARD	57	81	57.9755	60.5709	2.26445	6.84599	2.65379	1.57357	0.09588	0.088559
46	WASHINGTON	BREVARD	54	81	18.4574	23.3944	1.08591	1.72659	1.45634	0.56585	0.06608	0.049644
47	WINDER	BREVARD	55	71	.	.	1.02447	0.04317	1.09658	0.64244	0.04933	0.024891
48	GEORGE	BROWARD	68	68	.	.	.	.	.	.	1.03333	.
49	PROSPECT	BROWARD	70	72	.	.	.	.	0.76271	0.32411	0.02367	0.016746
50	SYLVIA	BROWARD	75	75	.	.	.	.	0.69000	.	0.08000	.
51	TIGERTAIL	BROWARD	80	80	2.5000	2.3024	.	.	0.60700	0.01253	0.01412	0.002269
52	MCKENZIE	CALHOUN	79	80	1.0000	0.2963	5.25556	1.07307	0.17333	0.02517	0.00353	0.000889
53	MIRROR	CALHOUN	79	80	0.8222	0.2169	7.13333	1.76163	0.11011	0.01174	0.00340	0.002170
54	TURKEY PEN POND	CALHOUN	79	80	0.6000	0.1453	4.71111	1.54788	0.06780	0.01681	0.00516	0.002374
55	WEBB AREA	CHARLOTTE	68	71	7.7000	1.8385	1.98120	0.70969	0.65250	0.10178	0.04632	0.017985
56	MORRISON POND	CITRUS	66	71	.	.	.	.	2.87804	3.28805	0.05444	0.019532
57	ISALA APOPKA	CITRUS	71	81	3.0741	0.9261	2.88333	0.08333	1.08494	0.31718	0.08868	0.111463
58	ISALA APOPKA(F)	CITRUS	66	75	4.2500	0.7778	1.26365	0.58892	0.73169	0.25659	0.06685	0.054784
59	ISALA APOPKA(H)	CITRUS	66	79	4.3000	2.9698	2.12344	0.53959	0.71714	0.18377	0.03552	0.027131
60	ISALA APOPKA(I)	CITRUS	65	79	10.5500	5.0802	1.68275	0.26589	0.73400	0.05177	0.03469	0.014638
61	BROOKLYN	CLAY	57	81	2.4182	1.3113	3.42998	0.79253	0.37271	0.54754	0.01174	0.005432
62	DOCTORS	CLAY	66	80	27.0667	9.1500	0.82969	0.18315	1.35806	0.38627	0.10971	0.051320
63	GENEVA	CLAY	9	81	1.8007	1.1302	3.25551	0.74589	0.38207	0.27742	0.03317	0.076011
64	JOHNSON	CLAY	57	79	3.4700	1.3100	1.38000	0.29334	0.26900	0.13903	0.02172	0.011825
65	KINGSLEY	CLAY	57	81	2.7593	2.1757	4.47678	1.13458	0.57604	0.59358	0.02531	0.024154
66	LOWERY	CLAY	57	80	2.1117	1.2443	3.30934	0.89506	0.20584	0.12216	0.01461	0.009850
67	MAGNOLIA	CLAY	57	80	1.6087	0.6446	4.58444	0.93115	0.21555	0.12280	0.01236	0.006798

Table 3-8. (Continued)*

*STD - PREFIX INDICATES STD DEVIATION *
* YR - BEGINNING OR ENDING SAMPLE DATES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
68	PEBBLE	CLAY	57.0	71	.	.	.	.	0.2280	0.06364	0.025556	0.024114
69	SHEELAR	CLAY	78.0	79	1.3150	0.7283	7.9425	0.8332	0.1955	0.02430	0.006750	0.003500
70	CYPRESS POND	COLLIER	69.0	75	.	.	.	.	1.8378	2.71984	0.235756	0.546585
71	LANTERN	COLLIER	70.0	71	.	.	.	.	0.4461	0.35355	0.216667	.
72	TRAFFORD	COLLIER	69.0	80	22.2786	13.5279	2.1096	2.2592	2.0055	0.61449	0.103237	0.074906
73	ALLIGATOR	COLUMBIA	65.0	80	66.7067	44.4456	0.6957	0.3302	2.4754	1.49372	0.744782	0.497556
74	WATERTOWN	COLUMBIA	66.0	80	15.1583	7.8762	1.5545	0.7034	1.2066	0.98216	0.072412	0.044365
75	BAMBI	DADE	81.0	81	47.4000	.	1.1000	.	1.9200	.	0.040000	.
76	BLUE LAGOON	DADE	81.0	81	17.3000	.	1.2500	.	0.9900	.	0.021000	.
77	CATALINA	DADE	73.0	81	3.1000	.	5.3500	.	0.6200	.	0.010000	.
78	HENRY	DADE	81.0	81	2.8000	.	4.0000	.	0.5600	.	0.019000	.
79	KATHARINE	DADE	81.0	81	3.4000	.	2.0000	.	0.4200	.	0.019000	.
80	LAURENCE EAST	DADE	81.0	81	3.2000	.	3.2000	.	0.9800	.	0.016000	.
81	LOUISE	DADE	81.0	81	5.3000	.	2.0000	.	1.2500	.	0.023000	.
82	MYRTLE	DADE	81.0	81	36.2000	.	0.8000	.	1.5500	.	0.075000	.
83	SKY	DADE	81.0	81	6.7000	.	1.9000	.	0.9700	.	0.019000	.
84	SOUTH BASS	DADE	81.0	81	9.8000	.	1.5000	.	1.0600	.	0.025000	.
85	GOVERNOR HILL	DIXIE	66.0	71	1.3500	0.3536	12.2396	13.9723	0.8175	0.24527	0.133924	0.125025
86	IMESON POND	DUVAL	72.0	72	.	.	.	.	14.4950	.	0.785000	.
87	CRESCENT	FLAGLER	71.0	80	29.4090	25.1799	0.6465	0.1773	1.2940	0.33133	0.075028	0.047396
88	DISSTON	FLAGLER	76.0	80	1.8630	0.5571	0.4407	0.1178	1.0968	0.48880	0.008896	0.002676
89	CORN LANDING	FRANKLIN	80.0	80	2.7778	1.6174	1.2500	0.3536	0.5738	0.05861	0.013044	0.000838
90	TALQUIN	GADSDEN	65.0	80	11.0267	7.4317	0.9161	0.3432	0.6764	0.18817	0.130336	0.072067
91	HICPOCHEE	GLADES	79.0	79	.	.	0.9652	.	1.5355	.	0.180000	.
92	DEAD	GULF	65.0	80	4.2237	3.6752	1.8870	0.5458	0.4095	0.18441	0.018229	0.007008
93	WIMICO	GULF	73.0	80	3.8556	0.8804	0.5179	0.1969	0.6456	0.31728	0.036600	0.024068
94	BEE HAVEN BAY	HAMILTON	72.0	79	.	.	.	.	2.9050	.	0.120000	0.098995
95	BYSTRE	HERNANDO	68.0	68	.	.	.	.	0.8392	.	0.053333	.
96	HORSE	HERNANDO	66.0	72	.	.	.	.	0.7132	0.00000	0.070000	0.000000
97	HUNTERS	HERNANDO	65.0	81	.	.	.	.	.	.	0.024000	.
98	LINDSEY	HERNANDO	66.0	80	23.1613	21.6031	1.2438	0.4843	1.5244	0.56902	0.059459	0.032277
99	MOUNTAIN	HERNANDO	80.0	80	6.6333	5.1383	1.2667	0.2357	1.0410	0.46810	0.027500	0.021986
100	NEFF	HERNANDO	68.0	71	.	.	.	.	0.9957	0.41652	0.045000	0.011667
101	SPRING	HERNANDO	68.0	70	.	.	.	.	0.8206	0.13249	0.046667	0.036667
102	SQUIRREL PRAIRIE	HERNANDO	77.0	77	.	.	.	.	4.6547	4.85827	0.325000	0.275771
103	WHITFIELDS PRAIRIE	HERNANDO	77.0	77	.	.	.	.	1.2581	0.64780	0.100000	0.056568
104	ZEBRA	HERNANDO	68.0	68	.	.	.	.	1.0763	.	0.036667	.
105	ZULU	HERNANDO	68.0	68	.	.	.	.	0.3138	.	0.033333	.
106	ANGELO	HIGHLANDS	81.0	81	.	.	.	.	.	.	0.021000	.
107	ANNIE	HIGHLANDS	66.0	79	13.9995	22.5451	3.8879	2.6562	0.8187	1.27277	0.043944	0.099765
108	ANOKA	HIGHLANDS	81.0	81	.	.	.	.	.	.	0.033000	.
109	CHARLOTTE	HIGHLANDS	76.0	76	.	.	.	.	.	.	0.140000	.
110	CLAY	HIGHLANDS	69.0	79	36.7878	30.1968	0.8913	0.8419	2.2188	1.85924	0.221791	0.191028
111	DAMON	HIGHLANDS	74.0	81	.	.	.	.	0.9400	0.56045	0.043333	0.020817
112	DINNER	HIGHLANDS	73.0	81	4.0778	1.3104	2.9000	0.9770	0.6339	0.38188	0.017633	0.013934
113	FRANCIS	HIGHLANDS	66.0	81	21.5916	18.7344	1.7647	0.8355	0.9547	0.77492	0.041282	0.056413
114	GLENADA	HIGHLANDS	73.0	81	27.6667	11.8955	1.1654	0.1144	1.2242	0.13068	0.119533	0.040288
115	GRASSY	HIGHLANDS	72.4	75	.	.	.	.	1.0633	0.23753	0.023333	0.009428
116	HUNTLEY	HIGHLANDS	74.0	80	5.4519	1.9536	1.7259	0.3082	0.7054	0.44309	0.032916	0.012740
117	ISTOKPOGA	HIGHLANDS	65.0	81	15.2038	12.0181	1.4315	3.4526	1.2848	0.38459	0.075553	0.052158
118	JACKSON	HIGHLANDS	65.0	81	5.3062	4.3533	2.8693	0.8093	0.4675	0.39370	0.026516	0.012372
119	JAX	HIGHLANDS	72.0	76	.	.	0.1812	.	0.7402	0.19036	0.030975	0.015543
120	JOSEPHINE	HIGHLANDS	66.0	80	10.2852	3.1512	0.7295	0.2113	0.9277	0.34220	0.062999	0.030022
121	JUNE-IN-WINTER	HIGHLANDS	65.0	81	8.6511	4.5086	3.9660	6.8182	0.6380	0.28024	0.021803	0.017975
122	LELIA	HIGHLANDS	81.0	81	.	.	.	.	.	.	0.021000	.
123	LETTA	HIGHLANDS	65.0	81	4.3733	2.2026	1.2841	0.2609	0.4402	0.23216	0.040892	0.023444
124	LITTLE BONNET	HIGHLANDS	81.0	81	.	.	.	.	.	.	0.070000	.
125	LITTLE LAKE JACKSON	HIGHLANDS	76.0	76	.	.	.	.	1.1600	.	0.070000	.
126	LITTLE RED WATER	HIGHLANDS	80.0	81	16.4481	4.1343	0.7370	0.1429	0.4621	0.03181	0.034708	0.008012
127	LOTELA	HIGHLANDS	66.0	81	3.4651	1.3471	2.7707	0.5270	0.7909	0.51538	0.024627	0.017494
128	PLACID	HIGHLANDS	66.0	81	7.6218	3.1345	2.0865	0.8366	0.5098	0.22951	0.023877	0.020300
129	RED BEACH	HIGHLANDS	66.0	80	14.2933	6.2217	1.0218	0.2180	0.5707	0.20828	0.034691	0.026190
130	RED WATER	HIGHLANDS	81.0	81	.	.	.	.	.	.	0.033000	.
131	SEBRING	HIGHLANDS	74.0	80	5.7481	2.4193	0.4407	0.0756	1.0638	0.66652	0.092059	0.015002
132	SIRENA	HIGHLANDS	66.0	76	.	.	1.9812	.	0.4944	0.11454	0.022444	0.025764
133	TULANE	HIGHLANDS	81.0	81	.	.	.	.	.	.	0.015000	.
134	BAY	HILLSBOROUGH	66.0	69	.	.	.	.	.	.	0.003333	0.000000

Table 3-8. (Continued)*

*STD - PREFIX INDICATES STD DEVIATION *
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* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
135	BROOKER	HILLSBOROUGH	79	79	.	.	.	.	3.11000	.	0.510000	.
136	CALM	HILLSBOROUGH	66	72	.	.	.	.	0.52304	0.33000	0.014167	0.010639
137	CARROLL	HILLSBOROUGH	65	81	8.100	.	2.9000	.	0.56954	0.14571	0.021170	0.006575
138	CHAPMAN	HILLSBOROUGH	68	72	.	.	.	.	1.03134	0.11549	0.010000	0.000000
139	CHARLES	HILLSBOROUGH	70	73	.	.	.	.	0.58185	0.19894	0.028213	0.012588
140	CHURCH	HILLSBOROUGH	66	72	.	.	.	.	0.52957	0.25948	0.015000	0.011385
141	CITRUS PARK	HILLSBOROUGH	69	69	.	.	.	.	0.28867	.	0.036667	.
142	CRENSHAW	HILLSBOROUGH	70	73	.	.	.	.	1.65152	0.65152	0.040889	0.018219
143	CRUM	HILLSBOROUGH	68	73	.	.	.	.	1.34304	0.19368	0.030222	0.011932
144	DAN	HILLSBOROUGH	67	71	.	.	.	.	4.25106	0.00000	0.055000	0.011667
145	DEER	HILLSBOROUGH	68	68	.	.	.	.	0.32250	.	0.010000	.
146	DOSSON	HILLSBOROUGH	68	68	.	.	.	.	0.85125	0.00000	0.033333	0.000000
147	EGYPT	HILLSBOROUGH	81	81	25.300	.	1.3000	.	0.64000	.	0.034000	.
148	ELLEN	HILLSBOROUGH	81	81	13.800	.	1.8000	.	0.79000	.	0.023000	.
149	GRADY	HILLSBOROUGH	74	81	.	.	.	.	.	.	0.324000	.
150	HARVEY	HILLSBOROUGH	71	72	.	.	.	.	1.22130	.	0.028417	0.000825
151	HOBBS	HILLSBOROUGH	67	70	.	.	.	.	0.51304	0.00000	0.018333	0.008333
152	ISLAND FORD	HILLSBOROUGH	81	81	.	.	.	.	0.51935	.	0.020000	.
153	JACKSON	HILLSBOROUGH	73	73	.	.	.	.	1.00000	.	0.037000	.
154	KELL	HILLSBOROUGH	68	68	.	.	.	.	0.77461	0.00000	0.006667	0.000000
155	KEYSTONE	HILLSBOROUGH	65	80	.	.	.	.	0.56333	0.12014	0.025000	0.007071
156	LIPSEY	HILLSBOROUGH	70	72	.	.	.	.	2.03468	2.14780	0.038333	0.016499
157	LONG	HILLSBOROUGH	68	68	.	.	.	.	0.59125	.	0.010000	.
158	MAGDALENE	HILLSBOROUGH	65	81	4.900	.	1.6000	.	0.72552	0.27021	0.020494	0.010734
159	MARION	HILLSBOROUGH	72	72	.	.	0.5969	.	0.98800	.	0.013000	.
160	PIERCE	HILLSBOROUGH	72	72	.	.	1.4224	.	0.90600	.	0.022500	.
161	PRETTY	HILLSBOROUGH	72	72	.	.	.	.	1.17500	0.33234	.	.
162	ROSALIE	HILLSBOROUGH	72	72	.	.	1.7272	.	0.66100	.	0.032000	.
163	ROUND	HILLSBOROUGH	65	73	.	.	.	.	0.49939	0.14899	0.017417	0.005580
164	SADDLEBACK	HILLSBOROUGH	68	73	.	.	.	.	0.57139	0.25228	0.014375	0.010727
165	STARVATION	HILLSBOROUGH	67	73	.	.	.	.	0.82369	0.38646	0.027095	0.015478
166	STEMPER	HILLSBOROUGH	65	70	.	.	.	.	0.63450	0.12953	0.024445	0.022194
167	SUNSHINE	HILLSBOROUGH	68	68	.	.	.	.	0.38516	.	0.016667	.
168	THONOTOSASSA	HILLSBOROUGH	65	81	54.803	23.1455	0.6007	0.2433	0.96304	0.82829	0.687343	0.232855
169	TURKEY FORD	HILLSBOROUGH	71	71	.	.	.	.	1.60250	.	0.036667	.
170	UNNAMED LAKE	HILLSBOROUGH	71	73	.	.	.	.	1.10609	.	0.020000	.
171	VAN DYKE	HILLSBOROUGH	70	73	.	.	.	.	1.21414	0.50923	0.059074	0.030367
172	WIMAUMA	HILLSBOROUGH	81	81	.	.	.	.	.	.	0.086000	.
173	SUN	HOLMES	79	80	1.967	1.0588	.	.	0.41989	0.02218	0.013511	0.004661
174	VICTOR	HOLMES	79	80	2.861	0.7277	2.7444	0.6194	0.29378	0.05964	0.012444	0.001575
175	BLUE CYPRESS	INDIAN RIVER	66	81	6.120	6.5628	0.8233	0.2698	1.29199	0.42410	0.069908	0.039805
176	COMPASS	JACKSON	79	80	0.650	0.2500	4.9111	1.2478	0.18450	0.05213	0.004267	0.004252
177	MERRITTS MILL POND	JACKSON	77	80	0.678	1.0027	2.7667	0.5317	0.87678	0.91631	0.018017	0.017126
178	OCHEESEE POND	JACKSON	77	80	2.179	2.0306	3.1611	0.5904	0.42790	0.27741	0.019452	0.010662
179	ROUND	JACKSON	79	80	0.844	0.1711	4.7111	0.5670	0.16889	0.02445	0.005367	0.002107
180	MICCOSUKEE	JEFFERSON	65	79	7.244	4.4339	12.6553	14.3019	1.05960	0.47998	0.046994	0.038966
181	KOON	LAFAYETTE	68	71	6.150	2.6163	0.8890	0.1466	1.41750	0.89742	0.079737	0.078132
182	TOWNSEND POND	LAFAYETTE	66	80	5.589	1.3996	1.3111	0.2200	0.63300	0.17050	0.008789	0.002506
183	ALEXANDER SPRINGS	LAKE	56	80	.	.	.	.	0.09779	0.10636	0.040000	0.000000
184	APSHAWA	LAKE	67	71	.	.	.	.	0.60363	0.37108	0.017500	0.006821
185	BAY	LAKE	68	68	.	.	.	.	.	.	0.026667	0.000000
186	BEAUCLAIR	LAKE	66	81	117.777	56.5416	0.3548	0.1111	4.18939	1.49639	0.301482	0.226912
187	BRIGHT	LAKE	68	68	.	.	.	.	.	.	0.030000	.
188	BUGG SPRING	LAKE	67	72	.	.	.	.	0.59500	.	0.065000	.
189	CATHERINE	LAKE	67	76	12.850	5.1000	10.5156	13.7225	1.33825	0.86562	0.038998	0.016344
190	CHERRY	LAKE	66	80	6.344	3.7706	1.7662	0.3893	0.48164	0.16171	0.032029	0.032224
191	CHURCH	LAKE	68	76	.	.	.	.	0.99973	0.37694	0.020535	0.007062
192	CRESCENT	LAKE	79	80	2.944	1.0362	3.0000	0.7937	0.41156	0.04676	0.013744	0.003074
193	DENHAM	LAKE	68	80	.	.	0.5842	0.0000	1.64885	0.20205	0.032593	0.028379
194	DICIE	LAKE	71	73	.	.	0.8001	0.3006	1.79677	0.16807	0.066632	0.147730
195	DORA	LAKE	63	81	92.481	47.7689	0.4275	0.2116	3.34159	1.17669	0.197477	0.129324
196	DORR	LAKE	65	80	5.966	4.1842	0.9937	0.2475	0.51981	0.12229	0.035064	0.012161
197	EMMA	LAKE	73	80	.	.	2.1675	0.9616	0.68656	0.24530	0.046287	0.031665
198	ENOLA	LAKE	79	79	.	.	.	.	0.30000	.	0.050000	.
199	EUSTIS	LAKE	66	81	36.015	20.7264	0.5276	0.1749	2.48597	0.67272	0.085817	0.073936
200	FISH	LAKE	68	68	.	.	.	.	.	.	0.066667	.
201	FLAT	LAKE	68	68	.	.	.	.	.	.	0.033333	.

Table 3-8. (Continued)*

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*                                                    *
*STD - PREFIX INDICATES STD DEVIATION                *
* YR - BEGINNING OR ENDING SAMPLE DATES               *
* MN - PREFIX INDICATES MINIMUM VALUE                 *
* MX - PREFIX INDICATES MAXIMUM VALUE                 *
* TN - TOTAL NITROGEN      TP - PHOSPHORUS            *
*CHLA- CHLOROPHYLL A       SD - SECCHI DISK           *
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OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
202	FLORENCE	LAKE	68.5000	69	.	.	.	.	1.00562	0.00000	0.01417	0.00589
203	GRASSY	LAKE	68.0000	68							0.05667	.
204	GRIFFIN	LAKE	65.0000	81	64.395	40.0879	0.51082	0.20530	2.70175	1.07654	0.12210	0.09485
205	HANCOCK	LAKE	68.0000	68	.	.	.	.	.	.	0.01667	.
206	HARRIS	LAKE	65.0000	80	20.292	7.2072	0.85425	0.24192	1.72361	1.27449	0.04199	0.03880
207	HIAWATHA	LAKE	66.0000	80	.	.	1.30528	0.45436	0.86400	0.43774	0.04732	0.01812
208	HOLLY	LAKE	68.0000	68	.	.	.	.	.	.	0.00667	0.00000
209	HORSESHOE	LAKE	74.0000	74	.	.	.	.	1.94194	0.00000	0.09000	0.00000
210	KATHRYN	LAKE	68.0000	79	.	.	.	.	0.21000	.	0.01333	0.00471
211	LADY	LAKE	70.0000	76	.	.	.	.	0.83632	0.16006	0.02190	0.00548
212	LITTLE LAKE HARRIS	LAKE	73.0000	80	.	.	1.04775	0.23680	2.19310	1.59183	0.05208	0.05054
213	LOUISA	LAKE	59.0000	80	5.044	2.2438	0.94138	0.30168	0.84157	0.30003	0.02564	0.01541
214	LUCY	LAKE	73.0000	80	.	.	2.41300	1.34236	0.82331	0.21484	0.04316	0.04146
215	MARY	LAKE	68.0000	68	.	.	.	.	.	.	0.03000	.
216	MELTON	LAKE	68.0000	68	.	.	.	.	.	.	0.01333	.
217	MINNEHAHA	LAKE	56.0000	80	6.876	2.4483	1.49857	0.35309	0.64615	0.26734	0.02337	0.01086
218	MINNEOLA	LAKE	66.0000	81	3.421	2.5738	2.62146	1.09935	0.52367	0.18356	0.02053	0.01663
219	NORRIS	LAKE	68.0000	68	.	.	.	.	.	.	0.01667	.
220	PINE	LAKE	68.5000	69	.	.	.	.	0.79821	0.00000	0.01250	0.00825
221	PITTS POND	LAKE	68.0000	69	.	.	.	.	1.14821	.	0.02000	0.01414
222	SCHIMMERHORN	LAKE	68.0000	68	.	.	.	.	.	.	0.03333	.
223	SELLERS	LAKE	74.0000	74	.	.	.	.	0.17100	.	0.02000	.
224	SILVER	LAKE	68.0000	68	.	.	.	.	.	.	0.05000	0.00000
225	SOUTH	LAKE	73.0000	73	.	.	0.91440	0.30480	1.50000	0.45826	0.07233	0.03753
226	SWATARA	LAKE	68.0000	68	.	.	.	.	.	.	0.03000	.
227	TROUT	LAKE	70.0000	76	89.856	41.0468	0.70931	0.10628	1.72110	0.69291	0.41796	0.50588
228	TUTUOLA	LAKE	79.0000	79	.	.	.	.	0.53000	.	0.04000	.
229	UMATILLA	LAKE	70.0000	76	.	.	.	.	0.97435	0.21965	0.02444	0.00853
230	WEST CROOKED	LAKE	70.0000	76	.	.	.	.	0.71372	0.22236	0.01729	0.00773
231	WILDCAT	LAKE	79.6667	80	1.156	0.2037	3.60833	0.55390	0.20470	0.04298	0.00716	0.00507
232	YALE	LAKE	65.0000	81	17.796	15.9952	1.48593	0.40660	1.26892	0.94189	0.03588	0.03758
233	LEELAND	LEE	74.0000	75	.	.	.	.	2.11000	.	0.06333	.
234	BRADFORD	LEON	66.0000	77	8.900	6.7199	1.60000	0.26458	0.48748	0.28247	0.02667	0.01229
235	CARR	LEON	79.0000	80	8.694	10.1319	1.96667	0.05774	0.43978	0.08160	0.01458	0.00301
236	IAMONIA	LEON	77.0000	80	8.333	4.0465	2.22593	0.53349	0.43777	0.03581	0.01128	0.00498
237	JACKSON	LEON	61.0000	81	6.341	5.9045	1.69504	0.47699	0.71844	0.55628	0.17670	0.62800
238	LAFAYETTE	LEON	74.0000	75	.	.	.	.	0.79750	.	0.06244	0.00844
239	MUNSON	LEON	66.0000	80	127.137	53.9334	0.38807	0.09190	4.86749	2.19677	2.15791	2.08484
240	CHUNKY POND	LEVY	67.0000	71	.	.	.	.	1.20305	0.10000	0.07083	0.07301
241	LONG POND	LEVY	68.5000	69	10.090	3.5497	0.75000	0.35355	1.14000	0.09899	0.05800	0.00849
242	ROUSSEAU	LEVY	66.0000	80	2.289	2.0266	3.12618	1.29524	0.46780	0.13190	0.03916	0.01458
243	MYSTIC	LIBERTY	79.0000	79	.	.	.	.	1.00000	.	0.20000	.
244	CHERRY	MADISON	79.6667	80	6.656	1.1162	1.83704	0.45628	0.30704	0.02045	0.03013	0.00409
245	FRANCIS	MADISON	68.0000	71	44.900	.	0.41275	0.16768	3.77500	2.31594	0.97994	1.27756
246	MYSTIC	MADISON	79.0000	80	3.678	0.7198	.	.	0.54856	0.06908	0.01224	0.00538
247	MANATEE RESERVOIR	MANATEE	67.0000	81	7.278	5.2976	1.20000	0.43589	0.93772	0.35399	0.17988	0.03249
248	BIG BASS	MARION	71.0000	73	.	.	1.09728	0.66293	1.46102	1.04241	0.02000	0.00645
249	BRYANT	MARION	80.0000	80	.	.	.	.	0.80000	.	0.03000	.
250	CHARLES	MARION	75.0000	76	.	.	.	.	1.45453	0.14642	0.04500	0.00707
251	EATON	MARION	75.0000	80	3.189	2.2451	0.43333	0.05774	0.98051	0.13218	0.05470	0.01526
252	KERR	MARION	65.0000	81	1.673	0.6543	2.95487	0.72936	0.42221	0.46882	0.01840	0.01015
253	LITTLE LAKE WEIR	MARION	75.0000	80	5.472	0.4990	1.71027	0.46095	0.87743	0.22624	0.01857	0.00900
254	MUD	MARION	64.0000	75	.	.	.	.	0.83548	.	0.02000	.
255	OCKLAWAHA	MARION	70.0000	78	10.119	1.8663	2.08643	0.88739	0.69963	1.00494	0.03601	0.02820
256	SELLERS	MARION	74.0000	80	1.967	1.3321	5.76667	0.70000	0.22892	0.05988	0.00886	0.00883
257	SMITH	MARION	79.6667	80	2.215	1.0099	2.63704	0.50004	0.42259	0.05523	0.01332	0.00849
258	UNNAMED	MARION	75.0000	76	.	.	.	.	3.21193	1.02964	0.04000	0.01414
259	WEIR	MARION	56.0000	81	6.177	3.3470	2.10381	0.41955	0.88355	0.34361	0.01950	0.01257
260	CYPRESS POND	MONROE	69.0000	69	.	.	.	.	1.04781	0.25146	0.02667	.
261	GUM SLOUGH POND	MONROE	70.0000	75	.	.	.	.	1.61383	1.49556	0.07500	0.09950
262	U MIAMI POND	MONROE	69.0000	70	.	.	.	.	0.95650	0.34436	1.33833	1.87855
263	HURRICANE	OKALOOSA	80.0000	80	2.733	1.0693	3.47778	0.71905	0.31711	0.13249	0.01108	0.00065
264	KARICK	OKALOOSA	66.0000	80	5.743	2.8446	2.21418	0.89884	0.46550	0.32889	0.12990	0.23823
265	OKEECHOBEE	OKEECHOBEE	68.0000	81	16.121	11.7993	0.67740	1.30939	1.64471	0.66346	0.11529	0.12383
266	ADAIR	ORANGE	79.0000	79	.	.	.	.	1.03871	.	0.05000	.
267	APOPKA	ORANGE	59.0000	81	63.239	36.5762	0.28032	0.12426	4.24557	2.08379	0.22882	0.14165
268	BALDWIN	ORANGE	79.0000	80	21.556	14.9954	1.46667	0.66916	0.63033	0.33342	0.03878	0.02198

Table 3-8. (Continued)*

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*                                          *
*STD - PREFIX INDICATES STD DEVIATION      *
* YR - BEGINNING OR ENDING SAMPLE DATES     *
* MN - PREFIX INDICATES MINIMUM VALUE       *
* MX - PREFIX INDICATES MAXIMUM VALUE       *
* TN - TOTAL NITROGEN     TP - PHOSPHORUS   *
*CHLA- CHLOROPHYLL A      SD - SECCHI DISK  *
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OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
269	BASS	ORANGE	62	68.0	.	.	.	.	1.19000	.	0.04000	.
270	BAY	ORANGE	66	77.0	4.450	5.5587	3.58667	0.3802	0.68368	0.44353	0.02395	0.01231
271	BEAUTY	ORANGE	67	69.0	.	.	.	.	0.75945	.	0.05000	.
272	BIG SAND	ORANGE	72	72.0	.	.	1.84150	2.1373	0.19550	0.23264	0.00967	0.00519
273	BLACK	ORANGE	67	71.0	.	.	.	.	1.66321	0.58982	0.27062	0.16200
274	BRYAN	ORANGE	71	74.0	.	.	.	.	0.24954	0.06381	0.04256	0.04966
275	BUENA VISTA	ORANGE	70	73.0	.	.	.	.	.	.	0.01943	0.01936
276	BUTLER	ORANGE	62	81.0	1.507	1.0872	2.13072	1.4899	0.47646	0.24128	0.02116	0.02140
277	CARLTON	ORANGE	65	80.0	90.650	64.6539	0.48260	0.1832	3.65449	1.03469	0.12308	0.07699
278	CHARITY	ORANGE	71	79.0	.	.	2.16347	0.9461	0.96432	0.36919	0.02122	0.01061
279	CHEROKEE	ORANGE	81	81.0	51.600	.	0.75000	.	2.22000	.	0.05300	.
280	CLEAR	ORANGE	67	79.0	.	.	.	.	0.96000	.	0.04000	.
281	CONWAY	ORANGE	62	80.0	3.685	1.0020	2.54066	1.9330	0.69423	0.37809	0.09005	0.26746
282	CROOKED	ORANGE	72	74.0	.	.	.	.	1.87634	1.64285	0.08833	0.01258
283	DAVIS	ORANGE	81	81.0	402.000	.	0.20000	.	5.14000	.	0.25000	.
284	DOWN	ORANGE	66	80.0	1.093	0.3407	1.63460	2.3080	1.33233	2.52363	0.04451	0.07950
285	DRUID	ORANGE	81	81.0	50.800	.	0.50000	.	2.32000	.	0.04800	.
286	EOLA	ORANGE	70	81.0	22.194	10.3187	1.09616	0.2488	0.67339	0.58412	0.14134	0.42176
287	FAIRVIEW	ORANGE	79	80.0	2.637	0.8631	4.34074	1.2846	0.56817	0.17989	0.01425	0.00559
288	FAITH	ORANGE	71	79.0	.	.	2.57644	0.6961	0.63825	0.35492	0.02061	0.01189
289	FRANCIS	ORANGE	63	71.0	.	.	.	.	0.79109	0.14500	0.03000	0.01361
290	GEORGIA	ORANGE	67	72.0	.	.	.	.	1.12637	0.91784	0.02238	0.01182
291	HART	ORANGE	54	80.0	4.274	0.2248	0.79221	0.2638	1.04969	0.11659	0.01768	0.00756
292	HIGHLAND	ORANGE	81	81.0	35.700	.	0.70000	.	0.81000	.	0.03400	.
293	HOLDENS	ORANGE	79	79.0	.	.	.	.	1.00000	.	0.04000	.
294	HOPE	ORANGE	71	79.0	.	.	2.26739	0.7873	0.72624	0.43176	0.02287	0.02092
295	HORSESHOE	ORANGE	72	74.0	.	.	.	.	1.83959	0.61828	0.13000	0.08888
296	HOURGLASS	ORANGE	67	79.0	.	.	.	.	1.53000	.	0.06000	.
297	IRMA	ORANGE	73	81.0	9.200	.	1.10000	.	0.68575	0.10713	0.09550	0.04879
298	IVANHOE	ORANGE	74	81.0	22.510	11.3836	0.95000	0.0707	1.17367	0.38339	0.09856	0.08751
299	JESSAMINE	ORANGE	79	80.0	4.878	1.7818	3.42222	0.8382	0.61167	0.06513	0.01614	0.00966
300	JOHIO	ORANGE	67	68.0	.	.	.	.	.	.	0.01667	0.00000
301	JOHNS	ORANGE	59	80.0	7.986	2.2298	1.18859	0.3191	0.78795	0.35603	0.04865	0.03005
302	KILLARNEY	ORANGE	66	81.0	13.378	9.2100	2.03832	0.6011	0.72560	0.30951	0.07309	0.03804
303	LAGOON	ORANGE	74	81.0	.	.	.	.	0.65378	0.43914	0.04806	0.04482
304	LAWNE	ORANGE	66	80.0	59.581	77.9721	1.04798	1.2117	5.02205	2.97343	3.48932	3.36503
305	LITTLE LAKE BRYAN	ORANGE	70	73.0	.	.	.	.	.	.	0.02183	0.01735
306	LONG	ORANGE	67	72.0	.	.	.	.	1.31600	0.66627	0.15611	0.20493
307	LOVELY	ORANGE	67	71.0	.	.	.	.	3.11875	2.32431	1.81958	0.77747
308	LUCERNE	ORANGE	67	81.0	39.900	.	0.80000	.	2.23000	.	0.10000	.
309	LUCIEN	ORANGE	74	79.0	.	.	3.76936	1.0697	0.49190	0.14813	0.01581	0.01057
310	MABEL	ORANGE	70	74.0	.	.	.	.	0.42600	.	0.12844	0.32712
311	MAITLAND	ORANGE	59	80.0	9.064	6.0549	1.64527	1.2411	1.92649	3.72799	0.25902	1.15167
312	MANN	ORANGE	65	79.0	.	.	.	.	0.93427	0.40431	0.04000	.
313	MARY JANE	ORANGE	60	80.0	11.159	7.4828	0.60121	0.2936	1.24702	0.40270	0.03785	0.02552
314	MINNEHAHA	ORANGE	73	73.0	8.733	2.7647	1.64217	0.7022	0.77228	0.33140	0.05142	0.03328
315	NAN	ORANGE	81	81.0	6.800	.	2.30000	.	0.51000	.	0.01900	.
316	OLA	ORANGE	66	73.0	8.550	3.9770	2.30293	0.5525	0.54000	0.13221	0.08603	0.11874
317	OSCEOLA	ORANGE	72	73.0	.	.	7.40410	10.2195	8.32667	6.95981	0.11778	0.09100
318	PEARL	ORANGE	79	79.0	.	.	.	.	1.26000	0.00000	0.03000	0.00000
319	POCKET	ORANGE	72	72.0	.	.	0.20320	.	0.59600	.	0.02000	.
320	PORTER	ORANGE	67	73.0	.	.	0.59690	1.3274	0.99477	0.55447	0.04230	0.04373
321	ROCK	ORANGE	81	81.0	27.600	.	1.35000	.	1.45000	.	0.04200	.
322	SHADOW	ORANGE	66	67.0	.	.	.	.	1.62857	0.05657	0.13333	.
323	SHEEN	ORANGE	72	75.0	.	.	.	0.0063	0.56111	0.04948	0.00815	0.00257
324	SHERWOOD	ORANGE	67	68.0	.	.	.	.	.	.	0.04333	0.00000
325	SILVER	ORANGE	62	71.5	39.400	.	1.10000	.	1.16000	.	0.03000	.
326	STARKE	ORANGE	79	79.0	.	.	.	.	1.04000	.	0.04000	.
327	SUE	ORANGE	66	70.0	.	.	.	.	1.41160	0.70549	0.02300	0.01743
328	SUSANNAH	ORANGE	79	79.0	.	.	.	.	1.24000	.	0.03000	.
329	SYLVAN	ORANGE	76	76.0	.	.	.	.	0.81500	.	0.08000	.
330	TIBET	ORANGE	66	73.0	3.350	1.3500	2.21544	0.8040	0.44588	0.08129	0.02080	0.02098
331	TURKEY	ORANGE	67	73.0	.	.	0.44767	0.7181	1.16575	0.35700	0.04056	0.05099
332	UNDERHILL	ORANGE	66	81.0	29.150	21.9947	1.94435	3.1957	1.89882	1.76453	0.24424	0.58338
333	VENUS	ORANGE	69	69.0	.	.	.	.	0.94125	.	0.01333	.
334	VIRGINIA	ORANGE	65	80.0	19.767	11.4949	2.33671	1.5035	0.60366	0.18920	0.05419	0.05963
335	WEKIVA	ORANGE	67	74.0	.	.	.	.	2.65671	0.70898	1.37185	0.91167

Table 3-8. (Continued)*

*STD - PREFIX INDICATES STD DEVIATION *
* YR - BEGINNING OR ENDING SAMPLE DATES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
336	WESTON	ORANGE	67.0	71	.	.	.	.	4.77450	2.77334	4.15370	1.81410
337	AJAY	OSCEOLA	72.0	75	.	.	1.01600	.	1.47012	0.21790	0.08375	0.06237
338	ALLIGATOR	OSCEOLA	54.0	80	3.416	0.966	1.77717	0.50373	0.73179	0.27579	0.03002	0.02260
339	BRICK	OSCEOLA	72.0	80	11.750	6.718	1.11760	.	1.29000	0.38825	0.04860	0.01293
340	CENTER	OSCEOLA	72.0	75	.	.	0.45720	.	1.64433	0.52981	0.05400	0.03677
341	CONLIN	OSCEOLA	72.0	72	.	.	0.93980	.	0.83600	.	0.01800	.
342	COON	OSCEOLA	72.0	80	12.000	.	1.16840	.	0.81750	0.02192	0.02200	0.01697
343	CYPRESS	OSCEOLA	54.0	81	86.963	35.066	0.49156	0.23903	1.73410	0.82623	0.11167	0.07636
344	EAST TOHOPEKALIGA	OSCEOLA	54.0	81	6.161	3.964	1.39237	0.38257	0.76774	0.24343	0.04933	0.04114
345	FISH	OSCEOLA	73.0	73	.	.	.	.	1.18700	.	0.15000	.
346	FISH & COLLEEN	OSCEOLA	73.0	73	.	.	.	.	1.15700	.	0.16000	.
347	FISH & MARK	OSCEOLA	73.0	73	.	.	.	.	1.19500	.	0.15000	.
348	GENTRY	OSCEOLA	54.0	80	5.713	1.767	0.92782	0.28873	0.64812	0.13744	0.02628	0.01530
349	HATCHINEHA	OSCEOLA	54.0	81	30.841	27.412	0.57508	0.21053	1.55362	0.58929	0.09107	0.04587
350	JACKSON	OSCEOLA	77.0	80	18.850	3.850	0.50800	.	1.28300	0.45874	0.10189	0.03900
351	JOEL	OSCEOLA	72.0	80	22.000	.	0.66040	.	1.22650	0.25102	0.02850	0.01909
352	KISSIMMEE	OSCEOLA	54.0	81	23.300	11.735	1.21833	0.59927	1.45979	0.69996	0.05917	0.04536
353	LIVE OAK	OSCEOLA	72.0	72	.	.	2.13360	.	0.63200	.	0.01000	.
354	LIZZIE	OSCEOLA	72.0	80	.	.	2.33680	.	0.79187	0.18979	0.02456	0.01367
355	MARIAN	OSCEOLA	66.0	81	50.982	26.673	0.73246	0.19655	1.89047	0.86203	0.11071	0.08568
356	MYRTLE	OSCEOLA	72.0	81	15.000	4.243	1.11760	.	1.02700	0.32437	0.02667	0.01528
357	PRESTON	OSCEOLA	72.0	81	17.000	.	0.86360	.	1.26200	0.44972	0.03150	0.02616
358	ROSALIE	OSCEOLA	72.0	72	.	.	1.70180	.	0.57100	.	0.03200	.
359	RUSSELL	OSCEOLA	78.2	81	9.950	5.849	0.55880	.	1.64372	0.26017	0.04972	0.01614
360	TOHOPEKALIGA	OSCEOLA	54.0	81	85.319	61.220	1.24409	3.89311	1.80925	0.84170	0.36061	0.19826
361	TROUT	OSCEOLA	72.0	80	13.000	.	0.96520	.	1.07600	0.35926	0.02867	0.02013
362	CLARKE	PALM BEACH	75.0	75	.	.	.	.	2.03000	.	0.07000	.
363	CLEAR	PALM BEACH	70.0	75	.	.	4.06399	.	0.89446	0.29980	0.02167	0.01650
364	OSBORNE	PALM BEACH	43.0	81	39.933	6.788	0.98889	0.11706	1.24460	0.28041	0.12884	0.02913
365	BIG FISH	PASCO	77.0	77	.	.	.	.	0.72000	.	0.01000	.
366	BIRD	PASCO	68.0	68	.	.	.	.	0.65548	.	0.00667	.
367	BLANTON	PASCO	68.0	68	.	.	.	.	0.73143	.	0.01000	.
368	BLUE	PASCO	81.0	81	.	.	.	.	.	.	0.02400	.
369	CAMP	PASCO	69.0	71	.	.	.	.	0.79717	0.15109	0.03222	0.00385
370	CLEAR	PASCO	65.0	72	10.962	5.943	1.98120	0.61092	0.64021	0.26109	0.03389	0.01271
371	CREWS	PASCO	65.0	81	3.589	0.866	1.48333	0.25927	0.82603	0.26569	0.02450	0.02691
372	DOWLING	PASCO	68.0	68	.	.	.	.	1.97097	.	0.03333	.
373	FERGUSON	PASCO	68.0	68	.	.	.	.	1.70627	0.00000	0.02000	0.00000
374	GOOSE	PASCO	68.0	68	.	.	.	.	1.03401	.	0.01667	.
375	HANCOCK	PASCO	68.0	68	.	.	.	.	1.05323	.	0.01667	.
376	IOLA	PASCO	65.0	81	4.937	2.873	3.27407	0.54346	0.59438	0.24025	0.03425	0.04327
377	JESSAMINE	PASCO	81.0	81	.	.	.	.	.	.	0.16200	.
378	KING	PASCO	68.0	81	.	.	.	.	0.53807	0.00000	0.00333	0.00000
379	MIDDLE	PASCO	81.0	81	.	.	.	.	.	.	0.10000	.
380	MOODY	PASCO	68.0	81	.	.	.	.	0.74821	.	0.01883	0.00306
381	MOON	PASCO	65.0	80	3.371	1.447	2.20402	0.56323	0.64088	0.07639	0.04857	0.05968
382	OAKES POND	PASCO	77.0	77	.	.	.	.	0.90000	.	0.01000	.
383	PADGETT	PASCO	65.0	80	2.515	0.553	3.34074	0.78891	0.67301	0.32721	0.01718	0.00904
384	PARKER	PASCO	70.0	70	.	.	.	.	0.46609	0.00000	0.03333	0.00000
385	PASADENA	PASCO	68.0	80	8.722	3.535	1.23333	0.25166	0.79600	0.08584	0.02698	0.00333
386	SAXON	PASCO	68.0	80	.	.	.	.	0.79597	0.13572	0.01750	0.01061
387	SUWANNEE	PASCO	79.0	80	20.956	16.029	1.25556	0.76182	0.97922	0.15461	0.05848	0.01675
388	THOMAS	PASCO	68.0	71	.	.	.	.	0.44373	0.12625	0.01200	0.00691
389	WHITE TURKEY POND	PASCO	68.0	68	.	.	.	.	1.70305	.	3.23333	.
390	ALLIGATOR	PINELLAS	62.0	81	37.775	10.324	0.50800	0.13725	1.17786	0.21490	0.51522	0.20076
391	MAGGIORE	PINELLAS	65.0	80	157.675	111.054	0.27102	0.10734	4.45437	2.41482	0.28115	0.30270
392	SALT	PINELLAS	81.0	81	.	.	.	.	.	.	0.07800	.
393	SAWGRASS	PINELLAS	77.0	79	.	.	1.00000	.	1.22500	0.24749	0.07917	0.02946
394	SEMINOLE	PINELLAS	65.0	80	75.686	26.375	0.53771	0.25675	2.06418	0.52736	0.75256	1.26247
395	TARPON	PINELLAS	64.0	81	6.875	4.861	1.98922	0.52243	0.91233	0.37595	0.07712	0.27203
396	AGNES	POLK	80.0	81	18.689	8.148	0.86667	0.20000	0.85878	0.02560	0.05937	0.01783
397	ALFRED	POLK	70.0	74	.	.	.	.	1.60725	0.56342	0.02296	0.00339
398	ANN	POLK	81.0	81	.	.	.	.	.	.	0.03800	0.00000
399	ANNIE	POLK	75.5	80	.	.	0.40640	0.00000	1.74507	0.26447	0.10500	0.03536
400	ARBUCKLE	POLK	54.0	81	18.744	9.569	0.87389	0.35405	1.19085	0.76304	0.04035	0.02984
401	ARETTA	POLK	71.0	81	7.556	8.324	2.61553	1.23739	0.49441	0.15863	0.02498	0.02278
402	ARIANA	POLK	74.0	81	23.215	12.406	0.94074	0.12239	1.32648	1.20625	0.07066	0.06156

Table 3-8. (Continued)*

*STD - PREFIX INDICATES STD DEVIATION
* YR - BEGINNING OR ENDING SAMPLE DATES
* MN - PREFIX INDICATES MINIMUM VALUE
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* TN - TOTAL NITROGEN TP - PHOSPHORUS
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
403	BANANA	POLK	70.0	77.0000	331.468	265.246	0.38183	0.13454	5.31934	2.68509	0.83971	0.47030
404	BEULAH	POLK	81.0	81.0000	39.700	0.000	0.75000	0.00000	1.83000	0.00000	0.06100	0.00000
405	BONNETT	POLK	81.0	81.0000	.	.	.	.	.	.	0.28700	.
406	BONNY	POLK	75.0	77.3333	107.700	0.000	0.45720	0.00000	2.65550	0.17450	0.08800	.
407	BUFFUM	POLK	78.0	81.0000	2.722	0.648	1.22267	0.72204	0.38899	0.05941	0.05841	0.01832
408	CANNON	POLK	69.0	77.0000	102.000	26.497	0.60498	0.11504	1.82211	0.77687	0.06560	0.02221
409	CLEARWATER	POLK	81.0	81.0000	.	.	.	.	.	.	0.02100	.
410	CLINCH	POLK	66.0	81.0000	7.348	0.640	2.05926	0.63053	0.33117	0.08752	0.01761	0.01194
411	CONNIE	POLK	69.0	80.0000	.	.	0.93980	0.05680	1.61460	0.67623	0.64357	0.29307
412	CROOKED	POLK	65.0	81.0000	3.456	0.876	2.60402	1.05622	0.42212	0.05874	0.02574	0.04949
413	DARSEY	POLK	74.0	76.0000	.	.	.	.	0.92800	0.04667	.	.
414	DEER	POLK	67.0	74.0000	.	.	.	.	0.12400	0.00000	0.01667	0.00000
415	DEESON	POLK	66.0	71.0000	.	.	.	.	0.90304	0.56568	0.03750	0.01134
416	DEXTER	POLK	72.0	76.0000	.	.	.	.	0.93333	0.14383	.	.
417	EAGLE	POLK	70.0	80.0000	23.096	3.730	0.76667	0.00000	1.51567	0.65853	0.02469	0.00256
418	ECHO	POLK	81.0	81.0000	.	.	.	.	0.64000	.	0.01000	.
419	EFFIE	POLK	65.0	73.0000	217.363	183.030	0.31820	0.15319	4.83628	1.22993	1.76501	0.74926
420	ELBERT	POLK	71.0	71.0000	.	.	.	.	0.98267	.	.	.
421	ELOISE	POLK	66.0	77.0000	68.712	20.162	0.79498	0.17120	2.30614	0.90150	0.55871	0.44246
422	FANNIE	POLK	67.0	71.4000	.	.	.	.	0.79196	0.08109	0.02556	0.00314
423	GARFIELD	POLK	70.0	81.0000	.	.	.	.	1.21913	0.98442	0.12100	0.05462
424	GIBSON	POLK	66.0	81.0000	16.400	9.994	0.74880	0.16777	1.23801	0.82118	0.23098	0.07532
425	GUM	POLK	81.0	81.0000	.	.	.	.	.	.	0.04500	.
426	HAINES	POLK	66.0	81.0000	18.425	7.076	0.88375	0.23071	1.17043	0.29093	0.17492	0.19023
427	HAMILTON	POLK	77.5	80.0000	.	.	0.73025	0.15865	1.36767	0.00314	0.11667	0.00000
428	HANCOCK	POLK	66.0	81.0000	153.304	101.364	0.35946	0.10308	5.59430	3.91458	0.91079	0.72234
429	HARTRIDGE	POLK	67.0	77.0000	20.900	8.257	1.41732	0.23815	1.01159	0.64178	0.03056	0.01161
430	HELENE	POLK	62.0	71.0000	.	.	.	.	0.56457	0.12848	0.01694	0.00278
431	HENRY	POLK	81.0	81.0000	.	.	.	.	.	.	0.05175	0.04066
432	HOLLINGSWORTH	POLK	66.0	79.0000	114.799	51.493	0.48440	0.17705	3.65233	1.70945	0.38191	0.14435
433	HOWARD	POLK	66.0	80.0000	144.373	59.746	0.45880	0.12668	2.33307	1.24627	0.05206	0.02930
434	HUNTER	POLK	70.0	81.0000	52.600	26.163	0.40000	.	1.13250	0.73893	0.10750	0.06010
435	IDYLWILD	POLK	73.0	76.0000	34.050	2.616	1.09502	0.26623	1.09854	0.58609	0.05500	0.02082
436	JESSIE	POLK	66.0	77.0000	39.650	21.655	0.94773	0.25298	1.27819	0.54182	0.08511	0.03832
437	JULIANA	POLK	65.0	72.0000	26.156	7.105	1.24142	0.09525	0.88233	0.14589	0.03124	0.01033
438	LENA	POLK	70.0	74.0000	.	.	.	.	2.42491	1.09166	0.02833	0.00167
439	LINK	POLK	72.0	72.0000	.	.	.	.	1.94100	.	.	.
440	LITTLE CROOKED	POLK	80.0	80.0000	11.394	5.059	0.31111	0.15031	1.03189	0.11378	0.05430	0.01414
441	LOWERY	POLK	59.0	81.0000	10.919	4.407	1.09723	0.21489	1.40436	0.28332	0.03702	0.02978
442	LULU	POLK	66.0	77.0000	239.900	87.590	0.34665	0.11653	3.96753	1.47255	2.21061	2.14296
443	MARIANA	POLK	67.0	74.0000	.	.	.	.	1.38200	0.00000	0.01000	0.00000
444	MARION	POLK	66.0	81.0000	21.481	9.265	0.78851	0.21018	1.92388	1.41216	0.04065	0.02546
445	MATTIE	POLK	62.0	81.0000	11.219	1.847	0.69709	0.16142	1.04408	0.23867	0.57799	0.40198
446	MAUDE	POLK	81.0	81.0000	30.500	.	0.90000	.	1.09000	.	0.03400	.
447	MAY	POLK	76.0	76.0000	.	.	0.34290	0.01796	2.91000	.	0.08000	.
448	MAYO	POLK	69.0	76.0000	.	.	0.60960	.	1.97062	0.79544	0.21000	.
449	MCLEOD	POLK	70.0	71.0000	.	.	.	.	1.42466	0.42007	0.03000	0.00000
450	MIRROR	POLK	74.0	77.0000	69.400	0.000	0.52353	0.13084	1.89930	0.69027	0.05140	0.00937
451	MOUNTAIN	POLK	67.0	71.0000	.	.	.	.	0.44152	0.03152	0.05111	0.01286
452	MUD	POLK	81.0	81.0000	.	.	.	.	.	.	0.05000	0.00000
453	MYRTLE	POLK	70.5	71.0000	.	.	.	.	0.66357	0.04870	0.05083	0.00118
454	OTIS	POLK	67.0	76.0000	.	.	.	.	0.65492	0.32831	0.01833	0.00957
455	PARKER	POLK	65.0	81.0000	80.773	51.704	0.45740	0.10318	2.45705	1.10515	0.15123	0.08422
456	PIERCE	POLK	65.0	81.0000	21.382	6.500	1.18061	0.72634	1.24614	0.61821	0.03479	0.02057
457	REEDY	POLK	65.0	80.0000	29.564	14.730	0.85388	0.21476	1.52194	0.48528	0.06232	0.05783
458	ROCHELLE	POLK	66.0	76.0000	16.600	4.500	0.97536	0.07466	1.28933	0.65058	0.03667	0.00000
459	ROSALIE	POLK	66.0	80.0000	5.927	2.157	1.13013	0.24141	0.81026	0.29919	0.04320	0.02322
460	ROY	POLK	72.0	72.0000	.	.	.	.	2.11100	.	.	.
461	SCOTT	POLK	65.0	81.0000	98.400	63.173	0.33655	0.17023	3.06537	1.55737	0.24392	0.15522
462	SEARS	POLK	74.0	76.0000	.	.	1.21920	.	1.03967	0.37537	.	.
463	SHIPP	POLK	76.0	77.0000	.	.	0.39136	0.05153	3.48250	0.20056	0.11187	0.05289
464	SILVER	POLK	69.0	71.0000	.	.	.	.	1.10493	0.32841	.	.
465	SMART	POLK	67.0	72.0000	.	.	.	.	.	.	0.04333	0.00000
466	SPIRIT	POLK	74.0	76.0000	.	.	1.21920	.	1.05233	0.41659	.	.
467	SPRING	POLK	73.0	77.0000	34.600	.	1.01600	0.25071	1.58105	0.67913	0.05158	0.01883
468	STAR	POLK	68.0	73.0000	7.075	2.532	1.34197	0.57819	0.89833	0.33018	0.06940	0.04874
469	SUMMIT	POLK	72.0	75.0000	.	.	.	.	2.01814	0.22947	.	.

Table 3-8. (Continued)*

*STD - PREFIX INDICATES STD DEVIATION *
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*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
470	SWOOPE	POLK	75	81	.	.	1.2192	.	2.44171	1.50666	0.08614	0.06398
471	TENNESSEE	POLK	81	81	.	.	.	.	.	.	0.03200	.
472	THOMAS	POLK	68	81	.	.	1.5240	.	0.86908	0.31883	0.03600	.
473	TIGER	POLK	78	80	16.144	18.2086	0.7010	0.12651	0.82787	0.10359	0.04221	0.00314
474	TRACY	POLK	68	80	7.800	8.0610	2.3673	0.54222	0.77336	0.22001	0.04894	0.02652
475	WALES	POLK	66	80	13.767	15.3053	2.0759	0.78818	0.64793	0.30403	0.03138	0.02321
476	WEOHYAKAPKA	POLK	66	80	8.091	8.0207	1.1080	0.25691	0.76605	0.79595	0.04612	0.03438
477	WHISTLER	POLK	71	81	.	.	.	.	1.20913	.	0.02500	0.00707
478	WINTERSET	POLK	69	77	37.150	10.3945	1.0678	0.16003	1.62346	0.68062	0.04200	0.01304
479	WIRE	POLK	81	81	28.800	.	1.8000	.	0.94000	.	0.08200	.
480	ADAHO	PUTNAM	68	70	5.100	2.9223	0.7600	0.23022	0.89800	0.29465	0.03540	0.01919
481	ANDERSON CUE	PUTNAM	68	79	3.183	1.9711	2.7142	1.55661	0.57820	0.32681	0.02533	0.01388
482	BROWARD	PUTNAM	79	80	1.456	0.5178	5.7222	0.79045	0.17233	0.06376	0.00360	0.00278
483	COWPEN	PUTNAM	68	80	1.829	0.9006	3.4889	1.06266	0.21500	0.10537	0.01200	0.00497
484	CALLILEE	PUTNAM	68	79	2.010	1.0646	2.9644	0.92236	0.34089	0.09299	0.01778	0.00854
485	GEORGE	PUTNAM	62	80	38.501	23.8060	0.7558	0.19246	1.45437	0.46758	0.09756	0.04704
486	GEORGES	PUTNAM	75	80	2.550	0.0000	.	.	0.95044	1.56373	0.05178	0.04431
487	GRANDIN	PUTNAM	57	71	.	.	.	.	0.82058	0.10629	0.05778	0.02283
488	LITTLE LAKE GEORGE	PUTNAM	71	75	.	.	.	.	1.21433	0.50245	0.07500	0.03536
489	LONG POND	PUTNAM	68	70	1.400	0.4000	4.2800	0.36332	0.14200	0.07563	0.01220	0.00502
490	MARGARET	PUTNAM	79	80	7.233	3.1184	0.7111	0.22194	0.71411	0.44535	0.02011	0.00214
491	MCCLOUD	PUTNAM	68	79	2.111	1.4139	4.4525	1.08418	0.39533	0.14581	0.01667	0.00751
492	MOSS LEE	PUTNAM	68	70	7.780	5.7699	1.4800	0.21679	0.87200	0.17978	0.04420	0.01681
493	SANTA ROSA	PUTNAM	68	79	1.904	1.0415	6.0333	1.76352	0.20975	0.07267	0.01467	0.00709
494	STELLA	PUTNAM	79	80	2.700	1.5452	4.0500	2.05061	0.45822	0.04780	0.01288	0.00636
495	SUGGS	PUTNAM	68	70	4.050	2.3059	0.9125	0.08345	0.82000	0.16733	0.03612	0.01320
496	SWAN	PUTNAM	68	70	1.600	0.5127	3.1875	0.53033	0.25675	0.10239	0.01437	0.00863
497	WALL	PUTNAM	68	70	4.275	1.9956	1.3500	0.36768	0.95050	0.21836	0.02875	0.00608
498	WINNOTT	PUTNAM	68	70	2.600	1.5149	3.5800	0.93915	0.57600	0.23650	0.02300	0.00671
499	BEAR	SANTA ROSA	66	80	40.681	62.5817	1.6100	0.41440	0.55359	0.30638	0.12317	0.15144
500	UPPER MYAKKA	SARASOTA	75	81	7.199	3.4230	2.0196	1.75278	1.19362	0.36290	0.30233	0.18100
501	ADA	SEMINOLE	73	73	.	.	.	.	0.48500	.	.	.
502	BANANA	SEMINOLE	81	81	.	.	.	.	.	.	2.16300	.
503	BEAR	SEMINOLE	72	73	.	.	.	.	0.43667	0.01528	.	.
504	BRANTLEY	SEMINOLE	72	73	.	.	0.1524	.	0.36000	.	.	.
505	CATHERINE	SEMINOLE	72	73	.	.	0.3810	.	0.18000	.	.	.
506	CRYSTAL	SEMINOLE	72	72	.	.	.	.	0.23500	.	.	.
507	ELEVENTH HOLE	SEMINOLE	46	73	.	.	.	.	0.74700	0.12162	0.16000	0.00000
508	FAIRY	SEMINOLE	66	74	.	.	.	.	0.72680	0.48496	0.03000	.
509	FLORIDA	SEMINOLE	73	74	.	.	4.9191	3.38855	0.95250	0.27105	0.08000	0.00000
510	GOLDEN	SEMINOLE	72	74	.	.	2.4384	.	0.60000	0.05657	.	.
511	HORSESHOE	SEMINOLE	73	73	12.067	3.7287	1.0374	0.14300	1.01667	0.22949	0.04867	0.02508
512	HOWELL	SEMINOLE	66	75	54.067	20.6476	1.8226	2.42716	1.67288	0.51400	1.53773	1.07925
513	JENNIE	SEMINOLE	73	74	.	.	.	.	0.52750	0.06010	.	.
514	JESSUP	SEMINOLE	66	81	120.849	84.4429	0.5239	0.92861	3.34361	1.90266	0.45014	0.25074
515	KATHRYN	SEMINOLE	72	73	.	.	10.0504	1.29316	0.77750	0.00354	.	.
516	LOTUS	SEMINOLE	79	79	.	.	.	.	1.80000	.	0.16000	.
517	MARKHAM	SEMINOLE	74	74	.	.	.	.	0.35333	.	0.06667	.
518	MARY	SEMINOLE	72	74	.	.	0.2032	.	0.69500	0.30500	0.10000	.
519	MILLS	SEMINOLE	72	79	.	.	0.3810	.	0.63375	0.52336	0.02250	0.01061
520	MINNIE	SEMINOLE	72	73	.	.	.	.	1.08000	0.31113	.	.
521	MIRROR	SEMINOLE	74	74	.	.	.	.	0.99000	.	.	.
522	PEARL	SEMINOLE	71	79	.	.	.	.	1.24940	0.31708	0.06500	0.05220
523	PRAIRIE	SEMINOLE	73	73	.	.	.	.	0.39667	.	.	.
524	SEMINOLE	SEMINOLE	79	80	10.544	0.8921	0.4809	0.18359	0.51356	0.09862	0.04358	0.01005
525	SILVER	SEMINOLE	72	73	.	.	.	.	0.37000	.	.	.
526	SPRING	SEMINOLE	72	75	.	.	5.6896	4.49343	2.16586	0.71556	1.42900	1.15897
527	SYLVAN	SEMINOLE	72	73	.	.	.	.	0.52056	0.09945	.	.
528	TRIPLET	SEMINOLE	79	80	.	.	.	.	0.53000	.	0.04000	.
529	DEATON	SUMTER	79	80	37.167	15.4371	0.5181	0.11037	0.81530	0.44629	0.03626	0.01123
530	MIONA	SUMTER	79	80	12.600	4.1516	1.1111	0.09403	1.27575	0.28769	0.03519	0.03137
531	OKAHUMPKA	SUMTER	79	80	4.856	0.8243	1.1811	0.03810	0.95081	0.08043	0.02025	0.00745
532	PANASOFFKEE	SUMTER	65	81	10.789	11.6784	1.2594	0.29574	0.66268	0.34484	0.03977	0.02486
533	LOUISE	SUWANNEE	79	80	6.478	2.2277	1.8444	0.15753	0.63167	0.06278	0.02291	0.00751
534	SUSAN	SUWANNEE	79	80	9.056	10.6480	0.8556	0.24114	0.84089	0.15484	0.01364	0.00804
535	BUTLER	UNION	57	80	8.318	9.7319	1.0782	0.18430	0.51776	0.09741	0.02520	0.00459
536	PALESTINE	UNION	65	80	5.688	1.7568	0.9560	0.23397	0.44418	0.14175	0.01957	0.00395

Table 3-8. (Continued)*

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*                                          *
*STD - PREFIX INDICATES STD DEVIATION      *
* YR - BEGINNING OR ENDING SAMPLE DATES    *
* MN - PREFIX INDICATES MINIMUM VALUE      *
* MX - PREFIX INDICATES MAXIMUM VALUE      *
* TN - TOTAL NITROGEN     TP - PHOSPHORUS  *
*CHLA- CHLOROPHYLL A      SD - SECCHI DISK *
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OBS	LAKE	COUNTY	MNYR	MXYR	CHLA	STDCHLA	SECCHI	STDSD	TN	STDTN	TOTP	STDTP
537	SWIFTS CREEK POND	UNION	66	66	.	.	.	.	.	.	0.020000	.
538	ANGELES	VOLUSIA	76	76	.	.	.	.	0.11100	.	0.019000	.
539	ASHBY	VOLUSIA	77	80	11.3833	10.2874	0.81111	0.28328	0.64583	0.19259	0.028680	0.014516
540	BATON	VOLUSIA	76	76	.	.	.	.	0.41100	.	0.030000	.
541	BERESFORD	VOLUSIA	71	75	.	.	.	.	1.65450	0.50640	0.170000	0.056569
542	BUTLER	VOLUSIA	76	76	.	.	.	.	0.35100	.	0.005500	.
543	DEXTER	VOLUSIA	71	80	17.5889	16.3877	0.66667	0.20276	1.19552	0.27523	0.118953	0.031620
544	DIAS	VOLUSIA	79	80	6.3111	5.7008	1.01111	0.45010	0.63944	0.09318	0.052700	0.002656
545	DUPONT	VOLUSIA	66	76	.	.	.	.	0.21150	0.00000	0.046500	0.000000
546	HARNEY	VOLUSIA	68	80	14.8444	13.3627	4.88279	4.31119	1.93086	1.39548	0.130576	0.104156
547	HUTCHINSON	VOLUSIA	76	76	.	.	.	.	0.41100	.	0.014000	.
548	LOUISE	VOLUSIA	65	76	.	.	.	.	0.26100	.	0.019000	.
549	MOLLY	VOLUSIA	76	79	.	.	.	.	0.98000	0.14142	0.035000	0.007071
550	MONROE	VOLUSIA	68	80	44.6721	31.6735	2.73025	3.03420	2.80364	3.01743	0.194695	0.065204
551	PUZZLE	VOLUSIA	68	71	.	.	.	.	1.24554	0.48464	.	.
552	THERESA	VOLUSIA	76	76	.	.	.	.	0.03100	.	0.011000	.
553	THREE ISLAND	VOLUSIA	76	76	.	.	.	.	0.47100	.	0.019000	.
554	WINNEMISETT	VOLUSIA	65	80	0.8333	0.2906	6.11852	0.42634	0.53646	0.26571	0.011058	0.012659
555	WINORO	VOLUSIA	65	81	3.2889	0.4439	2.80670	0.68245	0.30895	0.13123	0.011275	0.005283
556	ELLEN	WAKULLA	80	80	3.1778	1.3167	1.48889	0.16777	0.31933	0.01710	0.011944	0.004078
557	OTTER	WAKULLA	80	80	2.9000	0.1528	0.93333	0.24037	0.50050	0.10985	0.028689	0.021751
558	SANTA FE	WAKULLA	79	80	5.4333	0.8185	2.15556	0.35329	0.35833	0.07918	0.016333	0.015465
559	DEFUNEAK	WALTON	69	70	.	.	.	.	0.52000	.	0.016667	0.014142
560	JACKSON	WALTON	69	80	5.3838	4.1532	2.00556	0.97966	0.48701	0.41259	0.022238	0.016984
561	JUNIPER	WALTON	79	80	7.0667	2.1106	2.36667	0.78387	0.38800	0.04054	0.019733	0.003158
562	OYSTER	WALTON	80	80	4.0111	1.1359	0.88889	0.35642	0.55378	0.06502	0.034011	0.004645
563	STANLEY	WALTON	80	80	3.2889	1.9597	2.52222	0.50918	0.34567	0.05861	0.011122	0.005988
564	WESTERN	WALTON	80	80	1.2778	0.4439	1.74444	1.12019	0.28878	0.04921	0.005700	0.004072
565	CLARKS	WASHINGTON	62	69	.	.	.	.	.	.	0.113333	0.117851
566	CRYSTAL	WASHINGTON	79	80	0.4889	0.1895	8.05556	1.30398	0.11849	0.01541	0.006278	0.002407
567	DUNFORD POND	WASHINGTON	79	80	0.7889	0.2143	5.00000	.	0.22000	0.04076	0.007078	0.002598
568	GAP POND	WASHINGTON	62	80	1.5000	0.2517	4.50000	.	0.30833	0.02893	0.012156	0.007583
569	GULLY POND	WASHINGTON	62	69	.	.	.	.	.	.	0.058333	0.044783
570	PATE POND	WASHINGTON	79	80	5.6667	4.8789	1.72222	0.61944	0.29733	0.05615	0.014089	0.007170
571	PORTER	WASHINGTON	62	71	1.1000	0.0000	1.58750	0.70995	0.34362	0.09872	0.039969	0.048860
572	SMITH	WASHINGTON	79	80	2.4778	1.9016	1.47778	0.35642	0.47333	0.04310	0.013667	0.012842
573	WAGES POND	WASHINGTON	62	69	.	.	.	.	.	.	0.051667	0.044783

*TN, TP in mg/L
Chl a in mg/m^3
Secchi Disk in m

Table 3-9. Statistics of 573 Lakes - Minima and Maxima.*

* N1 - NUMBER OF NITROGEN DATA VALUES *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
1	ALICE	ALACHUA	8	8	0.37000	0.81000	0.52000	1.80000	2.1000	18.700	1.20000	2.0000
2	ALTHO	ALACHUA	13	15	0.41000	1.23000	0.01958	0.21333	1.6000	10.600	0.83000	1.7018
3	BEVILLES POND	ALACHUA	5	5	0.52000	0.97000	0.07100	0.24000	6.9000	44.600	0.90000	3.1000
4	BIVENS ARM	ALACHUA	8	8	1.25000	3.39000	0.36500	0.73000	11.5000	154.100	0.30000	0.9000
5	BURNT POND	ALACHUA	5	5	1.61000	2.55000	0.35000	0.88000	19.4000	176.900	0.30000	0.9000
6	CALF POND	ALACHUA	4	4	1.31000	2.22000	0.11300	0.22000	7.3000	34.200	0.60000	0.8000
7	CLEAR	ALACHUA	8	8	0.93000	3.64000	0.17000	0.71000	11.0000	101.900	0.30000	1.2000
8	CLEARWATER	ALACHUA	5	5	0.46000	3.02000	0.01000	0.05000	1.9000	3.300	0.90000	4.6000
9	COOTER POND7	ALACHUA	5	5	0.73000	1.73000	0.12000	0.23500	9.2000	39.400	0.60000	1.2000
10	ELIZABETH	ALACHUA	5	5	0.64000	1.39000	0.03000	0.11000	3.0000	12.800	0.50000	0.9000
11	HAWTHORNE	ALACHUA	8	8	1.27000	3.34000	0.02000	0.14000	19.4000	116.900	0.20000	1.2000
12	HICKORY POND	ALACHUA	5	5	0.71000	0.86000	0.02000	0.04100	4.4000	10.100	1.20000	2.4000
13	JEFFORDS	ALACHUA	5	5	0.51000	0.96000	0.08000	0.13700	4.3000	13.400	0.60000	1.2000
14	KANAPAHA	ALACHUA	5	5	0.80000	4.80000	0.14000	0.70000	9.5000	85.000	0.30000	1.2000
15	LITTLE ORANGE	ALACHUA	5	5	0.90000	2.01000	0.04000	0.27000	2.7000	20.300	0.60000	1.2000
16	LITTLE SANTA FE	ALACHUA	5	5	0.57000	1.13000	0.01000	0.10000	2.9000	5.800	1.20000	1.8000
17	LOCHLOOSA	ALACHUA	22	23	0.55000	8.16300	0.01000	0.14000	0.0000	44.300	0.50000	1.2000
18	NETA	ALACHUA	5	5	0.82000	1.28000	0.03000	0.06000	2.4000	7.200	1.40000	3.4000
19	NIZE	ALACHUA	7	8	0.58000	1.59000	0.04000	0.22500	6.4000	78.700	0.20000	1.0000
20	NEWNANS	ALACHUA	35	37	0.23300	4.32240	0.02000	0.17667	8.6000	157.800	0.30000	0.9144
21	ORANGE	ALACHUA	49	51	0.48000	2.48387	0.00400	0.26000	2.6701	45.233	0.60000	1.5240
22	PALATKA POND	ALACHUA	5	5	0.74000	1.72000	0.01000	0.08000	3.3000	33.100	0.50000	2.5000
23	PAYNES PRAIRIE	ALACHUA	1	1	1.70000	1.70000	1.26000	1.26000	.	.	0.60960	0.6096
24	SANTA FE	ALACHUA	38	41	0.22680	2.38250	0.00326	0.85000	2.3000	33.600	1.14300	3.7000
25	STILL POND	ALACHUA	5	5	0.59000	0.80000	0.01000	0.01800	0.6000	4.300	0.60000	3.3000
26	TUSCAWILLA	ALACHUA	2	2	0.91000	1.31100	0.28000	0.35000	5.8000	11.300	0.80000	1.2000
27	UNNAMED 10	ALACHUA	8	8	0.65000	1.29000	0.04000	0.11000	3.3000	38.100	0.90000	2.7000
28	UNNAMED 20	ALACHUA	8	8	0.97000	4.32000	0.13600	0.98000	27.4000	138.500	0.20000	0.8000
29	UNNAMED 25	ALACHUA	5	5	0.61000	0.88000	0.02000	0.06000	0.2000	6.500	1.10000	2.7000
30	UNNAMED 27	ALACHUA	5	5	0.50000	0.98000	0.20000	0.50000	6.7000	53.800	1.10000	1.8000
31	WATERMELON POND	ALACHUA	5	5	0.61000	1.26000	0.02000	0.10500	4.2000	34.400	0.30000	1.5000
32	WAUBERG	ALACHUA	11	11	1.44000	3.08000	0.06743	0.26000	9.9000	116.100	0.30000	1.1000
33	OCEAN POND	BAKER	24	28	0.21933	1.14000	0.01305	0.13000	0.0000	16.020	0.86667	2.2000
34	DEER POINT	BAY	36	39	0.11290	2.48387	0.00413	0.16333	0.0000	2.633	1.20000	2.9464
35	MERIAL	BAY	4	4	0.03000	1.80667	0.01000	0.02050	0.5000	2.233	.	.
36	POWELL	BAY	2	2	0.52800	0.94833	0.00200	0.01667	.	.	.	.
37	WHITE WESTERN	BAY	3	3	0.10000	0.37000	0.02000	0.03000	0.0000	2.670	2.50000	3.5000
38	CROSBY	BRADFORD	12	13	0.24000	1.37000	0.00880	0.61000	0.0006	10.680	1.30000	2.4000
39	HAMPTON	BRADFORD	4	5	0.31133	1.25750	0.00590	0.05250	3.0667	9.167	1.33333	2.8667
40	ROWELL	BRADFORD	12	13	0.69000	1.32000	0.05763	0.29675	3.2333	30.100	0.50800	0.9667
41	SAMPSON	BRADFORD	26	28	0.27150	2.42000	0.01000	0.15600	0.8100	15.400	0.50800	2.0000
42	HELEN BLAZES	BREVARD	6	6	0.75000	1.46000	0.04333	0.09333	.	.	0.93980	1.1938
43	POINSETT	BREVARD	43	28	0.63900	2.90000	0.02667	0.10850	1.9000	45.396	0.50000	1.1176
44	SAWGRASS	BREVARD	5	4	0.12000	1.73000	0.03667	0.05000	.	.	0.68580	0.9144
45	SOUTH	BREVARD	16	16	0.93000	6.22300	0.03000	0.32000	7.7000	198.690	0.30000	30.4800
46	WASHINGTON	BREVARD	44	40	0.01200	2.90000	0.01333	0.27000	0.9667	85.300	0.30480	9.1440
47	WINDER	BREVARD	20	6	0.21200	3.29000	0.02667	0.09667	.	.	0.96520	1.0668
48	GEORGE	BROWARD	0	1	.	.	1.03333	1.03333	.	.	.	.
49	PROSPECT	BROWARD	4	4	0.49000	1.17700	0.01000	0.04800	.	.	.	.
50	SYLVIA	BROWARD	1	1	0.69000	0.69000	0.08000	0.08000	.	.	.	.
51	TIGERTAIL	BROWARD	3	3	0.59400	0.61900	0.01263	0.01673	0.8667	5.133	.	.
52	MCKENZIE	CALHOUN	3	3	0.15000	0.20000	0.00283	0.00453	0.6667	1.233	4.33333	6.4333
53	MIRROR	CALHOUN	3	3	0.09700	0.11967	0.00097	0.00513	0.6000	1.033	5.50000	9.0000
54	TURKEY PEN POND	CALHOUN	3	3	0.05280	0.08597	0.00300	0.00770	0.5000	0.767	3.30000	6.3667
55	WEBB AREA	CHARLOTTE	4	4	0.58000	0.80000	0.02937	0.07000	6.4000	9.000	1.09220	2.5908
56	MORRISON POND	CITRUS	2	3	0.55304	5.20304	0.04000	0.07667	.	.	.	.
57	TSALA APOPKA	CITRUS	85	82	0.27671	1.93700	0.00780	0.92000	2.3000	4.100	2.80000	2.9667
58	TSALA APOPKA(F)	CITRUS	8	10	0.46000	1.15000	0.02000	0.18000	3.7000	4.800	0.45720	1.8034
59	TSALA APOPKA(H)	CITRUS	22	24	0.28000	1.11000	0.01000	0.10000	2.2000	4.400	1.52400	2.6924
60	TSALA APOPKA(I)	CITRUS	5	7	0.69000	0.80000	0.01667	0.02547	3.9000	16.000	1.42240	1.7018
61	BROOKLYN	CLAY	18	18	0.06304	2.50000	0.00326	0.02667	1.0700	5.800	1.55000	4.5720
62	DOCTORS	CLAY	14	25	0.70700	2.00214	0.02000	0.23857	17.9000	36.200	0.45720	1.0000
63	GENEVA	CLAY	26	28	0.06000	1.44200	0.00326	0.41000	0.0000	5.420	1.43000	4.5466
64	JOHNSON	CLAY	5	7	0.13200	0.42400	0.00500	0.04000	2.1600	4.780	1.13000	1.8700
65	KINGSLEY	CLAY	42	47	0.20000	3.68200	0.00070	0.12000	0.0000	13.350	2.05000	6.9000
66	LOWERY	CLAY	18	18	0.04304	0.53200	0.00303	0.04400	0.9800	4.500	1.65100	5.0000
67	MAGNOLIA	CLAY	12	13	0.03960	0.48100	0.00030	0.02927	0.9900	3.200	3.10000	6.1500

Table 3-9. (Continued)*

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* N1 - NUMBER OF NITROGEN DATA VALUES     *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES   *
* MN - PREFIX INDICATES MINIMUM VALUE     *
* MX - PREFIX INDICATES MAXIMUM VALUE     *
* TN - TOTAL NITROGEN      TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A      SD - SECCHI DISK *
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ORS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
68	PEBBLE	CLAY	2	3	0.1830	0.2730	0.010000	0.05333	.	.	.	.
69	SHEELAR	CLAY	4	4	0.1720	0.2220	0.005000	0.01200	0.8000	1.830	6.77000	8.7400
70	CYPRESS POND	COLLIER	26	26	0.0430	12.0335	0.010000	2.66666	.	.	.	.
71	LANTERN	COLLIER	2	1	0.1961	0.6961	0.216667	0.21667	.	.	.	.
72	TRAFFORD	COLLIER	21	20	1.1633	3.6300	0.020000	0.34000	3.3000	51.700	0.88900	8.8392
73	ALLIGATOR	COLUMBIA	24	26	0.7493	7.7122	0.130000	2.13333	10.5000	155.700	0.25400	1.4732
74	WATERTOWN	COLUMBIA	7	8	0.5663	3.3700	0.026133	0.12667	4.8000	23.967	0.71120	2.7333
75	BAMBI	DADE	1	1	1.9200	1.9200	0.040000	0.04000	47.4000	47.400	1.10000	1.1000
76	BLUE LAGOON	DADE	1	1	0.9900	0.9900	0.021000	0.02100	17.3000	17.300	1.25000	1.2500
77	CATALINA	DADE	1	1	0.6200	0.6200	0.010000	0.01000	3.1000	3.100	5.35000	5.3500
78	HENRY	DADE	1	1	0.5600	0.5600	0.019000	0.01900	2.8000	2.800	4.00000	4.0000
79	KATHARINE	DADE	1	1	0.4200	0.4200	0.019000	0.01900	3.4000	3.400	2.00000	2.0000
80	LAURENCE EAST	DADE	1	1	0.9800	0.9800	0.016000	0.01600	3.2000	3.200	3.20000	3.2000
81	LOUISE	DADE	1	1	1.2500	1.2500	0.023000	0.02300	5.3000	5.300	2.00000	2.0000
82	MYRTLE	DADE	1	1	1.5500	1.5500	0.075000	0.07500	36.2000	36.200	0.80000	0.8000
83	SKY	DADE	1	1	0.9700	0.9700	0.019000	0.01900	6.7000	6.700	1.90000	1.9000
84	SOUTH BASS	DADE	1	1	1.0600	1.0600	0.025000	0.02500	9.8000	9.800	1.50000	1.5000
85	GOVERNOR HILL	DIXIE	4	5	0.5800	1.1600	0.013053	0.33333	1.1000	1.600	1.06680	30.4800
86	IMESON POND	DUVAL	1	1	14.4950	14.4950	0.785000	0.78500	.	.	.	.
87	CRESCENT	FLAGLER	18	20	0.6900	1.9500	0.010000	0.19000	1.5000	77.520	0.43333	0.9229
88	DISSTON	FLAGLER	4	4	0.6220	1.7750	0.004933	0.01082	1.4667	2.500	0.33333	0.5667
89	CORN LANDING	FRANKLIN	3	3	0.5247	0.6387	0.012433	0.01400	1.1333	4.367	1.00000	1.5000
90	TALQUIN	GADSDEN	21	41	0.2625	1.0573	0.030000	0.34400	2.3000	24.900	0.20000	1.4732
91	HICPOCHEE	GLADES	1	1	1.5355	1.5355	0.180000	0.18000	.	.	0.96520	0.9652
92	DEAD	GULF	17	18	0.0200	0.7300	0.006667	0.03000	0.0000	10.680	1.03333	2.8448
93	WIMICO	GULF	12	12	0.3000	1.3800	0.006667	0.09000	3.0000	5.067	0.18288	0.7620
94	BEE HAVEN BAY	HAMILTON	1	2	2.9050	2.9050	0.050000	0.19000	.	.	.	.
95	BYSTRE	HERNANDO	1	1	0.8392	0.8392	0.053333	0.05333	.	.	.	.
96	HORSE	HERNANDO	2	2	0.7132	0.7132	0.070000	0.07000	.	.	.	.
97	HUNTERS	HERNANDO	0	1	.	.	0.024000	0.02400	.	.	.	.
98	LINDSEY	HERNANDO	7	9	1.0000	2.6967	0.032631	0.12667	6.4000	58.833	0.60000	1.9558
99	MOUNTAIN	HERNANDO	3	3	0.6290	1.5500	0.006067	0.05000	3.0000	10.267	1.10000	1.4333
100	NEFF	HERNANDO	3	3	0.5791	1.4122	0.033333	0.05667	.	.	.	.
101	SPRING	HERNANDO	3	3	0.6881	0.9530	0.010000	0.08333	.	.	.	.
102	SQUIRREL PRAIRIE	HERNANDO	2	2	1.2194	8.0900	0.130000	0.52000	.	.	.	.
103	WHITFIELDS PRAIRIE	HERNANDO	2	2	0.8000	1.7161	0.060000	0.14000	.	.	.	.
104	ZEBRA	HERNANDO	1	1	1.0763	1.0763	0.036667	0.03667	.	.	.	.
105	ZULU	HERNANDO	1	1	0.3138	0.3138	0.033333	0.03333	.	.	.	.
106	ANGELO	HIGHLANDS	0	1	.	.	0.021000	0.02100	.	.	.	.
107	ANNIE	HIGHLANDS	56	61	0.1200	5.8200	0.002000	0.50000	1.0000	74.000	0.20000	6.7200
108	ANOKA	HIGHLANDS	0	1	.	.	0.033000	0.03300	.	.	.	.
109	CHARLOTTE	HIGHLANDS	0	1	.	.	0.140000	0.14000	.	.	.	.
110	CLAY	HIGHLANDS	14	14	0.3200	7.0100	0.015000	0.51600	2.4600	107.600	0.20000	3.2200
111	DAMON	HIGHLANDS	3	3	0.4300	1.5400	0.020000	0.06000	.	.	.	.
112	DINNER	HIGHLANDS	6	6	0.2900	1.3100	0.006633	0.04000	2.5667	4.900	2.13333	4.0000
113	FRANCIS	HIGHLANDS	52	55	0.3380	3.6400	0.002000	0.25000	2.4600	49.800	0.50000	3.6830
114	GLENADA	HIGHLANDS	6	7	1.0556	1.3170	0.068000	0.16244	19.4000	41.300	1.05410	1.3208
115	GRASSY	HIGHLANDS	4	4	0.7600	1.3400	0.010000	0.03000	.	.	.	.
116	HUNTLEY	HIGHLANDS	5	5	0.3283	1.4300	0.016633	0.05000	3.4333	7.333	1.46667	2.0667
117	ISTOKPOGA	HIGHLANDS	95	100	0.4300	2.1900	0.006667	0.36000	0.0000	68.700	0.06096	18.2626
118	JACKSON	HIGHLANDS	36	39	0.0386	2.3800	0.010000	0.05800	1.4333	21.360	1.21920	4.5720
119	JAX	HIGHLANDS	7	7	0.5417	1.0067	0.011111	0.05333	.	.	0.18123	0.1812
120	JOSEPHINE	HIGHLANDS	13	14	0.4500	1.5900	0.017533	0.12000	6.9000	13.133	0.35000	1.0000
121	JUNE-IN-WINTER	HIGHLANDS	67	68	0.2109	1.4400	0.001000	0.11000	0.0000	13.900	1.25000	34.7472
122	LELIA	HIGHLANDS	0	1	.	.	0.021000	0.02100	.	.	.	.
123	LETTA	HIGHLANDS	12	15	0.1700	1.0500	0.006667	0.08000	2.2300	9.000	0.85000	1.7780
124	LITTLE BONNET	HIGHLANDS	0	1	.	.	0.070000	0.07000	.	.	.	.
125	LITTLE LAKE JACKSON	HIGHLANDS	1	1	1.1600	1.1600	0.070000	0.07000	.	.	.	.
126	LITTLE RED WATER	HIGHLANDS	3	4	0.4260	0.4860	0.028267	0.04633	12.3667	20.633	0.63333	0.9000
127	LOTELA	HIGHLANDS	9	12	0.2397	1.9200	0.010000	0.06000	1.9333	5.340	2.06667	3.3000
128	PLACID	HIGHLANDS	37	39	0.1260	1.2900	0.005000	0.09700	1.9100	13.800	0.30480	3.2000
129	RED BEACH	HIGHLANDS	7	8	0.3863	1.0000	0.013133	0.09000	9.0333	22.500	0.73660	1.4000
130	RED WATER	HIGHLANDS	0	1	.	.	0.033000	0.03300	.	.	.	.
131	SEBRING	HIGHLANDS	5	5	0.4477	2.1800	0.076467	0.11267	3.2667	8.100	0.35556	0.5000
132	SIRENA	HIGHLANDS	7	9	0.3061	0.6320	0.010000	0.09000	.	.	1.98120	1.9812
133	TULANE	HIGHLANDS	0	1	.	.	0.015000	0.01500	.	.	.	.
134	BAY	HILLSBOROUGH	0	2	.	.	0.003333	0.00333	.	.	.	.

Table 3-9. (Continued)*

* N1 - NUMBER OF NITROGEN DATA VALUES *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
135	BROOKER	HILLSBOROUGH	1	1	3.11000	3.11000	0.510000	0.51000	.	.	.	.
136	CALM	HILLSBOROUGH	3	5	0.19304	0.85304	0.000000	0.03000	.	.	.	.
137	CARROLL	HILLSBOROUGH	6	7	0.38304	0.74516	0.010000	0.03000	8.1000	8.100	2.90000	2.9000
138	CHAPMAN	HILLSBOROUGH	4	2	0.87000	1.13401	0.010000	0.01000	.	.	.	.
139	CHARLES	HILLSBOROUGH	6	5	0.37129	0.93304	0.016667	0.04907	.	.	.	.
140	CHURCH	HILLSBOROUGH	2	4	0.34609	0.71304	0.003333	0.03000	.	.	.	.
141	CITRUS PARK	HILLSBOROUGH	1	1	0.28867	0.28867	0.036667	0.03667	.	.	.	.
142	CRENSHAW	HILLSBOROUGH	3	4	1.00000	2.30304	0.023333	0.06600	.	.	.	.
143	CRUM	HILLSBOROUGH	2	3	1.20609	1.48000	0.023333	0.04400	.	.	.	.
144	DAN	HILLSBOROUGH	2	3	4.25106	4.25106	0.043333	0.06667	.	.	.	.
145	DEER	HILLSBOROUGH	1	1	0.32250	0.32250	0.010000	0.01000	.	.	.	.
146	DOSSON	HILLSBOROUGH	2	2	0.85125	0.85125	0.033333	0.03333	.	.	.	.
147	EGYPT	HILLSBOROUGH	1	1	0.64000	0.64000	0.034000	0.03400	25.3000	25.300	1.30000	1.3000
148	ELLEN	HILLSBOROUGH	1	1	0.79000	0.79000	0.023000	0.02300	13.8000	13.800	1.80000	1.8000
149	GRADY	HILLSBOROUGH	0	1	.	.	0.324000	0.32400	.	.	.	.
150	HARVEY	HILLSBOROUGH	1	2	1.22130	1.22130	0.027833	0.02900	.	.	.	.
151	HOBBS	HILLSBOROUGH	2	3	0.51304	0.51304	0.010000	0.02667	.	.	.	.
152	ISLAND FORD	HILLSBOROUGH	1	1	0.51935	0.51935	0.020000	0.02000	.	.	.	.
153	JACKSON	HILLSBOROUGH	1	1	1.00000	1.00000	0.037000	0.03700	.	.	.	.
154	KELL	HILLSBOROUGH	2	2	0.77461	0.77461	0.006667	0.00667	.	.	.	.
155	KEYSTONE	HILLSBOROUGH	3	2	0.44000	0.68000	0.020000	0.03000	.	.	.	.
156	LIPSEY	HILLSBOROUGH	3	2	0.51000	4.49099	0.026667	0.05000	.	.	.	.
157	LONG	HILLSBOROUGH	1	1	0.59125	0.59125	0.010000	0.01000	.	.	.	.
158	MAGDALENE	HILLSBOROUGH	27	26	0.36304	1.53000	0.010000	0.06000	4.9000	4.900	1.60000	1.6000
159	MARION	HILLSBOROUGH	1	1	0.98800	0.98800	0.013000	0.01300	.	.	0.59690	0.5969
160	PIERCE	HILLSBOROUGH	1	1	0.90600	0.90600	0.022500	0.02250	.	.	1.42240	1.4224
161	PRETTY	HILLSBOROUGH	2	0	0.94000	1.41000	.	.	.	.	.	.
162	ROSALIE	HILLSBOROUGH	1	1	0.66100	0.66100	0.032000	0.03200	.	.	1.72720	1.7272
163	ROUND	HILLSBOROUGH	5	4	0.35090	0.72304	0.010000	0.02300	.	.	.	.
164	SADDLEBACK	HILLSBOROUGH	5	5	0.38000	1.00000	0.002500	0.03167	.	.	.	.
165	STARVATION	HILLSBOROUGH	8	8	0.48000	1.60609	0.002000	0.05100	.	.	.	.
166	STEMPER	HILLSBOROUGH	2	3	0.54290	0.72609	0.010000	0.05000	.	.	.	.
167	SUNSHINE	HILLSBOROUGH	1	1	0.38516	0.38516	0.016667	0.01667	.	.	.	.
168	THONOTOSASSA	HILLSBOROUGH	102	119	0.04000	3.62000	0.206667	1.86000	18.5000	137.200	0.02540	1.2192
169	TURKEY FORD	HILLSBOROUGH	1	1	1.60250	1.60250	0.036667	0.03667	.	.	.	.
170	UNNAMED LAKE	HILLSBOROUGH	1	1	1.10609	1.10609	0.020000	0.02000	.	.	.	.
171	VAN DYKE	HILLSBOROUGH	5	6	0.42304	1.78000	0.026667	0.11000	.	.	.	.
172	WIMAUMA	HILLSBOROUGH	0	1	.	.	0.086000	0.08600	.	.	.	.
173	SUN	HOLMES	3	3	0.39467	0.43633	0.010367	0.01887	1.0667	3.133	.	.
174	VICTOR	HOLMES	3	3	0.22800	0.34433	0.010667	0.01367	2.0333	3.400	2.23333	3.4333
175	BLUE CYPRESS	INDIAN RIVER	104	105	0.63967	3.30300	0.008000	0.32000	0.6000	28.700	0.01067	1.4667
176	COMPASS	JACKSON	4	4	0.12700	0.25000	0.000000	0.00967	0.4000	0.900	4.00000	6.3333
177	MERRITTS MILL POND	JACKSON	6	6	0.03140	1.89000	0.004233	0.05000	0.0000	2.670	2.20000	3.6000
178	OCHEESEE POND	JACKSON	7	7	0.02000	0.81000	0.007400	0.03000	0.0000	5.340	2.33333	4.0000
179	ROUND	JACKSON	3	3	0.14167	0.18900	0.002933	0.00660	0.7000	1.033	4.06667	5.1333
180	MICCOSUKEE	JEFFERSON	10	17	0.44000	2.05000	0.006667	0.18000	3.4000	13.500	1.19380	30.4800
181	KOON	LAFAYETTE	4	4	0.77000	2.74000	0.019579	0.19000	4.3000	8.000	0.71120	1.0668
182	TOWNSEND POND	LAFAYETTE	4	4	0.50567	0.87400	0.005333	0.01120	4.5333	7.567	1.06667	1.6000
183	ALEXANDER SPRINGS	LAKE	2	2	0.02258	0.17300	0.040000	0.04000	.	.	.	.
184	APSHAWA	LAKE	4	5	0.14304	1.05175	0.006667	0.02333	.	.	.	.
185	BAY	LAKE	0	2	.	.	0.026667	0.02667	.	.	.	.
186	BEAUCLAIR	LAKE	64	66	0.31000	8.94000	0.010000	1.50000	28.4800	247.433	0.22000	0.7366
187	BRIGHT	LAKE	0	1	.	.	0.030000	0.03000	.	.	.	.
188	BUGG SPRING	LAKE	1	1	0.59500	0.59500	0.065000	0.06500	.	.	.	.
189	CATHERINE	LAKE	11	5	0.36000	3.20286	0.020000	0.06200	7.9000	19.900	1.47320	30.4800
190	CHERRY	LAKE	12	13	0.25000	0.70000	0.003333	0.10333	2.3000	11.300	1.01600	2.2352
191	CHURCH	LAKE	9	9	0.48290	1.74300	0.003333	0.02667	.	.	.	.
192	CRESCENT	LAKE	3	3	0.36967	0.46200	0.011600	0.01727	2.2333	4.133	2.40000	3.9000
193	DENHAM	LAKE	3	3	1.43742	1.84000	0.003333	0.04000	.	.	0.58420	0.5842
194	DICIE	LAKE	15	15	0.29913	7.30700	0.013333	0.60000	.	.	0.08890	1.2192
195	DORA	LAKE	156	159	0.00000	7.81667	0.020000	1.02000	13.3500	232.302	0.22860	2.4984
196	DORR	LAKE	17	17	0.35000	0.76774	0.012067	0.06000	2.5000	15.000	0.68580	1.5000
197	EMMA	LAKE	10	8	0.38000	1.15600	0.015300	0.10000	.	.	1.06680	2.8448
198	ENOLA	LAKE	1	1	0.30000	0.30000	0.050000	0.05000	.	.	.	.
199	EUSTIS	LAKE	250	250	0.00000	4.67100	0.003000	0.55000	0.0000	123.433	0.22860	1.2000
200	FISH	LAKE	0	1	.	.	0.066667	0.06667	.	.	.	.
201	FLAT	LAKE	0	1	.	.	0.033333	0.03333	.	.	.	.

Table 3-9. (Continued)*

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*                                          *
* N1 - NUMBER OF NITROGEN DATA VALUES       *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES     *
* MN - PREFIX INDICATES MINIMUM VALUE       *
* MX - PREFIX INDICATES MAXIMUM VALUE       *
* TN - TOTAL NITROGEN     TP - PHOSPHORUS   *
*CHLA- CHLOROPHYLL A      SD - SECCHI DISK  *
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OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
202	FLORENCE	LAKE	2	2	1.00562	1.0056	0.010000	0.01833	.	.	.	.
203	GRASSY	LAKE	0	1	.	.	0.056667	0.05667	.	.	.	.
204	GRIFFIN	LAKE	275	274	0.27097	10.7830	0.010000	0.80700	4.2700	205.967	0.01270	1.4500
205	HANCOCK	LAKE	0	1	.	.	0.016667	0.01667	.	.	.	.
206	HARRIS	LAKE	35	37	0.49000	6.8700	0.010000	0.18000	11.4000	33.700	0.06096	1.2000
207	HIAWATHA	LAKE	29	17	0.21000	2.2867	0.020000	0.10000	.	.	0.76200	2.3114
208	HOLLY	LAKE	0	2	.	.	0.006667	0.00667	.	.	.	.
209	HORSESHOE	LAKE	2	2	1.94194	1.9419	0.090000	0.09000	.	.	.	.
210	KATHRYN	LAKE	1	2	0.21000	0.2100	0.010000	0.01667	.	.	.	.
211	LADY	LAKE	8	7	0.53913	1.0210	0.015000	0.03000	.	.	.	.
212	LITTLE LAKE HARRIS	LAKE	13	13	1.19333	6.0500	0.013500	0.16500	.	.	0.73660	1.2446
213	LOUISA	LAKE	31	23	0.29000	1.6230	0.004000	0.07500	2.8000	8.400	0.35560	1.5240
214	LUCY	LAKE	9	8	0.52000	1.1660	0.010000	0.13000	.	.	0.99060	3.6576
215	MARY	LAKE	0	1	.	.	0.030000	0.03000	.	.	.	.
216	MELTON	LAKE	0	1	.	.	0.013333	0.01333	.	.	.	.
217	MINNEHAHA	LAKE	36	29	0.19500	1.6033	0.010000	0.07000	5.2333	12.300	0.93980	2.1336
218	MINNEOLA	LAKE	43	36	0.16950	0.9750	0.000000	0.09000	0.0000	8.010	0.17780	5.0000
219	NORRIS	LAKE	0	1	.	.	0.016667	0.01667	.	.	.	.
220	PINE	LAKE	2	2	0.79821	0.7982	0.006667	0.01833	.	.	.	.
221	PITTS POND	LAKE	1	2	1.14821	1.1482	0.010000	0.03000	.	.	.	.
222	SCHIMMERHORN	LAKE	0	1	.	.	0.033333	0.03333	.	.	.	.
223	SELLERS	LAKE	1	1	0.17100	0.1710	0.020000	0.02000	.	.	.	.
224	SILVER	LAKE	0	2	.	.	0.050000	0.05000	.	.	.	.
225	SOUTH	LAKE	3	3	1.00000	1.9000	0.034000	0.10900	.	.	0.60960	1.2192
226	SWATARA	LAKE	0	1	.	.	0.030000	0.03000	.	.	.	.
227	TROUT	LAKE	14	14	0.91461	2.8000	0.008000	1.19500	56.8000	135.800	0.55880	0.8128
228	TUTUOLA	LAKE	1	1	0.53000	0.5300	0.040000	0.04000	.	.	.	.
229	UMATILLA	LAKE	8	7	0.58609	1.3210	0.020000	0.04333	.	.	.	.
230	WEST CROOKED	LAKE	8	8	0.33304	1.1460	0.010000	0.03333	.	.	.	.
231	WILDCAT	LAKE	3	3	0.16967	0.2527	0.001667	0.01167	0.9333	1.333	3.21667	4.0000
232	YALE	LAKE	54	54	0.42000	5.7000	0.010000	0.21500	5.6000	56.200	1.00000	2.4384
233	LEELAND	LEE	1	1	2.11000	2.1100	0.063333	0.06333	.	.	.	.
234	BRADFORD	LEON	5	6	0.02000	0.7300	0.010000	0.04333	2.6700	16.021	1.30000	1.8000
235	CARR	LEON	3	3	0.35467	0.5173	0.012100	0.01793	1.3333	20.250	1.90000	2.0000
236	IAMONIA	LEON	5	5	0.38067	0.4787	0.007633	0.02000	4.6000	12.633	1.70000	2.7667
237	JACKSON	LEON	108	169	0.01000	2.8180	0.005000	5.60000	0.0000	45.000	0.70000	4.0000
238	LAFAYETTE	LEON	1	3	0.79750	0.7975	0.053333	0.07000	.	.	.	.
239	MUNSON	LEON	19	23	0.14000	8.2000	0.060000	8.00000	42.1000	229.467	0.27940	0.5842
240	CHUNKY POND	LEVY	3	5	1.10304	1.3030	0.020000	0.19667	.	.	.	.
241	LONG POND	LEVY	2	2	1.07000	1.2100	0.052000	0.06400	7.5800	12.600	0.50000	1.0000
242	ROUSSEAU	LEVY	57	57	0.24839	0.9500	0.015000	0.09000	0.4000	5.100	1.13333	5.3340
243	MYSTIC	LIBERTY	1	1	1.00000	1.0000	0.200000	0.20000	.	.	.	.
244	CHERRY	MADISON	3	3	0.28678	0.3277	0.027200	0.03480	5.3667	7.300	1.36667	2.2778
245	FRANCIS	MADISON	4	5	1.96000	7.0600	0.107500	3.20000	44.9000	44.900	0.22860	0.6096
246	MYSTIC	MADISON	3	3	0.50267	0.6280	0.006033	0.01553	3.0000	4.433	.	.
247	MANATEE RESERVOIR	MANATEE	7	6	0.48033	1.3700	0.135767	0.23000	1.3333	11.500	0.90000	1.7000
248	BIG BASS	MARION	7	7	0.23000	3.5120	0.010000	0.03000	.	.	0.25400	1.8796
249	BRYANT	MARION	1	1	0.80000	0.8000	0.030000	0.03000	.	.	.	.
250	CHARLES	MARION	2	2	1.35100	1.5581	0.040000	0.05000	.	.	.	.
251	EATON	MARION	5	5	0.84100	1.2000	0.037867	0.07000	0.6000	4.600	0.40000	0.5000
252	KERR	MARION	48	49	0.15060	3.3140	0.002000	0.04500	0.8000	3.900	2.10820	4.2164
253	LITTLE LAKE WEIR	MARION	7	7	0.59000	1.2600	0.010000	0.03000	5.1100	6.210	1.21920	2.1336
254	MUD	MARION	1	1	0.83548	0.8355	0.020000	0.02000	.	.	.	.
255	OCKLAWAHA	MARION	62	63	0.11800	7.8800	0.006500	0.17000	7.5000	11.675	0.30480	3.8710
256	SELLERS	MARION	4	4	0.15100	0.2947	0.000800	0.02000	0.5333	3.167	4.96667	6.2667
257	SMITH	MARION	3	3	0.38900	0.4863	0.006167	0.02270	1.1333	3.133	2.06667	3.0000
258	UNNAMED	MARION	2	2	2.48387	3.9400	0.030000	0.05000	.	.	.	.
259	WEIR	MARION	53	55	0.36090	2.3420	0.000000	0.06000	0.0000	16.021	1.20000	2.9667
260	CYPRESS POND	MONROE	2	1	0.87000	1.2256	0.026667	0.02667	.	.	.	.
261	GUM SLOUGH POND	MONROE	4	4	0.31304	3.4523	0.013333	0.22333	.	.	.	.
262	U MIAMI POND	MONROE	2	2	0.71300	1.2000	0.010000	2.66666	.	.	.	.
263	HURRICANE	OKALOOSA	3	3	0.19167	0.4557	0.010333	0.01150	1.5000	3.400	2.96667	4.3000
264	KARICK	OKALOOSA	7	8	0.11087	1.1100	0.008233	0.71000	2.8000	9.600	1.16840	3.5000
265	OKEECHOBEE	OKEECHOBEE	303	621	0.02000	7.0800	0.000000	1.26000	2.3000	81.200	0.00000	18.0137
266	ADAIR	ORANGE	1	1	1.03871	1.0387	0.050000	0.05000	.	.	.	.
267	APOPKA	ORANGE	263	265	0.00200	14.2000	0.020000	1.00000	0.0000	208.533	0.05080	0.8636
268	BALDWIN	ORANGE	3	3	0.33333	0.9910	0.019667	0.06280	9.1000	38.200	1.00000	2.2333

Table 3-9. (Continued)*

* N1 - NUMBER OF NITROGEN DATA VALUES *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
269	BASS	ORANGE	1	1	1.19000	1.1700	0.040000	0.0400	.	.	.	.
270	BAY	ORANGE	13	22	0.22000	1.4406	0.009000	0.0500	0.000	10.681	3.20000	3.9600
271	BEAUTY	ORANGE	1	1	0.75945	0.7595	0.050000	0.0500	.	.	.	.
272	BIG SAND	ORANGE	2	2	0.03100	0.3600	0.006000	0.0133	.	.	0.33020	3.3528
273	BLACK	ORANGE	7	8	0.88000	2.6070	0.013333	0.5333	.	.	.	.
274	BRYAN	ORANGE	3	7	0.20100	0.3218	0.010000	0.1500	.	.	.	.
275	BUENA VISTA	ORANGE	0	7	.	.	0.007000	0.0600	.	.	.	.
276	BUTLER	ORANGE	98	96	0.10300	2.0831	0.003333	0.1500	0.000	8.010	0.22860	6.0000
277	CARLTON	ORANGE	14	14	2.43300	6.7100	0.016000	0.3394	24.900	148.300	0.25400	0.7366
278	CHARITY	ORANGE	50	50	0.31613	2.1000	0.002000	0.0500	.	.	0.30480	4.5720
279	CHEROKEE	ORANGE	1	1	2.22000	2.2200	0.053000	0.0530	51.600	51.600	0.75000	0.7500
280	CLEAR	ORANGE	1	1	0.96000	0.9600	0.040000	0.0400	.	.	.	.
281	CONWAY	ORANGE	21	25	0.36129	1.7100	0.000000	1.3367	2.533	4.356	0.02540	5.6388
282	CROOKED	ORANGE	3	3	0.74000	3.7600	0.075000	0.1000	.	.	.	.
283	DAVIS	ORANGE	1	1	5.14000	5.1400	0.250000	0.2500	402.000	402.000	0.20000	0.2000
284	DOWN	ORANGE	21	21	0.24000	12.1700	0.003333	0.3333	0.800	1.467	0.22860	6.0667
285	DRUID	ORANGE	1	1	2.32000	2.3200	0.048000	0.0480	50.800	50.800	0.50000	0.5000
286	EOLA	ORANGE	58	51	0.00540	4.0100	0.010000	3.0267	9.000	47.000	0.12700	1.5000
287	FAIRVIEW	ORANGE	4	4	0.44767	0.8300	0.006700	0.0200	1.933	3.600	2.90000	5.3667
288	FAITH	ORANGE	50	50	0.18065	2.1000	0.008000	0.0700	.	.	1.01600	4.1656
289	FRANCIS	ORANGE	3	4	0.64609	0.9361	0.013333	0.0467	.	.	.	.
290	GEORGIA	ORANGE	8	7	0.28100	3.2800	0.013333	0.0467	.	.	.	.
291	HART	ORANGE	4	6	0.90500	1.1900	0.007467	0.0288	4.133	4.533	0.56667	1.1684
292	HIGHLAND	ORANGE	1	1	0.81000	0.8100	0.034000	0.0340	35.700	35.700	0.70000	0.7000
293	HOLDENS	ORANGE	1	1	1.00000	1.0000	0.040000	0.0400	.	.	.	.
294	HOPE	ORANGE	50	49	0.18065	2.7000	0.003000	0.1500	.	.	0.99060	5.4864
295	HORSESHOE	ORANGE	3	3	1.19677	2.4300	0.030000	0.2000	.	.	.	.
296	HOURGLASS	ORANGE	1	1	1.53000	1.5300	0.060000	0.0600	.	.	.	.
297	IRMA	ORANGE	2	2	0.61000	0.7615	0.061000	0.1300	9.200	9.200	1.10000	1.1000
298	IVANHOE	ORANGE	3	9	0.73100	1.4000	0.035000	0.3120	8.400	43.200	0.90000	1.0000
299	JESSAMINE	ORANGE	3	3	0.54433	0.6743	0.009533	0.0272	2.833	6.100	2.76667	4.3667
300	JOHIO	ORANGE	0	2	.	.	0.016667	0.0167	.	.	.	.
301	JOHNS	ORANGE	11	12	0.34000	1.4700	0.023800	0.1200	5.600	12.800	0.76200	1.6764
302	KILLARNEY	ORANGE	5	6	0.48000	1.2600	0.034000	0.1300	6.000	23.700	1.00000	2.4384
303	LAGOON	ORANGE	11	12	0.18065	1.6935	0.010000	0.1800	.	.	.	.
304	LAWNE	ORANGE	27	28	0.82633	12.7500	0.086667	12.7000	3.200	240.600	0.00000	3.6576
305	LITTLE LAKE BRYAN	ORANGE	0	6	.	.	0.010000	0.0500	.	.	.	.
306	LONG	ORANGE	7	9	0.34100	2.2070	0.010000	0.6467	.	.	.	.
307	LOVELY	ORANGE	8	16	1.36200	8.5310	0.070000	3.1733	.	.	.	.
308	LUCERNE	ORANGE	1	1	2.23000	2.2300	0.100000	0.1000	39.900	39.900	0.80000	0.8000
309	LUCIEN	ORANGE	31	31	0.02258	0.7300	0.010000	0.0500	.	.	1.77800	6.0198
310	MABEL	ORANGE	1	9	0.42600	0.4260	0.007000	1.0000	.	.	.	.
311	MAITLAND	ORANGE	29	33	0.14000	14.4100	0.005333	6.6667	5.533	22.500	0.15240	4.1910
312	MANN	ORANGE	3	1	0.59114	1.3000	0.040000	0.0400	.	.	.	.
313	MARY JANE	ORANGE	62	66	0.14200	2.2000	0.001333	0.1400	4.867	19.433	0.05080	1.2192
314	MINNEHAHA	ORANGE	6	6	0.55000	1.2000	0.022000	0.0935	6.800	11.900	1.00000	2.5400
315	NAN	ORANGE	1	1	0.51000	0.5100	0.019000	0.0190	6.800	6.800	2.30000	2.3000
316	OLA	ORANGE	6	8	0.30000	0.6900	0.013053	0.3533	5.600	14.400	1.67640	3.2258
317	OSCEOLA	ORANGE	3	3	0.50000	13.8200	0.013333	0.1800	.	.	0.17780	14.6304
318	PEARL	ORANGE	2	2	1.26000	1.2600	0.030000	0.0300	.	.	.	.
319	POCKET	ORANGE	1	1	0.59600	0.5960	0.020000	0.0200	.	.	0.20320	0.2032
320	PORTER	ORANGE	47	45	0.09800	2.9100	0.000333	0.2133	.	.	0.05080	4.5720
321	ROCK	ORANGE	1	1	1.45000	1.4500	0.042000	0.0420	27.600	27.600	1.35000	1.3500
322	SHADOW	ORANGE	2	1	1.58857	1.6606	0.133333	0.1333	.	.	.	.
323	SHEEN	ORANGE	3	3	0.50400	0.5910	0.006667	0.0111	.	.	0.07620	0.0889
324	SHERWOOD	ORANGE	0	2	.	.	0.043333	0.0433	.	.	.	.
325	SILVER	ORANGE	1	1	1.16000	1.1600	0.030000	0.0300	39.400	39.400	1.10000	1.1000
326	STARKE	ORANGE	1	1	1.04000	1.0400	0.040000	0.0400	.	.	.	.
327	SUE	ORANGE	5	8	0.83000	2.3300	0.006667	0.0533	.	.	.	.
328	SUSANNAH	ORANGE	1	1	1.24000	1.2400	0.030000	0.0300	.	.	.	.
329	SYLVAN	ORANGE	1	1	0.81500	0.8150	0.080000	0.0800	.	.	.	.
330	TIBET	ORANGE	10	11	0.33100	0.6300	0.006667	0.0800	2.300	5.600	0.25400	3.4544
331	TURKEY	ORANGE	8	9	0.72100	1.9070	0.003333	0.1667	.	.	0.06350	1.5240
332	UNDERHILL	ORANGE	37	38	0.66367	11.4900	0.006667	3.0000	0.730	61.133	0.55000	10.9728
333	VENUS	ORANGE	1	1	0.94125	0.9412	0.013333	0.0133	.	.	.	.
334	VIRGINIA	ORANGE	12	15	0.33000	0.9350	0.003333	0.2033	5.167	34.567	0.76667	5.3340
335	WEKIVA	ORANGE	9	9	1.37742	3.7100	0.026667	2.8533	.	.	.	.

Table 3-9. (Continued)*

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*                                                    *
* N1 - NUMBER OF NITROGEN DATA VALUES                *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES              *
* MN - PREFIX INDICATES MINIMUM VALUE                *
* MX - PREFIX INDICATES MAXIMUM VALUE                *
* TN - TOTAL NITROGEN      TP - PHOSPHORUS           *
*CHLA- CHLOROPHYLL A       SD - SECCHI DISK          *
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OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
336	WESTON	ORANGE	16	15	2.26000	11.5780	0.36000	6.73555	.	.	.	.
337	AJAY	OSCEOLA	4	4	1.30200	1.7620	0.03000	0.16500	.	.	1.01600	1.0160
338	ALLIGATOR	OSCEOLA	62	63	0.32609	1.6484	0.00600	0.11000	1.6000	4.800	0.86360	2.8702
339	BRICK	OSCEOLA	5	5	0.80300	1.8800	0.03700	0.06500	7.0000	16.500	1.11760	1.1176
340	CENTER	OSCEOLA	3	2	1.04900	2.0640	0.02800	0.08000	.	.	0.45720	0.4572
341	CONLIN	OSCEOLA	1	1	0.83600	0.8360	0.01800	0.01800	.	.	0.93980	0.9398
342	COON	OSCEOLA	2	2	0.80200	0.8330	0.01000	0.03400	12.0000	12.000	1.16840	1.1684
343	CYPRESS	OSCEOLA	64	63	0.33913	4.7419	0.00600	0.35400	31.3000	131.700	0.17780	1.0160
344	EAST TOHOPEKALIGA	OSCEOLA	38	41	0.40645	1.4677	0.01775	0.20000	0.0000	12.800	0.55880	2.1336
345	FISH	OSCEOLA	1	1	1.18700	1.1870	0.15000	0.15000	.	.	.	.
346	FISH & COLLEEN	OSCEOLA	1	1	1.15700	1.1570	0.16000	0.16000	.	.	.	.
347	FISH & MARK	OSCEOLA	1	1	1.19500	1.1950	0.15000	0.15000	.	.	.	.
348	GENTRY	OSCEOLA	8	9	0.50000	0.9450	0.01000	0.06000	3.9333	8.000	0.66667	1.2446
349	HATCHINEHA	OSCEOLA	38	37	0.76333	3.6700	0.02667	0.22000	5.3400	93.450	0.20320	0.9906
350	JACKSON	OSCEOLA	3	3	0.83300	1.7500	0.07200	0.14600	15.0000	22.700	0.50800	0.5080
351	JOEL	OSCEOLA	2	2	1.04900	1.4040	0.01500	0.04200	22.0000	22.000	0.66040	0.6604
352	KISSIMMEE	OSCEOLA	91	86	0.48000	7.1590	0.01000	0.37000	2.6000	65.600	0.50000	2.6098
353	LIVE OAK	OSCEOLA	1	1	0.63200	0.6320	0.01000	0.01000	.	.	2.13360	2.1336
354	LIZZIE	OSCEOLA	4	3	0.57700	1.0330	0.01400	0.04000	.	.	2.33680	2.3368
355	MARIAN	OSCEOLA	66	66	0.20000	5.5400	0.00600	0.55000	16.0000	84.200	0.30000	1.0668
356	MYRTLE	OSCEOLA	3	3	0.71200	1.3600	0.01000	0.04000	12.0000	18.000	1.11760	1.1176
357	PRESTON	OSCEOLA	2	2	0.94400	1.5800	0.01300	0.05000	17.0000	17.000	0.86360	0.8636
358	ROSALIE	OSCEOLA	1	1	0.57100	0.5710	0.03200	0.03200	.	.	1.70180	1.7018
359	RUSSELL	OSCEOLA	5	5	1.24400	1.9200	0.02600	0.06600	3.0000	18.000	0.55880	0.5588
360	TOHOPEKALIGA	OSCEOLA	165	162	0.31609	6.0984	0.03483	1.21667	9.6000	325.000	0.22860	30.4800
361	TROUT	OSCEOLA	3	3	0.80300	1.4830	0.01000	0.05000	13.0000	13.000	0.96520	0.9652
362	CLARKE	PALM BEACH	1	1	2.03000	2.0300	0.07000	0.07000	.	.	.	.
363	CLEAR	PALM BEACH	3	2	0.62853	1.2194	0.01000	0.03333	.	.	4.06399	4.0640
364	OSBORNE	PALM BEACH	5	5	0.97633	1.5800	0.08000	0.15237	35.1333	44.733	0.86667	1.1000
365	BIG FISH	PASCO	1	1	0.72000	0.7200	0.01000	0.01000	.	.	.	.
366	BIRD	PASCO	1	1	0.65548	0.6555	0.00667	0.00667	.	.	.	.
367	BLANTON	PASCO	1	1	0.73143	0.7314	0.01000	0.01000	.	.	.	.
368	BLUE	PASCO	0	1	.	.	0.02400	0.02400	.	.	.	.
369	CAMP	PASCO	3	3	0.64609	0.9483	0.03000	0.03667	.	.	.	.
370	CLEAR	PASCO	8	10	0.18000	1.0670	0.01333	0.05333	4.5000	18.700	1.52400	3.0226
371	CREWS	PASCO	4	6	0.53867	1.1611	0.00333	0.07667	2.8333	4.533	1.30000	1.6667
372	DOWLING	PASCO	1	1	1.97097	1.9710	0.03333	0.03333	.	.	.	.
373	FERGUSON	PASCO	2	2	1.70627	1.7063	0.02000	0.02000	.	.	.	.
374	GOOSE	PASCO	1	1	1.03401	1.0340	0.01667	0.01667	.	.	.	.
375	HANCOCK	PASCO	1	1	1.05323	1.0532	0.01667	0.01667	.	.	.	.
376	IOLA	PASCO	6	8	0.41304	1.0669	0.00403	0.13800	1.9000	7.611	2.92222	3.9000
377	JESSAMINE	PASCO	0	1	.	.	0.16200	0.16200	.	.	.	.
378	KING	PASCO	2	2	0.53807	0.5381	0.00333	0.00333	.	.	.	.
379	MIDDLE	PASCO	0	1	.	.	0.10000	0.10000	.	.	.	.
380	MOODY	PASCO	1	2	0.74821	0.7482	0.01667	0.02100	.	.	.	.
381	MOON	PASCO	9	11	0.55533	0.7600	0.00333	0.21667	1.6000	5.600	1.42240	3.3333
382	OAKES POND	PASCO	1	1	0.90000	0.9000	0.01000	0.01000	.	.	.	.
383	PADGETT	PASCO	8	9	0.41304	1.4226	0.00333	0.03500	2.0000	3.100	2.46667	4.0000
384	PARKER	PASCO	2	2	0.46609	0.4661	0.03333	0.03333	.	.	.	.
385	PASADENA	PASCO	3	3	0.69700	0.8497	0.02327	0.02970	5.1333	12.200	1.00000	1.5000
386	SAXON	PASCO	2	2	0.70000	0.8919	0.01000	0.02500	.	.	.	.
387	SUWANNEE	PASCO	3	3	0.85800	1.1533	0.04730	0.07773	6.0333	37.900	0.76667	2.1333
388	THOMAS	PASCO	4	5	0.29304	0.5900	0.00333	0.02000	.	.	.	.
389	WHITE TURKEY POND	PASCO	1	1	1.70305	1.7030	3.23333	3.23333	.	.	.	.
390	ALLIGATOR	PINELLAS	7	8	0.96000	1.5500	0.31326	0.83900	29.2000	52.400	0.27940	0.6350
391	MAGGIORE	PINELLAS	10	11	1.60333	7.4800	0.06043	1.16000	21.5333	352.800	0.12700	0.4572
392	SALT	PINELLAS	0	1	.	.	0.07800	0.07800	.	.	.	.
393	SAWGRASS	PINELLAS	2	2	1.05000	1.4000	0.05833	0.10000	.	.	1.00000	1.0000
394	SEMINOLE	PINELLAS	14	15	1.11000	2.9000	0.07158	5.05001	51.9000	140.100	0.20000	1.1000
395	TARPON	PINELLAS	91	127	0.11304	1.9700	0.00333	3.10000	0.0000	18.670	0.77060	3.0000
396	AGNES	POLK	3	4	0.84400	0.8883	0.03970	0.07493	9.3333	24.233	0.66667	1.0667
397	ALFRED	POLK	3	3	1.00304	2.1183	0.02000	0.02667	.	.	.	.
398	ANN	POLK	0	2	.	.	0.03800	0.03800	.	.	.	.
399	ANNIE	POLK	2	2	1.55806	1.9321	0.08000	0.13000	.	.	0.40640	0.4064
400	ARBUCKLE	POLK	51	51	0.04100	4.0645	0.01000	0.15000	9.0667	28.200	0.35560	1.5240
401	ARETTA	POLK	8	8	0.27300	0.7220	0.00863	0.08000	0.9333	16.900	1.60000	4.3333
402	ARIANA	POLK	9	8	0.33200	4.3800	0.01817	0.18000	13.0333	37.033	0.80000	1.0222

Table 3-9. (Continued)*

* N1 - NUMBER OF NITROGEN DATA VALUES *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
403	BANANA	POLK	11	10	0.66304	10.1900	0.172000	1.58000	86.000	728.994	0.15000	0.50000
404	BEULAH	POLK	2	2	1.83000	1.8300	0.061000	0.06100	39.700	39.700	0.75000	0.75000
405	BONNETT	POLK	0	1	.	.	0.287000	0.28700	.	.	.	.
406	BONNY	POLK	3	1	2.48100	2.8300	0.088000	0.08800	107.700	107.700	0.45720	0.45720
407	BUFFUM	POLK	5	6	0.31133	0.4500	0.040000	0.08070	2.167	3.433	0.56667	2.10000
408	CANNON	POLK	30	6	0.29500	4.3110	0.030000	0.09000	67.300	131.600	0.45720	0.91440
409	CLEARWATER	POLK	0	1	.	.	0.021000	0.02100	.	.	.	.
410	CLINCH	POLK	4	6	0.21100	0.4093	0.008433	0.04000	6.767	8.033	1.36667	2.60000
411	CONNIE	POLK	21	8	0.80000	4.2110	0.210000	1.03000	.	.	0.91440	1.06680
412	CROOKED	POLK	19	21	0.31000	0.5200	0.003333	0.24000	2.300	4.400	0.19050	4.49579
413	DARSEY	POLK	2	0	0.89500	0.9610	.	.	.	.	.	.
414	DEER	POLK	2	2	0.12400	0.1240	0.016667	0.01667	.	.	.	.
415	DEESON	POLK	2	4	0.50304	1.3030	0.026667	0.05333	.	.	.	.
416	DEXTER	POLK	3	0	0.77300	1.0510	.	.	.	.	.	.
417	EAGLE	POLK	6	5	0.61100	2.3213	0.021033	0.02732	18.967	26.222	0.76667	0.76667
418	ECHO	POLK	1	1	0.64000	0.6400	0.010000	0.01000	.	.	.	.
419	EFFIE	POLK	12	13	2.41000	7.3238	0.978941	4.00002	61.800	595.000	0.07620	0.53340
420	ELBERT	POLK	1	0	0.98267	0.9827	.	.	.	.	.	.
421	ELOISE	POLK	38	16	1.06000	7.1350	0.120000	2.10000	44.900	102.700	0.45720	1.16840
422	FANNIE	POLK	3	4	0.71087	0.8730	0.023333	0.03000	.	.	.	.
423	GARFIELD	POLK	2	3	0.52304	1.9152	0.080000	0.18300	.	.	.	.
424	GIBSON	POLK	18	17	0.55567	4.2900	0.133667	0.36000	3.467	33.600	0.43180	1.06667
425	GUM	POLK	0	1	.	.	0.045000	0.04500	.	.	.	.
426	HAINES	POLK	16	12	0.83333	1.7270	0.049000	0.72000	9.100	25.300	0.45720	1.21920
427	HAMILTON	POLK	2	2	1.36545	1.3679	0.116667	0.11667	.	.	0.61807	0.84243
428	HANCOCK	POLK	21	23	0.46609	17.3200	0.020000	3.20000	49.000	309.000	0.20320	0.53340
429	HARTRIDGE	POLK	18	7	0.22300	3.1600	0.010000	0.04000	11.500	31.600	1.15824	1.82880
430	HELENE	POLK	3	4	0.43609	0.6930	0.013333	0.02000	.	.	.	.
431	HENRY	POLK	0	2	.	.	0.023000	0.08050	.	.	.	.
432	HOLLINGSWORTH	POLK	10	9	1.43000	5.7500	0.169683	0.71000	26.700	157.500	0.25400	0.73660
433	HOWARD	POLK	26	13	0.30700	7.5310	0.003000	0.10000	73.267	225.700	0.20000	0.76200
434	HUNTER	POLK	2	2	0.61000	1.6550	0.065000	0.15000	34.100	71.100	0.40000	0.40000
435	IDYLWILD	POLK	13	4	0.33600	2.8510	0.030000	0.08000	32.200	35.900	0.73660	1.52400
436	JESSIE	POLK	30	16	0.65000	3.0510	0.042000	0.16000	20.800	78.200	0.60960	1.52400
437	JULIANA	POLK	5	8	0.76000	1.1030	0.013333	0.04568	16.800	33.700	1.14300	1.37160
438	LENA	POLK	5	3	1.10304	4.0720	0.026667	0.03000	.	.	.	.
439	LINK	POLK	1	0	1.94100	1.9410	.	.	.	.	.	.
440	LITTLE CROOKED	POLK	3	3	0.92300	1.1500	0.043233	0.07023	7.350	17.067	0.16667	0.46667
441	LOWERY	POLK	33	35	0.69200	2.2355	0.019400	0.19000	6.800	15.567	0.81280	1.67640
442	LULU	POLK	41	20	0.26500	9.3430	0.210000	8.40000	116.400	456.600	0.20000	0.60960
443	MARIANA	POLK	2	2	1.38200	1.3820	0.010000	0.01000	.	.	.	.
444	MARION	POLK	67	70	0.09304	8.3317	0.000000	0.15000	8.967	33.900	0.35560	1.16840
445	MATTIE	POLK	7	8	0.78000	1.5300	0.234946	1.40000	8.975	13.500	0.45720	0.91440
446	MAUDE	POLK	1	1	1.09000	1.0900	0.034000	0.03400	30.500	30.500	0.90000	0.90000
447	MAY	POLK	1	1	2.91000	2.9100	0.080000	0.08000	.	.	0.33020	0.35560
448	MAYO	POLK	8	1	0.49700	3.3210	0.210000	0.21000	.	.	0.60960	0.60960
449	MCLEOD	POLK	3	3	1.07849	1.8920	0.030000	0.03000	.	.	.	.
450	MIRROR	POLK	12	6	0.48900	3.5900	0.040000	0.06000	69.400	69.400	0.30683	0.76200
451	MOUNTAIN	POLK	3	4	0.41000	0.4730	0.033333	0.06333	.	.	.	.
452	MUD	POLK	0	2	.	.	0.050000	0.05000	.	.	.	.
453	MYRTLE	POLK	2	2	0.62913	0.6980	0.050000	0.05167	.	.	.	.
454	OTIS	POLK	5	5	0.34300	1.1977	0.003333	0.03000	.	.	.	.
455	PARKER	POLK	15	15	1.08000	4.6091	0.030000	0.30021	9.333	171.500	0.30480	0.60000
456	PIERCE	POLK	27	28	0.39000	3.3871	0.010000	0.12000	11.200	32.000	0.30480	3.65760
457	REEDY	POLK	82	84	0.45000	2.5600	0.008000	0.42000	7.100	65.600	0.60960	1.57480
458	ROCHELLE	POLK	7	2	0.83600	2.7310	0.036667	0.03667	12.100	21.100	0.91440	1.06680
459	ROSALIE	POLK	53	56	0.26913	1.8100	0.006000	0.12000	4.000	9.600	0.76667	1.66667
460	ROY	POLK	1	0	2.11100	2.1110	.	.	.	.	.	.
461	SCOTT	POLK	17	20	1.25600	7.1091	0.055000	0.69179	40.300	252.600	0.20320	0.58420
462	SEARS	POLK	3	0	0.78700	1.4710	.	.	.	.	1.21920	1.21920
463	SHIPP	POLK	4	4	3.25000	3.6500	0.070000	0.18000	.	.	0.30480	0.43180
464	SILVER	POLK	10	0	0.67000	1.7530	.	.	.	.	.	.
465	SMART	POLK	0	2	.	.	0.043333	0.04333	.	.	.	.
466	SPIRIT	POLK	3	0	0.59100	1.4010	.	.	.	.	1.21920	1.21920
467	SPRING	POLK	12	4	0.39200	3.1510	0.030000	0.07300	34.600	34.600	0.71120	1.52400
468	STAR	POLK	6	6	0.59000	1.5000	0.032631	0.16000	4.800	10.700	0.60960	2.10820
469	SUMMIT	POLK	7	0	1.66100	2.3110	.	.	.	.	.	.

Table 3-9. (Continued)*

* N1 - NUMBER OF NITROGEN DATA VALUES *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES *
* MN - PREFIX INDICATES MINIMUM VALUE *
* MX - PREFIX INDICATES MAXIMUM VALUE *
* TN - TOTAL NITROGEN TP - PHOSPHORUS *
*CHLA- CHLOROPHYLL A SD - SECCHI DISK *

OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
470	SWOOPE	POLK	7	7	0.74100	4.1890	0.02600	0.19000	.	.	1.21920	1.2192
471	TENNESSEE	POLK	0	1	.	.	0.03200	0.03200	.	.	.	.
472	THOMAS	POLK	13	1	0.37000	1.4410	0.03600	0.03600	.	.	1.52400	1.5240
473	TIGER	POLK	4	4	0.70633	0.9225	0.03960	0.04650	2.2333	41.867	0.56667	0.8707
474	TRACY	POLK	11	11	0.53000	1.1550	0.00300	0.09000	2.1000	13.500	1.72720	2.8194
475	WALES	POLK	9	12	0.43000	1.2030	0.01000	0.09000	3.6667	40.400	0.88900	3.4544
476	WEOHYAKAPKA	POLK	66	69	0.05609	6.8030	0.01000	0.20000	2.6700	29.370	0.60960	1.6002
477	WHISTLER	POLK	1	2	1.20913	1.2091	0.02000	0.03000	.	.	.	.
478	WINTERSET	POLK	26	5	1.00000	4.6140	0.03000	0.06000	29.8000	44.500	0.76200	1.2497
479	WIRE	POLK	1	1	0.94000	0.9400	0.08200	0.08200	28.8000	28.800	1.80000	1.8000
480	ADAHO	PUTNAM	5	5	0.45000	1.2400	0.01000	0.06300	1.6000	8.000	0.60000	1.1000
481	ANDERSON CUE	PUTNAM	10	12	0.24000	1.1100	0.00800	0.05600	0.9500	6.900	0.67000	5.4000
482	BROWARD	PUTNAM	3	3	0.12300	0.2443	0.00107	0.00657	1.0333	2.033	5.06667	6.6000
483	COWPEN	PUTNAM	10	10	0.06000	0.3900	0.00200	0.01900	0.8700	3.700	2.10000	5.5000
484	GALLILEE	PUTNAM	9	9	0.18000	0.4700	0.00500	0.03100	1.0900	4.180	1.15000	4.1000
485	GEORGE	PUTNAM	22	20	0.79000	2.1610	0.02000	0.18420	0.0006	76.500	0.40000	1.1000
486	GEORGES	PUTNAM	10	10	0.21000	5.3530	0.01000	0.17000	2.5500	2.550	.	.
487	GRANDIN	PUTNAM	3	4	0.71429	0.9269	0.04000	0.09000	.	.	.	.
488	LITTLE LAKE GEORGE	PUTNAM	3	2	0.67200	1.6640	0.05000	0.10000	.	.	.	.
489	LONG POND	PUTNAM	5	5	0.07000	0.2700	0.00700	0.02000	0.8000	1.800	4.00000	4.9000
490	MARGARET	PUTNAM	3	3	0.43433	1.2277	0.01850	0.02253	5.3667	10.833	0.46667	0.9000
491	MCCLOUD	PUTNAM	12	12	0.14000	0.6700	0.00600	0.03000	0.6700	4.700	2.70000	5.8000
492	MOSS LEE	PUTNAM	5	5	0.58000	1.0300	0.03000	0.07100	3.1000	16.200	1.20000	1.8000
493	SANTA ROSA	PUTNAM	8	9	0.10000	0.3300	0.00500	0.02500	0.6000	3.650	3.10000	8.5000
494	STELLA	PUTNAM	3	3	0.42800	0.5133	0.00877	0.02020	1.6000	4.467	2.60000	5.5000
495	SUGGS	PUTNAM	8	8	0.54000	1.0200	0.02000	0.06000	2.0000	9.300	0.80000	1.1000
496	SWAN	PUTNAM	8	8	0.05200	0.4000	0.00500	0.03300	0.8000	2.300	2.40000	3.7000
497	WALL	PUTNAM	4	4	0.65000	1.1620	0.02000	0.03400	2.4000	7.100	1.00000	1.8000
498	WINNOTT	PUTNAM	5	5	0.33000	0.8600	0.01500	0.03000	0.8000	4.100	2.20000	4.6000
499	BEAR	SANTA ROSA	9	10	0.19700	1.2400	0.00553	0.46000	2.3667	177.200	0.96520	2.1336
500	UPPER MYAKKA	SARASOTA	9	8	0.75000	1.6400	0.07107	0.62000	1.7000	10.700	0.60000	5.4864
501	ADA	SEMINOLE	1	0	0.48500	0.4850	.	.	.	.	.	.
502	BANANA	SEMINOLE	0	1	.	.	2.16300	2.16300	.	.	.	.
503	BEAR	SEMINOLE	3	0	0.42000	0.4500	.	.	.	.	.	.
504	BRANTLEY	SEMINOLE	1	0	0.36000	0.3600	.	.	.	.	0.15240	0.1524
505	CATHERINE	SEMINOLE	1	0	0.18000	0.1800	.	.	.	.	0.38100	0.3810
506	CRYSTAL	SEMINOLE	1	0	0.23500	0.2350	.	.	.	.	.	.
507	ELEVENTH HOLE	SEMINOLE	2	2	0.66100	0.8330	0.16000	0.16000	.	.	.	.
508	FAIRY	SEMINOLE	3	1	0.20200	1.1584	0.03000	0.03000	.	.	.	.
509	FLORIDA	SEMINOLE	5	2	0.56000	1.3000	0.08000	0.08000	.	.	0.12700	7.3152
510	GOLDEN	SEMINOLE	2	0	0.56000	0.6400	.	.	.	.	2.43840	2.4384
511	HORSESHOE	SEMINOLE	6	6	0.80000	1.3000	0.03100	0.08100	8.1000	15.500	0.88900	1.2192
512	HOWELL	SEMINOLE	30	13	0.37000	2.7080	0.45000	4.90000	41.6000	77.900	0.70000	7.3152
513	JENNIE	SEMINOLE	2	0	0.48500	0.5700	.	.	.	.	.	.
514	JESSUP	SEMINOLE	110	95	0.99833	18.3040	0.05000	2.11000	11.5000	430.000	0.05080	5.4864
515	KATHRYN	SEMINOLE	2	0	0.77500	0.7800	.	.	.	.	9.14400	10.9728
516	LOTUS	SEMINOLE	1	1	1.80000	1.8000	0.16000	0.16000	.	.	.	.
517	MARKHAM	SEMINOLE	1	1	0.35333	0.3533	0.06667	0.06667	.	.	.	.
518	MARY	SEMINOLE	3	1	0.39000	1.0000	0.10000	0.10000	.	.	0.20320	0.2032
519	MILLS	SEMINOLE	4	2	0.31500	1.4150	0.01500	0.03000	.	.	0.38100	0.3810
520	MINNIE	SEMINOLE	2	0	0.86000	1.3000	.	.	.	.	.	.
521	MIRROR	SEMINOLE	1	0	0.99000	0.9900	.	.	.	.	.	.
522	PEARL	SEMINOLE	5	3	0.87000	1.6200	0.03000	0.12500	.	.	.	.
523	PRAIRIE	SEMINOLE	1	0	0.39667	0.3967	.	.	.	.	.	.
524	SEMINOLE	SEMINOLE	3	3	0.40000	0.5777	0.03437	0.05430	9.8000	11.533	0.30000	0.6667
525	SILVER	SEMINOLE	1	0	0.37000	0.3700	.	.	.	.	.	.
526	SPRING	SEMINOLE	18	10	1.08000	3.8400	0.29500	2.87500	.	.	0.60960	9.1440
527	SYLVAN	SEMINOLE	4	0	0.38000	0.5950	.	.	.	.	.	.
528	TRIPLET	SEMINOLE	1	1	0.53000	0.5300	0.04000	0.04000	.	.	.	.
529	DEATON	SUMTER	6	6	1.67000	3.1200	0.02270	0.05000	23.3000	53.800	0.40000	0.7000
530	MIONA	SUMTER	7	7	0.91260	1.6090	0.01270	0.11400	7.3000	19.767	1.00000	1.1667
531	OKAHUMPKA	SUMTER	7	7	0.81100	1.0387	0.01077	0.03000	3.7000	5.567	1.14300	1.2192
532	PANASOFFKEE	SUMTER	55	55	0.22581	2.5000	0.01323	0.15000	0.0000	40.500	0.40000	1.8288
533	LOUISE	SUWANNEE	3	3	0.59133	0.7040	0.01727	0.03143	4.1333	8.567	1.66667	1.9667
534	SUSAN	SUWANNEE	3	3	0.74200	1.0193	0.00453	0.01973	1.9667	21.300	0.70000	1.1333
535	BUTLER	UNION	9	10	0.35000	0.6200	0.01958	0.03263	1.4333	30.000	0.88900	1.4000
536	PALESTINE	UNION	7	7	0.19700	0.5700	0.01305	0.02457	4.2333	8.500	0.63500	1.4000

Table 3-9. (Continued)*

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*                                                *
* N1 - NUMBER OF NITROGEN DATA VALUES             *
* N2 - NUMBER OF PHOSPHORUS DATA VALUES           *
* MN - PREFIX INDICATES MINIMUM VALUE             *
* MX - PREFIX INDICATES MAXIMUM VALUE             *
* TN - TOTAL NITROGEN      TP - PHOSPHORUS        *
*CHLA- CHLOROPHYLL A       SD - SECCHI DISK       *
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OBS	LAKE	COUNTY	N1	N2	MNTN	MXTN	MNTP	MXTP	MNCHLA	MXCHLA	MNSD	MXSD
537	SWIFTS CREEK POND	UNION	0	1	.	.	0.020000	0.020000	.	.	.	.
538	ANGELES	VOLUSIA	1	1	0.11100	0.1110	0.019000	0.019000	.	.	.	.
539	ASHBY	VOLUSIA	6	6	0.49100	1.0200	0.011533	0.050000	2.95000	25.867	0.53333	1.2000
540	BATON	VOLUSIA	1	1	0.41100	0.4110	0.030000	0.030000	.	.	.	.
541	BERESFORD	VOLUSIA	4	2	1.24000	2.3850	0.130000	0.210000	.	.	.	.
542	BUTLER	VOLUSIA	1	1	0.35100	0.3510	0.005500	0.005500	.	.	.	.
543	DEXTER	VOLUSIA	7	5	0.88833	1.5850	0.078067	0.163267	4.93333	36.100	0.53333	0.9000
544	DIAS	VOLUSIA	3	3	0.56000	0.7420	0.049867	0.055133	0.66667	12.067	0.56667	1.4667
545	DUPONT	VOLUSIA	2	2	0.21150	0.2115	0.046500	0.046500	.	.	.	.
546	HARNEY	VOLUSIA	22	9	0.84267	6.4400	0.020000	0.380000	3.26667	29.467	0.45720	10.9728
547	HUTCHINSON	VOLUSIA	1	1	0.41100	0.4110	0.014000	0.014000	.	.	.	.
548	LOUISE	VOLUSIA	1	1	0.26100	0.2610	0.019000	0.019000	.	.	.	.
549	MOLLY	VOLUSIA	2	2	0.88000	1.0800	0.030000	0.040000	.	.	.	.
550	MONROE	VOLUSIA	69	21	0.76067	18.2600	0.069500	0.324000	6.10000	106.861	0.30480	9.1440
551	PUZZLE	VOLUSIA	14	0	0.41600	2.1850	.	.	.	.	.	.
552	THERESA	VOLUSIA	1	1	0.03100	0.0310	0.011000	0.011000	.	.	.	.
553	THREE ISLAND	VOLUSIA	1	1	0.47100	0.4710	0.019000	0.019000	.	.	.	.
554	WINNEMISETT	VOLUSIA	7	9	0.22500	0.9540	0.000833	0.043333	0.50000	1.033	5.78889	6.6000
555	WINORO	VOLUSIA	7	9	0.06000	0.4800	0.003333	0.023333	3.00000	3.800	1.52400	3.5814
556	ELLEN	WAKULLA	3	3	0.29967	0.3307	0.008633	0.016500	1.86667	4.500	1.33333	1.6667
557	OTTER	WAKULLA	3	3	0.37367	0.5653	0.015700	0.053800	2.73333	3.033	0.73333	1.2000
558	SANTA FE	WAKULLA	3	3	0.26967	0.4220	0.004633	0.033867	4.53333	6.133	1.83333	2.5333
559	DEFUNEAK	WALTON	1	2	0.52000	0.5200	0.006667	0.026667	.	.	.	.
560	JACKSON	WALTON	7	8	0.02000	1.3300	0.006667	0.060000	1.96667	13.356	1.10000	3.2667
561	JUNIPER	WALTON	3	3	0.35000	0.4307	0.017433	0.023333	5.50000	9.467	1.83333	3.2667
562	OYSTER	WALTON	3	3	0.48033	0.6040	0.029567	0.038833	2.83333	5.100	0.66667	1.3000
563	STANLEY	WALTON	3	3	0.27800	0.3807	0.007500	0.018033	1.76667	5.500	1.96667	2.9667
564	WESTERN	WALTON	3	3	0.24433	0.3417	0.002867	0.010367	0.76667	1.567	0.76667	2.9667
565	CLARKS	WASHINGTON	0	2	.	.	0.030000	0.196666	.	.	.	.
566	CRYSTAL	WASHINGTON	3	3	0.10080	0.1290	0.004433	0.009000	0.33333	0.700	7.06667	9.5333
567	DUNFORD POND	WASHINGTON	3	3	0.19433	0.2670	0.004933	0.009967	0.63333	1.033	5.00000	5.0000
568	GAP POND	WASHINGTON	3	3	0.28733	0.3413	0.007033	0.020867	1.26667	1.767	4.50000	4.5000
569	GULLY POND	WASHINGTON	0	2	.	.	0.026667	0.090000	.	.	.	.
570	PATE POND	WASHINGTON	3	3	0.25367	0.3607	0.009067	0.022300	2.80000	11.300	1.30000	2.4333
571	PORTER	WASHINGTON	7	10	0.25000	0.5100	0.003333	0.163333	1.10000	1.100	0.55880	2.2606
572	SMITH	WASHINGTON	3	3	0.44000	0.5220	0.002867	0.027867	1.23333	4.667	1.06667	1.7000
573	WAGES POND	WASHINGTON	0	2	.	.	0.020000	0.083333	.	.	.	.

*TN, TP in mg/L
Chl *a* in mg/m^3
Secchi Disk in m

CHAPTER 4

LAND USE AND NUTRIENT LOADINGS TO FLORIDA LAKES

INTRODUCTION

In planning for proper lake quality management, it is necessary to predict the impact of projected land use on lake water quality. Thus, an essential component of any lake eutrophication study involves assessment of nutrient loading rates.

Eutrophication, by definition, is partially characterized by "an increased nutrient supply." Specifically, phosphorus and nitrogen are the nutrients of the greatest concern, as these two elements provide the basic ingredients for life and growth of a lake's biota. Of the four parameters employed as indicators of trophic state in this project, total nitrogen and total phosphorus are best described as the independent variables. Secchi disk depth and chlorophyll a concentration, while not totally dependent on nitrogen and phosphorus values, are nontheless usually indicative, and viewed as a secondary effect, of nitrogen and phosphorus concentrations. High chlorophyll a concentrations and low Secchi disk depths are generally reflective of high nitrogen and phosphorus levels, and vice versa.

The land use characteristics surrounding a lake, along with the geology, meteorology, morphology, and hydrology of the area, dictate the nutrient loadings to a lake. The inputs from these land use/non-point sources often provide the majority of nutrient loadings, but point-source contributions in some cases have major impacts. In general, non-point sources of nutrients are most important in Florida, which is a relatively non-industrial, highly agricultural state. Thus, the quantification of non-point source nutrient fluxes is a high priority for the analysis and prediction of eutrophication levels in lakes.

USE OF LOADING COEFFICIENTS

Accurate assessment of non-point source nutrient loadings is difficult, and assessment techniques are being developed continuously. Because each watershed has a unique pattern of land use, and each use makes its own unique contribution to lake nutrient loading, the variability from catchment to catchment and lake to lake can be immense. Economic, technical, and practical limitations prohibit individual water quality studies for all water bodies in a particular state or region, and therefore alternative, quantitative investigations must be conducted.

One such assessment technique involves the use of nutrient export coefficients. This approach attempts to relate the land use surrounding a water body to the nutrient flux into the water. Specific export coefficient values (usually in units of mass/area/time) are assigned to each land use, and the appropriate coefficient can then be multiplied by the area of land use to arrive at a loading in units of mass/time. By summing the results over all land uses, one can calculate the total nutrient loading to a specific water body. Equations of this nature will be examined later in this chapter.

Ideally, nutrient export coefficients should apply to any area where the land use they represent is found. This is not the case, however, and the magnitude of nutrient mass loadings to a water body is not dependent solely on land use. Differences in nitrogen and phophorus loading values in areas with the same land use characteristics, but in different geographic locations, may result from differences in climate, precipitation, watershed morphology, rock and soil types, and degree of fertilizer application.

Differences also can exist in export values obtained from several studies on lands in the same use category and in the same geographic region. These differences probably reflect uncertainties and inaccuracies in the measurements themselves, as well as physical differences in the watersheds. Baker et al. (1981) described causes for this type of variability. First, the methods employed to determine nutrient export can be quite different. Sample size, frequency of data collection, and the number of storms involved are all key components. Second, water budgets are rarely constructed for individual studies. This leaves in doubt then, the assumption that the water flow at the sampling site is the sole outlet of water and nutrients from the watershed and that all of the water coming from the watershed is the result of precipitation falling solely on that watershed. Finally, most studies involve only one annual cycle, at most. Therefore seasonal or annual variations in loading are not taken into account.

Choosing accurate export coefficients still is a difficult and subjective decision. It is generally recognized that this approach leads to large uncertainties in loading estimates. For example, N and P export coefficients reported in the literature for a given land use type may range over an order of magnitude. Reckhow et al. (1980) have summarized the world literature on export coefficient values, and Baker et al. (1981) performed a similar analysis for export studies done on Florida watersheds. If care is taken, however, to match export coefficients to watershed conditions as closely as possible, the errors involved can be minimized (Reckhow et al., 1980). Nutrient export coefficients, while limited in accuracy, nevertheless can provide rapid and inexpensive preliminary estimates of mass loadings into water bodies.

LAND CHARACTERISTICS DATA BASE

Because of the great variability in loadings associated with different land characteristics, accurate determination of land use areas and watershed sizes is necessary for development of accurate nutrient loading values. Fortunately, the State of Florida possesses perhaps the most accurate and comprehensive data base in the nation on land characteristics.

The Department of Environmental Regulation (DER), in conjunction with the Department of Administration, Division of State Planning (DSP), entered into an interagency agreement in 1978 to prepare a land characteristics data base for use in comprehensive water management planning throughout the State of Florida. The DSP proposed that this project become a pilot test for further development of the Geographic Information System (GIS) concept. The GIS is basically composed of six subsystems, designed for statewide use of geographic data and information handling in resource management programs.

The land characteristic data base project constructed three data bases under the DSP/DER agreement:

1) land use/land cover

2) hydrologic units

3) soil associations

U.S.G.S. 1:250,000 scale maps were used as base maps for the analysis, and interpretation was subsequently performed using 1:80,000 quad-centered aerial photographs. The classification system employed was the USGS Level II land use (Table 4-1). Digital data bases of land use/land cover also were constructed. The maps were digitized by a high-resolution, line-following laser scanner. A cell size of 1 hectare was chosen for the land characteristics data.

Table 4-1. Land Use/Land Cover Classification.

Level I	Level II
1. Urban or Built-up Land	11. Residential
	12. Commercial and Services
	13. Industrial
	14. Transportation, Communications and Utilities
	15. Industrial and Commercial Complexes
	16. Mixed Urban or Built-up Land
	17. Other Urban or Built-up Land
2. Agricultural Land	21. Cropland and Pasture
	22. Orchards, Groves, Vineyards, Nurseries, and Ornamental Horticulture Areas
	23. Confined Feeding Operations
	24. Other Agricultural Land
3. Rangeland	31. Herbaceous Rangeland
	32. Shrub-Brushland Rangeland
	33. Mixed Rangeland
4. Forest Land	41. Deciduous Forest Land
	42. Evergreen Forest Land
	43. Mixed Forest Land
5. Water	51. Streams and Canals
	52. Lakes
	53. Reservoirs
	54. Bays and Estuaries
6. Wetland	61. Forested Wetland
	62. Nonforested Wetland
7. Barren Land	71. Dry Salt Flats
	72. Beaches
	73. Sandy Areas Other than Beaches
	74. Bare Exposed Rock
	75. Strip Mines, Quarries, and Gravel Pits
	76. Transitional Areas
	77. Mixed Barren Land

Source: USGS Professional Paper 964

The less detailed Level I land uses for 325 Florida lakes are presented in Table 4-2. Land use data are presented for four categories: urban, agricultural, wetlands, and forest. Water area is also included.

The water area for each lake is the total water area for the entire contributory drainage area. Thus, the water category is not necessarily equal to the lake surface area. For example, Lake Griffin is the fifth lake in the Oklawaha chain of lakes. The water acreage of Lake Griffin includes the areas of lakes Apopka, Beauclair, Dora, Eustis, and Griffin. Table 4-3 compares the surface area of the lake to the water category of land use for 325 lakes for which data are available. Lake Griffin (no. 119) has a lake area of 10660 acres and a water area of 107056 acres.

This chapter develops a nutrient input-output model for the 325 Florida lakes. There could be two ways in which to formulate the model based on either the lake surface area or the lake drainage water area. Both methods were tried for the 325 lakes with land use data and it was found that normalizing the nutrient loading and runoff loading by the lake surface area rather than by the water area of the drainage basin gave better results. This, however, was the overall state result and individual chains of lakes may be better modeled using the larger water area.

The five digit number listed under the column HYDRO (see Table 4-2) refers to the hydrologic unit in which the lake is contained. If a 99999 is shown then the lake has multiple hydrologic units in its drainage basin. The list of these multiple units is presented in Appendix G, which also contains a map set prepared by J. Hand of the Florida Department of Environmental Regulation. Further information in the column headings of Tables 4-2 and 4-3 is given during the discussion of "Calculated Loadings" later in this chapter.

Table 4-2. Florida Land Use Data, Acres.

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*          99999 INDICTES MULTIPLE UNIT AREAS   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*************************************************
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
ALICE	ALACHUA	30335	6747.0	3346	782	119.0	239.0	11233
ALTHO	ALACHUA	26135	307.0	1124	114	578.0	440.0	2562
BIVENS ARM	ALACHUA	30330	1302.2	64	343	158.1	74.1	1942
LITTLE ORANGE	ALACHUA	99999	33753.9	324766	236546	25681.1	26583.0	647330
LITTLE SANTA FE	ALACHUA	99999	1191.0	6358	1742	5631.4	877.2	15800
LOCHLOOSA	ALACHUA	99999	686.9	40136	7287	6081.1	2290.6	56482
NEWNANS	ALACHUA	99999	6249.2	55234	5604	5841.4	106.3	73035
ORANGE	ALACHUA	99999	33753.9	324766	236546	25681.1	26583.0	647330
SANTA FE	ALACHUA	99999	1191.0	6358	1742	5631.4	877.2	15800
OCEAN POND	BAKER	23315	160.0	5773	22	1949.0	1911.0	9814
DEER POINT	BAY	99999	3167.8	253999	9882	6824.9	4087.3	277960
MERIAL	BAY	11065	229.8	45926	3185	2179.4	3763.3	55284
ROWELL	BRADFORD	26125	1366.5	9642	1386	86.5	0.0	12481
SAMPSON	BRADFORD	99999	2241.2	29531	3380	3088.7	0.0	38241
POINSETT	BREVARD	99999	10842.7	177052	458249	20067.0	55073.6	721285
SHARPES	BREVARD	31190	703.0	152	1639	706.0	794.0	3984
SOUTH	BREVARD	31125	2518.0	4374	4818	121.0	1070.0	12901
WASHINGTON	BREVARD	99999	4420.6	154064	365943	13417.5	25221.5	563067
WINDER	BREVARD	99999	4853.0	167766	435825	15075.6	37779.1	661299
LITTLE	CITRUS	35035	258.0	0	660	84.0	3.0	1004
TSALA APOPKA	CITRUS	35030	10015.0	110763	46929	7875.1	18586.9	194169
TSALA APOPKA(F)	CITRUS	35030	10015.0	110763	46929	7875.1	18586.9	194169
TSALA APOPKA(H)	CITRUS	35030	10015.0	110763	46929	7875.1	18586.9	194169
TSALA APOPKA(I)	CITRUS	35030	10015.0	110763	46929	7875.1	18586.9	194169
BROOKLYN	CLAY	99999	612.8	8159	104	2288.1	0.0	11164
DOCTORS	CLAY	25090	4299.0	5672	1145	3979.0	931.0	16026
GENEVA	CLAY	99999	4138.9	56519	11574	9854.3	4344.0	86431
GEORGES	CLAY	25355	0.0	29635	2916	758.6	0.0	33309
JOHNSON	CLAY	25375	0.0	3762	206	497.0	0.0	4465
KINGSLEY	CLAY	25290	1680.3	3071	0	1452.9	0.0	6205
LOWERY	CLAY	25385	33.0	7876	114	1726.0	630.0	10378
SMITH	CLAY	25370	651.0	10224	643	2030.0	413.0	13961
TRAFFORD	COLLIER	60010	1482.0	1216	9057	4196.0	4636.0	20586
ALLIGATOR	COLUMBIA	26155	3288.9	5903	1633	412.7	551.0	11789
GOVERNOR HILL	DIXIE	27025	0.0	771	0	394.0	347.0	1512
CRESCENT	FLAGLER	99999	5152.0	268309	46435	22402.1	3884.4	346182
DISSTON	FLAGLER	25465	0.0	12483	2548	1964.4	0.0	16996
TALQUIN	GADSDEN	99999	14447.9	235074	61115	14462.8	7798.5	332898
DEAD	GULF	99999	9911.2	446922	174000	5483.1	168.0	636485
WIMICO	GULF	14005	1411.0	146730	4484	19150.0	93098.0	264873
OCTAHATCHEE	HAMILTON	20015	57.0	641	529	315.0	608.0	2149
CREWS	HERNANDO	34155	2665.0	16284	24491	423.0	1224.0	45088
HORSE	HERNANDO	34180	1637.0	2044	1818	49.0	0.0	5547
HUNTERS	HERNANDO	34025	673.0	627	43	318.0	0.0	1661
LINDSEY	HERNANDO	35050	0.0	1164	641	315.0	193.0	2312
NEFF	HERNANDO	34165	22.0	263	2204	342.0	1020.0	3851
SPRING	HERNANDO	35065	0.0	0	144	52.0	0.0	195
APTHORPE	HIGHLANDS	99999	1208.3	4181	7608	1739.6	22.2	14759
CLAY	HIGHLANDS	99999	1193.5	3341	6383	1457.4	22.2	12437
FRANCIS	HIGHLANDS	99999	1939.7	3447	13022	7798.5	51.9	26259
GRASSY	HIGHLANDS	36205	1556.7	1488	5327	877.2	0.0	9249
HUNTLEY	HIGHLANDS	36190	976.0	2847	6111	1134.2	22.2	11090
ISTOKPOGA	HIGHLANDS	99999	20563.7	83443	218086	58523.2	5050.7	385666
JACKSON	HIGHLANDS	36225	3232.1	1142	1547	2816.9	0.0	8737
JOSEPHINE	HIGHLANDS	99999	4000.5	9185	19768	4875.3	118.6	37947
JUNE-IN-WINTER	HIGHLANDS	99999	1924.9	3393	12217	7272.2	51.9	24858
LETTA	HIGHLANDS	36250	24.0	0	1862	540.0	0.0	2426
LITTLE LAKE JACKSON	HIGHLANDS	36225	3232.1	1142	1547	2816.9	0.0	8737
LITTLE RED WATER	HIGHLANDS	36247	0.0	220	1970	320.0	0.0	2510
LOTELA	HIGHLANDS	36255	2133.0	0	4999	1430.0	109.0	8671
PLACID	HIGHLANDS	99999	1823.6	1999	10198	3877.0	0.0	17897
RUSSELL	HIGHLANDS	99999	24529.6	82267	128751	19187.3	8431.1	263166
SEBRING	HIGHLANDS	36245	521.0	1506	1601	537.0	76.0	4242
ALICE	HILLSBOROUGH	39245	90.0	0	171	109.0	0.0	369
BAY	HILLSBOROUGH	99999	788.2	22	549	296.5	0.0	1656
BIRD	HILLSBOROUGH	38050	651.0	0	1029	98.0	236.0	2014
BROWNS	HILLSBOROUGH	39100	328.0	0	670	71.0	0.0	1069
BUCK	HILLSBOROUGH	39230	0.0	0	269	49.0	0.0	318
CALM	HILLSBOROUGH	39265	152.0	0	242	133.0	0.0	527
CARROLL	HILLSBOROUGH	39127	1262.0	0	125	337.0	0.0	1723

Table 4-2. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*        99999 INDICTES MULTIPLE UNIT AREAS     *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*************************************************
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
CHAPMAN	HILLSBOROUGH	38045	749.0	0.0	478	111	0.0	1338
CHARLES	HILLSBOROUGH	38085	155.0	0.0	111	46	0.0	312
COOPER	HILLSBOROUGH	38105	304.0	0.0	513	160	0.0	977
CRENSHAW	HILLSBOROUGH	38072	68.0	0.0	185	0	0.0	252
DAN	HILLSBOROUGH	34205	0.0	62.0	166	33	0.0	261
DOGSON	HILLSBOROUGH	39065	60.0	0.0	125	8	0.0	193
ECHO	HILLSBOROUGH	39247	0.0	0.0	244	33	0.0	277
ELLEN	HILLSBOROUGH	39135	157.0	0.0	73	0	0.0	231
GLASS	HILLSBOROUGH	39010	0.0	0.0	149	22	0.0	171
HANNA	HILLSBOROUGH	38230	98.0	0.0	65	38	0.0	201
HARVEY	HILLSBOROUGH	39095	43.0	0.0	518	41	0.0	603
HUBBS	HILLSBOROUGH	39105	250.0	0.0	239	152	0.0	641
ISLAND FORD	HILLSBOROUGH	39260	290.0	0.0	980	326	19.0	1615
KEENE	HILLSBOROUGH	38235	258.0	0.0	472	100	206.0	1037
KELL	HILLSBOROUGH	38240	727.0	155.0	1653	524	0.0	3059
MAGDALENE	HILLSBOROUGH	39150	508.0	16.0	388	266	8.0	1196
MOUND	HILLSBOROUGH	39270	3.0	0.0	111	68	0.0	182
MUD	HILLSBOROUGH	38340	1987.0	882.0	3276	193	1124.0	7461
PLAIT	HILLSBOROUGH	38040	98.0	0.0	695	68	111.0	972
PRETTY	HILLSBOROUGH	39390	266.9	501.6	3123	126	0.0	4018
RAINBOW	HILLSBOROUGH	39250	0.0	0.0	665	263	0.0	928
SADDLEBACK	HILLSBOROUGH	38060	8.0	0.0	0	0	0.0	8
STARVATION	HILLSBOROUGH	39085	57.0	0.0	209	0	0.0	266
SUNSHINE	HILLSBOROUGH	39065	54.4	0.0	114	7	0.0	175
THOMAS	HILLSBOROUGH	38080	220.0	0.0	470	179	0.0	868
THONOTOSASSA	HILLSBOROUGH	99999	5332.4	2789.8	18901	1003	360.8	28387
VALRICO	HILLSBOROUGH	38350	1387.0	643.0	3607	133	0.0	5770
VAN DYKE	HILLSBOROUGH	39070	30.0	0.0	798	65	24.0	917
WHITE TROUT	HILLSBOROUGH	39125	174.0	0.0	60	87	0.0	320
WIMAUMA	HILLSBOROUGH	44015	176.0	0.0	103	147	0.0	426
WOOD	HILLSBOROUGH	39262	98.0	0.0	81	57	0.0	236
BLUE CYPRESS	INDIAN RIVER	99999	2602.0	68197.1	162911	7897	6938.6	248546
MICCOSUKEE	JEFFERSON	99999	1719.8	65911.5	35054	1712	4551.6	108949
TOWNSEND POND	LAFAYETTE	27040	0.0	2912.0	125	266	1313.0	4516
APSHAWA	LAKE	30420	0.0	0.0	882	185	0.0	1067
BAY	LAKE	35250	0.0	0.0	6964	90	5469.0	12522
BEAR	LAKE	31410	459.0	0.0	364	269	0.0	1091
BEAUCLAIR	LAKE	99999	5876.0	9671.5	75857	32140	943.9	124489
CATHERINE	LAKE	35180	307.0	3.0	1789	331	950.0	3379
CHERRY	LAKE	99999	2718.1	21571.8	58071	13442	9824.7	105628
CHURCH	LAKE	30160	0.0	309.0	2912	486	282.0	3990
CRYSTAL	LAKE	41425	250.0	195.0	114	22	41.0	622
DENHAM	LAKE	30375	855.0	703.0	4500	1721	4513.0	12292
DORA	LAKE	99999	9234.1	12219.1	88608	39084	1166.3	150311
DORR	LAKE	31365	0.0	3051.0	109	0	787.0	3946
EUSTIS	LAKE	99999	21942.5	49027.1	229766	89880	19293.6	409909
FLORENCE	LAKE	30180	106.0	0.0	214	122	14.0	456
GLONA	LAKE	30435	0.0	0.0	3563	1069	1311.0	5944
GRIFFIN	LAKE	99999	25901.0	71070.9	263863	107056	25406.8	493298
HARRIS	LAKE	99999	8403.9	32515.9	128569	41421	16901.6	227811
HIDDEN	LAKE	36335	3.0	38.0	1333	692	8.0	2073
HOLLY	LAKE	30105	0.0	0.0	331	212	49.0	592
LADY	LAKE	35190	138.0	1976.0	12341	1542	1091.0	17087
LITTLE LAKE HARRIS	LAKE	99999	8403.9	32515.9	128569	41421	16901.6	227811
LOUISA	LAKE	99999	753.7	21322.3	42059	7042	6142.9	77320
MINNEHAHA	LAKE	99999	1541.9	21401.3	45375	9533	6246.7	84098
MINNECLA	LAKE	99999	2718.1	21571.8	58071	13442	9824.7	105628
NORRIS	LAKE	31355	19.0	16756.0	19544	3213	20244.0	59776
PINE	LAKE	31060	252.0	529.0	0	14	451.0	1246
TROUT	LAKE	36340	0.0	0.0	711	209	0.0	920
UMATILLA	LAKE	30110	491.0	14.0	898	328	0.0	1732
WEST CROOKED	LAKE	30125	201.0	0.0	117	157	0.0	475
WILDCAT	LAKE	31025	65.0	2011.0	0	402	106.0	2584
YALE	LAKE	99999	504.1	17101.8	14730	6993	3904.2	43233
BRADFORD	LEON	18040	1949.6	9876.6	178	267	0.0	12271
HALL	LEON	17430	0.0	1243.0	426	0	0.0	1669
IAMONIA	LEON	17485	365.7	34522.3	8728	588	5759.9	49964
JACKSON	LEON	99999	5347.2	12058.5	3986	4517	1912.6	27821
CHUNKY POND	LEVY	29025	176.0	11860.0	2424	660	1001.0	16121
LONG POND	LEVY	27010	651.0	15413.0	20901	537	434.0	37936

Table 4-2. (Continued)

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*                                               *
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*          99999 INDICTES MULTIPLE UNIT AREAS   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*************************************************
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
ROUSSEAU	LEVY	99999	46465	493664	511754	29061	51179	1132123
CHERRY	MADISON	20025	350	103	144	489	0	1086
BOWERS	MARION	30070	62	350	1099	879	730	3121
BRYANT	MARION	30365	592	2206	1349	2638	1153	7938
DELANCY	MARION	31010	176	19869	0	605	565	21215
HALFMOON	MARION	30370	630	17508	168	2413	1710	22428
KERR	MARION	31015	1069	44086	176	5300	1232	51865
LITTLE LAKE WEIR	MARION	30080	1960	3692	22849	6185	371	35056
NICOTOON	MARION	30085	0	12642	84	763	133	13622
OCKLAWAHA	MARION	99999	65274	615024	489436	159560	52024	1381319
SMITH	MARION	25370	247	963	1856	440	204	3710
WEIR	MARION	30080	1960	3692	22849	6185	371	35056
OKEECHOBEE	OKEECHOBEE	99999	101318	470755	1812963	550981	196430	3132447
ADAIR	ORANGE	31517	119	0	0	0	0	119
APOPKA	ORANGE	99999	3432	5582	44308	31246	712	85279
BASS	ORANGE	36405	744	2	605	89	0	1441
BELL	ORANGE	31486	404	0	0	38	49	491
BESSIE	ORANGE	36370	79	0	499	250	0	828
BRYAN	ORANGE	36350	244	524	684	304	60	1816
BUTLER	ORANGE	99999	1710	2439	20218	5738	850	30954
CHARITY	ORANGE	31482	247	0	160	57	0	464
CLEAR	ORANGE	36415	6457	91	0	447	0	6995
CONWAY	ORANGE	36400	4759	141	1038	2192	0	8130
DOWN	ORANGE	36365	119	284	2068	810	0	3281
FAIRVIEW	ORANGE	31420	977	0	0	377	0	1354
FAITH	ORANGE	31480	372	0	27	90	0	489
FRANCIS	ORANGE	30170	236	100	125	24	0	486
HART	ORANGE	99999	1181	12632	33845	8594	2434	58686
HERRICK	ORANGE	31430	524	14	806	35	35	1414
HOLDENS	ORANGE	36415	6457	91	0	447	0	6995
HOPE	ORANGE	31481	687	0	68	43	353	1151
JOHIO	ORANGE	31417	30	0	160	27	0	217
JOHNS	ORANGE	30195	1038	1310	27008	395	0	29751
KILLARNEY	ORANGE	31490	228	0	0	52	0	280
LAWNE	ORANGE	31427	3905	1810	697	369	0	6782
LITTLE LAKE FAIRVIEW	ORANGE	31422	7	0	0	92	0	885
LOUISE	ORANGE	99999	1782	2439	20672	5965	850	31708
MAITLAND	ORANGE	31478	7613	2	437	1500	0	9553
MANN	ORANGE	36415	6457	91	0	447	0	6995
MARY JANE	ORANGE	99999	848	5024	15298	5402	2167	28738
PICKETT	ORANGE	31535	532	830	3222	1080	478	6142
POCKET	ORANGE	99999	2550	6066	23601	8080	850	41147
PORTER	ORANGE	36410	0	0	62	0	0	62
SHEEN	ORANGE	99999	2550	6066	23601	8080	850	41147
SHERWOOD	ORANGE	31435	1506	133	8335	814	0	10788
SILVER	ORANGE	31425	318	0	0	57	0	375
SPIER	ORANGE	31747	554	0	3	106	0	662
SPRING	ORANGE	31520	309	0	0	35	0	345
SUSANNAH	ORANGE	31750	746	90	798	0	1276	2909
TIBET	ORANGE	99999	2550	6066	23601	8080	850	41147
UNDERHILL	ORANGE	36420	756	0	0	203	0	959
WAUNATTA	ORANGE	31470	0	0	299	57	0	356
WEKIVA	ORANGE	31427	3556	1648	635	336	0	6175
AJAY	OSCEOLA	36165	334	7608	18547	3193	267	29949
ALLIGATOR	OSCEOLA	36130	7719	7435	49637	17640	1322	83755
CENTER	OSCEOLA	36140	133	418	1317	917	311	3096
COON	OSCEOLA	36140	133	418	1317	917	311	3096
CYPRESS	OSCEOLA	99999	58993	168903	394868	81358	26768	730890
EAST TOHOPEKALIGA	OSCEOLA	99999	23494	34616	111820	30233	8468	208631
GENTRY	OSCEOLA	99999	981	18903	44915	6647	1196	72642
HATCHINEHA	OSCEOLA	99999	58993	168903	394868	81358	26768	730890
JACKSON	OSCEOLA	36095	339	4023	22587	902	383	28234
KISSIMMEE	OSCEOLA	99999	67547	227708	584429	136916	37394	1053993
LIZZIE	OSCEOLA	36140	133	418	1317	917	311	3096
MARIAN	OSCEOLA	36090	1033	2333	28273	4786	877	37302
RUNNYMEDE	OSCEOLA	36150	429	54	2481	380	451	3794
RUSSELL	OSCEOLA	99999	24530	82267	128751	19187	8431	263166
TOHOPEKALIGA	OSCEOLA	99999	49726	83416	180425	40292	9563	363422
TROUT	OSCEOLA	36140	133	418	1317	917	311	3096
BELL	PASCO	38260	247	79	1604	622	402	2953

Table 4-2. (Continued)

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*************************************************
*        FLORICA LAND USE DATA                  *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM EDER/FSU   *
*          99999 INDICTES MULTIPLE UNIT AREAS   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
CAMP	PASCO	34235	79.0	0.0	1020.0	11.0	16.00	1126
CLEAR	PASCO	35095	144.0	0.0	339.0	163.0	0.00	646
CREWS	PASCO	34155	2426.5	15883.6	22298.3	328.6	56.83	40994
CURVE	PASCO	38270	166.0	0.0	543.0	174.0	3.00	885
EAST	PASCO	38255	0.0	125.0	111.0	103.0	0.00	339
IOLA	PASCO	34150	0.0	8.0	247.0	103.0	0.00	358
KING	PASCO	38265	0.0	3.0	125.0	0.0	95.00	223
LINDA	PASCO	34240	117.0	0.0	92.0	24.0	0.00	233
MOON	PASCO	34120	0.0	176.0	0.0	87.0	8.00	271
PADGETT	PASCO	38245	0.0	19.0	65.0	3.0	0.00	87
THOMAS	PASCO	34250	130.0	0.0	361.0	195.0	0.00	687
MAGGIORE	PINELLAS	39180	2586.0	307.0	5.0	361.0	190.00	3449
SAWGRASS	PINELLAS	39170	2008.0	71.0	432.0	38.0	347.00	2896
SEMINOLE	PINELLAS	34085	7382.0	1126.0	1069.0	822.0	33.00	10433
TARPON	PINELLAS	99999	3424.8	6461.7	20034.9	3256.8	395.36	33573
ALFRED	POLK	41230	198.0	0.0	991.0	716.0	0.00	1905
ANN	POLK	34225	692.0	0.0	529.0	315.0	0.00	1536
ANNIE	POLK	41195	81.0	98.0	2038.0	600.0	128.00	2945
ARBUCKLE	POLK	99999	4230.4	32328.1	53895.0	15354.8	2100.35	107909
ARIANA	POLK	41250	1053.0	0.0	2149.0	1924.0	0.00	5127
BANANA	POLK	41415	3032.0	2983.0	2003.0	651.0	114.00	8783
BEULAH	POLK	38370	682.0	0.0	9.9	121.1	0.00	813
BONNY	POLK	41435	86.5	0.0	12.4	2.5	0.00	101
CANNON	POLK	41440	2844.1	158.1	437.4	126.0	0.00	3566
CLINCH	POLK	99999	1702.5	3674.4	15473.3	5885.9	1423.30	28164
CONNIE	POLK	41175	673.0	0.0	171.0	252.0	0.00	1096
CROCKED	POLK	36275	810.5	3390.2	8154.3	5633.9	1398.59	19387
CUMMINGS	POLK	41235	122.0	0.0	193.0	84.0	0.00	399
DEER	POLK	41125	30.0	0.0	27.0	0.0	0.00	57
EAGLE	POLK	41410	136.0	52.0	898.0	665.0	0.00	1751
ECHO	POLK	41220	383.0	0.0	35.0	62.0	0.00	480
EFFIE	POLK	99999	872.3	0.0	1366.5	415.1	0.00	2654
ELBERT	POLK	41160	1666.0	0.0	760.0	453.0	76.00	2956
ELOISE	POLK	99999	541.1	173.0	2283.2	1875.5	0.00	4873
FANNIE	POLK	99999	12300.6	2934.2	13810.4	11954.7	358.29	41258
GEORGE	POLK	41240	0.0	0.0	52.0	41.0	0.00	92
GUM	POLK	41225	217.0	0.0	1832.0	459.0	608.00	3116
HAINES	POLK	41210	480.0	0.0	909.0	896.0	611.00	2896
HAMILTON	POLK	99999	14912.5	3086.3	20314.1	15201.6	896.97	54411
HANCOCK	POLK	99999	19508.5	35384.7	18520.1	14398.5	1744.53	89556
HARTRIDGE	POLK	41145	535.0	0.0	60.0	532.0	19.00	1145
HELENE	POLK	35140	3.0	0.0	293.0	60.0	0.00	356
HENRY	POLK	41205	149.0	0.0	651.0	852.0	385.00	2038
HOLLINGSWORTH	POLK	41430	2097.9	9295.9	528.8	1519.7	121.08	13563
HOWARD	POLK	99999	3180.2	518.9	3970.9	3390.2	0.00	11060
IDA	POLK	36272	977.0	147.0	7428.0	174.0	193.00	8918
JULIANA	POLK	35150	274.0	0.0	1903.0	1115.0	141.00	3433
LENA	POLK	99999	1601.2	0.0	1979.3	1939.7	0.00	5520
LIVINGSTON	POLK	36265	303.9	5537.5	10869.9	1793.9	0.00	18505
LOWERY	POLK	30470	171.0	0.0	855.0	2684.0	1778.00	5488
LULU	POLK	99999	1470.2	518.9	3318.6	2468.5	0.00	7776
MARIAN	POLK	41155	0.0	43.0	33.0	179.0	35.00	290
MARIANA	POLK	41245	678.0	0.0	855.0	594.0	90.00	2217
MARION	POLK	36105	1952.1	5122.4	13298.9	3017.1	672.11	24063
MATTIE	POLK	35145	130.0	14.0	3751.0	3542.0	2885.00	10321
MCLEOD	POLK	41070	1172.0	0.0	768.0	459.0	0.00	2399
MIRROR	POLK	41130	1221.0	11.0	14.0	483.0	0.00	1729
MORTON	POLK	41440	2844.1	158.1	437.4	126.0	0.00	3566
MOUNTAIN	POLK	41080	744.0	0.0	1409.0	293.0	0.00	2445
MYRTLE	POLK	99999	0.0	143.3	1588.9	659.8	0.00	2392
OTIS	POLK	41150	630.0	30.0	166.0	187.0	54.00	1067
PARKER	POLK	41450	3417.0	1159.0	1020.0	3382.0	404.00	9382
PIERCE	POLK	36300	941.5	9288.5	22412.0	4395.9	516.44	37554
REEDY	POLK	99999	2619.3	7267.2	17712.1	9100.7	1423.30	38123
ROCHELLE	POLK	99999	11206.0	2055.9	11846.0	9928.5	331.11	35367
ROSALIE	POLK	99999	3358.1	28774.8	39187.6	12088.1	1452.95	84862
RUBY	POLK	41090	0.0	0.0	402.0	255.0	0.00	657
SHIPP	POLK	99999	3180.2	518.9	3970.9	3390.2	0.00	11060
SILVER	POLK	41165	3.0	0.0	616.0	130.0	0.00	749
SMART	POLK	41180	122.0	0.0	141.0	296.0	30.00	589

Table 4-2. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*        99999 INDICTES MULTIPLE UNIT AREAS     *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*************************************************
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
TIGER	POLK	99999	3358	29454	46623	14020	2229	95685
WALES	POLK	36292	1039	98	285	274	0	1696
WEOHYAKAPKA	POLK	36290	3170	22513	26116	7912	1124	60836
WINTERSET	POLK	99999	0	143	1589	660	0	2392
GEORGE	PUTNAM	99999	118769	863056	866323	100879	158339	2107365
GEORGES	PUTNAM	25355	0	9878	972	253	0	11103
GRANDIN	PUTNAM	25365	266	3284	5	494	24	4074
LITTLE LAKE GEORGE	PUTNAM	99999	123132	995398	877741	153410	160289	2309970
LOWER MYAKKA	SARASOTA	99999	403	23232	122186	1875	6212	153909
UPPER MYAKKA	SARASOTA	99999	183	19051	112851	1441	4695	138220
ADA	SEMINOLE	31085	62	133	0	52	0	247
BEAR	SEMINOLE	31410	418	0	331	245	0	993
CHARM	SEMINOLE	31095	24	0	33	14	0	71
FLORIDA	SEMINOLE	31402	43	30	160	0	0	233
GENEVA	SEMINOLE	31110	0	5	318	0	0	323
GRACE	SEMINOLE	31446	258	122	90	27	0	497
ISLAND	SEMINOLE	31447	334	0	337	198	157	1026
JESSUP	SEMINOLE	99999	25866	52247	37935	13425	3998	133471
LINDEN	SEMINOLE	31387	111	46	231	52	0	440
MARION	SEMINOLE	31397	912	0	0	16	0	928
MARKHAM	SEMINOLE	31377	0	269	277	111	71	727
MARY	SEMINOLE	31090	193	119	84	182	81	660
MYRTLE	SEMINOLE	31445	71	49	385	228	0	733
ORIENTA	SEMINOLE	31405	817	43	163	201	0	1224
SYLVAN	SEMINOLE	31494	0	939	1200	252	0	2391
OKAHUMPKA	SUMTER	35165	13489	41760	103403	7485	16029	182166
PANASOFFKEE	SUMTER	99999	12985	61805	132023	8305	9911	225029
LOW	SUWANNEE	27045	168	934	844	109	0	2054
BUTLER	UNION	26215	640	1759	262	400	0	3062
PALESTINE	UNION	23280	40	35820	383	887	0	37129
SWIFTS CREEK POND	UNION	26195	12	28429	507	630	0	29578
ASHBY	VOLUSIA	31070	381	22167	11503	2306	1648	38005
DAUGHARTY	VOLUSIA	25485	8	980	969	676	174	2806
DEXTER	VOLUSIA	31040	4038	104783	12637	8038	15251	144746
DUPONT	VOLUSIA	31075	1818	11516	2144	858	271	16607
HARNEY	VOLUSIA	99999	37065	367870	670464	41718	125183	1242300
HIRES	VOLUSIA	25480	0	803	432	399	3	1637
LINDSEY	VOLUSIA	25490	616	296	635	375	282	2204
MONROE	VOLUSIA	99999	81214	516036	748589	74414	137217	1557471
PUZZLE	VOLUSIA	99999	36714	352263	664442	35476	122272	1211168
WINNEMISETT	VOLUSIA	31065	57	24	472	206	27	787
WINURO	VOLUSIA	25475	0	527	255	176	0	958
WOODRUFF	VOLUSIA	31040	4435	83274	13879	25579	48564	175731
JACKSON	WALTON	7205	69	101	205	297	0	672
PORTER	WASHINGTON	11070	0	4371	1033	10	0	5414

Table 4-3. Water Areas in Drainage Basins.

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**********************************
*   WATER AREAS IN DRAINAGE BASINS  *
*                                   *
*  SA = LAKE SURFACE AREA, ACRES    *
*  DA = LAKE DRAINAGE AREA, ACRES   *
*WATER= WATER AREA IN BASIN, ACRES  *
*TOTLAND = DRAINAGE AREA IN BASIN   *
*  WATER AND TOTLAND FROM FDER/FSU  *
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LAKE	COUNTY	SA	WATER	TOTLAND	DA	DASA
ALICE	ALACHUA	73.0	119.0	11233	1254	17.184
ALTHO	ALACHUA	555.0	578.0	2562	2170	3.909
BIVENS ARM	ALACHUA	177.0	158.1	1942	1920	10.847
LITTLE ORANGE	ALACHUA	817.9	25681.1	647330	.	.
LITTLE SANTA FE	ALACHUA	1154.0	5631.4	15800	.	.
LOCHLOOSA	ALACHUA	8800.0	6081.1	56482	56320	6.400
NEWNANS	ALACHUA	7350.0	5841.4	73035	72960	9.927
ORANGE	ALACHUA	13160.0	25681.1	647330	647680	49.216
SANTA FE	ALACHUA	5299.0	5631.4	15800	15552	2.935
OCEAN POND	BAKER	1793.0	1949.0	9814	8384	4.676
DEER POINT	BAY	4989.3	6824.9	277960	278400	55.799
MERIAL	BAY	221.0	2179.4	55284	1005	4.547
ROWELL	BRADFORD	363.0	86.5	12481	.	.
SAMPSON	BRADFORD	2071.0	3088.7	38241	37952	18.325
POINSETT	BREVARD	4293.0	20067.0	721285	814080	189.630
SHARPES	BREVARD	66.0	706.0	3984	.	.
SOUTH	BREVARD	1103.3	121.0	12901	.	.
WASHINGTON	BREVARD	2665.0	13417.5	563067	656000	246.154
WINDER	BREVARD	1496.0	15075.6	661299	.	.
LITTLE	CITRUS	60.0	84.0	1004	896	14.933
TSALA APOPKA	CITRUS	19111.0	7875.1	194169	102400	5.358
TSALA APOPKA(F)	CITRUS	19111.0	7875.1	194169	102400	5.358
TSALA APOPKA(H)	CITRUS	12940.7	7875.1	194169	102400	7.913
TSALA APOPKA(I)	CITRUS	320.0	7875.1	194169	.	.
BROOKLYN	CLAY	635.0	2288.1	11164	11136	17.537
DOCTORS	CLAY	3202.4	3979.0	16026	.	.
GENEVA	CLAY	1746.0	9854.3	86431	22720	13.013
GEORGES	CLAY	.	758.6	33309	.	.
JOHNSON	CLAY	345.9	497.0	4465	4077	11.786
KINGSLEY	CLAY	1627.0	1452.9	6205	4378	2.691
LOWERY	CLAY	1250.0	1726.0	10378	7040	5.632
SMITH	CLAY	895.0	2030.0	13961	.	.
TRAFFORD	COLLIER	1485.0	4196.0	20586	17024	11.464
ALLIGATOR	COLUMBIA	348.0	412.7	11789	9856	28.322
GOVERNOR HILL	DIXIE	153.0	394.0	1512	1030	6.735
CRESCENT	FLAGLER	17447.7	22402.1	346182	.	.
DISSTON	FLAGLER	1844.0	1964.4	16996	.	.
TALQUIN	GADSDEN	6850.0	14462.8	332898	1100800	160.701
DEAD	GULF	6700.0	5483.1	636485	771840	115.200
WIMICO	GULF	4055.0	19150.0	264873	.	.
OCTAHATCHEE	HAMILTON	198.0	315.0	2149	2016	10.182
CREWS	HERNANDO	62.0	423.0	45088	.	.
HORSE	HERNANDO	21.0	49.0	5547	4954	235.886
HUNTERS	HERNANDO	301.0	318.0	1661	1517	5.039
LINDSEY	HERNANDO	137.0	315.0	2312	1920	14.015
NEFF	HERNANDO	224.0	342.0	3851	3251	14.514
SPRING	HERNANDO	57.0	52.0	175	192	3.368
APTHORPE	HIGHLANDS	215.0	1739.6	14759	9792	45.544
CLAY	HIGHLANDS	361.0	1497.4	12437	7486	20.742
FRANCIS	HIGHLANDS	530.0	7798.5	26259	31424	59.291
GRASSY	HIGHLANDS	510.0	877.2	9249	3450	6.764
HUNTLEY	HIGHLANDS	676.0	1134.2	11090	6106	9.032
ISTOKPOGA	HIGHLANDS	27500.0	58523.2	385666	388480	14.127
JACKSON	HIGHLANDS	3244.0	2816.9	8737	8960	2.762
JOSEPHINE	HIGHLANDS	1240.0	4875.3	37947	29632	23.897
JUNE-IN-WINTER	HIGHLANDS	3362.0	7272.2	24853	28160	8.376
LETTA	HIGHLANDS	471.0	540.0	2426	9984	21.197
LITTLE LAKE JACKSON	HIGHLANDS	.	2816.9	8737	.	.
LITTLE RED WATER	HIGHLANDS	329.0	320.0	2510	6144	18.675

Table 4-3. (continued)

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**************************************
*   WATER AREAS IN DRAINAGE BASINS   *
*                                    *
*   SA = LAKE SURFACE AREA, ACRES    *
*   DA = LAKE DRAINAGE AREA, ACRES   *
*WATER= WATER AREA IN BASIN, ACRES   *
*TOTLAND = DRAINAGE AREA IN BASIN    *
*   WATER AND TOTLAND FROM FDER/FSU  *
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LAKE	COUNTY	SA	WATER	TOTLAND	DA	DASA
LOTELA	HIGHLANDS	795.00	1430.0	8671	7008	9.821
PLACID	HIGHLANDS	3381.00	3877.0	17897	12728	3.824
RUSSELL	HIGHLANDS		19187.3	263166		
SEBRING	HIGHLANDS	465.00	537.0	4242	3878	8.341
ALICE	HILLSBOROUGH	94.00	109.0	367	320	3.404
BAY	HILLSBOROUGH	37.00	296.5	1656	1613	43.589
BIRD	HILLSBOROUGH	26.00	98.0	2014		
BROWNS	HILLSBOROUGH	30.00	71.0	1069		
BUCK	HILLSBOROUGH	34.00	49.0	318	302	10.353
CALM	HILLSBOROUGH	125.00	133.0	527	256	2.048
CARROLL	HILLSBOROUGH	188.00	337.0	1723	1062	5.651
CHAPMAN	HILLSBOROUGH	42.00	111.0	1338	1716	28.952
CHARLES	HILLSBOROUGH	15.00	46.0	312	51	3.413
COOPER	HILLSBOROUGH	82.00	160.0	977	1078	13.268
CRENSHAW	HILLSBOROUGH	33.00	0.0	252	832	25.212
DAN	HILLSBOROUGH	37.00	33.0	261	384	10.378
DOSSON	HILLSBOROUGH	10.00	8.0	193	448	44.800
ECHO	HILLSBOROUGH	25.00	33.0	277	570	22.784
ELLEN	HILLSBOROUGH	53.00	0.0	231		
GLASS	HILLSBOROUGH	17.00	22.0	171	147	8.659
HANNA	HILLSBOROUGH	29.00	38.0	201	384	13.241
HARVEY	HILLSBOROUGH	21.00	41.0	603	1088	51.810
HOBBS	HILLSBOROUGH	66.00	152.0	641	589	8.921
ISLAND FORD	HILLSBOROUGH	96.00	326.0	1615	7680	80.000
KEENE	HILLSBOROUGH	31.00	100.0	1037	243	7.845
KELL	HILLSBOROUGH	31.00	524.0	3059	5676	183.742
MAGDALENE	HILLSBOROUGH	232.00	266.0	1186	1069	4.607
MOUND	HILLSBOROUGH	78.00	68.0	182	429	5.497
MUD	HILLSBOROUGH	60.00	193.0	7461		
PLATT	HILLSBOROUGH	63.00	68.0	972	5908	93.460
PRETTY	HILLSBOROUGH	79.00	126.0	4018	8320	105.316
RAINBOW	HILLSBOROUGH	48.00	263.0	928	512	10.667
SADDLEBACK	HILLSBOROUGH	34.00	0.0	8	960	28.235
STARVATION	HILLSBOROUGH	52.00	0.0	266	448	8.615
SUNSHINE	HILLSBOROUGH	17.00	7.4	175		
THOMAS	HILLSBOROUGH	62.00	179.0	868	876	14.452
THONOTOSASSA	HILLSBOROUGH	824.00	1003.2	28387	38400	46.602
VALRICO	HILLSBOROUGH	127.00	133.0	5770		
VAN DYKE	HILLSBOROUGH	13.00	65.0	917	256	19.692
WHITE TROUT	HILLSBOROUGH	75.00	87.0	320	1344	17.920
WIMAUMA	HILLSBOROUGH	137.00	147.0	426	397	2.896
WOOD	HILLSBOROUGH	18.00	57.0	236		
BLUE CYPRESS	INDIAN RIVER	6522.00	7897.3	248546	312760	47.985
MICCOSUKEE	JEFFERSON	6312.00	1712.4	108949	153600	24.335
TOWNSEND POND	LAFAYETTE	111.00	266.0	4516	4096	36.901
APSHAWA	LAKE	110.00	185.0	1067	947	8.611
BAY	LAKE	30.75	90.0	12522		
BEAR	LAKE	29.00	269.0	1091		
BEAUCLAIR	LAKE	1111.00	32140.3	124489		
CATHERINE	LAKE	137.00	331.0	3379	2899	21.160
CHERRY	LAKE	520.00	13442.2	105628	105600	203.077
CHURCH	LAKE	155.00	486.0	3990	1062	6.854
CRYSTAL	LAKE	20.75	22.0	622		
DENHAM	LAKE	248.00	1721.0	12272	10240	41.290
DORA	LAKE	4437.00	39083.8	150311	151040	34.041
DORR	LAKE	1712.00	0.0	3946	16760	9.907
EUSTIS	LAKE	7806.00	89880.2	409909	413440	52.964
FLORENCE	LAKE	133.00	122.0	456	403	3.032
GLONA	LAKE	250.00	1069.0	5944	5376	21.504

Table 4-3. (continued)

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**************************************
*   WATER AREAS IN DRAINAGE BASINS   *
*                                    *
*  SA = LAKE SURFACE AREA, ACRES     *
*  DA = LAKE DRAINAGE AREA, ACRES    *
*WATER= WATER AREA IN BASIN, ACRES   *
*TOTLAND = DRAINAGE AREA IN BASIN    *
*  WATER AND TOTLAND FROM FDER/FSU   *
**************************************
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LAKE	COUNTY	SA	WATER	TOTLAND	DA	DASA
GRIFFIN	LAKE	10660	107056	493278	476000	44.659
HARRIS	LAKE	17650	41421	227811	228480	12.945
HIDDEN	LAKE	16	692	2073	.	.
HOLLY	LAKE	96	212	592	499	5.200
LADY	LAKE	190	1542	17087	2939	15.731
LITTLE LAKE HARRIS	LAKE	2739	41421	227811	268800	98.138
LOUISA	LAKE	3660	7042	77320	77440	21.158
MINNEHAHA	LAKE	2410	9533	84098	83840	34.788
MINNEOLA	LAKE	1892	13442	105628	101120	53.446
NORRIS	LAKE	1131	3213	59776	.	.
PINE	LAKE	27	14	1246	1146	42.430
TROUT	LAKE	101	209	920	.	.
UMATILLA	LAKE	165	328	1732	1574	9.542
WEST CROOKED	LAKE	105	157	475	.	.
WILDCAT	LAKE	232	402	2584	.	.
YALE	LAKE	4030	6993	43233	40264	10.736
BRADFORD	LEON	182	267	12271	13184	72.440
HALL	LEON	172	0	1669	.	.
IAMONIA	LEON	5680	588	49964	64640	11.380
JACKSON	LEON	4001	4517	27821	27584	6.894
CHUNKY POND	LEVY	650	660	16121	14720	22.646
LONG POND	LEVY	234	537	37934	.	.
ROUSSEAU	LEVY	4163	29061	1132123	1280000	307.471
CHERRY	MADISON	483	489	1066	1011	2.094
BOWERS	MARION	633	879	3121	5427	8.574
BRYANT	MARION	1260	2638	7938	6310	5.008
DELANCY	MARION	781	605	21215	19200	24.584
HALFMOON	MARION	340	2413	22428	.	.
KERR	MARION	4484	5300	51865	60280	14.558
LITTLE LAKE WEIR	MARION	320	6185	35056	32000	100.000
NICOTOON	MARION	328	763	13622	12208	37.463
OCKLAWAHA	MARION	5280	159560	1381319	.	.
SMITH	MARION	482	440	9710	9205	6.652
WEIR	MARION	5760	6185	35056	34432	5.978
OKEECHOBEE	OKEECHOBEE	436000	550981	3132447	3616000	8.294
ADAIR	ORANGE	22	0	119	813	36.945
APOPKA	ORANGE	30670	31246	85279	81920	2.671
BASS	ORANGE	22	89	1441	531	24.145
BELL	ORANGE	40	38	471	.	.
BESSIE	ORANGE	160	250	828	410	2.560
BRYAN	ORANGE	210	304	1816	1728	8.229
BUTLER	ORANGE	1665	5738	30954	9280	5.574
CHARITY	ORANGE	63	57	464	422	6.705
CLEAR	ORANGE	339	447	6995	3821	11.271
CONWAY	ORANGE	1079	2192	8130	8128	7.533
DOWN	ORANGE	894	810	3281	3693	4.131
FAIRVIEW	ORANGE	403	377	1354	2387	5.924
FAITH	ORANGE	33	90	489	454	13.770
FRANCIS	ORANGE	33	24	436	429	12.994
HART	ORANGE	1841	8594	50606	106240	57.708
HERRICK	ORANGE	39	35	1414	1242	31.836
HOLDENS	ORANGE	264	447	6995	1190	4.509
HOPE	ORANGE	36	43	1151	1069	29.689
JOHIO	ORANGE	27	27	217	205	7.585
JOHNS	ORANGE	2411	395	29751	25664	10.645
KILLARNEY	ORANGE	237	52	280	.	.
LAWNE	ORANGE	156	369	6782	.	.
LITTLE LAKE FAIRVIEW	ORANGE	86	92	885	813	9.451
LOUISE	ORANGE	145	5965	31708	.	.

Table 4-3. (continued)

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**********************************
*   WATER AREAS IN DRAINAGE BASINS  *
*                                   *
*  SA = LAKE SURFACE AREA, ACRES    *
*  DA = LAKE DRAINAGE AREA, ACRES   *
*WATER= WATER AREA IN BASIN, ACRES  *
*TOTLAND = DRAINAGE AREA IN BASIN   *
*  WATER AND TOTLAND FROM FDER/FSU  *
**********************************
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LAKE	COUNTY	SA	WATER	TOTLAND	DA	DASA
MAITLAND	ORANGE	452.0	1500	9553	13104	29.168
MANN	ORANGE	250.0	447	6995	1918	7.270
MARY JANE	ORANGE	1161.0	5402	28738	79360	68.355
PICKETT	ORANGE	742.0	1080	6142	.	.
POCKET	ORANGE	126.0	8080	41147	.	.
PORTER	ORANGE	32.0	0	62	.	.
SHEEN	ORANGE	560.0	8080	41147	17280	30.857
SHERWOOD	ORANGE	120.0	814	10788	10944	91.200
SILVER	ORANGE	69.0	57	375	326	4.730
SPIER	ORANGE	24.0	106	662	218	9.067
SPRING	ORANGE	35.0	35	345	333	9.507
SUSANNAH	ORANGE	77.0	0	2909	384	4.987
TIBET	ORANGE	1198.8	8080	41147	15360	12.813
UNDERHILL	ORANGE	147.0	203	959	954	6.487
WAUNATTA	ORANGE	68.0	57	356	.	.
WEKIVA	ORANGE	190.0	336	6175	8576	45.137
AJAY	OSCEOLA	145.0	3193	29949	778	5.297
ALLIGATOR	OSCEOLA	3401.0	17640	83755	17024	5.006
CENTER	OSCEOLA	410.0	917	3096	.	.
COON	OSCEOLA	148.0	917	3096	.	.
CYPRESS	OSCEOLA	4085.0	81358	730890	743680	182.051
EAST TOHOPEKALIGA	OSCEOLA	11950.0	30233	208631	197120	16.495
GENTRY	OSCEOLA	1797.0	6647	72642	28044	15.604
HATCHINEHA	OSCEOLA	6636.0	81358	730890	743680	112.068
JACKSON	OSCEOLA	1020.0	902	28204	.	.
KISSIMMEE	OSCEOLA	34760.0	136916	1053993	1028480	29.588
LIZZIE	OSCEOLA	792.0	917	3096	.	.
MARIAN	OSCEOLA	5727.0	4786	37302	31744	5.543
RUNNYMEDE	OSCEOLA	300.0	380	3794	.	.
RUSSELL	OSCEOLA	732.0	19187	263166	.	.
TOHOPEKALIGA	OSCEOLA	18790.0	40292	363422	394880	21.118
TROUT	OSCEOLA	163.0	917	3096	838	5.144
BELL	PASCO	80.0	622	2753	.	.
CAMP	PASCO	20.0	11	1126	640	32.000
CLEAR	PASCO	158.0	163	646	589	3.727
CREWS	PASCO	693.0	329	40994	88320	127.446
CURVE	PASCO	24.0	174	885	90	3.738
EAST	PASCO	99.0	103	339	384	3.879
IOLA	PASCO	104.0	103	358	314	3.015
KING	PASCO	131.8	0	223	1105	8.765
LINDA	PASCO	31.0	24	233	602	19.406
MOON	PASCO	98.0	87	271	237	2.416
PADGETT	PASCO	200.0	3	87	4224	21.120
THOMAS	PASCO	162.0	195	687	640	3.951
MAGGIORE	PINELLAS	380.0	361	3449	3071	8.135
SAWGRASS	PINELLAS	21.0	38	2896	2541	120.990
SEMINOLE	PINELLAS	684.0	822	10433	4442	6.494
TARPON	PINELLAS	2534.0	3257	33573	38400	15.154
ALFRED	POLK	736.0	716	1705	1875	2.548
ANN	POLK	60.0	315	1536	.	.
ANNIE	POLK	534.0	600	2945	2278	4.266
ARBUCKLE	POLK	3787.0	15355	107909	108800	28.730
ARIANA	POLK	1019.0	1924	5127	5030	4.937
BANANA	POLK	343.0	651	8783	9152	26.682
BEULAH	POLK	25.0	121	813	77	3.072
BONNY	POLK	346.0	2	101	1850	5.346
CANNON	POLK	333.0	126	3566	6464	19.411
CLINCH	POLK	1194.0	5086	28164	26880	22.513
CONNIE	POLK	236.0	252	1096	.	.

Table 4-3. (continued)

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**********************************
*   WATER AREAS IN DRAINAGE BASINS  *
*                                   *
*  SA = LAKE SURFACE AREA, ACRES    *
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*WATER= WATER AREA IN BASIN, ACRES  *
*TOTLAND = DRAINAGE AREA IN BASIN   *
*  WATER AND TOTLAND FROM FDER/FSU  *
**********************************
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LAKE	COUNTY	SA	WATER	TOTLAND	DA	DASA
CROOKED	POLK	5533.0	5634	17387	20632	3.620
CUMMINGS	POLK	98.0	84	399	.	.
DEER	POLK	124.0	0	57	614	4.955
EAGLE	POLK	659.0	665	1751	1613	2.447
ECHO	POLK	25.0	62	480	570	22.784
EFFIE	POLK	102.0	415	2654	1606	15.749
ELBERT	POLK	173.0	453	2956	.	.
ELOISE	POLK	1172.0	1875	4873	3597	3.069
FANNIE	POLK	833.0	11955	41258	15608	18.977
GEORGE	POLK	50.0	41	92	.	.
GUM	POLK	162.0	459	3116	.	.
HAINES	POLK	716.6	896	2096	.	.
HAMILTON	POLK	2170.0	15202	54411	27752	13.803
HANCOCK	POLK	4541.0	14399	89556	83640	18.463
HARTRIDGE	POLK	437.0	532	1145	851	1.948
HELENE	POLK	54.0	60	356	269	4.978
HENRY	POLK	861.0	852	2038	2637	3.062
HOLLINGSWORTH	POLK	356.0	1520	13563	1729	3.452
HOWARD	POLK	634.0	3370	11060	8192	12.921
IDA	POLK	83.0	174	8718	.	.
JULIANA	POLK	92.0	1115	3433	3456	37.565
LENA	POLK	208.0	1940	5520	5510	26.492
LIVINGSTON	POLK	1192.0	1794	18505	18426	15.517
LOWERY	POLK	897.0	2684	5488	3456	3.853
LULU	POLK	307.0	2469	7776	14028	47.322
MARIAM	POLK	199.0	179	290	.	.
MARIANA	POLK	500.0	594	2217	1824	3.648
MARION	POLK	2968.0	3017	24063	22848	7.698
MATTIE	POLK	1813.0	3542	10321	9408	5.189
MCLEOD	POLK	488.0	459	2399	960	1.967
MIRROR	POLK	19.0	483	1727	102	5.389
MORTON	POLK	42.0	126	3566	160	3.810
MOUNTAIN	POLK	158.0	293	2445	1472	9.316
MYRTLE	POLK	416.0	660	2392	3187	7.662
OTIS	POLK	144.0	187	1067	640	4.444
PARKER	POLK	2291.0	3382	9382	15104	6.593
PIERCE	POLK	3736.0	4396	37554	37696	10.090
REEDY	POLK	3454.0	9101	38123	38976	11.284
ROCHELLE	POLK	581.0	9928	35367	9984	17.184
ROSALIE	POLK	4592.0	12088	84862	85120	18.537
RUBY	POLK	253.0	255	657	595	2.353
SHIPP	POLK	284.0	3390	11060	9536	33.577
SILVER	POLK	52.0	130	749	.	.
SMART	POLK	279.0	296	589	11456	41.061
TIGER	POLK	2200.0	14020	95685	.	.
WALES	POLK	330.0	274	1696	1549	4.693
WEOHYAKAPKA	POLK	7555.0	7912	60836	59040	7.921
WINTERSET	POLK	551.0	660	2392	1402	2.544
GEORGE	PUTNAM	46780.0	100879	2107365	2381440	50.907
GEORGES	PUTNAM	812.0	253	11103	3411	4.201
GRANDIN	PUTNAM	354.0	494	4074	2374	6.707
LITTLE LAKE GEORGE	PUTNAM	1416.0	153410	2309970	.	.
LOWER MYAKKA	SARASOTA	586.0	1875	153909	153600	262.116
UPPER MYAKKA	SARASOTA	933.0	1441	138220	137600	147.481
ADA	SEMINOLE	49.0	52	247	205	4.180
BEAR	SEMINOLE	305.0	245	993	1018	3.336
CHARM	SEMINOLE	20.0	14	71	70	3.520
FLORIDA	SEMINOLE	24.0	0	233	.	.
GENEVA	SEMINOLE	29.0	0	323	294	10.152

Table 4-3. (continued)

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**************************************
*   WATER AREAS IN DRAINAGE BASINS   *
*                                    *
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*WATER= WATER AREA IN BASIN, ACRES   *
*TOTLAND = DRAINAGE AREA IN BASIN    *
*  WATER AND TOTLAND FROM FDER/FSU   *
**************************************
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LAKE	COUNTY	SA	WATER	TOTLAND	DA	DASA
GRACE	SEMINOLE	31.00	27.0	497	429	13.837
ISLAND	SEMINOLE	204.00	198.0	1026	826	4.047
JESSUP	SEMINOLE	7792.00	13424.9	133471	97840	12.813
LINDEN	SEMINOLE	14.00	52.0	440	397	28.343
MARION	SEMINOLE	13.00	16.0	928	.	.
MARKHAM	SEMINOLE	83.00	111.0	727	627	7.557
MARY	SEMINOLE	154.00	182.0	660	563	3.657
MYRTLE	SEMINOLE	55.00	228.0	733	1126	20.480
ORIENTA	SEMINOLE	130.00	201.0	1224	1030	7.926
SYLVAN	SEMINOLE	190.00	252.0	2391	2195	11.554
OKAHUMPKA	SUMTER	973.00	7485.0	182166	31360	32.230
PANASOFFKEE	SUMTER	4821.00	8305.0	225029	268800	55.756
LOW	SUWANNEE	69.00	109.0	2054	1850	26.806
BUTLER	UNION	437.00	400.3	3062	2522	5.770
PALESTINE	UNION	924.00	887.1	37129	5779	6.255
SWIFTS CREEK POND	UNION	568.00	630.1	29578	.	.
ASHBY	VOLUSIA	1077.00	2306.0	38005	21760	20.204
DAUGHARTY	VOLUSIA	293.00	676.0	2806	.	.
DEXTER	VOLUSIA	1902.00	8038.2	144746	.	.
DUPONT	VOLUSIA	220.00	858.0	16607	14976	68.073
HARNEY	VOLUSIA	6058.00	41717.9	1242300	.	.
HIRES	VOLUSIA	73.00	399.0	1637	1485	20.340
LINDSEY	VOLUSIA	27.00	375.0	2204	275	10.193
MONROE	VOLUSIA	8772.05	74414.2	1557471	1548800	176.561
PUZZLE	VOLUSIA	1300.00	35476.1	1211168	.	.
WINNEMISETT	VOLUSIA	164.00	206.0	787	.	.
WINORO	VOLUSIA	156.00	176.0	958	864	5.538
WOODRUFF	VOLUSIA	2200.00	25579.0	175731	.	.
JACKSON	WALTON	210.00	296.5	672	1280	6.095
PORTER	WASHINGTON	929.00	9.9	5414	4890	5.263

NUTRIENT EXPORT COEFFICIENTS: LITERATURE REVIEW

The next phase of the nutrient loading rate evaluation was a review of the literature on export coefficients. The most extensive review of areal nutrient export rates for various land uses (and also the most recent) is by Reckhow et al. (1980); this review also appears in Beaulac (1980). Table 4-4 lists the number of studies for each nutrient/land use combination cited by Reckhow et al. (1980). The studies were conducted mainly in the mid- to late 1970's, from all over the world. In particular, much work was done in southern Canada, Wisconsin, Minnesota, and Michigan.

An earlier review of export coefficients was done by Uttormark et al. (1974). Nutrient export coefficients were assembled for a variety of land uses, including cropland, manure storage and feed lots, urban areas, and forested areas. Data were extracted from studies done in many parts of the world over a much longer time frame than those in Reckhow et al. (1980). Some of the studies mentioned by Uttormark date to the 1920's. Omernik (1976, 1977) and Loehr (1974) also assembled reviews of export coefficients on a national scale, but neither are as comprehensive as Reckhow et al. (1980) or Uttormark et al. (1974).

For accurate estimates of nutrient loadings by the export coefficient approach, the catchment areas for the lake in question must match the catchments used to generate the (literature-derived) export coefficients in more ways than basic land use. That is, physiographic features such as soil type, drainage density, average slope of the land surface, and seasonal patterns in precipitation all greatly affect the amount of nutrient export from a given land use. Similarly nutrient export from urban land depends on such cultural factors as population density, percent impervious area and type of stormwater drainage system. Reckhow et al.

Table 4-4. Number of Studies Cited in Reckhow et al. (1980) for Various Nutrient/Land Use Combinations.

Land Use	Nutrient	#Studies
Forest	Phosphorus	26
Forest	Nitrogen	11
Row Crops	Phosphorus	26
Row Crops	Nitrogen	26
Nonrow Crops	Phosphorus	13
Nonrow Crops	Nitrogen	10
Grazing Land and Pasture	Phosphorus	14
Grazing Land and Pasture	Nitrogen	13
Animal Feed Lots	Phosphorus	13
Animal Feed Lots	Nitrogen	7
Mixed Agriculture	Phosphorus	20
Mixed Agriculture	Nitrogen	21
Urban	Phosphorus	23
Urban	Nitrogen	19
Atmospheric Inputs	Phosphorus and Nitrogen	51

(1980) emphasize this idea and state that "the most important issue to consider when selecting export coefficients is matching the application lake watershed and candidate export coefficient watershed as closely as possible on the basis of causal determinants of nutrient loading." The site-specific physiographic features that regulate lake nutrient loadings vary drastically throughout the country. Consequently, only Florida-based studies that calculated export coefficients were considered to be applicable for the present study. Unfortunately, neither Reckhow et al. (1980) nor Uttormark (1974) contain enough references to Florida studies to be useful. Thus, other reports were consulted.

Baker et al. (1981) and Shahane (1982) provide thorough reviews of Florida-based export studies, and these sources thus were used to determine coefficients for this project. Baker et al. (1981) cited more than 20 relevant studies, and Shahane (1982) reviewed 14 studies. In using these studies as the basis for determining coefficients for this project, however, certain limitations should be mentioned.

First, only a relatively small number of studies have been conducted in the state. It is believed, however, that more studies should not be incorporated in the data base at the expense of obtaining non-applicable coefficients from other areas. Additionally, the Florida studies have been conducted fairly recently (most since 1975). The second limitation is that Florida exhibits major differences in hydrology, geology, and precipitation patterns throughout the state. A final drawback of the Florida-based literature is related to the types of land use for which loadings have been determined. Baker et al. (1981) listed studies for only four types of land use. On the other hand, Shahane (1982), gave coefficients for 11 different types of land use, but did not cite more than two references for any of these land use types.

POINT SOURCE DISCHARGES

The FDER files list seventy municipal sewage discharges into 41 Florida lakes (Table 4-5). These waste waters receive either secondary or tertiary treatment. Table 4-6 lists industrial waste discharges into Florida lakes, but flow and water quality data are not available for the industrial sources.

MASS LOADING EQUATIONS AND LAND USE CATEGORIES

The general format of any mass loading to a water body is given by equation 4-1:

$$M = (Ec_1 \times A_1) + (Ec_2 \times A_2) + \ldots (Ec_n \times A_n) + (Ec_{at} \times A_L) + STI + PSI \qquad (4\text{-}1)$$

where: M = mass loading (kg/yr)

Ec_1 = export coefficient for land use 1 (kg/ha/yr)

A_1 = area of land use 1 (ha)

Ec_2 = export coefficient for land use 2

A_2 = area of land use 2

Ec_n = export coefficient for land use n

A_n = area of land use n

Ec_{at} = coefficient for atmospheric input

A_L = area of lake

STI = septic tank input (kg/yr)

PSI = point source input (kg/yr).

The number of E_{cn} and A_n values depends on how detailed the land use data and coefficient determination studies are, but generally there are at least three categories.

Table 4-5. Municipal Dischargers into Florida Lakes.

FLOW = FLOW IN MGD
FLOWTYPE = SECONDARY(2) OR TERTIARY(3)
EFFLUENT TREATMENT

OBS	LAKE	COUNTY	GMSID	MUNICIPL	FLOW	FLOWTYPE
1	ALICE	ALACHUA	3101S00709	UNIVERSITY OF FLORIDA	.	.
2	GEORGES POND	ALACHUA	3101P00148	CAMP MCCONNELL YMCA	0.0075	2
3	KANAPAHA	ALACHUA	3101M02861	RUB STP #4 NORTHWOOD	0.3000	2
4	ROWELL	BRADFORD	3104M00715	CITY OF STARKE	1.0000	2
5	ROWELL	BRADFORD	3104P00028	MIMOSA MANOR MH PARK #1	0.0024	2
6	POINTSETT	BREVARD	3005C01307	B.C.U.D./W. COCOA STP	0.2000	2
7	DEERFIELD	BROWARD	5006P05290	DEERFIELD LAKE MHP	0.0700	2
8	TSALA APOPKA	CITRUS	4009M01185	CITY OF INVERNESS	0.4000	2
9	ALLIGATOR	COLUMBIA	3115S03426	LAKE CITY COMMUNITY	.	.
10	MONTGOMERY	COLUMBIA	3112M10806	CITY OF LAKE CITY	1.0000	2
11	CRESCENT	FLAGLER	3154M01816	CITY OF CRESCENT CITY	0.2000	2
12	TALQUIN	GADSDEN	1029M00212	CITY OF QUINCY	1.5000	2
13	TALQUIN	GADSDEN	1029M01080	HAVANA	0.3000	2
14	ISTOKPOGA	HIGHLANDS	5228M00229	CITY OF SEBRING	2.0000	2
15	SEBRING	HIGHLANDS	5228P05873	W.SEBRING UTILITIES	0.0800	2
16	THONOTOSASSA	HILLSBOROUGH	4029M02024	CITY OF PLANT CITY	8.0000	3
17	DEAD	JACKSON	1032M01351	HOLIDAY INN OF MARIANNA	1.1000	2
18	DEAD	JACKSON	1032M01355	SUNLAND TRAINING CENTER	0.4000	2
19	DEAD	JACKSON	1032M04678	CITY OF COTTONDALE STP	0.0600	2
20	DEAD	JACKSON	1032S00742	ARTHUR DOZIER SCHOOL	.	.
21	MERRITTS MILL POND	JACKSON	1032P00913	ARROWHEAD INT'L CAMPGROUND	0.0200	2
22	SIMPSON	JEFFERSON	1033M02337	CITY OF MONTICELLO	0.3000	2
23	GRIFFIN	LAKE	3035M00571	CITY OF LEESBURG	3.0000	2
24	PINE	LEE	5236P02044	SAN CARLOS PARK LAUNDROMAT	0.0100	2
25	LAFAYETTE	LEON	1037P02351	GREENWOOD MOBILE HOME ESTATES	0.0200	2
26	MUNSON	LEON	1037M02343	TALLAHASSEE LAKE BRADFORD	4.5000	2
27	MUNSON	LEON	1037M02344	TALLAHASSEE DALE MABRY PLT	0.9000	2
28	MUNSON	LEON	1037P02352	SOUTHERN BELL TRAILER PARK	0.0300	2
29	MUNSON	LEON	1037P07010	WESTHAVEN MOBILE HOME PARK	.	.
30	MUNSON	LEON	1037P37040	DEERTREE HILLS MOBILE HOME PAR	0.0150	2
31	RUM	LEON	1037P02352	SOUTHERN BELL TRAILER PARK	0.0300	2
32	WILSON	LEON	1037P02352	LAKE BRADFORD ROAD	0.0300	2
33	OKEECHOBEE	OKEECHOBEE	5050M00787	CITY OF PAHOKEE, STP	1.2000	.
34	OKEECHOBEE	OKEECHOBEE	5147M02922	CITY OF OKEECHOBEE	0.3000	2
35	OKEECHOBEE	OKEECHOBEE	5226M00322	CITY OF CLEWISTON	.	.
36	OKEECHOBEE	OKEECHOBEE	5226P00322	CITY OF CLEWISTON	.	.
37	APOPKA	ORANGE	3048M01387	CITY OF WINTER GARDEN WWTP	2.0000	3
38	EAST TOHOPEKALIGA	ORANGE	3048M00568	CITY OF ORLANDO-MTC ANNEX STP	1.3500	2
39	HARNEY	ORANGE	3048C00545	S.C.S. & W. DEPT/AZALEA PARK W	1.2000	2
40	HARNEY	ORANGE	3048C01905	O.C.S. & W. DEPT/BONNEVILLE S/	0.2700	2
41	HARNEY	ORANGE	3048C02783	ORANGE CO-E ORLANDO SR-15	0.9000	2
42	HARNEY	ORANGE	3048C02865	O.C.S. & W. DEPT/CORRINE	0.5000	2
43	HARNEY	ORANGE	3048C03717	O.C.S. & W. DEPT/CONWAY MANOR	1.3000	2
44	HARNEY	ORANGE	3048C04392	O.C.S. & W. DEPT. UNIVERSITY H	0.7250	2
45	HARNEY	ORANGE	3048M01861	CITY OF ORLANDO PLANT #1	12.5000	2
46	HARNEY	ORANGE	3048P02218	PARK MANOR ESTATES	0.3500	2
47	HARNEY	ORANGE	3048P02580	WINTER PARK ESTATES WWTP	4.6000	2
48	HARNEY	ORANGE	3048P02944	UNIVERSITY SHORES AWT	0.3900	3
49	TOHOPEKALIGA	ORANGE	3048M00107	CITY OF ORLANDO/MCLEOD ROAD WW	15.8000	2
50	BLUE CYPRESS	OSCEOLA	5149P00018	KEY STOP	.	.
51	BLUE CYPRESS	OSCEOLA	5149P03439	HORNES RESTAURANT	0.0057	2
52	HATCHINEHA	OSCEOLA	5149P00009	REEDY CREEK IMPROVEMENT DISTRI	6.0000	2
53	RUSSELL	OSCEOLA	5149P00009	REEDY CREEK IMPROVEMENT DISTRI	6.0000	2
54	TOHOPEKALIGA	OSCEOLA	5149M00118	CITY OF ST.CLOUD	1.0000	2
55	TOHOPEKALIGA	OSCEOLA	5149M03110	CITY OF KISSIMMEE	.	.
56	PADGETT	PASCO	4051P01845	LAKE PADGETT MOBILE	0.0100	2
57	DEXTER	POLK	4053P03132	CYPRESS GARDENS MHP	0.0120	2
58	HAMILTON	POLK	4053P00048	BROOKHAVEN VILLAGE	0.0400	2
59	JESSIE	POLK	4053P03130	FLAMINGO SHORES MHC	0.0100	2
60	JESSIE	POLK	4053P03131	BOARDS TP	0.0160	2
61	WEOHYAKAPKA	POLK	5253P02396	LAKE WALES UTILITIES	0.5000	2
62	GEORGE	SEMINOLE	3059M01771	CITY OF ALTAMONTE SPRINGS	7.5000	3
63	GEORGE	SEMINOLE	3059P02763	WEATHERSFIELD S/D	0.3000	2
64	HOWELL	SEMINOLE	3059M02844	CITY OF MAITLAND	3.0000	2
65	JESSUP	SEMINOLE	3059M02641	CITY OF CASSELBERRY	1.4000	2
66	JESSUP	SEMINOLE	3059P01773	COUNTRY CLUB HEIGHTS SR-42	0.0400	2
67	MONROE	SEMINOLE	3059M01119	CITY OF SANFORD	6.0000	2
68	DAUGHARTY	VOLUSIA	3064M03157	CITY OF DELAND-AIRPORT	0.3500	2
69	GEORGE	VOLUSIA	3064M06162	CITY OF DELAND-MAIN	4.0000	2
70	MONROE	VOLUSIA	3064P00443	DELTONA UTILITIES	0.9000	2

Table 4-6. Industrial Dischargers in Florida Lakes.

****
* INDUSTRIAL DISCHARGERS IN FLORIDA LAKES *
****

OBS	LAKE	COUNTY	GMSID	INDUSTRY
1	ROWELL	BRADFORD	3104P00066	E.I. DUPONT DE NEMOURS CO.
2	TANK	HERNANDO	4051P20023	EVANS PACKING TANK LAKE DISCHARGE
3	DINNER	HIGHLANDS	5228M02025	SEBRING UTILITIES COMMISSION
4	LOTELA	HIGHLANDS	5228P02024	FL. POWER CORP.
5	PLEASANT GROVE RESERVOIR	HILLSBOROUGH	4029P20044	HOPEWELL LAND CORP.
6	PLEASANT GROVE RESERVOIR	HILLSBOROUGH	4029P20033	FLORIDA AGGLITE CORP.
7	THONOTOSASSA	HILLSBOROUGH	4029P20030	CRYSTALS INTERNATIONAL INC.
8	THONOTOSASSA	HILLSBOROUGH	4029P20035	FLORIDA SIP. INC.
9	THONOTOSASSA	HILLSBOROUGH	4029P20081	TREASURE ISLE
10	THONOTOSASSA	HILLSBOROUGH	4029P20055	NOTTINGHAM COMPANY
11	BLUE CYPRESS	INDIAN RIVER	3031P06415	BLUE CYPRESS RANCH
12	BLUE CYPRESS	INDIAN RIVER	3031P00042	EMMETT EVANS GROVE
13	BLUE CYPRESS	INDIAN RIVER	3031P05322	HOLMAN BLUE CYPRESS LAKE RANCH
14	BLUE CYPRESS	INDIAN RIVER	3031P05618	PRESSLEY RANCH
15	BLUE CYPRESS	INDIAN RIVER	3031P00223	GULF & WESTERN CORP.
16	BLUE CYPRESS	INDIAN RIVER	3031P05906	RINKER MATERIALS CORP.
17	BLUE CYPRESS	INDIAN RIVER	3048P02630	RINKER MATERIALS CORP.
18	BEAUCLAIR	LAKE	3035P07044	HURLEY FARMS SR-48
19	CATHERINE	LAKE	3035P01003	B & W CANNING CO.
20	CATHERINE	LAKE	3035P01004	B & W CANNING CO.
21	DENHAM	LAKE	3035P00947	JA - MAR MUCK FARM
22	EUSTIS	LAKE	3035P04289	PINE MEADOWS FARM - MUCK FARM
23	FAIRVIEW	LAKE	3048P00618	COCA COLA CO. - FOODS DIVISION
24	GRIFFIN	LAKE	3035P01001	COCA COLA CO./FOODS DIV.
25	GRIFFIN	LAKE	3305P02822	LOWRIE BROWN FARM S. HAINES
26	HARRIS	LAKE	3035P04189	S.N. KNIGHT & SON FARM
27	HARRIS	LAKE	3035P02149	SILVER SPRINGS CITRUS CORP.
28	HIAWATHA	LAKE	3035P06109	ER. JAHNA FARMS - MUCK FARM
29	MINNEOLA	LAKE	3035P06109	ER. JAHNA FARMS - MUCK FARM
30	TROUT	LAKE	3035P04289	PINE MEADOWS FARM - MUCK FARM
31	YALE	LAKE	3035P01022	FLORIDA FOOD PRODUCTS INC.
32	YALE	LAKE	3035P00995	FLORIDA FOOD PRODUCTS INC.
33	YALE	LAKE	3035P01722	GOLDEN GEM GROWERS INC.
34	YALE	LAKE	3035P05307	S.N. KNIGHT & SON FARM
35	APOPKA	ORANGE	3035P00234	ANDERSON PEAT & ORGANIC COMPOST CO.
36	APOPKA	ORANGE	3048P00649	WINTER GARDEN CITRUS PROD.
37	APOPKA	ORANGE	3048P00985	WINTER GARDEN CITRUS
38	HOLTS	ORANGE	3048P03078	PLYMOUTH CITRUS PRODUCTS CORP.
39	PALMER	ORANGE	5013P02460	WARE ALUMINUM WINDOWS INC.
40	ALLIGATOR	OSCEOLA	3112P03203	AERO CORP.
41	TOHOPEKALIGA	OSCEOLA	5149M00002	CITY OF KISSIMMEE
42	TOHOPEKALIGA	OSCEOLA	5149P00266	CAST-CRETE CORP.
43	BANANA	POLK	4053P20089	JUICE BOWL PRODUCTS, INC.
44	BONNET	POLK	4053P20114	SEABOARD COASTLINE RR
45	HAINES	POLK	4053P20063	FLORIDA DISTILLERS COOLING WATER
46	HANCOCK	POLK	4053P20000	ADAMS PACKING ASSOC., INC.
47	HANCOCK	POLK	4053P20003	AGRICO SADDLE CREEK # 1
48	HANCOCK	POLK	4053P20005	AGRICO SADDLE CREEK # 2
49	HANCOCK	POLK	4053P20041	COCA COLA CO. WTP
50	HANCOCK	POLK	4053P20043	COMBEE COIN LAUNDRY
51	LENA	POLK	4053P20000	ADAMS PACKING ASSOC., INC.
52	LENA	POLK	4053P20041	COCA COLA CO. WTP
53	LENA	POLK	4053P20087	JACQUINS LAKE LENA
54	LENA	POLK	4053P20086	JACQUINS SPILL CONTROL
55	PARKER	POLK	4053M20037	LAKELAND CITY OF LARSON # 4,5,6
56	PARKER	POLK	4053M20034	CITY OF MCINTOSH # 2
57	PARKER	POLK	4053M20002	CITY OF MCINTOSH # 1
58	REEDY	POLK	4053P20022	BEN HILL GRIFFIN FROSTPROOF
59	SWOOPE	POLK	4053P20063	FLORIDA DISTILLIERS COOLING WATER
60	JESSUP	SEMINOLE	3059P02127	G & L PAVING
61	JESSUP	SEMINOLE	3059P02138	OVIEDO COIN LAUNDRY
62	MONROE	VOLUSIA	3059P03888	SEABOARD COASTLINE RR
63	MONROE	VOLUSIA	3064P00993	FL. POWER & LIGHT/ SANFORD PLANT
64	MONROE	VOLUSIA	3064P01260	FL. POWER CORP./TURNER PLANT

Baker et al. (1981) listed coefficients for residential, urban, agricultural, and forested areas, as well as for atmospheric inputs. Shahane (1982) gave coefficients for the 11 land uses listed in Table 4-7, but as mentioned earlier, cited no more than two references for any of them.

Table 4-7. Land Use Designations Included in Shahane (1982).

1) residential
2) commercial
3) highway area
4) multifamily residential
5) fresh water swamp
6) flatwood rangeland
7) improved pasture
8) urban
9) pasture
10) cultivated
11) woodland

Because of the general shortage of data on export rates for specific land uses, a modified USGS Level I analysis (Table 4-1) was used for this project.

The categories of urban, agricultural, forest, and wetlands were chosen as the land use characteristics to calculate lake nutrient loadings. Except for wetlands, these classifications are general enough so as to include coefficient determinations from several studies, yet specific enough to exhibit the variability of loadings associated with distinctly differing land uses.

Only one study was cited for wetlands export coefficients by Shahane (1982). Since a large portion of Florida is classified as "wetlands", much thought was given as how to handle this problem. It was decided that rather than classify wetlands under the category of either agricultural, urban, forest, or part of the lake (atmospheric input), it was better to use the single coefficient given in the literature and create a separate wetlands category.

Baker et al. (1981) presented detailed atmospheric input coefficients that were determined as part of a recent study on precipitation chemistry by Brezonik et al. (1981). These workers summarized atmospheric deposition rates

for TN and TP according to dominant land use in the area, and also presented deposition rates for 22 sites around the state. Reflecting the high annual amounts of precipitation, atmospheric inputs of nutrients can be a significant component of the total nutrient budget of Florida lakes with small ratios of watershed area to lake area.

The effects that septic tanks have on nutrient loadings to lakes can be highly variable. For the scope of this project, the effort necessary to quantify their influence was not seen to be justifiable. The following information must be determined to estimate inputs from septic tanks:

1) watersheds where septic tanks are in use,

2) number of septic tanks in each watershed,

3) fraction of year that a system is in use,

4) number of people using the system,

5) proximity of system to water body, and

6) soil type and condition.

The mass loading equation used in this study is given by eq. 4-2,

$$M = (Ec_u \times A_u) + (Ec_{Ag} \times A_{Ag}) + (Ec_F \times A_F) + (Ec_{WL} \times A_{WL}) + (Ec_{At} \times A_L) + PSI \qquad (4\text{-}2)$$

Where: M = total mass loading (kg/yr)

Ec_u = export coefficient for urban areas (kg/ha-yr)

A_u = area of urban land use (ha)

Ec_{Ag} = export coefficient for agricultural areas (kg/ha-yr)

A_{Ag} = area of agricultural land use (ha)

Ec_F = export coefficient for forest areas (kg/ha-yr)

A_F = area of forest land use (ha)

Ec_{WL} = export coefficient for wetlands (kg/ha-yr)

A_{WL} = area of wetland land use (ha)

Ec_{At} = coefficient for atmospheric inputs (kg/ha-yr)

A_L = area of lake (ha)

PSI = point source inputs (kg/yr)

In order to make use of the land characteristics data (USGS Level II - Table 4-1), these 30 categories need to be reduced and classified in one of the five groups used in the mass loading equation 4-2. Fortunately, most of the Level II classifications are paralleled to a large degree by one of the five less-detailed groupings, but some subjectivity is introduced in assigning them to classes.

Level II classifications 11-17 (see Table 4-1) are best categorized as urban areas, and classes 21-24 are best considered as agricultural areas. The rangeland classes 31-33 might be viewed as either forest or agricultural areas, however. In describing the types of rangeland vegetation, Anderson et al. (1975) commented that "eastern brushlands are typically former croplands or pasturelands that remain as part of the farm enterprise although not used at their former intensity." This land often is grazed by livestock and provides a habitat for wildlife. Traditionally, brushland areas

have not been included in rangeland and have been grouped with pastureland. Herbaceous rangeland, which includes grasses and shrubs, are also used often for livestock grazing. The rangeland classifications thus would best be considered agricultural land.

Level II classes 41-43 are part of the forest category, whereas classes 51-54, the water components, are best described as being part of the lake's total water body area. Thus, they are accounted for as part of the atmospheric inputs. Classes 61-62 are wetlands.

Finally, classes 71-77 (barren land) need to be regrouped. Fortunately, there are very few barren lands in the state, and most of classes 71-77 are either absent in Florida watersheds, or constitute a small percentage of total land use. On the basis of expected low nutrient loadings (rather than on any physical similarities), these lands have been placed under the forest category.

SELECTION OF EXPORT COEFFICIENTS FOR FLORIDA WATERSHEDS

As mentioned earlier, the most comprehensive reviews of Florida-based loading coefficient studies are found in Baker et al. (1981) and Shahane (1982). The coefficient values used in this study are based on these two sources.

Atmospheric Input

Baker et al. (1981) listed atmospheric deposition values from Brezonik et al. (1981) of TN and TP for coastal, urban, non agricultural rural, and agricultural rural areas. Total nitrogen (TN) deposition ranged from 0.58 g/m^2-yr in coastal regions to 0.88 g/m^2-yr in agricultural areas with a state average of 0.75 g/m^2-yr. Total phosphorus (TP) ranged from 0.027 g/m^2-yr in nonagricultural rural areas to 0.066 g/m^2-yr in agricultural

areas, with a state average of 0.051 g/m^2-yr. Because of the problems associated with categorizing the Level II land uses according to the four groups represented in the Brezonik et al. (1981) study, the state averages were used. Additionally, the range in these coefficient values is not as great as that which exists for the other land-related inputs. Of all the components in the mass loading equation, the atmospheric input coefficients exhibited the greatest degree of consistency.

Wetlands

One of the drawbacks with using a separate wetlands category is that the coefficients come from only one study. Shahane (1982) summarizes results for a study by Black, Crow, and Eidsness Inc. (1977) which reported export coefficients of 5.47 kg/ha-yr for nitrogen and 0.25 kg/ha-yr for phosphorus.

Forests

In analyzing export coefficients from various studies, the question arises as how best to calculate a single representative coefficient. The simple arithmetic mean might seem to be the most logical statistic, but the median actually generates less biased estimates for skewed data. Reckhow et al. (1980) observed highly skewed histograms for the export coefficient data and stated that statistics such as the median and interquartile range are less biased summary statistics than are the mean and standard deviation. Median values also are less affected by the presence of some erroneous values in the data set than are mean values.

For the forest areas, the median values were taken from four reported export coefficients for TN and six coefficients for TP. The results are 0.22 g/m^2-yr for TN and 0.032 g/m^2-yr for TP.

Agriculture

The importance of using the median values is especially critical for this land use category since agricultural land is a composite of crops, pasture, orchards, feed lots, and other agricultural categories, which can have large ranges of coefficient values. Thirteen coefficient values were taken from eight different studies for the TN determination, and 14 values were used for the TP determination. The median value for TN is 2.06 g/m^2-yr. The median value for TP is 0.067 g/m^2-yr.

Urban

The term "urban" includes residential, commercial, and industrial land uses. Shahane (1982) reflected these different uses in his references, as did Baker et al. (1981). The coefficient for TN was based on 10 reported values, and the TP coefficient is based on 13 values. The median value for TN is 0.57 g/m^2-yr, and the median value for TP is 0.082 g/m^2-yr.

Summary

Export coefficient values used in this study are summarized in Table 4-8. In addition, Table 4-8 presents the concentration equivalent of these loads for an annual runoff of 14 inches. The results have some policy implications. Export coefficient values for the State of Florida are compared to nationwide values in Figures 4-1 and 4-2. In particular, the range and median export values for various land uses are shown in the figures. For the most part, the Florida export coefficients lie within, or are just barely outside, the

national watershed ranges. The median values also approximate each other fairly closely, but the small number of reported values for Florida compared to the nationwide data renders a statistical comparison of median or mean values infeasible. Nevertheless, Figures 4-1 and 4-2 provide a general idea of the camparability of Florida export coefficients to those for the rest of the country.

IMPACT OF MUNICIPAL SEWAGE

According to Table 4-4, 63 measured municipal sewage discharges occur into 40 Florida lakes. All of these discharges receive secondary treatment. Typical domestic wastwaters have concentrations of TN and TP of 40 and 10 mg/L, respectively (Metcalf and Eddy, 1972). Secondary treatment removes about one third of the phosphorus and one sixth of the nitrogen. Tertiary treatment may remove up to 90 percent of the TP (US EPA, 1976); nitrogen removal is not commonly practiced in Florida.

CALCULATED LOADINGS

Using the above information on loading rates and land uses, nutrient loading estimates were made for 325 lakes. The total loadings were normalized to lake surface area (g P or N/m^2-yr) and the results are listed in order of areal loading rates (LKPLOAD or LKNLOAD) in Tables 4-9 and 4-10. Phosphorus loads range over two orders of magnitude and nitrogen loads over three orders of magnitude. Most (but not all) lakes are dominated by non-point source loadings. Lakes with the highest loadings are those with the highest ratio of total tributary area (TOTLAND) to surface area (SA).

Table 4-8. Nutrient Loading Coefficients for Florida.

	Annual Nutrient Export Coefficients				Trophic State Index	
	Loading, g/m^2		Concentration,[a]			
			mg/L	µg/L		
Activity	TNL	TPL	TNC	TPC	TN[b]	TP[c]
Agriculture	2.06	.067	5.79	190.	91	79.2
Urban	.57	.082	1.60	230.	65.3	82.8
Wetlands	.55	.025	1.55	70.	64.7	60.6
Forest	.22	.032	0.62	90.	46.5	65.3
Atmospheric	.75	.051	0.56	37.	44.5	48.8

[a] Assuming annual runoff of 14 inches and an annual rainfall of 53 inches (Heath and Conover, 1981)

[b] TSI(TN) = 10 (5.61 + 1.98 ln TNC)

[c] TSI(TP) = 10 (1.86 ln TPC - 1.84)

Mass Loading Equation For Nitrogen (from equation 4-2)

$$M_n = (.57 \times A_u) + (2.06 \times A_{Ag}) + (.22 \times A_F) + (.55 \times A_{WL}) + (.75 \times A_L) + PSI \quad (4\text{-}3)$$

M_n = kg/yr of nitrogen

Mass Loading Equation For Phosphorus (from equation 4-2)

$$M_P = (0.82 \times A_u) + (0.67 \times A_{Ag}) + (.032 \times A_F) + (.025 \times A_{WL}) + (.051 \times A_L) + PSI \quad (4\text{-}4)$$

M_P = kg/yr of phosphorus.

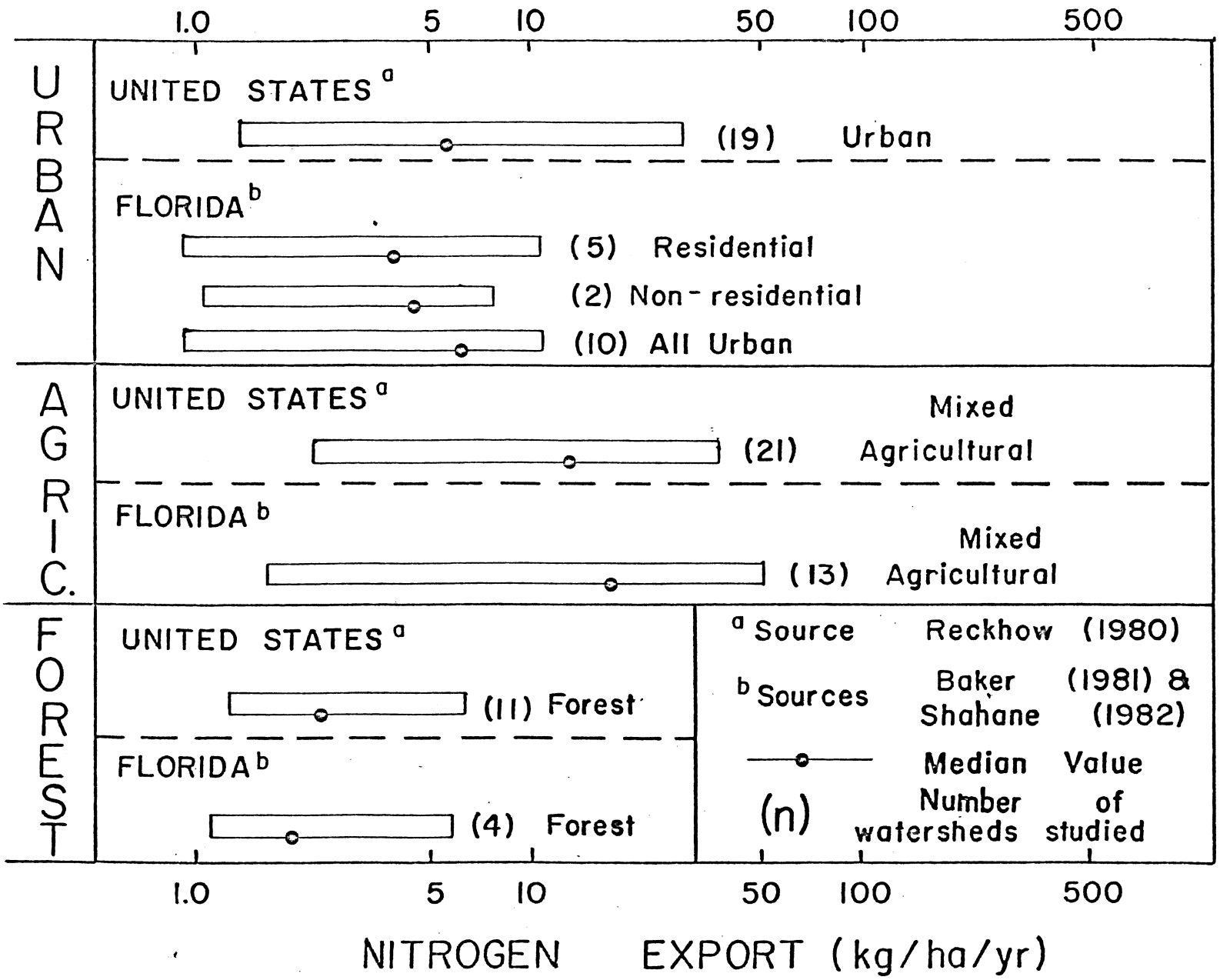

FIGURE 4-1. National and Florida nitrogen export loadings from three different land uses.

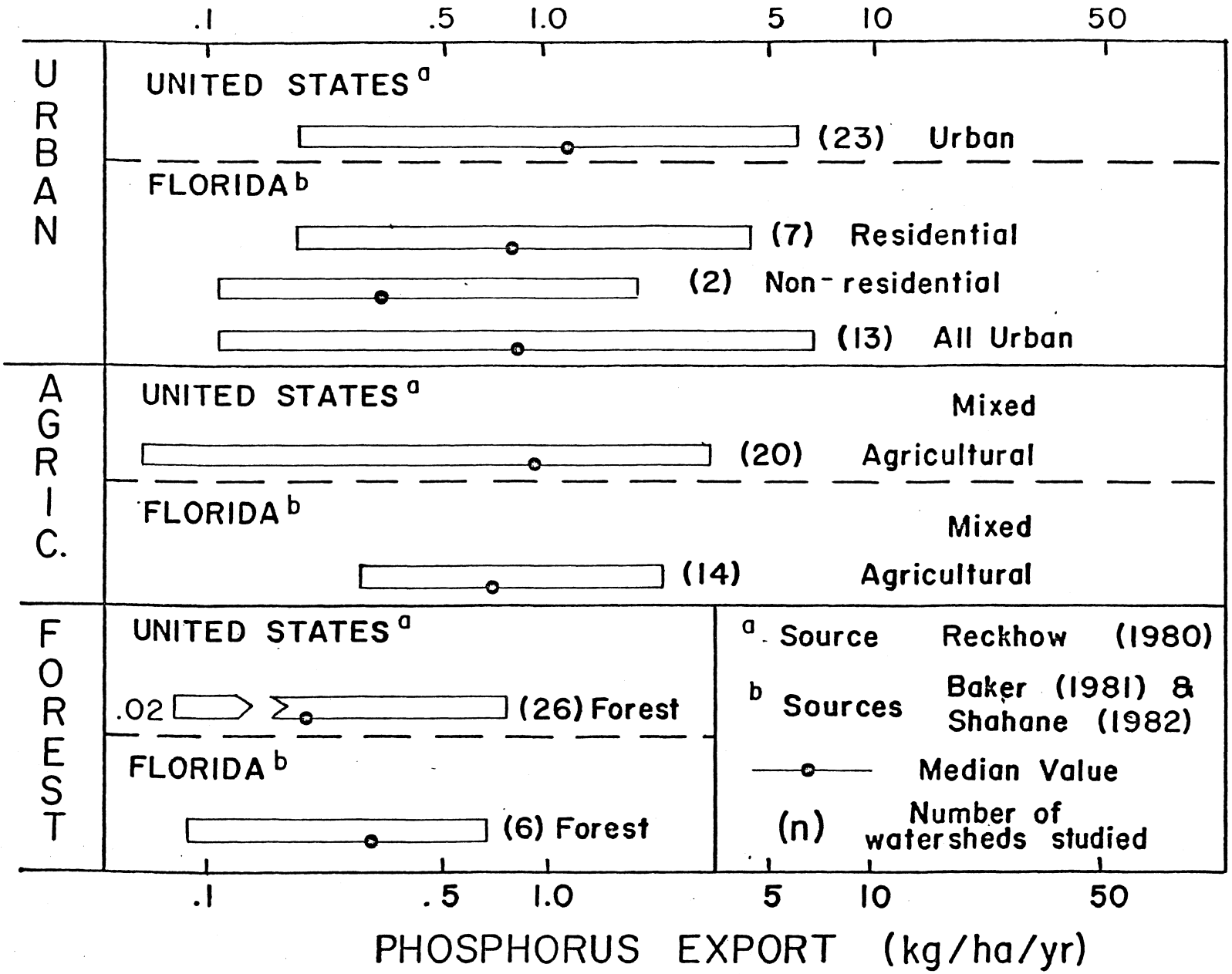

FIGURE 4-2. National and Florida phosphorus export loadings from three different land uses.

The program used to generate Table 4-9 is listed in Appendix C for interested users. The subtle details of this program and clarification of the column headings in Tables 4-9 and 4-10 will be discussed in this chapter.

There are three variables describing drainage and lake surface area. DA is the USGS drainage area from Foose (1981). TOTLAND is the drainage area from the FSU-FDER digitized land use maps. SA is the lake surface area, usually obtained from the 1969 Florida Gazetteer or the USGS (Foose, 1981). Lake surface area was not obtained from the digitized land use maps.

The land or water areas in the tables are in acres, but were converted in the program to units of hectares for multiplication by the nutrient export coefficients, units of kg/hectare, leading to nutrient loads of kg/yr. The units of PLOAD and NLOAD, respectively phosphorus and nitrogen load, are thus kg/yr in Tables 4-9 and 4-10.

INDUSTRY lists the number of industrial dischargers in a particular lake. No flow or quality information was available on any industrial discharger so it was not possible to estimate any such loading into a lake. The INDUSTRY column is thus more informative than functional.

DEVELOP is the percentage of non-water area in the drainage basin that is agricultural or urban. Thus, lake drainage areas that have a high percentage of water (for example the Oklawaha and Kissimmee chains) may have a percent development that seems high if one were considering the total drainage area and not just the non-water drainage area. (FOREST, URBAN, AGRICUL and WETLANDS are the non-water land uses).

LKPLOAD and LKNLOAD are the nutrient loads per unit lake area (g/m^2-yr). It was originally intended to calculate loadings based on the total water area in the basin but this was dropped due to poor regression results (discussed later). The extra water area tributary to the lake may act as either a filter

for nutrients entering the drainage basin or it may export higher nutrient loads to the down-stream lake. For example, Lake Apopka may export phosphorus from its sediments to Lakes Beauclair and Dora, while Newnans Lake may act as a filter for Orange Lake in Alachua County. Adding the extra water area only increased the variability of the data, thus decreasing the explained error and the value of r^2.

PATM, NATM, PPOINT and NPOINT are respectively the phosphorus input from the atmosphere, the nitrogen input from the atmosphere, the point source phosphorus input, and the point source nitrogen input. All are listed as percentages of PLOAD or NLOAD. A missing value of PPOINT and NPOINT indicates a lake with no known point source input.

The land use information necessary for the calculation of loadings was obtained from Dr. Dale Friedly of the Geography Department at Florida State University (FSU). Using the hydrologic unit numbers (see Appendix G) and corresponding land uses from FSU along with the Hydrologic Basin Codes Master List (see Table G-5) from J. Hand at FDER, plus a listing of lake drainage basin areas compiled by the USGS (Foose, 1981) along with a box of USGS topographic maps for the State of Florida it was possible to obtain approximate land use information for 325 Florida lakes.

The FSU-FDER land use data were of very high quality. The only major error that had to be corrected was the underestimation of the drainage area of Johns Lake in Orange County. Johns Lake should have a drainage area of 25,664 acres (Foose, 1981) but the lake was placed in a hydrologic unit number that has only 2800 acres. This was a noticeable mistake since Johns Lake is a contributing area to Lake Apopka and hence to the entire Oklawaha chain of lakes. The error was remedied by arbitrarily multiplying all the land uses in hydrologic unit number 30195 by a factor of 10.

There were other minor errors due to the placing of a lake in a hydrologic unit with a total land area that was too large compared to the lake drainage area. For example, a hydrologic unit number in Alachua County named after Lake Alice had a total land area of 18 square miles while the USGS (Foose, 1981) estimated a drainage area of some 2 square miles for Lake Alice. This lake and all lakes with similar problems were corrected prior to the estimation of nutrient loads by multiplying all land uses in the basin by the ration of drainage area (USGS) to total land (FSU-FDER), i.e., DA/TOTLAND. This was only done for those lakes that deviated more than 20 percent from the USGS (Foose, 1981) drainage area and could only be done for those lakes with known drainage areas. This correction technique was useful also in estimating missing nutrient loads from Georgia for those lakes with drainage areas in both Florida and Georgia, i.e., Dead, Miccosukee, Iamonia, and Talquin. The corrected and uncorrected drainage areas may be compared by examining the TOTLAND variable in Tables 4-2 and 4-3 with the "same" variable in Tables 4-9 and 4-10. The TOTLAND values in Tables 4-2 and 4-3 are the uncorrected total land use areas. The TOTLAND values in Table 4-9 and 4-10 are the drainage areas corrected by the above technique; however, other techniques would also be possible.

The lakes in Tables 4-9 and 4-10 that have high nutrient loading rates are either lakes with a high flusing rate, i.e., Lake Alice, Little Lake George, Puzzle Lake, Lower Myakka, Russell, Little Orange, Winder, Monroe, Washington, Rousseau and Oklawaha, or they are small lakes with a large contributing drainage area that probably does not really contribute flow or nutrients to the lake, e.g., Crews and Bay Lakes.

Table 4-9. Phosphorus Lake Loadings.
LKPLOAD is in units of g/m^2-yr.

PHOSPHORUS LAKE LOADINGS

SA - LAKE AREA, ACRES WATER - WATER AREA
PATM- % ATMOSPHERIC INPUT PPOINT- % POINT INPT
LKPLOAD - PLOAD/SA PLOAD - P LOAD KG/YR
DEVELOP - % NON WATER AREA URBAN AND AGRICUL

OBS	LAKE	COUNTY	SA	WATER	DEVELOP	PLOAD	LKPLOAD	PATM	PPOINT	TOTLAND	INDUSTRY
1	LITTLE LAKE GEORGE	PUTNAM	1416.0	62084.0	46.411	455643	79.5123	6.9490	.	2309970	.
2	ALICE	ALACHUA	73.0	5.4	67.743	19669	66.5778	0.0139	98.3347	1254	.
3	PUZZLE	VOLUSIA	1300.0	14357.0	59.638	257656	48.9744	2.8418	.	1211168	.
4	RUSSELL	OSCEOLA	732.0	7764.9	62.825	116541	39.3407	3.3980	49.7884	263166	.
5	CREWS	HERNANDO	62.0	171.2	60.799	9845	39.2369	0.8868	.	45088	.
6	LITTLE ORANGE	ALACHUA	817.9	10393.0	43.481	125387	37.8814	4.2272	.	647330	.
7	TSALA APOPKA(I)	CITRUS	320.0	3187.0	30.567	33898	26.1756	4.7949	.	194169	.
8	WINDER	BREVARD	1496.0	6101.0	68.193	148442	24.5188	2.0961	.	661299	.
9	BAY	LAKE	30.7	36.4	56.017	2460	19.7692	0.7551	.	12522	.
10	POCKET	ORANGE	126.0	3270.0	79.084	9785	19.1889	17.0439	.	41147	.
11	LOWER MYAKKA	SARASOTA	586.0	759.0	80.633	37288	15.7233	1.0381	.	153909	.
12	HORSE	HERNANDO	21.0	19.8	62.841	1311	15.4260	0.7714	.	5547	.
13	ROUSSEAU	LEVY	4163.0	11761.0	50.606	229286	13.6095	2.6160	.	1132123	.
14	LOUISE	ORANGE	145.0	2414.0	87.224	7829	13.3424	15.7245	.	31708	.
15	OCKLAWAHA	MARION	5280.0	64573.0	45.403	272212	12.7393	12.0980	.	1381319	.
16	KELL	HILLSBOROUGH	31.0	394.9	93.886	1523	12.1363	13.2265	.	5696	.
17	WASHINGTON	BREVARD	2665.0	5430.0	67.382	125963	11.6794	2.1985	.	563067	.
18	MONROE	VOLUSIA	8772.0	30115.0	55.952	392918	11.0681	3.9089	17.0318	1557471	3
19	CHERRY	LAKE	520.0	5440.0	65.942	23210	11.0291	11.9536	.	105628	.
20	HARNEY	VOLUSIA	6058.0	16883.0	58.932	263009	10.7279	3.2738	.	1242300	.
21	CYPRESS	OSCEOLA	4085.0	32925.0	69.875	168017	10.1633	9.9941	.	730890	.
22	SAWGRASS	PINELLAS	21.0	15.4	85.374	836	9.8326	0.9386	.	2896	.
23	POINSETT	BREVARD	4293.0	8121.0	66.897	162427	9.3491	2.5499	1.1908	721285	.
24	UPPER MYAKKA	SARASOTA	933.0	583.0	82.639	33899	8.9780	0.8771	.	138220	.
25	LONG POND	LEVY	234.0	217.3	57.627	8034	8.4838	1.3796	.	37936	.
26	HATCHINEHA	OSCEOLA	6636.0	32925.0	69.875	226041	8.4169	7.4286	25.6697	730890	.
27	ROWELL	BRADFORD	363.0	35.0	22.209	11790	8.0254	0.1514	82.2233	12481	.
28	HIDDEN	LAKE	16.0	280.0	96.741	511	7.8916	27.9507	.	2073	.
29	MUD	HILLSBOROUGH	60.0	78.1	72.413	1815	7.4765	2.1942	.	7461	.
30	TALQUIN	GADSDEN	6850.0	19354.2	23.730	201202	7.2580	4.9058	8.6516	1100800	.
31	IDA	POLK	83.0	70.4	96.123	2413	7.1830	1.4884	.	8918	.
32	CREWS	PASCO	693.0	286.5	60.801	19351	6.8999	0.7552	.	88320	.
33	BEAUCLAIR	LAKE	1111.0	13007.0	88.505	30500	6.7835	21.7495	.	124489	1
34	LITTLE LAKE WEIR	MARION	320.0	2503.0	85.929	8638	6.6700	14.7783	.	35056	.
35	PRETTY	HILLSBOROUGH	79.0	105.6	87.111	2125	6.6481	2.5341	.	8320	.
36	SHERWOOD	ORANGE	120.0	329.4	98.667	2945	6.0642	5.7048	.	10788	.
37	PLATT	HILLSBOROUGH	63.0	166.7	87.721	1492	5.8503	5.6998	.	5888	.
38	MARION	SEMINOLE	13.0	6.5	100.000	306	5.8154	1.0794	.	928	.
39	ISLAND FORD	HILLSBOROUGH	96.0	627.4	98.526	2050	5.2776	15.6053	.	7680	.
40	BIRD	HILLSBOROUGH	26.0	39.7	87.683	539	5.1240	3.7516	.	2014	.
41	DEAD	GULF	6700.0	2690.9	29.146	132780	4.8970	1.0336	.	771840	.
42	LITTLE LAKE HARRIS	LAKE	2739.0	16763.0	73.487	52120	4.7020	16.4029	.	227811	.
43	MARY JANE	ORANGE	1161.0	6036.7	69.187	17712	3.7697	17.3819	.	79360	.
44	HARVEY	HILLSBOROUGH	21.0	29.9	99.822	294	3.4645	5.1856	.	1088	.
45	THONOTOSASSA	HILLSBOROUGH	824.0	549.2	88.495	11526	3.4564	2.4301	11.9861	38400	4
46	SHARPES	BREVARD	66.0	285.7	71.446	922	3.4535	15.7970	.	3984	.
47	DAUGHARTY	VOLUSIA	293.0	273.6	45.869	3934	3.3179	3.5464	86.0343	2806	.
48	GRIFFIN	LAKE	10660.0	43325.0	75.021	143023	3.3153	15.4491	20.2849	493298	2
49	TOHOPEKALIGA	OSCEOLA	18790.0	16306.0	71.226	247977	3.2610	3.3536	65.5172	363422	2
50	DUPONT	VOLUSIA	220.0	347.2	25.157	2880	3.2353	6.1478	.	16607	.
51	HART	ORANGE	1841.0	6296.2	69.924	23941	3.2134	13.4125	.	106240	.
52	DOSSON	HILLSBOROUGH	10.0	7.5	100.000	129	3.1808	2.9775	.	448	.
53	BAY	HILLSBOROUGH	37.0	120.0	98.364	474	3.1682	12.9005	.	1656	.
54	EUSTIS	LAKE	7806.0	36374.0	78.652	96433	3.0526	19.2368	.	409909	1
55	MINNEOLA	LAKE	1892.0	5440.0	65.942	23210	3.0312	11.9536	.	105628	1
56	ADAIR	ORANGE	22.0	0.0	100.000	270	3.0295	0.0000	.	813	.
57	VALRICO	HILLSBOROUGH	127.0	53.8	88.593	1549	3.0139	1.7721	.	5770	.
58	LULU	POLK	307.0	1866.4	90.223	3670	2.9539	25.9362	.	14528	.
59	WEKIVA	ORANGE	190.0	188.9	71.773	2271	2.9531	4.2423	.	8576	.

Table 4-9. Phosphorus Lake Loadings. (continued)
LKPLOAD is in units of g/m^2-yr.

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*************************************************
*              PHOSPHORUS LAKE LOADINGS         *
*                                               *
* SA - LAKE AREA, ACRES      WATER - WATER AREA *
*PATM- % ATMOSPHERIC INPUT  PPOINT- % POINT INPT*
*LKPLOAD - PLOAD/SA         PLOAD - P LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	PLOAD	LKPLOAD	PATM	PPOINT	TOTLAND	INDUSTRY
60	WOODRUFF	VOLUSIA	2200.0	10351.7	12.197	26212	2.94407	20.1411	.	175731	.
61	FRANCIS	HIGHLANDS	530.0	3156.0	81.047	6236	2.90730	25.8116	.	26259	.
62	LAWNE	ORANGE	156.0	149.3	71.760	1795	2.84390	4.2419	.	6782	.
63	DEXTER	VOLUSIA	1902.0	3253.0	12.197	21538	2.79811	7.7028	.	144746	.
64	BRADFORD	LEON	182.0	108.0	17.723	2029	2.75522	2.7142	.	12271	.
65	BLUE CYPRESS	INDIAN RIVER	6522.0	4024.3	68.778	70820	2.68315	2.8981	0.0778	312960	7
66	BEAR	LAKE	29.0	108.9	100.122	307	2.61190	18.1121	.	1091	.
67	PANASOFFKEE	SUMTER	4821.0	3361.0	66.909	50827	2.60515	3.3724	.	225029	.
68	APTHORPE	HIGHLANDS	215.0	467.1	67.717	2234	2.56707	10.6646	.	9792	.
69	HERRICK	ORANGE	39.0	14.2	96.447	405	2.56610	1.7836	.	1414	.
70	SHIPP	POLK	284.0	1372.0	93.235	2899	2.52229	24.1370	.	11060	.
71	BROWNS	HILLSBOROUGH	30.0	28.7	100.000	305	2.51357	4.8019	.	1069	.
72	GEORGE	PUTNAM	46780.0	40825.0	49.095	474866	2.50832	4.3846	10.9389	2107365	.
73	SMART	POLK	279.0	2329.9	89.761	2778	2.46066	42.7685	.	11456	.
74	DENHAM	LAKE	248.0	696.5	50.657	2407	2.39799	14.7588	.	12292	1
75	CHAPMAN	HILLSBOROUGH	42.0	44.9	100.000	401	2.35964	5.7121	.	1338	.
76	ORANGE	ALACHUA	13160.0	10393.0	43.481	125387	2.35435	4.2272	.	647330	.
77	TIGER	POLK	2200.0	5674.0	61.203	20690	2.32382	13.9865	.	95685	.
78	HALFMOON	MARION	340.0	976.5	3.987	3193	2.32054	15.5976	.	22428	.
79	SADDLEBACK	HILLSBOROUGH	34.0	0.0	100.000	319	2.31529	0.0000	.	960	.
80	JULIANA	POLK	92.0	451.2	93.917	851	2.28651	27.0324	.	3433	.
81	MAITLAND	ORANGE	452.0	837.8	99.963	4078	2.22924	10.4779	.	13184	.
82	NORRIS	LAKE	1131.0	1300.3	34.586	10187	2.22561	6.5098	.	59776	.
83	CAMP	PASCO	20.0	2.5	98.565	174	2.15358	0.7403	.	640	.
84	BELL	PASCO	80.0	251.7	79.408	696	2.15027	18.4407	.	2953	.
85	WIMICO	GULF	4055.0	7749.9	2.399	34057	2.07536	11.6052	.	264873	.
86	DORA	LAKE	4437.0	15817.0	87.966	36857	2.05259	21.8864	.	150311	.
87	LINDEN	SEMINOLE	14.0	21.0	88.144	116	2.05021	9.2395	.	440	.
88	HOPE	ORANGE	36.0	17.4	68.141	291	1.99744	3.0497	.	1151	.
89	DEER POINT	BAY	4989.3	2762.0	4.813	38446	1.90407	3.6639	.	277960	.
90	MINNEHAHA	LAKE	2410.0	3858.0	62.921	18186	1.86463	10.8192	.	84098	.
91	PINE	LAKE	27.0	5.7	20.455	201	1.83633	1.4401	.	1246	.
92	SHEEN	ORANGE	560.0	1373.3	79.084	4109	1.81316	17.0439	.	17280	.
93	ANN	POLK	60.0	127.5	100.000	438	1.80420	14.8404	.	1536	.
94	CRENSHAW	HILLSBOROUGH	33.0	0.0	100.397	240	1.79796	0.0000	.	832	.
95	OKAHUMPKA	SUMTER	973.0	521.5	66.917	7073	1.79633	3.7599	.	31360	.
96	BASS	ORANGE	22.0	13.3	99.817	158	1.77943	4.2732	.	531	.
97	CRYSTAL	LAKE	20.7	8.9	60.667	148	1.76024	3.0719	.	622	.
98	LENA	POLK	208.0	785.0	100.000	1468	1.74441	27.2647	.	5520	4
99	ALLIGATOR	COLUMBIA	348.0	167.0	43.267	2440	1.73232	3.4910	.	11789	.
100	KISSIMMEE	OSCEOLA	34760.0	55409.0	71.093	242411	1.72324	11.6573	.	1053993	.
101	SWIFTS CREEK POND	UNION	568.0	255.0	1.793	3953	1.71974	3.2898	.	29578	.
102	JACKSON	OSCEOLA	1020.0	365.0	83.880	6983	1.69159	2.6659	.	28234	.
103	ARNUCKLE	POLK	3787.0	6214.0	62.802	23585	1.53894	13.4369	.	107909	.
104	LOW	SUWANNEE	69.0	44.1	52.031	428	1.53291	5.2557	.	2054	.
105	BANANA	POLK	343.0	263.5	61.916	2081	1.49951	6.4552	.	8783	1
106	CANNON	POLK	333.0	92.5	95.402	2010	1.49171	2.3456	.	6464	.
107	ECHO	HILLSBOROUGH	25.0	27.5	100.000	150	1.48310	9.3339	.	570	.
108	ECHO	POLK	25.0	25.1	100.000	149	1.47652	8.5661	.	480	.
109	LINDA	PASCO	31.0	25.1	100.000	177	1.41442	7.2076	.	602	.
110	JOSEPHINE	HIGHLANDS	1240.0	1540.7	71.869	6946	1.38418	11.3120	.	29632	.
111	NICOTOON	MARION	328.0	308.8	0.653	1831	1.37930	8.6013	.	13622	.
112	CLINCH	POLK	1194.0	2382.0	77.118	6597	1.36516	18.4161	.	28164	.
113	PADGETT	PASCO	200.0	58.9	77.381	1102	1.36143	2.7282	8.7761	4224	.
114	CATHERINE	LAKE	137.0	134.0	68.766	752	1.35594	9.0873	.	3379	2
115	LETTA	HIGHLANDS	471.0	899.4	100.000	2569	1.34788	17.8527	.	9984	.
116	TOWNSEND POND	LAFAYETTE	111.0	107.6	2.941	589	1.31036	9.3269	.	4516	.
117	GLENA	LAKE	250.0	432.6	73.087	1319	1.30406	16.7229	.	5944	.
118	EAST TOHOPEKALIGA	OSCEOLA	11950.0	12235.0	75.849	62751	1.29755	9.9438	20.8051	208631	.

Table 4-9. Phosphorus Lake Loadings. (continued)
LKPLOAD is in units of g/m^2-yr.

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*************************************************
*            PHOSPHORUS LAKE LOADINGS           *
*                                               *
* SA - LAKE AREA, ACRES      WATER - WATER AREA *
*PATM- % ATMOSPHERIC INPUT  PPOINT- % POINT INPT*
*LKPLOAD - PLOAD/SA         PLOAD - P LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	PLOAD	LKPLOAD	PATM	PPOINT	TOTLAND	INDUSTRY
119	VAN DYKE	HILLSBOROUGH	13.0	7.3	97.183	68	1.28507	5.5397	.	256	.
120	WHITE TROUT	HILLSBOROUGH	75.0	147.9	100.429	386	1.27260	19.5248	.	1344	.
121	MYRTLE	SEMINOLE	55.0	141.8	90.297	275	1.25207	25.9478	.	1126	.
122	ELBERT	POLK	173.0	183.3	96.924	860	1.22853	10.8702	.	2956	.
123	FANNIE	POLK	833.0	1853.7	89.105	4099	1.21581	23.0655	.	15808	.
124	CLAY	HIGHLANDS	361.0	364.9	69.257	1728	1.18306	10.7663	.	7488	.
125	LITTLE	CITRUS	60.0	34.0	99.783	282	1.16225	6.1433	.	1004	.
126	LITTLE REC WATER	HIGHLANDS	329.0	317.0	89.954	1539	1.15583	10.5053	.	6144	.
127	COON	OSCEOLA	148.0	371.0	66.553	676	1.12895	27.9822	.	3096	.
128	JESSUP	SEMINOLE	7792.0	4064.0	53.147	35477	1.12505	5.8422	39.2527	99840	2
129	FAITH	ORANGE	33.0	36.4	100.000	145	1.11827	12.4380	.	489	.
130	ROCHELLE	POLK	581.0	1134.3	90.617	2620	1.11411	22.0826	.	9984	.
131	LOUISA	LAKE	3660.0	2850.0	60.919	16490	1.11333	8.8142	.	77320	.
132	GUM	POLK	162.0	185.8	77.117	725	1.10585	13.0669	.	3116	.
133	EFFIE	POLK	102.0	101.7	100.000	451	1.09341	11.4906	.	1606	.
134	MICCOSUKEE	JEFFERSON	6312.0	977.0	34.292	27386	1.07210	1.8195	.	153600	.
135	GRACE	SEMINOLE	31.0	10.9	74.043	131	1.04732	4.2412	.	497	.
136	HANCOCK	POLK	4541.0	5827.0	50.598	19226	1.04620	15.4565	.	89556	5
137	HIRES	VOLUSIA	73.0	161.5	34.895	304	1.02827	27.1089	.	1637	.
138	ISTOKPOGA	HIGHLANDS	27500.0	23684.0	72.949	108694	0.97667	11.1127	17.7943	385666	.
139	ROSALIE	POLK	4592.0	4892.0	58.463	18108	0.97442	13.7778	.	84862	.
140	FRANCIS	ORANGE	33.0	9.7	78.139	130	0.97427	3.8070	.	486	.
141	CHUNKY POND	LEVY	650.0	267.1	16.817	2489	0.94622	5.4728	.	16121	.
142	THOMAS	HILLSBOROUGH	62.0	72.4	100.145	237	0.94611	15.5628	.	868	.
143	HANNA	HILLSBOROUGH	29.0	29.4	100.000	111	0.94396	13.5250	.	384	.
144	LADY	LAKE	190.0	109.2	80.277	713	0.92735	7.8071	.	2989	.
145	HAMILTON	POLK	2170.0	3386.5	89.841	8140	0.92692	21.2175	4.7521	29952	.
146	SILVER	POLK	52.0	52.6	100.000	195	0.92592	13.7700	.	749	.
147	WOOD	HILLSBOROUGH	18.0	23.1	100.000	66	0.90944	17.7581	.	236	.
148	BELL	ORANGE	40.0	15.4	89.183	147	0.90727	5.3402	.	491	.
149	SEBRING	HIGHLANDS	465.0	217.3	57.274	1694	0.90030	6.5419	45.6647	4242	.
150	NEFF	HERNANDO	224.0	138.4	63.437	813	0.89656	8.6850	.	3851	.
151	CLEAR	ORANGE	339.0	98.9	98.604	1227	0.89450	4.1085	.	3821	.
152	DELANCY	MARION	781.0	244.8	0.854	2814	0.89017	4.4382	.	21215	.
153	GENTRY	OSCEOLA	1797.0	1057.0	69.545	6462	0.88855	8.3423	.	28544	.
154	ASHBY	VOLUSIA	1077.0	534.3	33.289	3870	0.88786	7.0419	.	21760	.
155	LIVINGSTON	POLK	1192.0	726.0	66.864	4136	0.85730	8.9531	.	18505	.
156	HOWARD	POLK	634.0	1016.2	93.235	2147	0.83686	24.1370	.	8192	.
157	COOPER	HILLSBOROUGH	82.0	64.8	100.000	273	0.82267	12.0962	.	977	.
158	JOHNS	ORANGE	2411.0	160.0	95.539	7919	0.81158	1.0305	.	29751	.
159	BIVENS ARM	ALACHUA	177.0	64.0	92.244	574	0.80095	5.6891	.	1942	.
160	CRESCENT	FLAGLER	17447.7	9066.0	15.933	55998	0.79306	8.2569	3.4540	346182	.
161	TARPON	PINELLAS	2534.0	1318.0	77.382	8118	0.79160	8.2803	.	33573	.
162	RUNNYMEDE	OSCEOLA	300.0	153.8	85.237	946	0.77929	8.2896	.	3794	.
163	SPRING	ORANGE	35.0	14.2	99.677	110	0.77494	6.5811	.	345	.
164	TIBET	ORANGE	1198.8	1220.7	79.084	3653	0.75289	17.0439	.	15360	.
165	GENEVA	SEMINOLE	29.0	0.0	98.452	87	0.74021	0.0000	.	323	.
166	TRAFFORD	COLLIER	1485.0	1698.1	64.301	4440	0.73882	19.5047	.	20586	.
167	LINDSEY	HERNANDO	137.0	127.5	32.098	409	0.73785	15.8926	.	2312	.
168	LOTELA	HIGHLANDS	795.0	578.7	98.495	2369	0.73647	12.4561	.	8671	1
169	SUNSHINE	HILLSBOROUGH	17.0	3.0	100.000	50	0.73243	3.0363	.	175	.
170	SAMPSON	BRADFORD	2071.0	1250.0	15.992	6122	0.73046	10.4131	.	38241	.
171	HARRIS	LAKE	17660.0	16763.0	73.487	52120	0.72967	16.4029	.	227811	2
172	UMATILLA	LAKE	165.0	132.7	98.932	476	0.71275	14.2240	.	1732	.
173	SPIER	ORANGE	24.0	14.1	100.180	68	0.69897	10.5927	.	218	.
174	ORIENTA	SEMINOLE	130.0	81.3	95.797	362	0.68878	11.4483	.	1224	.
175	BROOKLYN	CLAY	635.0	926.0	8.073	1760	0.68503	26.8269	.	11164	.
176	HOBBS	HILLSBOROUGH	66.0	61.5	100.000	179	0.67068	17.5127	.	641	.
177	RAINBOW	HILLSBOROUGH	48.0	58.7	100.000	129	0.66630	23.1386	.	512	.

Table 4-9. Phosphorus Lake Loadings. (continued)
LKPLOAD is in units of g/m^2-yr.

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*************************************************
*                PHOSPHORUS LAKE LOADINGS       *
*                                               *
* SA - LAKE AREA, ACRES      WATER - WATER AREA *
*PATM- % ATMOSPHERIC INPUT  PPOINT- % POINT INPT*
*LKPLOAD - PLOAD/SA         PLOAD - P LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	PLOAD	LKPLOAD	PATM	PPOINT	TOTLAND	INDUSTRY
178	GLASS	HILLSBOROUGH	17	9	100.000	45	0.653235	10.1036	.	171	.
179	MOUNTAIN	POLK	158	71	100.046	415	0.649119	8.7717	.	1472	.
180	SYLVAN	SEMINOLE	190	102	56.101	499	0.648947	10.4234	.	2391	.
181	MAGGIORE	PINELLAS	380	146	83.905	993	0.645716	7.5033	.	3449	.
182	SOUTH	BREVARD	1103	49	57.402	2842	0.636409	0.8788	.	12901	.
183	FLORIDA	SEMINOLE	24	0	87.124	62	0.633583	0.0000	.	233	.
184	LITTLE SANTA FE	ALACHUA	1154	2279	28.846	2942	0.629976	39.5069	.	15800	.
185	APSHAWA	LAKE	110	75	100.000	277	0.622991	13.7679	.	1067	.
186	REEDY	POLK	3454	3683	70.055	8635	0.617765	21.7520	.	38123	1
187	STARVATION	HILLSBOROUGH	52	0	100.000	127	0.604923	0.0000	.	448	.
188	BUCK	HILLSBOROUGH	34	20	100.000	83	0.603588	12.1772	.	318	.
189	SMITH	CLAY	895	822	10.846	2175	0.600543	19.2619	.	13961	.
190	LINDSEY	VOLUSIA	27	19	68.398	65	0.595203	14.8597	.	275	.
191	DAN	HILLSBOROUGH	37	20	72.807	88	0.588068	11.3801	.	384	.
192	MANN	ORANGE	250	47	98.604	584	0.577012	4.1085	.	1818	.
193	WECHYAKAPKA	POLK	7555	3202	55.337	17631	0.576651	9.2623	27.4253	60836	.
194	TROUT	LAKE	101	85	100.000	236	0.575416	18.2843	.	920	1
195	PIERCE	POLK	3736	1779	70.430	8552	0.565614	10.6094	.	37554	.
196	JOHIO	ORANGE	27	11	100.000	59	0.535148	9.4594	.	217	.
197	CHARITY	ORANGE	63	23	100.000	137	0.537794	8.5800	.	464	.
198	CONWAY	ORANGE	1079	887	97.628	2331	0.533894	19.4039	.	8130	.
199	GENEVA	CLAY	1746	1048	20.520	3760	0.532160	14.2184	.	22720	.
200	HUNTLEY	HIGHLANDS	676	253	71.184	1424	0.520382	9.0529	.	6106	.
201	KERR	MARION	4484	2700	2.674	9226	0.508430	14.9230	.	65280	.
202	YALE	LAKE	4030	2830	42.036	8214	0.503653	17.5709	.	43233	4
203	UNDERHILL	ORANGE	147	82	100.000	293	0.492082	14.2857	.	959	.
204	KEENE	HILLSBOROUGH	31	9	77.908	60	0.476838	8.0914	.	243	.
205	PICKETT	ORANGE	742	437	74.160	1429	0.475860	15.5995	.	6142	.
206	BRYAN	ORANGE	210	123	61.376	403	0.474324	15.5650	.	1816	.
207	SEMINOLE	PINELLAS	684	142	87.930	1302	0.470369	5.5472	.	4442	.
208	MARION	POLK	2968	1221	72.467	5608	0.466877	11.1043	.	24063	.
209	OCTAHATCHEE	HAMILTON	198	127	31.952	372	0.464111	17.4821	.	2149	.
210	MYRTLE	POLK	416	356	91.726	780	0.463444	23.2555	.	3187	.
211	JOHNSON	CLAY	346	201	5.192	646	0.461158	15.8882	.	4465	.
212	FAIRVIEW	ORANGE	403	269	100.000	709	0.434604	19.3545	.	2387	1
213	JUNE-IN-WINTER	HIGHLANDS	3362	2943	80.413	5897	0.433403	25.4533	.	24858	.
214	IAMONIA	LEON	5680	308	18.417	9913	0.431272	1.5840	.	64640	.
215	KING	PASCO	132	0	56.054	227	0.426305	0.0000	.	1155	.
216	BONNY	POLK	346	18	100.000	594	0.424524	1.5663	.	1850	.
217	CARROLL	HILLSBOROUGH	188	84	100.072	322	0.423243	13.3185	.	1062	.
218	GRASSY	HIGHLANDS	510	132	82.231	871	0.421920	7.7544	.	3450	.
219	SMITH	MARION	482	178	64.312	821	0.421083	11.0563	.	3710	.
220	BOWERS	MARION	633	619	51.784	1077	0.420299	29.3008	.	5427	.
221	SILVER	ORANGE	69	23	100.000	117	0.420043	10.0300	.	375	.
222	MARKHAM	SEMINOLE	83	45	44.968	140	0.416904	16.3599	.	727	.
223	OKEECHOBEE	OKEECHOBEE	436000	222979	74.155	722657	0.409561	15.7363	0.4015	3132447	.
224	CENTER	OSCEOLA	410	371	66.553	676	0.407522	27.9822	.	3096	.
225	CHURCH	LAKE	155	52	83.105	255	0.406833	10.4658	.	1062	.
226	MARIAN	OSCEOLA	5727	1937	90.128	9388	0.405042	10.5231	.	37302	.
227	NEWNANS	ALACHUA	7350	2364	17.641	11963	0.402174	10.0783	.	73035	.
228	WILDCAT	LAKE	232	163	2.979	376	0.400147	22.0846	.	2584	.
229	PARKER	POLK	2291	2203	73.950	3702	0.399278	30.3556	.	15104	3
230	HALL	LEON	172	0	25.524	276	0.397198	0.0000	.	1669	.
231	MIRROR	POLK	19	12	99.117	30	0.392895	19.5430	.	102	.
232	DEER	POLK	124	0	100.000	186	0.371091	0.0000	.	614	.
233	WEIR	MARION	6760	2503	85.929	8638	0.370558	14.7783	.	35056	.
234	WALES	POLK	330	111	93.108	491	0.367888	11.5104	.	1696	.
235	DISSTON	FLAGLER	1844	795	16.949	2713	0.363529	14.9455	.	16996	.
236	HOLDENS	ORANGE	264	31	98.604	382	0.357862	4.1085	.	1190	.

Table 4-9. Phosphorus Lake Loadings. (continued)
LKPLOAD is in units of g/m^2-yr.

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*************************************************
*          PHOSPHORUS LAKE LOADINGS             *
*                                               *
* SA - LAKE AREA, ACRES      WATER - WATER AREA *
*PATM- % ATMOSPHERIC INPUT  PPOINT- % POINT INPT*
*LKPLOAD - PLOAD/SA         PLOAD - P LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	PLOAD	LKPLOAD	PATM	PPOINT	TOTLAND	INDUSTRY
237	HOLLY	LAKE	96.0	85.80	87.105	138.5	0.356396	31.6011	.	592	.
238	MAGDALENE	HILLSBOROUGH	232.0	107.65	97.391	331.6	0.353147	16.5580	.	1186	.
239	JACKSON	WALTON	210.0	228.53	73.026	291.2	0.342611	40.0288	.	1280	.
240	JACKSON	LEON	4001.0	1828.00	40.049	5542.6	0.342307	16.8204	.	27821	.
241	TSALA APOPKA(H)	CITRUS	12940.7	1680.75	30.567	17877.0	0.341358	4.7949	.	102400	.
242	BUTLER	ORANGE	1665.0	696.13	86.957	2289.1	0.339720	15.5095	.	9280	.
243	WAUNATTA	ORANGE	68.0	23.07	100.000	92.8	0.337353	12.6722	.	356	.
244	ANNIE	POLK	534.0	242.82	90.362	729.0	0.337311	16.9883	.	2945	.
245	CONNIE	POLK	236.0	101.98	100.000	321.7	0.336843	16.1671	.	1096	.
246	MOUND	HILLSBOROUGH	78.0	64.84	100.000	106.3	0.336824	31.1003	.	429	.
247	BUTLER	UNION	437.0	162.00	33.890	593.9	0.335796	13.9124	.	3062	.
248	ELLEN	HILLSBOROUGH	53.0	0.00	99.567	71.9	0.335189	0.0000	.	231	.
249	ARIANA	POLK	1019.0	778.63	99.969	1329.2	0.322329	29.8746	.	5127	.
250	HELENE	POLK	54.0	18.33	100.000	70.1	0.320717	13.3409	.	269	.
251	ISLAND	SEMINOLE	204.0	80.13	81.039	259.0	0.313676	15.7806	.	1026	.
252	HUNTERS	HERNANDO	301.0	128.69	53.313	381.8	0.313452	17.1894	.	1661	.
253	DORR	LAKE	1712.0	0.00	2.762	2167.4	0.312837	0.0000	.	16960	.
254	OTIS	POLK	144.0	45.39	90.455	181.2	0.310857	12.7792	.	640	.
255	WEST CROOKED	LAKE	105.0	63.54	100.000	130.8	0.307886	24.7680	.	475	.
256	ALLIGATOR	OSCEOLA	3401.0	1451.08	86.754	4219.3	0.306555	17.5396	.	17024	1
257	AJAY	OSCEOLA	145.0	33.13	70.567	174.7	0.297643	9.6745	.	768	.
258	WINNEMISETT	VOLUSIA	164.0	83.37	91.050	195.3	0.294189	21.7754	.	787	.
259	MORTON	POLK	42.0	2.29	95.402	49.8	0.292750	2.3456	.	160	.
260	MARIANA	POLK	500.0	240.39	94.455	588.5	0.290850	20.8314	.	2217	.
261	MATTIE	POLK	1813.0	1433.43	57.250	2085.0	0.284165	35.0630	.	10321	.
262	TSALA APOPKA	CITRUS	19111.0	1680.75	30.567	21745.3	0.281160	3.9419	17.789	102400	.
263	CUMMINGS	POLK	98.0	33.99	100.000	110.2	0.277745	15.7390	.	399	.
264	TROUT	OSCEOLA	163.0	100.46	66.553	183.1	0.277572	27.9822	.	838	.
265	THOMAS	PASCO	162.0	78.92	99.797	181.3	0.276494	22.2026	.	687	.
266	WINORO	VOLUSIA	156.0	71.23	32.609	173.7	0.275160	20.9109	.	958	.
267	CLEAR	PASCO	158.0	65.97	100.000	173.3	0.271101	19.4075	.	646	.
268	DOCTORS	CLAY	3202.4	1610.28	45.190	3387.1	0.261347	24.2465	.	16026	.
269	ALICE	HILLSBOROUGH	94.0	44.11	100.385	98.7	0.259532	22.7865	.	369	.
270	SUSANNAH	ORANGE	77.0	0.00	53.077	79.8	0.256153	0.0000	.	384	.
271	GRANDIN	PUTNAM	354.0	116.52	7.570	360.9	0.251944	16.4635	.	2374	.
272	LOCHLOOSA	ALACHUA	8800.0	2461.00	15.821	8888.4	0.249583	14.1207	.	56482	.
273	CURVE	PASCO	24.0	7.13	99.719	24.1	0.248644	15.0555	.	90	.
274	CHARLES	HILLSBOROUGH	15.0	3.05	100.000	14.9	0.246077	10.4299	.	51	.
275	ADA	SEMINOLE	49.0	21.04	31.795	48.5	0.244735	22.1147	.	247	.
276	CHARM	SEMINOLE	20.0	5.67	100.000	19.8	0.244650	14.5923	.	71	.
277	GOVERNOR HILL	DIXIE	153.0	108.66	0.000	147.4	0.238033	37.6003	.	1030	.
278	MARY	SEMINOLE	154.0	73.65	57.950	148.0	0.237461	25.3822	.	660	.
279	BEULAH	POLK	25.0	4.63	100.000	24.0	0.237160	9.8390	.	77	.
280	BRYANT	MARION	1260.0	848.69	36.623	1199.6	0.235259	36.0806	.	6310	.
281	PLACID	HIGHLANDS	3381.0	1133.35	85.742	3199.5	0.233832	18.0658	.	12928	.
282	TSALA APOPKA(F)	CITRUS	19111.0	1680.75	30.567	17877.0	0.231145	4.7949	.	102400	.
283	BEAR	SEMINOLE	305.0	99.00	100.000	278.8	0.225914	18.1065	.	993	.
284	PORTER	WASHINGTON	929.0	4.00	19.113	848.2	0.225603	0.2405	.	5414	.
285	HAINES	POLK	716.6	362.61	69.450	652.5	0.225002	28.3414	.	2896	1
286	FLORENCE	LAKE	133.0	49.37	95.808	119.8	0.222571	21.0189	.	456	.
287	DOWN	ORANGE	894.0	328.00	88.500	804.2	0.222288	20.8000	.	3281	.
288	SPRING	HERNANDO	57.0	21.04	100.699	49.8	0.215789	21.5610	.	195	.
289	ICLA	PASCO	104.0	41.68	96.863	89.3	0.212096	23.8145	.	358	.
290	LIZZIE	OSCEOLA	792.0	371.00	66.553	676.2	0.210965	27.9822	.	3096	.
291	WIMAUMA	HILLSBOROUGH	137.0	59.49	100.000	116.7	0.210438	26.0042	.	426	.
292	PALESTINE	UNION	924.0	55.88	1.166	768.7	0.205576	3.7072	.	5779	.
293	LOWERY	CLAY	1250.0	473.83	1.699	1005.2	0.198706	24.0408	.	7040	.
294	ALTHO	ALACHUA	555.0	233.91	21.220	442.2	0.196861	26.9802	.	2562	.
295	OCEAN POND	BAKER	1793.0	788.75	2.314	1402.3	0.193254	28.6862	.	9814	.

Table 4-9. Phosphorus Lake Loadings.[2] (continued)
LKPLOAD is in units of g/m^2-yr.

PHOSPHORUS LAKE LOADINGS

SA - LAKE AREA, ACRES WATER - WATER AREA
PATM- % ATMOSPHERIC INPUT PPOINT- % POINT INPT
LKPLOAD - PLOAD/SA PLOAD - P LOAD KG/YR
DEVELOP - % NON WATER AREA URBAN AND AGRICUL

OBS	LAKE	COUNTY	SA	WATER	DEVELOP	PLOAD	LKPLOAD	PATM	PPOINT	TOTLAND	INDUSTRY
296	CROOKED	POLK	5533.0	2280.0	65.181	4223.3	0.188610	27.5330	.	19387	.
297	ELOISE	POLK	1172.0	560.2	94.229	891.8	0.188019	32.0399	.	3597	.
298	APOPKA	ORANGE	30670.1	12645.0	88.352	23159.6	0.186591	27.8457	11.9305	85279	3
299	LOWERY	POLK	897.0	684.0	36.591	643.9	0.177366	54.1812	.	3456	.
300	JACKSON	HIGHLANDS	3244.0	1140.0	80.718	2221.2	0.169193	26.1748	.	8737	.
301	EAST	PASCO	99.0	41.7	47.034	67.5	0.168586	31.4739	.	339	.
302	HENRY	POLK	861.0	446.1	67.454	570.3	0.163661	39.8964	.	2637	.
303	BESSIE	ORANGE	160.0	50.0	100.000	105.4	0.162817	24.2115	.	410	.
304	EAGLE	POLK	659.0	269.1	95.212	432.6	0.162211	31.7268	.	1781	.
305	ALFRED	POLK	736.0	289.8	100.000	482.2	0.161887	30.6473	.	1905	.
306	RUBY	POLK	253.0	103.2	100.000	161.6	0.157862	32.5622	.	657	.
307	MERIAL	BAY	221.0	16.0	6.431	140.3	0.156844	5.8282	.	1005	.
308	WINTERSET	POLK	551.0	156.5	91.726	343.1	0.153870	23.2555	.	1402	.
309	GEORGES	PUTNAM	812.0	31.5	8.959	490.0	0.149122	3.2739	.	3411	.
310	HOLLINGSWORTH	POLK	356.0	55.7	21.810	214.7	0.148990	13.2381	.	1229	.
311	MCLEOD	POLK	488.0	74.3	100.000	276.9	0.140197	13.6920	.	960	.
312	CHERRY	MADISON	483.0	197.9	82.747	269.5	0.137853	37.4555	.	1086	.
313	CALM	HILLSBOROUGH	125.0	26.1	100.000	69.7	0.137807	19.1281	.	256	.
314	SANTA FE	ALACHUA	5299.0	2279.0	28.846	2942.0	0.137189	39.5069	.	15800	.
315	KINGSLEY	CLAY	1627.0	414.9	35.361	885.6	0.134502	23.8903	.	4378	.
316	PORTER	ORANGE	32.0	0.0	100.000	16.7	0.129341	0.0000	.	62	.
317	HARTRIDGE	POLK	437.0	160.1	97.064	227.1	0.128432	35.9379	.	851	.
318	GEORGE	POLK	50.0	16.6	101.961	22.6	0.111500	37.5067	.	92	.
319	MOON	PASCO	98.0	35.2	0.000	41.6	0.104786	43.2077	.	271	.
320	KILLARNEY	ORANGE	237.0	21.0	100.000	86.4	0.090076	12.4227	.	280	.
321	MARIAM	POLK	199.0	72.4	29.730	55.0	0.068296	67.1695	.	290	.
322	LITTLE LAKE FAIRVIEW	ORANGE	86.0	37.2	0.883	21.3	0.061233	89.0999	.	885	.
323	GEORGES	CLAY	.	307.0	8.958	4784.9	.	3.2721	.	33309	.
324	LITTLE LAKE JACKSON	HIGHLANDS	.	1140.0	80.718	2221.2	.	26.1748	.	8737	.
325	RUSSELL	HIGHLANDS	.	7765.0	62.825	58517.4	.	6.7675	.	263166	.

Table 4-10. Nitrogen Lake Loadings.
LKNLOAD is in units of g/m^2-yr.

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*************************************************
*            NITROGEN LAKE LOADINGS             *
*                                               *
* SA - LAKE AREA, ACRES      WATER - WATER AREA *
*NATM- % ATMOSPHERIC INPUT  NPOINT- % POINT INPT*
*LKNLOAD - NLOAD/SA         NLOAD - N LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL *
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	NLOAD	LKNLOAD	NATM	NPOINT	TOTLAND	INDUSTRY
1	LITTLE LAKE GEORGE	PUTNAM	1416.0	62084.0	46.411	9302023	1623.26	5.0057	.	2309970	.
2	PUZZLE	VOLUSIA	1300.0	14357.0	59.638	6313561	1200.06	1.7055	.	1211168	.
3	CREWS	HERNANDO	62.0	171.2	60.799	228710	911.52	0.5614	.	45088	.
4	LITTLE ORANGE	ALACHUA	817.9	10393.0	43.481	2473990	747.43	3.1507	.	647330	.
5	WINDER	BREVARD	1496.0	6101.0	68.193	3922405	647.88	1.1666	.	661299	.
6	BAY	LAKE	30.7	36.4	56.017	70414	565.83	0.3879	.	12522	.
7	RUSSELL	OSCEOLA	732.0	7764.9	62.825	1412050	476.66	4.1243	9.3925	263166	.
8	POCKET	ORANGE	126.0	3270.0	79.084	234382	459.65	10.4637	.	41147	.
9	LOWER MYAKKA	SARASOTA	586.0	759.0	80.633	1059562	446.79	0.5373	.	153909	.
10	TSALA APOPKA(I)	CITRUS	320.0	3187.0	30.567	577355	445.83	4.1400	.	194169	.
11	LOUISE	ORANGE	145.0	2414.0	87.224	198572	338.39	9.1176	.	31708	.
12	WASHINGTON	BREVARD	2665.0	5430.0	67.382	3293900	305.41	1.2364	.	563067	.
13	ROUSSEAU	LEVY	4163.0	11761.0	50.606	5011781	297.48	1.7600	.	1132123	.
14	CHERRY	LAKE	520.0	5440.0	65.942	571585	271.80	7.1331	.	105628	.
15	HARNEY	VOLUSIA	6058.0	16883.0	58.932	6403778	261.20	1.9773	.	1242300	.
16	UPPER MYAKKA	SARASOTA	933.0	583.0	82.639	972853	257.65	0.4495	.	138220	.
17	KELL	HILLSBOROUGH	31.0	394.9	93.886	31984	254.94	9.2594	.	5696	.
18	OCKLAWAHA	MARION	5280.0	64573.0	45.403	5374399	251.52	9.0112	.	1381319	.
19	HORSE	HERNANDO	21.0	19.8	62.841	20873	245.60	0.7125	.	5547	.
20	POINSETT	BREVARD	4293.0	8121.0	66.897	4189109	241.12	1.4539	0.1055	721285	.
21	CYPRESS	OSCEOLA	4085.0	32925.0	69.875	3883047	234.88	6.3594	.	730890	.
22	MONROE	VOLUSIA	8772.0	30115.0	55.952	7566503	213.14	2.9850	2.0216	1557471	3
23	HIDDEN	LAKE	16.0	280.0	96.741	13271	204.96	15.8262	.	2073	.
24	LONG POND	LEVY	234.0	217.3	57.627	191988	202.74	0.8490	.	37936	.
25	IDA	POLK	83.0	70.4	96.123	65252	194.26	0.8094	.	8918	.
26	PRETTY	HILLSBOROUGH	79.0	105.6	87.111	56900	177.97	1.3920	.	8320	.
27	LITTLE LAKE WEIR	MARION	320.0	2503.0	85.929	217848	168.22	8.6173	.	35056	.
28	BEAUCLAIR	LAKE	1111.0	13007.0	88.505	754053	167.72	12.9364	.	124489	1
29	ALICE	ALACHUA	73.0	5.4	67.743	47096	159.42	0.0856	93.8692	1254	.
30	CREWS	PASCO	693.0	286.5	60.801	445248	158.76	0.4827	.	88320	.
31	SHERWOOD	ORANGE	120.0	329.4	98.667	75531	155.53	3.2711	.	10788	.
32	PLATT	HILLSBOROUGH	63.0	166.7	87.721	39196	153.74	3.1897	.	5888	.
33	HATCHINEHA	OSCEOLA	6636.0	32925.0	69.875	4015674	149.53	6.1493	3.3027	730890	.
34	MUD	HILLSBOROUGH	60.0	78.1	72.413	35722	147.11	1.6399	.	7461	.
35	ISLAND FORD	HILLSBOROUGH	96.0	627.4	98.526	46921	120.77	10.0283	.	7680	.
36	LITTLE LAKE HARRIS	LAKE	2739.0	16763.0	73.487	1283009	115.75	9.7990	.	227811	.
37	SAWGRASS	PINELLAS	21.0	15.4	85.374	9154	107.71	1.2600	.	2896	.
38	BIRD	HILLSBOROUGH	26.0	39.7	87.683	10891	103.51	2.7311	.	2014	.
39	TALQUIN	GADSDEN	6850.0	19354.2	23.730	2725249	98.31	5.3264	1.4600	1100800	.
40	HARVEY	HILLSBOROUGH	21.0	29.9	99.822	8194	96.42	2.7401	.	1088	.
41	MARY JANE	ORANGE	1161.0	6036.7	69.187	428354	91.17	10.5696	.	79360	.
42	DEAD	GULF	6700.0	2690.9	29.146	2287616	84.37	0.8822	.	771840	.
43	HART	ORANGE	1841.0	6296.2	69.924	592923	79.58	7.9642	.	106240	.
44	MINNEOLA	LAKE	1892.0	5440.0	65.942	571585	74.70	7.1331	.	105628	1
45	EUSTIS	LAKE	7806.0	36374.0	78.652	2324729	73.59	11.7349	.	409909	1
46	THONOTOSASSA	HILLSBOROUGH	824.0	549.2	88.495	241007	72.27	1.7091	1.1465	38400	4
47	SHARPES	BREVARD	66.0	285.7	71.446	19287	72.21	11.1104	.	3984	.
48	BLUE CYPRESS	INDIAN RIVER	6522.0	4024.3	68.778	1843357	69.84	1.6373	0.0068	312960	7
49	DOSSON	HILLSBOROUGH	10.0	7.5	100.000	2795	69.06	2.0167	.	448	.
50	VALRICO	HILLSBOROUGH	127.0	53.8	88.593	34227	66.59	1.1794	.	5770	.
51	FRANCIS	HIGHLANDS	530.0	3156.0	81.047	139853	65.20	16.9250	.	26259	.
52	GRIFFIN	LAKE	10660.0	43325.0	75.021	2769563	64.20	11.7324	2.3944	493298	2
53	PANASOFFKEE	SUMTER	4821.0	3361.0	66.909	1232317	63.16	2.0455	.	225029	.
54	CAMP	PASCO	20.0	2.5	98.565	4975	61.47	0.3814	.	640	.
55	LULU	POLK	307.0	1866.4	90.223	72847	58.63	19.2156	.	14528	.
56	APTHORPE	HIGHLANDS	215.0	467.1	67.717	49914	57.37	7.0180	.	9792	.
57	DENHAM	LAKE	248.0	696.5	50.657	55296	55.10	9.4466	.	12292	1
58	JULIANA	POLK	92.0	451.2	93.917	20189	54.23	16.7626	.	3433	.
59	BROWNS	HILLSBOROUGH	30.0	28.7	100.000	6554	53.98	3.2882	.	1069	.

Table 4-10. Nitrogen Lake Loadings. (continued)
LKNLOAD is in units of g/m^2-yr.

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*              NITROGEN LAKE LOADINGS           *
*                                               *
* SA - LAKE AREA, ACRES       WATER - WATER AREA  *
*NATM- % ATMOSPHERIC INPUT  NPOINT- % POINT INPT*
*LKNLOAD - NLOAD/SA          NLOAD - N LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
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GBS	LAKE	COUNTY	SA	WATER	DEVELOP	NLOAD	LKNLOAD	NATM	NPOINT	TOTLAND	INDUSTRY
60	TIGER	POLK	2200.0	5674.0	61.203	469971	52.7863	9.0548	.	95685	.
61	BELL	PASCO	80.0	251.7	79.408	16785	51.8448	11.2475	.	2953	.
62	HERRICK	ORANGE	39.0	14.2	96.447	8118	51.4332	1.3086	.	1414	.
63	NORRIS	LAKE	1131.0	1300.3	34.586	232311	50.7550	4.1979	.	59776	.
64	DORA	LAKE	4437.0	15817.0	87.966	891918	49.6716	13.3003	.	150311	.
65	BAY	HILLSBOROUGH	37.0	120.0	98.364	7302	48.7631	12.3260	.	1656	.
66	GEORGE	PUTNAM	46780.0	40825.0	49.095	9031547	47.7062	3.3902	1.2819	2107365	.
67	JACKSON	OSCEOLA	1020.0	365.0	83.880	196231	47.5378	1.3950	.	28234	.
68	ORANGE	ALACHUA	13160.0	10393.0	43.481	2473990	46.4531	3.1507	.	647330	.
69	MINNEHAHA	LAKE	2410.0	3858.0	62.521	443521	45.4747	6.5239	.	84098	.
70	SHIPP	POLK	284.0	1372.0	93.235	51151	44.5053	20.1168	.	11060	.
71	SHEEN	ORANGE	560.0	1373.3	79.084	98430	43.4323	10.4637	.	17280	.
72	ECHO	HILLSBOROUGH	25.0	27.5	100.000	4389	43.3793	4.6929	.	570	.
73	WOODRUFF	VOLUSIA	2200.0	10351.7	12.197	384632	43.2012	20.1849	.	175731	.
74	OKAHUMPKA	SUMTER	973.0	521.5	66.917	170109	43.2003	2.2991	.	31360	.
75	LINDEN	SEMINOLE	14.0	21.0	88.144	2379	41.9908	6.6341	.	440	.
76	CRENSHAW	HILLSBOROUGH	33.0	0.0	100.397	5607	41.9858	0.0000	.	832	.
77	BEAR	LAKE	29.0	108.9	100.122	4904	41.7877	16.6482	.	1091	.
78	SMART	POLK	279.0	2329.9	89.761	47071	41.6893	37.1229	.	11456	.
79	KISSIMMEE	OSCEOLA	34760.0	55409.0	71.093	5727211	40.7133	7.2560	.	1053993	.
80	MARION	SEMINOLE	13.0	6.5	100.000	2141	40.7003	2.2680	.	928	.
81	DUPONT	VOLUSIA	220.0	347.2	25.157	35455	39.8223	7.3451	.	16607	.
82	LETTA	HIGHLANDS	471.0	899.4	100.000	70855	37.1727	9.5197	.	9984	.
83	VAN DYKE	HILLSBOROUGH	13.0	7.3	97.183	1946	36.9954	2.8298	.	256	.
84	CHAPMAN	HILLSBOROUGH	42.0	44.9	100.000	6041	35.5384	5.5775	.	1338	.
85	GLENA	LAKE	250.0	432.6	73.087	35845	35.4293	9.0518	.	5944	.
86	ARBUCKLE	POLK	3787.0	6214.0	62.802	538911	35.1637	8.6480	.	107909	.
87	DEXTER	VOLUSIA	1902.0	3253.0	12.197	265577	34.5026	9.1866	.	144746	.
88	PADGETT	PASCO	200.0	58.9	77.381	27790	34.3348	1.5908	0.7954	4224	.
89	CATHERINE	LAKE	137.0	134.0	68.766	18725	33.7738	5.3652	.	3379	2
90	CLINCH	POLK	1194.0	2382.0	77.118	157212	32.5351	11.3637	.	28164	.
91	LITTLE RED WATER	HIGHLANDS	329.0	317.0	89.954	43056	32.3377	5.5218	.	6144	.
92	ROWELL	BRADFORD	363.0	35.0	22.209	45657	31.0798	0.5749	48.5298	12481	.
93	LENA	POLK	208.0	785.0	100.000	26062	30.9615	22.5901	.	5520	4
94	LOW	SUWANNEE	69.0	44.1	52.031	8580	30.7274	3.8558	.	2054	.
95	JOSEPHINE	HIGHLANDS	1240.0	1540.7	71.869	153973	30.6828	7.5046	.	29632	.
96	BASS	ORANGE	22.0	13.3	99.817	2591	29.0982	3.8429	.	531	.
97	TOHOPEKALIGA	OSCEOLA	18790.0	16306.0	71.226	2206962	29.0229	5.5413	16.8265	363422	2
98	WEKIVA	ORANGE	190.0	188.9	71.773	22130	28.7800	6.4014	.	8576	.
99	ANN	POLK	60.0	127.5	100.000	6954	28.6392	13.7486	.	1536	.
100	MYRTLE	SEMINOLE	55.0	141.8	90.297	6313	28.3615	16.8458	.	1126	.
101	GUM	POLK	162.0	185.8	77.117	18507	28.2295	7.5276	.	3116	.
102	LAWNE	ORANGE	156.0	149.3	71.760	17495	27.7121	6.4017	.	6782	.
103	LOUISA	LAKE	3660.0	2850.0	60.919	406208	27.4246	5.2621	.	77320	.
104	WIMICO	GULF	4055.0	7749.9	2.399	434500	26.4772	13.3773	.	264873	.
105	SILVER	POLK	52.0	52.6	100.000	5537	26.3108	7.1264	.	749	.
106	LITTLE	CITRUS	60.0	34.0	99.783	6356	26.1754	4.0114	.	1004	.
107	CLAY	HIGHLANDS	361.0	364.9	69.257	38235	26.1715	7.1571	.	7488	.
108	LADY	LAKE	190.0	109.2	80.277	19598	25.4878	4.1773	.	2989	.
109	COON	OSCEOLA	148.0	371.0	66.553	15127	25.2552	18.3948	.	3096	.
110	NEFF	HERNANDO	224.0	138.4	63.437	21950	24.2131	4.7292	.	3851	.
111	EAST TOHOPEKALIGA	OSCEOLA	11950.0	12235.0	75.849	1157117	23.9267	7.9303	2.5789	208631	.
112	JOHNS	ORANGE	2411.0	160.0	95.539	229900	23.5621	0.5220	.	29751	.
113	LINDA	PASCO	31.0	25.1	100.000	2862	22.8096	6.5727	.	602	.
114	GENEVA	SEMINOLE	29.0	0.0	98.452	2656	22.6267	0.0000	.	323	.
115	GENTRY	OSCEOLA	1797.0	1057.0	69.545	163568	22.4917	4.8466	.	28544	.
116	CRYSTAL	LAKE	20.7	8.9	60.667	1854	22.0810	3.6012	.	622	.
117	ROSALIE	POLK	4592.0	4892.0	58.463	399804	21.5138	9.1770	.	84862	.
118	EFFIE	POLK	102.0	101.7	100.000	8870	21.4875	8.5987	.	1606	.

Table 4-10. Nitrogen Lake Loadings. (continued)
LKNLOAD is in units of g/m^2-yr.

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*              NITROGEN LAKE LOADINGS            *
*                                                *
* SA - LAKE AREA, ACRES      WATER - WATER AREA  *
*NATM- % ATMOSPHERIC INPUT  NPOINT- % POINT INPT*
*LKNLOAD - NLOAD/SA         NLOAD - N LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	NLOAD	LKNLOAD	NATM	NPOINT	TOTLAND	INDUSTRY
119	HALFMOON	MARION	340.0	976.5	3.987	29466	21.4146	24.8560	.	22428	.
120	LIVINGSTON	POLK	1192.0	726.0	66.864	101670	21.0760	5.3556	.	18505	.
121	BRADFORD	LEON	182.0	108.0	17.723	15520	21.0717	5.2190	.	12271	.
122	HOPE	ORANGE	36.0	17.4	68.141	3054	20.9610	4.2738	.	1151	.
123	ADAIR	ORANGE	22.0	0.0	100.000	1865	20.9481	0.0000	.	813	.
124	FANNIE	POLK	833.0	1853.7	89.105	70096	20.7931	19.8336	.	15808	.
125	BANANA	POLK	343.0	263.5	61.916	28527	20.5513	6.9264	.	8783	1
126	ALLIGATOR	COLUMBIA	348.0	167.0	43.267	28865	20.4961	4.3391	.	11789	.
127	MICCOSUKEE	JEFFERSON	6312.0	977.0	34.292	521426	20.4126	1.4053	.	153600	.
128	THOMAS	HILLSBOROUGH	62.0	72.4	100.145	4966	19.7934	10.9396	.	868	.
129	RUNNYMEDE	OSCEOLA	300.0	153.8	85.237	23866	19.6572	4.8328	.	3794	.
130	ISTOKPOGA	HIGHLANDS	27500.0	23684.0	72.949	2172254	19.5187	8.1772	2.0352	385666	.
131	MAITLAND	ORANGE	452.0	837.8	99.963	35422	19.3647	17.7382	.	13184	.
132	PINE	LAKE	27.0	5.7	20.455	2086	19.0919	2.0369	.	1246	.
133	GLASS	HILLSBOROUGH	17.0	8.9	100.000	1309	19.0259	5.1014	.	171	.
134	ROCHELLE	POLK	581.0	1134.3	90.617	44365	18.8684	19.1749	.	9984	.
135	HIRES	VOLUSIA	73.0	161.5	34.895	5531	18.7214	21.8964	.	1637	.
136	TARPON	PINELLAS	2534.0	1318.0	77.382	191369	18.6611	5.1654	.	33573	.
137	TIBET	ORANGE	1198.8	1220.7	79.084	87494	18.0347	10.4637	.	15360	.
138	RAINBOW	HILLSBOROUGH	48.0	58.7	100.000	3499	18.0132	12.5865	.	512	.
139	HARRIS	LAKE	17650.0	16763.0	73.487	1283009	17.9621	9.7990	.	227811	2
140	APSHAWA	LAKE	110.0	74.9	100.000	7914	17.7788	7.0948	.	1067	.
141	BUCK	HILLSBOROUGH	34.0	19.8	100.000	2391	17.3791	6.2194	.	318	.
142	TRAFFORD	COLLIER	1485.0	1698.1	64.301	102963	17.1328	12.3692	.	20586	.
143	DEER POINT	BAY	4989.3	2762.0	4.813	344509	17.0620	6.0129	.	277960	.
144	ELBERT	POLK	173.0	183.3	96.924	11702	16.7137	11.7501	.	2956	.
145	ASHBY	VOLUSIA	1077.0	534.3	33.289	72748	16.6908	5.5086	.	21760	.
146	COOPER	HILLSBOROUGH	82.0	64.8	100.000	5460	16.4530	8.8945	.	977	.
147	DAUGHARTY	VOLUSIA	293.0	273.6	45.869	19138	16.1399	10.7211	40.4250	2806	.
148	WHITE TROUT	HILLSBOROUGH	75.0	147.9	100.429	4887	16.1004	22.6950	.	1344	.
149	HAMILTON	POLK	2170.0	3386.5	89.841	140940	16.0490	18.0210	0.6273	29952	.
150	SADDLEBACK	HILLSBOROUGH	34.0	0.0	100.000	2203	16.0094	0.0000	.	960	.
151	TROUT	LAKE	101.3	84.6	100.000	6562	16.0043	9.6675	.	920	1
152	SUNSHINE	HILLSBOROUGH	17.0	3.0	100.000	1095	15.9138	2.0551	.	175	.
153	LOTELA	HIGHLANDS	795.0	578.7	98.495	51151	15.8986	8.4854	.	8671	1
154	TOWNSEND POND	LAFAYETTE	111.0	107.6	2.941	7111	15.8291	11.3544	.	4516	.
155	HANCOCK	POLK	4541.0	5827.0	50.598	278080	15.1318	15.7158	.	89556	5
156	DAN	HILLSBOROUGH	37.0	19.6	72.807	2264	15.1217	6.5082	.	384	.
157	SYLVAN	SEMINOLE	190.0	102.0	56.101	11601	15.0876	6.5931	.	2391	.
158	ELORIDA	SEMINOLE	24.0	0.0	87.124	1459	15.0230	0.0000	.	233	.
159	STARVATION	HILLSBOROUGH	52.0	0.0	100.000	3155	14.9914	0.0000	.	448	.
160	HOWARD	POLK	634.0	1016.2	93.235	37887	14.7662	20.1168	.	8192	.
161	WOOD	HILLSBOROUGH	18.0	23.1	100.000	1073	14.7320	16.1214	.	236	.
162	UMATILLA	LAKE	165.0	132.7	98.932	9621	14.4081	10.3477	.	1732	.
163	CANNON	POLK	333.0	92.5	95.402	19389	14.3871	3.5764	.	6464	.
164	HANNA	HILLSBOROUGH	29.0	29.4	100.000	1685	14.3591	13.0754	.	384	.
165	PIERCE	POLK	3736.0	1779.0	70.430	211718	14.0031	6.3020	.	37554	.
166	LINDSEY	HERNANDO	137.0	127.5	32.098	7758	13.9927	12.3239	.	2312	.
167	REEDY	POLK	3454.0	3683.0	70.055	190879	13.6555	14.4712	.	38123	1
168	SWIFTS CREEK POND	UNION	568.0	255.0	1.793	31360	13.6426	6.0986	.	29578	.
169	JOHIC	ORANGE	27.0	10.9	100.000	1485	13.5874	5.5198	.	217	.
170	MOUNTAIN	POLK	158.0	71.4	100.046	8635	13.5046	6.2004	.	1472	.
171	CHUNKY POND	LEVY	650.0	267.1	16.817	35338	13.4340	5.6687	.	16121	.
172	ECHO	POLK	25.0	25.1	100.000	1359	13.4304	13.8491	.	480	.
173	FRANCIS	ORANGE	33.0	9.7	78.139	1745	13.0670	4.1743	.	486	.
174	GRACE	SEMINOLE	31.0	10.9	74.043	1532	12.2146	5.3479	.	497	.
175	JESSUP	SEMINOLE	7792.0	4064.0	53.147	384519	12.1939	7.9268	8.2780	99840	2
176	KING	PASCO	131.7	0.0	56.054	6497	12.1857	0.0000	.	1155	.
177	MYRTLE	POLK	416.0	355.8	91.726	20487	12.1693	13.0241	.	3187	.

Table 4-10. Nitrogen Lake Loadings. (continued)
LKNLOAD is in units of g/m^2-yr.

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*************************************************
*              NITROGEN LAKE LOADINGS           *
*                                               *
* SA - LAKE AREA, ACRES      WATER - WATER AREA *
*NATM- % ATMOSPHERIC INPUT  NPOINT- % POINT INPT*
*LKNLOAD - NLOAD/SA         NLOAD - N LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL *
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	NLOAD	LKNLOAD	NATM	NPOINT	TOTLAND	INDUSTRY
178	HUNTLEY	HIGHLANDS	676	253	71.184	32592	11.9134	5.8152	.	6106	.
179	SOUTH	BREVARD	1103	49	57.402	52552	11.7695	0.6988	.	12901	.
180	HOBBS	HILLSBOROUGH	66	62	100.000	3027	11.3347	15.2388	.	641	.
181	CHURCH	LAKE	155	52	83.105	7096	11.3118	5.5354	.	1062	.
182	MARIAN	OSCEOLA	5727	1937	90.128	256608	11.0718	5.6613	.	37302	.
183	PICKETT	ORANGE	742	437	74.160	33151	11.0401	9.8880	.	6142	.
184	NICOTOON	MARION	328	309	0.653	14514	10.9345	15.9556	.	13622	.
185	MARION	POLK	2968	1221	72.467	130531	10.8673	7.0156	.	24063	.
186	YALE	LAKE	4030	2830	42.036	168962	10.3599	12.5620	.	43233	4
187	SEBRING	HIGHLANDS	465	217	57.274	19443	10.3322	8.3828	9.09483	4242	.
188	CRESCENT	FLAGLER	17448	9066	15.933	717733	10.1647	9.4736	0.61595	346182	.
189	OKEECHOBEE	OKEECHOBEE	436000	222979	74.155	17876857	10.1316	9.3548	0.03709	3132447	.
190	FAITH	ORANGE	33	36	100.000	1352	10.1225	20.2069	.	489	.
191	LINDSEY	VOLUSIA	27	19	68.398	1090	9.9772	13.0364	.	275	.
192	KEENE	HILLSBOROUGH	31	9	77.908	1240	9.8808	5.7424	.	243	.
193	WAUNATTA	ORANGE	68	23	100.000	2666	9.6866	6.4902	.	356	.
194	JUNE-IN-WINTER	HIGHLANDS	3362	2943	80.413	131457	9.6618	16.7906	.	24858	.
195	SMITH	MARION	482	178	64.312	18679	9.5761	7.1495	.	3710	.
196	BOWERS	MARION	633	619	51.784	24163	9.4325	19.2001	.	5427	.
197	GRASSY	HIGHLANDS	510	132	82.231	19382	9.3908	5.1235	.	3450	.
198	WEIR	MARION	5760	2503	85.929	217848	9.3455	8.6173	.	35056	.
199	OCTAHATCHEE	HAMILTON	198	127	31.952	7409	9.2457	12.9052	.	2149	.
200	WEOHYAKAPKA	POLK	7555	3202	55.337	282501	9.2397	8.5009	3.91227	60836	.
201	BRYAN	ORANGE	210	123	61.376	7782	9.1567	11.8571	.	1816	.
202	BIVENS ARM	ALACHUA	177	64	92.244	6552	9.1472	7.3258	.	1942	.
203	CENTER	OSCEOLA	410	371	66.553	15127	9.1165	18.3948	.	3096	.
204	HELENE	POLK	54	18	100.000	1987	9.0926	6.9201	.	269	.
205	MARKHAM	SEMINOLE	83	45	44.968	3041	9.0548	11.0772	.	727	.
206	HOLLY	LAKE	96	86	87.105	3511	9.0376	18.3261	.	592	.
207	LITTLE SANTA FE	ALACHUA	1154	2279	28.846	41922	8.9768	40.7725	.	15800	.
208	ANNIE	POLK	534	243	90.362	19367	8.9617	9.4033	.	2945	.
209	BUTLER	ORANGE	1665	696	86.957	58139	8.6283	8.9802	.	9280	.
210	MOUND	HILLSBOROUGH	78	65	100.000	2683	8.4987	18.1262	.	429	.
211	SAMPSON	BRADFORD	2071	1250	15.992	68871	8.2173	13.6124	.	38241	.
212	CHARITY	ORANGE	63	23	100.000	2074	8.1333	8.3431	.	464	.
213	AJAY	OSCEOLA	145	33	70.567	4421	7.5346	5.6203	.	768	.
214	ORIENTA	SEMINOLE	130	81	95.797	3882	7.3784	15.7165	.	1224	.
215	ALLIGATOR	OSCEOLA	3401	1451	86.754	100528	7.3039	10.8259	.	17024	1
216	GENEVA	CLAY	1746	1048	20.520	51414	7.2763	15.2923	.	22720	.
217	WINNEMISETT	VOLUSIA	164	83	91.050	4772	7.1899	13.1028	.	787	.
218	BELL	ORANGE	40	15	89.183	1151	7.1080	10.0238	.	491	.
219	HALL	LEON	172	0	25.524	4653	6.6847	0.0000	.	1669	.
220	IAMONIA	LEON	5680	308	18.417	153576	6.6811	1.5037	.	64640	.
221	DELANCY	MARION	781	245	0.854	21098	6.6752	8.7036	.	21215	.
222	MATTIE	POLK	1813	1433	57.250	48707	6.6385	22.0721	.	10321	.
223	CLEAR	ORANGE	339	99	98.604	8878	6.4711	8.3517	.	3821	.
224	JACKSON	WALTON	210	229	73.026	5444	6.4053	31.4867	.	1280	.
225	BROOKLYN	CLAY	635	926	8.073	16448	6.4004	42.2246	.	11164	.
226	SMITH	CLAY	895	822	10.846	22990	6.3472	26.8010	.	13961	.
227	ARIANA	POLK	1019	779	99.969	26172	6.3464	22.3133	.	5127	.
228	DEER	POLK	124	0	100.000	3168	6.3135	0.0000	.	614	.
229	TROUT	OSCEOLA	163	100	66.553	4096	6.2094	18.3948	.	838	.
230	CONWAY	ORANGE	1079	887	97.628	26350	6.0343	25.2469	.	8130	.
231	THOMAS	PASCO	162	79	99.797	3900	5.9483	15.1771	.	687	.
232	SPRING	HERNANDO	57	21	100.699	1358	5.8884	11.6196	.	195	.
233	TSALA APOPKA(H)	CITRUS	12941	1681	30.567	304483	5.8141	4.1400	.	102400	.
234	SPRING	ORANGE	35	14	99.677	815	5.7558	13.0303	.	345	.
235	CLEAR	PASCO	158	66	100.000	3651	5.7104	13.5496	.	646	.
236	CURVE	PASCO	24	7	99.719	551	5.6731	9.7038	.	90	.

Table 4-10. Nitrogen Lake Loadings. (continued)
LKNLOAD is in units of g/m^2-yr.

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*************************************************
*                NITROGEN LAKE LOADINGS         *
*                                               *
* SA - LAKE AREA, ACRES       WATER - WATER AREA  *
*NATM- % ATMOSPHERIC INPUT  NPOINT- % POINT INPT*
*LKNLOAD - NLOAD/SA          NLOAD - N LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
*************************************************
```

OBS	LAKE	COUNTY	SA	WATER	DEVELOP	NLOAD	LKNLOAD	NATM	NPOINT	TOTLAND	INDUSTRY
237	ICLA	PASCO	104.0	41.7	96.863	2379	5.65213	13.1417	.	358	.
238	DOWN	ORANGE	894.0	328.0	88.500	20226	5.59049	12.1624	.	3281	.
239	MAGDALENE	HILLSBOROUGH	232.0	107.6	97.391	5240	5.58055	15.4091	.	1186	.
240	ISLAND	SEMINOLE	204.0	80.1	81.039	4524	5.47951	13.2848	.	1026	.
241	SPIER	ORANGE	24.0	14.1	100.180	532	5.47558	19.8850	.	218	.
242	PLACID	HIGHLANDS	3381.0	1133.3	85.742	74213	5.42384	11.4537	.	12928	.
243	CUMMINGS	POLK	98.0	34.0	100.000	2144	5.40565	11.8923	.	399	.
244	MARIANA	POLK	500.0	240.4	94.455	10685	5.28073	16.8727	.	2217	.
245	ALICE	HILLSBOROUGH	94.0	44.1	100.385	1963	5.16000	16.8543	.	369	.
246	DISSTON	FLAGLER	1844.0	795.0	16.949	38265	5.12759	15.5821	.	16996	.
247	MAGGIORE	PINELLAS	380.0	146.1	83.905	7763	5.04812	14.1142	.	3449	.
248	PARKER	POLK	2291.0	2203.4	73.950	45929	4.95373	35.9811	.	15104	3
249	WINORO	VOLUSIA	156.0	71.2	32.609	3127	4.95329	17.0827	.	958	.
250	SUSANNAH	ORANGE	77.0	0.0	53.077	1487	4.77147	0.0000	.	384	.
251	LIZZIE	OSCEOLA	792.0	371.0	66.553	15127	4.71941	18.3948	.	3096	.
252	JOHNSON	CLAY	345.9	201.1	5.192	6560	4.68575	22.9952	.	4465	.
253	CHARM	SEMINOLE	20.0	5.7	100.000	373	4.60440	11.4021	.	71	.
254	JACKSON	LEON	4001.0	1828.0	40.049	74121	4.57768	18.4968	.	27821	.
255	SEMINOLE	PINELLAS	684.0	141.6	87.930	12523	4.52418	8.4814	.	4442	.
256	ELLEN	HILLSBOROUGH	53.0	0.0	99.567	969	4.51696	0.0000	.	231	.
257	FLORENCE	LAKE	133.0	49.4	95.808	2429	4.51192	15.2478	.	456	.
258	WEST CROOKED	LAKE	105.0	63.5	100.000	1913	4.50226	24.9081	.	475	.
259	HAINES	POLK	716.6	362.6	69.450	12749	4.39625	21.3313	.	2896	1
260	NEWNANS	ALACHUA	7350.0	2364.0	17.641	127978	4.30250	13.8539	.	73035	.
261	KERR	MARION	4484.0	2699.7	2.674	77787	4.28660	26.0294	.	65280	.
262	WALES	POLK	330.0	110.9	93.108	5679	4.25205	14.6454	.	1696	.
263	MANN	ORANGE	250.0	47.0	98.604	4223	4.17431	8.3517	.	1818	.
264	CROOKED	POLK	5533.0	2280.0	65.181	93035	4.15487	18.3802	.	19387	.
265	ELOISE	POLK	1172.0	560.2	94.229	19282	4.06525	21.7920	.	3597	.
266	TSALA APOPKA	CITRUS	19111.0	1680.7	30.567	313325	4.05121	4.0232	2.82191	102400	.
267	WINTERSET	POLK	551.0	156.5	91.726	9009	4.04037	13.0241	.	1402	.
268	RUBY	POLK	253.0	103.2	100.000	4125	4.02913	18.7616	.	657	.
269	BONNY	POLK	346.0	18.3	100.000	5640	4.02815	2.4276	.	1850	.
270	CARROLL	HILLSBOROUGH	188.0	84.1	100.072	3059	4.02037	20.6191	.	1062	.
271	PORTER	ORANGE	32.0	0.0	100.000	515	3.97677	0.0000	.	62	.
272	UNDERHILL	ORANGE	147.0	82.0	100.000	2350	3.95027	26.1700	.	959	.
273	TSALA APOPKA(F)	CITRUS	19111.0	1680.7	30.567	304483	3.93689	4.1400	.	102400	.
274	BRYANT	MARION	1260.0	848.7	36.623	19965	3.91534	31.8817	.	6310	.
275	CONNIE	POLK	236.0	102.0	100.000	3735	3.91039	20.4800	.	1096	.
276	APOPKA	ORANGE	30670.1	12645.0	88.352	484138	3.90056	19.5890	1.14143	85279	3
277	BESSIE	ORANGE	160.0	50.0	100.000	2523	3.89637	14.8782	.	410	.
278	CHARLES	HILLSBOROUGH	15.0	3.1	100.000	233	3.84049	9.8278	.	51	.
279	EAGLE	POLK	659.0	269.1	95.212	9863	3.69822	20.4646	.	1751	.
280	FAIRVIEW	ORANGE	403.0	269.0	100.000	5970	3.66049	33.7931	.	2387	1
281	ALFRED	POLK	736.0	289.8	100.000	10889	3.65588	19.9574	.	1905	.
282	OTIS	POLK	144.0	45.4	90.455	2125	3.64667	16.0199	.	640	.
283	BUTLER	UNION	437.0	162.0	33.890	6426	3.63379	18.9064	.	3062	.
284	BEAR	SEMINOLE	305.0	99.0	100.000	4461	3.61425	16.6438	.	993	.
285	WILDCAT	LAKE	232.0	162.7	2.979	3386	3.60621	36.0370	.	2584	.
286	HENRY	POLK	861.0	446.1	67.454	11911	3.41825	28.0910	.	2637	.
287	LOCHLOOSA	ALACHUA	8800.0	2461.0	15.821	121417	3.40933	15.2018	.	56482	.
288	LOWERY	POLK	897.0	684.0	36.591	12340	3.39935	41.5733	.	3456	.
289	MIRROR	POLK	19.0	11.6	99.117	260	3.38457	33.3623	.	102	.
290	EAST	PASCO	99.0	41.7	47.034	1349	3.36652	23.1784	.	339	.
291	PORTER	WASHINGTON	929.0	4.0	19.113	12515	3.32878	0.2397	.	5414	.
292	DORR	LAKE	1712.0	0.0	2.762	23002	3.31995	0.0000	.	16960	.
293	SILVER	ORANGE	69.0	23.1	100.000	903	3.23270	19.1656	.	375	.
294	MARY	SEMINOLE	154.0	73.7	57.950	1980	3.17700	27.8994	.	660	.
295	WIMAUMA	HILLSBOROUGH	137.0	59.5	100.000	1709	3.08191	26.1119	.	426	.

Table 4-10. Nitrogen Lake Loadings. (continued)
LKNLOAD is in units of g/m^2-yr.

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*************************************************
*                NITROGEN LAKE LOADINGS         *
*                                               *
* SA - LAKE AREA, ACRES      WATER - WATER AREA  *
*NATM- % ATMOSPHERIC INPUT  NPOINT- % POINT INPT*
*LKNLOAD - NLOAD/SA          NLOAD - N LOAD KG/YR*
*DEVELOP - % NON WATER AREA  URBAN AND AGRICUL  *
*************************************************
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OBS	LAKE	COUNTY	SA	WATER	DEVELOP	NLOAD	LKNLOAD	NATM	NPOINT	TOTLAND	INDUSTRY
296	DOCTORS	CLAY	3202.42	1610.28	45.190	38571	2.97618	31.3111	.	16026	.
297	GOVERNOR HILL	DIXIE	153.00	108.66	0.000	1803	2.91216	45.1965	.	1030	.
298	MORTON	POLK	42.00	2.29	95.402	480	2.82349	3.5764	.	160	.
299	HUNTERS	HERNANDO	301.00	128.69	53.313	3424	2.81058	28.1920	.	1661	.
300	GEORGE	POLK	50.00	16.59	101.961	558	2.75740	22.3036	.	92	.
301	CALM	HILLSBOROUGH	125.00	26.15	100.000	1346	2.65989	14.5737	.	256	.
302	HOLDENS	ORANGE	264.00	30.80	98.604	2766	2.58850	8.3517	.	1190	.
303	ALTHO	ALACHUA	555.00	233.91	21.220	5378	2.39424	32.6233	.	2562	.
304	JACKSON	HIGHLANDS	3244.00	1140.00	80.718	29874	2.27552	28.6205	.	8737	.
305	OCEAN POND	BAKER	1793.00	788.75	2.314	15805	2.17818	37.4281	.	9814	.
306	MCLEOD	POLK	488.00	74.33	100.000	4196	2.12454	13.2871	.	960	.
307	ADA	SEMINOLE	49.00	21.04	31.795	418	2.10778	37.7611	.	247	.
308	GRANDIN	PUTNAM	354.00	116.52	7.570	2981	2.08089	29.3135	.	2374	.
309	LOWERY	CLAY	1250.00	473.83	1.699	9929	1.96283	35.7906	.	7040	.
310	SANTA FE	ALACHUA	5299.00	2279.00	28.846	41922	1.95487	40.7725	.	15800	.
311	BEULAH	POLK	25.00	4.63	100.000	190	1.88132	18.2398	.	77	.
312	CHERRY	MADISON	483.00	197.90	82.747	3579	1.83105	41.4689	.	1086	.
313	MERIAL	BAY	221.00	16.03	6.431	1503	1.68091	7.9974	.	1005	.
314	GEORGES	PUTNAM	812.00	31.46	8.959	5415	1.64791	4.3567	.	3411	.
315	PALESTINE	UNION	924.00	55.88	1.166	5872	1.57019	7.1377	.	5779	.
316	HARTRIDGE	POLK	437.00	160.05	97.064	2516	1.42271	47.7091	.	851	.
317	HOLLINGSWORTH	POLK	356.00	55.72	21.810	2024	1.40489	20.6459	.	1229	.
318	KINGSLEY	CLAY	1627.00	414.85	35.361	7752	1.17737	40.1355	.	4378	.
319	MARIAM	POLK	199.00	72.44	29.730	934	1.15958	58.1781	.	290	.
320	MOON	PASCO	98.00	35.21	0.000	438	1.10369	60.3262	.	271	.
321	LITTLE LAKE FAIRVIEW	ORANGE	86.00	37.23	0.883	295	0.84848	94.5607	.	885	.
322	KILLARNEY	ORANGE	237.00	21.04	100.000	681	0.71003	23.1762	.	280	.
323	GEORGES	CLAY	.	307.00	8.958	52875	.	4.3546	.	33309	.
324	LITTLE LAKE JACKSON	HIGHLANDS	.	1140.00	80.718	29874	.	28.6205	.	8737	.
325	RUSSELL	HIGHLANDS	.	7765.00	62.825	1279428	.	4.5518	.	263166	.

PREDICTED PHOSPHORUS AND NITROGEN CONCENTRATIONS

Several techniques are available to predict total nitrogen concentration [N], and total phosphorus concentration [P] in lakes. An extensive review and assessment for Florida was given by Baker et al. (1981), based upon data gathered from the 40-lake National Eutrophication Study survey. Most techniques are based on a nutrient mass balance model of the type proposed by Vollenweider (1975), which yields the following equation when solved for the steady state nutrient concentration, [C]:

$$[C] = \frac{L}{q_s + v} = \frac{L}{\bar{z}\,(1/\tau + \sigma)} \qquad (4\text{-}5)$$

where [C] = concentration, g/m^3 = mg/L,

L = loading rate, g/m^2-yr,

q_s = areal water loading to lake, m/yr,

v = settling velocity, m/yr, ($v = \bar{z}\sigma$),

$\bar{z}$ = mean depth, m,

τ = residence time, yr, and

σ = sedimentation coefficient, yr^{-1}.

Loading rates are calculated for N and P by equations 4-3 and 4-4 and then dividing by lake area; results were given in Tables 4-9 and 4-10. The areal water loading is the annual water inflow [corrected for evaporation] divided by lake surface area and has units of m/yr ($m^3/yr \div m^2$). It can be shown that (for steady-state conditions) $q_s = \bar{z}/\tau$. Thus if the water budget and morphometry are known for a lake, the areal water loading (q_s) can be computed from mean depth and water residence time. For this study, mean depth was known only for 174 lakes (see Table 4-11). On the other hand, it was possible to calculate annual runoff (m^3/yr) for 325 lakes based on

Table 4-11. Lake Depths, Volumes and Detention Times.

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**************************************
*        FLORIDA LAKE DEPTHS         *
*                                    *
* SA = LAKE SURFACE AREA, ACRES      *
* DA = LAKE DRAINAGE AREA, ACRES     *
* DT = LAKE DETENTION TIME, YEARS    *
* VOLUME = LAKE VOLUME, ACRE-FEET    *
* DEPTH = LAAKE DEPTH, FEET          *
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DPS	LAKE	COUNTY	SA	DEPTH	VOLUME	DA	DT	DA/SA
1	ALICE	ALACHUA	73.0	2.8874	211	1254	0.16131	17.184
2	ALTHO	ALACHUA	555.0	11.6273	6453	2170	2.85539	3.909
3	BEVILLES POND	ALACHUA	4.9	9.8426	49	•	•	•
4	BIVENS ARM	ALACHUA	177.0	5.2215	924	1920	0.46210	10.847
5	BURNT POND	ALACHUA	54.4	7.1582	389	•	•	•
6	CALF POND	ALACHUA	27.2	3.8774	105	•	•	•
7	CLEAR	ALACHUA	9.9	4.9213	49	•	•	•
8	CLEARWATER	ALACHUA	12.4	4.5932	57	•	•	•
9	COOTER POND7	ALACHUA	212.5	7.2103	1532	•	•	•
10	ELIZABETH	ALACHUA	66.7	4.8605	324	•	•	•
11	HAWTHORNE	ALACHUA	49.4	9.1864	454	•	•	•
12	HICKORY POND	ALACHUA	66.7	11.1792	746	•	•	•
13	JEFFORDS	ALACHUA	158.1	9.8426	1557	•	•	•
14	KANAPAHA	ALACHUA	204.0	2.2652	462	5536	0.08013	27.137
15	LITTLE ORANGE	ALACHUA	817.9	9.1884	7515	647330	0.01115	791.452
16	LITTLE SANTA FE	ALACHUA	1154.0	15.7509	18176	15800	1.10439	13.692
17	LOCHLOOSA	ALACHUA	8800.0	8.7000	76560	56320	1.30500	6.400
18	META	ALACHUA	4.9	4.9213	24	•	•	•
19	MIZE	ALACHUA	2.5	13.1234	32	•	•	•
20	NEWNANS	ALACHUA	7350.0	6.1469	45180	72960	0.59447	9.927
21	ORANGE	ALACHUA	13160.0	9.1801	120810	647680	0.17907	49.216
22	PALATKA POND	ALACHUA	9.9	2.4606	24	•	•	•
23	SANTA FE	ALACHUA	5299.0	21.6079	114500	15552	7.06790	2.935
24	STILL POND	ALACHUA	12.4	3.2809	41	•	•	•
25	TUSCAWILLA	ALACHUA	612.8	4.2598	2610	•	•	•
26	UNNAMED 10	ALACHUA	71.7	10.5214	754	•	•	•
27	UNNAMED 20	ALACHUA	9.9	6.5617	65	•	•	•
28	UNNAMED 25	ALACHUA	14.8	3.2809	49	•	•	•
29	UNNAMED 27	ALACHUA	12.4	12.4673	154	•	•	•
30	WATERMELON POND	ALACHUA	526.3	4.9136	2586	•	•	•
31	WAUBERG	ALACHUA	249.6	12.4738	3113	•	•	•
32	OCEAN POND	BAKER	1793.0	8.3993	15060	8384	1.72443	4.676
33	DEER POINT	BAY	4989.3	9.9572	49680	278400	0.09517	55.799
34	MERIAL	BAY	221.0	17.6018	3890	1005	2.06476	4.547
35	ROWELL	BRADFORD	363.0	5.2893	1920	12481	0.08204	34.383
36	SAMPSON	BRADFORD	2071.0	6.0985	12630	37952	0.17749	18.325
37	HELEN BLAZES	BREVARD	372.0	2.5000	930	•	•	•
38	POINSETT	BREVARD	4293.0	2.5996	11160	814080	0.01097	189.630
39	SOUTH	BREVARD	1103.3	3.6163	3990	12901	0.24742	11.693
40	TSALA APOPKA(H)	CITRUS	12940.7	0.5007	6480	102400	0.10125	7.913
41	TSALA APOPKA(I)	CITRUS	320.0	19.3125	6180	194169	0.05092	606.777
42	BROOKLYN	CLAY	635.0	18.4840	11737	11136	1.01184	17.537
43	DOCTORS	CLAY	3202.4	9.8426	31520	16026	1.88813	5.004
44	GENEVA	CLAY	1746.0	13.9977	24440	22720	1.03268	13.013
45	LOWERY	CLAY	1250.0	15.8145	19768	7040	2.69565	5.632
46	MAGNOLIA	CLAY	205.1	26.2469	5383	9216	0.56073	44.936
47	SHEELAR	CLAY	17.3	18.7009	323	•	•	•
48	TRAFFORD	COLLIER	1485.0	5.0774	7540	17024	0.70865	11.464
49	ALLIGATOR	COLUMBIA	348.0	9.5977	3340	9856	0.18074	28.322
50	CRESCENT	FLAGLER	17447.7	6.5617	114487	346182	0.31748	19.841
51	TALQUIN	GADSDEN	6850.0	17.2993	118500	1100800	0.07382	160.701
52	DEAD	GULF	6700.0	8.0000	53600	771840	0.03704	115.200
53	MOUNTAIN	HERNANDO	130.0	9.3846	1220	1875	0.39036	14.425
54	ANNIE	HIGHLANDS	85.0	27.7069	2355	3661	1.02932	43.068
55	CLAY	HIGHLANDS	361.0	13.2048	4767	7488	1.01857	20.742
56	DAMON	HIGHLANDS	278.0	7.8058	2170	2835	1.22460	10.199
57	DINNER	HIGHLANDS	380.0	9.3947	3570	1267	4.50758	3.335
58	FRANCIS	HIGHLANDS	530.0	9.5816	5078	31424	0.25857	59.291
59	GLENADA	HIGHLANDS	177.9	14.7639	2627	•	•	•

Table 4-11. (Continued)

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**************************************
*        FLORIDA LAKE DEPTHS         *
*                                    *
* SA = LAKE SURFACE AREA, ACRES      *
* DA = LAKE DRAINAGE AREA, ACRES     *
* DT = LAKE DETENTION TIME, YEARS    *
* VOLUME = LAKE VOLUME, ACRE-FEET    *
* DEPTH = LAAKE DEPTH, FEET          *
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ODS	LAKE	COUNTY	SA	DEPTH	VOLUME	DA	DT	DASA
60	ISTOKPOGA	HIGHLANDS	27500	5.7818	159000	388480	0.65486	14.127
61	JACKSON	HIGHLANDS	3244	9.3989	30490	8960	5.44464	2.762
62	JOSEPHINE	HIGHLANDS	1240	6.4594	8010	29632	0.43249	23.897
63	JUNE-IN-WINTER	HIGHLANDS	3362	20.2988	68245	28160	3.87754	8.376
64	PLACID	HIGHLANDS	3381	22.3987	75730	12928	9.37252	3.824
65	BROOKER	HILLSBOROUGH	25	15.2800	382	915	0.40070	36.608
66	KEYSTONE	HILLSBOROUGH	388	14.5103	5630	6400	0.84450	16.495
67	THONOTOSASSA	HILLSBOROUGH	824	10.3034	8490	38400	0.21225	46.602
68	BLUE CYPRESS	INDIAN RIVER	6522	5.0997	33260	312960	0.07287	47.995
69	COMPASS	JACKSON	586	28.2082	16530	2202	4.00436	3.757
70	OCHEESEE POND	JACKSON	2230	1.5112	3370	15488	0.11605	6.945
71	MICCOSUKEE	JEFFERSON	6312	6.6999	42290	153600	0.26431	24.335
72	DENHAM	LAKE	248	6.6935	1660	10240	0.15563	41.290
73	DORA	LAKE	4437	12.2601	54398	151040	0.34575	34.041
74	DORR	LAKE	1712	17.5993	30130	16960	1.70547	9.907
75	ENOLA	LAKE	47	22.3404	1050	480	2.10000	10.213
76	EUSTIS	LAKE	7806	12.8376	100211	413440	0.23269	52.964
77	GRIFFIN	LAKE	10660	7.2606	77398	496000	0.14980	46.529
78	HARRIS	LAKE	17650	10.7646	189996	228480	0.79830	12.945
79	KATHRYN	LAKE	29	8.5862	249	237	1.00946	8.166
80	LOUISA	LAKE	3660	10.3989	38060	77440	0.47182	21.158
81	MINNEOLA	LAKE	1892	20.5021	38790	101120	0.36826	53.446
82	TROUT	LAKE	101	4.8813	495	920	0.51603	9.091
83	TUTUOLA	LAKE	2	17.5000	35	45	0.75000	22.400
84	YALE	LAKE	4030	11.7260	47256	43264	1.04857	10.735
85	IAMONIA	LEON	5680	7.0000	39760	64640	0.59050	11.380
86	MUNSON	LEON	255	4.8960	1248	.	.	.
87	ROUSSEAU	LEVY	4163	21.7992	90750	1280000	0.11344	307.471
88	MYSTIC	LIBERTY	118	30.3983	3587	666	2.87420	5.641
89	BRYANT	MARION	1260	12.6032	15880	6310	2.41582	5.008
90	KERR	MARION	4484	15.0000	67260	65280	0.98912	14.558
91	WEIR	MARION	5760	20.4026	117519	34432	3.27655	5.978
92	OKEECHOBEE	OKEECHOBEE	436000	9.8418	4291035	3616000	1.89869	8.294
93	APOPKA	ORANGE	30670	4.2652	130815	81920	1.53298	2.671
94	BASS	ORANGE	22	18.1818	400	531	0.72289	24.145
95	BUTLER	ORANGE	1665	17.8979	29800	9280	3.08276	5.574
96	CLEAR	ORANGE	339	16.4897	5590	3821	1.40452	11.271
97	DOWN	ORANGE	894	15.7047	14040	3693	3.64991	4.131
98	FAIRVIEW	ORANGE	403	14.5906	5880	2387	2.36461	5.924
99	HOLDENS	ORANGE	264	18.7121	4940	1190	3.98387	4.509
100	HOURGLASS	ORANGE	14	10.9286	153	.	.	.
101	JOHNS	ORANGE	2411	8.0008	19290	25664	0.72157	10.645
102	LAWNE	ORANGE	156	3.5858	559	6782	0.07918	43.474
103	MAITLAND	ORANGE	452	13.8938	6280	13184	0.45728	29.168
104	MANN	ORANGE	250	12.6000	3150	1818	1.66373	7.270
105	MINNEHAHA	ORANGE	96	9.8426	949	.	.	.
106	PEARL	ORANGE	19	10.1053	192	15360	0.01200	809.421
107	SHEEN	ORANGE	560	10.6964	5990	17280	0.33278	30.857
108	STARKE	ORANGE	204	18.3824	3750	2771	1.29908	13.594
109	SUSANNAH	ORANGE	77	14.8052	1140	384	2.85000	4.987
110	TIBET	ORANGE	1199	15.6826	18800	15360	1.17500	12.813
111	UNDERHILL	ORANGE	147	19.3878	2850	954	2.86913	6.487
112	ALLIGATOR	OSCEOLA	3401	7.7007	26190	17024	1.84610	5.006
113	CYPRESS	OSCEOLA	4085	5.6000	22876	743680	0.03691	182.051
114	EAST TOHOPEKALIGA	OSCEOLA	11950	9.0303	107912	197120	0.65693	16.495
115	GENTRY	OSCEOLA	1797	7.2009	12940	28544	0.54400	15.884
116	HATCHINEHA	OSCEOLA	6636	6.3005	41810	743680	0.06746	112.068
117	KISSIMMEE	OSCEOLA	34760	5.9361	206339	1028480	0.24075	29.588
118	MARIAN	OSCEOLA	5727	10.7997	61850	31744	2.33808	5.543

Table 4-11. (Continued)

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*************************************
*        FLORIDA LAKE DEPTHS        *
*                                   *
* SA = LAKE SURFACE AREA, ACRES     *
* DA = LAKE DRAINAGE AREA, ACRES    *
* DT = LAKE DETENTION TIME, YEARS   *
* VOLUME = LAKE VOLUME, ACRE-FEET   *
* DEPTH = LAAKE DEPTH, FEET         *
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OBS	LAKE	COUNTY	SA	DEPTH	VOLUME	DA	DT	DASA
119	TOHOPEKALIGA	OSCEOLA	18790.0	7.8904	148261	396800	0.44837	21.118
120	OSBORNE	PALM BEACH	370.0	11.1892	4140	.	.	.
121	THOMAS	PASCO	162.0	11.1111	1800	640	1.68750	3.951
122	MAGGIORE	PINELLAS	380.0	4.3947	1670	3091	0.51863	8.135
123	SEMINOLE	PINELLAS	684.0	5.9143	4045	4442	0.87436	6.494
124	TARPON	PINELLAS	2534.0	8.1998	20778	38400	0.51946	15.154
125	ALFRED	POLK	736.0	8.0027	5890	1875	3.76920	2.548
126	ARBUCKLE	POLK	3787.0	5.8991	22340	108800	0.24640	28.730
127	ARETTA	POLK	764.0	18.4948	14130	2368	7.16047	3.099
128	BANANA	POLK	343.0	3.2144	1103	9152	0.14457	26.682
129	BUFFUM	POLK	1544.0	11.3018	17450	7040	2.97443	4.560
130	CLINCH	POLK	1194.0	18.8023	22450	26880	1.00223	22.513
131	CROOKED	POLK	5533.0	14.8997	82440	20032	4.93850	3.620
132	ECHO	POLK	25.0	12.2800	307	570	0.64677	22.784
133	EFFIE	POLK	102.0	3.2587	332	1606	0.24830	15.749
134	ELOISE	POLK	1172.0	9.7326	11407	3597	3.80557	3.069
135	GIBSON	POLK	477.0	8.7002	4150	2758	1.80539	5.783
136	HAINES	POLK	716.6	8.2021	5878	2896	2.43546	4.041
137	HANCOCK	POLK	4541.0	4.6994	21340	83840	0.30544	18.463
138	HOLLINGSWORTH	POLK	356.0	5.5056	1960	1229	1.91406	3.452
139	HOWARD	POLK	634.0	12.3028	7800	8192	1.14258	12.921
140	JESSIE	POLK	191.0	6.5365	1248	2912	0.51448	15.246
141	LULU	POLK	307.0	4.8325	1484	14528	0.12254	47.322
142	MARION	POLK	2968.0	4.5534	13514	22848	0.70979	7.698
143	MATTIE	POLK	1813.0	9.8014	17770	9408	2.26658	5.189
144	PARKER	POLK	2291.0	7.5993	17410	15104	1.38321	6.593
145	PIERCE	POLK	3736.0	7.2002	26900	37696	0.85632	10.090
146	REEDY	POLK	3454.0	10.9283	37746	38976	1.16214	11.284
147	WEOHYAKAPKA	POLK	7555.0	5.2366	39562	59840	0.79336	7.921
148	ADAHO	PUTNAM	101.3	11.4830	1163	.	.	.
149	ANDERSON CUE	PUTNAM	12.4	6.5617	81	.	.	.
150	COWPEN	PUTNAM	638.0	14.9060	9510	3219	2.83598	5.046
151	GALLILEE	PUTNAM	84.0	11.4830	965	.	.	.
152	GEORGE	PUTNAM	46780.0	8.5998	402300	2381440	0.16217	50.907
153	GEORGES	PUTNAM	812.0	13.6946	11120	3411	3.12946	4.201
154	KINGSLEY	PUTNAM	1645.7	23.9512	39416	.	.	.
155	LONG	PUTNAM	257.0	11.1549	2867	.	.	.
156	MCCLOUD	PUTNAM	14.8	6.5617	97	.	.	.
157	MOSS LEE	PUTNAM	128.5	11.7985	1516	.	.	.
158	SANTA ROSA	PUTNAM	103.8	26.5749	2758	.	.	.
159	SUGGS	PUTNAM	116.1	8.2021	953	.	.	.
160	SWAN	PUTNAM	560.9	15.7481	8833	.	.	.
161	WALL	PUTNAM	422.5	6.8898	2911	.	.	.
162	WINNOTT	PUTNAM	210.0	17.0605	3583	.	.	.
163	HORSESHOE	SEMINOLE	93.9	4.0234	378	.	.	.
164	HOWELL	SEMINOLE	406.0	7.9872	3243	17792	0.17497	43.823
165	JESSUP	SEMINOLE	7792.0	5.4004	42080	99840	0.40462	12.813
166	LOTUS	SEMINOLE	113.0	5.7965	655	.	.	.
167	MILLS	SEMINOLE	233.0	12.9185	3010	7040	0.41045	30.215
168	PEARL	SEMINOLE	30.0	12.5000	375	179	2.00893	5.973
169	TRIPLET	SEMINOLE	110.0	6.6000	726	2394	0.29118	21.760
170	DEATON	SUMTER	782.0	9.2967	7270	7936	1.46573	10.148
171	OKAHUMPKA	SUMTER	973.0	6.4954	6320	31360	0.32245	32.230
172	PANASOFFKEE	SUMTER	4821.0	6.8990	33260	268800	0.19798	55.756
173	BUTLER	UNION	437.0	7.0938	3100	2522	0.65567	5.770
174	ASHBY	VOLUSIA	1077.0	6.3974	6890	21760	0.30397	20.204
175	MOLLY	VOLUSIA	16.0	16.1250	258	179	1.38214	11.200
176	MONROE	VOLUSIA	8772.0	5.9055	51804	1548800	0.03211	176.561

tributary areas (Table 4-3) and an estimate of annual net surface runoff, R, from Heath and Conover (1981, p. 107). These runoff values range from 5 to 30 in/yr and were estimated for each county (Table 4-12). Hence, use of the form of equation 4-5 that involves q_s permits more lakes to be analyzed. Areal water loads (q_s) thus were calculated from the formula

$$q_s \text{ (m/yr)} = R \text{ (in/yr)} \times 0.0254 \text{ m/in} \times \frac{\text{drainage area } (m^2)}{\text{lake area } (m^2)} \qquad (4\text{-}6)$$

Other than uncertainty about loading coefficients, L, already expressed previously in this chapter, the principal uncertainty in equation 4-5 is the settling velocity, v (or the sedimentation coefficient, s). In their review, Baker et al. (1981) found that other forms of equation 4-5 that use a retention coefficient (R_p) gave better results for prediction of N and P concentrations, but values of R_p were not derived during this classification project.

Future research should use the more extensive Florida Lakes Data Base to improve predictive equations for Florida lakes above those developed using just the NES data. It was desired here to obtain an indication of how well predictive equations might work for the lakes in FLADAB. Hence, although the improved equations developed by Baker et al. (1982) may be preferable, it was most convenient to use the same form for both P and N predictions, and equation 4-5 was used as the basis for a predictive equation. However, Vollenweider's (1975) value of v = 10 m/yr was not used; it has been shown to be spurious (Kenney, 1982), and in Florida's shallow lakes, resuspension is as likely an occurrence as settling. Hence, equation 4-5 was used with v = 0, and the predictive equation is

$$[C] = aL^b q_s^{-c} \qquad (4\text{-}7)$$

where a, b and c are regression coefficients.

Table 4-12. Average Annual Land Surface Runoff from Florida Counties (Heath and Conover, 1981, p. 107).

AVERAGE RUNOFF FROM FLORIDA COUNTIES

RUNOFF = INCHES PER YEAR

OBS	COUNTY	RUNOFF
1	ALACHUA	12.5
2	BAKER	12.5
3	BAY	22.5
4	BRADFORD	22.5
5	BREVARD	15.0
6	BROWARD	7.5
7	CALHOUN	22.5
8	CITRUS	7.5
9	CLAY	12.5
10	COLLIER	7.5
11	COLUMBIA	22.5
12	DADE	7.5
13	DESOTO	12.5
14	DIXIE	12.5
15	ESCAMBIA	27.5
16	FLAGLER	12.5
17	FRANKLIN	22.5
18	GADSDEN	17.5
19	GLADES	7.5
20	GULF	22.5
21	HAMILTON	17.5
22	HARDEE	12.5
23	HENDRY	7.5
24	HERNANDO	20.0
25	HIGHLANDS	7.5
26	HILLSBOROUGH	12.5
27	HOLMES	22.5
28	INDIAN RIVER	17.5
29	JACKSON	22.5
30	JEFFERSON	12.5
31	LAFAYETTE	12.5
32	LAKE	12.5
33	LEE	7.5
34	LEON	12.5
35	LEVY	7.5
36	LIBERTY	22.5
37	MADISON	12.5
38	MANATEE	12.5
39	MARION	12.5
40	MARTIN	7.5
41	OKALOOSA	27.5
42	OKEECHOBEE	7.5
43	ORANGE	12.5
44	OSCEOLA	10.0
45	PALM BEACH	7.5
46	PASCO	20.0
47	PINELLAS	12.5
48	POLK	10.0
49	PUTNAM	12.5
50	SANTA FE	22.5
51	SARASOTA	12.5
52	SEMINOLE	12.5
53	SUMTER	7.5
54	SUWANNEE	12.5
55	TAYLOR	12.5
56	UNION	22.5
57	VOLUSIA	12.5
58	WAKULLA	17.5
59	WALTON	22.5
60	WASHINGTON	22.5

Logarithms were used in order to provide more spreading of the results for plotting purposes, because Baker et al. (1981) obtained their best predictive equations in this form and for reasons discussed further below. Lakes were first divided into the three categories, nitrogen limited (NPRATIO < 10), phosphorus limited (NPRATIO > 30), nutrient balanced ($10 \leq$ NPRATIO ≤ 30), and regressions then performed for each classification. Results for the six regressions are shown in Figures 4-3 through 4-8 and in Table 4-13.

Results generally show little correlation between predicted and measured concentrations, although it is considerably better for phosphorus than for nitrogen. Phosphorus limited and nutrient balanced categories show a significant correlation at the 5 percent level for phosphorus concentrations, although the highest fraction of variance accounted for by the regression (i.e., r^2) is only 12 percent. In contrast, the highest r^2 value for nitrogen is 4.2 percent for nutrient balanced lakes corresponding also to the lowest significance level, α = 7.2 percent (i.e., the regression is significant at the 10 percent level).

The regression results may be compared to those of Baker et al. (1981) in Table 4-14. The models of Baker et al. are based on a subset of the 40 National Eutrophication Survey (NES) lakes in Florida, and their model for phosphorus is appproximately the same as the nitrogen limited phosphorus model in Table 4-13. Baker et al. had an r^2 value of 0.77 for the 26 lakes they modeled, while the N-limited phosphorus model of Table 4-13 has an r^2 value of only 0.09. This may indicate that the additional variability introduced by extra lakes in this new regression increases the overall scatter of the data but not the fundamental regression line. The majority of the lakes in the NES were nitrogen limited.

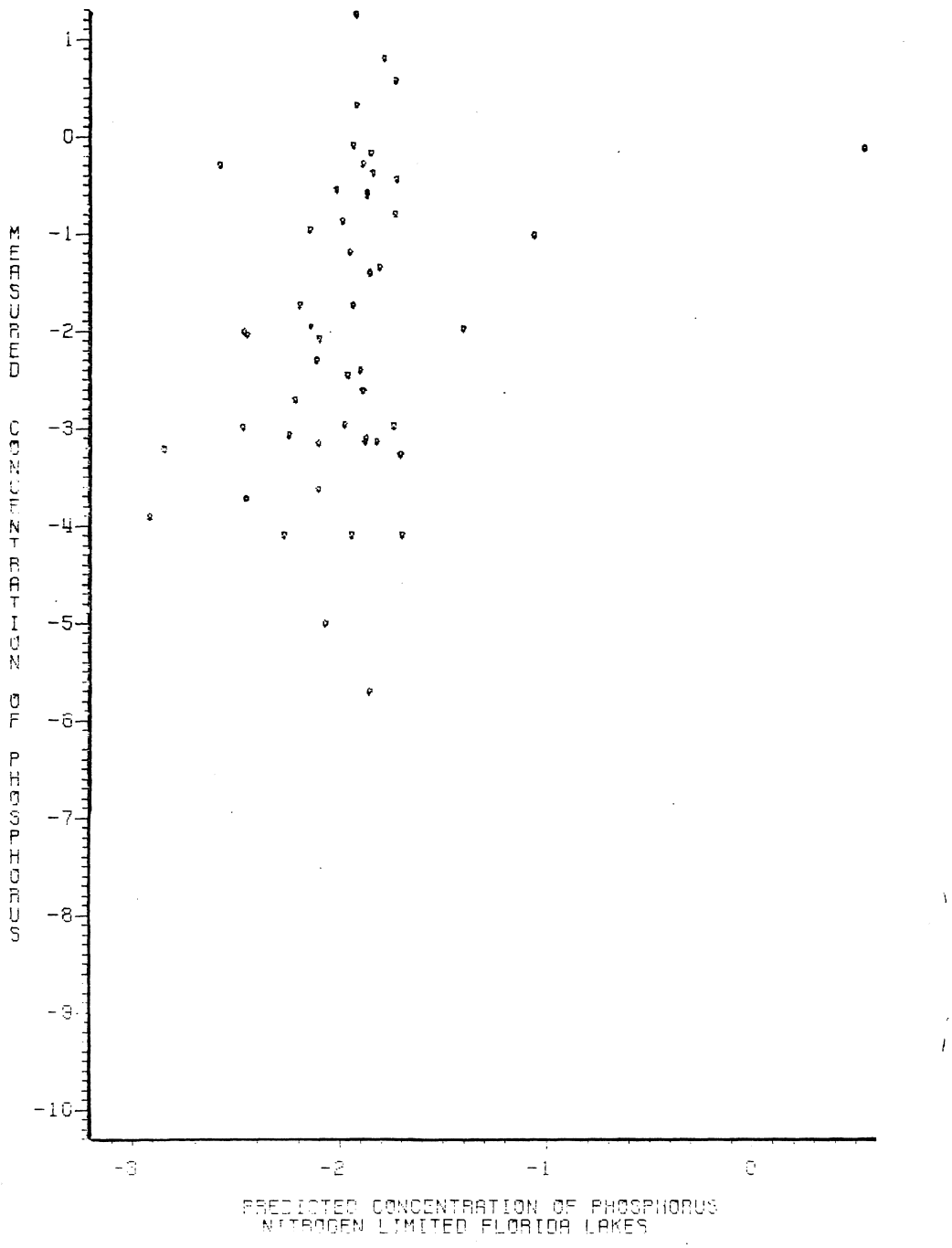


Figure 4-3. Predicted vs. Measured Phosphorus Concentrations. Nitrogen Limited Lakes.

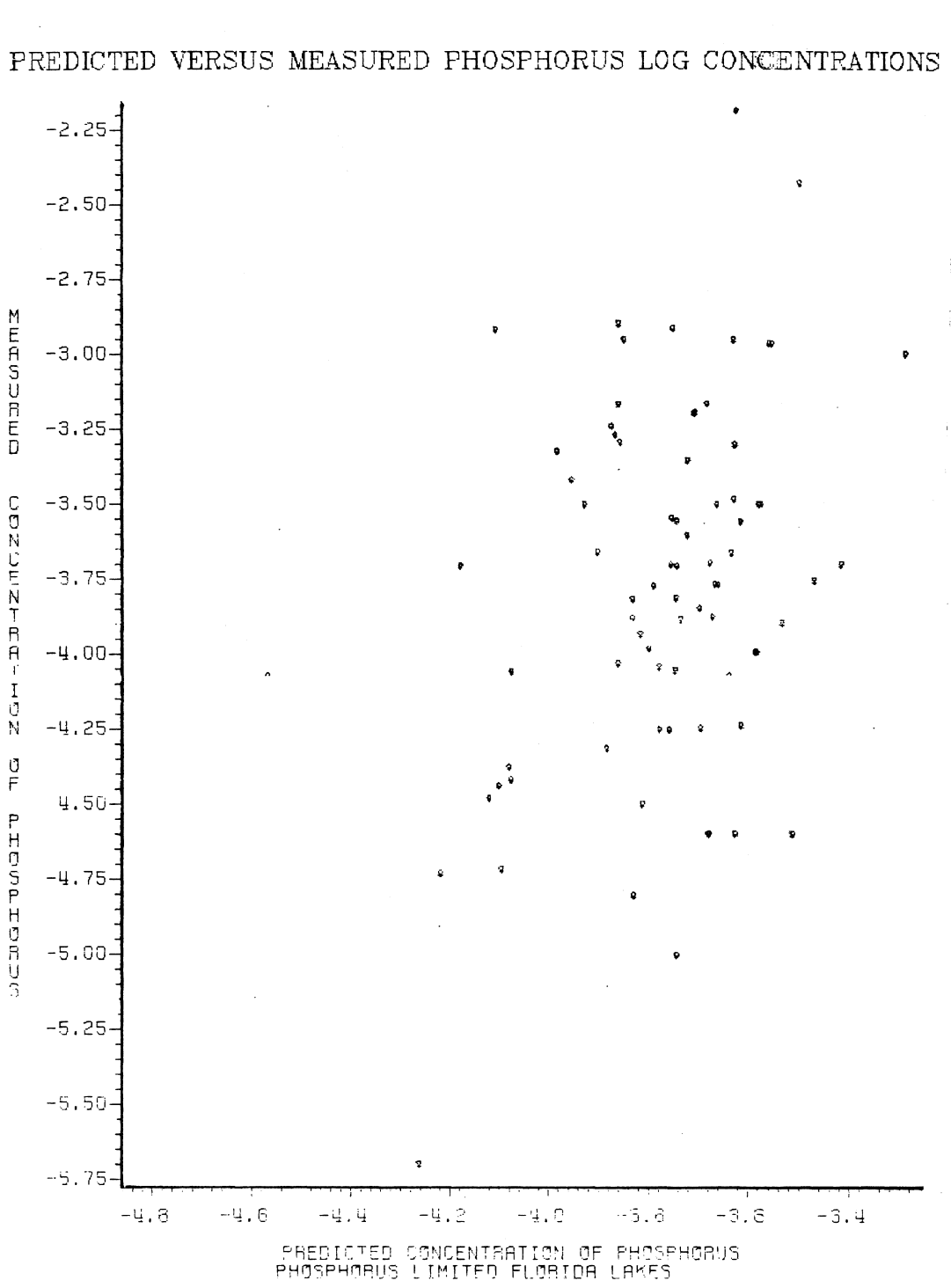


Figure 4-4. Predicted vs. Measured Phosphorus Concentrations. Phosphorus Limited Lakes.

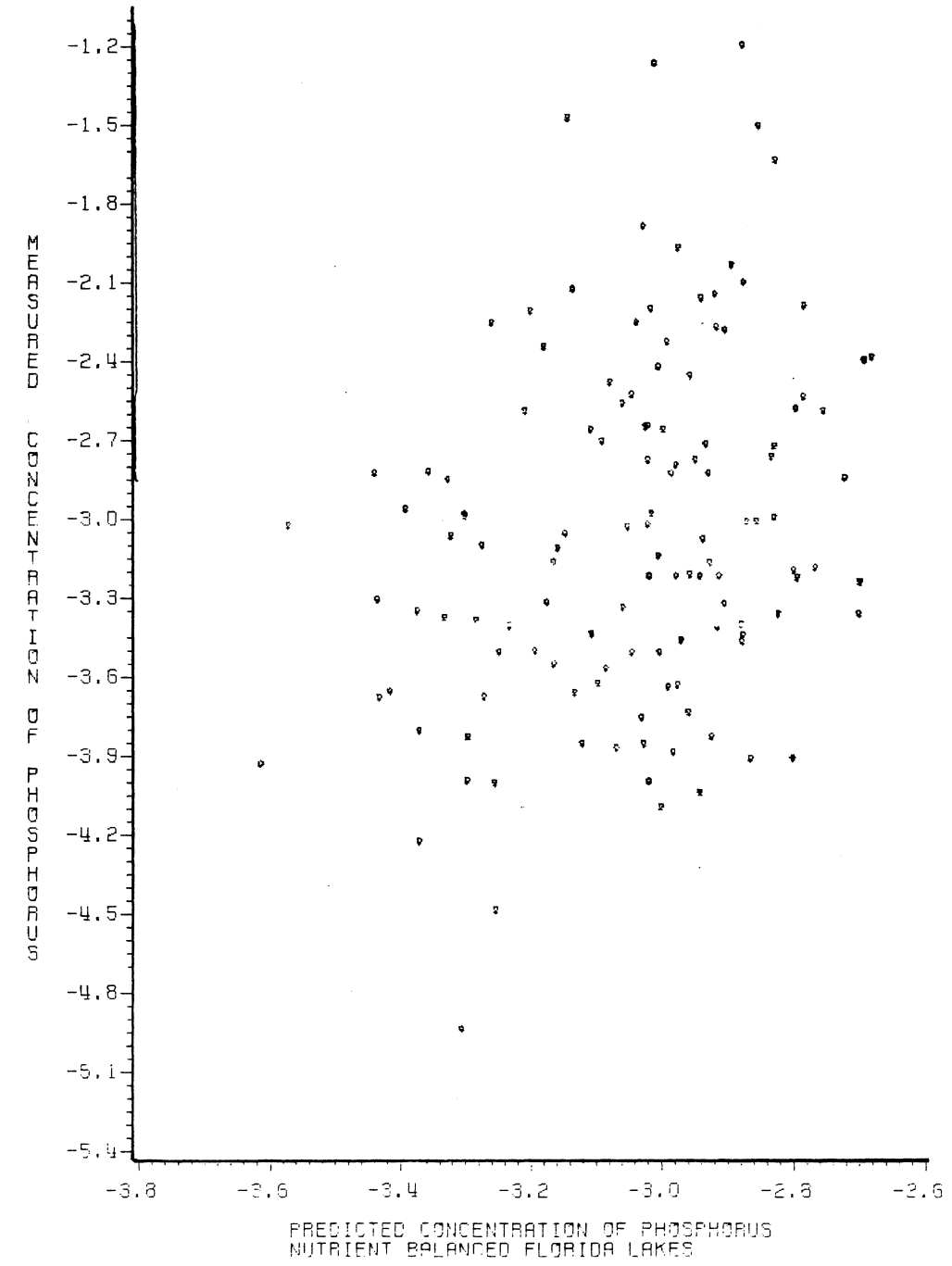


Figure 4-5. Predicted vs. Measured Phosphorus Concentrations. Nutrient Balanced Lakes.

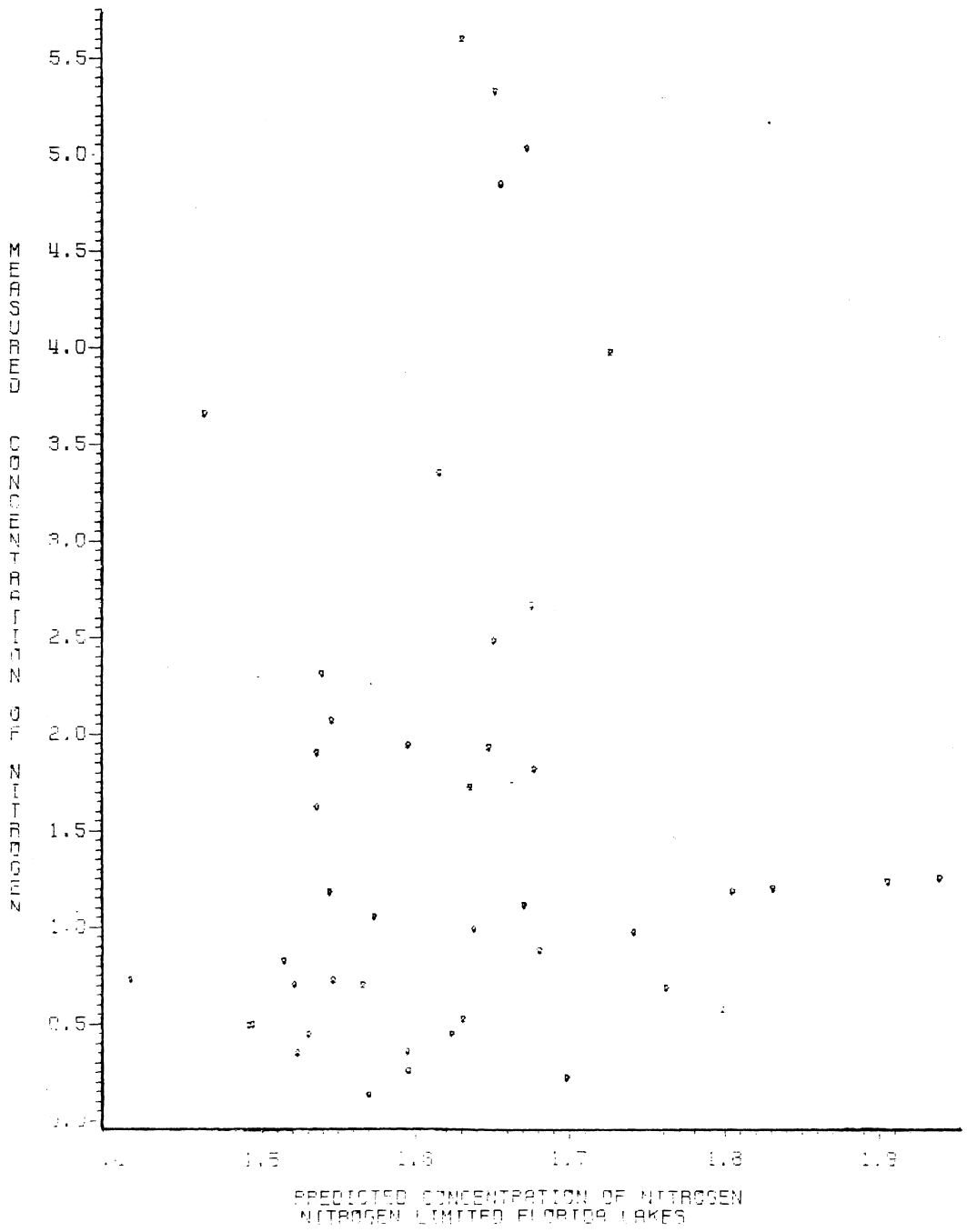


Figure 4-6. Predicted vs. Measured Nitrogen Concentrations. Nitrogen Limited Lakes.

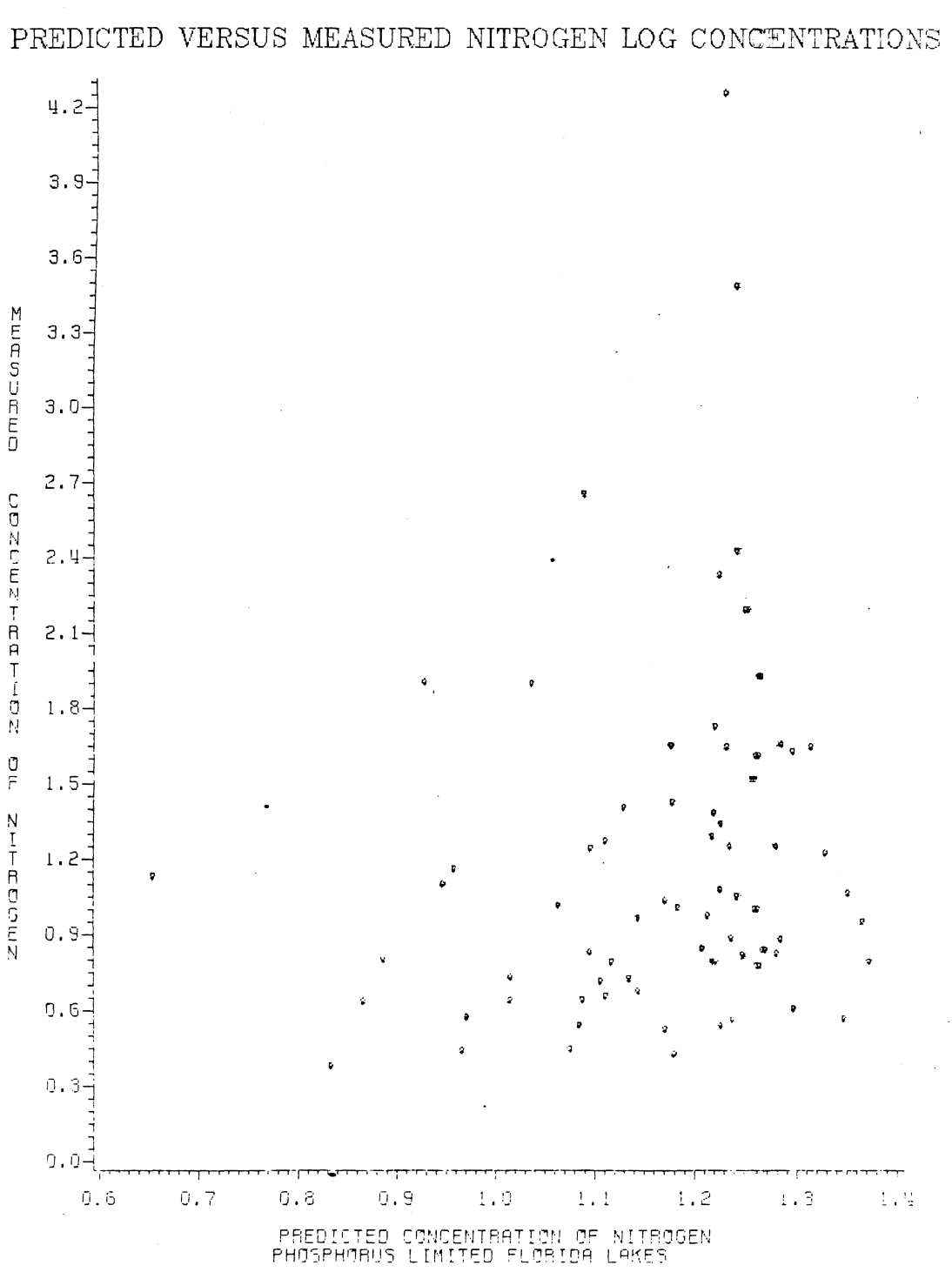


Figure 4-7. Predicted vs. Measured Nitrogen Concentrations. Phosphorus Limited Lakes.

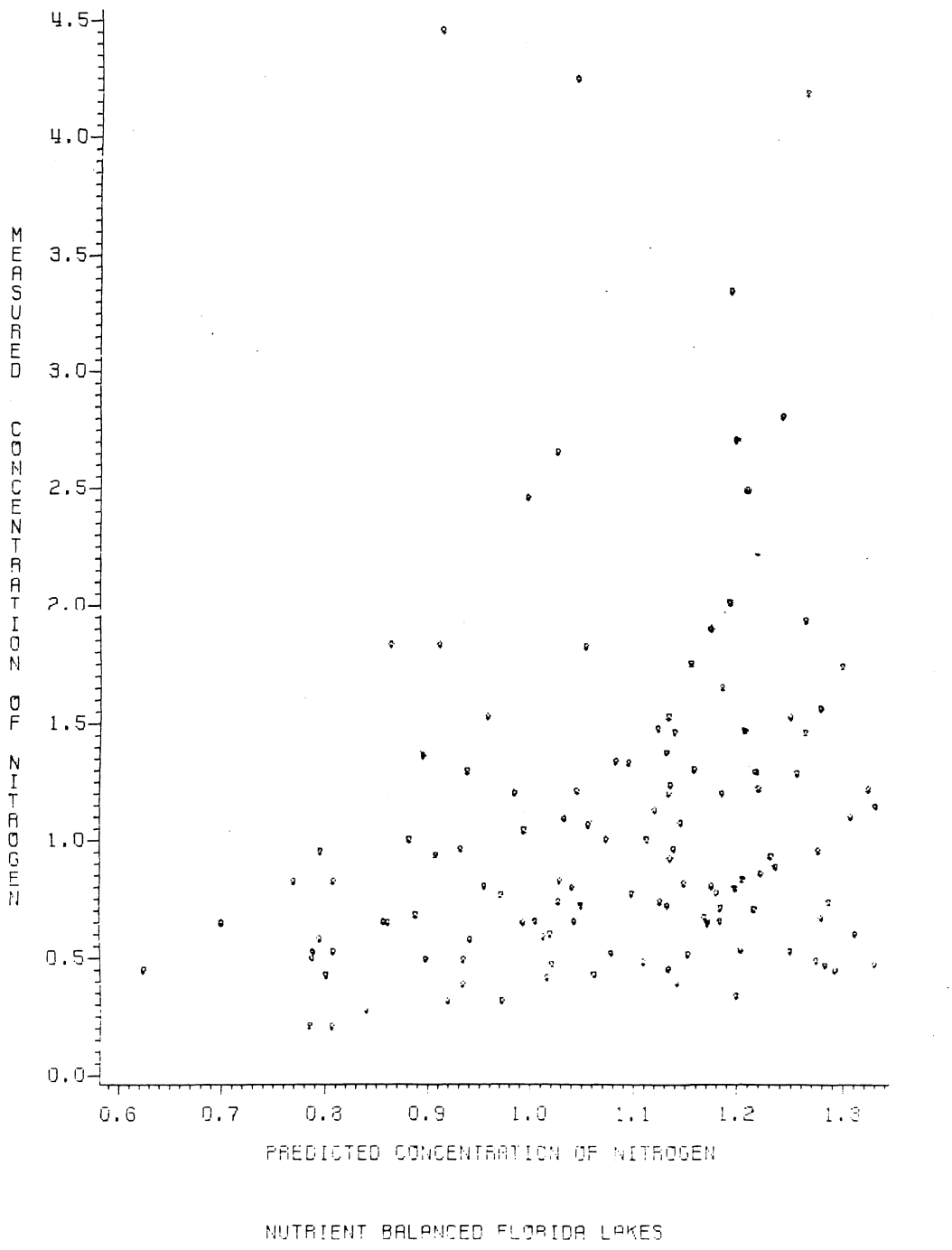


Figure 4-8. Predicted vs. Measured Nitrogen Concentrations. Nutrient Balanced Lakes.

Table 4-13. Regression Results (log-log) for Predicted Versus Measured Nitrogen and Phosphorus Concentrations.

Parameter	Type	No. Lakes	Coef. of Determination (r^2)	Significance Level (α)	Predictive Model
Phosphorus	Nitrogen Limited	50	0.0929	0.1011	$TP = .48\ L^{.80} / q_s^{.77}$
	Phosphorus Limited	73	0.1205	0.0112	$TP = .06\ L^{.65} / q_s^{.65}$
	Nutrient Balanced	125	0.0862	0.0041	$TP = .09\ L^{.46} / q_s^{.37}$
Nitrogen	Nitrogen Limited	44	0.0060	0.8840	$TN = 4.2\ L^{.07} / q_s^{.001}$
	Phosphorus Limited	73	0.0403	0.2367	$TN = 2.2\ L^{.29} / q_s^{.28}$
	Nutrient Balanced	125	0.0422	0.0719	$TN = 2.1\ L^{.22} / q_s^{.16}$

Table 4-14. Baker, Brezonik, and Kratzer(1981) Predictive Models for Total Phosphorus and Total Nitrogen.

Parameter	r^2	No. Lakes	Predictive Model
Phosphorus	0.77	26	$TP = .42\ (L/q_s)^{.87}$
Nitrogen	0.52	27	$TN = .84\ (L/q_s)^{.88}$

The functional form of the regression equation is different between Tables 4-13 and 4-14. In Table 4-13, the natural logs of both L, the nutrient load, and q_s, the areal runoff load, have been taken for the following reason. Since v=0 in the simple Vollenweider model for phosphorus, this results in the division of L by q_s. L and q_s both have lake surface area in the denominator thus canceling out the effect of lake surface area in the model. Basically what is left is a simple dilution model in which the total load in grams is divided by the average yearly runoff in m^3/yr. The effect of lake surface area is included in the results of Table 4-13 since different exponents are allowed for L and q_s in Equation 4-7.

Interestingly, the exponents for L and q_s are about the same for nitrogen and phosphorus limited lakes and slightly different for the nutrient balanced lakes. This may indicate that the model (equation 4-7) is indeed insensitive to varying lake surface areas and a simple dilution model best describes Florida lakes. However, when this was attempted as part of this classification study (results not shown), the results (i.e., r^2 values) were worse than those of Table 4-13.

While these results tend to be negative, they only illustrate that equation 4-7 cannot be used in its present form for prediction of N and P concentrations. A broader effort of the type performed by Baker et al. (1981) may be more successful, but the preliminary results of Figures 4-3 to 4-8 suggest that either the current theoretical basis is deficient or that parameters such as settling velocity, v, are highly lake specific. Clearly, much additional research is warranted in this area.

LAKE PHYSICAL CHARACTERISTICS

Physical characteristics of 174 lakes (area, volume, mean depth and detention time) are shown in Table 4-11. Most of this information is from lakes studied by Baker et al. (1981) and from the 96 lake USGS study (see Chapter 2). The detention times are calculated by $\tau = \bar{z}/q_s$ using the areal water loading rates, q_s, discussed earlier (equation 4-6). They range up to a high of 9.4 years (Lake Placid, Highlands County) although they are typically much lower. Future research is likely to incorporate more lake specific information, including a detailed water budget, into predictive efforts.

CHAPTER 5

PRIORITIES FOR RESTORATION

INTRODUCTION

Florida has a large number of recreationally important lakes, some of which are degraded or threatened. In addition to identifying and classifying lakes according to trophic state, the EPA Clean Lakes Program requested that states establish a priority ranking for lakes needing restoration. To date, restoration has been attempted on an ad hoc basis for the lakes listed in Table 5-1, but there is no state-wide plan for such activities, nor is there one source for information on restoration activities. (Hence, Table 5-1 does not represent a comprehensive list.) This chapter focuses on the need for planning and uses results from previous chapters and new material.

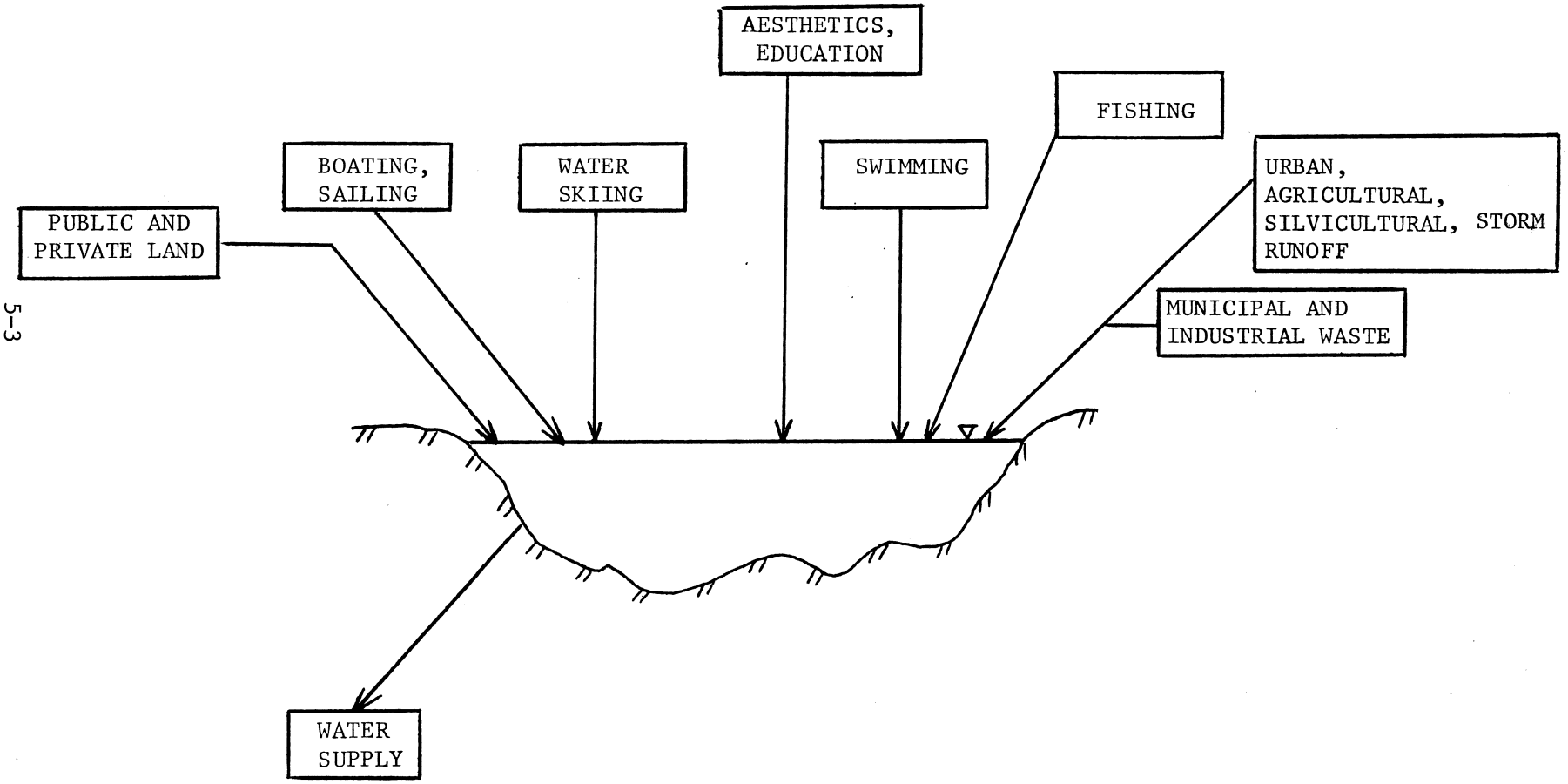
CULTURAL INTERACTIONS WITH LAKES

The general nature and importance of physical, chemical and biological factors that affect lake water quality have been discussed in Chapter 3. In addition, most lakes are affected by the human populations in their watersheds in many ways, some of which are indicated in Figure 5-1. The main interactions included in this scheme involve industrial and utility processes, agricultural and forestry use, drinking water use, waste water disposal, private use of shorelines, commercial and recreational fishing, boating, water contact sports, and aesthetic enjoyment of lakes. This information needs to be brought together in an organized manner to establish lake restoration priorities. The schemes used by other states are discussed in the next section.

Table 5-1. Lakes Subject to Prior Restoration Efforts. Updated from Dunst et al. (1974).

County	Lake
Alachua	Alice
Brevard	South
Gadsen	Talquin
Lake	Griffin
	Trout
Leon	Jackson
Orange	Apopka
	Carlton
	Eola
	Osceola
Osceola	Tohopekaliga
Pinellas	Sawgrass
Polk	Beulah
	Hollingsworth
	Little Lake Tangerine

Figure 5-1. Interactions of Lakes with Cultural Factors



LAKE PRIORITIZATION SCHEMES FOR OTHER STATES

Table 5-2 summarizes prioritization schemes and indices used by other states as compiled from a literature review of their classification reports. The table attempts to group similar types of measures (e.g., total nitrogen, organic nitrogen) whenever possible and singles out as different those which measure substantially different aspects. The states are organized along the horizontal axis while parameters used in prioritization schemes are arranged along the vertical axis. As can be expected, all states use some indication of trophic state, but more scatter exists in the parameters used to identify causes of eutrophication, the potential for managing these causes, and the effects of eutrophication on the population.

Various procedures also are used to integrate these measures. Ranking and point systems seem to be widely used in the subsections of the indices. Summation of the various sections (with some sort of weighting criteria built in to each subsection) to form an overall index or categorization of lake types is also common.

RESTORATION AND MANAGEMENT TECHNIQUES

A summary of potential restoration and management techniques is presented in Table 5-3 (EPA, 1980). Not all methods are useful for all problems, and costs vary widely. Nonetheless, the list represents most applicable methods developed to date and contains comments about them. In most instances, source control is applied as a first step, followed by in-lake treatment as a second step.

Table 5-2. Parameters Used by Other States in Management/Restoration Schemes.

PARAMETER \ STATE	CONNECTICUT	DELAWARE	ILLINOIS	IOWA	MAINE	MASSACHUSETTS	NEW HAMPSHIRE	PENNSYLVANIA	SOUTH DAKOTA	TENNESSEE	WISCONSIN
PHOSPHORUS	X	X		X	X	X		X	X	X	
NITROGEN	X	X				X		X		X	
CHLOROPHYLL a	X	X	X	X	X	X	X	X	X	X	
SECCHI DEPTH	X	X	X	X	X	X	X	X	X	X	X
MACROPHYTES			X			X	X				X
OXYGEN						X		X			X
SUSPENDED SOLIDS				X							
WATER QUALITY DEGRADATION										X	
LAKE CONDITION			X								
FISH KILLS				X							X
MORPHOMETRIC PARAMETER								X			X
LAKE AREA			X								X
BASIN AREA	X		X					X			
BASIN AREA/LAKE AREA RATIO	X			X				X			
MAX, MEAN DEPTH	X		X	X							X
VOLUME			X								
WATERSHED SLOPE								X			
SEDIMENTATION RATE/ SILTATION INDEX									X		
IDENTIFIABLE/DIVERTABLE POINT SOURCE				X							
LAND USE TYPE			X								
CULTURAL STRESS											
PRESERVATION NEED											
OWNERSHIP STATUS									X		
PUBLIC INTEREST	X	X						X		X	
AVAILABLE MONEY		X									
COMMITMENT	X						X	X		X	
ALTERNATIVE PUBLIC LAKES IN THE VICINITY								X			
RESTORATION FEASIBILITY											
ACCESS							X				
FISHING, WILDLIFE & BOATING										X	
FISHING MAN DAYS		X									
BOAT RAMP		X									
PICNIC & CAMPING FACILITIES		X									
RECREATIONAL OPPORTUNITIES	X										
USE ACTIVITIES OR BENEFICIAL USE			X	X			X	X	X		
USE RESTRICTIONS								X			
DRINKING WATER USE			X							X	

Table 5-3. Lake Restoration Techniques.

Method	Comments
1. Point Source Treatment or Diversion.	Reduces loadings. May simply relocate the problem.
2. Product Modification.	Reduces loadings. May have negative economic effects.
3. Non-point Source Management or Diversion.	Same as 1.
4. Dredging.	Effective against benthal deposits. May alter geometry and turbidity.
5. Nutrient Inactivation.	May require addition of other chemicals.
6. Bottom Sealing.	Benefit may be temporary.
7. Dilution-Flushing.	Flow may be unavailable and may cause downstream problems.
8. Circulation-Aeration.	Effective mainly in deep lakes. Large energy input.
9. Sediment Exposure and Dessication	Lake drawdown can be controversial. Has good but temporary effect on nutrient-sediment exchange.
10. Mechanical Harvesting.	Expensive but environmentally sound.
11. Chemical Control.	Cheaper but leaves residue of plants and chemicals.
12. Biological Control.	Unsuccessful on a large scale for most plants.

POSSIBLE PRIORITIZATION CRITERIA

The many factors that can enter a prioritization scheme are summarized in Table 5-4. They are grouped into broad categories; their order is of no special significance. Of all the possibilities, timely data for Florida are available for only a very few factors, i.e., recreation and public use, drinking water, professional interest, fish kills, trophic state index, nutrient loadings, and only these will be discussed individually below, followed by discussion of possible prioritization schemes.

RECREATION AND PUBLIC USE

Recreational Use

Recreational use is an important aspect of Florida lakes, especially because of the 33 million tourists who bring approximately 16 billion dollars yearly (Thompson, 1981) to the state. A considerable amount of information is available from state agencies and in various reports to assess the recreational importance of individual lakes and Florida lakes as a group. Table 5-5 reflects estimated user occasions for freshwater activities compiled through survey data from the Department of Natural Resources (DNR, 1981). The user occasions were estimated from surveys of 11,300 Florida residents, and 6,000 tourists leaving the state at four major highways and six major airports. A user-occasion is the number of times an individual participates in a given activity.

The user occasion data are available for the eleven DNR planning regions shown in Figure 5-2 for each of the 26 activities listed in Table 5-5 (DNR, 1981). Four activities relate particularly to Florida lake usage: freshwater swimming,

Table 5-4. Possible Prioritization Criteria.

CRITERIA

1. Recreational Importance

   Area/population
   Location in park
   Degree of public access
   User days
   Type of use

2. Public Interest

   News citations
   Local interest groups
   Fish management area
   Complaints to officials
   Environmental organizations

3. Water Quality Criteria
   Eutrophication

   TSI
   P
   N
   SD
   Chl *a*
   Macrophytes
   DO

   Public Health

   T Colif.
   F Colif.
   Niglarra

   Drinking Water

   Class IA lakes (12-15)

   Acid Rain Potential

   Alkalinity

   Other Chemical

   Other Biological

   Blue-green algae

CRITERIA (Cont'd)

4. Professional Interest

   Literature citations
   Reports

5. Impaired Beneficial Use

   Macrophytes
   Fish kills
   Drinking water
   Public health
   Decreased fishing
   Beach closings
   Economic value

6. Limnological Characteristics

   Mean depth
   Maximum depth
   Volume
   Area
   Littoral zone
   Residence time
   Drainage area: Lake area
   Sediment composition
   -degree of consolidation
   -sedimentation rate
   -
   -
   Seepage

7. Watershed Characteristics

   Land use
   Soils
   Drainage Area
   Population
   Loadings
    Point
    Nonpoint
    Atmospheric
   Growth trends

8. Restoration Cost-Benefit

   Cost = f(method)
   Benefits = f(impaired use)

9. Likelihood of Success

Table 5-5 . Annual Statewide Demand in Selected Outdoor Recreation Activities-1979.

Rank	Activity	Resident & Tourist User-Occasions (Thousands)	Percent of Total	Resident User-Occasions (Thousands)	Resident Per-Capita Participation Rate[1]	Percent of Residents that Participated[2]	Tourist User-Occasions (Thousands)	Tourist Per-Capita Participation Rate[1]	Percent of Tourists that Participated[2]
1	Saltwater Beach Activities	115,341	24.1	28,127	2.37	70.9	87,214	2.11	86.2
2	Outdoor Swimming Pool Use	78,029	16.3	15,665	1.47	35.6	62,364	1.38	55.1
3	Bicycle Riding	48,251	10.1	29,115	2.58	38.9	19,136	.46	6.3
4	Camping - RV/Trailer	40,454	8.5	1,905	.24	16.7	38,549	.93	26.7
5	Golf	18,811	3.9	7,188	.76	17.3	11,623	.26	11.3
6	Picnicking	18,334	3.8	8,853	.78	59.0	9,481	.21	21.7
7	Tennis	15,577	3.3	9,049	.72	20.8	6,528	.14	7.8
8	Visiting Arch/Hist Sites	14,735	3.1	2,860	.26	41.0	11,875	.33	39.0
9	Freshwater Swimming (non-pool)	13,996	3.0	6,281	.98	34.2	7,715	.14	8.6
10	Saltwater Fishing (non-boat)	13,037	2.7	4,988	.56	32.6	8,049	.20	10.5
11	Hiking	12,043	2.5	3,482	.47	26.8	8,561	.21	7.3
12	Outdoor Shuffleboard	11,191	2.3	1,142	.10	7.5	10,049	.26	9.4
13	Nature Study	11,163	2.3	3,513	.41	27.8	7,650	.18	16.8
14	Saltwater Fishing (boat)	10,901	2.3	5,918	.62	36.0	4,983	.13	9.2
15	Hunting	7,625	1.6	7,625	.85	4.5	n/a	n/a	n/a
16	Freshwater Fishing (boat)	7,028	1.5	3,811	.72	30.9	3,217	.08	2.9
17	Baseball/Softball	6,178	1.3	5,793	.59	16.4	385	.01	.7
18	Boat Ramp Use - Saltwater	5,730	1.2	3,690	.35	23.3	2,040	.05	3.9
19	Freshwater Fishing (non-boat)	5,241	1.1	2,988	.56	29.2	2,253	.05	3.5
20	Football/Soccer/Rugby	4,984	1.0	4,693	.28	8.8	291	.00	.4
21	Outdoor Basketball	4,612	1.0	4,081	.42	11.1	531	.01	.7
22	Boat Ramp Use - Freshwater	4,487	0.9	2,726	.50	26.1	1,761	.03	2.2
23	Camping - Tent	3,880	0.8	1,085	.15	15.6	2,795	.07	4.4
24	Horseback Riding	2,207	0.5	1,977	.20	9.3	230	.01	.6
25	Outdoor Handball/Racquetball	2,172	0.5	1,942	.12	6.4	230	.00	.2
26	Canoeing	1,947	0.4	1,161	.15	15.7	786	.02	1.5
	Totals	477,954		169,658	17.21		308,296	7.27	

Notes:

[1] The per-capita participation rates equal the number of times each individual, on the average, participates in an activity. Some participate considerably more often, some none at all, but the P.C.P.R. is an average of all residents or tourists.

[2] The percent of people who participated columns can be utilized to determine how many "different individuals" participated in each activity, to be distinguished from user-occasions.



Figure 5-2. Planning Regions Used in Florida Department of Natural Resources Survey of User Occassions (DNR, 1981).

freshwater fishing (non-boat), freshwater fishing (boat) and canoeing. User occasions for these activities reflect use of streams and rivers as well as lakes, but for purposes of this classification they will be applied only to the lakes. The first two activities are assumed to be related to the length of a lake's perimeter, the latter two to a lake's area. Hence, a rough apportionment of lake usage within each of the eleven regions may be performed as follows for lakes in the Florida Lakes Data Base (FLADAB) for which area is known.

Swimming and non-boat fishing user occasions are apportioned by

$$U1_i = U1_r \frac{C_i}{C_r} \tag{5-1}$$

where $U1_i$ = number of swimming and non-boat fishing user occassions for lake i,

$U1_r$ = number of user occassions in region r,

C_i = circumference of lake i = $\pi \cdot \sqrt{4\ A_i/\pi}$,

A_i = area of lake i, and

C_r = sum of lake circumferences in region r.

Boat fishing and canoeing user occassions are appointed by

$$U2_i = U2_r \frac{A_i}{A_r} \tag{5-2}$$

where $U2_i$ = number of boat fishing and canoeing user occassions for lake i,

$U2_r$ = number of user occassions in region r,

A_i = area of lake i, and

A_r = total area of lakes in region r.

Finally, total user occassions for lake i are computed as

$$U3_i = U1_i + U2_i \tag{5-3}$$

Results are shown in Table 5-6, ranked by the total number of user occassions, U3. Lakes near the top of list tend to be large, e.g., Okeechobee, George and/or be located near large population areas, e.g., Blue Lagoon in Dade County, one of the urban lakes sampled as part of this lake classification project. (All of the high ranking Dade County lakes fall in this category, even though they may in fact be little used for the activities listed above.) Hence, the table must be interpreted cautiously on a statewide basis although relative rankings of lakes within a region may be reasonable.

State-owned properties controlled by the DNR that have lakes larger than one acre are listed in Table 5-7 along with information on the number of lakes included on the properties, yearly attendance figures for 1979 and 1980, and major lakes and their facilities inside selected parks. These data can be an indication of recreational importance of various lakes.

The Florida Game and Fresh Water Commission (FGFWFC) has recognized 20 individual lakes, plus the Winter Haven chain of lakes, Everglades Conservation Areas and various river systems as "Top Freshwater Fishing Locations" (see Figure 5-3). The FGFWFC has established 52 fish management areas (see Figure 5-4) comprising 80,000 acres, where it maintains boat ramps and manages fish and aquatic weeds. This agency also maintains Wildlife Management Areas, some featuring relatively important lakes such as Butler (Union County), Lochloosa (Alachua County), Talquin (Gadsen County) and three lakes in

Table 5-6. Lakes Ranked by Number of User Occasions (U3). See last page for legend.

OBS	LAKE	COUNTY	RANKUSE	RUSEROC	U3	RUCAREA	U2	RUCCIRC	U1	LARGCIRC	SA
152	BLUE LAGOON	DADE	1	1	1743074	0.996928	659579	1	1083495	11929.9	260
153	GEORGE	PUTNAM	2.0	0.998464	1627079	1.00000	1157122	0.996928	469957	158682	46000
154	OKEECHOBEE	OKEECHOBEE	3.0	0.996928	1384325	0.99846	1145443	0.998639	238882	488831	436000
155	BLUE CYPRESS	INDIAN RIVER	4.0	0.995392	1368449	0.99539	532499	0.998464	835949	89750	6822
156	DEER POINT	BAY	5.0	0.993856	720729	0.98618	346595	0.995392	374134	52316	5000
157	CRESCENT	FLAGLER	6.0	0.992319	676290	0.99078	401471	0.990783	276819	93468	18960
158	KISSIMMEE	OSCEOLA	7.0	0.990783	670250	0.99386	477840	0.973886	192410	137939	34760
159	TSALA APOPKA	CITRUS	8.0	0.989247	613750	0.98925	397204	0.981567	216547	102280	19111
160	APOPKA	ORANGE	9.0	0.987711	602368	0.99232	421629	0.972350	180739	129572	30671
161	TARPON	PINELLAS	10.0	0.986175	462047	0.98771	356451	0.950845	105596	37244	2534
162	SEMINOLE	JACKSON	11.0	0.984639	411106	0.98464	300383	0.955453	110723	143273	37500
163	TOHOPEKALIGA	OSCEOLA	12.0	0.983103	399768	0.98310	258303	0.967742	141465	101417	18790
164	HARRIS	LAKE	13.0	0.981567	379739	0.98157	242632	0.966206	137107	98293	17650
165	BAMBI	DADE	14.5	0.979263	351244	0.92704	50737	0.993088	300508	3309	20
166	SKY	DADE	14.5	0.979263	351244	0.92704	50737	0.993088	300508	3309	20
167	LAURENCE EAST	DADE	16.0	0.976959	309372	0.90783	40589	0.989247	268782	2959	16
168	TRAFFORD	COLLIER	17.0	0.975422	297078	0.97696	131241	0.970814	165837	28911	1465
169	HENRY	DADE	18.0	0.973886	286938	0.90015	35516	0.987711	251423	2766	14
170	EAST TOHOPEKALIGA	OSCEOLA	19.0	0.972350	277091	0.98003	164275	0.956989	112816	80878	11950
171	SOUTH BASS	DADE	20.0	0.970814	275256	0.89401	32979	0.986175	242277	2668	13
172	MYRTLE	DADE	21.0	0.969278	263214	0.88479	30442	0.983103	232772	2563	12
173	GRIFFIN	LAKE	22.0	0.967742	253094	0.97849	146541	0.952381	106553	76388	10660
174	CLEAR	PALM BEACH	23.0	0.966206	240022	0.89247	32740	0.976959	207282	14816	401
175	WEIR	MARION	24.0	0.964670	238599	0.97389	119716	0.958525	118883	56151	5760
176	TIGERTAIL	BROWARD	25.5	0.963366	237859	0.86406	25368	0.979263	212491	2340	10
177	CATALINA	DADE	25.5	0.963366	237859	0.86406	25368	0.979263	212491	2340	10
178	MONROE	VOLUSIA	27.0	0.960061	229392	0.97542	129303	0.946237	100090	71755	9406
179	OSBORNE	PALM BEACH	28.0	0.958525	224372	0.87865	29066	0.975422	195306	13960	356
180	UPPER MYAKKA	SARASOTA	29.0	0.956989	213906	0.95392	82456	0.961598	131449	22599	933
181	DOCTORS	CLAY	30.0	0.955453	213161	0.95699	85451	0.960061	127711	43122	3397
182	PANASOFFKEE	SUMTER	31.0	0.953917	208962	0.96621	100200	0.953917	108762	51371	4821
183	EUSTIS	LAKE	32.0	0.952381	198488	0.97081	107308	0.938556	91180	65368	7806
184	JESSUP	SEMINOLE	33.0	0.950845	198214	0.96928	107115	0.937020	91099	65309	7792
185	KERR	MARION	34.0	0.949309	198088	0.96160	93196	0.949309	104892	49543	4484
186	JUNIPER	WALTON	35.0	0.947773	183399	0.92012	46444	0.964670	136956	19151	670
187	POWELL	BAY	36.0	0.946237	181163	0.91705	45543	0.963134	135621	18964	657
188	HATCHINEHA	OSCEOLA	37.0	0.944700	175294	0.96006	91224	0.932412	84070	60270	6636
189	THONOTOSASSA	HILLSBOROUGH	38.0	0.943164	175239	0.97235	115206	0.904762	60032	21173	819
190	ROUSSEAU	LEVY	39.0	0.941628	170734	0.95084	76007	0.944700	94727	44742	3657
191	CONLIN	OSCEOLA	40.0	0.940092	168134	0.95853	86344	0.929339	81790	58636	6281
192	HARNEY	VOLUSIA	41.0	0.938556	163603	0.95545	83278	0.927803	80325	57586	6058
193	LOUISE	DADE	42.0	0.937020	162938	0.78187	12684	0.969278	150254	1654	5
194	MARIAN	OSCEOLA	43.0	0.935484	156828	0.95238	78728	0.923195	78100	55990	5727
195	LOWER MYAKKA	SARASOTA	44.0	0.933948	155965	0.92934	51789	0.947773	104176	17910	586
196	CREWS	PASCO	45.0	0.932412	152704	0.96467	97482	0.858618	55222	19477	693
197	SEMINOLE	PINELLAS	46.0	0.930876	151078	0.96313	96216	0.895545	54862	19350	684
198	ORANGE	ALACHUA	47.0	0.929339	147667	0.96774	105764	0.849462	41904	84874	13160
199	DISSTON	FLAGLER	48.0	0.927803	140479	0.91859	46386	0.943164	94093	31771	1844
200	OCEAN POND	BAKER	49.0	0.926267	137886	0.91398	45103	0.941628	92783	31328	1793
201	GENEVA	CLAY	50.0	0.924731	135479	0.91244	43920	0.940092	91559	30915	1746
202	ISTOKPOGA	HIGHLANDS	51.0	0.923195	132241	0.94777	72247	0.903226	59994	122692	27500
203	DORA	LAKE	52.0	0.921659	129738	0.94316	60995	0.917051	68744	49263	4437
204	KINGSLEY	CLAY	53.0	0.920123	129311	0.90937	40927	0.935484	88384	29843	1627
205	POINSETT	BREVARD	54.0	0.918587	126634	0.94009	59015	0.915515	67619	48476	4293
206	TALQUIN	GADSDEN	55.0	0.917051	124679	0.94624	70890	0.892473	53789	69602	8850
207	CYPRESS	OSCEOLA	56.0	0.915515	122378	0.93856	56321	0.913978	66057	47357	4097
208	YALE	LAKE	57.0	0.913978	120915	0.93702	55400	0.910906	65515	46968	4030
209	HANCOCK	PASCO	58.0	0.912442	120795	0.94931	73006	0.875576	47789	16855	519
210	LITTLE LAKE GEORGE	PUTNAM	59.0	0.910906	118073	0.90169	35619	0.930876	82454	27841	1416
211	LOUISA	LAKE	60.0	0.909370	112748	0.92320	50313	0.907834	62435	44760	3660
212	LOWERY	CLAY	61.0	0.907834	108914	0.88633	31444	0.921659	77470	26158	1250
213	ALLIGATOR	OSCEOLA	62.0	0.906298	106938	0.92166	46753	0.906298	60185	43147	3401
214	LOCHLOOSA	ALACHUA	63.0	0.904762	104950	0.94470	70723	0.815668	34266	69405	8800
215	RIVER POND	BAY	64.0	0.903226	103339	0.83871	18023	0.933948	85316	11930	260
216	HICPOCHEE	GLADES	65.0	0.901690	101051	0.87250	26513	0.920123	74538	12815	300
217	MICCOSUKEE	JEFFERSON	66.0	0.900154	95987	0.92473	50560	0.872504	45426	58780	6312
218	KEYSTONE	HILLSBOROUGH	67.5	0.897849	95899	0.93472	54579	0.847158	41320	14574	388
219	KEYSTONE	HILLSBOROUGH	67.5	0.897849	95899	0.93472	54579	0.847158	41320	14574	388
220	MAGGIORE	PINELLAS	69.0	0.895545	94345	0.93241	53454	0.843318	40892	14422	380
221	MERIAL	BAY	70.0	0.894009	93977	0.81567	15319	0.926267	78657	10999	221
222	WESTERN	WALTON	71.0	0.892473	93729	0.81260	15250	0.924731	78479	10974	220
223	PASADENA	PASCO	72.0	0.890937	92982	0.93088	52469	0.841782	40513	14289	373
224	LITTLE LAKE HARRIS	LAKE	73.0	0.889401	91664	0.90630	37653	0.894009	54011	38721	2739
225	NEWNANS	ALACHUA	74.0	0.887865	90386	0.94163	59070	0.800307	31316	63430	7350
226	WASHINGTON	BREVARD	75.0	0.886329	89912	0.90476	36635	0.890937	53276	38194	2665
227	IAMONIA	LEON	76.0	0.884793	88590	0.91551	45498	0.855607	43092	55760	5680
228	SMITH	CLAY	77.0	0.883256	88066	0.85407	22514	0.912442	65553	22134	895

Table 5-6. (Continued)

OBS	LAKE	COUNTY	RANKUSE	RUSERCC	U3	RUCAREA	U2	RUCCIRC	U1	LARSCIRC	SA
229	JOHNS	ORANGE	78.0	0.881720	83817.7	0.897081	33143.6	0.883256	50674.0	36328.5	2411.00
230	MINNEHAHA	LAKE	79.0	0.880184	83793.4	0.895545	33129.9	0.881720	50663.5	36321.0	2410.00
231	GEORGES	PUTNAM	80.0	0.878648	83119.1	0.846390	20526.3	0.909370	62592.7	21134.6	816.00
232	WHITE WESTERN	BAY	81.0	0.877112	82662.4	0.778802	12269.5	0.918587	70393.0	9843.2	177.00
233	BRYANT	MARION	82.0	0.875576	81790.5	0.869432	26187.9	0.900154	55602.6	26262.4	1260.00
234	WOODRUFF	VOLUSIA	83.0	0.874040	78648.9	0.881720	30243.0	0.878648	48405.9	34702.4	2200.00
235	SELLERS	MARION	84.0	0.872504	72581.2	0.850998	21823.2	0.884793	50758.0	23974.2	1050.00
236	BROOKLYN	CLAY	85.0	0.870968	71189.4	0.820276	15973.3	0.897081	55216.1	18643.8	635.00
237	DEXTER	VOLUSIA	86.0	0.869432	71154.7	0.867896	26146.5	0.870968	45008.3	32266.7	1902.00
238	MINNEOLA	LAKE	87.0	0.867896	70796.3	0.866359	25954.0	0.869432	44842.3	32147.7	1888.00
239	HART	ORANGE	88.0	0.866359	69588.6	0.861751	25307.9	0.866359	44280.6	31745.0	1841.00
240	SANTA FE	ALACHUA	89.0	0.864823	69177.0	0.910906	42586.8	0.757296	26590.2	53857.4	5299.00
241	OKAHUMPKA	SUMTER	90.0	0.863287	69084.3	0.844854	20222.9	0.880184	48861.4	23078.4	973.00
242	WIMICO	GULF	91.0	0.861751	68891.1	0.889401	32481.4	0.832565	36409.7	47113.4	4055.00
243	GENTRY	OSCEOLA	92.0	0.860215	68451.3	0.860215	24703.1	0.858679	43748.3	31363.4	1797.00
244	JACKSON	LEON	93.0	0.858679	68215.3	0.887865	32048.9	0.831029	36166.4	46798.6	4001.00
245	COWPEN	PUTNAM	94.0	0.857143	67642.8	0.804915	14690.4	0.889401	52952.4	17879.5	584.00
246	DORR	LAKE	95.0	0.855607	66235.7	0.858679	23534.6	0.852535	42701.1	30612.6	1712.00
247	SWAN	PUTNAM	96.0	0.854071	65510.1	0.797235	13935.8	0.866359	51574.3	17414.2	554.00
248	BUTLER	ORANGE	97.0	0.852535	64999.3	0.857143	22888.5	0.850998	42110.9	30189.5	1665.00
249	MAGDALENE	HILLSBOROUGH	98.0	0.850998	64586.1	0.890937	32634.8	0.804915	31951.3	11269.2	232.00
250	DEAD	GULF	99.0	0.849462	63844.6	0.880184	29277.3	0.821813	34567.2	44729.3	3655.00
251	CLARKE	PALM BEACH	100.0	0.847926	62157.3	0.500768	2694.3	0.901690	59463.0	4250.2	33.00
252	LEVY	ALACHUA	101.0	0.846390	61271.1	0.903226	36615.5	0.743472	24655.7	49939.1	4556.00
253	MIDDLE	PASCO	102.0	0.844854	61001.8	0.883256	30243.4	0.795699	30758.4	10848.5	215.00
254	MIONA	SUMTER	103.0	0.843318	60932.4	0.826421	16627.2	0.867896	44305.2	20926.4	800.00
255	WINDER	BREVARD	104.0	0.841782	60481.8	0.847926	20565.3	0.838710	39916.5	28616.4	1496.00
256	BROWARD	PUTNAM	105.0	0.840246	60080.8	0.775730	12074.3	0.877112	48006.4	16209.5	480.00
257	DEATON	SUMTER	106.0	0.838710	60057.0	0.823349	16253.1	0.861751	43803.9	20689.6	782.00
258	DELANCY	MARION	107.0	0.837174	60008.2	0.821813	16232.3	0.860215	43775.9	20676.4	781.00
259	STANLEY	WALTON	108.0	0.835637	59842.5	0.685100	6931.9	0.887865	52910.6	7398.6	100.00
260	MOODY	PASCO	109.0	0.834101	58871.3	0.877112	28836.8	0.792627	30034.5	10593.2	205.00
261	PAYNES PRAIRIE	ALACHUA	110.0	0.832565	58424.4	0.898618	34493.8	0.728111	23930.7	48470.6	4292.00
262	PADGETT	PASCO	111.0	0.831029	57799.4	0.875576	28133.4	0.791091	29666.0	10463.2	200.00
263	SALT	PINELLAS	112.0	0.829493	56291.0	0.874040	27148.8	0.784946	29142.2	10276.4	193.00
264	HALL	CLAY	113.0	0.827957	56253.9	0.757296	10816.6	0.874040	45437.4	15342.0	430.00
265	CARROLL	HILLSBOROUGH	114.0	0.826421	55207.7	0.870968	26445.4	0.778802	28762.3	10144.4	186.00
266	PUZZLE	VOLUSIA	115.0	0.824885	55080.8	0.837174	17870.9	0.834101	37209.9	26676.0	1300.00
267	CRYSTAL	CLAY	116.0	0.823349	54522.9	0.751152	10263.2	0.863287	44259.7	14944.4	408.00
268	DEAD	FLAGLER	117.0	0.821813	53725.6	0.745008	10011.6	0.857143	43714.0	14760.1	398.00
269	CHUNKY POND	LEVY	118.0	0.820276	53445.8	0.792627	13509.6	0.840246	39936.2	18862.8	650.00
270	BOWERS	MARION	119.0	0.818740	52566.8	0.786482	13156.3	0.837174	39410.5	18614.5	633.00
271	MARGARET	PUTNAM	120.0	0.817204	52272.9	0.737327	9558.8	0.854071	42714.0	14422.5	380.00
272	TIBET	ORANGE	121.0	0.815668	52189.0	0.824885	16468.7	0.827957	35720.3	25606.1	1198.00
273	WEOHYAKAPKA	POLK	122.0	0.814132	51293.6	0.843318	19848.2	0.803379	31445.4	64308.1	7555.00
274	MARY JANE	ORANGE	123.0	0.812596	51124.5	0.818740	15960.1	0.826421	35164.4	25209.5	1161.00
275	NORRIS	LAKE	124.0	0.811060	50254.8	0.817204	15547.7	0.823349	34707.1	24881.7	1131.00
276	GRANDIN	PUTNAM	125.0	0.809524	50131.7	0.726574	8904.8	0.844854	41226.9	13920.4	354.00
277	BEAUCLAIR	LAKE	126.0	0.807988	49671.6	0.814132	15272.7	0.820276	34398.9	24660.7	1111.00
278	BIG SAND	ORANGE	127.0	0.806452	49525.4	0.811060	15204.0	0.817204	34321.4	24609.2	1106.00
279	THOMAS	PASCO	128.0	0.804915	49487.5	0.855607	22788.1	0.758833	26699.4	9416.9	162.00
280	SOUTH	BREVARD	129.0	0.803379	49379.0	0.809524	15135.3	0.814132	34243.7	24549.5	1101.00
281	KARICK	OKALOOSA	130.0	0.801843	49120.5	0.623656	4852.3	0.864823	44268.2	6190.1	70.00
282	CONWAY	ORANGE	131.0	0.800307	48732.7	0.807988	14832.8	0.811060	33899.8	24303.0	1079.00
283	CLEAR	PASCO	132.0	0.798771	48593.1	0.852535	22225.4	0.752688	26367.7	9299.9	156.00
284	ASHBY	VOLUSIA	133.0	0.797235	47280.4	0.800307	14159.2	0.807988	33121.2	23744.7	1030.00
285	JACKSON	OSCEOLA	134.0	0.795699	46981.8	0.798771	14021.8	0.806452	32960.0	23629.2	1020.00
286	STELLA	PUTNAM	135.0	0.794163	46202.8	0.706605	7747.7	0.835637	38455.1	12984.5	308.00
287	OCHEESEE POND	JACKSON	136.0	0.792627	44863.4	0.834101	17862.8	0.761905	27000.6	34938.2	2230.00
288	SMITH	MARION	137.0	0.791091	44408.0	0.746544	10017.9	0.818740	34390.1	16243.2	482.00
289	WIMAUMA	HILLSBOROUGH	138.0	0.789554	43824.4	0.841782	19271.4	0.741935	24553.0	8659.8	137.00
290	MUD	MARION	139.0	0.788018	43727.8	0.738863	9768.5	0.812596	33959.3	16039.8	470.00
291	KING	PASCO	140.0	0.786482	42610.8	0.840246	18532.9	0.732719	24077.9	8492.3	131.75
292	DOWN	ORANGE	141.0	0.784946	42462.3	0.772657	11987.2	0.794163	30475.1	21847.8	872.00
293	OLDFIELD POND	CLAY	142.0	0.783410	42428.3	0.680492	6691.2	0.829493	35737.1	12066.7	266.00
294	VALRICO	HILLSBOROUGH	143.0	0.781874	41504.7	0.835637	17864.7	0.726574	23639.9	8337.8	127.00
295	WINNOTT	PUTNAM	144.0	0.780338	41498.6	0.674347	6439.6	0.824885	35058.9	11837.7	256.00
296	CROOKED	POLK	145.0	0.778802	41446.5	0.801843	14536.1	0.760369	26910.4	35033.7	5533.00
297	STEMPER	HILLSBOROUGH	146.5	0.776498	41270.7	0.831797	17724.1	0.724270	23546.7	8304.9	126.00
298	BLANTON	PASCO	146.5	0.776498	41270.7	0.831797	17724.1	0.724270	23546.7	8304.9	126.00
299	CALM	HILLSBOROUGH	148.0	0.774194	41036.4	0.829493	17583.4	0.720430	23453.0	8271.9	125.00
300	BERESFORD	VOLUSIA	149.0	0.772657	40187.3	0.763441	10997.5	0.786482	29189.9	20926.4	800.00
301	LITTLE LOCHLOOSA	ALACHUA	150.0	0.771121	40008.6	0.849462	21233.1	0.649770	18775.5	38029.0	2642.00
302	LIZZIE	OSCEOLA	151.0	0.769585	39931.0	0.760369	10887.5	0.781874	29043.5	20821.5	792.00
303	STEVENS	CLAY	152.0	0.768049	39016.6	0.658986	5785.6	0.809524	33231.0	11220.5	230.00
304	PICKETT	ORANGE	153.0	0.766513	38312.0	0.749616	10200.2	0.775730	28111.8	20153.5	742.00

Table 5-6. (Continued)

OBS	LAKE	COUNTY	RANKUSE	RUSEROC	U3	RUOAREA	U2	RUOCIRC	U1	LARSCIRC	SA
305	RUSSELL	OSCEOLA	154.0	0.764977	37984.4	0.748080	10062.7	0.772657	27921.7	20017.2	732.00
306	DIAS	VOLUSIA	155.0	0.763441	37292.3	0.740399	9774.0	0.771121	27518.3	19726.0	711.00
307	CHARLES	MARION	156.0	0.761905	36704.7	0.695853	7316.0	0.788018	29388.8	13881.0	352.00
308	PRESTON	OSCEOLA	157.0	0.760369	36594.2	0.735791	9485.3	0.763441	27108.9	19434.5	690.00
309	ROSALIE	POLK	158.0	0.758833	36579.5	0.774194	12063.9	0.738863	24815.5	50136.0	4892.00
310	MAGNOLIA	CLAY	159.0	0.757296	36529.7	0.634409	5156.7	0.801843	31373.0	10593.2	205.00
311	BIRD	PASCO	160.0	0.755760	36346.1	0.806452	14816.9	0.705069	21529.2	7593.3	105.33
312	MILL DAM	MARION	161.0	0.754224	36328.5	0.689708	7191.3	0.783410	29137.2	13762.2	346.00
313	HANCOCK	POLK	162.0	0.752688	36309.0	0.771121	11929.9	0.737327	24379.0	49856.8	4941.00
314	BLUE POND	CLAY	163.0	0.751152	36121.5	0.631336	5056.1	0.798771	31065.4	10489.3	201.00
315	IOLA	PASCO	164.0	0.749616	36021.9	0.803379	14629.4	0.703533	21392.5	7545.1	104.00
316	HALFMOON	MARION	165.0	0.748080	35950.0	0.686636	7066.6	0.780338	28883.5	13642.3	340.00
317	COMO	PUTNAM	166.0	0.746544	35916.3	0.628264	5005.8	0.797235	30910.5	10437.0	199.00
318	NICOTOON	MARION	167.0	0.745008	35186.3	0.683564	6817.2	0.777266	28369.2	13399.4	328.00
319	EAST	PASCO	168.0	0.743472	34797.9	0.795699	13926.1	0.694316	20871.9	7361.9	99.00
320	LITTLE LAKE WEIR	MARION	169.0	0.741935	34672.0	0.678955	6650.9	0.774194	28021.1	13235.0	320.00
321	MULLET	SEMINOLE	170.0	0.740399	34598.2	0.718894	8674.3	0.751152	25924.0	18585.0	631.00
322	MOON	PASCO	171.0	0.738863	34551.6	0.794163	13785.4	0.669708	20766.2	7324.2	98.00
323	NONA	ORANGE	172.5	0.736559	34082.0	0.715054	8468.0	0.748848	25614.0	18362.8	616.00
324	BRICK	OSCEOLA	172.5	0.736559	34082.0	0.715054	8468.0	0.748848	25614.0	18362.8	616.00
325	ISLAND FORD	HILLSBOROUGH	174.0	0.734255	34057.3	0.791091	13504.1	0.683564	20553.2	7249.1	96.00
326	SUGGS	PUTNAM	175.0	0.732719	34032.4	0.608295	4553.0	0.789554	29479.4	9953.8	181.00
327	BYSTRE	HERNANDO	176.5	0.730415	33826.7	0.672043	6380.7	0.768817	27446.0	12963.4	307.00
328	EATON	MARION	176.5	0.730415	33826.7	0.672043	6380.7	0.768817	27446.0	12963.4	307.00
329	JUMPER	MARION	178.0	0.728111	33695.6	0.669739	6339.1	0.766513	27356.4	12921.1	305.00
330	ALICE	HILLSBOROUGH	179.5	0.725806	33560.7	0.788786	13222.7	0.681260	20338.0	7173.2	94.00
331	PARKER	PASCO	179.5	0.725806	33560.7	0.788786	13222.7	0.681260	20338.0	7173.2	94.00
332	HUNTERS	HERNANDO	181.0	0.723502	33432.5	0.668203	6256.0	0.764977	27176.5	12836.1	301.00
333	ROGERS	HILLSBOROUGH	182.5	0.721198	33311.6	0.784178	13082.0	0.678187	20229.5	7134.9	93.00
334	TURKEY FORD	HILLSBOROUGH	182.5	0.721198	33311.6	0.784178	13082.0	0.678187	20229.5	7134.9	93.00
335	SAMPSON	BRADFORD	184.0	0.718894	33267.3	0.827957	16644.1	0.608295	16623.2	33669.7	2071.00
336	BUDDY	PASCO	185.0	0.717358	32560.6	0.780338	12660.0	0.666667	19900.6	7018.9	90.00
337	SHEEN	ORANGE	186.0	0.715822	32297.7	0.708141	7767.0	0.740399	24530.8	17586.2	565.00
338	ARBUCKLE	POLK	187.0	0.714286	32212.3	0.743472	9949.1	0.712750	22263.2	45529.9	3787.00
339	LOUGHMAN	BREVARD	188.0	0.712750	32013.5	0.705069	7657.0	0.735791	24356.5	17461.3	557.00
340	PIERCE	POLK	189.0	0.711213	31927.9	0.741935	9815.1	0.711213	22112.8	45222.2	3736.00
341	HICKORYNUT	ORANGE	190.0	0.709677	31763.7	0.703533	7560.8	0.734255	24203.0	17351.2	550.00
342	DOWLING	PASCO	191.0	0.708141	31550.7	0.777266	12097.4	0.662058	19453.3	6861.2	86.00
343	MYRTLE	OSCEOLA	192.0	0.706605	31513.0	0.701997	7464.5	0.731183	24048.4	17240.5	543.00
344	CHERRY	LAKE	193.0	0.705069	30682.0	0.688172	7148.4	0.721966	23533.6	16871.4	520.00
345	COOPER	HILLSBOROUGH	194.0	0.703533	30530.2	0.769585	11534.7	0.654378	18995.5	6699.7	82.00
346	REEDY	POLK	195.0	0.701997	30336.1	0.728111	9074.2	0.701997	21261.9	43482.0	3454.00
347	SAXON	PASCO	196.0	0.700461	30273.4	0.768049	11394.0	0.651306	18879.3	6658.7	81.00
348	SPRING	CLAY	197.5	0.698157	30148.8	0.572197	3672.6	0.754992	26476.2	8939.7	146.00
349	ANDERSON CUE	PUTNAM	197.5	0.698157	30148.8	0.572197	3672.6	0.754992	26476.2	8939.7	146.00
350	BELL	PASCO	199.0	0.695853	30015.8	0.766513	11253.4	0.648233	18762.4	6617.5	80.00
351	PLACID	HIGHLANDS	200.0	0.694316	29918.4	0.725038	8882.4	0.700461	21036.0	43020.1	3381.00
352	JUNE-IN-WINTER	HIGHLANDS	201.0	0.692780	29809.3	0.721966	8832.5	0.698925	20976.8	42899.0	3362.00
353	PRETTY	HILLSBOROUGH	202.0	0.691244	29757.5	0.764977	11112.7	0.646697	18644.8	6576.0	79.00
354	MOUND	HILLSBOROUGH	203.0	0.689708	29498.5	0.761905	10972.0	0.643625	18526.4	6534.3	78.00
355	JESSAMINE	PASCO	204.0	0.688172	29238.6	0.758833	10831.4	0.640553	18407.3	6492.2	77.00
356	JACKSON	HIGHLANDS	205.0	0.686636	29127.9	0.717358	8522.5	0.686636	20605.4	42139.5	3244.00
357	ALLIGATOR	PINELLAS	206.0	0.685100	28978.1	0.755760	10690.7	0.637481	18287.4	6449.9	76.00
358	LONG POND	LEVY	207.0	0.683564	28825.2	0.625192	4863.5	0.729647	23961.7	11317.7	234.00
359	WHITE TROUT	HILLSBOROUGH	208.0	0.682028	28716.7	0.754224	10550.0	0.635945	18166.6	6407.4	75.00
360	OAKES POND	PASCO	209.0	0.680492	28191.5	0.752688	10268.7	0.631336	17922.8	6321.4	73.00
361	MAITLAND	ORANGE	210.0	0.678955	28154.6	0.666667	6213.6	0.709677	21941.0	15729.6	452.00
362	MOSS LEE	PUTNAM	211.0	0.677419	28132.0	0.548387	3245.0	0.746544	24887.1	8403.2	129.00
363	NEFF	HERNANDO	212.0	0.675883	28099.7	0.614439	4655.6	0.718894	23444.1	11073.2	224.00
364	OLA	ORANGE	213.0	0.674347	27773.0	0.665131	6076.1	0.708141	21696.9	15854.6	442.00
365	BAY	ORANGE	214.0	0.672811	27542.8	0.662058	5993.6	0.706605	21549.2	15448.7	436.00
366	MARION	POLK	215.0	0.671275	27506.8	0.709677	7797.4	0.663594	19709.4	40307.0	2968.00
367	PATE POND	WASHINGTON	216.0	0.669739	26854.0	0.711213	8370.7	0.642089	18483.3	23917.0	1045.00
368	CHURCH	HILLSBOROUGH	217.5	0.667435	26595.1	0.733487	9424.7	0.618280	17170.4	6056.0	67.00
369	EGYPT	HILLSBOROUGH	217.5	0.667435	26595.1	0.733487	9424.7	0.618280	17170.4	6056.0	67.00
370	CENTER	OSCEOLA	219.0	0.665131	26533.0	0.654378	5636.2	0.695853	20896.8	14981.0	410.00
371	SAWGRASS	BREVARD	220.0	0.663594	26415.1	0.652842	8595.0	0.692780	20820.2	14926.1	407.00
372	HOWELL	SEMINOLE	221.0	0.662058	26375.8	0.651306	5581.2	0.691244	20794.6	14907.7	406.00
373	OYSTER	WALTON	222.0	0.660522	26342.3	0.393241	1525.0	0.745008	24817.3	3470.2	22.00
374	HOBBS	HILLSBOROUGH	223.0	0.658986	26325.9	0.731183	9284.0	0.615975	17041.8	6010.6	66.00
375	FAIRVIEW	ORANGE	224.0	0.657450	26257.6	0.648233	5540.0	0.688172	20717.6	14852.6	403.00
376	MABEL	ORANGE	225.0	0.655914	26020.3	0.645161	5457.5	0.685100	20562.8	14741.6	397.00
377	MCCARTHY	PUTNAM	226.0	0.654378	25748.4	0.505376	2767.0	0.717358	22981.3	7759.7	110.00
378	PLATT	HILLSBOROUGH	227.0	0.652842	25512.0	0.723502	8862.0	0.609831	16650.0	5872.4	63.00
379	HANCOCK	LAKE	228.0	0.651306	25462.0	0.642089	5265.0	0.674347	20197.0	14479.3	383.00
380	CARLTON	ORANGE	229.0	0.649770	25421.9	0.640553	5251.3	0.672811	20170.6	14460.4	382.00

Table 5-6. (Continued)

OBS	LAKE	COUNTY	RANKUSE	RUSEROC	U3	RUOAREA	U2	RUOCIRC	U1	LARSCIRC	SA
381	HELEN BLAZES	BREVARD	230.0	0.648233	25381.7	0.639017	5237.54	0.671275	20144.2	14441.5	381.0
382	THOMAS	HILLSBOROUGH	231.0	0.646697	25238.7	0.720430	8721.37	0.606759	16517.3	5825.7	62.0
383	ACAHO	PUTNAM	232.0	0.645161	25226.0	0.497696	2666.41	0.715822	22559.6	7617.3	106.0
384	LIVE OAK	OSCEOLA	233.0	0.643625	25140.0	0.632872	5155.06	0.669739	19984.9	14327.3	375.0
385	PORTER	WASHINGTON	234.0	0.642089	24868.7	0.698925	7441.49	0.625192	17427.3	22550.5	929.0
386	SALT	BREVARD	235.0	0.640553	24775.0	0.629800	5031.34	0.665131	19743.7	14154.3	366.0
387	MUD	HILLSBOROUGH	236.0	0.639017	24688.8	0.712750	8440.03	0.599078	16248.7	5730.9	60.0
388	HAMMOCK POND	MARION	237.0	0.637481	24677.7	0.576037	3720.34	0.697389	20957.3	9898.6	179.0
389	HAMMOCK	WASHINGTON	238.0	0.635945	24554.9	0.691244	7297.31	0.620584	17257.6	22331.0	911.0
390	CRYSTAL	SEMINOLE	239.0	0.634409	24160.0	0.622120	4825.14	0.658986	19334.8	13861.2	351.0
391	BRIT	BAY	240.0	0.632872	23695.8	0.347158	1247.74	0.714286	22448.1	3139.0	18.0
392	CLEAR	ORANGE	241.0	0.631336	23661.6	0.615975	4660.18	0.655914	19001.5	13622.2	339.0
393	LUCY	LAKE	242.0	0.629800	23494.2	0.609831	4605.19	0.652842	18889.0	13541.6	335.0
394	PARKER	POLK	243.0	0.628264	23335.0	0.663594	6018.83	0.622120	17316.2	35412.9	2291.0
395	TURKEY	ORANGE	244.0	0.626728	22987.9	0.605223	4440.23	0.645161	18547.6	13296.9	323.0
396	TIGER	POLK	245.0	0.625192	22748.6	0.657450	5779.76	0.614439	16968.8	34702.4	2200.0
397	ELLEN	HILLSBOROUGH	246.0	0.623656	22726.9	0.700461	7455.36	0.579109	15271.5	5386.3	93.0
398	SIMMONS PRAIRIE	HERNANDO	247.0	0.622120	22555.6	0.542243	3179.96	0.660522	19375.6	9151.5	153.0
399	HAMILTON	POLK	248.0	0.620584	22553.7	0.655914	5700.94	0.611367	16852.7	34465.0	2170.0
400	FAIRY	HILLSBOROUGH	249.5	0.618280	22441.5	0.693548	7314.69	0.575269	15126.8	5335.2	52.0
401	STARVATION	HILLSBOROUGH	249.5	0.618280	22441.5	0.693548	7314.69	0.575269	15126.8	5335.2	52.0
402	GORE	FLAGLER	251.0	0.615975	22339.9	0.460829	2138.16	0.675883	20201.7	6821.2	85.0
403	FORT COOPER	CITRUS	252.0	0.614439	22302.3	0.537634	3117.60	0.657450	19184.7	9061.4	150.0
404	JESSAMINE	ORANGE	253.0	0.612903	22259.5	0.592934	4206.53	0.634409	18052.9	12942.2	306.0
405	BEAR	SEMINOLE	254.0	0.611367	22216.2	0.591398	4192.78	0.632872	18023.4	12921.1	305.0
406	GALLILEE	PUTNAM	255.0	0.609831	22050.5	0.451613	2087.85	0.668203	19962.6	6740.4	83.0
407	RUNNYMEDE	OSCEOLA	256.0	0.608295	21999.1	0.589862	4124.05	0.629800	17875.1	12814.7	300.0
408	DAUGHARTY	VOLUSIA	257.0	0.606759	21693.1	0.585253	4027.82	0.628264	17665.3	12664.3	293.0
409	LITTLE SANTA FE	ALACHUA	258.0	0.605223	21427.9	0.729647	9121.72	0.500768	12306.2	24525.7	1135.0
410	RAINBOW	HILLSBOROUGH	259.0	0.603687	21285.3	0.682028	6752.03	0.559140	14533.3	5125.9	48.0
411	BRANTLEY	SEMINOLE	260.0	0.602150	21207.1	0.579109	3876.61	0.623656	17330.5	12424.3	282.0
412	LINDSEY	HERNANDO	261.0	0.600614	21182.0	0.516129	2847.41	0.639017	18334.5	8659.8	137.0
413	DENHAM	LAKE	262.0	0.599078	20624.2	0.574501	3697.90	0.612903	16926.3	12134.6	269.0
414	CARR	LEON	263.0	0.597542	20584.0	0.649770	5543.07	0.571429	15040.9	19462.6	692.0
415	MOUNTAIN	HERNANDO	264.0	0.596006	20292.3	0.496160	2639.57	0.626728	17652.7	8337.8	127.0
416	MATTIE	POLK	265.0	0.594470	20167.2	0.617512	4763.05	0.583717	15404.2	31502.7	1813.0
417	CONE	ORANGE	266.0	0.592934	19985.4	0.560676	3505.44	0.605223	16480.0	11814.6	255.0
418	HOLDENS	ORANGE	267.0	0.591398	19847.0	0.559140	3464.20	0.603687	16382.8	11744.9	252.0
419	GLONA	LAKE	268.0	0.589862	19754.3	0.557604	3436.71	0.602150	16317.6	11698.2	250.0
420	CHAPMAN	HILLSBOROUGH	269.0	0.588326	19502.7	0.660522	5908.02	0.546851	13594.7	4794.8	42.0
421	MANN	ORANGE	270.0	0.586790	19474.9	0.554531	3354.23	0.597542	16120.6	11557.0	244.0
422	ELLA	LAKE	271.0	0.585253	19334.2	0.552995	3312.99	0.596006	16021.2	11485.7	241.0
423	KILLARNEY	ORANGE	272.0	0.583717	19145.7	0.551459	3258.00	0.592934	15887.7	11390.0	237.0
424	BARTON	ORANGE	273.0	0.582181	18956.1	0.546851	3203.01	0.591398	15753.1	11293.5	233.0
425	WILDCAT	LAKE	274.5	0.579877	18908.5	0.544547	3189.27	0.589094	15719.2	11265.2	232.0
426	MILLS	SEMINOLE	274.5	0.579877	18908.5	0.544547	3189.27	0.589094	15719.2	11265.2	232.0
427	PALESTINE	UNION	276.0	0.577573	18529.5	0.697389	7425.97	0.460829	11103.5	22489.8	924.0
428	LOU	MARION	277.0	0.576037	18523.4	0.474654	2244.67	0.600614	16278.8	7666.8	106.0
429	VIRGINIA	ORANGE	278.0	0.574501	18476.8	0.533026	3065.54	0.585253	15411.3	11048.4	223.0
430	COMPASS	JACKSON	279.0	0.572965	18435.8	0.612903	4653.94	0.549923	13781.9	17833.5	581.0
431	FISH	OSCEOLA	280.0	0.571429	18380.1	0.531490	3038.05	0.582181	15342.0	10998.8	221.0
432	DUPONT	VOLUSIA	281.0	0.569892	18331.6	0.529954	3024.30	0.580645	15307.3	10973.9	220.0
433	GOOSE	PASCO	282.0	0.568356	18276.5	0.643625	5345.35	0.531490	12931.1	4560.8	38.0
434	BUFFUM	POLK	283.0	0.566820	18271.9	0.586790	4056.34	0.552995	14215.6	29071.8	1544.0
435	JOEL	OSCEOLA	284.0	0.565284	18185.6	0.528418	2983.06	0.577573	15202.6	10898.8	217.0
436	BETHEL	VOLUSIA	285.0	0.563748	17989.9	0.522273	2928.08	0.572965	15061.8	10797.9	213.0
437	BAY	HILLSBOROUGH	286.5	0.561444	17964.5	0.636713	5204.69	0.521505	12759.8	4500.4	37.0
438	DAN	HILLSBOROUGH	286.5	0.561444	17964.5	0.636713	5204.69	0.521505	12759.8	4500.4	37.0
439	RUTH	BREVARD	288.5	0.558372	17842.2	0.518433	2886.83	0.569124	14955.4	10721.6	210.0
440	BRYAN	ORANGE	288.5	0.558372	17842.2	0.518433	2886.83	0.569124	14955.4	10721.6	210.0
441	ISLAND	SEMINOLE	290.0	0.556068	17544.5	0.511521	2804.35	0.566820	14740.2	10567.3	204.0
442	STARKE	ORANGE	291.0	0.554531	17494.6	0.508448	2790.61	0.565284	14704.0	10541.4	203.0
443	SILVER	LAKE	292.0	0.552995	17469.6	0.506912	2783.73	0.563748	14685.9	10528.4	202.5
444	GAP POND	WASHINGTON	293.0	0.551459	17347.2	0.596006	4221.38	0.539171	13125.8	16984.5	827.0
445	AKRON	LAKE	294.5	0.549155	17344.3	0.503072	2749.37	0.561444	14594.9	10463.2	200.0
446	NEEDHAM	ORANGE	294.5	0.549155	17344.3	0.503072	2749.37	0.561444	14594.9	10463.2	200.0
447	DEER	HILLSBOROUGH	296.0	0.546851	17333.5	0.626728	4923.35	0.508448	12410.2	4377.1	35.0
448	WALL	PUTNAM	297.0	0.545315	17285.3	0.370200	1333.21	0.594470	15952.1	5386.3	53.0
449	HAMPTON	BRADFORD	298.0	0.543779	17093.4	0.677419	6614.25	0.436252	10479.1	21225.0	823.0
450	LITTLE ORANGE	ALACHUA	299.0	0.542243	17021.3	0.675883	6574.07	0.434716	10447.2	21160.5	816.0
451	BUCK	HILLSBOROUGH	300.5	0.539939	17014.3	0.619816	4782.68	0.496928	12231.6	4314.1	34.0
452	SADDLEBACK	HILLSBOROUGH	300.5	0.539939	17014.3	0.619816	4782.68	0.496928	12231.6	4314.1	34.0
453	LADY	LAKE	303.0	0.536098	16837.3	0.493088	2611.90	0.556068	14225.4	10198.2	190.0
454	WEKIVA	ORANGE	303.0	0.536098	16837.3	0.493088	2611.90	0.556068	14225.4	10198.2	190.0
455	SYLVAN	SEMINOLE	303.0	0.536098	16837.3	0.493088	2611.90	0.556068	14225.4	10198.2	190.0
456	HIGGINBOTHAM	PUTNAM	305.0	0.533026	16751.8	0.350230	1257.74	0.586790	15494.0	6231.6	50.0

Table 5-6. (Continued)

OBS	LAKE	COUNTY	RANKUSE	RUSEROC	U3	RUOAREA	U2	RUOCIRC	U1	LARSCIRC	SA
457	CRENSHAW	HILLSBOROUGH	306.0	0.531490	16692.4	0.611367	4642.02	0.490015	12050.4	4250.2	33
458	CLARK	BREVARD	307.0	0.529954	16424.6	0.488479	2501.92	0.551459	13922.7	9981.2	182
459	HICKS POND	WASHINGTON	308.0	0.528418	16413.8	0.577573	3860.92	0.516129	12552.9	16243.2	482
460	EMMA	LAKE	309.0	0.526882	16058.0	0.486943	2405.70	0.548387	13652.3	9787.4	175
461	KEENE	HILLSBOROUGH	311.0	0.523809	16040.2	0.602150	4360.68	0.479263	11679.5	4119.4	31
462	KELL	HILLSBOROUGH	311.0	0.523809	16040.2	0.602150	4360.68	0.479263	11679.5	4119.4	31
463	LINDA	PASCO	311.0	0.523809	16040.2	0.602150	4360.68	0.479263	11679.5	4119.4	31
464	JOSEPHINE	HIGHLANDS	313.0	0.520737	15997.1	0.549923	3257.68	0.519201	12739.5	26053.1	1240
465	LUCAS POND	WASHINGTON	314.0	0.519201	15840.9	0.566820	3644.65	0.494624	12196.3	15781.7	485
466	BROWNS	HILLSBOROUGH	315.0	0.517665	15709.6	0.594470	4220.02	0.471582	11489.6	4052.4	30
467	CLINCH	POLK	316.0	0.516129	15637.8	0.540707	3136.83	0.514593	12500.9	25565.3	1194
468	LIVINGSTON	POLK	317.0	0.514593	15622.0	0.539171	3131.58	0.513057	12490.5	25543.9	1192
469	FOX	BREVARD	318.5	0.512289	15524.7	0.480031	2268.23	0.544547	13256.5	9903.7	165
470	UMATILLA	LAKE	318.5	0.512289	15524.7	0.480031	2268.23	0.544547	13256.5	9903.7	165
471	WINNEMISETT	VOLUSIA	320.0	0.509985	15470.8	0.476190	2254.48	0.542243	13216.3	9474.8	164
472	ELOISE	POLK	321.0	0.508448	15464.3	0.534562	3079.03	0.506912	12385.2	25328.7	1172
473	TROUT	OSCEOLA	322.0	0.506912	15416.6	0.473118	2240.73	0.540707	13175.9	9445.9	163
474	HANNA	HILLSBOROUGH	323.0	0.505376	15375.8	0.588326	4079.35	0.462366	11296.5	3984.3	29
475	BESSIE	ORANGE	324.0	0.503840	15253.6	0.471582	2199.49	0.537634	13054.1	9358.6	160
476	BUCK	SEMINOLE	325.0	0.502304	15144.3	0.468510	2172.00	0.536098	12972.3	9299.9	158
477	OSCEOLA	ORANGE	326.0	0.500768	15089.4	0.466974	2158.25	0.533026	12931.1	9270.4	157
478	HORSE	HILLSBOROUGH	327.5	0.498464	15038.7	0.582949	3938.68	0.458525	11100.0	3915.0	28
479	TWIN	PASCO	327.5	0.498464	15038.7	0.582949	3938.68	0.458525	11100.0	3915.0	28
480	LAWNE	ORANGE	330.0	0.494624	15034.4	0.463902	2144.51	0.528418	12889.9	9240.8	156
481	LITTLE SAND LAKE	ORANGE	330.0	0.494624	15034.4	0.463902	2144.51	0.528418	12889.9	9240.8	156
482	WINORO	VOLUSIA	330.0	0.494624	15034.4	0.463902	2144.51	0.528418	12889.9	9240.8	156
483	TUSCAWILLA	ALACHUA	332.0	0.491551	14990.3	0.646697	5465.00	0.405530	9525.3	19293.1	680
484	CHURCH	LAKE	333.0	0.490015	14979.3	0.459293	2130.76	0.525346	12848.5	9211.2	155
485	MARY	SEMINOLE	334.0	0.488479	14924.0	0.457757	2117.01	0.523809	12807.0	9181.4	154
486	COON	OSCEOLA	335.0	0.486943	14589.6	0.448541	2034.53	0.517665	12655.0	9000.8	148
487	LOUISE	ORANGE	336.5	0.484639	14420.4	0.444700	1993.29	0.510753	12427.1	8909.1	145
488	AJAY	OSCEOLA	336.5	0.484639	14420.4	0.444700	1993.29	0.510753	12427.1	8909.1	145
489	SUE	ORANGE	338.0	0.482335	14363.8	0.440860	1979.54	0.505376	12384.2	8878.3	144
490	BIRD	HILLSBOROUGH	339.5	0.480031	14353.6	0.569124	3657.35	0.447773	10696.2	3772.6	26
491	BROOKER	HILLSBOROUGH	339.5	0.480031	14353.6	0.569124	3657.35	0.447773	10696.2	3772.6	26
492	CRESCENT	LAKE	341.0	0.477727	14306.9	0.437788	1965.80	0.503840	12341.1	8847.4	143
493	ARIANA	POLK	342.0	0.476190	14225.6	0.499232	2677.08	0.474654	11548.5	23617.6	1019
494	BURRELL	HILLSBOROUGH	343.5	0.473886	14005.2	0.564516	3516.68	0.438556	10488.5	3699.3	25
495	ECHO	HILLSBOROUGH	343.5	0.473886	14005.2	0.564516	3516.68	0.438556	10488.5	3699.3	25
496	CATHERINE	LAKE	345.0	0.471582	13962.8	0.433180	1883.32	0.491551	12079.5	8659.8	137
497	LONG POND	PUTNAM	346.0	0.470046	13843.6	0.281106	880.42	0.534562	12963.2	4377.1	35
498	FLORENCE	LAKE	347.5	0.467742	13730.1	0.427803	1828.33	0.487711	11901.8	8532.5	133
499	MCCOY	ORANGE	347.5	0.467742	13730.1	0.427803	1828.33	0.487711	11901.8	8532.5	133
500	CURVE	PASCO	349.0	0.465438	13652.6	0.556068	3376.01	0.430107	10276.6	3624.6	24
501	CREWS	HERNANDO	350.0	0.463902	13622.7	0.357911	1288.61	0.502304	12334.0	8825.7	62
502	ORIENTA	SEMINOLE	351.0	0.462366	13553.9	0.425499	1787.09	0.483871	11766.8	8435.7	130
503	BIG BASS	MARION	352.0	0.460829	13502.0	0.354839	1267.83	0.499232	12234.2	8778.5	61
504	WARREN	ORANGE	353.0	0.459293	13494.8	0.422427	1773.34	0.462335	11721.5	8403.2	129
505	LITTLE	CITRUS	354.0	0.457757	13380.5	0.345622	1247.04	0.493088	12133.5	8730.9	60
506	POCKET	ORANGE	355.0	0.456221	13316.5	0.419355	1732.10	0.476190	11584.4	8304.9	126
507	PRAIRIE	SEMINOLE	356.0	0.454685	13196.7	0.416283	1704.61	0.473118	11492.1	8238.7	124
508	LOWERY	POLK	357.0	0.453149	13191.8	0.482335	2356.56	0.451613	10835.2	22158.7	897
509	IRMA	ORANGE	358.0	0.451613	13136.5	0.414747	1690.86	0.470046	11445.6	8205.4	123
510	IVANHOE	ORANGE	359.5	0.449309	13076.1	0.410906	1677.11	0.467742	11399.0	8172.0	122
511	LONG	ORANGE	359.5	0.449309	13076.1	0.410906	1677.11	0.467742	11399.0	8172.0	122
512	ALTHO	ALACHUA	361.0	0.447005	13065.8	0.606759	4460.40	0.367127	8605.4	17429.9	555
513	NORTH TALMADGE	VOLUSIA	362.0	0.445468	13015.6	0.407066	1663.37	0.465438	11352.2	8138.4	121
514	SPRING	HERNANDO	363.0	0.443932	13010.9	0.334869	1184.69	0.485407	11826.3	8585.8	57
515	SHERWOOD	ORANGE	364.0	0.442396	12954.8	0.405530	1649.62	0.463902	11305.2	8104.7	120
516	LIPSEY	HILLSBOROUGH	365.0	0.440860	12933.8	0.536098	3094.68	0.419355	9839.1	3470.2	22
517	HENRY	POLK	366.0	0.439324	12877.5	0.477727	2261.99	0.442396	10615.5	21709.5	861
518	CROSBY	BRADFORD	367.0	0.437788	12764.5	0.599078	4307.70	0.360983	8456.8	17129.0	536
519	WATERMELON POND	ALACHUA	368.0	0.436252	12684.8	0.597542	4267.52	0.359447	8417.3	17048.9	531
520	LOTUS	SEMINOLE	369.0	0.434716	12648.0	0.399386	1580.89	0.454685	11067.2	7934.1	115
521	FANNIE	POLK	370.0	0.433180	12629.9	0.470046	2188.43	0.433180	10441.5	21353.6	833
522	HARVEY	HILLSBOROUGH	372.0	0.430107	12566.9	0.525346	2954.01	0.411674	9612.9	3390.5	21
523	FERGUSON	PASCO	372.0	0.430107	12566.9	0.525346	2954.01	0.411674	9612.9	3390.5	21
524	SAWGRASS	PINELLAS	372.0	0.430107	12566.9	0.525346	2954.01	0.411674	9612.9	3390.5	21
525	RATTLESNAKE	ORANGE	374.0	0.427035	12398.9	0.394777	1525.90	0.453149	10873.0	7794.9	111
526	APSHAWA	LAKE	375.0	0.425499	12336.0	0.391705	1512.15	0.450077	10823.9	7759.7	110
527	LOTELA	HIGHLANDS	376.0	0.423963	12289.2	0.453149	2088.59	0.428571	10200.6	20860.9	795
528	LONG	HILLSBOROUGH	377.5	0.421659	12194.6	0.513825	2813.34	0.398618	9381.2	3308.7	20
529	CAMP	PASCO	377.5	0.421659	12194.6	0.513825	2813.34	0.398618	9381.2	3308.7	20
530	HIGHLAND	HERNANDO	379.0	0.419355	12115.5	0.313364	1039.20	0.456221	11076.3	8231.6	50
531	TRIPLET	SEMINOLE	380.5	0.417051	12082.4	0.387865	1457.16	0.444700	10625.3	7617.3	106
532	BUTLER	VOLUSIA	380.5	0.417051	12082.4	0.387865	1457.16	0.444700	10625.3	7617.3	106

Table 5-6. (Continued)

OBS	LAKE	COUNTY	RANKUSE	RUSERCC	U3	RUCAREA	U2	RUCCIRC	U1	LARSCIRC	SA
533	WEST CROOKED	LAKE	382.0	0.414747	12018.4	0.384025	1443.42	0.440860	10575.0	7581.3	105
534	ANETTA	POLK	383.0	0.413210	12006.9	0.447005	2007.18	0.422427	9999.7	20480.1	744
535	CHERRY	MADISON	384.0	0.411674	11909.6	0.580645	3881.75	0.336406	8027.8	16260.1	463
536	PALATLAKAHAW	LAKE	385.0	0.410138	11760.1	0.376344	1386.43	0.431644	10371.6	7435.5	101
537	ALFRED	POLK	386.0	0.408602	11748.3	0.434716	1933.59	0.417819	9814.8	20071.9	736
538	HAINES	POLK	387.0	0.407066	11561.8	0.431644	1881.08	0.416283	9680.5	19797.3	716
539	WOOD	HILLSBOROUGH	388.0	0.405530	11431.8	0.490015	2832.01	0.377880	8899.8	3139.0	18
540	HOLLY	LAKE	389.5	0.403226	11431.4	0.364823	1319.70	0.426267	10111.7	7249.1	96
541	MINNEHAHA	ORANGE	389.5	0.403226	11431.4	0.364823	1319.70	0.426267	10111.7	7249.1	96
542	HORSESHOE	SEMINOLE	391.0	0.400922	11364.8	0.360983	1305.58	0.423563	10058.9	7211.2	98
543	HUNTLEY	HIGHLANDS	392.0	0.399386	11182.2	0.423963	1775.56	0.402458	9406.2	19236.3	676
544	MUNSON	LEON	393.0	0.397849	11173.0	0.450077	2042.61	0.387097	9130.4	11814.6	285
545	FISH	LAKE	394.0	0.396313	11163.5	0.351766	1264.71	0.420891	9898.8	7096.5	92
546	BUTLER	UNION	395.0	0.394777	11148.1	0.562212	3512.06	0.316436	7636.0	19466.4	437
547	GARFIELD	POLK	396.0	0.393241	11066.8	0.420891	1744.44	0.394777	9322.3	19064.8	664
548	GLASS	HILLSBOROUGH	397.5	0.390937	11040.4	0.484639	2391.34	0.369432	8649.1	3050.5	17
549	SUNSHINE	HILLSBOROUGH	397.5	0.390937	11040.4	0.484639	2391.34	0.369432	8649.1	3050.5	17
550	EAGLE	POLK	399.0	0.388633	11018.5	0.417819	1731.30	0.390169	9287.2	18992.9	659
551	SEVENTEEN MILE POND	JACKSON	400.0	0.387097	10885.8	0.436252	1954.49	0.379416	8931.3	11557.0	244
552	SPRING	SEMINOLE	401.0	0.385561	10822.0	0.337942	1195.57	0.414747	9626.0	6900.9	87
553	HOWARD	POLK	402.0	0.384025	10774.9	0.408602	1665.62	0.385561	9109.3	18629.2	634
554	CROOKED	ORANGE	403.5	0.381720	10752.8	0.332565	1182.23	0.407834	9570.5	6861.2	86
555	LITTLE LAKE FAIRVIEW	ORANGE	403.5	0.381720	10752.8	0.332565	1182.23	0.407834	9570.5	6861.2	86
556	SYBELIA	ORANGE	405.0	0.379416	10613.3	0.328725	1154.73	0.403994	9458.6	6760.9	84
557	MARKHAM	SEMINOLE	406.0	0.377880	10543.1	0.325653	1140.59	0.400922	9402.1	6740.4	83
558	GEORGIA	ORANGE	407.0	0.376344	10472.6	0.324117	1127.24	0.396313	9345.3	6659.7	82
559	SUSAN	LAKE	408.0	0.374808	10401.6	0.322581	1113.49	0.391705	9288.2	6658.7	81
560	KATHRYN	SEMINOLE	409.0	0.373272	10330.4	0.321045	1099.75	0.388633	9230.6	6617.5	80
561	ROCHELLE	POLK	410.0	0.371736	10246.6	0.396313	1526.38	0.373272	8720.2	17833.5	561
562	CHARLES	HILLSBOROUGH	411.5	0.369432	10234.4	0.455453	2110.01	0.341782	8124.4	2865.5	15
563	SUWANNEE	PASCO	411.5	0.369432	10234.4	0.455453	2110.01	0.341782	8124.4	2865.5	15
564	SHADOW	ORANGE	413.5	0.366359	10114.4	0.315668	1058.51	0.383256	9055.9	6452.2	77
565	SUSANNAH	ORANGE	413.5	0.366359	10114.4	0.315668	1058.51	0.383256	9055.9	6452.2	77
566	DUNFORD POND	WASHINGTON	415.0	0.364055	9967.9	0.413210	1682.15	0.351766	8285.7	10721.6	210
567	WINTERSET	POLK	416.0	0.362519	9939.7	0.385561	1447.57	0.362519	8492.1	17367.0	551
568	SWATARA	LAKE	417.0	0.360983	9895.0	0.308756	1017.27	0.376344	8877.7	6364.5	74
569	ROWELL	BRADFORD	418.0	0.359447	9894.5	0.520737	2925.38	0.293395	6969.1	14115.6	364
570	HIRES	VOLUSIA	419.0	0.357911	9821.1	0.305684	1003.52	0.374808	8817.6	6321.4	73
571	RAY POND	PASCO	420.0	0.356375	9818.2	0.439324	1969.34	0.327189	7848.9	2768.3	14
572	ANNIE	POLK	421.0	0.354839	9763.0	0.379416	1402.50	0.354839	8360.1	17097.0	534
573	SHEELAR	CLAY	422.0	0.353303	9749.2	0.188940	452.79	0.393241	9296.4	3139.0	18
574	MERRITTS MILL POND	JACKSON	423.0	0.351766	9744.4	0.402458	1618.06	0.347158	8126.4	10515.4	202
575	FRANCIS	HIGHLANDS	424.0	0.350230	9721.1	0.377880	1392.40	0.353303	8328.7	17032.8	530
576	FREDRICA	ORANGE	425.0	0.348694	9672.0	0.302611	976.03	0.371736	8695.9	6234.2	71
577	ALLIGATOR	COLUMBIA	426.0	0.347158	9611.0	0.509985	2796.79	0.278034	6814.2	13861.9	348
578	SILVER	ORANGE	427.0	0.345622	9521.1	0.301075	948.53	0.365591	8572.6	6145.7	69
579	GRASSY	HIGHLANDS	428.0	0.344086	9509.9	0.371736	1339.85	0.348694	8170.1	16708.4	510
580	LOCH LOMMOND	CLAY	429.0	0.342550	9462.1	0.182796	427.63	0.380952	9034.5	3050.5	17
581	WAUNATTA	ORANGE	430.0	0.341014	9445.0	0.294931	934.78	0.364055	8510.2	6101.0	68
582	SANITARY	POLK	431.0	0.339478	9435.3	0.367127	1321.46	0.339478	8113.8	16553.3	503
583	MARIANA	POLK	432.0	0.337942	9403.1	0.362519	1313.58	0.337942	8089.6	16543.7	500
584	VAN DYKE	HILLSBOROUGH	433.0	0.336406	9392.1	0.430107	1828.67	0.314900	7563.4	2667.6	13
585	SHARPES	BREVARD	434.5	0.334101	9291.4	0.288018	907.29	0.357143	8384.1	6010.6	66
586	MELTON	LAKE	434.5	0.334101	9291.4	0.288018	907.29	0.357143	8384.1	6010.6	66
587	MCLEOD	POLK	436.0	0.331797	9274.0	0.356375	1282.06	0.333333	7991.9	16344.0	488
588	BRADFORD	LEON	437.0	0.330261	9171.5	0.390169	1457.86	0.321045	7713.6	9981.2	182
589	GIBSON	POLK	438.0	0.328725	9154.5	0.348694	1253.16	0.330261	7901.3	16158.8	477
590	LETTA	HIGHLANDS	439.0	0.327189	9088.9	0.344086	1237.39	0.328725	7851.5	16056.8	471
591	CHARITY	ORANGE	440.0	0.325653	9057.4	0.274962	866.05	0.350230	8191.4	5872.4	63
592	SEBRING	HIGHLANDS	441.0	0.324117	9022.9	0.341014	1221.63	0.325653	7801.3	15954.2	465
593	SCHIMMERHORN	LAKE	442.5	0.321813	8978.4	0.271121	852.30	0.344854	8126.1	5825.7	62
594	MIZELL	ORANGE	442.5	0.321813	8978.4	0.271121	852.30	0.344854	8126.1	5825.7	62
595	HALL	LEON	444.0	0.319508	8876.4	0.374808	1377.76	0.311828	7498.7	9703.2	172
596	GULLY POND	WASHINGTON	445.0	0.317972	8846.6	0.373272	1369.75	0.310292	7476.9	9674.9	171
597	SOUTH TALMADGE	VOLUSIA	446.0	0.316436	8818.8	0.267281	824.81	0.334869	7994.0	5730.9	60
598	HARTRIDGE	POLK	447.0	0.314900	8710.8	0.327189	1148.07	0.313364	7562.8	15466.4	437
599	CRYSTAL	WASHINGTON	448.0	0.313364	8666.2	0.368664	1321.69	0.307220	7344.5	9503.7	165
600	LUCIEN	ORANGE	449.0	0.311828	8575.1	0.262673	783.57	0.324117	7791.6	5565.8	57
601	SPARKMAN	HERNANDO	450.0	0.310292	8527.6	0.218126	540.38	0.331797	7987.2	3772.6	26
602	PALMER	ORANGE	451.0	0.308756	8492.7	0.261137	769.82	0.322581	7722.9	5536.6	56
603	MYRTLE	POLK	452.0	0.307220	8471.7	0.319508	1092.90	0.308756	7378.8	15050.2	416
604	MYRTLE	SEMINOLE	453.5	0.304915	8409.7	0.255760	756.08	0.318740	7653.6	5486.9	55
605	BLUE	VOLUSIA	453.5	0.304915	8409.7	0.255760	756.08	0.318740	7653.6	5486.9	55
606	LEONORE	POLK	455.0	0.302611	8204.4	0.311828	1032.47	0.301075	7171.9	14667.1	393
607	ELLEN	WAKULLA	456.0	0.301075	8204.3	0.339478	1201.53	0.294931	7002.7	9061.4	150
608	MOODY	POLK	457.0	0.299539	8180.9	0.310292	1027.22	0.299539	7153.7	14629.8	391

Table 5-6. (Continued)

OBS	LAKE	COUNTY	RANKUSE	RUSEROC	U3	RUOAREA	U2	RUOCIRC	U1	LARSCIRC	SA
609	MCCORMICK	JACKSON	458.0	0.298003	8141.39	0.336406	1185.51	0.291859	6955.88	9000.8	148.00
610	AGNES	POLK	459.0	0.256467	8121.87	0.307220	1014.08	0.298003	7107.78	14535.9	386.00
611	WADDELLS MILL POND	JACKSON	460.0	0.294931	8109.84	0.330261	1177.50	0.290323	6932.34	8970.3	147.00
612	DOSSON	HILLSBOROUGH	461.0	0.293395	8040.19	0.380952	1406.67	0.271889	6633.52	2339.6	10.00
613	DINNER	HIGHLANDS	462.0	0.291859	8038.73	0.304147	995.69	0.296467	7043.04	14403.5	379.00
614	FAIRY	SEMINOLE	463.0	0.290323	7984.81	0.245776	687.34	0.305684	7297.46	9231.6	50.00
615	ACA	SEMINOLE	464.0	0.288786	7897.72	0.242703	673.59	0.304147	7224.12	5179.0	49.00
616	CLAY	HIGHLANDS	465.0	0.287250	7822.16	0.299539	948.41	0.282642	6873.75	14057.3	361.00
617	HOLLINGSWORTH	POLK	466.0	0.285714	7761.26	0.296467	935.27	0.279570	6825.99	13959.6	356.00
618	WAUBERG	ALACHUA	467.0	0.284178	7745.54	0.442396	1993.12	0.222734	5752.42	11651.3	248.00
619	OTTER	WAKULLA	468.0	0.282642	7659.33	0.317972	1065.36	0.267281	6593.97	8532.5	133.00
620	BONNY	POLK	469.0	0.281106	7638.43	0.290323	909.00	0.276498	6729.43	13762.2	346.00
621	HORSE	HERNANDO	470.0	0.279570	7614.73	0.185868	436.46	0.302611	7178.26	3390.5	21.00
622	BANANA	POLK	471.0	0.278034	7601.31	0.285714	901.12	0.274962	6700.19	13702.4	343.00
623	ROUND	HILLSBOROUGH	472.0	0.276498	7559.12	0.353303	1266.00	0.253456	6293.11	2219.6	9.00
624	ENOLA	LAKE	474.0	0.273425	7541.59	0.235023	618.61	0.285714	6922.98	4963.1	45.00
625	INGRAM	ORANGE	474.0	0.273425	7541.59	0.235023	618.61	0.285714	6922.98	4963.1	45.00
626	GOLDEN	SEMINOLE	474.0	0.273425	7541.59	0.235023	618.61	0.285714	6922.98	4963.1	45.00
627	RED BEACH	HIGHLANDS	476.0	0.270353	7501.70	0.279570	880.10	0.270353	6621.60	13541.6	335.00
628	CANNON	POLK	477.0	0.268817	7476.65	0.278034	874.85	0.268817	6601.80	13501.2	333.00
629	ROCK	ORANGE	478.0	0.267281	7450.49	0.231951	604.86	0.281106	6845.63	4907.7	44.00
630	WALES	POLK	479.0	0.265745	7438.96	0.276498	866.96	0.265745	6572.00	13440.2	330.00
631	LITTLE RED WATER	HIGHLANDS	480.0	0.264209	7426.37	0.273425	864.34	0.264209	6562.03	13419.8	329.00
632	CATHERINE	ORANGE	481.0	0.262673	7265.60	0.227343	577.37	0.273425	6688.24	4794.8	42.00
633	PEBBLE	CLAY	482.0	0.261137	7180.68	0.107527	251.55	0.288786	6929.13	2339.6	10.00
634	MYSTIC	LIBERTY	483.0	0.259601	7156.21	0.298003	945.21	0.250384	6211.01	8036.9	118.00
635	LULU	POLK	484.0	0.258065	7145.38	0.265745	806.54	0.284992	6338.84	12963.4	307.00
636	SOUTH	LAKE	485.5	0.255760	7076.92	0.221966	549.87	0.261905	6527.05	4679.3	40.00
637	BELL	ORANGE	485.5	0.255760	7076.92	0.221966	549.87	0.261905	6527.05	4679.3	40.00
638	HERRICK	ORANGE	488.0	0.251920	6981.07	0.215054	536.13	0.258065	6444.95	4620.4	39.00
639	MINNIE	SEMINOLE	488.0	0.251920	6981.07	0.215054	536.13	0.258065	6444.95	4620.4	39.00
640	HUTCHINSON	VOLUSIA	488.0	0.251920	6981.07	0.215054	536.13	0.258065	6444.95	4620.4	39.00
641	SURVEYORS	POLK	490.0	0.248848	6962.37	0.259601	769.76	0.248848	6192.62	12664.3	293.00
642	WIRE	POLK	491.0	0.247312	6935.95	0.258065	764.50	0.244240	6171.44	12621.0	291.00
643	SCOTT	POLK	492.0	0.245776	6882.88	0.253456	754.00	0.242703	6128.88	12534.0	287.00
644	SUN	HOLMES	493.0	0.244240	6877.90	0.282642	881.12	0.233487	5996.77	7759.7	110.00
645	KANAPAHA	ALACHUA	494.0	0.242703	6856.73	0.403994	1639.50	0.190476	5217.23	10567.3	204.00
646	SHIPP	POLK	495.0	0.241167	6842.88	0.251920	746.11	0.239631	6096.77	12468.3	284.00
647	DAMON	HIGHLANDS	496.0	0.239631	6816.12	0.250384	740.86	0.238095	6075.26	12424.3	282.00
648	PEARL	ORANGE	497.0	0.238095	6786.15	0.205837	508.63	0.251920	6277.52	4500.4	37.00
649	SMART	POLK	498.0	0.236559	6775.84	0.248848	732.98	0.236559	6042.86	12358.1	279.00
650	OCTAHATCHEE	HAMILTON	499.0	0.235023	6731.21	0.400922	1591.28	0.185868	5139.93	10410.7	198.00
651	BEDFORD	BRADFORD	500.0	0.233487	6689.11	0.397849	1575.20	0.184332	5113.91	10358.0	196.00
652	HOPE	ORANGE	501.5	0.231183	6686.99	0.201997	494.89	0.246544	6192.10	4439.2	36.00
653	LITTLE LAKE BRYAN	ORANGE	501.5	0.231183	6686.99	0.201997	494.89	0.246544	6192.10	4439.2	36.00
654	SPRING	ORANGE	503.0	0.228879	6586.64	0.199693	481.14	0.241167	6105.50	4377.1	35.00
655	WAGES POND	WASHINGTON	504.0	0.227343	6518.72	0.264209	801.02	0.216590	5717.70	7398.6	100.00
656	BONNET	HIGHLANDS	505.0	0.225806	6516.53	0.244240	683.06	0.225806	5833.47	11929.9	260.00
657	MIRROR	SEMINOLE	506.0	0.224270	6485.04	0.198157	467.39	0.235023	6017.64	4314.1	34.00
658	RUBY	POLK	507.0	0.222734	6419.08	0.241167	664.67	0.224270	5754.41	11768.2	253.00
659	FAITH	ORANGE	509.0	0.219662	6382.13	0.192012	453.65	0.230415	5928.49	4250.2	33.00
660	FRANCIS	ORANGE	509.0	0.219662	6382.13	0.192012	453.65	0.230415	5928.49	4250.2	33.00
661	SILVER	SEMINOLE	509.0	0.219662	6382.13	0.192012	453.65	0.230415	5928.49	4250.2	33.00
662	BIVENS ARM	ALACHUA	511.0	0.216590	6282.23	0.382488	1422.51	0.173579	4859.72	9843.2	177.00
663	PORTER	ORANGE	512.0	0.215054	6277.87	0.187404	439.90	0.227343	5837.97	4185.3	32.00
664	CONNIE	POLK	513.0	0.213518	6177.73	0.238095	620.01	0.210445	5557.72	11365.9	236.00
665	LOVELY	ORANGE	514.5	0.211213	6172.18	0.180492	426.15	0.220430	5746.03	4119.4	31.00
666	GRACE	SEMINOLE	514.5	0.211213	6172.18	0.180492	426.15	0.220430	5746.03	4119.4	31.00
667	BAY	LAKE	516.0	0.208909	6145.53	0.176651	422.72	0.218126	5722.81	4102.7	30.75
668	KATHRYN	LAKE	518.0	0.205837	6065.00	0.172043	412.40	0.213518	5652.59	4052.4	30.00
669	HIGHLAND	ORANGE	518.0	0.205837	6065.00	0.172043	412.40	0.213518	5652.59	4052.4	30.00
670	MARTHA	ORANGE	518.0	0.205837	6065.00	0.172043	412.40	0.213518	5652.59	4052.4	30.00
671	SPIRIT	POLK	520.0	0.202765	6003.06	0.230415	588.48	0.202765	5414.58	11073.2	224.00
672	BEAR	LAKE	522.0	0.199693	5956.24	0.165899	398.66	0.207373	5557.58	3984.3	29.00
673	GENEVA	SEMINOLE	522.0	0.199693	5956.24	0.165899	398.66	0.207373	5557.58	3984.3	29.00
674	PEARL	SEMINOLE	522.0	0.199693	5956.24	0.165899	398.66	0.207373	5557.58	3984.3	29.00
675	JEFFORDS	ALACHUA	524.0	0.196621	5951.20	0.355447	1301.95	0.159754	4649.24	9416.9	162.00
676	APTHORPE	HIGHLANDS	525.0	0.195084	5869.52	0.225806	564.84	0.195084	5304.68	10848.5	215.00
677	NAN	ORANGE	526.0	0.193548	5845.83	0.161290	384.91	0.204301	5460.92	3915.0	28.00
678	LENA	POLK	527.0	0.192012	5764.06	0.219662	546.45	0.192012	5217.62	10670.4	208.00
679	GOVERNOR HILL	DIXIE	528.0	0.190476	5747.88	0.342550	1229.62	0.149001	4518.25	9151.5	153.00
680	MARY	LAKE	530.5	0.186636	5733.68	0.154378	371.16	0.198925	5362.52	3844.4	27.00
681	PINE	LAKE	530.5	0.186636	5733.68	0.154378	371.16	0.198925	5362.52	3844.4	27.00
682	JOHIO	ORANGE	530.5	0.186636	5733.68	0.154378	371.16	0.198925	5362.52	3844.4	27.00
683	WESTON	ORANGE	530.5	0.186636	5733.68	0.154378	371.16	0.198925	5362.52	3844.4	27.00
684	CHARLOTTE	HIGHLANDS	533.0	0.182796	5703.14	0.211982	535.94	0.188940	5167.20	10567.3	204.00

Table 5-6. (Continued)

OBS	LAKE	COUNTY	RANKUSE	RUSEROC	U3	RUOAREA	U2	RUOCIRC	U1	LARSCIRC	SA
685	TROUT	LAKE	534.0	0.181260	5637.85	0.147465	359.592	0.193548	5278.26	3784.0	26.198
686	MARIAM	POLK	535.0	0.179724	5626.29	0.208909	822.805	0.182796	5103.49	10437.0	199.000
687	EOLA	ORANGE	536.0	0.178187	5503.76	0.144393	343.671	0.187404	5160.09	3699.3	25.000
688	JESSIE	POLK	537.0	0.176651	5501.64	0.204301	501.788	0.176651	4999.85	10225.0	191.000
689	BLUE	PASCO	538.0	0.175115	5393.94	0.247312	703.336	0.161290	4690.61	1654.4	5.000
690	HORSESHOE	LAKE	540.0	0.172043	5385.76	0.141321	329.924	0.179724	5055.83	3624.6	24.000
691	SPIER	ORANGE	540.0	0.172043	5385.76	0.141321	329.924	0.179724	5055.83	3624.6	24.000
692	FLORIDA	SEMINOLE	540.0	0.172043	5385.76	0.141321	329.924	0.179724	5055.83	3624.6	24.000
693	GLENADA	HIGHLANDS	542.0	0.168971	5278.13	0.196621	465.008	0.165899	4813.12	9843.2	177.000
694	BLACK	ORANGE	543.0	0.167435	5265.56	0.136713	316.177	0.175115	4949.38	3548.2	23.000
695	ELBERT	POLK	544.0	0.165899	5212.93	0.195084	454.499	0.164362	4758.43	9731.3	173.000
696	ADAIR	ORANGE	546.0	0.162826	5143.02	0.132104	302.430	0.170507	4840.59	3470.2	22.000
697	BASS	ORANGE	546.0	0.162826	5143.02	0.132104	302.430	0.170507	4840.59	3470.2	22.000
698	JENNIE	SEMINOLE	546.0	0.162826	5143.02	0.132104	302.430	0.170507	4840.59	3470.2	22.000
699	HIAWATHA	LAKE	548.0	0.159754	5134.48	0.129032	301.482	0.167435	4833.00	3464.8	21.531
700	LELIA	HIGHLANDS	549.0	0.158218	5080.59	0.184332	433.482	0.158218	4647.10	9503.7	165.000
701	GUM	POLK	550.0	0.156682	5030.26	0.178187	425.600	0.152074	4604.66	9416.9	162.000
702	CRYSTAL	LAKE	551.0	0.155146	4986.31	0.125960	285.247	0.162826	4701.06	3370.2	20.750
703	MOUNTAIN	POLK	552.0	0.153610	4962.55	0.175115	415.092	0.150538	4547.46	9299.9	158.000
704	COOK	LAKE	554.0	0.150538	4890.26	0.121352	274.937	0.155146	4615.32	3308.7	20.000
705	KEHOE	ORANGE	554.0	0.150538	4890.26	0.121352	274.937	0.155146	4615.32	3308.7	20.000
706	CHARM	SEMINOLE	554.0	0.150538	4890.26	0.121352	274.937	0.155146	4615.32	3308.7	20.000
707	ELIZABETH	ALACHUA	556.0	0.147465	4841.41	0.293395	924.227	0.129032	3917.18	7934.1	115.000
708	JEFFERY	COLUMBIA	557.0	0.145929	4816.30	0.291859	916.191	0.125960	3900.11	7899.5	114.000
709	SIRENA	HIGHLANDS	558.0	0.144393	4807.49	0.162826	391.447	0.145929	4416.05	9031.1	149.000
710	DRUID	ORANGE	559.0	0.142857	4759.65	0.112135	261.190	0.147465	4498.46	3225.0	19.000
711	TOWNSEND POND	LAFAYETTE	560.0	0.141321	4740.53	0.284178	892.080	0.118280	3848.45	7794.9	111.000
712	OTIS	POLK	561.0	0.139785	4719.63	0.159754	378.311	0.139785	4341.32	8878.3	144.000
713	DAVIS	ORANGE	563.0	0.136713	4625.92	0.104455	247.443	0.142857	4378.48	3139.0	18.000
714	LUCERNE	ORANGE	563.0	0.136713	4625.92	0.104455	247.443	0.142857	4378.48	3139.0	18.000
715	BANANA	SEMINOLE	563.0	0.136713	4625.92	0.104455	247.443	0.142857	4378.48	3139.0	18.000
716	TRACY	POLK	565.0	0.133641	4576.30	0.145929	357.294	0.138249	4219.00	8628.2	136.000
717	LOUISE	SUWANNEE	566.0	0.132104	4560.95	0.268817	835.823	0.113671	3725.13	7545.1	104.000
718	MCDANIEL	WASHINGTON	567.0	0.130568	4443.53	0.168971	400.511	0.133641	4043.02	8231.6	50.000
719	DEER	POLK	568.0	0.129032	4354.34	0.138249	325.768	0.132104	4028.57	8238.7	124.000
720	HIDDEN	LAKE	569.5	0.126728	4348.02	0.089862	219.949	0.135945	4128.07	2959.4	16.000
721	SYLVAN	ORANGE	569.5	0.126728	4348.02	0.089862	219.949	0.135945	4128.07	2959.4	16.000
722	DEESON	POLK	571.0	0.124424	4220.59	0.135177	307.378	0.127496	3913.21	8002.8	117.000
723	MOLLY	VOLUSIA	572.0	0.122888	4203.19	0.082949	206.202	0.130568	3996.99	2865.5	15.000
724	CORN LANDING	FRANKLIN	573.0	0.121352	4196.01	0.149001	360.460	0.116743	3835.55	4963.1	45.000
725	TENNESSEE	POLK	574.0	0.119816	4122.92	0.127496	294.242	0.115207	3828.68	7829.9	112.000
726	CLEAR	BREVARD	576.5	0.115975	4053.91	0.076037	192.456	0.122120	3861.46	2768.3	14.000
727	HOURGLASS	ORANGE	576.5	0.115975	4053.91	0.076037	192.456	0.122120	3861.46	2768.3	14.000
728	CATHERINE	SEMINOLE	576.5	0.115975	4053.91	0.076037	192.456	0.122120	3861.46	2768.3	14.000
729	LINDEN	SEMINOLE	576.5	0.115975	4053.91	0.076037	192.456	0.122120	3861.46	2768.3	14.000
730	EFFIE	POLK	579.5	0.111367	3921.73	0.117512	267.971	0.109831	3653.76	7472.2	102.000
731	IDYLWILD	POLK	579.5	0.111367	3921.73	0.117512	267.971	0.109831	3653.76	7472.2	102.000
732	HOLDEN POND	ALACHUA	581.0	0.109063	3910.10	0.239631	642.941	0.084485	3267.16	6617.5	80.000
733	MARION	SEMINOLE	582.0	0.107527	3899.70	0.069124	178.709	0.112135	3720.99	2667.6	13.000
734	HUNTER	POLK	583.0	0.105991	3880.48	0.113671	262.716	0.107527	3617.77	7398.6	100.000
735	CUMMINGS	POLK	584.0	0.104455	3838.87	0.110599	257.462	0.105991	3581.40	7324.2	98.000
736	MUD	POLK	585.0	0.102919	3807.41	0.109063	253.521	0.102919	3553.89	7268.0	96.500
737	CHEROKEE	ORANGE	586.0	0.101382	3739.98	0.062980	164.962	0.104455	3575.01	2562.9	12.000
738	JULIANA	POLK	587.0	0.099846	3711.74	0.101382	241.699	0.099846	3470.04	7096.5	92.000
739	ALICE	ALACHUA	588.0	0.098310	3707.63	0.228879	586.683	0.075269	3120.95	6321.4	73.000
740	TULANE	HIGHLANDS	589.0	0.096774	3646.81	0.098310	233.817	0.096774	3412.99	6979.8	89.000
741	SWOOPE	POLK	590.0	0.095238	3624.95	0.096774	231.190	0.095238	3393.76	6940.5	88.000
742	SAND POINT POND	HERNANDO	591.0	0.093702	3606.55	0.038402	103.920	0.101382	3502.63	1654.4	5.000
743	LOW	SUWANNEE	592.0	0.092166	3588.77	0.224270	554.536	0.070660	3034.24	6145.7	69.000
744	CLEARWATER	POLK	593.0	0.090630	3580.91	0.095238	225.936	0.093702	3354.98	6861.2	86.000
745	HORSESHOE	ORANGE	594.0	0.089094	3574.03	0.059908	151.215	0.098310	3422.81	2453.8	11.000
746	ANNIE	HIGHLANDS	595.0	0.087558	3558.72	0.093702	223.309	0.092166	3335.41	6821.2	85.000
747	ROUND	JACKSON	596.0	0.086021	3548.90	0.115207	264.337	0.087558	3284.57	4250.2	33.000
748	LITTLE BONNET	HIGHLANDS	597.0	0.084485	3536.42	0.092166	220.682	0.090630	3315.74	6780.9	84.000
749	IDA	POLK	598.0	0.082949	3514.00	0.087558	218.054	0.089094	3295.94	6740.4	83.000
750	HICKORY POND	ALACHUA	599.0	0.081413	3497.97	0.210445	530.426	0.067588	2967.54	6010.6	66.000
751	SEARS	POLK	600.0	0.079877	3491.45	0.086021	215.427	0.086021	3276.03	6699.7	82.000
752	ELBOW POND	MADISON	601.0	0.078341	3436.58	0.207373	514.353	0.061444	2922.23	5918.9	64.000
753	LOUISE	VOLUSIA	602.0	0.076805	3400.99	0.053763	137.468	0.082949	3263.53	2339.6	10.000
754	ROY	POLK	603.5	0.074501	3400.04	0.080645	204.919	0.080645	3195.12	6534.3	78.000
755	WHISTLER	POLK	603.5	0.074501	3400.04	0.080645	204.919	0.080645	3195.12	6534.3	78.000
756	PAYNE POND	WASHINGTON	605.0	0.072197	3372.02	0.099846	240.307	0.076805	3131.71	4052.4	30.000
757	THOMAS	POLK	606.0	0.070660	3269.18	0.072197	190.282	0.072197	3078.90	6296.6	72.429
758	ROBERTA	HILLSBOROUGH	607.0	0.069124	3247.94	0.124424	281.334	0.066052	2966.60	1046.3	2.000
759	DICIE	LAKE	608.0	0.067588	3219.77	0.046083	123.721	0.073733	3096.05	2219.6	9.000
760	SQUIRREL PRAIRIE	HERNANDO	609.0	0.066052	3215.99	0.033794	83.136	0.078341	3132.85	1479.7	4.000

Table 5-6. (Continued)

ORS	LAKE	COUNTY	RANKUSE	RUSEROC	U3	RUOAREA	U2	RUOCIRC	U1	LARSCIRC	SA
761	ECHO	POLK	610.0	0.0645161	3186.42	0.070660	181.274	0.0691244	3005.14	6145.73	69
762	PEARL	HIGHLANDS	611.0	0.0629800	3137.29	0.067588	176.020	0.0645161	2961.27	6056.00	67
763	PINEY POND	WASHINGTON	612.0	0.0614439	3123.73	0.084485	208.266	0.0599078	2915.46	3772.55	26
764	RED WATER	HIGHLANDS	613.0	0.0599078	3112.48	0.066052	173.393	0.0629800	2939.09	6010.64	66
765	ANN	POLK	614.0	0.0583717	2959.94	0.061444	157.630	0.0583717	2802.31	5730.92	60
766	MYSTIC	MADISON	615.0	0.0568356	2881.95	0.188218	377.728	0.0476190	2504.23	8072.21	47
767	WATERTOWN	COLUMBIA	616.0	0.0552995	2847.13	0.150538	369.691	0.0460829	2477.44	5017.96	46
768	MAUDE	POLK	617.0	0.0537634	2827.50	0.058372	144.494	0.0568356	2683.01	5486.94	55
769	MCCUY	HIGHLANDS	618.5	0.0514593	2800.37	0.056068	141.867	0.0545315	2658.50	5436.83	54
770	HELENE	POLK	618.5	0.0514593	2800.37	0.056068	141.867	0.0545315	2658.50	5436.83	54
771	SILVER	POLK	620.0	0.0491551	2745.42	0.052227	136.612	0.0522273	2608.81	5335.20	52
772	ANOKA	HIGHLANDS	621.5	0.0468510	2689.50	0.049923	131.358	0.0499232	2558.15	5231.59	50
773	GEORGE	POLK	621.5	0.0468510	2689.50	0.049923	131.358	0.0499232	2558.15	5231.59	50
774	MAY	POLK	623.0	0.0445469	2515.35	0.044547	115.595	0.0445469	2399.75	4907.67	44
775	MORTON	POLK	624.0	0.0430108	2454.92	0.041475	110.341	0.0430108	2344.58	4794.83	42
776	TURKEY PEN POND	CALHOUN	625.0	0.0414747	2415.24	0.047619	128.163	0.0414747	2287.08	2959.43	16
777	BOGGY	WASHINGTON	626.0	0.0399386	2165.68	0.039939	104.133	0.0399386	2061.54	2667.60	13
778	STILL POND	WASHINGTON	627.0	0.0384025	2076.79	0.035330	96.123	0.0384025	1980.67	2562.95	12
779	LINK	POLK	628.0	0.0368664	1950.78	0.029186	70.933	0.0368664	1879.85	3844.42	27
780	BEULAH	POLK	630.0	0.0337942	1874.56	0.026114	65.679	0.0337942	1808.88	3699.29	25
781	SARDEN	POLK	630.0	0.0337942	1874.56	0.026114	65.679	0.0337942	1808.88	3699.29	25
782	SPRING	POLK	630.0	0.0337942	1874.56	0.026114	65.679	0.0337942	1808.88	3699.29	25
783	FRANCIS	MADISON	632.0	0.0307220	1842.69	0.064516	168.772	0.0291859	1673.92	3390.46	21
784	BEAUTY	ORANGE	633.0	0.0291859	1828.75	0.018433	41.240	0.0307220	1787.51	1281.47	3
785	MIRROR	POLK	634.0	0.0276498	1626.86	0.019969	49.916	0.0276498	1576.95	3224.97	19
786	MORRISON POND	CITRUS	635.0	0.0261137	1587.21	0.012289	20.784	0.0261137	1566.43	739.86	1
787	ELLA	LEON	636.0	0.0245776	1568.83	0.021505	56.072	0.0245776	1512.76	1957.48	7
788	CALF POND	ALACHUA	637.0	0.0230415	1479.26	0.043011	112.515	0.0230415	1366.75	2766.30	14
789	PALATKA POND	ALACHUA	638.0	0.0215054	1361.80	0.036866	96.441	0.0215054	1265.36	2562.95	12
790	CLEAR	ALACHUA	639.5	0.0192012	1235.48	0.031490	80.368	0.0192012	1155.11	2339.64	10
791	KOON	LAFAYETTE	639.5	0.0192012	1235.48	0.031490	80.368	0.0192012	1155.11	2339.64	10
792	LEE	POLK	641.0	0.0168971	1108.57	0.013825	23.644	0.0168971	1085.33	2219.58	9
793	TUTUOLA	LAKE	643.0	0.0138249	1045.76	0.009217	13.747	0.0138249	1032.02	739.86	1
794	SEMINOLE	SEMINOLE	643.0	0.0138249	1045.76	0.009217	13.747	0.0138249	1032.02	739.86	1
795	ANGELES	VOLUSIA	643.0	0.0138249	1045.76	0.009217	13.747	0.0138249	1032.02	739.86	1
796	DOBSON POND	MADISON	645.0	0.0107527	1022.69	0.023041	56.257	0.0092166	966.44	1957.48	7
797	BATEAU POND	JACKSON	646.0	0.0092166	1014.36	0.015361	24.031	0.0107527	990.33	1281.47	3
798	GINHOUSE POND	MADISON	647.0	0.0076805	656.79	0.016897	24.110	0.0076805	632.68	1281.47	3
799	JOHNSON	CLAY	649.5	0.0038402	0.00	0.003840	0.000	0.0038402	0.00	0.00	0
800	UNDERHILL	ORANGE	649.5	0.0038402	0.00	0.003840	0.000	0.0038402	0.00	0.00	0
801	LINDSEY	VOLUSIA	649.5	0.0038402	0.00	0.003840	0.000	0.0038402	0.00	0.00	0
802	JACKSON	WALTON	649.5	0.0038402	0.00	0.003840	0.000	0.0038402	0.00	0.00	0

LEGEND

RANKUSE = Rank (1 - 305) based on U3.
RUSEROC = Rank (1.0 - 0) based on U3.
U3 = See equation 5-3.
RUOAREA = Rank (1.0 - 0) based on U2.
U2 = See equation 5-2.
RUOCIRC = Rank (1.0 - 0) based on U1.
U1 = See equation 5-1.
LARSCIRC = Lake circumference, ft.
SA = Lake surface area, ac.

Table 5-7. Parks Associated with Lakes.

Property Designation	County	Name of Major Lakes	Lakes with predominant inclusion in park	Lakes with partial inclusion in park	Attendance		Facilities
					1979	1980	
Alfred B. Maclay State Garden	Leon			1	12 ,919*	90,627*	
Bear Creek State Recreation Area	Gadsen		2				
Big Lagoon State Recreation Area	Escambia		5			34,504*	
Blackwater River State Park	Santa Rosa		1		35,140*	41,077*	
Caloosahatchee River State Recreation Area	Lee		1				
Dead Lake State Recreation Area	Gulf		1		25,118	19,618	
Dr. Julian G. Bruce St. George Island State Park	Franklin		2				
Faksahatchee Strand State Preserve	Collier		11				
Faver-Dykes State Park	St. Johns			2			
Fort Cooper State Park	Citrus	Holathlikaha	1		34,545*	43,054	
Fort Pierce Inlet State Recreation Area	St. Lucie		1		191,651	208,957	
Fred Gannon Rocky Bayou State Recreation Area	Okaloosa		1				
Gold Head Branch	Clay	Johnson		13	99,097	94,077	p,t,s c,f
Grayton Beach State Recreation Area	Walton			1	45,148*	40,326*	
Haw Creek State Preserve	Flagler, Putnum & Volusia			1			
Hoonton Island State Park	Volusia & Lake		2		48,482*	44,040*	
Hugh Taylor Birch State Recreation Area	Broward		3		649,851	624,603	
Johnathan Dickinson State Park	Martin		20	3	185,356	186,566	
Lake Griffin	Lake	Griffin	2		43,315	45,942	p,t, b
Lake Kissimmee	Osceola	Kissimmee		1?	23,527	26,273	m,p, f,b
Lake Louisa	Lake	Louisa	6	3	13,675*	13,325*	p,f, s,c
Lake Manatee State Recreation Area	Manatee	Manatee	1		20,622*	25,102*	p,f, s,b
Lake Rousseau State Recreation Area	Citrus, Levy & Marion	Rousseau	1	2	335,961*	347,761*	

Table 5-7. Continued.

Property Designation	County	Name of Major Lakes	Lakes with predominant inclusion in park	Lakes with partial inclusion in park	Attendance		Facilities
					1979	1980	
Lake Talquin State Recreation Area	Gadsen, Leon, & Liberty	Talquin	1		372,650*	417,810*	p,f
Mike Roess Gold Head Branch State Park	Clay		3	1			
Myakka River State Park	Manatee & Sarasota	Upper Myakka	45		184,166	178,856	t,p,f b,c
O'Leno State Park	Alachua & Columbia			2	69,818*	51,961*	
Oscar Scherer State Recreation Area	Sarasota		1		109,586	110,931	
Paynes Prarie State Preserve	Alachua		6	3	39,920*	28,619*	
Prairie-Lakes State Preserves	Osceola			3	5,357*	3,822*	
St. Andrews State Recreation Area	Bay		3		555,517	549,656	
San Felasco Hammock State Preserve	Alachua		5	3	5,224*	5,901*	
Stephen Foster State Folk Culture Center	Hamilton		2		32,860	66,314	
Suwannee River State Park	Hamilton, Madison & Suwannee		1		59,765*	56,067*	
Three Rivers	Jackson	Seminole		1?	41,425*	29,916*	p,t, t,b
T.H. Stone Memorial St. Joseph Peninsula State Park	Gulf		1				
Wekiwa Springs State Park	Orange & Seminole		4		203,893	214,186	
Reserve Sub-System							
Cape St. George State Reserve	Franklin		5				
Cedar Key Scrub State Reserve	Levy		3	1			
		TOTALS	141	41	3,557,288	3,599,891	

*signifies estimated attendance by total automobile counts or seasonal sampling; other attendance numbers are actual counts.

b = boat ramp
m = marina
p = picnicking
f = fishing
s = swimming
c = canoeing
t = camping (tent or cottage)

Figure 5-3. Top Freshwater Fishing Locations in Florida. (After Fernald, 1981)

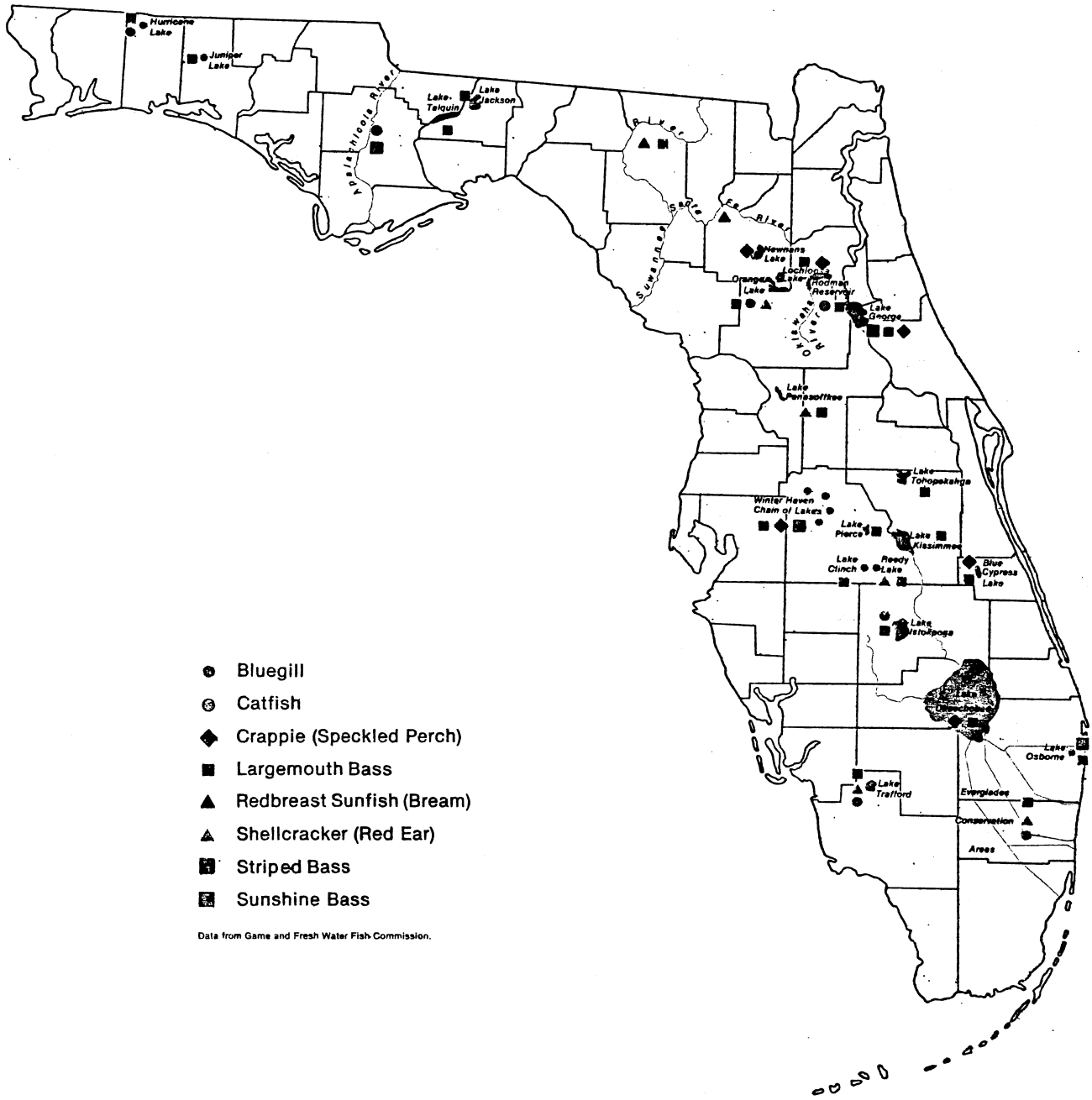
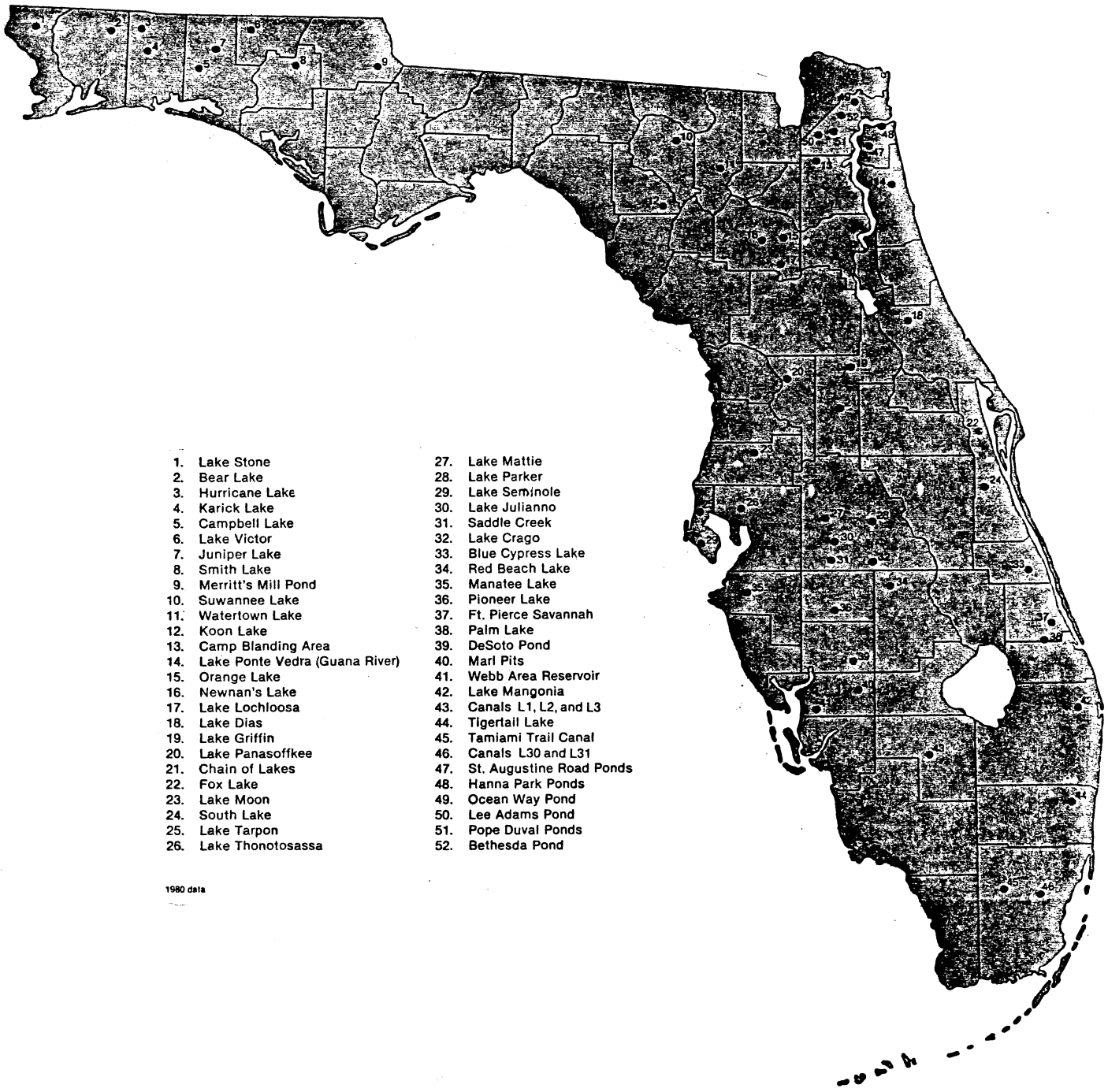


Figure 5-4. Fish Management Areas. (After Fernald 1981)



1. Lake Stone
2. Bear Lake
3. Hurricane Lake
4. Karick Lake
5. Campbell Lake
6. Lake Victor
7. Juniper Lake
8. Smith Lake
9. Merritt's Mill Pond
10. Suwannee Lake
11. Watertown Lake
12. Koon Lake
13. Camp Blanding Area
14. Lake Ponte Vedra (Guana River)
15. Orange Lake
16. Newnan's Lake
17. Lake Lochloosa
18. Lake Dias
19. Lake Griffin
20. Lake Panasoffkee
21. Chain of Lakes
22. Fox Lake
23. Lake Moon
24. South Lake
25. Lake Tarpon
26. Lake Thonotosassa
27. Lake Mattie
28. Lake Parker
29. Lake Seminole
30. Lake Julianno
31. Saddle Creek
32. Lake Crago
33. Blue Cypress Lake
34. Red Beach Lake
35. Manatee Lake
36. Pioneer Lake
37. Ft. Pierce Savannah
38. Palm Lake
39. DeSoto Pond
40. Marl Pits
41. Webb Area Reservoir
42. Lake Mangonia
43. Canals L1, L2, and L3
44. Tigertail Lake
45. Tamiami Trail Canal
46. Canals L30 and L31
47. St. Augustine Road Ponds
48. Hanna Park Ponds
49. Ocean Way Pond
50. Lee Adams Pond
51. Pope Duval Ponds
52. Bethesda Pond

1980 data

Osceola County (Kissimmee, Jackson, Marian). Fish license information for residents and non-residents is compiled by the FGFWFC on a county basis (see Figure 5-5a and b).

The U.S. Fish and Wildlife Service has recognized Lake Woodruff (Volusia County) as a National Wilderness Area and National Wildlife Refuge and similarly has classified Crocodile Lake (Key Largo, Monroe County) and Loxahatchee Slough (Palm Beach County) as National Wildlife Refuges. Lake Arbuckle (Polk County), Felix Lake (Tyndal Air Force Base, Bay County) and Upper Ben's Lake (Eglin Air Force Base, Okaloosa County) are associated with recreational trails presently under consideration for inclusion in the National Recreation Trails System. Little Lake George (Putnam County) is a proposed National Wildlife Area and Clear Lake (Leon County) and Buck Lake (Marion County) are RARE II (Roadless Area Review and Evaluation II) study areas designated by the U.S. Forest Service (DNR, 1981).

Cato and Mathis (1979) listed the six inland counties with the largest number of boats registered (Table 5-8) and resident-per-boat ratios of eight inland counties (Tables 5-9). Boat data are difficult to assign to a particular use (i.e., salt or fresh water) because of the multiplicity of possible uses for a given boat design.

Gibbs (1973), Gibbs and Connor (1973) and Gibbs and McGuire (1973) performed a thorough evaluation of the economic importance of recreation in the Kissimmee Basin in 1973. Recreational visitors were found to spend approximately $10.44 (1973 dollars) per person per day over and above normal every day expenses while enjoying recreation in the Kissimmee Basin. The cost of equipment owned by users was not prorated, and energy costs were not considered separately. Families located on lake-front properties spent approximately $675/year to use and maintain their own recreational facilities.

Figure 5-5a. Resident Fishing Licenses in Florida (by County).

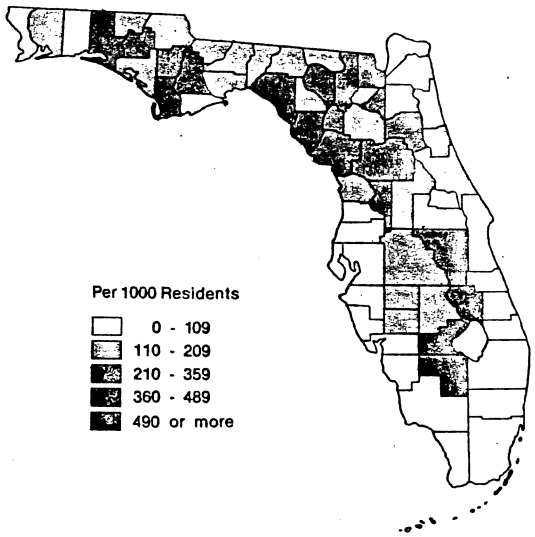


Figure 5-5b. Nonresident Fishing Licenses in Florida (by County).

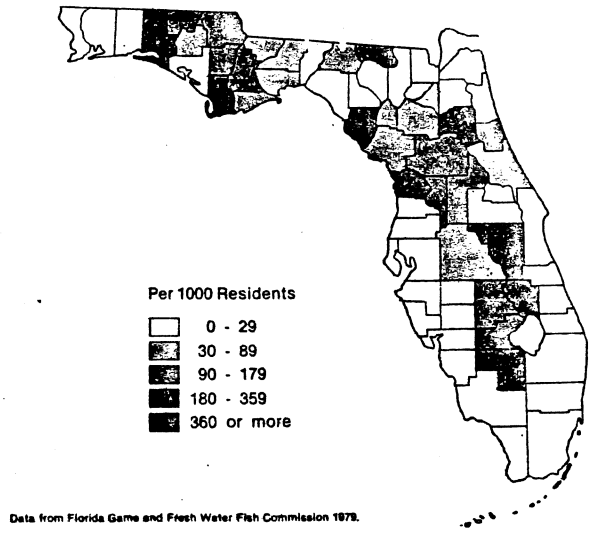


Table 5-8. Six Inland Counties with Most Boats Registered, 1977-78.

County	Use			Rank in State
	Pleasure	Commercial	Total	
	Number			
Orange	19,198	212	19,410	6
Polk	15,824	465	16,289	9
Lake	8,523	435	8,958	16
Leon	7,782	360	8,142	18
Marion	7,502	357	7,859	19
Putnam	3,634	437	4,071	29

Table 5-9. Resident-per-boat Ratio, Florida Coastal and Inland Counties, 1978.

Coastal		Inland	
County	Residents per boat	County	Residents per boat
Dade	38	Orange	22
Pinellas	25	Polk	17
Hillsborough	22	Lake	10
Broward	35	Leon	17
Duval	25	Marion	13
Monroe	5	Putnam	11
Lee	10	Union	35
Franklin	5	Glades	7
Jefferson	23	Lafayette	14

Boat Ramps and Public Access

Another indication of recreational importance is given by the relative ease of public access. Lakes with boat ramps and public access were indicated in the Florida Lakes Gazetteer (Florida Board of Conservation, 1969), and Table 5-10 lists the 199 Florida lakes that have some form of public access.

Landowners

By comparing real estate land values for similar lakefront and non-lakefront property, Gibbs (1973), Gibbs and Connor (1973) and Gibbs and McGuire (1973) found that frontage on water adds 64 percent to the value of the property. Water-front residents estimated that the selling price of their land and house would depreciate by 58 percent if their lake were permanently drained. Decreased water quality also has a negative, if unquantified effect on real estate prices.

Education and Aesthetics

Education and aesthetic values associated with a lake are among the most difficult to determine. The marginal effects of lakes on the productivity of thoroughly recreated or rejuvenated persons similarly are difficult to quantify. The ability of lakes to perform these tasks, or to provide the stimulating environment where humans can generate these feelings, is important in assigning values. Behavioral surveys or questionnaires to obtain this information may provide a valuable tool for comprehending the perceptual qualities of a lake. Plans to develop such data are now underway within the FDER (L. Edmiston, FDER, personal communication, 1982).

Potable Water Supply

Use of a lake as a potable surface water supply involves the strictest water quality criteria and requires that a lake exhibit the highest water

Table 5-10. Boat Ramps and Accessibility in Florida Lakes.

* A --> PUBLIC ACCESS R --> PUBLIC RAMPS *
* P --> PRIVATE RAMP M --> MEANDERED *
* G --> USGS GAGE CA --> COMBINED ACCESS*
****

DES	COUNTY	LAKE	R1	R2
1	ALACHUA	ALTHO	R	M
2	ALACHUA	GEORGES POND	A	P
3	ALACHUA	HOLDENS POND	A	P
4	ALACHUA	LOCHLOOSA	C	A
5	ALACHUA	NEWNAN	C	A
6	ALACHUA	ORANGE	C	A
7	ALACHUA	TUSCAWILLA	A	P
8	BAY	DEER POINT	C	A
9	BRADFORD	LITTLE SANTA FE	R	M
10	BRADFORD	SAMPSON	A	M
11	BRADFORD	SANTA FE	C	A
12	BREVARD	POINSETT	C	A
13	BREVARD	WASHINGTON	C	A
14	BROWARD	STIRLING	A	P
15	CITRUS	TSALA APOPKA	C	A
16	CLAY	BLUE POND	A	P
17	CLAY	BROOKLYN	A	P
18	CLAY	DOCTORS	R	P
19	CLAY	GENEVA	C	A
20	CLAY	KINGSLEY	R	P
21	CLAY	LOWERY	R	G
22	CLAY	MAGNOLIA	C	A
23	COLLIER	TRAFFORD	R	G
24	COLUMBIA	ALLIGATOR	R	G
25	DADE	BLUE LAGOON	A	P
26	ESCAMBIA	CRESENT	A	G
27	FLAGLER	DEAD	A	P
28	FLAGLER	DISSTON	C	A
29	GADSDEN	TALQUIN	C	A
30	GULF	DEAD	C	A
31	GULF	WIMICO	R	P
32	HERNANDO	FRANCIS	A	P
33	HERNANDO	GENEVA	A	P
34	HERNANDO	HUNTERS	A	P
35	HERNANDO	SQUIRREL PRAIRIE	A	P
36	HIGHLANDS	DAMON	R	M
37	HIGHLANDS	DINNER	C	A
38	HIGHLANDS	FRANCIS	A	M
39	HIGHLANDS	GRASSY	R	P
40	HIGHLANDS	ISTOKPOGA	C	A
41	HIGHLANDS	JACKSON	R	M
42	HIGHLANDS	JOSEPHINE	C	A
43	HIGHLANDS	JUNE-IN-WINTER	C	A
44	HIGHLANDS	LELIA	R	M
45	HIGHLANDS	LETTA	R	M
46	HIGHLANDS	LITTLE BONNET	A	
47	HIGHLANDS	LITTLE RED WATER	R	M
48	HIGHLANDS	LOTELA	R	M
49	HIGHLANDS	PLACID	R	M
50	HIGHLANDS	RED BEACH	C	A
51	HIGHLANDS	VEROWA	R	
52	HILLSBOROUGH	CARROLL	A	P
53	HILLSBOROUGH	ELLEN	A	P
54	HILLSBOROUGH	KEYSTONE	A	M
55	HILLSBOROUGH	STARVATION	R	G
56	HILLSBOROUGH	THONOTOSASSA	A	P
57	INDIAN RIVER	BLUE CYPRESS	R	G
58	JACKSON	MERRITTS MILL POND	C	A
59	JACKSON	MORRIS POND	A	P
60	JACKSON	OCHEESEE POND	C	A
61	JACKSON	SEMINOLE	C	A
62	JEFFERSON	MICCOSUKEE	C	A
63	LAKE	BEAUCLAIR	C	A
64	LAKE	CHERRY	A	P
65	LAKE	DENHAM	A	D
66	LAKE	DORA	C	A
67	LAKE	DORR	C	A
68	LAKE	EUSTIS	C	A
69	LAKE	GRIFFIN	C	A

Table 5-10. (Continued)

BOAT RAMPS AND ACCESSIBILITY IN FLORIDA LAKES

A --> PUBLIC ACCESS R --> PUBLIC RAMPS
P --> PRIVATE RAMP M --> MEANDERED
G --> USGS GAGE CA --> COMBINED ACCESS

OBS	COUNTY	LAKE	R1	R2
70	LAKE	HARRIS	C	A
71	LAKE	LITTLE LAKE HARRIS	C	A
72	LAKE	LOUISA	C	A
73	LAKE	MINNEHAHA	C	A
74	LAKE	MINNEOLA	C	A
75	LAKE	OKAHUMPKA	A	D
76	LAKE	YALE	C	A
77	LEON	IAMONIA	A	M
78	LEON	JACKSON	C	A
79	LEON	MUNSON	R	
80	LEVY	CHUNKY POND	A	P
81	LEVY	ROUSSEAU	C	A
82	MARION	BRYANT	C	A
83	MARION	HALFMOON	C	A
84	MARION	KERR	C	A
85	MARION	LITTLE LAKE BRYANT	A	P
86	MARION	LITTLE LAKE WEIR	C	A
87	MARION	MILL DAM	C	A
88	MARION	WEIR	R	M
89	OKEECHOBEE	OKEECHOBEE	C	A
90	ORANGE	APOPKA	C	A
91	ORANGE	BARTON	A	
92	ORANGE	BUTLER	C	A
93	ORANGE	CARLTON	R	
94	ORANGE	CHARITY	A	P
95	ORANGE	CLEAR	C	A
96	ORANGE	CONWAY	C	A
97	ORANGE	CROOKED	A	P
98	ORANGE	FAIRVEIW	C	A
99	ORANGE	HANCOCK	A	P
100	ORANGE	HART	A	P
101	ORANGE	HICKORYNUT	A	P
102	ORANGE	JENNIE JEWEL	A	P
103	ORANGE	JESSAMINE	A	
104	ORANGE	JOHNS	C	A
105	ORANGE	LAWNE	R	
106	ORANGE	LOUISE	C	A
107	ORANGE	MAITLAND	C	A
108	ORANGE	MARY JANE	C	A
109	ORANGE	SHERWOOD	A	P
110	ORANGE	TIBET BUTLER	C	A
111	OSCEOLA	AJAY	A	P
112	OSCEOLA	ALLIGATOR	C	A
113	OSCEOLA	COWLIN	A	P
114	OSCEOLA	COON	A	P
115	OSCEOLA	CYPRESS	C	A
116	OSCEOLA	EAST TOHOPEKALIGA	A	P
117	OSCEOLA	GENTRY	C	A
118	OSCEOLA	HATCHINEHA	R	M
119	OSCEOLA	JACKSON	A	P
120	OSCEOLA	KISSIMMEE	A	M
121	OSCEOLA	MARIAN	C	A
122	OSCEOLA	MYRTLE	A	P
123	OSCEOLA	PRESTON	A	P
124	OSCEOLA	TOHOPEKALIGA	C	A
125	OSCEOLA	TROUT	A	P
126	PASCO	BLUE	A	P
127	PASCO	CLEAR	R	G
128	PASCO	IOLA	A	P
129	PASCO	MOON	A	P
130	PASCO	PADGETT	A	P
131	PINELLAS	ALLIGATOR	R	G
132	PINELLAS	MAGGIORE	R	G
133	PINELLAS	TARPON	C	A
134	POLK	ALFRED	R	
135	POLK	ANNIE	R	M
136	POLK	ARBUCKLE	C	A
137	POLK	ARETTA	R	
138	POLK	ARIANA	C	A

Table 5-10. (Continued)

BOAT RAMPS AND ACCESSIBILITY IN FLORIDA LAKES

A --> PUBLIC ACCESS R --> PUBLIC RAMPS
P --> PRIVATE RAMP M --> MEANDERED
G --> USGS GAGE CA --> COMBINED ACCESS

OBS	COUNTY	LAKE	R1	R2
139	POLK	BANANA	A	P
140	POLK	BLUE	A	P
141	POLK	CLINCH	C	A
142	POLK	CROOKED	C	A
143	POLK	EAGLE	A	M
144	POLK	EFFIE	A	G
145	POLK	ELOISE	R	P
146	POLK	FANNIE	A	P
147	POLK	GIBSON	C	A
148	POLK	GORDON	A	M
149	POLK	HAMILTON	R	M
150	POLK	HANCOCK	A	P
151	POLK	HOLLINGSWORTH	C	A
152	POLK	HOWARD	R	M
153	POLK	HUNTER	A	
154	POLK	IDYLWILD	C	A
155	POLK	JESSIE	R	
156	POLK	JOSEPHINE	A	
157	POLK	JULIANA	C	A
158	POLK	LOWERY	R	P
159	POLK	MARION	C	A
160	POLK	MATTIE	A	
161	POLK	MAY	A	P
162	POLK	MCLEOD	A	P
163	POLK	MOUNTAIN	A	G
164	POLK	OKAHUMPKA	C	A
165	POLK	OTIS	A	G
166	POLK	PAMASOFFKEE	C	A
167	POLK	PARKER	C	A
168	POLK	PIERCE	C	A
169	POLK	REEDY	C	A
170	POLK	ROCHELLE	C	A
171	POLK	ROSALIE	C	A
172	POLK	SANITARY	R	P
173	POLK	SCOTT	R	M
174	POLK	SHIPP	C	A
175	POLK	SMART	A	M
176	POLK	SURVEYORS	A	P
177	POLK	SWOOPE	A	P
178	POLK	WALES	R	M
179	POLK	WEOHYAKAPKA	C	A
180	POLK	WIRE	A	
181	PUTNAM	COWPEN	C	A
182	PUTNAM	CRESCENT	C	A
183	PUTNAM	GEORGES	C	A
184	PUTNAM	GRANDIN	A	P
185	SEMINOLE	ISLAND	A	P
186	SEMINOLE	ISLAND POND	A	
187	SEMINOLE	JESSUP	C	A
188	UNION	PALESTINE	R	
189	VOLUSIA	ASHBY	C	A
190	VOLUSIA	BERESFORD	C	A
191	VOLUSIA	DEXTER	C	A
192	VOLUSIA	GEORGE	C	A
193	VOLUSIA	HARNEY	C	A
194	VOLUSIA	HIRES		A
195	VOLUSIA	LITTLE LAKE GEORGE	C	A
196	VOLUSIA	MONROE	C	A
197	WALTON	JACKSON	A	P
198	WASHINGTON	PORTER	A	G
199	WASHINGTON	THE DEADENING LAKES	A	

Table 5-11. Lakes Used as Potable Water Supplies.

Lake	County	Florida Class I-A Waters*
Bear Creek (Res.)	Bay	X
Bear Point (Res.)	Bay	X
Hell'N Blazes	Brevard	X
Sawgrass	Brevard	X
South	Brevard	
Washington	Brevard	X
Blue Cypress	Indian River	X
Manatee (Res.)	Manatee	X
Ward (Res.)	Manatee	X
Okeechobee	Okeechobee	X
Clear	Palm Beach	X
Mangonia	Palm Beach	X
Myakka Lakes	Sarasota	X

* Chapter 17-3, Rules of the FDER.

quality of all potential uses for a lake. Only thirteen Florida lakes (Table 5-11) are known to be used as drinking water sources by one or more municipalities. Of these, twelve are classified as public water supplies (Class I-A) by the FDER. These thirteen water bodies presumably would be highly valued in terms of water quality, although Lake Okeechobee is usually considered more important from other water use standpoints (e.g., water storage, commercial and recreational fishing, recreation).

Agricultural and Forestry Use

The use of lakes for agriculture and forestry is important beyond simple irrigation. Citrus trees, which are highly susceptible to frost,

are protected during the passage of cold fronts if situated near a lake body that acts as a heat source. This phenomenon was a major reason why the restoration of Lake Apopka by drawdown/sediment consolidation was found to be inadvisable from a cost-benefit viewpoint.

Municipal, Industrial, and Utilities Use

Municipal waste water facilities are important lake uses that can contribute significant amounts of point source loadings into lake ecosystems. In effect, wastewater facilities use the natural assimilative capacity of the lake as a final treatment mechanism. If this load is not excessive enough to diminish other beneficial uses, society as a whole generates benefit from the practice in the form of diminished treatment costs.

Similarly, industry uses lakes as water sources, heat exchangers, and waste sinks. The net benefits of such practices generally accrue to the company itself. The public needs to ascertain that these users are appropriate to the total system, and not an unwise use of a natural resource. Point discharges to lakes of industries and publicity-owned waste treatment plants were listed in Chapter 4.

Natural Environmental Sectors

The effect of lakes on other environmental systems (along with feedbacks to the main system) should not be neglected. Realization that human activities are coupled with natural systems and not diametrically opposed is an important aspect of understanding that humans are a part of the web in the general ecosystem and not apart from it.

Summary

Lakes included in state parks, fish management areas, or designated as "top fishing" or water supply lakes are summarized in Table 5-12, along with lakes for which prior restoration efforts have been made and lakes mentioned in the text in conjunction with other recreational facilities. This table represents a general indication of recreational and public use of Florida lakes. These lakes may be cross-referenced to other factors (e.g., water quality indicators) as discussed subsequently.

PROFESSIONAL INTEREST

Scientific inquiry into lake water quality can arise from public, regulatory and academic interest, as well as considerations of management and location. Lakes on which at least one scientific report or article has been written are listed in the "By-Lake Reference List" (Appendix B). These are summarized in Table 5-13, wherein it may be seen that a few lakes have received considerable scientific attention (e.g., Okeechobee, Apopka), and many have been the object of at least one individual study. Of course, hundreds more have been studied as part of a group. Hence, for many lakes sufficient information may exist to permit detailed individual evaluations where desired.

FISH KILLS

Fish-kill data from EPA STORET files for the period 1960-1980 are summarized in Table 5-14. Although it is possible to rank the data in various ways, the data are only semi-quantitative, and an alphabetical listing is used in the table. Lake Thonotosassa in Hillsborough County had five fish-kill incidents of varying magnitudes. The reliability of such numbers as

Table 5-12. Beneficial Uses and Water Quality of 74 Florida Lakes.

LAKE	COUNTY	POTABLE WATER	STATE PARK	TOP FISHING	FISH MANA-GEMENT	PRIOR EFFORT	OTHER RECREATION
Alice	Alachua					X	
Lochloosa	Alachua			X	X		X
Newnans	Alachua			X	X		
Orange	Alachua			X	X		
Wauberg	Alachua		X				X
Bear Creek	Bay	X					
Deer Point	Bay	X					
Felix	Bay						X
Fox	Brevard				X		
Hell'N Blazes	Brevard	X					
Sawgrass	Brevard	X					
South	Brevard	X			X	X	
Washington	Brevard	X					
Tigertail	Broward				X		
Webb Reservoir	Charlotte				X		
Holathlikaha	Citrus		X				
Rousseau	Citrus		X				
Johnson	Clay		X				
Magnolia	Clay		X				
Trafford	Collier			X			
Watertown	Columbia				X		
De Soto	De Soto				X		

Table 5-12. Continued.

LAKE	COUNTY	POTABLE WATER	STATE PARK	TOP FISHING	FISH MANA-GEMENT	PRIOR EFFORT	OTHER RECREATION
Stone	Escambia				X		
Talquin	Gadsen		X	X		X	X
Dead	Gulf		X				
Pioneer	Hardee				X		
Istokpoga	Highlands			X			
Red Beach	Highlands				X		
Thontososassa	Hillsborough				X		
Victor	Holmes				X		
Blue Cypress	Indian River	X	X	X			
Merrit's Mill	Jackson				X		
Seminole	Jackson		X				
Koon	Lafayette				X		
Griffin	Lake		X		X	X	
Louisa	Lake		X				
Trout	Lake					X	
Clear	Leon						X
Jackson	Leon			X		X	
Manatee	Manatee	X	X		X		
Ward Reservoir	Manatee	X					
Buck	Marion						X
Rodman Reservoir	Marion			X			
Crocodile	Monroe						X

Table 5-12. Continued.

LAKE	COUNTY	POTABLE WATER	STATE PARK	TOP FISHING	FISH MANA-GEMENT	PRIOR EFFORT	OTHER RECREATION
Hurricane	Okaloosa			X	X		
Karrick	Okaloosa				X		
Upper Ben's	Okaloosa				X		
Apopka	Orange						X
Eola	Orange					X	
Osceola	Orange					X	
Jackson	Osceola						X
Kissimmee	Osceola		X	X			
Marian	Osceola						X
Tohopekaliga	Osceola			X		X	
Clear	Palm Beach	X					
Mangonia	Palm Beach	X	X				
Osborne	Palm Beach			X			
Palm	Palm Beach				X		
Moon	Pasco				X		
Seminole	Pinellas				X		
Tarpon	Pinellas				X		
Arbuckle	Pinellas				X		
Beulah	Polk					X	
Clinch	Polk			X			
Crago	Polk					X	

Table 5-12. Continued.

LAKE	COUNTY	POTABLE WATER	STATE PARK	TOP FISHING	FISH MANA-GEMENT	PRIOR EFFORT	OTHER RECREATION
Julianna	Polk				X		
Little Lake Tangerine	Polk					X	
Pierce	Polk				X		
Bear	Santa Rosa				X		
Upper Myakka	Sarasota	X	X				
Panasoffkee	Sumter			X	X		
Suwannee	Suwannee				X		
Butler	Union						X
Dias	Volusia				X		
George	Volusia			X			
Woodruff	Volusia						X
Campbell	Walton			X			
Juniper	Walton		X	X			
Smith	Washington			X			

Table 5-13. Lakes as Objects of Scientific Reports*.

Lake	County	No. of Literature Citations
Okeechobee	Okeechobee	23
Apopka	Orange	13
Conway	Orange	10
Annie	Highlands	6
Jackson	Leon	6
Mize	Alachua	6
Tarpon	Pinellas	6
Tohopekaliga	Osceola	6
Rodman Reservoir	Putnam	5
Alice	Alachua	4
Talquin	Gadsen	4
Claire	Orange	3
Kissimmee	Osceola	3
Mud	Marion	3
Orange	Alachua	3
Thonotosassa	Hillsborough	3
Weir	Marion	3
Eola	Orange	2
Hancock	Polk	2
Jessup	Seminole	2
Lawne	Orange	2
Mizell	Orange	2
Rousseau	Levy	2
Seminole	Pinellas	2
Trout	Lake	2

*50 Lakes have one citation. See Appendix B.

Table 5-14. Fish Kill Incidents in Florida Lakes.

* GAME = % GAME FISH NONGAME = % NONGAME *
* LAT = LATITUDE LONG = LONGITUDE *

OBS	LAKE	COUNTY	YEAR	MONTH	DAY	FISHKILL	GAME	NONGAME
1	AMELIA	MARION	79	6	11	0	70	30
2	APOPKA	ORANGE	73	7	3	0	0	100
3	APOPKA	ORANGE	66	7	12	1000000	10	90
4	APOPKA	ORANGE	74	4	30	10000	0	0
5	ARTIFICIAL	PALM BEACH	76	10	12	250	10	90
6	BANANA	POLK	71	3	29	273100	4	96
7	BANANA	POLK	72	6	13	73499	17	83
8	BARTON	ORANGE	74	1	1	0	0	100
9	BOILER	PASCO	70	2	12	0	100	0
10	BONNETT	POLK	69	7	2	0	5	95
11	BRADDOCKS POND	ALACHUA	72	8	26	500	0	0
12	BRADDOCKS POND	ALACHUA	74	1	7	50	100	0
13	BROOKER	HILLSBOROUGH	69	10	25	25569	6	94
14	BROOKER	HILLSBOROUGH	70	10	20	34585	1	99
15	BUCKEYE	POLK	68	8	19	0	5	95
16	CATALINA PK	ORANGE	74	3	1	0	0	100
17	CATHERINE	SEMINOLE	75	5	1	100	0	0
18	CATHERINE	ORANGE	75	5	19	0	0	0
19	CHARLOTTE	ORANGE	74	2	25	0	0	100
20	CLARKE	PALM BEACH	69	4	15	4960	30	70
21	CLAY	HIGHLANDS	69	3	20	0	100	0
22	CONINE	POLK	71	9	18	720	50	50
23	COPELAND	ORANGE	74	2	18	0	0	100
24	CROOKED	POLK	70	12	18	271	99	1
25	CRYSTAL	POLK	73	9	12	1600	100	0
26	DAVIS	ORANGE	75	6	1	2000	5	95
27	DENTON	HIGHLANDS	74	4	8	150	100	0
28	DUCK POND	CLAY	78	6	13	15000	0	0
29	ELOISE	POLK	69	8	31	0	1	99
30	EVANS	PASCO	69	12	25	1000	100	0
31	EVANS	VOLUSIA	74	6	17	260	100	0
32	FAIRVIEW	ORANGE	75	5	26	15	100	0
33	FLORENCE	ORANGE	72	6	28	2000	0	0
34	FORREST	ORANGE	73	7	29	6000	95	5
35	FRANCIS	HIGHLANDS	74	5	6	235	70	30
36	GEAR	ORANGE	75	4	23	0	0	0
37	GEORGE	PALM BEACH	74	3	28	1000	70	30
38	GEORGES POND	ALACHUA	73	9	12	4600	100	0
39	GLENADA	HIGHLANDS	71	2	17	2078	1	99
40	GLENADA	HIGHLANDS	71	3	11	4010	1	99
41	HARTRIDGE	POLK	73	9	13	1210	99	1
42	HARVEY	SEMINOLE	72	7	31	200	0	0
43	HENDRY	POLK	68	11	0	45000	50	50
44	HENRY	POLK	67	8	2	61745	95	5
45	HIBISCUS	VOLUSIA	74	6	11	1000	100	0
46	HIBISCUS	VOLUSIA	74	8	5	600	0	0
47	HOLLOWAY	POLK	70	7	2	550	100	0
48	HORSEY PARK	PASCO	69	4	21	18000	100	0
49	HOUGHS POND	WAKULLA	73	1	1	3156	75	25
50	HOWARD	POLK	70	3	31	0	0	0
51	JACKSON	OSCEOLA	74	3	10	115	0	0
52	JESSUP	SEMINOLE	74	5	12	8000	20	80
53	JESSUP	SEMINOLE	64	5	30	1000000	4	96
54	KATHERN	ORANGE	73	6	20	300	0	0
55	KATHRYN	SEMINOLE	72	9	18	0	0	0
56	KISSIMMEE	OSCEOLA	73	6	1	1000	11	89
57	L ECONLOCKHATCHE	ORANGE	72	6	15	300	0	0
58	LA JENNIE JEWEL	ORANGE	75	4	4	150	0	0
59	LAKE LANCASTER	ORANGE	74	3	3	0	0	100
60	LAWSONA	ORANGE	72	8	24	0	0	0
61	LITTLE LAKE FAIRVIEW	ORANGE	73	7	23	200	99	1
62	LOTELA	HIGHLANDS	70	7	21	0	0	100
63	LT BARTON	ORANGE	75	9	30	250	60	40
64	LT ECNLCKHTCHEE	ORANGE	74	3	13	0	0	100
65	LUCERNE	ORANGE	74	2	28	0	0	100
66	LUCERNE WEST	ORANGE	65	8	10	115	44	56
67	MAITLAND	ORANGE	75	5	21	100	0	0
68	MARIE	VOLUSIA	73	7	11	2000	0	0
69	MARIE	POLK	67	7	8	164	97	3
70	MARY PRAIRIE	ORANGE	72	8	28	2000	0	0
71	MAULE	DADE	73	2	8	95	0	0

Table 5-14. (Continued)

```
* GAME = % GAME FISH    NONGAME = % NONGAME    *
* LAT  = LATITUDE       LONG    = LONGITUDE    *
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OBS	LAKE	COUNTY	YEAR	MONTH	DAY	FISHKILL	GAME	NONGAME
72	MEAD MANOR	SEMINOLE	75	5	1	0	0	0
73	MENZIE	POLK	71	7	23	7380	99	1
74	MIRROR	POLK	69	3	16	320	9	91
75	NEAL	VOLUSIA	72	6	15	0	0	0
76	NO NAME POND	ORANGE	75	10	5	600	0	0
77	OLD TANK	PASCO	73	1	4	640	56	44
78	OWENS	LAKE	74	8	9	1460	0	0
79	PANASOFFKEE	SUMTER	74	7	19	500	0	0
80	PEARL	SEMINOLE	74	3	18	93121	0	0
81	PEGRAM	MARION	74	2	22	15	0	100
82	POND	BROWARD	76	9	12	1300	14	86
83	PRIVATE	LAKE	68	10	18	700	50	50
84	REEDY	FRANKLIN	69	4	28	0	30	70
85	REEDY	POLK	69	12	13	0	97	3
86	RODMAN RESERVOIR	MARION	75	9	12	90	10	90
87	ROY	POLK	69	4	21	1067	65	35
88	ROY	POLK	70	3	31	0	0	0
89	SEMINOLE	PINELLAS	69	5	7	0	5	95
90	SEMINOLE	WALTON	72	4	29	210	0	0
91	SHIPP	POLK	69	10	24	32665	1	99
92	SHIPP	POLK	70	3	31	0	0	0
93	SHIPP & LULU	POLK	73	5	11	113	74	26
94	SKY	ORANGE	75	7	16	0	0	0
95	SMALL	BREVARD	77	2	12	10	100	0
96	SPRING	SEMINOLE	76	9	16	35	100	0
97	SPRING	ORANGE	75	5	21	150	25	75
98	SPRING	SEMINOLE	74	4	5	20	0	0
99	SUSAN	VOLUSIA	72	7	5	200	0	0
100	SUSANNAH	ORANGE	75	7	28	26	100	0
101	TARPON	PINELLAS	73	9	15	3000	80	20
102	THONOTOSASSA	HILLSBOROUGH	69	1	27	26526690	2	98
103	THONOTOSASSA	HILLSBOROUGH	70	4	3	0	63	37
104	THONOTOSASSA	HILLSBOROUGH	71	2	24	50	28	72
105	THONOTOSASSA	HILLSBOROUGH	71	4	16	3700	74	26
106	THONOTOSASSA	HILLSBOROUGH	73	6	6	5000	30	70
107	TREE O RIPE	POLK	75	7	28	562	44	56
108	TUTUOLA	LAKE	76	10	21	16000	95	5
109	TUTUOLA	LAKE	76	10	21	16000	95	5
110	TWIN	HILLSBOROUGH	69	9	14	0	0	100
111	TYLER	ORANGE	73	6	0	200	95	5
112	TYLER	ORANGE	75	5	5	25	0	0
113	WEIR	MARION	74	8	8	0	0	0
114	WELDONA	ORANGE	74	2	8	0	0	0
115	WESTON	ORANGE	72	8	24	0	0	0
116	WINTERSET	POLK	69	9	12	0	50	50
117	WONDERWOOD	CLAY	73	12	6	1000	0	100
118	WOODLAND	ORANGE	75	9	30	0	0	0

the 26,526,690 reported killed in 1969 is subject to question. Regardless of magnitude of the kills, this lake, which is also a fish management area, clearly has experienced fish-kill problems. In a sense, inclusion in Table 5-14 serves as another indication of interest in a lake since inclusion implies that there was sufficient concern to report the kill to EPA. On the other hand, absence from Table 5-14 does not necessarily mean a lake never has experienced a fish kill.

Although Lake Apopka (three incidents) was formerly a prominent fishing lake (see Chapter 6), it no longer is and may not be of as much concern as a lake such as Thonotosassa. The latter, with five incidents and its status as a fish management area would seem to deserve attention.

WATER QUALITY INDICATORS

Introduction

This section will summarize information already discussed in the previous three chapters on the trophic state index, nutrient loads and macrophyte coverage of Florida lakes. Ultimately, this information on water quality may be cross-referenced to information on usage, fish kills, etc. presented previously in this chapter, from which a prioritization scheme may be developed.

Trophic State Index

TSI values and their interpretation have been discussed in Chapter 3. Considering only lakes with five or more samples and TSI values greater than 60 (an approximate demarcation for problem lakes), the highest 89 lakes by TSI are ranked and shown in Table 3-4. Absence from Table 3-4 does not necessarily mean that a lake might not suffer from another indicator of negative

water quality. For instance, Lake Alice (Alachua County) has a TSI of only 45 yet was the object of a prior restoration effort (Table 5-1) on the basis of water hyacinth infestation in the early 1970's. However, five lakes with prior restoration efforts (i.e., South, Griffin, Trout, Tohopekeliga, Beulah) are also found in Table 3-4, with the implication that TSI may be a primary indicator of detrimental water quality in these lakes.

If a high TSI value is assumed to indicate a decline in lake usage by the public, the relative deviations of TSI values among nearby lakes is of interest. For this purpose, another ranking is shown in Table 5-15 in which lakes are ranked on a statewide basis by the number of standard deviations by which a lake deviates from the mean TSI for its county. Column headings are defined on the table, and the ranking is on parameter TSID,

$$TSID = \frac{TSI - TSIBAR}{STSI} \qquad (5\text{-}4)$$

where TSID = number of standard deviations of the TSI from the county mean,

TSI = TSI values for the lake,

TSIBAR = county mean, and

STSI = county standard deviation.

All high ranking lakes tend to have high TSI values and indicate lakes that have the worst water quality (on the basis of TSI) for the region (county) of the individual lakes. High ranking lakes on Table 5-15 may be compared to lakes receiving high use (e.g., Tables 5-6, 5-12) to identify lakes of possible restoration interest on a local basis.

Nutrient Loads

As discussed in Chapter 4, nutrient loads by themselves do not necessarily indicate good or bad water quality; rather, the load needs to be combined

Table 5-15. Lakes Ranked by TSI Deviations from County Mean. Missing lakes have no TSI or are only lake in county.

RATSID = Rank (1 - 559) based on TSID.
RTSID = Rank (1.0 - 0) based on TSID.
RTSI = Rank (1.0 - 0) based on TSI.
TSI = Trophic State Index.
TSID = (TSI - TSIBAR)/STSI
STSI = County standard deviation (not given in table).
TSIDIF = TSI - TSIBAR.
TSIBAR = County mean.
N = Number of lakes in county with TSI values.

LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
BANANA	SEMINOLE	1	3.41103	70.8641	124.434	53.5700	20.7750	28
DAVIS	ORANGE	2	2.80857	44.9093	99.263	54.3535	15.9901	71
GRADY	HILLSBOROUGH	3	2.51382	40.7166	89.122	48.4053	16.1971	39
SQUIRREL PRAIRIE	HERNANDO	4	2.43152	32.7991	87.814	55.0154	13.4871	11
WESTON	ORANGE	5	2.43008	38.8572	93.211	54.3535	15.9901	71
BEAUCLAIR	LAKE	6	2.42753	39.7545	87.543	47.7889	16.3765	50
JAX	HIGHLANDS	7	2.36670	29.0637	79.495	50.4314	12.2803	28
JESSAMINE	PASCO	8	2.32821	31.1167	76.229	45.1126	13.3651	24
DOCTORS	CLAY	9	2.31600	33.6409	65.139	31.4980	14.5254	9
BANANA	POLK	10	2.21982	34.3171	94.927	60.6123	15.4594	85
BROOKER	HILLSBOROUGH	11	2.19725	35.5891	83.994	48.4053	16.1971	39
EFFIE	POLK	12	2.16257	33.4323	94.045	60.6123	15.4594	85
DORA	LAKE	13	2.05137	33.5943	81.383	47.7889	16.3765	50
LULU	POLK	14	2.04604	31.6305	92.243	60.6123	15.4594	85
HANCOCK	POLK	15	2.04282	31.5808	92.193	60.6123	15.4594	85
APOPKA	ORANGE	16	1.98560	31.7499	86.103	54.3535	15.9901	71
MUNSON	LEON	17	1.95468	36.5387	89.531	52.7927	18.6930	6
WHITE TURKEY POND	PASCO	18	1.94046	25.9345	71.047	45.1126	13.3651	24
UNNAMED 20	ALACHUA	19	1.90342	23.2977	81.820	58.5223	12.2377	32
CHARLOTTE	HIGHLANDS	20	1.87969	23.0832	73.515	50.4314	12.2803	28
LOVELY	ORANGE	21	1.85748	29.7013	84.055	54.3535	15.9901	71
GEORGE	PUTNAM	22	1.82819	28.9126	67.626	38.7134	15.8143	19
GRIFFIN	LAKE	23	1.76853	28.9623	76.751	47.7889	16.3765	50
SHIPP	POLK	24	1.76104	27.2246	87.837	60.6123	15.4594	85
MORRISON POND	CITRUS	25	1.70925	20.7145	70.533	49.8190	12.1170	5
BONNETT	POLK	26	1.69826	26.2540	86.866	60.6123	15.4594	85
CENTER	OSCEOLA	27	1.68450	18.3868	76.910	58.5227	10.9153	25
CYPRESS	OSCEOLA	28	1.67790	18.3148	76.838	58.5227	10.9153	25
MIDDLE	PASCO	29	1.65682	22.1436	67.256	45.1126	13.3651	24
WEKIVA	ORANGE	30	1.64188	26.2539	80.607	54.3535	15.9901	71
MAY	POLK	31	1.63333	25.2503	85.863	60.6123	15.4594	85
TROUT	LAKE	32	1.62397	26.5949	74.384	47.7889	16.3765	50
SCOTT	POLK	33	1.61123	24.9086	85.521	60.6123	15.4594	85
CARLTON	ORANGE	34	1.60277	25.6288	79.982	54.3535	15.9901	71
CLAY	HIGHLANDS	35	1.56886	19.2660	69.697	50.4314	12.2803	28
HOLLINGSWORTH	POLK	36	1.56238	24.1535	84.766	60.6123	15.4594	85
POINSETT	BREVARD	37	1.55498	2.7937	62.543	57.7497	1.7966	6
CLARKS	WASHINGTON	38	1.55233	32.0549	69.584	37.5293	20.6426	9
MYRTLE	DADE	39	1.55024	21.6141	66.156	44.5420	13.9424	10
MAGGIORE	PINELLAS	40	1.51744	23.1435	91.623	68.4797	15.2516	6
EUSTIS	LAKE	41	1.49498	24.4326	72.271	47.7889	16.3765	50
CHARLES	MARION	42	1.49011	20.4314	66.037	45.6058	13.7114	12
BONNY	POLK	43	1.45952	22.5633	83.176	60.6123	15.4594	85
BERESFORD	VOLUSIA	44	1.45905	31.7743	70.425	38.6509	21.7775	18
GEORGE	BROWARD	45	1.45688	48.8119	110.694	61.8823	33.5044	4
JESSUP	SEMINOLE	46	1.44530	30.0260	83.596	53.5700	20.7750	28
BAMBI	DADE	47	1.41383	19.7122	64.254	44.5420	13.9424	10
LITTLE LAKE GEORGE	PUTNAM	48	1.40133	22.1618	60.875	38.7134	15.8143	19
DAN	HILLSBOROUGH	49	1.38098	22.3678	70.773	48.4053	16.1971	39
DEATON	SUMTER	50	1.37731	13.6165	69.843	56.2269	9.8863	4
BURNT POND	ALACHUA	51	1.37309	16.8065	75.327	58.5223	12.2377	32
ROWELL	BRADFORD	52	1.36726	12.6266	62.115	49.4880	9.2350	4
LAWNE	ORANGE	53	1.36519	21.8295	76.183	54.3535	15.9901	71
OYSTER	WALTON	54	1.36272	10.3062	48.694	38.3882	7.5630	6
KANAPAHA	ALACHUA	55	1.32990	16.2779	74.800	58.5223	12.2377	32
THONOTOSASSA	HILLSBOROUGH	56	1.30308	21.1062	69.511	48.4053	16.1971	39
UNNAMED	MARION	57	1.28738	17.6517	63.258	45.6058	13.7114	12
HOWARD	POLK	58	1.28112	19.8053	80.418	60.6123	15.4594	85
POCKET	ORANGE	59	1.27069	20.3184	74.672	54.3535	15.9901	71
MARY	SEMINOLE	60	1.26220	26.2221	79.792	53.5700	20.7750	28
BIVENS ARM	ALACHUA	61	1.25000	15.2999	73.822	58.5223	12.2377	32

Table 5-15. (Continued)

FL. LAKES RANKED BY THE NUMBER OF STANDARD DEVIATIONS FROM THE COUNTY MEAN
RTSIDV=RANKED NUMBER OF DEVIATIONS FROM TSIBAR
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LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
DEER POINT	BAY	62	1.24609	4.6758	34.7674	30.0916	3.7524	4
DRUID	ORANGE	63	1.22275	17.5520	73.9055	54.3535	15.9901	71
DEXTER	VOLUSIA	64	1.21376	26.4367	65.0876	38.6509	21.7775	18
PARKER	POLK	65	1.20837	18.6810	79.2733	60.6123	15.4594	85
DENHAM	LAKE	66	1.18988	19.4860	67.2749	47.7889	16.3765	50
HORSESHOE	LAKE	67	1.18644	19.4298	67.2187	47.7889	16.3765	50
PAYNES PRAIRIE	ALACHUA	68	1.17699	14.4062	72.9285	58.5223	12.2399	32
NEWNANS	ALACHUA	69	1.17420	14.3721	72.8944	58.5223	12.2399	32
OTTER	WAKULLA	70	1.15438	5.5454	45.7883	40.2429	4.8038	3
FRANCIS	MADISON	71	1.14630	29.0713	82.0973	53.0260	25.3610	3
MARIAN	OSCEOLA	72	1.10133	12.0214	70.5441	58.5227	10.9153	25
BRANTLEY	SEMINOLE	73	1.08469	22.5343	76.1044	53.5700	20.7750	28
ANNIE	POLK	74	1.07967	16.6910	77.3033	60.6123	15.4594	85
DICIE	LAKE	75	1.05975	17.3549	65.1438	47.7889	16.3765	50
DOWLING	PASCO	76	1.03571	13.8423	58.9549	45.1126	13.3651	24
WAUBERG	ALACHUA	77	1.03347	12.6495	71.1719	58.5223	12.2399	32
CYPRESS POND	COLLIER	78	1.03106	15.7180	72.6844	56.9664	15.2444	3
CHEROKEE	ORANGE	79	1.02262	16.3518	70.7054	54.3535	15.9901	71
BLACK	ORANGE	80	1.01217	16.1846	70.5382	54.3535	15.9901	71
GUM SLOUGH POND	MONROE	81	1.00305	5.0165	63.6909	58.6744	5.0012	3
GRANDIN	PUTNAM	82	1.00257	15.8554	54.5688	38.7134	15.8148	19
SEBRING	HIGHLANDS	83	0.99725	12.2465	62.6779	50.4314	12.2803	28
PUZZLE	VOLUSIA	84	0.99628	21.6965	60.3474	38.6509	21.7775	18
LITTLE LAKE HARRIS	LAKE	85	0.99249	16.2535	64.0424	47.7889	16.3765	50
WIMAUMA	HILLSBOROUGH	86	0.99065	16.0456	64.4509	48.4053	16.1971	39
HATCHINEHA	OSCEOLA	87	0.98712	10.7747	69.2974	58.5227	10.9153	25
HORSESHOE	ORANGE	88	0.98492	15.7490	70.1025	54.3535	15.9901	71
MARGARET	PUTNAM	89	0.97822	15.4703	54.1837	38.7134	15.8148	19
MONROE	VOLUSIA	90	0.97129	21.1522	59.8031	38.6509	21.7775	18
OCHEESEE POND	JACKSON	91	0.96239	9.3607	30.4955	21.1347	9.7266	4
MIRROR	POLK	92	0.96182	14.8692	75.4815	60.6123	15.4594	85
GULLY POND	WASHINGTON	93	0.95409	19.7016	57.2308	37.5293	20.6496	9
CRENSHAW	HILLSBOROUGH	94	0.94900	15.3710	63.7763	48.4053	16.1971	39
TOHOPEKALIGA	OSCEOLA	95	0.94779	10.3454	68.8681	58.5227	10.9153	25
TURKEY	ORANGE	96	0.94298	15.0784	69.4319	54.3535	15.9901	71
HARRIS	LAKE	97	0.93447	15.3034	63.0923	47.7889	16.3765	50
HUNTER	POLK	98	0.92818	14.3491	74.9614	60.6123	15.4594	85
SHADOW	ORANGE	99	0.92421	14.7782	69.1318	54.3535	15.9901	71
GLENADA	HIGHLANDS	100	0.92329	11.3383	61.7697	50.4314	12.2803	28
EATON	MARION	101	0.91388	12.5306	58.1364	45.6058	13.7114	12
ADAHO	PUTNAM	102	0.91179	14.4198	53.1332	38.7134	15.8148	19
SOUTH	LAKE	103	0.90791	14.8684	62.6573	47.7889	16.3765	50
MAYO	POLK	104	0.89940	13.9042	74.5166	60.6123	15.4594	85
LUCERNE	ORANGE	105	0.89817	14.3618	68.7153	54.3535	15.9901	71
LOTUS	SEMINOLE	106	0.87837	18.2482	71.8182	53.5700	20.7750	28
SUWANNEE	PASCO	107	0.86983	11.6254	56.7379	45.1126	13.3651	24
ELOISE	POLK	108	0.86942	13.4407	74.0530	60.6123	15.4594	85
CANNON	POLK	109	0.86865	13.4288	74.0412	60.6123	15.4594	85
JACKSON	OSCEOLA	110	0.85828	9.3684	67.8911	58.5227	10.9153	25
LIPSEY	HILLSBOROUGH	111	0.85476	13.8479	62.2531	48.4053	16.1971	39
WAGES POND	WASHINGTON	112	0.84477	17.4443	54.9735	37.5293	20.6496	9
CLEAR	ALACHUA	113	0.83370	10.2069	68.7272	58.5223	12.2399	32
LITTLE BONNET	HIGHLANDS	114	0.82984	10.1906	60.6220	50.4314	12.2803	28
HAWTHORNE	ALACHUA	115	0.82768	10.1307	68.6530	58.5223	12.2399	32
MIZE	ALACHUA	116	0.80890	9.9009	68.4232	58.5223	12.2399	32
TURKEY FORD	HILLSBOROUGH	117	0.79019	12.7988	61.2041	48.4053	16.1971	39
CALF POND	ALACHUA	118	0.77349	9.4675	67.9878	58.5223	12.2399	32
CROOKED	ORANGE	119	0.77243	12.3512	66.7047	54.3535	15.9901	71
LITTLE LAKE JACKSON	HIGHLANDS	120	0.76130	9.3490	59.7804	50.4314	12.2803	28
MCKENZIE	CALHOUN	121	0.76122	1.7273	11.0034	9.2762	2.2691	3
MERRITTS MILL POND	JACKSON	122	0.74416	7.2382	28.3729	21.1347	9.7266	4

Table 5-15. (Continued)

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LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
ASHBY	VOLUSIA	123	0.732180	15.9450	54.5959	38.6509	21.7775	18
FISH	LAKE	124	0.728216	11.9256	59.7146	47.7889	16.3765	50
BUTLER	UNION	125	0.721604	4.5474	49.1101	44.5454	6.3274	3
SUGGS	PUTNAM	126	0.711205	11.2478	49.9609	38.7134	15.8148	19
ALLIGATOR	COLUMBIA	130	0.707107	10.6762	75.7516	65.0754	15.0985	2
CRESCENT	FLAGLER	130	0.707107	10.3280	66.6953	56.3673	14.6060	2
WIMICO	GULF	130	0.707107	8.0779	54.6411	46.5632	11.4239	2
SUN	HOLMES	130	0.707107	0.7504	32.0911	31.3407	1.0612	2
KOON	LAFAYETTE	130	0.707107	8.0859	56.4876	48.4017	11.4352	2
KARICK	OKALOOSA	130	0.707107	6.2670	40.4286	34.1615	8.8627	2
SUSAN	SUWANNEE	130	0.707107	3.7280	50.3611	46.6331	5.2722	2
LONG	ORANGE	134	0.697324	11.1503	65.5038	54.3535	15.9901	71
JOSEPHINE	HIGHLANDS	135	0.681767	8.3723	58.8037	50.4314	12.2803	28
PRETTY	HILLSBOROUGH	136	0.666034	10.7878	59.1931	48.4053	16.1971	39
WHITFIELDS PRAIRIE	HERNANDO	137	0.658711	8.8854	63.9009	55.0154	13.4891	11
ROY	POLK	138	0.658593	10.1815	70.7938	60.6123	15.4594	85
MOSS LEE	PUTNAM	139	0.655929	10.3734	49.0868	38.7134	15.8148	19
LOCHLOOSA	ALACHUA	140	0.637826	7.8069	66.3293	58.5223	12.2379	32
PORTER	ORANGE	141	0.636281	10.1742	64.5277	54.3535	15.9901	71
VAN DYKE	HILLSBOROUGH	142	0.632733	10.2484	58.6537	48.4053	16.1971	39
MORTON	POLK	143	0.631854	9.7681	70.3804	60.6123	15.4594	85
CHUNKY POND	LEVY	144	0.622636	9.4458	60.2512	50.8054	15.1706	3
RUSSELL	OSCEOLA	145	0.615864	6.7224	65.2451	58.5227	10.9153	25
BLUE LAGOON	DADE	146	0.611583	8.5269	53.0689	44.5420	13.9424	10
MILLS	SEMINOLE	147	0.602864	12.5245	66.0945	53.5700	20.7750	28
SUMMIT	POLK	148	0.600979	9.2908	69.9031	60.6123	15.4594	85
SEMINOLE	PINELLAS	149	0.600122	9.1528	77.6326	68.4797	15.2516	6
MOLLY	VOLUSIA	150	0.597583	13.0138	51.6647	38.6509	21.7775	18
WALL	PUTNAM	151	0.591021	9.3469	48.0603	38.7134	15.8148	19
CLARKE	PALM BEACH	152	0.590278	10.8114	65.3205	54.5091	18.3158	3
DIAS	VOLUSIA	153	0.586068	12.7631	51.4140	38.6509	21.7775	18
JOHNSON	CLAY	154	0.573446	8.3296	39.8276	31.4980	14.5254	9
OSBORNE	PALM BEACH	155	0.564325	10.3361	64.8452	54.5091	18.3158	3
DEFUNEAK	WALTON	156	0.556441	4.2083	42.5966	38.3882	7.5630	6
LINK	POLK	157	0.551062	8.5121	69.1314	60.6123	15.4594	85
GRASSY	LAKE	158	0.543632	8.9028	56.6917	47.7889	16.3765	50
MARY JANE	ORANGE	159	0.535690	8.5657	62.9193	54.3535	15.9901	71
LONG POND	LEVY	160	0.530848	8.0533	58.8587	50.8054	15.1706	3
HIGHLAND	ORANGE	161	0.530137	8.4769	62.8305	54.3535	15.9901	71
LITTLE RED WATER	HIGHLANDS	162	0.519180	6.3757	56.8071	50.4314	12.2803	28
CRUM	HILLSBOROUGH	163	0.508559	8.2372	56.6424	48.4053	16.1971	39
IVANHOE	ORANGE	164	0.483576	7.7324	62.0860	54.3535	15.9901	71
YALE	LAKE	165	0.482489	7.9015	55.6904	47.7889	16.3765	50
MARION	HILLSBOROUGH	166	0.475469	7.7012	56.1065	48.4053	16.1971	39
BIG BASS	MARION	167	0.470510	6.4513	52.0571	45.6058	13.7114	12
HAMILTON	POLK	168	0.464696	7.1839	67.7963	60.6123	15.4594	85
LITTLE CROOKED	POLK	169	0.459009	7.0960	67.7083	60.6123	15.4594	85
FISH & MARK	OSCEOLA	170	0.449591	4.9074	63.4301	58.5227	10.9153	25
SOUTH	BREVARD	171	0.444213	0.7981	60.5478	59.7497	1.7944	6
FISH	OSCEOLA	172	0.436360	4.7630	63.2857	58.5227	10.9153	25
BEULAH	POLK	173	0.423017	6.5396	67.1519	60.6123	15.4594	85
SILVER	ORANGE	174	0.422148	6.7502	61.1037	54.3535	15.9901	71
HOURGLASS	ORANGE	175	0.421137	6.7340	61.0876	54.3535	15.9901	71
HOWELL	SEMINOLE	176	0.420433	8.7345	62.3045	53.5700	20.7750	28
PALESTINE	UNION	177	0.419822	2.6572	47.2026	44.5454	6.3274	3
ISTOKPOGA	HIGHLANDS	178	0.419025	5.1458	55.5771	50.4314	12.2803	28
HARVEY	HILLSBOROUGH	179	0.418800	6.7834	55.1886	48.4053	16.1971	39
JOEL	OSCEOLA	180	0.410674	4.4826	63.0053	58.5227	10.9153	25
COOTER POND7	ALACHUA	181	0.409838	5.0164	63.5387	58.5223	12.2379	32
SILVER	LAKE	182	0.401475	6.5748	54.3637	47.7889	16.3765	50
FISH & COLLEEN	OSCEOLA	183	0.385938	4.2126	62.7354	58.5227	10.9153	25

Table 5-15. (Continued)

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LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
SOUTH BASS	DADE	184.0	0.383530	5.34732	49.8893	44.5420	13.9424	10
TURKEY PEN POND	CALHOUN	185.0	0.371330	0.84258	10.1188	9.2762	2.2691	3
EGYPT	HILLSBOROUGH	186.0	0.360072	5.80460	54.2077	48.4053	16.1971	39
ROCK	ORANGE	187.0	0.352755	5.64080	59.9941	54.3535	15.9901	71
STARVATION	HILLSBOROUGH	188.0	0.349422	5.65963	54.0649	48.4053	16.1971	39
HARNEY	VOLUSIA	189.0	0.348138	7.58156	46.2325	38.6509	21.7775	18
SAWGRASS	BREVARD	190.0	0.343188	0.61659	60.3662	59.7497	1.7966	6
CONNIE	POLK	191.0	0.340839	5.26917	65.8815	60.6123	15.4594	85
PASADENA	PASCO	192.0	0.337799	4.51472	49.6273	45.1126	13.3651	24
UNDERHILL	ORANGE	193.0	0.328146	5.24709	59.6006	54.3535	15.9901	71
SPRING	POLK	194.0	0.318636	4.92592	65.5383	60.6123	15.4594	85
GARFIELD	POLK	195.0	0.307261	4.75008	65.3624	60.6123	15.4594	85
SEMINOLE	SEMINOLE	196.0	0.301407	6.26172	59.8317	53.5700	20.7750	28
PEARL	SEMINOLE	197.0	0.301137	6.25616	59.8262	53.5700	20.7750	28
HIAWATHA	LAKE	198.0	0.294709	4.82629	52.6152	47.7889	16.3765	50
AJAY	OSCEOLA	199.0	0.287311	3.13609	61.6588	58.5227	10.9153	25
LINDSEY	HERNANDO	200.0	0.282411	3.80948	58.8249	55.0154	13.4891	11
CAMP	PASCO	201.0	0.279757	3.73879	48.8515	45.1126	13.3651	24
JESSIE	POLK	202.0	0.261456	4.04195	64.6543	60.6123	15.4594	85
RED BEACH	HIGHLANDS	203.0	0.254836	3.12946	53.5608	50.4314	12.2803	28
GEORGES	PUTNAM	204.0	0.248373	3.92828	42.6417	38.7134	15.8148	19
JACKSON	HILLSBOROUGH	205.0	0.245492	3.97625	52.3815	48.4053	16.1971	39
JACKSON	WALTON	206.0	0.243388	1.84073	40.2290	38.3882	7.5630	6
UMATILLA	LAKE	207.0	0.234859	3.84616	51.6351	47.7889	16.3765	50
LOUISA	LAKE	208.0	0.230107	3.76835	51.5573	47.7889	16.3765	50
DAMON	HIGHLANDS	209.0	0.228579	2.80702	53.2384	50.4314	12.2803	28
MARION	POLK	210.0	0.213377	3.29868	63.9110	60.6123	15.4594	85
REEDY	POLK	211.0	0.212506	3.28522	63.8976	60.6123	15.4594	85
MERIAL	BAY	212.0	0.210159	0.78860	30.8802	30.0916	3.7524	4
WINTERSET	POLK	213.0	0.203954	3.15300	63.7653	60.6123	15.4594	85
SYLVAN	ORANGE	214.0	0.198504	3.17410	57.5276	54.3535	15.9901	71
BRYANT	MARION	215.0	0.190807	2.61622	48.2220	45.6058	13.7114	12
MINNIE	SEMINOLE	216.0	0.190316	3.95382	57.5238	53.5700	20.7750	28
GIBSON	POLK	217.0	0.174921	2.70417	63.3165	60.6123	15.4594	85
ALLIGATOR	PINELLAS	218.0	0.155048	2.36473	70.8445	68.4797	15.2516	6
FRANCIS	HIGHLANDS	219.0	0.153352	1.88321	52.3146	50.4314	12.2803	28
MAUDE	POLK	220.0	0.145783	2.25372	62.8661	60.6123	15.4594	85
EOLA	ORANGE	221.0	0.140104	2.24028	56.5938	54.3535	15.9901	71
BATON	VOLUSIA	222.0	0.136726	2.97754	41.6284	38.6509	21.7775	18
FERGUSON	PASCO	223.0	0.133679	1.78690	46.8995	45.1126	13.3651	24
PEARL	ORANGE	224.5	0.132252	2.11472	56.4683	54.3535	15.9901	71
SUSANNAH	ORANGE	224.5	0.132252	2.11472	56.4683	54.3535	15.9901	71
PRESTON	OSCEOLA	226.0	0.123655	1.34974	59.8725	58.5227	10.9153	25
LAFAYETTE	LEON	227.0	0.107845	2.01594	55.0087	52.9927	18.6930	6
MIRROR	SEMINOLE	228.0	0.107388	2.23099	55.8010	53.5700	20.7750	28
DORR	LAKE	229.0	0.076638	1.58259	49.3715	47.7889	16.3765	50
HORSESHOE	SEMINOLE	230.0	0.075402	1.98198	55.5520	53.5700	20.7750	28
MUD	MARION	231.0	0.074335	1.29346	46.8993	45.6058	13.7114	12
CATHERINE	SEMINOLE	232.0	0.072796	1.92783	55.4978	53.5700	20.7750	28
MAITLAND	ORANGE	233.0	0.088425	1.41393	55.7675	54.3535	15.9901	71
DOSSON	HILLSBOROUGH	234.0	0.087137	1.41137	49.8166	48.4053	16.1971	39
HAINES	POLK	235.0	0.077865	1.20374	61.8161	60.6123	15.4594	85
SAMPSON	BRADFORD	236.0	0.077022	0.71130	50.1993	49.4880	9.2350	4
LADY	LAKE	237.0	0.076773	1.25727	49.0462	47.7889	16.3765	50
ADAIR	ORANGE	238.0	0.075314	1.20427	55.5578	54.3535	15.9901	71
PIERCE	HILLSBOROUGH	239.0	0.070941	1.14904	49.5543	48.4053	16.1971	39
ARIANA	POLK	240.0	0.070632	1.09193	61.7043	60.6123	15.4594	85
PATE POND	WASHINGTON	241.0	0.069031	1.42546	38.9547	37.5293	20.6496	9
CLEAR	PASCO	242.0	0.064371	0.86033	45.9729	45.1126	13.3651	24
SWOOPE	POLK	243.0	0.061712	0.75404	61.5664	60.6123	15.4594	85
SMITH	WASHINGTON	244.0	0.056096	1.15836	38.6876	37.5293	20.6496	9

Table 5-15. (Continued)

FL. LAKES RANKED BY THE NUMBER OF STANDARD DEVIATIONS FROM THE COUNTY MEAN
RTSIDV=RANKED NUMBER OF DEVIATIONS FROM TSIBAR
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LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
MIONA	SUMTER	245.0	0.05561	0.5498	56.7767	56.2269	9.8863	4
JUNIPER	WALTON	246.0	0.04897	0.3703	38.7586	38.3882	7.5630	6
ELLEN	HILLSBOROUGH	247.0	0.04000	0.6470	49.0101	40.4053	16.1971	39
BUGG SPRING	LAKE	248.0	0.03959	0.6484	48.4873	47.7889	16.3765	50
KISSIMMEE	OSCEOLA	247.0	0.03476	0.3794	58.9022	58.5227	10.9153	25
BASS	ORANGE	250.0	0.02972	0.4752	54.8287	54.3535	15.9901	71
MOODY	PASCO	251.0	0.02756	0.3684	45.4809	45.1126	13.3651	24
MATTIE	POLK	252.0	0.02434	0.3763	60.9887	60.6123	15.4594	85
ORANGE	ALACHUA	253.0	0.01110	0.1358	58.6582	58.5223	12.2397	32
GRASSY	HIGHLANDS	254.0	0.00862	0.1059	50.5372	50.4314	12.2803	28
THREE ISLAND	VOLUSIA	255.0	0.00361	0.0787	38.7296	38.6509	21.7775	18
IDYLWILD	POLK	256.0	0.00084	0.0130	60.6254	60.6123	15.4594	85
EAGLE	POLK	257.0	0.00037	0.0057	60.6180	60.6123	15.4594	85
HORSE	HERNANDO	258.0	-0.00372	-0.0502	54.9653	55.0154	13.4891	11
OCKLAWAHA	MARION	259.0	-0.00393	-0.0538	45.5520	45.6058	13.7114	12
U MIAMI POND	MONROE	260.0	-0.00612	-0.0306	58.6438	58.6744	5.0012	3
CREWS	PASCO	261.0	-0.00690	-0.0923	45.0203	45.1126	13.3651	24
ELEVENTH HOLE	SEMINOLE	262.0	-0.01162	-0.2414	53.3286	53.5700	20.7750	28
CHURCH	LAKE	263.0	-0.01628	-0.2667	47.5223	47.7889	16.3765	50
STARKE	ORANGE	264.0	-0.05370	-0.8587	53.4947	54.3535	15.9901	71
PITTS POND	LAKE	265.0	-0.05431	-0.8895	46.8995	47.7889	16.3765	50
TIGER	POLK	266.0	-0.05582	-0.8629	59.7494	60.6123	15.4594	85
ROCHELLE	POLK	267.0	-0.05669	-0.8763	59.7360	60.6123	15.4594	85
FLAT	LAKE	268.5	-0.05904	-0.9669	46.8221	47.7889	16.3765	50
SCHIMMERHORN	LAKE	268.5	-0.05904	-0.9669	46.8221	47.7889	16.3765	50
TUTUOLA	LAKE	270.0	-0.05907	-0.9676	46.8213	47.7889	16.3765	50
NEFF	HERNANDO	271.0	-0.06350	-0.8566	54.1588	55.0154	13.4891	11
GENEVA	CLAY	272.0	-0.06411	-0.9312	30.5668	31.4980	14.5254	9
TRAFFORD	COLLIER	273.0	-0.06533	-0.9959	55.9705	56.9664	15.2444	3
AGNES	POLK	274.0	-0.07135	-1.1030	59.5093	60.6123	15.4594	85
SKY	DADE	275.0	-0.07178	-1.0008	43.5412	44.5420	13.9424	10
BYSTRE	HERNANDO	276.0	-0.07185	-0.9692	54.0462	55.0154	13.4891	11
HOLDENS	ORANGE	277.0	-0.07798	-1.2470	53.1066	54.3535	15.9901	71
LOUISE	DADE	278.0	-0.08147	-1.1359	43.4061	44.5420	13.9424	10
PALATKA POND	ALACHUA	279.0	-0.08252	-1.0101	57.5123	58.5223	12.2397	32
ARBUCKLE	POLK	280.0	-0.08347	-1.2904	59.3220	60.6123	15.4594	85
UNNAMED LAKE	HILLSBOROUGH	281.0	-0.09298	-1.5060	46.8993	48.4053	16.1971	39
PARKER	PASCO	282.0	-0.09421	-1.2591	43.8535	45.1126	13.3651	24
SAXON	PASCO	283.0	-0.10210	-1.3646	43.7479	45.1126	13.3651	24
CLEAR	ORANGE	284.0	-0.10326	-1.6511	52.7024	54.3535	15.9901	71
KINGSLEY	CLAY	285.0	-0.10682	-1.5517	29.9464	31.4980	14.5254	9
BALDWIN	ORANGE	286.0	-0.11016	-1.7614	52.5921	54.3535	15.9901	71
ELIZABETH	ALACHUA	287.0	-0.11121	-1.3612	57.1611	58.5223	12.2397	32
TSALA APOPKA(F)	CITRUS	288.0	-0.11145	-1.3507	48.4683	49.8190	12.1190	5
IRMA	ORANGE	289.0	-0.11828	-1.8914	52.4622	54.3535	15.9901	71
BEAUTY	ORANGE	290.0	-0.11856	-1.8957	52.4578	54.3535	15.9901	71
LITTLE ORANGE	ALACHUA	291.0	-0.11938	-1.4612	57.0611	58.5223	12.2397	32
MANN	ORANGE	292.0	-0.12008	-1.9201	52.4335	54.3535	15.9901	71
PIERCE	POLK	293.0	-0.12837	-1.9849	58.6275	60.6123	15.4594	85
MINNEHAHA	LAKE	294.0	-0.14565	-2.3853	45.4036	47.7889	16.3765	50
ZEBRA	HERNANDO	295.0	-0.14755	-1.9904	53.0251	55.0154	13.4891	11
WATERMELON POND	ALACHUA	296.0	-0.15082	-1.8460	56.6764	58.5223	12.2397	32
TSALA APOPKA(I)	CITRUS	297.0	-0.15463	-1.8740	47.9450	49.8190	12.1190	5
LITTLE LAKE WEIR	MARION	298.0	-0.15778	-2.1634	43.4423	45.6058	13.7114	12
TUSCAWILLA	ALACHUA	299.0	-0.16373	-2.0041	56.5183	58.5223	12.2397	32
TROUT	OSCEOLA	300.0	-0.16414	-1.7916	56.7311	58.5227	10.9153	25
SHERWOOD	ORANGE	301.0	-0.16582	-2.6515	51.7020	54.3535	15.9901	71
SILVER	POLK	302.0	-0.17055	-2.6367	57.9757	60.6123	15.4594	85
BROOKLYN	CLAY	303.0	-0.17511	-2.5435	28.9545	31.4980	14.5254	9
BRIGHT	LAKE	305.0	-0.17871	-2.9266	44.8624	47.7889	16.3765	50
MARY	LAKE	305.0	-0.17871	-2.9266	44.8624	47.7889	16.3765	50

Table 5-15. (Continued)

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LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
SWATARA	LAKE	305.0	-0.17871	-2.927	44.8624	47.7889	16.3765	50
SPRING	HERNANDO	307.0	-0.18038	-2.433	52.5822	55.0154	13.4891	11
JOHNS	ORANGE	308.0	-0.18671	-2.984	51.3600	54.3535	15.9701	71
PORTER	WASHINGTON	309.0	-0.18801	-3.882	33.6470	37.5273	20.6496	9
GOOSE	PASCO	310.5	-0.18824	-2.516	42.5967	45.1126	13.3651	24
HANCOCK	PASCO	310.5	-0.18824	-2.516	42.5967	45.1126	13.3651	24
HUTCHINSON	VOLUSIA	312.0	-0.18874	-4.110	34.5405	38.6509	21.7775	18
ANDERSON CUE	PUTNAM	313.0	-0.19363	-3.062	35.6511	38.7134	15.8148	19
ROSALIE	HILLSBOROUGH	314.0	-0.19364	-3.136	45.2688	48.4053	16.1771	39
LAGOON	ORANGE	315.0	-0.23437	-3.748	50.6056	54.3535	15.9701	71
WEIR	MARION	316.0	-0.23848	-3.270	42.3359	45.6058	13.7114	12
CHARLES	HILLSBOROUGH	317.0	-0.24118	-3.906	44.4988	48.4053	16.1971	39
EMMA	LAKE	318.0	-0.24558	-4.022	43.7672	47.7889	16.3765	50
APSHAWA	LAKE	319.0	-0.24675	-4.041	43.7480	47.7889	16.3765	50
MAGDALENE	HILLSBOROUGH	320.0	-0.25016	-4.052	44.3534	48.4053	16.1971	39
PEBBLE	CLAY	321.0	-0.25333	-3.680	27.8183	31.4980	14.5254	9
LOWERY	POLK	322.0	-0.25808	-3.990	56.6225	60.6123	15.4594	85
SUE	ORANGE	323.0	-0.25990	-4.156	50.1977	54.3535	15.9701	71
WEST CROOKED	LAKE	324.0	-0.26451	-4.332	43.4572	47.7889	16.3765	50
LOUISE	VOLUSIA	325.0	-0.26475	-5.766	32.8853	38.6509	21.7775	18
WASHINGTON	BREVARD	326.0	-0.26767	-0.481	59.2688	59.7497	1.7966	6
MCLEOD	POLK	327.0	-0.26806	-4.144	56.4682	60.6123	15.4594	85
CHERRY	LAKE	328.0	-0.26912	-4.407	43.3817	47.7889	16.3765	50
STEMPER	HILLSBOROUGH	329.0	-0.27057	-4.382	44.0228	48.4053	16.1971	39
BRICK	OSCEOLA	330.0	-0.28051	-3.062	55.4609	58.5227	10.9153	25
MYRTLE	OSCEOLA	331.0	-0.28764	-3.140	55.3830	58.5227	10.9153	25
HART	ORANGE	332.0	-0.27947	-4.788	49.5651	54.3535	15.9701	71
GEORGIA	ORANGE	333.0	-0.30017	-4.800	49.5538	54.3535	15.9701	71
FAIRY	SEMINOLE	334.0	-0.30315	-6.298	47.2720	53.5700	20.7750	28
SYLVIA	BROWARD	335.0	-0.30623	-10.260	51.6221	61.8823	33.5044	4
LUCY	LAKE	336.0	-0.30881	-5.057	42.7317	47.7889	16.3765	50
ANOKA	HIGHLANDS	337.5	-0.30914	-3.796	46.6350	50.4314	12.2803	28
RED WATER	HIGHLANDS	337.5	-0.30914	-3.796	46.6350	50.4314	12.2803	28
BAY	LAKE	339.0	-0.31248	-5.117	42.6716	47.7889	16.3765	50
POWELL	BAY	340.0	-0.31415	-1.179	28.9128	30.0916	3.7524	4
HARTRIDGE	POLK	341.0	-0.31968	-4.942	55.6702	60.6123	15.4594	85
ELBERT	POLK	342.0	-0.32075	-4.959	55.6538	60.6123	15.4594	85
JULIANA	POLK	343.0	-0.32246	-4.985	55.6274	60.6123	15.4594	85
TRIPLET	SEMINOLE	344.0	-0.32485	-6.749	46.8213	53.5700	20.7750	28
WIRE	POLK	345.0	-0.32583	-5.037	55.5752	60.6123	15.4594	85
SPIRIT	POLK	346.0	-0.32862	-5.080	55.5321	60.6123	15.4594	85
PROSPECT	BROWARD	347.0	-0.32862	-11.010	50.8720	61.8823	33.5044	4
BLUE	PASCO	348.0	-0.32927	-4.401	40.7118	45.1126	13.3651	24
KEYSTONE	HILLSBOROUGH	349.0	-0.33038	-5.351	43.0541	48.4053	16.1771	39
SEARS	POLK	350.0	-0.33637	-5.200	55.4122	60.6123	15.4594	85
JACKSON	LEON	351.0	-0.33741	-6.307	46.6855	52.9927	18.6930	6
MOUNTAIN	HERNANDO	352.0	-0.33797	-4.559	50.4565	55.0154	13.4891	11
LOWERY	CLAY	353.0	-0.33828	-4.914	26.5844	31.4980	14.5254	9
UNNAMED 27	ALACHUA	354.0	-0.34312	-4.200	54.3226	58.5223	12.2377	32
MOON	PASCO	355.0	-0.35512	-4.746	40.3663	45.1126	13.3651	24
LENA	POLK	356.0	-0.35532	-5.493	55.1193	60.6123	15.4594	85
MINNEHAHA	ORANGE	357.0	-0.35544	-5.684	48.6699	54.3535	15.9701	71
WINORO	VOLUSIA	358.0	-0.35614	-7.756	30.8951	38.6509	21.7775	18
HENRY	POLK	359.0	-0.36281	-5.609	55.0035	60.6123	15.4594	85
KILLARNEY	ORANGE	360.0	-0.36633	-5.858	48.4959	54.3535	15.9701	71
VIRGINIA	ORANGE	361.0	-0.37150	-5.940	48.4132	54.3535	15.9701	71
SALT	PINELLAS	362.0	-0.38324	-5.845	62.6348	68.4777	15.2516	6
DEXTER	POLK	363.0	-0.38672	-5.978	54.6339	60.6123	15.4594	85
FRANCIS	ORANGE	364.0	-0.39039	-6.242	48.1111	54.3535	15.9701	71
DARSEY	POLK	365.0	-0.39406	-6.092	54.5205	60.6123	15.4594	85
BRADFORD	LEON	366.0	-0.40258	-7.525	45.4674	52.9927	18.6930	6

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LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
MUD	POLK	367	-0.40420	-6.249	54.3636	60.6123	15.4594	85
LETTA	HIGHLANDS	368	-0.42234	-5.186	45.2449	50.4314	12.2803	28
WINNOTT	PUTNAM	369	-0.44005	-7.114	31.5991	38.7134	15.8148	19
CHERRY	MADISON	370	-0.45273	-11.482	41.5440	53.0260	25.3610	3
UNNAMED 10	ALACHUA	371	-0.46918	-5.743	52.7796	58.5223	12.2397	32
JENNIE	SEMINOLE	372	-0.49262	-10.234	43.3358	53.5700	20.7750	28
CONLIN	OSCEOLA	373	-0.49334	-5.385	53.1377	58.5227	10.9153	25
HUNTLEY	HIGHLANDS	374	-0.50504	-6.202	44.2274	50.4314	12.2803	28
SYLVAN	SEMINOLE	375	-0.50525	-10.497	43.0734	53.5700	20.7750	28
SAWGRASS	PINELLAS	376	-0.50778	-7.747	60.7323	68.4797	15.2516	6
ISLAND FORD	HILLSBOROUGH	377	-0.50818	-8.231	40.1741	48.4053	16.1971	39
CHURCH	HILLSBOROUGH	378	-0.51214	-8.295	40.1101	48.4053	16.1971	39
FANNIE	POLK	379	-0.51284	-7.928	52.6842	60.6123	15.4594	85
CROSBY	BRADFORD	380	-0.52002	-4.802	44.6857	49.4880	9.2350	4
PANASOFFKEE	SUMTER	381	-0.52500	-5.190	51.0366	56.2269	9.0863	4
JEFFORDS	ALACHUA	382	-0.53043	-6.492	52.0299	58.5223	12.2399	32
GUM	POLK	383	-0.53097	-8.208	52.4039	60.6123	15.4594	85
KATHARINE	DADE	384	-0.53561	-7.468	37.0743	44.5420	13.2424	10
WHISTLER	POLK	385	-0.54639	-8.447	52.1655	60.6123	15.4594	85
FLORENCE	LAKE	386	-0.55126	-9.028	38.7613	47.7889	16.3765	50
SANTA FE	WAKULLA	387	-0.55380	-2.660	37.5826	40.2429	4.8038	3
SPRING	SEMINOLE	388	-0.55556	-11.542	42.0282	53.5700	20.7750	28
COON	OSCEOLA	389	-0.56514	-6.169	52.3541	58.5227	10.9153	25
WEOHYAKAPKA	POLK	390	-0.56524	-8.738	51.8740	60.6123	15.4594	85
HOBBS	HILLSBOROUGH	391	-0.56562	-9.161	39.2439	48.4053	16.1971	39
GALLILEE	PUTNAM	392	-0.56860	-8.992	29.7210	38.7134	15.8148	19
CARR	LEON	393	-0.56866	-10.630	42.3629	52.9727	18.6930	6
DUPONT	VOLUSIA	394	-0.57177	-12.452	26.1991	38.6509	21.7775	18
ADA	SEMINOLE	395	-0.57268	-11.897	41.6726	53.5700	20.7750	28
SADDLEBACK	HILLSBOROUGH	396	-0.57415	-9.300	39.1056	48.4053	16.1971	39
SMART	POLK	397	-0.57637	-8.910	51.7020	60.6123	15.4594	85
CARROLL	HILLSBOROUGH	398	-0.58895	-9.539	38.8659	48.4053	16.1971	39
DEESON	POLK	399	-0.58965	-9.116	51.4967	60.6123	15.4594	85
CALM	HILLSBOROUGH	400	-0.59543	-9.644	38.7611	48.4053	16.1971	39
ELLEN	WAKULLA	401	-0.60059	-2.885	37.3578	40.2429	4.8038	3
MYRTLE	POLK	402	-0.60397	-9.337	51.2753	60.6123	15.4594	85
ROUND	HILLSBOROUGH	403	-0.61155	-9.905	38.4998	48.4053	16.1971	39
IOLA	PASCO	404	-0.61387	-8.204	36.9081	45.1126	13.3651	24
STAR	POLK	405	-0.61487	-9.506	51.1068	60.6123	15.4594	85
OSCEOLA	ORANGE	406	-0.62615	-10.012	44.3413	54.3535	15.9901	71
BEVILLES POND	ALACHUA	407	-0.63555	-7.779	50.7432	58.5223	12.2399	32
STELLA	PUTNAM	408	-0.64262	-10.163	28.5504	38.7134	15.8148	19
BEAR	SEMINOLE	409	-0.67273	-13.976	39.5940	53.5700	20.7750	28
GOLDEN	SEMINOLE	410	-0.67376	-13.997	39.5727	53.5700	20.7750	28
ROUND	JACKSON	411	-0.67457	-6.561	14.5735	21.1347	9.7266	4
ROSALIE	POLK	412	-0.67581	-10.448	50.1647	60.6123	15.4594	85
ALFRED	POLK	413	-0.67614	-10.453	50.1596	60.6123	15.4594	85
MAGNOLIA	CLAY	414	-0.67777	-9.845	21.6531	31.4780	14.5254	9
ANNIE	HIGHLANDS	415	-0.68478	-8.409	42.0221	50.4314	12.2803	28
MYSTIC	MADISON	416	-0.69356	-17.590	35.4365	53.0260	25.3610	3
PLACID	HIGHLANDS	417	-0.69685	-8.558	41.8736	50.4314	12.2803	28
STANLEY	WALTON	418	-0.70184	-5.308	33.0803	38.3882	7.5630	6
TSALA APOPKA(H)	CITRUS	419	-0.70230	-8.511	41.3078	49.8190	12.1170	5
WATERTOWN	COLUMBIA	423	-0.70711	-10.676	54.3991	65.0754	15.0985	2
DISSTON	FLAGLER	423	-0.70711	-10.328	46.0393	56.3673	14.6060	2
DEAD	GULF	423	-0.70711	-8.078	38.4853	46.5632	11.4239	2
VICTOR	HOLMES	423	-0.70711	-0.750	30.5704	31.3407	1.0612	2
TOWNSEND POND	LAFAYETTE	423	-0.70711	-8.086	40.3158	48.4017	11.4352	2
HURRICANE	OKALOOSA	423	-0.70711	-6.267	27.8945	34.1615	8.8629	2
LOUISE	SUWANNEE	423	-0.70711	-3.728	42.9051	46.6331	5.2722	2
OLA	ORANGE	427	-0.70945	-11.344	43.0093	54.3535	15.9901	71

Table 5-15. (Continued)

FL. LAKES RANKED BY THE NUMBER OF STANDARD DEVIATIONS FROM THE COUNTY MEAN
RTSIDV=RANKED NUMBER OF DEVIATIONS FROM TSIBAR
TSIDV=NUMBER OF STD. DEV. FROM TSIBAR
TSIDIF=DIFFERENCE FROM TSIBAR TSI=LAKE TSI
TSIBAR=MEAN COUNTY TSI TSIDEV=CO. TSI STD. DEV. N=NO. OF OBS.

LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
GAP POND	WASHINGTON	428.0	-0.7214	-14.897	22.6326	37.5293	20.6496	9
HOPE	ORANGE	429.0	-0.7254	-11.599	42.7644	54.3535	15.9901	71
PINE	LAKE	430.0	-0.7316	-11.981	35.8076	47.7889	16.3765	50
ANN	POLK	431.0	-0.7344	-11.353	49.2591	60.6123	15.4594	85
CHARITY	ORANGE	432.0	-0.7366	-11.779	42.5748	54.3535	15.9901	71
TSALA APOPKA	CITRUS	433.0	-0.7407	-8.979	40.8403	49.8190	12.1190	5
THOMAS	POLK	434.0	-0.7480	-11.564	49.0487	60.6123	15.4594	85
IAMONIA	LEON	435.0	-0.7537	-14.092	38.9006	52.9927	18.6930	6
MINNEOLA	LAKE	436.0	-0.7586	-12.424	35.3654	47.7889	16.3765	50
PRAIRIE	SEMINOLE	437.0	-0.7643	-15.878	37.6918	53.5700	20.7750	28
CATHERINE	LAKE	438.0	-0.7679	-12.575	35.2137	47.7889	16.3765	50
THOMAS	PASCO	439.0	-0.7683	-10.269	34.8439	45.1126	13.3651	24
SWAN	PUTNAM	440.0	-0.7845	-12.407	26.3065	38.7134	15.8143	19
MARKHAM	SEMINOLE	441.0	-0.7864	-16.337	37.2326	53.5700	20.7750	28
ALTHO	ALACHUA	442.0	-0.7868	-9.630	48.8923	58.5223	12.2397	32
MCCLOUD	PUTNAM	443.0	-0.7927	-12.536	26.1775	38.7134	15.8143	19
SUNSHINE	HILLSBOROUGH	444.0	-0.7956	-12.886	35.5193	48.4053	16.1971	39
LAURENCE EAST	DADE	445.0	-0.7970	-11.113	33.4293	44.5420	13.9424	10
GENTRY	OSCEOLA	446.0	-0.8098	-8.839	49.6837	58.5227	10.9153	25
MABEL	ORANGE	447.0	-0.8192	-13.100	41.2537	54.3535	15.9901	71
TIGERTAIL	BROWARD	448.0	-0.8220	-27.542	34.3407	61.8823	33.5044	4
SILVER	SEMINOLE	449.0	-0.8306	-17.256	36.3138	53.5700	20.7750	28
SIRENA	HIGHLANDS	450.0	-0.8393	-10.307	40.1245	50.4314	12.2803	28
HANCOCK	LAKE	451.5	-0.8463	-13.859	33.9296	47.7889	16.3765	50
NORRIS	LAKE	451.5	-0.8463	-13.859	33.9296	47.7889	16.3765	50
ENOLA	LAKE	453.0	-0.8594	-14.074	33.7146	47.7889	16.3765	50
FLORIDA	SEMINOLE	454.0	-0.8631	-17.931	35.6385	53.5700	20.7750	28
COWPEN	PUTNAM	455.0	-0.8735	-13.815	24.8985	38.7134	15.8143	19
HELEN BLAZES	BREVARD	456.0	-0.8906	-1.600	58.1495	59.7497	1.7966	6
DOWN	ORANGE	457.0	-0.8919	-14.262	40.0912	54.3535	15.9901	71
OKAHUMPKA	SUMTER	458.0	-0.9079	-8.976	47.2510	56.2269	9.8863	4
CONWAY	ORANGE	459.0	-0.9109	-14.566	39.7876	54.3535	15.9901	71
EAST TOHOPEKALIGA	OSCEOLA	460.0	-0.9184	-10.025	48.4977	58.5227	10.9153	25
WALES	POLK	461.0	-0.9193	-14.212	46.4007	60.6123	15.4594	85
NAN	ORANGE	462.0	-0.9199	-14.709	39.6445	54.3535	15.9901	71
FAITH	ORANGE	463.0	-0.9221	-14.744	39.6092	54.3535	15.9901	71
HAMPTON	BRADFORD	464.0	-0.9243	-8.536	40.9524	49.4880	9.2350	4
TENNESSEE	POLK	465.0	-0.9412	-14.550	46.0627	60.6123	15.4594	85
PADGETT	PASCO	466.0	-0.9510	-12.710	32.4028	45.1126	13.3651	24
CITRUS PARK	HILLSBOROUGH	467.0	-0.9581	-15.519	32.8867	48.4053	16.1971	39
LOTELA	HIGHLANDS	468.0	-0.9598	-11.787	38.6445	50.4314	12.2803	28
LITTLE LAKE BRYAN	ORANGE	469.0	-0.9632	-15.402	38.9519	54.3535	15.9901	71
LANTERN	COLLIER	470.0	-0.9657	-14.722	42.2443	56.9664	15.2444	3
WINNEMISETT	VOLUSIA	471.0	-0.9674	-21.067	17.5835	38.6509	21.7775	18
SMITH	MARION	472.0	-0.9810	-13.451	32.1549	45.6058	13.7114	12
ANGELO	HIGHLANDS	473.5	-0.9937	-12.203	38.2281	50.4314	12.2803	28
LELIA	HIGHLANDS	473.5	-0.9937	-12.203	38.2281	50.4314	12.2803	28
CYPRESS POND	MONROE	475.0	-0.9969	-4.986	53.6886	58.6744	5.0012	3
ALICE	ALACHUA	476.0	-1.0068	-12.323	46.1997	58.5223	12.2397	32
CRESCENT	LAKE	477.0	-1.0094	-16.531	31.2584	47.7889	16.3765	50
OTIS	POLK	478.0	-1.0199	-15.766	44.8458	60.6123	15.4594	85
BUTLER	VOLUSIA	479.0	-1.0203	-22.219	16.4320	38.6509	21.7775	18
HENRY	DADE	480.0	-1.0315	-14.382	30.1603	44.5420	13.9424	10
COMPASS	JACKSON	481.0	-1.0320	-10.038	11.0971	21.1347	9.7266	4
LITTLE SANTA FE	ALACHUA	482.0	-1.0370	-12.692	45.8301	58.5223	12.2397	32
DUNFORD POND	WASHINGTON	483.0	-1.0509	-21.700	15.8288	37.5293	20.6496	9
TRACY	POLK	484.0	-1.0533	-16.291	44.3216	60.6123	15.4594	85
HUNTERS	HERNANDO	485.0	-1.0604	-14.304	40.7118	55.0154	13.4891	11
VENUS	ORANGE	486.0	-1.0646	-17.023	37.3303	54.3535	15.9901	71
BLANTON	PASCO	487.0	-1.0902	-14.571	30.5414	45.1126	13.3651	24
BIG FISH	PASCO	488.5	-1.0903	-14.572	30.5410	45.1126	13.3651	24

Table 5-15. (continued)

FL. LAKES RANKED BY THE NUMBER OF STANDARD DEVIATIONS FROM THE COUNTY MEAN
RTSIDV=RANKED NUMBER OF DEVIATIONS FROM TSIBAR
TSIDV=NUMBER OF STD. DEV. FROM TSIBAR
TSIDIF=DIFFERENCE FROM TSIBAR TSI=LAKE TSI
TSIBAR=MEAN COUNTY TSI TSIDEV=CO. TSI STD. DEV. N=NO. OF OBS.

LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
OAKES POND	PASCO	488.5	-1.0703	-14.572	30.5410	45.1126	13.3651	24
HICKORY POND	ALACHUA	470.0	-1.0728	-13.376	45.1463	58.5223	12.2397	32
JACKSON	HIGHLANDS	471.0	-1.0747	-13.449	36.9084	50.4314	12.2803	28
BUENA VISTA	ORANGE	472.0	-1.0787	-17.572	36.7015	54.3535	15.9701	71
MELTON	LAKE	473.0	-1.0797	-18.010	29.7792	47.7889	16.3765	50
CHAPMAN	HILLSBOROUGH	475.0	-1.1029	-17.864	30.5414	48.4053	16.1971	39
DEER	HILLSBOROUGH	475.0	-1.1029	-17.864	30.5414	48.4053	16.1971	39
LONG	HILLSBOROUGH	475.0	-1.1029	-17.864	30.5414	48.4053	16.1971	39
SANTA FE	ALACHUA	477.0	-1.1127	-13.620	44.9024	58.5223	12.2397	32
TIBET	ORANGE	478.0	-1.1191	-17.895	36.4585	54.3535	15.9901	71
MIRROR	CALHOUN	479.0	-1.1325	-2.570	6.7063	9.2762	2.2691	3
JUNE-IN-WINTER	HIGHLANDS	500.0	-1.1330	-13.914	36.5173	50.4314	12.2803	28
HELENE	POLK	501.0	-1.1407	-17.635	42.9770	60.6123	15.4594	85
SWIFTS CREEK POND	UNION	502.0	-1.1415	-7.225	37.3206	44.5454	6.3224	3
WHITE WESTERN	BAY	503.0	-1.1421	-4.286	25.8060	30.0916	3.7524	4
DINNER	HIGHLANDS	504.0	-1.1473	-14.089	36.3419	50.4314	12.2803	28
ROUSSEAU	LEVY	505.0	-1.1535	-17.499	33.3063	50.8054	15.1706	3
CLEAR	PALM BEACH	506.0	-1.1546	-21.147	33.3616	54.5091	18.3153	3
KERR	MARION	507.0	-1.1611	-15.920	29.6859	45.6058	13.7114	12
LONG POND	PUTNAM	508.0	-1.1671	-18.458	20.2553	38.7134	15.8148	19
SANTA ROSA	PUTNAM	509.0	-1.1734	-18.557	20.1566	38.7134	15.8148	19
WINDER	BREVARD	510.0	-1.1841	-2.127	57.6223	59.7497	1.7966	6
META	ALACHUA	511.0	-1.1853	-14.508	44.0144	58.5223	12.2397	32
MOUNTAIN	POLK	512.0	-1.2025	-18.589	42.0231	60.6123	15.4594	85
ANGELES	VOLUSIA	513.0	-1.2083	-26.313	12.3382	38.6509	21.7775	18
BAY	ORANGE	514.5	-1.2196	-19.502	34.8520	54.3535	15.9901	71
JESSAMINE	ORANGE	514.5	-1.2196	-19.502	34.8520	54.3535	15.9901	71
BUFFUM	POLK	516.0	-1.2365	-19.116	41.4965	60.6123	15.4594	85
KATHRYN	LAKE	517.0	-1.2426	-20.350	27.4391	47.7889	16.3765	50
ROSALIE	OSCEOLA	518.0	-1.2603	-13.756	44.7666	58.5227	10.9153	25
CRYSTAL	SEMINOLE	519.0	-1.2632	-26.244	27.3262	53.5700	20.7750	28
SHEELAR	CLAY	520.0	-1.2740	-18.506	12.9921	31.4980	14.5254	9
JOHIO	ORANGE	521.0	-1.2773	-20.424	33.9296	54.3535	15.9901	71
BUTLER	ORANGE	522.0	-1.3176	-21.069	33.2847	54.3535	15.9901	71
BIG SAND	ORANGE	523.0	-1.3535	-21.642	32.7113	54.3535	15.9901	71
ARETTA	POLK	524.0	-1.3585	-21.001	39.6109	60.6123	15.4594	85
CLINCH	POLK	525.0	-1.3681	-21.150	39.4619	60.6123	15.4594	85
TARPON	PINELLAS	526.0	-1.3814	-21.069	47.4111	68.4797	15.2516	6
UNNAMED 25	ALACHUA	527.0	-1.4047	-17.193	41.3292	58.5223	12.2397	32
LIZZIE	OSCEOLA	528.0	-1.4093	-15.383	43.1393	58.5227	10.9153	25
CATALINA	DADE	529.0	-1.4418	-20.102	24.4401	44.5420	13.9424	10
CLEARWATER	POLK	530.0	-1.4479	-22.384	38.2281	60.6123	15.4594	85
LUCIEN	ORANGE	531.0	-1.4749	-23.584	30.7694	54.3535	15.9901	71
TULANE	HIGHLANDS	532.0	-1.5034	-18.462	31.9697	50.4314	12.2803	28
ZULU	HERNANDO	533.0	-1.5073	-20.332	34.6835	55.0154	13.4891	11
WESTERN	WALTON	534.0	-1.5097	-11.418	26.9706	38.3882	7.5630	6
CRYSTAL	WASHINGTON	535.0	-1.5160	-31.305	6.2241	37.5293	20.6496	9
BRYAN	ORANGE	536.0	-1.5383	-24.598	29.7554	54.3535	15.9901	71
ALLIGATOR	OSCEOLA	537.0	-1.5570	-16.995	41.5277	58.5227	10.9153	25
KATHRYN	SEMINOLE	538.0	-1.5734	-32.688	20.8823	53.5700	20.7750	28
CLEARWATER	ALACHUA	539.0	-1.5792	-19.329	39.1932	58.5223	12.2397	32
SELLERS	LAKE	540.0	-1.5974	-26.160	21.6290	47.7889	16.3765	50
FAIRVIEW	ORANGE	541.0	-1.6142	-25.812	28.5415	54.3535	15.9901	71
CROOKED	POLK	542.0	-1.6262	-25.140	35.4724	60.6123	15.4594	85
WILDCAT	LAKE	543.0	-1.6604	-27.192	20.5974	47.7889	16.3765	50
BROWARD	PUTNAM	544.0	-1.6827	-26.612	12.1016	38.7134	15.8148	19
KELL	HILLSBOROUGH	545.0	-1.6937	-27.433	20.9726	48.4053	16.1971	39
STILL POND	ALACHUA	546.0	-1.7326	-21.207	37.3150	58.5223	12.2397	32
SHEEN	ORANGE	547.0	-1.7915	-28.646	25.7077	54.3535	15.9901	71
BIRD	PASCO	548.0	-1.8062	-24.140	20.9726	45.1126	13.3651	24
HOLLY	LAKE	549.0	-1.8870	-30.902	16.8869	47.7889	16.3765	50

Table 5-15. (continued)

FL. LAKES RANKED BY THE NUMRER OF STANDARD DEVIATIONS
FROM THE COUNTY MEAN
RTSIDV=RANKED NUMBER OF DEVIATIONS FROM TSIBAR
TSIDV=NUMBER OF STD. DEV. FROM TSIBAR
TSIDIF=DIFFERENCE FROM TSIBAR TSI=LAKE TSI
TSIBAR=MEAN COUNTY TSI TSIDEV=CO. TSI STD. DEV. N=NO. OF OBS.

LAKE	COUNTY	RTSIDV	TSIDV	TSIDIF	TSI	TSIBAR	TSIDEV	N
SELLERS	MARION	550	-1.9048	-26.117	19.487	45.6058	13.7114	12
MARIANA	POLK	551	-1.9452	-30.071	30.541	60.6123	15.4594	85
ECHO	POLK	552	-1.9452	-30.071	30.541	60.6123	15.4594	85
LIVE OAK	OSCEOLA	553	-2.2555	-24.619	33.903	58.5227	10.9153	25
ALEXANDER SPRINGS	LAKE	554	-2.3311	-38.175	9.614	47.7889	16.3765	50
THERESA	VOLUSIA	555	-2.4675	-53.737	-15.086	38.6509	21.7775	18
BAY	HILLSBOROUGH	556	-2.7419	-44.410	3.995	48.4053	16.1971	39
DEER	POLK	557	-2.9686	-45.893	14.719	60.6123	15.4594	85

with information on lake volume and water residence time to determine whether it exceeds a theoretical critical value. Nonetheless, high phosphorus and nitrogen loads may serve as indicators of problem lakes when combined with land use and other information. Lakes are ranked by these loadings in Tables 4-9 and 4-10.

Macrophyte Cover

The macrophyte data discussed in Chapter 2 describe the total acreage covered by 12 plant types. The plant survey method did not provide information on overlapping coverage (i.e., cohabitation of an area by several plant species), and the summation of coverage values over all species thus may exceed total acreage covered by macrophytes in a lake. The values listed are greater than or equal to the actual percent coverage, and intermediate values are particularly ambiguous. Nevertheless, a large percent coverage value probably means that a large fraction of the lake surface area was actually covered, and the opposite is true for small percent coverage values.

The macrophyte data are shown ranked by their fraction coverage in Table 5-16. Five lakes "exceed" 100 percent coverage, and several more exhibit high values. Recall that in Chapter 3 no trophic state index was developed as a function of macrophyte coverage. Instead, it was suggested that the coverage value might be used by itself and compared to other water quality parameters as an additional indicator of a lake's trophic state. The lack of correlation between macrophyte coverage and chlorophyll *a* shown in Figure 3-13 supports the concept of use of the macrophyte data by themselves.

Table 5-16. Lakes Ranked by Fraction Macrophyte Cover.
LAKEAREA is in acres and COVER is a fraction.

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*   TOTWDS = TOTAL WEED AREA, ACRES   *
*    COVER = PERCENT MACROPHYTE COVER *
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OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
1	PADGETT	PASCO	200	370.0	1.85000
2	OCKLAWAHA	MARION	5280	7071.0	1.33920
3	THE DEADENING LAKES	WASHINGTON	253	293.0	1.15810
4	COW PEN POND	JACKSON	230	260.0	1.13043
5	BATEAU POND	JACKSON	115	120.0	1.04348
6	MANN	ORANGE	244	240.0	0.98361
7	STELLA	PUTNAM	308	302.0	0.98052
8	CLEAR	ORANGE	339	325.0	0.95870
9	SYBELIA	ORANGE	84	80.0	0.95238
10	SALT	PINELLAS	193	175.0	0.90674
11	RATTLESNAKE	ORANGE	111	100.0	0.90090
12	WAUNATTA	ORANGE	68	60.0	0.88235
13	PIERCE	POLK	3729	3265.0	0.87557
14	PEARL	ORANGE	58	50.0	0.86207
15	MILL DAM	MARION	210	175.0	0.83333
16	MARTHA	ORANGE	30	25.0	0.83333
17	ROUSSEAU	LEVY	3657	3010.0	0.82308
18	TUSCAWILLA	ALACHUA	680	544.0	0.80000
19	JUNE-IN-WINTER	HIGHLANDS	3504	2715.0	0.77483
20	DORSON POND	MADISON	7	5.0	0.71429
21	TSALA APOPKA	CITRUS	16000	11055.0	0.69094
22	PRESTON	OSCEOLA	690	470.0	0.68116
23	MYRTLE	OSCEOLA	543	367.0	0.67587
24	WALES	POLK	326	220.0	0.67485
25	TROUT	OSCEOLA	273	183.0	0.67033
26	FRANCIS	HIGHLANDS	539	353.0	0.65492
27	PORTER	WASHINGTON	943	612.0	0.64899
28	SELLERS	MARION	1050	667.0	0.63524
29	JOEL	OSCEOLA	217	133.0	0.61290
30	BALDWIN	ORANGE	196	120.0	0.61224
31	WILSON	LAKE	25	14.5	0.58000
32	HOLLY	LAKE	98	55.0	0.56122
33	ORIENTA	SEMINOLE	129	70.0	0.54264
34	LIZZIE	OSCEOLA	792	428.0	0.54040
35	GRASSY	HIGHLANDS	517	263.5	0.50967
36	RUTH	BREVARD	210	105.0	0.50000
37	JUNIPER SPRINGS	LAKE	40	20.0	0.50000
38	FAIRVIEW	ORANGE	401	200.0	0.49875
39	CLARK	BREVARD	182	90.0	0.49451
40	LONG POND	LEVY	254	125.0	0.49213
41	LOCHLOOSA	ALACHUA	5705	2801.0	0.49097
42	MIZELL	ORANGE	62	30.0	0.48387
43	MICCOSUKEE	JEFFERSON	6226	3001.0	0.48201
44	OSCEOLA	ORANGE	157	75.0	0.47771
45	CATHERINE	ORANGE	63	30.0	0.47619
46	SILVER GLEN SPRINGS	LAKE	30	14.0	0.46667
47	JOSEPHINE	HIGHLANDS	1236	575.0	0.46521
48	VIRGINIA	ORANGE	223	100.0	0.44843
49	MAITLAND	ORANGE	451	200.0	0.44346
50	WIRE	POLK	25	11.0	0.44000
51	GARFIELD	POLK	655	287.0	0.43817
52	CLAY	HIGHLANDS	367	156.0	0.42507
53	LITTLE LOCHLOOSA	ALACHUA	2642	1112.0	0.42089
54	GAP POND	WASHINGTON	527	212.0	0.40228
55	IOLA	PASCO	107	42.0	0.39252
56	JESSAMINE	ORANGE	306	120.0	0.39216
57	EATON	MARION	307	110.0	0.35831
58	SUE	ORANGE	140	50.0	0.35714
59	OKAHUMPKA	SUMTER	670	236.0	0.35224
60	DEER POINT	BAY	5000	1675.0	0.33500
61	GINHOUSE POND	MADISON	3	1.0	0.33333
62	JACKSON	LEON	4004	1310.0	0.32717
63	OTIS	POLK	143	46.0	0.32168
64	MUD	POLK	160	50.0	0.31250
65	TARPON	PINELLAS	2534	755.0	0.29795
66	WATERMELON POND	ALACHUA	531	158.0	0.29755
67	IAMONIA	LEON	5757	1613.0	0.28018
68	LITTLE LAKE WEIR	MARION	320	87.0	0.27187
69	GENEVA	CLAY	1630	425.0	0.26074
70	CROSBY	BRADFORD	536	139.0	0.25933
71	HICKS POND	WASHINGTON	482	122.0	0.25311

Table 5-16. (Continued)

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*                                    *
*  TOTWDS = TOTAL WEED AREA, ACRES   *
*   COVER = PERCENT MACROPHYTE COVER *
**************************************
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OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
72	PUZZLE	VOLUSIA	1300	325.0	0.250000
73	BARTON	ORANGE	233	40.0	0.244961
74	HALL	LEON	172	42.0	0.244186
75	MCDANIEL	WASHINGTON	50	12.0	0.240000
76	LUCAS POND	WASHINGTON	455	107.0	0.235165
77	WARREN	ORANGE	129	30.0	0.232558
78	SANITARY	POLK	503	110.0	0.218688
79	CARR	LEON	692	150.0	0.216763
80	ORANGE	ALACHUA	12706	2687.0	0.211475
81	JEFFERY	COLUMBIA	114	24.0	0.210526
82	ALLIGATOR	OSCEOLA	3406	716.5	0.210364
83	SOUTH	BREVARD	1101	221.0	0.200727
84	COOK	LAKE	20	4.0	0.200000
85	MADISON POND	MADISON	5	1.0	0.200000
86	WINDER	BREVARD	1496	287.0	0.191845
87	MYSTIC	MADISON	47	9.0	0.191489
88	MCCOY	ORANGE	133	25.0	0.187970
89	HIAWATHA	LAKE	48	9.0	0.187500
90	WILDCAT	LAKE	232	43.0	0.185345
91	LUCY	LAKE	335	60.0	0.179104
92	CRESCENT	LAKE	74	13.0	0.175676
93	FREDRICA	ORANGE	71	12.0	0.169014
94	HAMMOCK POND	MARION	179	30.0	0.167598
95	EMMA	LAKE	175	28.9	0.165143
96	IRMA	ORANGE	123	20.0	0.162602
97	PANASOFFKEE	SUMTER	4460	700.0	0.156951
98	MUNSON	LEON	255	40.0	0.156863
99	MILLS	SEMINOLE	232	35.0	0.150862
100	HALFMOON	MARION	340	51.0	0.150000
101	ALLIGATOR	COLUMBIA	338	50.0	0.147929
102	APTHORPE	HIGHLANDS	219	32.0	0.146119
103	TOHOPEKALIGA	OSCEOLA	18810	2700.0	0.143541
104	SUSANNAH	ORANGE	76	10.0	0.131579
105	YALE	LAKE	4042	530.0	0.131123
106	PASADENA	PASCO	373	45.0	0.120643
107	IVANHOE	ORANGE	125	15.0	0.120000
108	CROOKED	ORANGE	86	10.0	0.116279
109	MULLET	SEMINOLE	631	72.0	0.114105
110	OCHEESEE POND	JACKSON	2225	251.0	0.112809
111	ELBOW	MADISON	64	7.0	0.109375
112	SALT	BREVARD	366	40.0	0.109290
113	MOSS LEE	PUTNAM	65	7.0	0.107692
114	ISTOKPOGA	HIGHLANDS	22000	2356.0	0.107045
115	DELANCY	MARION	382	40.0	0.104712
116	PLACID	HIGHLANDS	3320	345.0	0.103916
117	OCTAHATCHEE	HAMILTON	195	20.0	0.102564
118	CONWAY	ORANGE	1833	185.0	0.100927
119	SAWGRASS	BREVARD	407	41.0	0.100737
120	PAYNE POND	WASHINGTON	30	3.0	0.100000
121	OKEECHOBEE	OKEECHOBEE	406042	40582.0	0.099945
122	SUSAN	LAKE	81	8.0	0.098765
123	STARKE	ORANGE	203	20.0	0.098522
124	LOUISE	VOLUSIA	257	25.0	0.097276
125	HELEN BLAZES	BREVARD	381	37.0	0.097113
126	HUNTER	POLK	100	9.5	0.095000
127	WARNER	MARION	695	65.0	0.093525
128	UMATILLA	LAKE	161	15.0	0.093168
129	ALTHO	ALACHUA	540	50.0	0.092593
130	PALMER	ORANGE	56	5.0	0.089286
131	LUCIEN	ORANGE	57	5.0	0.087719
132	OLDFIELD POND	CLAY	266	22.0	0.082707
133	BERESFORD	VOLUSIA	800	66.0	0.082500
134	MIRROR	POLK	123	10.0	0.081301
135	SEMINOLE	PINELLAS	716	58.0	0.081006
136	DINNER	HIGHLANDS	379	30.0	0.079156
137	DISSTON	FLAGLER	1844	144.0	0.078091
138	LIVINGSTON	POLK	1203	92.0	0.076475
139	BEAR HAMMOCKS POND	WASHINGTON	40	3.0	0.075000
140	AVALON	ORANGE	162	12.0	0.074074
141	REEDY	POLK	3486	250.0	0.071715
142	FORT COOPER	CITRUS	150	10.5	0.070000

Table 5-16. (Continued)

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*
*   TOTWDS = TOTAL WEED AREA, ACRES   *
*    COVER = PERCENT MACROPHYTE COVER*
************************************
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OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
143	BONNET	HIGHLANDS	260.0	17.50	0.0673077
144	POINSETT	BREVARD	4334.0	290.00	0.0669128
145	LULU	POLK	301.0	20.00	0.0664452
146	HAWASSA	ORANGE	200.0	13.00	0.0650000
147	EASY	POLK	419.0	27.00	0.0644391
148	LOUGHMAN	BREVARD	557.0	35.00	0.0628366
149	GEORGIA	ORANGE	82.0	5.00	0.0609756
150	PALATLAKAHAW	LAKE	101.0	6.00	0.0594059
151	SHERWOOD	ORANGE	119.0	7.00	0.0588235
152	DEAD	FLAGLER	500.0	29.00	0.0580000
153	DEATON	SUMTER	778.0	45.00	0.0578406
154	BUTLER	UNION	420.0	24.00	0.0571429
155	MOODY	POLK	391.0	22.00	0.0562660
156	DEAD	GULF	3584.0	201.00	0.0560826
157	BRIT	BAY	18.0	1.00	0.0555556
158	BUDDY	PASCO	90.0	5.00	0.0555556
159	BLACK	ORANGE	244.0	13.00	0.0532787
160	DOWN	ORANGE	743.5	20.00	0.0523993
161	BRADFORD	LEON	193.0	10.00	0.0518135
162	TIBET	ORANGE	1198.0	60.00	0.0500835
163	LITTLE LAKE HARRIS	LAKE	2739.0	137.00	0.0500183
164	MARION	POLK	2990.0	148.00	0.0494983
165	KISSIMMEE	OSCEOLA	34948.0	1685.00	0.0482145
166	ROSALIE	POLK	4597.0	220.00	0.0478573
167	SAMPSON	BRADFORD	2042.0	96.00	0.0470127
168	TURKEY	ORANGE	323.0	15.00	0.0464396
169	BRYANT	MARION	767.0	35.00	0.0456323
170	BUFFUM	POLK	1543.0	70.00	0.0453662
171	OLA	ORANGE	442.0	20.00	0.0452489
172	CANNON	POLK	336.0	15.00	0.0446429
173	FANNIE	POLK	829.0	37.00	0.0446321
174	SHEEN	ORANGE	565.0	25.00	0.0442478
175	HOLDENS	ORANGE	252.0	11.00	0.0436508
176	BUTLER	ORANGE	1665.0	70.00	0.0420420
177	CROOKED	POLK	5538.0	220.00	0.0397255
178	MARGARET	PUTNAM	380.0	15.00	0.0394737
179	APOPKA	ORANGE	30671.0	1200.00	0.0391249
180	ELLA	LAKE	467.0	18.00	0.0385439
181	PALESTINE	UNION	911.0	35.00	0.0384193
182	HAMPTON	BRADFORD	823.0	31.00	0.0376671
183	HOLLINGSWORTH	POLK	356.0	13.00	0.0365169
184	CLINCH	POLK	1207.0	44.00	0.0364540
185	MARY JANE	ORANGE	1158.0	41.00	0.0354059
186	GORE	FLAGLER	85.0	3.00	0.0352941
187	HART	ORANGE	1850.0	65.00	0.0351351
188	LOUISE	ORANGE	145.0	5.00	0.0344828
189	MAGGIORE	PINELLAS	380.0	13.00	0.0342105
190	LOWERY	CLAY	1263.0	43.00	0.0340459
191	WECHYAKAPKA	POLK	7532.0	255.00	0.0338565
192	PICKETT	ORANGE	742.0	25.00	0.0336927
193	SOUTH TALMADGE	VOLUSIA	60.0	2.00	0.0333333
194	NORTH TALMADGE	VOLUSIA	121.0	4.00	0.0330579
195	JESSUP	SEMINOLE	10011.0	320.00	0.0319648
196	HICKORYNUT	ORANGE	550.0	17.00	0.0309091
197	BANANA	POLK	342.0	10.50	0.0307018
198	ARBUCKLE	POLK	3828.0	117.00	0.0305643
199	LITTLE RED WATER	HIGHLANDS	329.0	10.00	0.0303951
200	HENRY	POLK	857.0	25.00	0.0291715
201	AGNES	POLK	386.0	11.00	0.0284974
202	MARIAN	OSCEOLA	5739.0	159.00	0.0277052
203	BEAUCLAIR	LAKE	1111.0	30.45	0.0274056
204	JOHNS	ORANGE	2417.0	65.00	0.0268928
205	SHADOW	ORANGE	77.0	2.00	0.0259740
206	CLEAR	PASCO	158.0	4.00	0.0253165
207	DORA	LAKE	4475.0	112.00	0.0250279
208	HOLDEN POND	ALACHUA	80.0	2.00	0.0250000
209	MANATEE RESERVOIR	MANATEE	1200.0	30.00	0.0250000
210	BROWARD	PUTNAM	480.0	12.00	0.0250000
211	CYPRESS	OSCEOLA	4097.0	100.00	0.0244081
212	CENTER	OSCEOLA	410.0	10.00	0.0243902
213	ASHBY	VOLUSIA	1030.0	24.00	0.0233010

Table 5-16. (Continued)

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*   TOTWDS = TOTAL WEED AREA, ACRES   *
*    COVER = PERCENT MACROPHYTE COVER *
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OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
214	GIBSON	POLK	474	11.000	0.0232068
215	HAMILTON	POLK	2162	50.000	0.0231267
216	JUMPER	MARION	305	7.000	0.0229508
217	LITTLE SANTA FE	ALACHUA	1135	26.000	0.0229075
218	CHERRY	LAKE	396	9.000	0.0227273
219	TIGER	POLK	2200	50.000	0.0227273
220	DORR	LAKE	1533	33.000	0.0215264
221	GENTRY	OSCEOLA	1791	38.500	0.0214964
222	GATOR BONE	CLAY	280	6.000	0.0214286
223	EAST TOHOPEKALIGA	OSCEOLA	11968	252.000	0.0210561
224	CHERRY	MADISON	479	10.000	0.0208768
225	SURVEYORS	POLK	293	6.000	0.0204778
226	CARLTON	ORANGE	382	7.813	0.0204516
227	HATCHINEHA	OSCEOLA	6665	135.000	0.0202551
228	MUD	MARION	470	9.500	0.0202128
229	SEBRING	HIGHLANDS	468	9.000	0.0192308
230	ROWELL	BRADFORD	364	7.000	0.0192308
231	MINNEHAHA	LAKE	2261	43.000	0.0190181
232	WHITE SAND	CLAY	320	6.000	0.0187500
233	LOTELA	HIGHLANDS	802	15.000	0.0187032
234	DENHAM	LAKE	269	5.000	0.0185874
235	GEORGES	PUTNAM	816	15.000	0.0183824
236	LELIA	HIGHLANDS	165	3.000	0.0181818
237	MCCARTHY	PUTNAM	110	2.000	0.0181818
238	SHIPP	POLK	283	5.000	0.0176678
239	GLENADA	HIGHLANDS	177	3.000	0.0169492
240	LETTA	HIGHLANDS	478	8.000	0.0167364
241	BLUE CYPRESS	INDIAN RIVER	6555	108.000	0.0164760
242	RED BEACH	HIGHLANDS	335	5.500	0.0164179
243	PARKER	POLK	2272	37.000	0.0162852
244	HARNEY	VOLUSIA	6058	95.000	0.0156817
245	LITTLE LAKE GEORGE	PUTNAM	1416	22.000	0.0155367
246	WINTERSET	POLK	548	8.500	0.0155109
247	OTTER	WAKULLA	133	2.000	0.0150376
248	BLUE POND	CLAY	202	3.000	0.0148515
249	CRYSTAL	CLAY	408	6.000	0.0147059
250	SEMINOLE	JACKSON	12000	176.000	0.0146667
251	MAGNOLIA	CLAY	205	3.000	0.0146341
252	ARETTA	POLK	758	11.000	0.0145119
253	OCEAN POND	BAKER	1774	25.000	0.0140924
254	BETHEL	VOLUSIA	213	3.000	0.0140845
255	ALICE	ALACHUA	73	1.000	0.0136986
256	MICNA	SUMTER	418	5.500	0.0131579
257	STEVENS	CLAY	230	3.000	0.0130435
258	TALQUIN	GADSDEN	8850	115.000	0.0129944
259	HAINES	POLK	716	9.000	0.0125698
260	BELL	PASCO	80	1.000	0.0125000
261	BROOKLYN	CLAY	645	8.000	0.0124031
262	SWIFTS CREEK POND	UNION	568	7.000	0.0123239
263	THONOTOSASSA	HILLSBOROUGH	819	10.000	0.0122100
264	MINNEOLA	LAKE	1888	23.000	0.0121822
265	HARRIS	LAKE	13788	165.000	0.0119669
266	GEORGE	PUTNAM	46000	550.000	0.0119565
267	JULIANA	POLK	926	11.000	0.0118790
268	LINDSEY	HERNANDO	137	1.500	0.0109489
269	ALFRED	POLK	736	8.000	0.0108696
270	SANTA FE	ALACHUA	4721	51.000	0.0108028
271	WASHINGTON	BREVARD	4362	47.000	0.0107749
272	BEDFORD	BRADFORD	196	2.000	0.0102041
273	MATTIE	POLK	1078	11.000	0.0102041
274	WIMICO	GULF	4055	41.000	0.0101110
275	LITTLE ORANGE	ALACHUA	818	8.000	0.0097800
276	EUSTIS	LAKE	7806	72.000	0.0092237
277	JACKSON	HIGHLANDS	3412	30.500	0.0089390
278	COLCPEN	PUTNAM	584	5.000	0.0085616
279	JOHNSON	CLAY	480	4.000	0.0083333
280	WEIR	MARION	5685	45.000	0.0079156
281	SMITH	CLAY	895	7.000	0.0078212
282	ARIANA	POLK	1026	8.000	0.0077973
283	HANCOCK	POLK	4515	35.000	0.0077451
284	HALL	CLAY	430	3.000	0.0069767

Table 5-16. (Continued)

```
*                                    *
*  TOTWDS = TOTAL WEED AREA, ACRES   *
*  COVER = PERCENT MACROPHYTE COVER  *
**************************************
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OBS	LAKE	COUNTY	LAKEAREA	TOTWDS	COVER
285	SPRING	CLAY	146	1.0	0.00684932
286	LOWERY	POLK	720	4.5	0.00625000
287	LOUISA	LAKE	3634	21.0	0.00577876
288	RIVER POND	BAY	175	1.0	0.00571429
289	BIVENS ARM	ALACHUA	189	1.0	0.00529101
290	COON	OSCEOLA	1448	7.0	0.00483425
291	ELOISE	POLK	1160	5.5	0.00474138
292	NEWNANS	ALACHUA	7427	35.0	0.00471254
293	BIG SAND	ORANGE	1110	5.0	0.00450450
294	CRESCENT	FLAGLER	15960	70.0	0.00438596
295	CONE	ORANGE	255	1.0	0.00392157
296	GRIFFIN	LAKE	16505	60.0	0.00363526
297	MONROE	VOLUSIA	9406	19.0	0.00201999
298	WHITE WESTERN	BAY	1777	3.0	0.00168824

Various programs for aquatic weed control already exist within the State and may be initiated upon certification by a regional Department of Natural Resources (DNR) biologist that there is a problem in a particular lake (Dupes and Mahler, 1982). For instance, under Section 302 of PL 89-298 (1965), up to 70 percent federal money (30 percent state or local) may be used for control of aquatic weeds in tributaries to navigable water bodies. This Aquatic Plant Control Program is administered federally by the Corps of Engineers and within the State by the DNR. Aquatic weeds in navigable water bodies are also subject to Corps of Engineers - DNR jurisdiction under the 1905 Rivers and Harbors Act, and 100 percent federal funds are available for control from the Removal of Aquatic Weeds Program. Lakes within a county municipality or water management district and not subject to the two preceeding programs may be controlled using approximately 75 percent local and 25 percent state funds under DNR Rule 16C-15, again after approval by a DNR biologist.

Thus, macrophyte information is already being used for lake prioritization in the sense of aquatic weeds control. The macrophyte information in Table 5-16 may be cross referenced to other information presented in this report to aid in formation of a broader prioritization scheme.

Other Water Quality Parameters

Several other parameter and ranking options exist in addition to those already presented in this chapter. For instance, rankings could be prepared on the basis of concentration of nutrients or concentration of other parameters listed in Table 5-4. To present all possible rankings using data from FLADAB would be beyond the scope of this project, but the option for such studies remains for future investigation.

LAKE PRIORITIZATION

General Considerations

Water quality problems can be identified at three levels of detail:

1) impairment or denial of beneficial use;

2) water quality criteria violoations; and

3) local public perception of degradation.

The most common indication of a problem involves the third category, i.e., local users of a lake perceive that degradation has occurred in the form of increased turbidity, aquatic weeds problems, or other symptoms. Violations of water quality criteria usually are not directly related to nutrient problems; nutrient enrichment and its effect on trophic state do not involve direct threats to public health. Problems may be perceived, however, based on one or several criteria appearing in the scientific literature (see Chapter 3). Actual impairment or denial of a beneficial use due to water quality degradation provides the most direct evidence of damages.

A lake prioritization scheme needs to answer the following question: If x amount of dollars is available for lake cleanup, how should this money be allocated? Given that Florida has thousands of lakes, many of which have problems or potential problems, it is obvious that priorities for restoration and management must be established.

In this chapter Florida lakes have been ranked according to several criteria. However, a prioritization based only on these rankings would not answer the question completely because lake cleanup is not an all or nothing situation. Figure 5-6 shows typical cost benefit curves for pollution control. As is evident from this graph, it is important not only to answer the question of which lakes should be cleaned up but also to determine how much they should

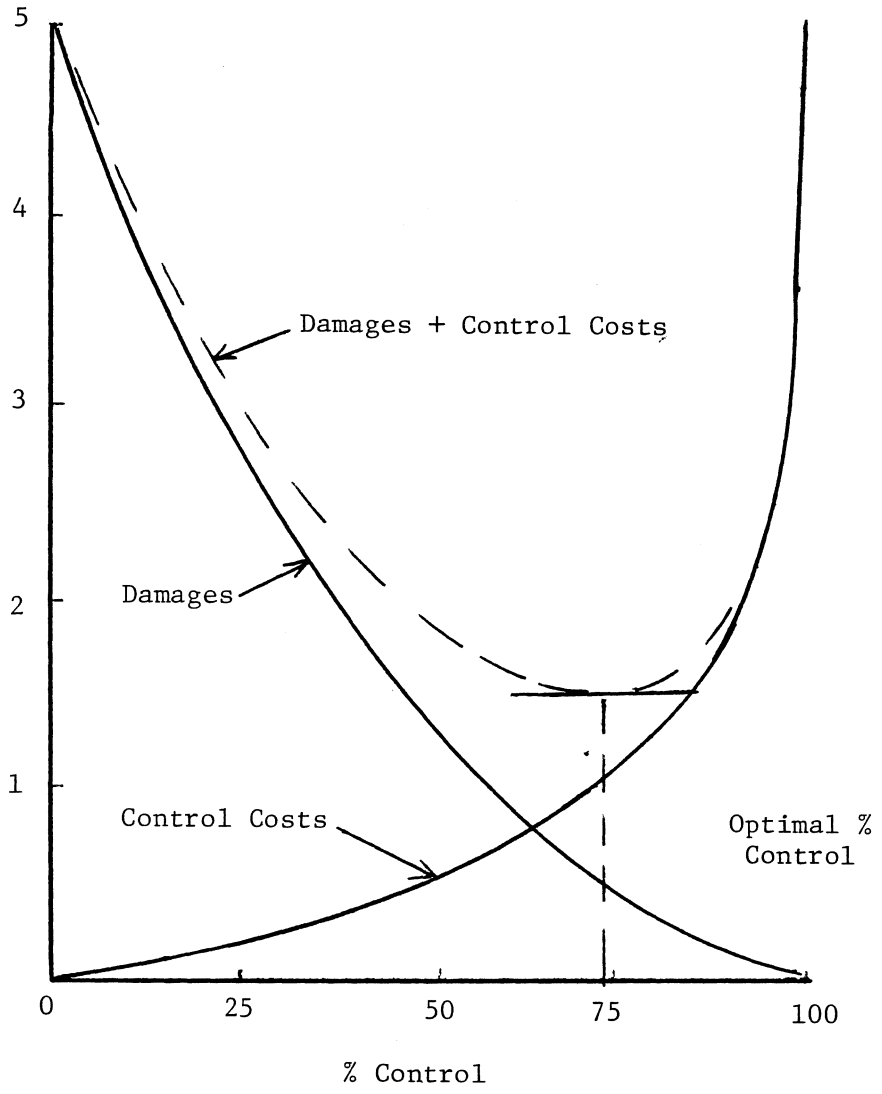


Figure 5-6. Typical Cost Curve for Pollution Control.

be cleaned up. In principle, the available money should be allocated so that the reduction in damages is identical per dollar spent on control for all lakes. However, this principle is difficult to apply unless data are available on the dollar value of the damages. The question of controllability can be examined, at least partially, by examining the sources of nutrients entering the lake. A good measure of controllability is the percent of the loads emanating from man's activities.

Given the results of scientific and economic studies on assessing the problem and its controllability (to be discussed subsequently), there is a need to examine the financial aspects of the problem, i.e., who pays the bill for the cleanup? Public agencies often set priorities for allocating their funds by requiring local cost sharing. Local agencies with matching funds are given priority. Lastly, there are important socio-political considerations, e.g., the lakes selected for restoration should be from several areas in the state.

Overall, the lake prioritization procedure should recognize the scientific, technical, economic, financial, and socio-political dimensions of the problem. To do this in a quantitative manner would require information of much greater detail than is presented in this report. Instead, an outline of information listed in this report will be presented, followed by possible starting points for a prioritization scheme.

Information Summary

Relevant data and tables to this point may be classified as "lake use" information versus "water quality" information. These are summarized in Table 5-17. Only major tables are listed in Table 5-17 and not every possible information source. It is assumed that scientific interest (Table 5-13)

Table 5-17. Summary of Major Report Tables Relating to Prioritization.

Purpose	Table No.	Ranked?	Type of Information
Lake Use Assessment	5-6	Yes	User occassions.
	5-10	No	Boat Ramps.
	5-12	No	Summary of lakes with attributes: potable water supply, state park, top fishing, fish management, prior restoration, other recreation.
Water Quality Assessment	3-2	Yes	TSI's - all lakes.
	3-4	Yes	TSI's - potential problem lakes.
	4-9	Yes	Phosphorus loadings.
	4-10	Yes	Nitrogen loadings.
	5-13	Yes	Scientific interest.
	5-14	Yes	Fish kills.
	5-15	Yes	TSI deviations from county means.
	5-16	Yes	Macrophyte coverage.
Controllability Assessment	4-2	No	Land use.
	4-3	No	Drainage area/lake area ratio.
	4-5	No	Municipal point sources.
	4-6	No	Industrial point sources.
	4-9, 10	No	Percent developed land use, point source contributions.
	4-11	No	Residence times.

results mainly from existing or potentially degraded water quality, hence its inclusion under the purpose "water quality assessment". (Controllability information listed in Table 5-17 will be discussed subsequently.)

It is apparent that most of the easily-ranked quantitative information on the lakes relates to water quality assessment; user occassions (Table 5-6) form the best quantitative measure of lake use although the number of lake uses given in Table 5-12 is quantitative on a scale from one to six. However, most lakes are assigned only one use in Table 5-12, and only one (Lake Talquin, Gadsen County) is assigned as many as four. Hence, it is more difficult to assess lake use quantitatively.

Prioritization Schemes

Many possibilities exist for prioritization schemes, ranging from qualitative judgements to quantification of as many factors (e.g., Table 5-4) as possible. No single approach will be advocated as part of this study. Rather, only the broad characteristics of such schemes will be presented. It is expected that the Florida Department of Environmental Regulation (DER) will subsequently develop its own methodology utilizing resources developed as part of this project.

Two broad information categories were identified for Table 5-17, lake use and water quality. If prioritization is to be done in a quantitative manner, a numerical measure of each category is required. Functionally,

$$LU = f(\text{user occasions, boat ramps, lake attributes, etc.}) \quad (5\text{-}5)$$

and

$$WQ = f(\text{TSI, N, P, fish kills, macrophyte coverage, etc.}) \quad (5\text{-}6)$$

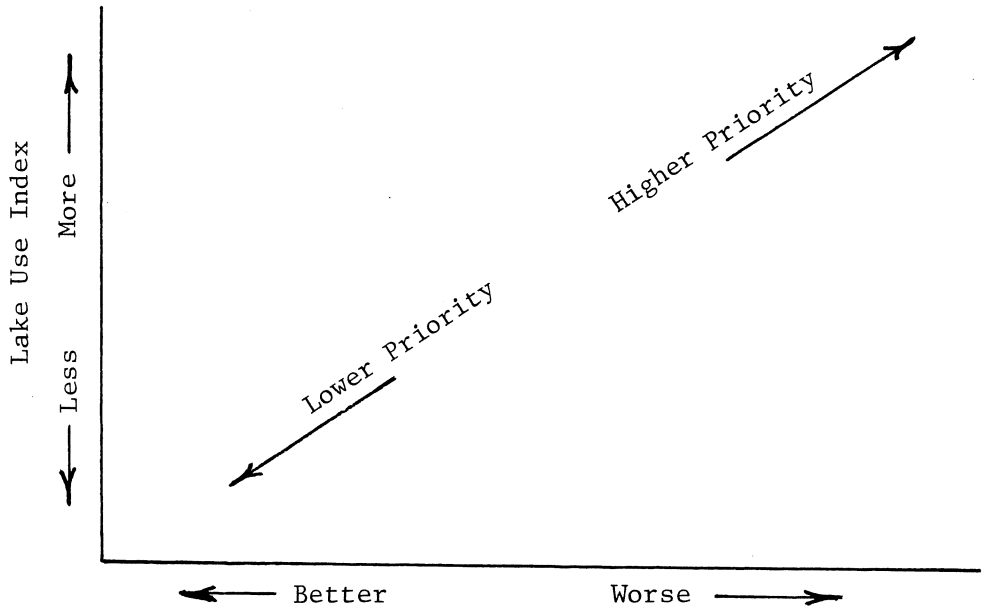


Figure 5-7. Conceptual Prioritization Scheme.

where LU = numerical index of lake use, and

WQ = numerical index of lake water quality.

Both indices may incorporate as many factors from Table 5-4 as possible and are obviously not limited to the data sources listed in Table 5-17. Given the indices, values for each lake may be plotted as suggested in Figure 5-7. Lakes with the worst water quality and most use would be the highest candidates for restoration (although a third dimension, controllability, will also enter the analysis).

Several quantitative measures of water quality exist. How may they be combined into one index for purposes of Figure 5-7? A physically meaningful but comprehensive overall index would be difficult to devise owing to the several reasons cited in Chapter 3 regarding development of an index of a lake's trophic state or "condition". One alternative (albeit still an index) is simply to rank lakes on a zero to one basis according to various criteria

and sum the rankings or compute an average ranking. As discussed in Chapter 3, weights may be assigned subjectively to various ranking parameters if desired. A similar scheme can be used for lake use as long as numerical measures can be placed on each use factor. Alternatives of this type have been attempted for Florida lakes on an ad hoc basis by DeMaio (1982), with results dependent upon the choice of factors to include in the indices.

Other statistical techniques may also be applied such as cluster analysis or factor analysis by which lakes are grouped according to common statistical properties. Unfortunately, such methods seldom provide much physical insight, and intuition must again be used to determine the meaning of a "cluster" of lakes. Clearly, the prioritization process is subjective and must reflect the particular needs of a state. Within Florida, the DER is charged with this responsibility; no general scheme is developed herein.

CONTROLLABILITY

Lake restoration techniques were discussed in brief previously in conjunction with Table 5-3. Restoration measures can focus on activities within the lake itself (e.g., drawdown, harvesting, chemicals) and/or on source controls (e.g., reduction of point and non-point loads). Prior restoration efforts in Florida have emphasized the former methods, but both types have been tried. Whether a restoration technique will apply to a given lake depends strongly upon the characteristics of that lake. In particular, non-point source controls are potentially useful only where a large percentage of its drainage basin is developed, and the basin is relatively large compared to the lake. The residence time of water in the lake is important; lakes with long residence times will tend to respond slowly to source controls. Furthermore, the causes of degraded water quality may be related to factors other than just inflows (e.g., suspension of a lake's bottom sediment by wind action).

Consider, for example, Lake Apopka. As described in Chapter 6, the lake's downward trend accelerated in 1947 when a hurricane released a large nutrient load from bottom sediments. The lake never recovered, and control options have emphasized bottom consolidation via a drawdown as well as source controls. For economic and other reasons the drawdown plan was never implemented.

For localized control of macrophytes, chemical treatment or mechanical harvesting is often used. Where macrophytes cover only a small surface area, such measures may work even for large lakes, although each has its drawbacks. In principle, however, a control program may be envisioned in which algae and macrophyte growths are controlled initially by a combination of in-lake measures (e.g., chemical precipitation or drawdown), and source controls. Whether or not a steady state of good water quality could be achieved for most lakes is debatable; if not, in-lake treatment measures would be required every few years.

From the water quality standpoint, assessment of controllability depends upon load definition (source and magnitude of lake loadings), physical characteristics of the lake (water budget, mean depth, residence time), and drainage characteristics (percent developed, drainage area/lake area ratio, size of lake). The several eutrophication models of the past 15 years are a result of attempts to combine these and other factors into a model indicative of lake status. The nutrient loadings of Chapter 4 combine drainage area characteristics with lake size to form the nitrogen and phosphorus loadings. These models, loadings, etc. may thus be seen as possible components in the assessment. Knowledge of point versus non-point source loadings is also important since point sources are usually easier to control from a technical standpoint. However, if a lake is dominated by nonpoint sources, point source control may have little effect.

Information sources from within this report are again summarized in Table 5-17. If the various parameters can be ranked, a third "index" could be formulated, and a third dimension added to Figure 5-7, or controllability information may simply be used to determine the feasibility of restoration of candidate lakes selected on another basis. As described earlier, implementation of controls depends on more than just whether or not they are technically feasible. Considerations of cost, financing, public opinion and political realities will ultimately decide the issue.

CHAPTER 6

THE OKLAWAHA LAKES: A CASE STUDY

INTRODUCTION

Lake Apopka and its downstream lakes (Beauclair, Dora, Eustis and Griffin) represent a classic case of water quality decline in Florida. Prior to the mid 1940's these lakes were well-known for their clear waters and abundance of game fish. A combination of increased pollutant loadings and poor management, however, resulted in rapid decline in water quality conditions during the 1950s and 1960s. Presently all of these lakes are considered to be in a eutrophic to hypereutrophic condition, with game fish being present in very limited numbers. Because the loss of such a large resource as the Oklawaha lakes has significant economic implications, numerous studies have been carried out to define conditions in the lakes and to develop methods of management and restoration. As a result, there now exists a very large amount of water quality data on the lakes. This information represents one of the largest data sets on Florida lakes and includes data over primarily the last 15 years. (The five lakes are shown in Figure 2-2)

The Oklawaha lakes thus provide a logical example as a test case for the classification scheme. The large number of measurements implies that the amount of error involved in classifying the lakes should be much smaller than would be the case if only a few measurements were available. In addition, the data set contains monthly measurements in many years, providing the capability of assessing the amount of variability within a year. Lake Apopka provides a further use as a test case in that analysis of restoration feasibility

was performed prior to this report; this analysis may be used to compare with the scheme outlined in Chapter 5.

WATER QUALITY DECLINE IN THE OKLAWAHA LAKES

The history of water quality decline in the Oklawaha lakes, outlined in Table 6-1, centers around Lake Apopka, the headwater lake of the chain. Prior to 1946, Lake Apopka had very clear water and generally good water quality (Clugston 1963). However, in 1947 a hurricane uprooted large amounts of aquatic plants, causing a large nutrient load from decaying vegetation and eliminating shading in the water column. The first reported large algal bloom appeared later that same year. Algal growth dominated primary production in the lake after that date and initiated conditions that have continued to the present.

Nutrient loads contributing to additional enrichment came from a number of man-made sources. Waste from both citrus processing and sewage were pumped into the lake for long periods of time. Citrus groves around the lake were fertilized, possibly causing aerial deposition and leaching of fertilizer into the lake. Also, nutrient-rich drainage waters from muck farms bordering the northern edge of the lake were pumped into the water. These nutrient sources, combined with a long hydraulic residence time produced high nutrient levels in the lake.

In addition to the large nutrient loads, a number of lake management problems aggravated water quality conditions. In the years after the 1947 hurricane, game fish became even more abundant due to the increased food supply. The fishing and tourist industry became an increasingly important aspect of the local economy, and for this reason a number of steps were taken to facilitate the fishing industry. A lock system was installed in the Apopka-Beauclair canal, preventing the rise and fall of water levels that would naturally dry

Table 6-1. Summary of the 20th Century History of Lake Apopka*

Date	Event
1922-1927	Sewage effluent from Winter Garden first discharged into lake.
1924	Wastewater from preparation of fresh fruit discharged into lake.
1942	Discharge from muck farms begins.
1947	September hurricane(s) destroyed large amounts of bottom vegetation. First algal bloom reported in October.
1948	Citrus concentrate waste first discharged into lake. Chemical control of water hyacinths attempted. Apopka-Beauclair Canal opened.
1948-1950	Rooted aquatic vegetation disappears. Frequent algal blooms.
1950-1955	Game fishing peaks.
1952	Lake water level stabilized by control structure placed in Apopka-Beauclair Canal.
1957	Rough fish estimated at 82% of fish population (by number).
1957-1959	Three separate selective shad poisonings killed a total of 20 million lbs.
1963	In May, gas embolism killed 10-20 million lb of rough fish and 0.4 million lb of game fish.
1970	Rough fish estimated at 82% of fish population (by number).
1971	Experimental gravity drawdown. Death of alligators, turtles, and fish attributed to Aeromonas (bacteria).
1976-present	Abatement of muck farm discharges.
1977	Discharge of citrus concentrate waste ends.
1978	Winter Garden institutes tertiary treatment (land spreading) of sewage. All point wastewater discharges removed from lake.

*Information from various sources including US EPA (1978) and Brezonik et al. (1982).

sediments and reduce internal loading. At about the same time, efforts were taken to control water hyacinths by treating the lake with herbicides; the dead plants were left to decay in the lake. By the late 1950's water quality conditions degraded to such an extent that game fish populations were replaced by rough fish species such as gizzard shad. Steps were taken to control the gizzard shad populations by treating the lake with selective pesticides, causing the death of thousands of tonnes of fish that were left to decay in the lake. Thus management efforts to control the symptoms of over-enrichment (i.e. chemical control of nuisance plants and fish) exacerbated the problem by accelerating nutrient recycling within the lake.

As a result of all the above conditions, by the 1960's Lake Apopka had very poor water quality. Massive fish kills were reported to be caused by gas embolism, and a large number of turtle and alligator deaths were attributed to bacterial growth. Many of the large fish camps were forced to close because of poor fishing conditions. Downstream lakes also suffered as a result of conditions in Lake Apopka; Lakes Beauclair and Dora were reported to have equally poor (if not worse) water quality.

Efforts to restore Lake Apopka to reasonable conditions began in the late 1960's. Nutrient abatement began in the mid 1970's, and at the present time all point-sources of nutrient loads have been removed. A massive drawdown of the water level was planned to consolidate loose sediments and reduce internal loading; however, high costs and risks of frost damage to citrus crops caused indefinite delay of the project. Internal loading remains a problem in the lake. Combined with the lake's long hydraulic residence time, internal loadings may maintain poor conditions in the lake for a long time.

CHARACTERIZATION OF THE OKLAWAHA LAKES

The most detailed recent assessment of water quality in the Oklawaha chain was done by the University of Florida Department of Environmental Engineering Sciences (e.g. Brezonik et al. 1982) as part of the restoration effort funded by the Florida DER and US EPA. This project produced four years of water quality monitoring (for the years 1977-1980). Lakes Apopka and Beauclair were found to have the poorest water quality during this period. These lakes were characterized as having loose flocculent, organic sediments that are easily resuspended by wind-induced turbulence. The loose sediments result in high internal loading rates in the lakes and are a major factor governing trophic state. Parameters such as total phosphorus (TP), total organic nitrogen (TON), and total carbon (TC) were all high in these lakes, reflecting loadings from the organic sediment (e.g. see Brezonik et al. 1982). The average of Carlson's (1977) three trophic state indices was used by Brezonik et al. (1982) to summarize trophic conditions in the lakes. Average index values of 75 for both lakes indicated hypereutrophic conditions. In general, water quality (and trophic) conditions were worse in these two lakes than in the three downstream lakes.

Lake Dora, the next lake downstream from Beauclair, represented an intermediate level of water quality between the upstream lakes and the two lakes further downstream. Levels of TC, TP, and TON were significantly lower in Lake Dora than in the upstream lakes. Nevertheless, the lake can be considered hypereutrophic, and it had an average (Carlson) TSI of 72 for the four year period.

The two downstream lakes show the best water quality of the five lakes. Nutrient levels were significantly lower, and the average TSI values also were lower. Both lakes were in the eutrophic range: Eustis (65), Griffin (68). Better conditions in these lakes may be due to dilution by inflow from lakes

of better water quality. Lake Harris, which flows into Lake Eustis, generally has much better water quality and lower nutrient levels then Lakes Apopka, Beauclair and Dora.

COMPARISON OF WATER QUALITY MEASUREMENTS MADE BY DIFFERENT AGENCIES

Due to the widespread interest in Lake Apopka, a number of agencies have made measurements of its water quality over the past decade. The comparability of data from various sources for overlapping time intervals is of interest as a means of gaining insight into the accuracy of data from various sources within the data base.

To test the comparability of data, measurements were tabulated by agency for the years 1977 to 1980, during which measurements occurred most frequently. During this period data were gathered monthly (or more frequently) by the University of Florida as part of the DER-sponsored restoration project, and less frequently by the U.S. Geological Survey, the Florida Game and Freshwater Commission, and by the Florida DER. Parameters that are most pertinent to water quality and had the largest number of measurements over the various monitoring programs were chosen for comparison. Tables 6-2 to 6-5 summarize this information. Differences among the data sources proved to be inconsistent, and in some cases, large (mean values differing by as much as 76 percent). Some variance may be accounted for by the small number of measurements taken; however, in some cases data sets of 10 or more values each do not yield comparable mean values. There does not seem to be a consistent trend of higher or lower annual mean values for any particular agency, and in this sense the differences do not appear to be the result of determinate analytical error.

Secchi disk measurements can be expected to have a high degree of variability because of sediment resuspension and algal productivity, both of which vary with

Table 6-2. Mean Secchi Disk Levels from Various Agencies During the Years 1977-1980.

LAKE	YEAR	USGS	FGFC	UF	DER	LARGEST DIFFERENCE (%)***
Apopka	1977	23* (2)**	37 (2)	30 (12)		37.8
	1978	30 (2)		28 (11)		6.7
	1979	15 (1)		25 (12)		40.0
	1980	14 (3)		23 (12)		39.1
Beauclair	1977		48 (2)	38 (12)		20.8
	1978			31 (11)	56 (2)	44.6
	1979			32 (12)	61 (1)	47.5
	1980			32 (12)		-
Dora	1977	34 (2)	46 (2)	43 (12)		26.1
	1978	36 (1)		41 (11)	57 (2)	36.8
	1979			43 (12)	61 (1)	29.5
	1980	32 (3)		37 (12)		13.5
Eustis	1977		56 (2)	52 (12)	45 (10)	19.6
	1978			51 (11)	61 (11)	16.4
	1979			52 (12)	107 (1)	51.4
	1980			53 (12)		-
Griffin	1977	41 (2)	55 (2)	55 (11)	56 (11)	26.8
	1978			51 (11)	66 (11)	22.7
	1979			56 (12)	34 (2)	39.3
	1980	36 (3)		45 (12)		20.0

* Measurements in cm.

** Numbers in parentheses represent number of measurements.

*** Largest difference between agencies, divided by the highest value reported.

Table 6-3. Mean Conductivity Levels from Various Agencies During the Years 1977-1980.

LAKE	YEAR	USGS	FGFC	UF	DER	LARGEST DIFFERENCE (%)***
Apopka	1977	355* (2)**	400 (2)	405 (12)		12.3
	1978	350 (3)		451 (11)		22.4
	1979	398 (3)		406 (12)		2.0
	1980	307 (3)		368 (12)		16.6
Beauclair	1977		412 (2)	415 (12)	420 (2)	1.9
	1978			475 (11)	377 (2)	20.6
	1979			385 (12)	383 (3)	0.5
	1980			356 (12)	400 (1)	11.0
Dora	1977	387 (2)	397 (2)	405 (12)	437 (2)	11.4
	1978	399 (3)		510 (11)	383 (2)	24.9
	1979	445 (1)		360 (12)	378 (3)	19.1
	1980	397 (3)		350 (12)	400 (2)	12.5
Eustis	1977		325 (2)	328 (12)	299 (9)	8.8
	1978			364 (11)	312 (11)	14.3
	1979			290 (12)	288 (10)	0.7
	1980			275 (12)	314 (4)	12.4
Griffin	1977	315 (2)	330 (2)	346 (11)	317 (9)	9.0
	1978	363 (3)		398 (11)	330 (11)	17.1
	1979	352 (1)		324 (12)	315 (10)	10.5
	1980	301 (3)		257 (12)	306 (4)	16.0

* Measurements in μmho/cm.

** Numbers in parenthesis represent number of measurements.

*** Largest difference between agencies, divided by the highest value reported.

Table 6-4. Mean Total Phosphorus Levels from Various Agencies During the Years 1977-1980.

LAKE	YEAR	USGS	FGFC	UF	DER	LARGEST DIFFERENCE (%)***
Apopka	1977	0.120* (2)**	0.197 (2)	0.213 (12)		43.7
	1978	0.153 (3)		0.159 (11)		3.8
	1979	0.237 (3)		0.309 (12)		23.3
	1980	0.177 (3)		0.311 (12)		43.1
Beauclair	1977		0.189 (2)	0.231 (12)	0.311 (2)	39.2
	1978			0.223 (11)	0.171 (2)	23.3
	1979			0.256 (12)	0.248 (3)	3.1
	1980			0.339 (12)	0.310 (1)	8.5
Dora	1977	0.040 (2)	0.090 (2)	0.166 (12)	0.125 (2)	75.9
	1978	0.110 (3)		0.114 (11)	0.084 (2)	26.3
	1979	0.070 (1)		0.155 (12)	0.103 (3)	54.8
	1980	0.127 (3)		0.136 (12)	0.149 (2)	14.8
Eustis	1977		0.080 (2)	0.137 (11)	0.061 (12)	55.5
	1978			0.071 (11)	0.041 (10)	42.3
	1979			0.121 (12)	0.061 (10)	49.6
	1980			0.056 (12)	0.062 (4)	9.7
Griffin	1977	0.055 (2)	0.101 (2)	0.159 (11)	0.102 (12)	65.4
	1978	0.093 (3)		0.099 (11)	0.066 (10)	33.3
	1979	0.050 (1)		0.168 (12)	0.106 (10)	70.2
	1980	0.080 (3)		0.137 (12)	0.099 (4)	41.6

* Measurements in mg/L

** Numbers in parentheses represent number of measurements.

*** Largest difference between agencies, divided by the highest value reported.

Table 6-5. Mean Total Organic Nitrogen Levels from Various Agencies During the Years 1977-1980.

LAKE	YEAR	USGS	FGFC	UF	DER	LARGEST DIFFERENCE (%)***
Apopka	1977	4.05* (2)**		3.23 (12)		20.2
	1978	4.60 (3)		4.61 (11)		0.2
	1979	4.33 (3)		4.81 (12)		10.0
	1980	6.30 (3)		4.87 (12)		22.7
Beauclair	1977			3.25 (12)	3.25 (1)	0.0
	1978			4.45 (11)	6.34 (2)	29.8
	1979			3.87 (12)	4.08 (3)	5.1
	1980			4.25 (12)	5.05 (1)	15.8
Dora	1977	2.23 (2)		2.89 (12)	3.34 (2)	33.2
	1978	2.70 (3)		3.34 (11)	5.67 (2)	52.4
	1979	4.50 (1)		2.94 (12)	2.93 (3)	34.9
	1980	2.58 (3)		3.24 (12)	3.79 (2)	31.9
Eustis	1977			2.60 (11)	2.35 (12)	9.6
	1978			2.95 (11)	2.20 (4)	25.4
	1979			2.41 (12)	2.33 (3)	3.3
	1980			2.19 (12)	1.99 (1)	9.1
Griffin	1977	2.45 (2)		2.52 (11)	2.35 (12)	6.7
	1978	2.63 (3)		2.49 (11)	3.12 (3)	20.2
	1979	4.80 (1)		2.67 (12)	2.30 (3)	52.1
	1980	2.08 (3)		2.81 (12)	1.76 (1)	37.4

* Measurements in mg/L.

** Numbers in parentheses represent number of measurements.

*** Largest difference between agencies, divided by the highest value reported.

daily weather and season. As Table 6-2 shows, this is the case; differences in mean values range from 6.7-51.4 percent. The largest difference (for Lake Eustis) most likely is a result of seasonal variation; the single DER measurement on this lake was taken during March, a period of low algal biomass. The UF value is based on 12 (monthly) measurements and incorporates high productivity periods as well as low. Use of the one DER measurement would yield a Florida TSI(SD) value (as developed in Chapter 3) of 58, while the 12 month (UF) value would yield a Florida TSI(SD) of 81.

Conductivity measurements are more consistent among agencies than are Secchi disk values. Differences range from 0.5 to 24.9 percent and no consistent trends were noted. Somewhat surprisingly, the agreement between data sources does not seem to improve with greater numbers of measurements. For example, means of UF and DER data (11 measurements each) for Lake Griffin in 1978 differ by 17.1 percent. Comparison of means of UF data (12 measurements) and DER data (3 measurements) for Lake Beauclair in 1979 shows a difference of only 0.5 percent.

Mean values of nutrient concentrations had wide differences among agencies (3.8-75.9 percent for TP and 0-52.4 percent for TON). These parameters are a reflection of the amount of organic matter within the lake and are subject to large short term peaks due to wind-induced sediment resuspension. As a result, large variations in concentrations may occur according to conditions during the sampling time, and a large variation in trophic state assessment may occur due to the measurement differences. As an example of this, Lake Dora in 1977 would be assigned a Florida TSI(TP) of 64 (although this lake is not actually P-limited for the USGS data while the UF data produces a Florida TSI(TP) of 97. This large spread represents one-third of the TSI scale and illustrates the need for caution in assessing trophic state with few measurements.

A comparison of Florida trophic state indices calculated for water quality

data from the various agencies is shown in Table 6-6. The values represent annual means of Florida TSI's for the three individual trophic state parameters by agency. The nutrient index was calculated according to specific nutrient limitations in the lake and thus represents the TSI of phosphorus, nitrogen or nutrient balanced conditions. Differences in TSI values between agencies do not appear as drastic as the differences in raw values; however some large differences still exist. Yearly average TSI's generally compare closely between agencies, differing by less than 10 in most cases and by more than 20 in only two cases (Beauclair 1978 TSI(N-P), Eustis 1979 TSI(SD)). Larger differences probably are the result of differing sampling frequency, and as stated earlier this should be taken into account when combining data sets.

The data base thus demonstrates that considerable differences in estimated water quality are possible between monitoring studies. Different frequencies, times and locations probably are the most important cause of the differences, but analytical errors cannot be ruled out as a cause of significant differences in parameter estimation. For this reason it may be advisable to test for outliers when combining data sets. In this way values that are obviously in error may be eliminated. In addition, where there are enough data, geometric means may reduce errors in estimating "true values" for skewed populations. For lakes where data are very limited, accurate estimation of trophic state may prove to be difficult due to seasonal effects. These considerations are discussed in the following section.

TEMPORAL VARIABILITY AS A SOURCE OF ERROR IN TROPHIC STATE ESTIMATION

Seasonal trends in temperate lakes are well known and are an important aspect of sampling such lakes. Florida lakes, in contrast, do not experience the temperature extremes and thermal stratification (except in a few cases) of temperate

Table 6-6. Florida Trophic State Index Values, by Agency, for the Oklawaha Lakes.*

		FLA. TSI (SD)				FLA. TSI (CHLA)				FLA. TSI (N-P)**			
LAKE	YEAR	USGS	FGFC	UF	DER	USGS	FGFC	UF	DER	USGS	FGFC	UF	DER
Apopka	1977	104	91	98			77	71		82		77	
	1978	96		99				72		90		82	
	1979	116		102				80		85		86	
	1980	118		104				80		93		87	
Beauclair	1977		82	90			78	79				79	77
	1978	79		95				84				85	62
	1979			94	75			84				80	83
	1980			95				87				85	88
Dora	1977	92	84	87			75	78		60		79	80
	1978	91		87	78			78		76		79	79
	1979			85	75			78		77		77	72
	1980	95		90				83		63		78	
Eustis	1977		80	82	86		68	62				73	68
	1978			81	77			64				72	56
	1979			81	58			67				73	72
	1980			79				67				69	73
Griffin	1977	87	81	81	79		71	72		71		74	72
	1978		81	82	74			74		77		70	61
	1979			78	63			73		69		76	71
	1980	95		86				78		59		76	75

*Values are means of all data for a given year; see Table 6-5 for number of samples each mean represent.

**Nutrient TSI according to limiting conditions in lake (i.e. phosphorus, nitrogen or nutrient balance).

lakes and therefore do not exhibit pronounced seasonal trends. Recent work at the University of Florida (Brezonik et al. 1982; Baker et al. 1981) evaluated seasonal trends in a number of Florida lakes by comparing average monthly values for trophic parameters over a number of years. While the results indicate small seasonal trends for some parameters, no statistically significant differences could be established between high and low productivity periods. It is hypothesized that temporal variation may be more of a random process, such as may result from daily weather patterns and wind-induced mixing (e.g., as in Lake Apopka). Productivity in Florida lakes generally can be assumed to be relatively constant throughout the long growth season (Feb-Nov), and variations during that period result either from random events or man-induced perturbations. Lower growth during winter months (Dec-Jan) may be the only deviation from this relatively constant growth condition.

Assessment of temporal variability is important in that few measurements may reflect extreme conditions rather than typical conditions. Thus, assessment of the accuracy of one or two measurements may be valuable. To quantify the amount of variability in trophic state assessment, a frequency analysis was performed. Data from seven Florida lakes that have received detailed limnological study were used in the analysis. The analysis included the five eutrophic Oklawaha lakes (four years of monthly measurements) and two non-eutrophic lakes (to extend the trophic range of the analysis): Lake Weir (mesotrophic) (STORET; Messer 1975) and McCloud Lake (oligotrophic)(Shannon and Brezonik 1972 and unpublished data). Florida TSI values were calculated from mean monthly values for all lakes and used in the analysis. In order to simplify the analysis of nitrogen and phosphorus data, a nutrient TSI was calculated according to nutrient limitation conditions in each lake, i.e., TSI(TP) for phosphorus limitation, TSI(TN) for nitrogen limitation and the average of the N and P TSI's for nutrient balanced lakes.

The results of the frequency analyses are presented in Table 6-7 to 6-15. A statistical summary of the three individual TSIs and TSI(AVG) is presented for the seven lakes in Table 6-7. Results indicate that while individual parameter TSI's fluctuate greatly, the average TSI fluctuates much less. The magnitude of this fluctuation is independent of trophic state. Parameters, such as Secchi disk, chlorophyll a, TP and TN would be expected to show large variations because of algal blooms and sediment resuspension. As Table 6-7 indicates this is indeed the case; standard deviations range from 6 to 13 units for individual parameter indicators. The average TSI, however, smooths out the variability from the individual measures; standard deviations for TSI(AVG) ranged from 5.0 to 7.2 units over the several lakes. Thus, it appears that variability in the average TSI is not affected by short term variations in measured parameters. In this sense these results imply that TSI(AVG) is a reliable estimate of true trophic conditions.

Table 6-7. Distribution of Monthly Trophic State Estimations (UF data for Oklawaha lakes).*

LAKE	TSI (SD)	TSI (CHLA)	TSI (N-P)	TSI (AVG)
Apopka	100.9 ± 7.3 (S)	75.1 ± 9.2 (S)	82.7 ± 8.2 (N)	86.1 ± 6.0 (N)
Beauclair	93.8 ± 6.2 (S)	82.7 ± 10.6 (S)	82.7 ± 9.8 (S)	86.4 ± 7.0 (S)
Dora	87.5 ± 6.6 (N)	78.7 ± 8.3 (N)	78.0 ± 7.6 (N)	81.4 ± 5.3 (N)
Eustis	80.8 ± 7.7 (S)	64.2 ± 12.4 (S)	72.3 ± 7.9 (N)	72.4 ± 5.0 (S)
Griffin	81.8 ± 10.5 (N)	74.2 ± 9.5 (N)	74.3 ± 7.2 (N)	76.7 ± 6.7 (N)
Weir	38.4 ± 5.9 (N)	42.9 ± 9.2 (N)	41.8 ± 12.9 (N)	42.0 ± 7.2 (N)
McCloud	21.3 ± 10.9 (N)	25.5 ± 9.2 (N)	27.8 ± 12.7 (S)	25.8 ± 6.5 (N)

*Values represent means, standard deviations and normal (N) or skewed (S) distributions.

Detailed results of the frequency analysis for the TSI(AVG) values are presented in Tables 6-8 to 6-14. These tables provide a clear picture of the distribution and characteristics of the data. Descriptive statistics and a test for normalcy are provided under the moments sections. Values of "Prob < W" greater than 0.05 indicate a normal (non-skewed) distribution. The three graphical procedures provide the clearest picture. The 'stem and leaf' plot shows the true frequency distribution; stem values are the (integer) TSI levels and leaf values indicate the number of occurrences of each value. The 'Boxplot' shows the mean (+) and standard deviations (ends of box). The Normal Probability Plot shows the empirical cumulative probability (*) along with a predicted cumulative probability (+). For an exact normal distribution the plots should coincide. Finally, a detailed frequency table is shown.

The results of the analysis in Tables 6-8 to 6-14 indicate that five out of the seven lakes exhibit normal distributions. Only Lakes Beauclair and Eustis demonstrate skewed populations as evidenced by the normalcy test. In both cases the distributions appear to be skewed due to relatively few points at the lower end of the scale. A test for outliers may be appropriate here and elimination of outliers may produce a more normal population. Accuracy of the analyses for Lakes Weir and McCloud may be less that those for the Oklawaha lakes because of fewer measurements in the former lakes. Non-eutrophic lakes generally are not sampled as eutrophic lakes, and considering their trophic conditions, these lakes had large data sets.

In addition, the same analyses were performed on the Oklawaha lakes using data from the entire data base. A summary of those results is shown in Table 6-15. Distributions were not changed drastically, possibly because the largest number of values came from the same (UF) data set. Means and standard deviations in most cases remained very similar. Distributions (normal or skewed) changed

Table 6-8. Frequency Analysis of Monthly Values of the Florida Average Trophic State Index for Lake Apopka.

FREQUENCY ANALYSIS OF TROPHIC STATE INDICES
LAKE=A

UNIVARIATE

VARIABLE=FTSIA

MOMENTS

N	46	SUM WGTS	46
MEAN	86.1273	SUM	3961.86
STD DEV	6.0505	VARIANCE	36.6086
SKEWNESS	-0.708673	KURTOSIS	0.959735
USS	342871	CSS	1647.39
CV	7.02507	STD MEAN	0.892098
T:MEAN=0	96.5447	PROB>|T|	0.0001
W:NORMAL	0.966588	PROB<W	0.358

QUANTILES(DEF=4)

100% MAX	96.8839	99%	96.8839
75% Q3	90.0206	95%	95.4591
50% MED	86.9148	90%	93.6375
25% Q1	82.1164	10%	78.0991
0% MIN	66.8669	5%	75.9692
		1%	66.8669
RANGE	30.017		
Q3-Q1	7.90419		
MODE	66.8669		

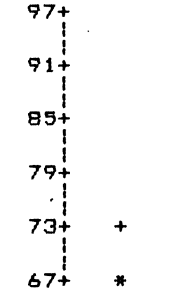
EXTREMES

LOWEST	HIGHEST
66.8669	93.5106
75.9125	93.9334
76.0745	94.5428
76.9281	95.9525
78.601	96.8839

MISSING VALUE .
COUNT 1
% COUNT/NOBS 2.13

STEM	LEAF	#
96	09	2
94	5	1
92	14559	5
90	0107	4
88	1261158	7
86	3580335	7
84	3352366	7
82	66	2
80	067	3
78	6788	4
76	19	2
74	9	1
72		
70		
68		
66	9	1

BOXPLOT



NORMAL PROBABILITY PLOT

FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
66.8669	1	2.2	2.2
75.9125	1	2.2	4.3
76.0745	1	2.2	6.5
76.9281	1	2.2	8.7
78.601	1	2.2	10.9
79.7009	1	2.2	13.0
79.8409	1	2.2	15.2
79.8456	1	2.2	17.4
79.982	1	2.2	19.6
80.576	1	2.2	21.7
80.7088	1	2.2	23.9
82.5856	1	2.2	26.1
82.6026	1	2.2	28.3
84.3101	1	2.2	30.4
84.3468	1	2.2	32.6
84.4905	1	2.2	34.8
85.2207	1	2.2	37.0
85.3305	1	2.2	39.1
85.5574	1	2.2	41.3
85.6049	1	2.2	43.5
86.3294	1	2.2	45.7
86.5261	1	2.2	47.8
86.8112	1	2.2	50.0
87.0184	1	2.2	52.2
87.2847	1	2.2	54.3
87.303	1	2.2	56.5
87.5491	1	2.2	58.7
88.1286	1	2.2	60.9
88.155	1	2.2	63.0
88.6351	1	2.2	65.2
89.0658	1	2.2	67.4
89.1126	1	2.2	69.6
89.5165	1	2.2	71.7
89.8295	1	2.2	73.9
89.9839	1	2.2	76.1
90.1307	1	2.2	78.3
90.9699	1	2.2	80.4
91.6609	1	2.2	82.6
92.0658	1	2.2	84.8
92.4024	1	2.2	87.0
93.4677	1	2.2	89.1
93.5106	1	2.2	91.3
93.9334	1	2.2	93.5
94.5428	1	2.2	95.7
95.9525	1	2.2	97.8
96.8839	1	2.2	100.0

Table 6-9. Frequency Analysis of Monthly Values of the Florida Average Trophic State Index for Lake Beauclair.

FREQUENCY ANALYSIS OF TROPHIC STATE INDICES
LAKE=B

UNIVARIATE

VARIABLE=FTSIA

MOMENTS

N	45	SUM WGTS	45
MEAN	86.3378	SUM	3887.45
STD DEV	6.95772	VARIANCE	48.4098
SKEWNESS	-1.18468	KURTOSIS	2.22457
USS	337958	CSS	2130.03
CV	8.05405	STD MEAN	1.0372
T:MEAN=0	83.2898	PROB>|T|	0.0001
W:NORMAL	0.922597	PROB<W	<0.01

QUANTILES(DEF=4)

100% MAX	96.9966	99%	96.9966
75% Q3	90.5824	95%	96.528
50% MED	87.72	90%	94.584
25% Q1	83.1294	10%	76.4588
0% MIN	62.2379	5%	72.9605
		1%	62.2379
RANGE	34.7587		
Q3-Q1	7.45297		
MODE	62.2379		

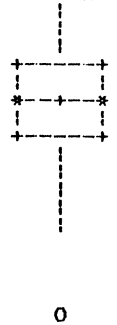
EXTREMES

LOWEST	HIGHEST
62.2379	94.3233
72.7708	94.975
73.4031	95.538
76.1377	96.9523
76.6729	96.9966

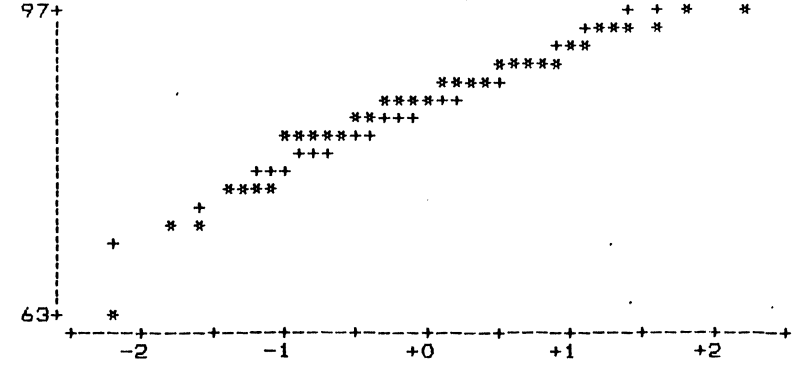
MISSING VALUE .
COUNT 2
% COUNT/NOBS 4.26

STEM	LEAF	#
96	00	2
94	2305	4
92	03	2
90	0135705	7
88	112454	6
86	12465677	8
84	49	2
82	4788579	7
80		
78		
76	1712	4
74		
72	84	2
70		
68		
66		
64		
62	2	1

BOXPLOT



NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
62.2379	1	2.2	2.2
72.7708	1	2.2	4.4
73.4031	1	2.2	6.7
76.1377	1	2.2	8.9
76.6729	1	2.2	11.1
77.0757	1	2.2	13.3
77.2276	1	2.2	15.6
82.3703	1	2.2	17.8
82.6896	1	2.2	20.0
82.7616	1	2.2	22.2
82.7872	1	2.2	24.4
83.4716	1	2.2	26.7
83.6806	1	2.2	28.9
83.8801	1	2.2	31.1
85.3789	1	2.2	33.3
85.8518	1	2.2	35.6
86.097	1	2.2	37.8
86.1563	1	2.2	40.0
86.3999	1	2.2	42.2
86.6473	1	2.2	44.4
87.4756	1	2.2	46.7
87.6374	1	2.2	48.9
87.72	1	2.2	51.1
87.7292	1	2.2	53.3
88.125	1	2.2	55.6
88.1283	1	2.2	57.8
89.2452	1	2.2	60.0
89.4321	1	2.2	62.2
89.5207	1	2.2	64.4
89.407	1	2.2	66.7
90.0138	1	2.2	68.9
90.0701	1	2.2	71.1
90.2876	1	2.2	73.3
90.4911	1	2.2	75.6
90.6737	1	2.2	77.8
90.9818	1	2.2	80.0
91.5295	1	2.2	82.2
92.0168	1	2.2	84.4
93.284	1	2.2	86.7
94.1981	1	2.2	88.9
94.3233	1	2.2	91.1
94.975	1	2.2	93.3
95.538	1	2.2	95.6
96.9523	1	2.2	97.8
96.9966	1	2.2	100.0

Table 6-10. Frequency Analysis of Monthly Values of the Florida Average Trophic State Index for Lake Dora.

FREQUENCY ANALYSIS OF TROPHIC STATE INDICES
LAKE=D

UNIVARIATE

VARIABLE=FTSIA

MOMENTS

N	46	SUM WGTS	46
MEAN	81.3784	SUM	3743.41
STD DEV	5.26139	VARIANCE	27.6823
SKEWNESS	-0.563293	KURTOSIS	0.27568
USS	305978	CSS	1245.7
CV	6.46534	STD MEAN	0.77575
T:MEAN=0	104.903	PROB>|T|	0.0001
W:NORMAL	0.96791	PROB<W	0.383

QUANTILES(DEF=4)

100% MAX	90.6273	99%	90.6273
75% Q3	83.8933	95%	89.4253
50% MED	82.0839	90%	88.0199
25% Q1	77.8184	10%	74.0812
0% MIN	67.0334	5%	70.4355
		1%	67.0334
RANGE	23.594		
Q3-Q1	7.07488		
MODE	67.0334		

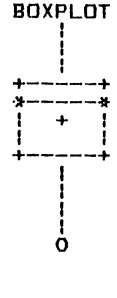
EXTREMES

LOWEST	HIGHEST
67.0334	87.9592
69.0832	88.1616
72.9469	88.8676
73.8177	89.7256
74.1941	90.6273

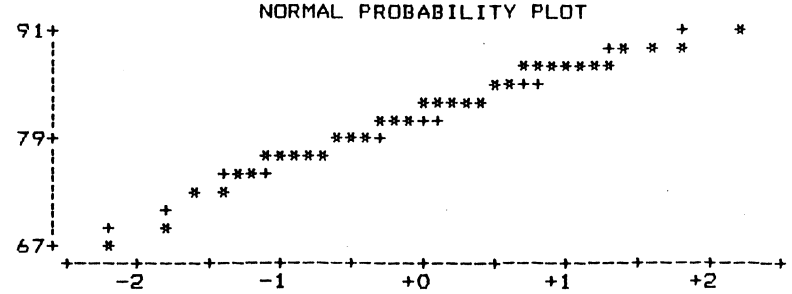
MISSING VALUE .
COUNT 1
% COUNT/NOBS 2.13

STEM	LEAF	#
90	6	1
88	0297	4
86	146708	6
84	1245	4
82	022578917	9
80	13479	5
78	56713	5
76	674569	6
74	27	2
72	98	2
70		
68	1	1
66	0	1

BOXPLOT



NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
67.0334	1	2.2	2.2
69.0832	1	2.2	4.3
72.9469	1	2.2	6.5
73.8177	1	2.2	8.7
74.1941	1	2.2	10.9
74.7303	1	2.2	13.0
76.6388	1	2.2	15.2
76.7364	1	2.2	17.4
77.3572	1	2.2	19.6
77.5295	1	2.2	21.7
77.609	1	2.2	23.9
77.8882	1	2.2	26.1
78.4709	1	2.2	28.3
78.5669	1	2.2	30.4
78.6641	1	2.2	32.6
79.143	1	2.2	34.8
79.3149	1	2.2	37.0
80.1415	1	2.2	39.1
81.3361	1	2.2	41.3
81.3817	1	2.2	43.5
81.7386	1	2.2	45.7
81.8913	1	2.2	47.8
82.0083	1	2.2	50.0
82.1595	1	2.2	52.2
82.1604	1	2.2	54.3
82.5381	1	2.2	56.5
82.6794	1	2.2	58.7
82.763	1	2.2	60.9
82.9206	1	2.2	63.0
83.1068	1	2.2	65.2
83.6524	1	2.2	67.4
84.0782	1	2.2	69.6
84.2293	1	2.2	71.7
84.4353	1	2.2	73.9
84.4758	1	2.2	76.1
84.1457	1	2.2	78.3
86.3961	1	2.2	80.4
86.6324	1	2.2	82.6
86.6837	1	2.2	84.8
87.0207	1	2.2	87.0
87.7668	1	2.2	89.1
87.9592	1	2.2	91.3
88.1616	1	2.2	93.5
88.8676	1	2.2	95.7
89.7256	1	2.2	97.8
90.6273	1	2.2	100.0

Table 6-11. Frequency Analysis of Monthly Values of the Florida Average Trophic State Index for Lake Eustis.

FREQUENCY ANALYSIS OF TROPHIC STATE INDICES
LAKE=E

UNIVARIATE

VARIABLE=FTSIA

MOMENTS

N	46	SUM WGTS	46
MEAN	72.3925	SUM	3330.06
STD DEV	5.05187	VARIANCE	25.5214
SKEWNESS	-1.00689	KURTOSIS	1.27463
USS	242220	CSS	1148.46
CV	6.97644	STD MEAN	0.744858
T:MEAN=0	97.1897	PROB>|T|	0.0001
W:NORMAL	0.936216	PROB<W	0.023

QUANTILES(DEF=4)

100% MAX	80.2326	99%	80.2326
75% Q3	75.8786	95%	79.2112
50% MED	73.4099	90%	78.7074
25% Q1	70.3624	10%	64.4223
0% MIN	56.4077	5%	61.9905
		1%	56.4077
RANGE	23.8249		
Q3-Q1	5.51615		
MODE	56.4077		

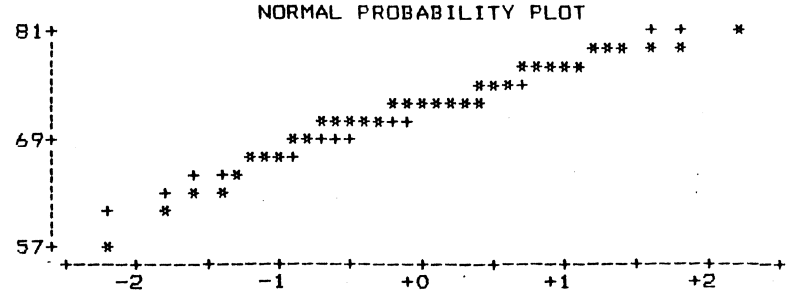
EXTREMES

LOWEST	HIGHEST
56.4077	78.6504
61.515	78.8404
62.8736	79.1124
63.3374	79.2644
64.8873	80.2326

MISSING VALUE .
COUNT 1
% COUNT/NOBS 2.13

STEM	LEAF	#	BOXPLOT
80	2	1	
78	17813	5	
76	12755	5	
74	026238	6	+-----+
72	6011788999	10	*--+--*
70	246933568	9	+-----+
68	40	2	
66	278	3	
64	9	1	
62	93	2	
60	5	1	0
58			
56	4	1	0

-- -+----+----+----+



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
56.4077	1	2.2	2.2
61.515	1	2.2	4.3
62.8736	1	2.2	6.5
63.3374	1	2.2	8.7
64.8873	1	2.2	10.9
66.1732	1	2.2	13.0
67.7258	1	2.2	15.2
67.7563	1	2.2	17.4
68.415	1	2.2	19.6
69.0263	1	2.2	21.7
70.1763	1	2.2	23.9
70.4245	1	2.2	26.1
70.6373	1	2.2	28.3
70.881	1	2.2	30.4
71.3075	1	2.2	32.6
71.3407	1	2.2	34.8
71.542	1	2.2	37.0
71.6389	1	2.2	39.1
71.8303	1	2.2	41.3
72.6034	1	2.2	43.5
72.9814	1	2.2	45.7
73.1335	1	2.2	47.8
73.1479	1	2.2	50.0
73.6719	1	2.2	52.2
73.8144	1	2.2	54.3
73.8327	1	2.2	56.5
73.9144	1	2.2	58.7
73.9279	1	2.2	60.9
73.9387	1	2.2	63.0
73.9822	1	2.2	65.2
74.1595	1	2.2	67.4
74.5828	1	2.2	69.6
75.1566	1	2.2	71.7
75.2885	1	2.2	73.9
75.7925	1	2.2	76.1
76.1369	1	2.2	78.3
76.2255	1	2.2	80.4
76.747	1	2.2	82.6
77.4536	1	2.2	84.8
77.4752	1	2.2	87.0
78.0939	1	2.2	89.1
78.6504	1	2.2	91.3
78.8404	1	2.2	93.5
79.1124	1	2.2	95.7
79.2644	1	2.2	97.8
80.2326	1	2.2	100.0

Table 6-12. Frequency Analysis of Monthly Values of the Florida Average Trophic State Index for Lake Griffin.

FREQUENCY ANALYSIS OF TROPHIC STATE INDICES
LAKE=G

UNIVARIATE

VARIABLE=FTSIA

MOMENTS

N	45	SUM WGTS	45
MEAN	76.7048	SUM	3451.72
STD DEV	6.68169	VARIANCE	44.645
SKEWNESS	0.0604833	KURTOSIS	0.60493
USS	266728	CSS	1964.38
CV	8.71091	STD MEAN	0.996047
T:MEAN=0	77.0092	PROB>|T|	0.0001
W:NORMAL	0.98975	PROB<W	0.976

QUANTILES(DEF=4)

100% MAX	93.7205	99%	93.7205
75% Q3	80.7717	95%	90.0708
50% MED	76.8043	90%	84.5527
25% Q1	71.8529	10%	68.7649
0% MIN	60.0395	5%	64.5542
		1%	60.0395
RANGE	33.6809		
Q3-Q1	8.91881		
MODE	60.0395		

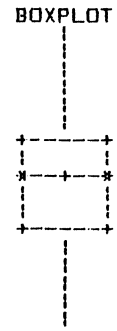
EXTREMES

LOWEST	HIGHEST
60.0395	84.081
64.29	85.2601
65.1704	86.9481
67.774	91.4091
69.4254	93.7205

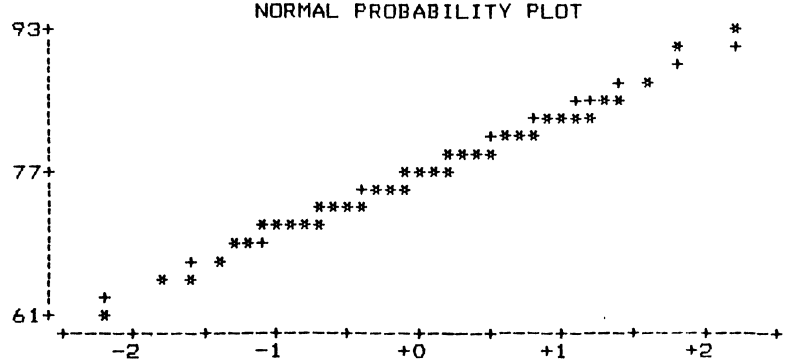
MISSING VALUE
COUNT 1
% COUNT/NOBS 2.17

STEM	LEAF	#
92	7	1
90	4	1
88		
86	9	1
84	13	2
82	0481	4
80	2692	4
78	0602368	7
76	5879	4
74	070278	6
72	3399	4
70	077024	6
68	4	1
66	8	1
64	32	2
62		
60	0	1

BOXPLOT



NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
60.0395	1	2.2	2.2
64.29	1	2.2	4.4
65.1704	1	2.2	6.7
67.774	1	2.2	8.9
69.4254	1	2.2	11.1
69.9576	1	2.2	13.3
70.6665	1	2.2	15.6
70.7407	1	2.2	17.8
71.0207	1	2.2	20.0
71.2451	1	2.2	22.2
71.4386	1	2.2	24.4
72.2672	1	2.2	26.7
72.3395	1	2.2	28.9
73.9023	1	2.2	31.1
73.9467	1	2.2	33.3
73.9682	1	2.2	35.6
74.7223	1	2.2	37.8
75.0483	1	2.2	40.0
75.2238	1	2.2	42.2
75.7028	1	2.2	44.4
75.7881	1	2.2	46.7
76.4831	1	2.2	48.9
76.8043	1	2.2	51.1
77.6597	1	2.2	53.3
77.9355	1	2.2	55.6
77.9854	1	2.2	57.8
78.577	1	2.2	60.0
78.9853	1	2.2	62.2
79.2068	1	2.2	64.4
79.2548	1	2.2	66.7
79.5857	1	2.2	68.9
79.8345	1	2.2	71.1
80.1879	1	2.2	73.3
80.6413	1	2.2	75.6
80.9021	1	2.2	77.8
81.1795	1	2.2	80.0
82.0425	1	2.2	82.2
82.4007	1	2.2	84.4
82.8086	1	2.2	86.7
83.146	1	2.2	88.9
84.081	1	2.2	91.1
85.2601	1	2.2	93.3
86.9481	1	2.2	95.6
91.4091	1	2.2	97.8
93.7205	1	2.2	100.0

Table 6-13. Frequency Analysis of Monthly Values of the Florida Average Trophic State Index for Lake Weir.

FREQUENCY ANALYSIS OF TROPHIC STATE INDICES
LAKE=W

UNIVARIATE

VARIABLE=FTSIA

MOMENTS

N	22	SUM WGTS	22
MEAN	41.98	SUM	923.559
STD DEV	7.19254	VARIANCE	51.7326
SKEWNESS	-0.199677	KURTOSIS	0.133756
USS	39857.4	CSS	1086.38
CV	17.1333	STD MEAN	1.53345
T:MEAN=0	27.3761	PROB>|T|	0.0001
W:NORMAL	0.964324	PROB<W	0.569

QUANTILES(DEF=4)

100% MAX	55.1378	99%	55.1378
75% Q3	47.0019	95%	54.7824
50% MED	41.1031	90%	52.2693
25% Q1	33.3908	10%	30.2549
0% MIN	26.9115	5%	27.0777
		1%	26.9115
RANGE	28.2263		
Q3-Q1	8.61117		
MODE	26.9115		

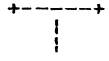
EXTREMES

LOWEST	HIGHEST
26.9115	49.8902
28.0197	50.1107
35.4704	51.1042
36.3287	52.7686
36.3844	55.1378

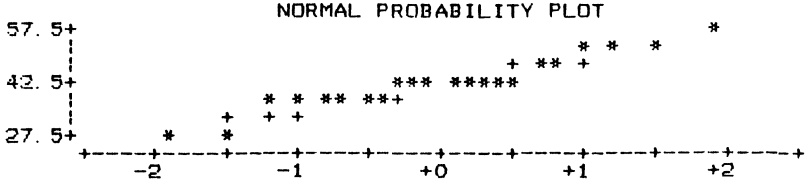
MISSING VALUE
COUNT 40
% COUNT/NOBS 64.52

```
STEM LEAF                            #
   5 5                               1
   5 0013                            4
   4 6                               1
   4 001112344                       9
   3 56699                           5
   3
   2 78                              2
   ---+----+----+----+----+
   MULTIPLY STEM.LEAF BY 10**+01
```

BOXPLOT



NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM	VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
26.9115	1	4.5	4.5	39.1275	1	4.5	31.8	42.3159	1	4.5	59.1	50.1107	1	4.5	86.4
28.0197	1	4.5	9.1	39.7771	1	4.5	36.4	43.0537	1	4.5	63.6	51.1042	1	4.5	90.9
35.4704	1	4.5	13.6	40.1936	1	4.5	40.9	44.4044	1	4.5	68.2	52.7686	1	4.5	95.5
36.3287	1	4.5	18.2	40.8242	1	4.5	45.5	44.4314	1	4.5	72.7	55.1378	1	4.5	100.0
36.3844	1	4.5	22.7	40.8342	1	4.5	50.0	46.0392	1	4.5	77.3				
39.0596	1	4.5	27.3	41.3719	1	4.5	54.5	49.8902	1	4.5	81.8				

Table 6-14. Frequency Analysis of Monthly Values of the Florida Average Trophic State Index for Lake McCloud.

FREQUENCY ANALYSIS OF TROPHIC STATE INDICES
LAKE=11

UNIVARIATE

VARIABLE=FTSIA

MOMENTS

N	12	SUM WGTS	12
MEAN	25.7723	SUM	309.268
STD DEV	6.48362	VARIANCE	42.0374
SKEWNESS	0.130563	KURTOSIS	-1.29094
USS	8432.98	CSS	462.411
CV	25.1573	STD MEAN	1.87166
T:MEAN=0	13.7698	PROB>|T|	0.0001
W:NORMAL	0.95205	PROB<W	0.620

QUANTILES(DEF=4)

100% MAX	35.8263	99%	35.8263
75% Q3	32.4089	95%	35.8263
50% MED	24.6906	90%	35.0899
25% Q1	20.5764	10%	16.6973
0% MIN	15.7955	5%	15.7955
		1%	15.7955
RANGE	20.0308		
Q3-Q1	11.8325		
MODE	15.7955		

EXTREMES

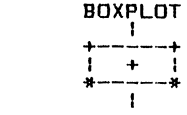
LOWEST	HIGHEST
15.7955	28.9953
18.8015	30.4576
20.3828	33.0594
21.1574	33.3716
22.0394	35.8263

MISSING VALUE
COUNT 19
% COUNT/NOBS 61.29

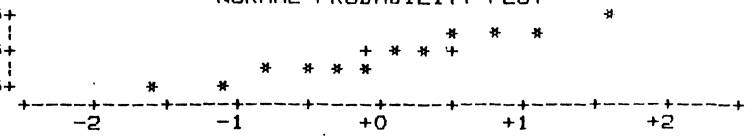
STEM	LEAF	#
3	6	1
3	033	3
2	69	2
2	0123	4
1	69	2

MULTIPLY STEM.LEAF BY 10**+01

BOXPLOT



NORMAL PROBABILITY PLOT



FREQUENCY TABLE

VALUE	COUNT	PERCENTS CELL	PERCENTS CUM
15.7955	1	8.3	8.3
18.8015	1	8.3	16.7
20.3828	1	8.3	25.0
21.1574	1	8.3	33.3
22.0394	1	8.3	41.7
23.3887	1	8.3	50.0
25.9926	1	8.3	58.3
28.9953	1	8.3	66.7
30.4576	1	8.3	75.0
33.0594	1	8.3	83.3
33.3716	1	8.3	91.7
35.8263	1	8.3	100.0

Table 6-15. Distribution of Trophic State Indices for the Oklawaha Lakes (entire data base).*

LAKE	TSI (SD)	TSI (CHLA)	TSI (N-P)	TSI (AVG)
Apopka	100.5 ± 12.3 (S)	76.4 ± 7.7 (S)	82.5 ± 10.6 (N)	86.6 ± 5.7 (N)
Beauclair	92.2 ± 6.9 (N)	83.1 ± 7.7 (N)	82.6 ± 9.7 (S)	86.1 ± 6.4 (S)
Dora	87.3 ± 7.8 (N)	78.7 ± 7.2 (S)	78.0 ± 7.8 (N)	81.4 ± 5.1 (S)
Eustis	80.3 ± 7.4 (S)	65.4 ± 8.2 (N)	71.3 ± 6.9 (S)	72.2 ± 4.5 (N)
Griffin	80.5 ± 9.4 (N)	73.3 ± 7.7 (N)	73.7 ± 7.2 (N)	76.3 ± 6.9 (N)

*Values represent means, standard deviations and normal (N) or skewed (S) distributions.

in both directions; some populations increased in normalcy while others became skewed. In many cases, the number of outlying points increased, further emphasizing the need for data smoothing when combining data from various studies. Perhaps most importantly, however, variability was not increased for the average TSI, strengthening the assertion of its accuracy.

ACCURACY OF TROPHIC STATE ESTIMATION

The fact that most of the average TSI's are normally distributed allows the probability of an accurate assessment for a given number of sampling times to be ascertained. In order to make this calculation, a number of assumptions were made. First, it was assumed that the distributions are truly normal and that skewed distributions may be normalized through data smoothing. Second, the data were assumed to be random, as explained in the previous section. Third, the data from the UF Oklawaha data set (Brezonik et al. 1982) were assumed to represent the population parameters rather than the sample parameters. Under these assumptions, a prediction of 90 percent accuracy will produce a standard normal variate Z value of 1.28. This value can be translated into a data value through the following formula:

$$Z = \frac{X - \mu}{\sigma} \qquad (6\text{-}1)$$

where μ and σ represent the population mean and standard deviation and X represents an individual measurement. In order to obtain a conservative estimate, the TSI(AVG) parameters of the lake with largest variation (Lake Beauclair, μ=86.4, σ=7.0) were used, and to be conservative a σ value of 8.0 was assumed. Substitution of these values into the above formula yielded an X value of 96.6, a distance of 10.2 units from the mean. Taking the symmetric nature of the distribution into account, one should be able to predict (with one sampling) the true trophic state of these lakes (and possibly Florida lakes in general) within ±10 units with 90 percent accuracy. That is, the probability is 90 percent that

a TSI value for a lake will fall within ten units of the mean.

This analysis can be pursued further for larger numbers of sampling dates. The Central Limit Theorem states (Haan 1977):

> If S_n is the sum of n independently and identically distributed random variables X each having a mean μ and variance σ^2, then in the limit as n approaches infinity, the distribution of S_n approaches a normal distribution with mean $n\mu$ and variance $n\sigma^2$.

Using this theorem the following formula can be proven (Haan 1977):

$$s = \frac{\sigma}{n} \qquad (6\text{-}2)$$

Where s is the standard deviation of the mean of n samples.

With this formula and the assumptions from the previous analysis, accuracy may be defined as a function of the number of samples. The population standard deviation again will be defined to be 8.0. With the procedures stated previously, the following accuracies should be attained:

n	s	accuracy (90% probability)
2	5.66	± 7 (TSI units)
4	4.00	± 5
8	2.83	± 4
12	2.31	± 3
24	1.63	± 2

These results indicate relatively good accuracy with few measurements. Similar analyses should be performed with larger data sets before these results are extrapolated to all Florida lakes. Despite the assumption of randomness elements of a seasonal trend remain (i.e. lower productivity in winter months), and in effect this seasonality decreases the accuracy beyond the values given above.

COMPARISON OF FLORIDA AND CARLSON TROPHIC STATE INDICES

As stated in earlier chapters, the Carlson trophic state index has been generally accepted as a measure of trophic data for lakes in the United States.

It is convenient, relatively accurate, and requires the measurement of only four parameters. Despite these assets, the Carlson index may not be the best measure of trophic state in Florida lakes. Florida lakes differ from temperate lakes limnologically, and since the Carlson index was derived using only temperate lake data, it may not represent conditions in Florida. As a result a Florida index (see Chapter 3) was derived in a similar manner. It is of interest to compare results obtained with the two indices. This analysis should further our understanding of the way the Florida index performs and should provide insight into the relationship between temperate and tropical lakes.

Table 6-16 compares values of both indices for average yearly data for the seven case-study lakes used earlier in this chapter. Results indicate that eutrophic lakes have much higher Florida TSI values than Carlson TSI values and conversely that oligotrophic lakes have much lower Florida TSIs than Carlson TSI values. This relationship is illustrated in Figure 6-1, which is a regression of monthly Florida TSI values for the case-study lakes vs. corresponding Carlson TSI values. The regression demonstrates a clearly linear relationship, which might be expected for similarly derived values. The main difference is a change of slope from the identity line. It can be seen that Florida index values range from approximately 15 to 90, whereas a range of only 30 to 85 occurs with the Carlson index. Basically, the Florida index has an expanded scale and provides a more sensitive index for Florida lakes.

One might infer from the results in Figure 6-1 that temperate lakes experience more extreme eutrophic and oligotrophic conditions than are found in Florida lakes. This conclusion probably is not justified, however. The Carlson index was purposely scaled in such a way that extreme conditions would rarely, if ever be found. The Carlson Secchi disk TSI level of 0 corresponds to a reading of 64 m, a level which has never been reported. In addition, while water quality may be similar

Table 6-16. Comparative Values of Carlson and Florida Trophic State Indices.[1]

	APOPKA		BEAUCLAIR		DORA		EUSTIS		GRIFFIN	
	Carlson	Florida	Carlson	Florida	Carlson	Florida	Carlson	Florida	Carlson	Florida
1977	72	82	73	83	71	80	67	72	68	75
1978	75	85	77	89	73	85	67	75	70	76
1979	77	89	76	88	72	80	68	74	69	76
1980	78	91	77	90	74	84	66	74	72	80

	WEIR		MCCLOUD	
	Carlson	Florida	Carlson	Florida
1968	52	49	33	16
1969	50	45	39	26
1970	48	41	39	27

[1]Indices as defined in Chapter 3.

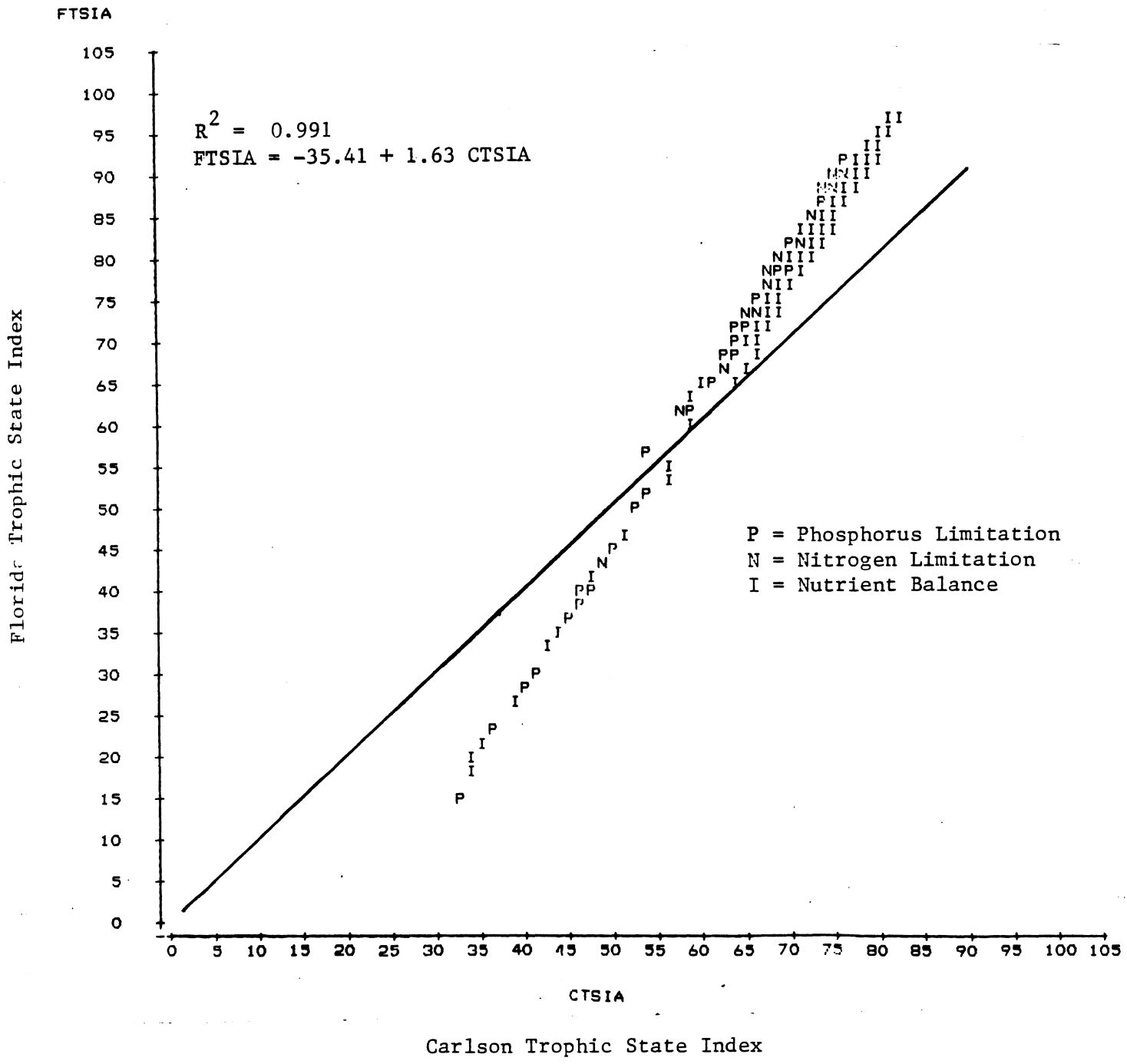


Figure 6-1. Regression of Florida and Carlson Average Trophic State Indices.

between temperate and Florida lakes, morphometric conditions may come into play. Lake McCloud frequently experiences Secchi disk transparency readings greater than its depth (3 m), and many of its valid Secchi disk measurements were taken only during summer algal blooms. The shallowness of Florida lakes also makes them much more susceptible to macrophyte intrusion and internal loading from mixing of loose sediments; these conditions may be less common in temperate lakes.

RESTORATION CASE STUDY: LAKE APOPKA

A large amount of effort has been dedicated to devising a method of restoration for Lake Apopka. The lake was an important asset and was also very poor in water quality, placing it in high priority for restoration. Many other lakes have similar attributes to Lake Apopka and the information gained in the Lake Apopka studies may provide a generalized model for approaching restoration in Florida lakes.

In 1978 and 1979 the US EPA published draft and final environmental impact statements for the Lake Apopka restoration project. This report investigated alternatives, selected a measure for restoration, assessed impacts of the measure and reported on the engineering of the project. The result was a thorough investigation of the alternatives and impacts of the project. For the purposes of this report, pertinent aspects of the DEIS and EIS are summarized as a case study. For specific details, reference can be made to the reports (US EPA 1978, 1979). A number of alternative measures were investigated, and were determined to have varying degrees of value.

1. Nutrient Abatement

This method of restoration assumes that with reduced inflow of nutrients the lake will eventually improve in water quality through natural flushing. Nutrient loadings would have to be reduced below the outflow levels in order to

have a net nutrient reduction and the lake would then eventually flush itself. This method enjoys the benefits of relatively low cost and little environmental impact and it is especially suitable for lakes with short residence times. Unfortunately, Lake Apopka has a long residence time, (> 5 years), and a period on the order of decades might be required before significant improvement could be noted. In addition, nutrient abatement does not address the issue of internal loading from the organic sediments in the lake. Even after external nutrient sources had been removed, nutrients would still abound due to the gradual release of stored nutrients from the organic muck sediments. This alternative would not be counter-productive; however, extremely long periods would be required before improvements would be seen and before the lake would return as a valuable resource.

2. Enhanced Fluctuation

Water quality in Florida lakes is maintained by the natural rise and fall of water levels caused by seasonal rainfall/evaporation patterns. When levels are down, sediments are exposed and consolidated, reducing internal loading and providing a suitable habitat for macrophytes and fish. Maintaining high water levels prevents this natural process and allows the build-up of organic matter. Lake Apopka is an example of the effects of water level control. In response to pressure from fish camps, a water level control structure was installed and natural fluctuation and sediment consolidation was prevented. Now that the organic muck has built up, discontinuance of water level control may not be enough to restore the lake. Normal water-level fluctuations expose only small amounts of the bottom and thus will have little impact on the massive quantities of muck remaining in the lake. A drawdown to the sill depth of the control structure would expose only 13 percent of the lake bottom, while a drawdown to the bottom of the Apopka-Beauclair canal would expose only 22 percent (U.S. EPA 1979). These relatively small areas could be covered again with muck upon refill of the lake. A better suggestion may be

a drastic initial drawdown, follwed by regular water level fluctuations in order to maintain good conditions in the lake.

3. Chemical Sedimentation

This method of restoration involves using chemicals, primarily multivalent metals, to bind phosphorus and precipitate to bottom layers making it inaccessible. The method could be very effective in temperate lakes where greater depth would prevent the remixing of precipitated nutrients. Lake Apopka, however, is very shallow, and precipitates would be easily resuspended and resolubilized along with organic matter. This method in effect may increase the amount of stored nutrients in the lake. The negative effect of these chemicals (e.g. alum) on aquatic life may also preclude its use. The expense in treating such a large lake with alum would be immense and not feasible.

4. Aeration

This procedure involves pumping air or oxygen into the lake to facilitate the oxidation of organic sediments. It was primarily designed for lakes that are stratified and suffer from extremely low oxygen levels near the sediment-water interface. Lake Apopka is considered to be well-mixed and generally maintains high oxygen levels throughout. For this reason aeration was not considered a viable alternative for the restoration of Lake Apopka.

5. Dredging

Theoretically, dredging would be a restorative technique with high potential for Lake Apopka. Organic sediments would be removed and at the same time the lake would be deepened, reducing the chances of resuspension of any remaining muck. Despite these advantages there remain some large drawbacks to the technique. Water quality may be worsened temporarily by high turbidity levels. In addition, by removing sediment, many organisms are removed that are integral to the ecosystem. The greatest drawback to dredging is the tremendous expense. One estimate for dragline dredging of the lake was $127 million; other dredging methods

were more expensive (US EPA 1979). A number of suggestions for marketing the muck in order to defray dredging costs were made; however, none of these proved to be feasible.

6. Flushing

This method of lake restoration is a dilution process whereby a nutrient-rich lake would receive a large volume of nutrient-poor water. This method is ostensibly feasible in that water from Little Lake Harris could be pumped to Lake Apopka and allowed to flush through the upper lakes. In this way overall water volumes would not be changed but only rerouted. However, the volume and the hydraulic residence time of Lake Apopka are too large for any noticeable improvements to occur using this technique.

7. Drawdown and Sediment Consolidation

This restorative technique provides many of the same advantages of dredging without the drastic disadvantages. The lake would be drawn down to a level that would allow most of its sediments to be exposed to the sun. This would cause the muck layer to be compacted and hardened, reducing internal loading and deepening the lake. In contrast to dredging, turbidities would be reduced and the lake bottom would retain and be better suited for benthic organisms and macrophytes. The main disadvantage of this technique concerns loss of the temperature moderating effect of the lake water; cold northern winds are warmed as they pass across the lake, reducing the probability of damage to citrus crops. With water levels lowered, the moderating effect would be diminished, exposing citrus to possible freeze damage. In order to avoid this possibility, the entire drawdown would have to be performed during the warmer seasons.

Of the alternatives considered, massive drawdown was determined to be the most effective measure (draft EIS; US EPA 1978); however, this was later modified and subsequently delayed (EIS; US EPA 1979). The two methods that would improve

sediment conditions were dredging and drawdown; however, dredging was prohibitively expensive, leaving only drawdown as a viable alternative. Nutrient abatement and enhanced fluctuation were chosen as secondary measures that would maintain good quality in the lake. In 1979, a reassessment of the problems involved with drawdown took place. A number of engineering problems, lack of certainty about results and the $20 million cost of the drawdown caused a change in direction of the project. Two plans were chosen, a short term and a long term plan. The short term plan included continued monitoring of water quality and a test drawdown of a smaller lake with conditions similar to those of Lake Apopka. The long term plan would continue the investigation of problems associated with the previously discussed alternatives and eventually implement one of those plans. If neither dredging nor drawdown could be chosen the "no action" alternative would be recommended.

PRIORTIZATION OF THE OKLAWAHA LAKES

Chapter 5 describes prioritization criteria for restoration of Florida lakes. These criteria will now be applied to the Oklawaha lakes, in a qualitative manner, in order to examine their use. The Oklawaha lakes had a large amount of recreational and public interest until water quality degraded to such an extent that the lakes' public value declined. In terms of the values defined by the criteria, high public interest and poor water quality would place the lakes in high priority for restoration.

Recreational interest is defined by three measures: user occasions, access and recreational designations. While complete recreational interest has not been determined quantitatively, it is well-known that the lakes were used in the past as resort areas. Fish camps were prevalent on all the lakes, demonstrating the wide interest in fishing. Access areas, both public and private,

can be found on only three lakes (Apopka, Griffin and Beauclair); however picnic areas are generally found wherever towns border the lakes. It is obvious from all these facilities that there was a large recreational interest in the lakes prior to water quality decline, but it also may be argued that the public has apparently been able to satisfy its recreational and fishing needs at the many other central Florida lakes.

Related to recreational interest is public interest. This aspect of the scheme is defined according to five criteria: news citations, public research, use as potable water, complaints to officials and the number of interest groups. The Oklawaha lakes, except for the criterion of use as a potable water, probably would rank as high in these aspects as any Florida lake. Wildlife kills, loss of property values and impaired use have generated numerous news articles, research studies and complaints. Public interest in Lake Apopka reached the federal level when President Nixon was asked to declare the lake a disaster area because of high wildlife kills and possible human health hazards.

Potential for management success is important in that some lakes may be restored with relatively little effort while others may take massive effort. This aspect of the prioritization is defined by five parameters: nutrient load, point sources, difference of trophic state with surrounding lakes, basin area-volume ratio and lake type. Present nutrient loads in the headwaters of the Oklawaha chain (Lake Apopka) have been greatly reduced due to the EPA-DER nutrient abatement program. However, Lakes Apopka and Beauclair both remain a source of nutrients (internal loading) and various nutrient sources remain throughout the chain. Reduction of nutrient loading from these sources will take a further large effort and further funding. The lakes generally exhibit poorer water quality than surrounding lakes; however, this difference is not drastic and does not reflect conditions completely unique to these lakes. Subsequent abatement of point source loadings may not create sufficient reduction in

nutrient loads to clean up the lakes. Perhaps the biggest hindrances to restoration of the Oklawaha lakes is the shallow character of the basins and the long hydraulic residence times of the lakes. Despite high basin area/lake volume ratios, inflows and outflows are small, reducing natural flushing in the lakes. In short, the Oklawaha lakes may require massive restoration and management efforts and therefore would rank low in priority in this aspect.

Water quality may be defined as synomonous with the trophic state of the lakes. Florida TSI's, as stated earlier in this chapter have ranged between 70 and 95 during the years 1977-1980 and rank in the top 30 percent of Florida lakes (in terms of poor water quality - TSI $\geq$ 50), giving them high priority in this area.

Impaired beneficial use is another possible prioritization criterion. This aspect includes five measures: macrophyte intrusion, fish kills, biological and chemical perturbations, beach closing and loss of economic value. Macrophytes at one time were a major problem in the Oklawaha lakes; however, algal shading and loose sediments have limited them to very few areas. Lake Apopka experienced large fish kills in the early 1960s (U.S. EPA 1978), giving it a high ranking in this area. In addition, a number of other biological perturbations have been reported (i.e. alligator and turtle kills), illustrating its potential as a health hazard. The economic implications of poor water quality in the Oklawaha lakes have been assessed in detail (U.S. EPA 1978) and are illustrated by the loss of the fishing and tourist industries in the area.

Overall, one could assume that the lakes would rank high in priority for restoration. Large amounts of recreational and public interest, as well as poor water quality and impaired beneficial use, place the lakes in high priority. The only factor contrary to a high priority ranking is management potential.

High costs of restoring and maintaining such a large resource, as well as long hydraulic residence times, imply a low ranking in this area. Quantitative assessment is necessary before exact priority can be determined.

CONCLUSION

The analyses presented in this chapter were designed as a way of assessing accuracy and feasibility in determining trophic state and in lake restoration. The large amount of data available on the Oklawaha lakes make these lakes useful as a case study in the classification scheme. Data quality was assessed, trophic state indices were investigated and compared, and lake restoration and priority ranking were discussed. Data from various monitoring studies were compared; while most values were similar, some were quite different and illustrate the need for testing outliers. TSI variability was investigated, and it was found that most populations were normally distributed. One sampling should predict "true trophic state" (based on TSI(AVG)) within ±10 units with 90 percent probability, and four sampling dates narrow the precision to ±5 units. Florida and Carlson TSI's were compared and the Florida index was determined to be much more sensitive to conditions in Florida. Previous restoration studies were discussed; loose sediments in the upper lakes are the proximate cause of hypereutrophic conditions in these lakes, and drawdown was the most technically feasible alternative for restoration of the upper lakes. The lakes generally (on a qualitative basis) are thought to be in high priority for restoration; however, management potential criteria gave a low ranking.

CHAPTER 7

SUMMARY AND CONCLUSIONS

OBJECTIVES

The study described in preceding chapters was done in response to the need of the State of Florida to classify and prioritize its lakes for possible restoration, under the mandate of the Clean Lakes Program of the US EPA (Section 314 of the 1972 Water Pollution Control Act Amendments). Results of the study reflect a heavy emphasis on assembly of a large data base on water quality and other limnological information and on analysis of these data.

FLORIDA LAKES DATA BASE

Water quality (e.g., nitrogen, phophorus, chlorophyll a, Secchi disk) and associated data were assembled from approximately 20 different surveys and studies, including a survey of 30 urban lakes as part of this study. Data from almost 10,000 individual samples were available covering 788 lakes and permitting a trophic analysis of 573 lakes. This data base far exceeds that of any comparable study in other states. The data are available as an SAS data set on a magnetic tape.

In addition, with the aid of computer cards received from the Florida Department of Environmental Regulation, the Gazetteer of Florida lakes was updated and is available as a separate report (Dickinson et al., 1982).

TROPHIC STATUS OF FLORIDA LAKES

Many options exist to classify lakes according to trophic state, but for management purposes a simple index seems most appropriate. A trophic state

index (TSI) was developed based on the work of Carlson (1977) but using trophic state data from Florida lakes to classify the lakes in this study. Lakes are first classified by whether they are nitrogen limited (TN/TP < 10), phosphorus limited (TN/TP > 30), or nutrient balanced (10 $\leq$ TN/TP $\leq$ 30). A nutrient index is based on TN for the first case, TP for the second case and both for the third case. An average TSI is computed for each lake based on the nutrient index and indices based on Secchi disk and chlorophyll a. Each index was developed from regressions using data assembled during the study. Results are given in extensive tables in Chapter 3. The lakes with highest TSI values (greater than 60) are ranked in Table 3-4, and these lakes represent the most serious eutrophication problems in the state. The distribution of TSI values was fairly uniform over the spectrum of 573 lakes (Table 3-2); for example 30 lakes with only surface outflows had the lowest mean TSI of 47.9 while 163 lakes with surface inflows and outflows had the highest mean TSI of 54.0 (Table 3-6). Similarly, there is little trend in TSI as a function of lake surface area (a range of from 48.2 to 60.5) although there was a tendency for larger lakes to have larger TSI's (Table 3-7).

Limited data on macrophyte occurrence were available for 299 lakes. The extent of occurrence was independent of TSI, which serves primarily as a measure of algal (phytoplankton) related trophic conditions. A separate TSI based on macrophyte occurrence was not developed as part of this study, but lakes were evaluated on the basis of percent of the lake area in which macrophytes occurred. Although a few lakes exibited very high coverage values, most had values below ten percent.

LAND USE AND NUTRIENT LOADINGS

Land use information for 325 lakes was obtained from a Geographic Information System developed by the Florida Department of Environmental Regulation. This land use information is an excellent data base. A uniform set of base maps was used throughout the State of Florida, and knowledgeable hydrologists delineated basin boundaries. A consistent set of land use definitions was used.

Point source loading information was obtained for 70 Florida lakes. In addition, best estimates of nutrient export coefficients were determined for various land uses based on a variety of studies in Florida over the past decade. The values found are similar to export coefficients reported for other areas of the United States.

Using the land use information, nutrient export coefficients, and physical information on the lakes, steady-state nutrient concentrations were calculated for 325 lakes. The results shown in Figures 4-3 to 4-8 indicate that simple predictive models do not work well at the level of resolution and information base available here. Correlation coefficients between predicted and measured nutrient concentrations were very low. Thus it is risky to make cause-effect inferences (e.g., estimates of the impact on the lake of reduced nutrient loads).

PRIORITIZATION

Numerous restoration efforts have been attempted on Florida lakes, but the results are inconclusive as to whether any one or combination of control methods works well. Strong evidence exists that Florida lakes are a vital asset to residents and tourists who enjoy swimming, fishing, and/or boating.

Relatively high lake front property values further attest to the economic value of Florida'a lakes. Available data permit a tabulation of beneficial uses for numerous Florida lakes. Table 5-12 summarizes such data and indicates whether the lake is used as a potable water source, is in a state park, is a top fishing lake, is part of a fish management program, has other recreational amenities, or has experienced prior restoration efforts.

One quantitative measure of lake use is presented in the form of number of user occassions (Table 5-6) for boat and shoreline fishing, swimming and canoeing. These activities are assigned on the basis of area and circumference to lakes within eleven areas of the state (Figure 5-2) for which aggregate totals of user occasions are given by the Florida Department of Natural Resources. Not surprisingly, the most heavily used lakes are the largest and nearest to populous areas.

Water quality may be assessed using information on TSI, phosphorus and nitrogen loads, macrophyte coverage and EPA fish kill statistics as well as on physical characteristics of the lakes. A summary of lake use, water quality and controllability information contained within this report is provided in Table 5-17.

In light of the overall responsibility of the FDER for lake prioritization and the lack of correlation between nutrient loads and lake water quality, it was felt to be counterproductive to recommend any kind of composite ranking index. Rather, general considerations and guidelines are suggested in Chapter 5, and study resources are summarized. No single list is given of lakes recommended for restoration.

APPENDIX A

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APPENDIX B.1
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APPENDIX C

DATA BASE DESCRIPTION

INTRODUCTION

The Florida Lakes Eutrophication Data Base (FLADAB) will be available via the Northeast Regional Data Center (NERDC) to all potential users in the State of Florida. The data will be stored on a 9-track magnetic tape with the tape name LAKES. The potential user may access this tape using the Statistical Analysis System (SAS, 1979) data manipulation procedures, to either copy the tape file to another tape or create a disk data set on the user's computer network.

This appendix will describe how to access and manipulate the data on the tape using the Statistical Analysis System (SAS). SAS is a package of PL-1 programs written by the SAS Institute of North Carolina to perform statistical analyses, plus the data manipulation necessary to prepare the data for analysis. Additionally, this appendix contains a discussion of the lake names studied, the variable names in the data set, and a detailed description of the eight tape files.

TAPE ACCESS

The tape characteristics are:

Tape Name . . . . . LAKES

Tape Density. . . . . 1600 BPI

Tape Files. 8

Tape Labels . . . . . Non-labeled

DCB characteristics, such as record length, blocksize, and record format, are not necessary when reading an SAS data set.

The eight files can be accessed by using the following SAS program:

```
// EXEC SAS,SPACE=800
//SAVE DD UNIT=TAPE9,DISP=OLD,LABEL=(1,NL),VOL=SER=LAKES
***
     The above two statements are the JCL( Job Control Language )
        necessary to access the magnetic tape. Change the number
        in the Label field to the file # required.
***  ;
***
     All Files have the same SAS name - .LAKE , but the
        DDname( SAVE ) is user dependent.
*** ;
DATA LAKER ;
SET SAVE.LAKE ;
```

The above program will insert all the observations from a particular file from tape LAKES into the SAS data set LAKER. Again, this data set name is user dependent.

The eight tape files hold a copy of lake water quality data, morphological data, and miscellaneous lake information gathered as part of this project. To facilitate further use of these compiled data, as much as possible of the various sources has been saved on magnetic tape. This User's Manual cannot be a detailed description of data collection techniques. The ultimate authority for the data from individual sources will have to be the original data reports. These references can be found in report Appendices A and B. The contents of the eight files are listed below.

TAPE FILE DESCRIPTION

File	Description	File	Description
1	Lake data by observation, 788 lakes - 9500 observations	5	Industrial dischargers into Florida lakes.
2	Mean data set - means of the data in file 1. 788 lakes - 788 obs.	6	Boat ramp information for 200 Florida lakes.
3	Fishkill data for Florida lakes.	7	Florida land use information by hydrologic unit number.
4	Municipal dischargers into Florida lakes.	8	Florida Lake Gazetteer

All variables included in any of the eight files are assigned names and are listed in Table C-1. In many instances these variables are also printed as column headings on tables in the body of this report. More details about all files are given later in this appendix.

There are five character variables found in File 1 on the magnetic tape that describes the observations. LAKE and COUNTY variables are self-explanatory. DESCRIPT is a variable 40 characters long that describes the STORET identificaiton number, a USGS identification number, or a code that a particular data source ascribed to a lake station, e.g., the U.F. Environmental Engineering Sciences Department has station codes for its lake stations in the Oklawaha chain of lakes. The remaining two character values, SOURCE and AGENCY, are discussed subsequently.

FLORIDA LAKE NAMES

The lake data from sixteen sources were merged into one SAS data set by the variables COUNTY and LAKE. Thus, the data are organized alphabetically on Files 1 and 2. One lake may have more than one source of data. After the elimination of the occurences of one lake in multiple counties there remained 788 lakes with data. These lakes are listed in Table C-2.

One lake, Tsala Apopka in Citrus County, is listed under four names. This was done since the data source differentiated between which pool of the lake from which the data were collected. Tsala Apopka has an Inverness, Hernando, and Floral City pool. The fourth instance of Tsala Apopka was from a study that did not specify the location of the sample site. The LAKE variable is therefore just Tsala Apopka without specification of the pool location.

TABLE C-1

****
* FLORIDA EUTROPHICATION DATA BASE VARIABLES *
****

CHARACTER VARIABLES	DESCRIPTION OF VARIABLE
LAKE	CHARACTER VARIABLE. LAKE NAME.
COUNTY	CHARACTER VARIABLE. COUNTY NAME.
DESCRIPT	CHARACTER VARIABLE. STATION DESCRIPTION FROM STORET.
SOURCE	CHARACTER VARIABLE. DATA SOURCE.
AGENCY	CHARACTER VARIABLE. SAMPLING AGENCY FOR STORET DATA.
STATION	STATION CODE, MAY BE STORET OR USGS STATION IDENTIFIER

STATISTICAL VARIABLES

MNTN	MINIMUM TOTAL NITROGEN VALUE, MG/L.
MNTP	MINIMUM TOTAL PHOSPHORUS VALUE, MG/L.
MNCHLA	MINIMUM CHLOROPHYLL A VALUE, MG/M3.
MNSD	MINIMUM SECCHI DISK DEPTH, METERS.
MNCOL	MINIMUM COLOR UNITS, PCU.
MNTURB	MINIMUM TURBIDITY, JTU.
MNYR	BEGINNING SAMPLE YEAR.
MXTN	MAXIMUM TOTAL NITROGEN VALUE, MG/L.
MXTP	MAXIMUM TOTAL PHOSPHORUS VALUE, MG/L.
MXCHLA	MAXIMUM CHLOROPHYLL A VALUE, MG/M3.
MXSD	MAXIMUM SECCHI DISK DEPTH, METERS.
MXCOL	MAXIMUM COLOR UNITS, PCU.
MXTURB	MAXIMUM TURBIDITY, JTU.
MXYR	ENDING SAMPLE YEAR.
STDTN	STANDARD DEVIATION FOR TOTAL NITROGEN.
STDTP	STANDARD DEVIATION FOR TOTAL PHOSPHORUS.
STDCHLA	STANDARD DEVIATION FOR CHLOROPHYLL A.
STDSD	STANDARD DEVIATION FOR SECCHI DISK.
STDCOL	STANDARD DEVIATION FOR COLOR.
STDTURB	STANDARD DEVIATION FOR TURBITITY.
N1	NUMBER OF NITROGEN VALUES FOR A LAKE
N2	NUMBER OF PHOSPHORUS VALUES FOR A LAKE

SELECTED NUTRIENT VARIABLES

TN	TOTAL NITROGEN VALUE, MG/L.
TOTP	TOTAL PHOSPHORUS VALUE, MG/L.
SECCHI	SECCHI DISK DEPTH, METERS.
CHLA	CHLOROPHYLL A VALUE, MG/M3.
COLOR	COLOR UNITS, PCU.
TURB	TURBIDITY UNITS, JTU.
ORGN	ORGANIC NITROGEN, MG/L.
TKN	TOTAL KJELDAHL NITORGEN, MG/L.
ORTHOP04	ORTHOPHOSPHORUS, MG/L AS P04.
NO2NO3	NITRITE + NITRATE, MG/L.
NH3	AMMONIA, MG/L.

Table C-1. (Continued)

ROPHIC STATE VARIABLES

TSI	AVERAGE TROPHIC STATE INDEX
TSITN	TROPHIC STATE INDEX BASED ON NITROGEN.
TSITP	TROPHIC STATE INDEX BASED ON PHOSPHORUS.
TSINUTR	TROPHIC STATE INDEX BASED ON NITROGEN AND PHOSPHORUS.
TSICL	TROPHIC STATE INDEX BASED ON CHLOROPHYLL A
TSISD	TROPHIC STATE INDEX BASED ON SECCHI DISK DEPTH.
NPRATIO	NITROGEN/PHOSPHORUS RATIO.
NUMB	MAXIMUM OF NITROGEN OR PHOSPHORUS MEASUREMENTS.

WATER QUALITY VARIABLES

COND	SPECIFIC CONDUCTIVITY, UMHOS/CM.
DO	DISSOLVED OXYGEN, MG/L.
BOD5	BIOCHEMICAL OXYGEN DEMAND, MG/L.
PH	PH, STANDARD UNITS.
CO2	CARBON DIOXIDE, MG/L.
CO3	CARBONATE ION, MG/L.
HCO3	BICARBONATE ION, MG/L.
NCH	NONCARBONATE HARDNESS, MG/L.
CAHARD	CALCIUM HARDNESS, MG/L.
HARDNESS	TOTAL HARDNESS, MG/L.
RESIDUE	TOTAL RESIDUE, MG/L.
FRESIDUE	FILTERED TOTAL SOLIDS, MG/L.
NRESIDUE	NON-FILTERED TOTAL SOLIDS, MG/L.
DISSOL	DISSOLVED SOLIDS, MG/L.
TC	TOTAL CARBON, MG/L.
INORGC	INORGANIC CARBON, MG/L.
ORGC	ORGANIC CARBON, MG/L.
SI	SILICA, MG/L.
SODIUM	SODIUM, MG/L.
ALK	ALKALINITY, MG/L.
PALK	PHENOPHAELEIN ALKALINITY, MG/L.
MAGNES	MAGNESIUM, MG/L.
CA	CALCIUM, MG/L.
AL	ALUMINUM, MG/L.
DISSO2	DISSOLVED OXYGEN, MG/L.
SIO	SILICA OXIDE, MG/L.
SULFATE	SULFATE, MG/L.
CHLORIDE	CHLORIDE, MG/L.
LIGTAN	LIGGINS AND TANNINS, MG/L.
COD	CHEMICAL OXYGEN DEMAND, MG/L.
TSOLIDS	TOTAL SOLIDS, MG/L.
FLUORIDE	FLUORIDE, MG/L.
SALINITY	SALINITY, MG/L.
SS	SUSPENDED SOLIDS, MG/L.
VSS	VOLATILE SUSPENDED SOLIDS, MG/L.
PHAEO	PHAEOPHYTIN, MG/M3.
POTASS	POTASSIUM, MG/L.
IRON	IRON, MG/L.
COPPER	COPPER, MG/M3.
ZINC	ZINC, MG/M3.
TEMP	TEMPERATURE IN DEGREES CENTIGRADE.

Table C-1. (Continued)

TIME AND SPACE VARIABLES

DAY	DAY OF THE MONTH.
MONTH	MONTH OF THE YEAR.
YEAR	YEAR OF THE CENTURY.
TIME	TIME OF THE DAY.
JULIAN	JULIAN DATE.
SEASON	CHARACTER VALUE. SEASON OF THE YEAR.
DEPTH	DEPTH OF THE LAKE, FEET.
STAGE	WATER STAGE, FEET.
ELEV	ELEVATION OF LAKE, FEET. GAZETTEER.
ELEV80	ELEVATION OF LAKE, FEET. USGS, 1980.
LAT	LATITUDE, USGS, 1980.
LONG	LONGITUDE, USGS, 1980.
LATGZ	LATITUDE, GAZETTEER - 1969.
LONGGZ	LONGITUDE, GAZETTEER - 1969.
SAGAZZ	SURFACE AREA, ACRES. GAZETTEER - 1969.
DRAIN	LAKE DRAINAGE AREA, ACRES. GAZETTEER.
SURFAREA	SURFACE AREA, ACRES. USGS-DER STUDY.
VOLUME	LAKE VOLUME, ACRE-FEET. USGS-DER.
DRNAREA	LAKE DRAINAGE, ACRES. USGS-DER.
SURF80	SURFACE AREA, ACRES. USGS - 1980.
AREA80	DRAINAGE AREA, ACRES. USGS - 1980.
VOLNES	LAKE VOLUME, ACRE-FEET. NES STUDY.
SURFNES	SURFACE AREA, ACRES. NES STUDY.
AVEDEPTH	AVERAGE DEPTH, FEET. NES STUDY.
MAXDEPTH	MAXIMUM DEPTH, FEET. NES STUDY.

MACROPHYTE VARIABLES

LAKEAREA	SURFACE AREA, ACRES.
HYACINTH	WATER HYACINTH COVERAGE, ACRES.
HYDRILLA	HYDRILLA COVERAGE, ACRES.
LILY	WATER LILY COVERAGE, ACRES.
BLADWORT	BLADDERWORT COVERAGE, ACRES.
PONTEDER	PONTEDERIA COVERAGE, ACRES.
TYPHA	TYPHA SPECIES COVERAGE, ACRES.
WATERMIL	EURASIAN WATERMILFOIL COVERAGE, ACRES.
NAIADS	SOUTHERN NAIAD COVERAGE, ACRES.
SPATTERD	SPATTERDOCK COVERAGE, ACRES.
PANICUMH	MAIDENCANE COVERAGE, ACRES.
PANICUMR	TORPEDO GRASS COVERAGE, ACRES.
PANICUMG	KNOTGRASS COVERAGE, ACRES.
TOTWDS	TOTAL WEED COVERAGE, ACRES.
COVER	TOTWDS / LAKEAREA

LANDUSE VARIABLES

HYDRO	HYDROLOGIC UNIT NUMBER
URBAN	URBAN AREA, ACRES.
AGRICUL	AGRICULTURAL AREA, ACRES.
FOREST	FOREST AREA, ACRES.
WATER	OPEN WATER AREA, ACRES.
WETLANDS	WETLANDS AREA, ACRES.
LAKETYPE	LAKETYPE 1 - INFLOW ONLY 2 - OUTFLOW ONLY 3 - INFLOW - OUTFLOW 4 - LANDLOCKED
TOTLAND	DRAINAGE AREA, ACRES.

Table C-2. Lakes in the Data Base Containing Data of Any Kind.

```
*********************************************
*                FLORIDA LAKES              *
* LISTING OF 788 FLORIDA LAKES IN THE DATABASE *
*********************************************
```

1	ALICE	ALACHUA
2	ALTHO	ALACHUA
3	BEVILLES POND	ALACHUA
4	BIVENS ARM	ALACHUA
5	BURNT POND	ALACHUA
6	CALF POND	ALACHUA
7	CLEAR	ALACHUA
8	CLEARWATER	ALACHUA
9	COOTER POND7	ALACHUA
10	ELIZABETH	ALACHUA
11	GEORGES POND	ALACHUA
12	HAWTHORNE	ALACHUA
13	HICKORY POND	ALACHUA
14	HOLDEN POND	ALACHUA
15	JEFFORDS	ALACHUA
16	KANAPAHA	ALACHUA
17	LEVY	ALACHUA
18	LITTLE LOCHLOOSA	ALACHUA
19	LITTLE ORANGE	ALACHUA
20	LITTLE SANTA FE	ALACHUA
21	LOCHLOOSA	ALACHUA
22	META	ALACHUA
23	MIZE	ALACHUA
24	NEWNANS	ALACHUA
25	ORANGE	ALACHUA
26	PALATKA POND	ALACHUA
27	PAYNES PRAIRIE	ALACHUA
28	SANTA FE	ALACHUA
29	STILL POND	ALACHUA
30	TUSCAWILLA	ALACHUA
31	UNNAMED 10	ALACHUA
32	UNNAMED 20	ALACHUA
33	UNNAMED 25	ALACHUA
34	UNNAMED 27	ALACHUA
35	WATERMELON POND	ALACHUA
36	WAUBERG	ALACHUA
37	OCEAN POND	BAKER
38	BRIT	BAY
39	DEER POINT	BAY
40	MERIAL	BAY
41	POWELL	BAY
42	RIVER POND	BAY
43	WHITE WESTERN	BAY
44	BEDFORD	BRADFORD
45	CROSBY	BRADFORD
46	HAMPTON	BRADFORD
47	POWELL	BRADFORD
48	SAMPSON	BRADFORD
49	CLARK	BREVARD
50	CLEAR	BREVARD
51	FOX	BREVARD
52	HELEN BLAZES	BREVARD
53	LOUGHMAN	BREVARD
54	POINSETT	BREVARD
55	RUTH	BREVARD
56	SALT	BREVARD
57	SAWGRASS	BREVARD
58	SHARPES	BREVARD
59	SOUTH	BREVARD
60	WASHINGTON	BREVARD
61	WINDER	BREVARD
62	DEERFIELD	BROWARD
63	GEORGE	BROWARD
64	PROSPECT	BROWARD
65	SYLVIA	BROWARD
66	TIGERTAIL	BROWARD
67	MCKENZIE	CALHOUN
68	MIRROR	CALHOUN
69	TURKEY PEN POND	CALHOUN
70	WEBB AREA	CHARLOTTE
71	40 ACRE POND	CHARLOTTE
72	FORT COOPER	CITRUS
73	LITTLE	CITRUS
74	MORRISON POND	CITRUS
75	TSALA APOPKA	CITRUS
76	TSALA APOPKA(F)	CITRUS
77	TSALA APOPKA(H)	CITRUS
78	TSALA APOPKA(I)	CITRUS
79	BLUE POND	CLAY
80	BROOKLYN	CLAY
81	CRYSTAL	CLAY
82	DOCTORS	CLAY
83	GATOR BONE	CLAY
84	GENEVA	CLAY
85	HALL	CLAY
86	JOHNSON	CLAY
87	KINGSLEY	CLAY
88	LOCH LOMMOND	CLAY
89	LOWERY	CLAY
90	MAGNOLIA	CLAY
91	OLDFIELD POND	CLAY
92	PEBBLE	CLAY
93	SHEELAR	CLAY
94	SMITH	CLAY
95	SPRING	CLAY
96	STEVENS	CLAY
97	WHITE SAND	CLAY
98	CYPRESS POND	COLLIER
99	LANTERN	COLLIER
100	TRAFFORD	COLLIER
101	ALLIGATOR	COLUMBIA
102	JEFFERY	COLUMBIA
103	MONTGOMERY	COLUMBIA
104	WATERTOWN	COLUMBIA
105	BAMBI	DADE
106	BLUE	DADE
107	BLUE LAGOON	DADE
108	CAROLINE	DADE
109	CATALINA	DADE
110	HENRY	DADE
111	KATHARINE	DADE
112	LAKE NO MIAMI BEACH	DADE
113	LAURENCE EAST	DADE
114	LOUISE	DADE
115	MAULE	DADE
116	MYRTLE	DADE
117	SKY	DADE
118	SOUTH BASS	DADE
119	GOVERNOR HILL	DIXIE
120	IMESON POND	DUVAL

Table C-2. (Continued)

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*************************************************
*                  FLORIDA LAKES                *
* LISTING OF 700 FLORIDA LAKES IN THE DATABASE  *
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121	CRESCENT	FLAGLER	181	BAY	HILLSBOROUGH
122	DEAD	FLAGLER	182	BIRD	HILLSBOROUGH
123	DISSTON	FLAGLER	183	BROOKER	HILLSBOROUGH
124	GORE	FLAGLER	184	BROWNS	HILLSBOROUGH
125	CORA LANDING	FRANKLIN	185	BUCK	HILLSBOROUGH
126	TALQUIN	GADSDEN	186	BURRELL	HILLSBOROUGH
127	HICPOCHEE	GLADES	187	CALM	HILLSBOROUGH
128	DEAD	GULF	188	CAMP DOROTHY THOMAS	HILLSBOROUGH
129	WIMICO	GULF	189	CARROLL	HILLSBOROUGH
130	BEE HAVEN BAY	HAMILTON	190	CHAPMAN	HILLSBOROUGH
131	OCTAHATCHEE	HAMILTON	191	CHARLES	HILLSBOROUGH
132	BYSTRE	HERNANDO	192	CHURCH	HILLSBOROUGH
133	CREWS	HERNANDO	193	CITRUS PARK	HILLSBOROUGH
134	HIGHLAND	HERNANDO	194	COOPER	HILLSBOROUGH
135	HORSE	HERNANDO	195	CRENSHAW	HILLSBOROUGH
136	HUNTERS	HERNANDO	196	CRUM	HILLSBOROUGH
137	LINDSEY	HERNANDO	197	DAN	HILLSBOROUGH
138	MOUNTAIN	HERNANDO	198	DEER	HILLSBOROUGH
139	NEFF	HERNANDO	199	DEUBELL	HILLSBOROUGH
140	SAND POINT POND	HERNANDO	200	DOSSON	HILLSBOROUGH
141	SIMMONS PRAIRIE	HERNANDO	201	ECHO	HILLSBOROUGH
142	SPARKMAN	HERNANDO	202	EGYPT	HILLSBOROUGH
143	SPRING	HERNANDO	203	ELLEN	HILLSBOROUGH
144	SQUIRREL PRAIRIE	HERNANDO	204	FAIRY	HILLSBOROUGH
145	WHITFIELDS PRAIRIE	HERNANDO	205	GLASS	HILLSBOROUGH
146	ZEBRA	HERNANDO	206	GRADY	HILLSBOROUGH
147	ZULU	HERNANDO	207	HANNA	HILLSBOROUGH
148	ANGELO	HIGHLANDS	208	HARVEY	HILLSBOROUGH
149	ANNIE	HIGHLANDS	209	HOBBS	HILLSBOROUGH
150	ANOKA	HIGHLANDS	210	HORSE	HILLSBOROUGH
151	APTHORPE	HIGHLANDS	211	ISLAND FORD	HILLSBOROUGH
152	BONNET	HIGHLANDS	212	JACKSON	HILLSBOROUGH
153	CHARLOTTE	HIGHLANDS	213	KEENE	HILLSBOROUGH
154	CLAY	HIGHLANDS	214	KELL	HILLSBOROUGH
155	DAMON	HIGHLANDS	215	KEYSTONE	HILLSBOROUGH
156	DINNER	HIGHLANDS	216	LIPSEY	HILLSBOROUGH
157	FRANCIS	HIGHLANDS	217	LONG	HILLSBOROUGH
158	GLENADA	HIGHLANDS	218	MAGDALENE	HILLSBOROUGH
159	GRASSY	HIGHLANDS	219	MARION	HILLSBOROUGH
160	HUNTLEY	HIGHLANDS	220	MINE POND	HILLSBOROUGH
161	ISTOKPOGA	HIGHLANDS	221	MOUND	HILLSBOROUGH
162	JACKSON	HIGHLANDS	222	MUD	HILLSBOROUGH
163	JAX	HIGHLANDS	223	PIERCE	HILLSBOROUGH
164	JOSEPHINE	HIGHLANDS	224	PLATT	HILLSBOROUGH
165	JUNE-IN-WINTER	HIGHLANDS	225	PRETTY	HILLSBOROUGH
166	LELIA	HIGHLANDS	226	RAINBOW	HILLSBOROUGH
167	LETTA	HIGHLANDS	227	ROBERTA	HILLSBOROUGH
168	LITTLE BONNET	HIGHLANDS	228	ROBLES	HILLSBOROUGH
169	LITTLE LAKE JACKSON	HIGHLANDS	229	ROGERS	HILLSBOROUGH
170	LITTLE RED WATER	HIGHLANDS	230	ROSALIE	HILLSBOROUGH
171	LOTELA	HIGHLANDS	231	ROUND	HILLSBOROUGH
172	MCCOY	HIGHLANDS	232	SADDLEBACK	HILLSBOROUGH
173	PEARL	HIGHLANDS	233	STARVATION	HILLSBOROUGH
174	PLACID	HIGHLANDS	234	STEMPER	HILLSBOROUGH
175	RED BEACH	HIGHLANDS	235	SUNSHINE	HILLSBOROUGH
176	RED WATER	HIGHLANDS	236	THOMAS	HILLSBOROUGH
177	SEBRING	HIGHLANDS	237	THONOTOSASSA	HILLSBOROUGH
178	SIRENA	HIGHLANDS	238	TURKEY FORD	HILLSBOROUGH
179	TULANE	HIGHLANDS	239	UNNAMED LAKE	HILLSBOROUGH
180	ALICE	HILLSBOROUGH	240	VALRICO	HILLSBOROUGH

Table C-2. (Continued)

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**********************************************
*                FLORIDA LAKES               *
* LISTING OF 788 FLORIDA LAKES IN THE DATABASE *
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241	VAN DYKE	HILLSBOROUGH	301	LOUISA	LAKE
242	WHITE TROUT	HILLSBOROUGH	302	LUCY	LAKE
243	WIMAUMA	HILLSBOROUGH	303	MARY	LAKE
244	WOOD	HILLSBOROUGH	304	MELTON	LAKE
245	SUN	HOLMES	305	MESSANT SPRING	LAKE
246	VICTOR	HOLMES	306	MINNEHAHA	LAKE
247	BLUE CYPRESS	INDIAN RIVER	307	MINNEOLA	LAKE
248	BATEAU POND	JACKSON	308	NORRIS	LAKE
249	COMPASS	JACKSON	309	PALATLAKAHAW	LAKE
250	COW PEN POND	JACKSON	310	PINE	LAKE
251	DEAD	JACKSON	311	PITTS POND	LAKE
252	MCCORMICK	JACKSON	312	SCHIMMERHORN	LAKE
253	MERRITTS MILL POND	JACKSON	313	SELLERS	LAKE
254	OCHEESEE POND	JACKSON	314	SEMINOLE SPRINGS	LAKE
255	ROUND	JACKSON	315	SILVER	LAKE
256	SEMINOLE	JACKSON	316	SILVER GLEN SPRINGS	LAKE
257	SEVENTEEN MILE POND	JACKSON	317	SOUTH	LAKE
258	WADDELLS MILL POND	JACKSON	318	SUSAN	LAKE
259	MICCOSUKEE	JEFFERSON	319	SWATARA	LAKE
260	SIMPSON	JEFFERSON	320	TROUT	LAKE
261	KOON	LAFAYETTE	321	TUTUOLA	LAKE
262	TOWNSEND POND	LAFAYETTE	322	UMATILLA	LAKE
263	AKRON	LAKE	323	WEST CROOKED	LAKE
264	ALEXANDER SPRINGS	LAKE	324	WILDCAT	LAKE
265	APSHAWA	LAKE	325	WILSON	LAKE
266	BAY	LAKE	326	YALE	LAKE
267	BEAR	LAKE	327	CHATEAU SUR-MER	LEE
268	BEAUCLAIR	LAKE	328	LEELAND	LEE
269	BRIGHT	LAKE	329	PINE	LEE
270	BUGG SPRING	LAKE	330	BRADFORD	LEON
271	CATHERINE	LAKE	331	CARR	LEON
272	CHERRY	LAKE	332	ELLA	LEON
273	CHURCH	LAKE	333	HALL	LEON
274	COOK	LAKE	334	IAMONIA	LEON
275	CRESCENT	LAKE	335	JACKSON	LEON
276	CRYSTAL	LAKE	336	LAFAYETTE	LEON
277	DENHAM	LAKE	337	MUNSON	LEON
278	DICIE	LAKE	338	RUM	LEON
279	DORA	LAKE	339	UNNAMED	LEON
280	DORR	LAKE	340	WILSON	LEON
281	ELLA	LAKE	341	CHUNKY POND	LEVY
282	EMMA	LAKE	342	LONG POND	LEVY
283	ENOLA	LAKE	343	ROUSSEAU	LEVY
284	ELSTIS	LAKE	344	MYSTIC	LIBERTY
285	FISH	LAKE	345	CHERRY	MADISON
286	FLAT	LAKE	346	DOBSON POND	MADISON
287	FLORENCE	LAKE	347	ELBOW	MADISON
288	GLONA	LAKE	348	ELBOW POND	MADISON
289	GRASSY	LAKE	349	FRANCIS	MADISON
290	GRIFFIN	LAKE	350	GINHOUSE POND	MADISON
291	HANCOCK	LAKE	351	HONEY	MADISON
292	HARRIS	LAKE	352	MADISON POND	MADISON
293	HIAWATHA	LAKE	353	MYSTIC	MADISON
294	HIDDEN	LAKE	354	MANATEE RESERVOIR	MANATEE
295	HOLLY	LAKE	355	WARD	MANATEE
296	HORSESHOE	LAKE	356	BIG BASS	MARION
297	JUNIPER SPRINGS	LAKE	357	BOWERS	MARION
298	KATHRYN	LAKE	358	BRYANT	MARION
299	LADY	LAKE	359	CHARLES	MARION
300	LITTLE LAKE HARRIS	LAKE	360	DELANCY	MARION

Table C-2. (Continued)

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*************************************************
*                FLORIDA LAKES                  *
* LISTING OF 788 FLORIDA LAKES IN THE DATABASE  *
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361	EATON	MARION	421	HICKORYNUT	ORANGE
362	HALFMOON	MARION	422	HIGHLAND	ORANGE
363	HAMMOCK POND	MARION	423	HOLDENS	ORANGE
364	JUMPER	MARION	424	HOPE	ORANGE
365	KERR	MARION	425	HORSESHOE	ORANGE
366	LITTLE LAKE WEIR	MARION	426	HOURGLASS	ORANGE
367	LOU	MARION	427	INGRAM	ORANGE
368	MILL DAM	MARION	428	IRMA	ORANGE
369	MUD	MARION	429	IVANHOE	ORANGE
370	NICOTOON	MARION	430	JESSAMINE	ORANGE
371	OCKLAWAHA	MARION	431	JOHIO	ORANGE
372	SELLERS	MARION	432	JOHNS	ORANGE
373	SMITH	MARION	433	KEHOE	ORANGE
374	TOHAHAWK	MARION	434	KILLARNEY	ORANGE
375	UNNAMED	MARION	435	LAGOON	ORANGE
376	WARNER	MARION	436	LAWNE	ORANGE
377	WEIR	MARION	437	LITTLE LAKE BRYAN	ORANGE
378	CYPRESS POND	MONROE	438	LITTLE LAKE FAIRVIEW	ORANGE
379	GUM SLOUGH POND	MONROE	439	LITTLE SAND LAKE	ORANGE
380	U MIAMI POND	MONROE	440	LONG	ORANGE
381	HURRICANE	OKALOOSA	441	LOUISE	ORANGE
382	KARICK	OKALOOSA	442	LOVELY	ORANGE
383	OKEECHOBEE	OKEECHOBEE	443	LUCERNE	ORANGE
384	ADAIR	ORANGE	444	LUCIEN	ORANGE
385	APOPKA	ORANGE	445	MABEL	ORANGE
386	AVALON	ORANGE	446	MAITLAND	ORANGE
387	BALDWIN	ORANGE	447	MANN	ORANGE
388	BARTON	ORANGE	448	MARTHA	ORANGE
389	BASS	ORANGE	449	MARY JANE	ORANGE
390	BAY	ORANGE	450	MCCOY	ORANGE
391	BEAUTY	ORANGE	451	MINNEHAHA	ORANGE
392	BELL	ORANGE	452	MIZELL	ORANGE
393	BESSIE	ORANGE	453	NAN	ORANGE
394	BIG SAND	ORANGE	454	NEEDHAM	ORANGE
395	BLACK	ORANGE	455	NONA	ORANGE
396	BRYAN	ORANGE	456	OLA	ORANGE
397	BUENA VISTA	ORANGE	457	OSCEOLA	ORANGE
398	BUTLER	ORANGE	458	PALMER	ORANGE
399	CARLTON	ORANGE	459	PEARL	ORANGE
400	CATHERINE	ORANGE	460	PICKETT	ORANGE
401	CHARITY	ORANGE	461	POCKET	ORANGE
402	CHEROKEE	ORANGE	462	PORTER	ORANGE
403	CLEAR	ORANGE	463	RATTLESNAKE	ORANGE
404	CONE	ORANGE	464	ROCK	ORANGE
405	CONWAY	ORANGE	465	SHADOW	ORANGE
406	CROOKED	ORANGE	466	SHEEN	ORANGE
407	DAVIS	ORANGE	467	SHERWOOD	ORANGE
408	DOWN	ORANGE	468	SILVER	ORANGE
409	DRUID	ORANGE	469	SPIER	ORANGE
410	EOLA	ORANGE	470	SPRING	ORANGE
411	FAIRVIEW	ORANGE	471	STARKE	ORANGE
412	FAITH	ORANGE	472	SUE	ORANGE
413	FANNY	ORANGE	473	SUSANNAH	ORANGE
414	FRANCIS	ORANGE	474	SYBELIA	ORANGE
415	FREDRICA	ORANGE	475	SYLVAN	ORANGE
416	GEORGIA	ORANGE	476	TIBET	ORANGE
417	HARNEY	ORANGE	477	TURKEY	ORANGE
418	HART	ORANGE	478	UNDERHILL	ORANGE
419	HAWASSA	ORANGE	479	UNNAMED-WINDERMERE	ORANGE
420	HERRICK	ORANGE	480	VENUS	ORANGE

Table C-2. (Continued)

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*************************************************
*                  FLORIDA LAKES                *
* LISTING OF 788 FLORIDA LAKES IN THE DATABASE *
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481	VIRGINIA	ORANGE
482	WARREN	ORANGE
483	WAUNATTA	ORANGE
484	WEKIVA	ORANGE
485	WESTON	ORANGE
486	AJAY	OSCEOLA
487	ALLIGATOR	OSCEOLA
488	BRICK	OSCEOLA
489	CENTER	OSCEOLA
490	CONLIN	OSCEOLA
491	COON	OSCEOLA
492	CYPRESS	OSCEOLA
493	EAST TOHOPEKALIGA	OSCEOLA
494	FISH	OSCEOLA
495	FISH & COLLEEN	OSCEOLA
496	FISH & MARK	OSCEOLA
497	GENTRY	OSCEOLA
498	HATCHINEHA	OSCEOLA
499	JACKSON	OSCEOLA
500	JOEL	OSCEOLA
501	KISSIMMEE	OSCEOLA
502	LIVE OAK	OSCEOLA
503	LIZZIE	OSCEOLA
504	MARIAN	OSCEOLA
505	MYRTLE	OSCEOLA
506	PRESTON	OSCEOLA
507	ROSALIE	OSCEOLA
508	RUNNYMEDE	OSCEOLA
509	RUSSELL	OSCEOLA
510	TOHOPEKALIGA	OSCEOLA
511	TROUT	OSCEOLA
512	CLARKE	PALM BEACH
513	CLEAR	PALM BEACH
514	OSBORNE	PALM BEACH
515	BELL	PASCO
516	BIG FISH	PASCO
517	BIRD	PASCO
518	BLANTON	PASCO
519	BLUE	PASCO
520	BUDDY	PASCO
521	CAMP	PASCO
522	CLEAR	PASCO
523	CREWS	PASCO
524	CURVE	PASCO
525	DOWLING	PASCO
526	EAST	PASCO
527	FERGUSON	PASCO
528	GOOSE	PASCO
529	HANCOCK	PASCO
530	IOLA	PASCO
531	JESSAMINE	PASCO
532	KING	PASCO
533	LAKE Y	PASCO
534	LINDA	PASCO
535	MIDDLE	PASCO
536	MOODY	PASCO
537	MOON	PASCO
538	OAKES POND	PASCO
539	PADGETT	PASCO
540	PARKER	PASCO
541	PASADENA	PASCO
542	PIERCE	PASCO
543	RAY POND	PASCO
544	SAXON	PASCO
545	SUWANNEE	PASCO
546	THOMAS	PASCO
547	TWIN	PASCO
548	WHITE TURKEY POND	PASCO
549	ALLIGATOR	PINELLAS
550	MAGGIORE	PINELLAS
551	SALT	PINELLAS
552	SAWGRASS	PINELLAS
553	SEMINOLE	PINELLAS
554	TARPON	PINELLAS
555	AGNES	POLK
556	ALFRED	POLK
557	ANN	POLK
558	ANNIE	POLK
559	ARBUCKLE	POLK
560	ARETTA	POLK
561	ARIANA	POLK
562	BANANA	POLK
563	BEULAH	POLK
564	BLUE JORDAN SWAMP	POLK
565	BONNETT	POLK
566	BONNY	POLK
567	BUFFUM	POLK
568	CANNON	POLK
569	CLEARWATER	POLK
570	CLINCH	POLK
571	CONNIE	POLK
572	CROOKED	POLK
573	CUMMINGS	POLK
574	DARSEY	POLK
575	DEER	POLK
576	DEESON	POLK
577	DEXTER	POLK
578	EAGLE	POLK
579	EASY	POLK
580	ECHO	POLK
581	EFFIE	POLK
582	ELBERT	POLK
583	ELOISE	POLK
584	FANNIE	POLK
585	GARFIELD	POLK
586	GEORGE	POLK
587	GIBSON	POLK
588	GUM	POLK
589	HAINES	POLK
590	HAMILTON	POLK
591	HANCOCK	POLK
592	HARTRIDGE	POLK
593	HELENE	POLK
594	HENRY	POLK
595	HOLLINGSWORTH	POLK
596	HOWARD	POLK
597	HUNTER	POLK
598	IDA	POLK
599	IDYLWILD	POLK
600	JESSIE	POLK

Table C-2. (Continued)

****
* FLORIDA LAKES *
* LISTING OF 788 FLORIDA LAKES IN THE DATABASE *
****

601	JULIANA	POLK	661	GALLILEE	PUTNAM
602	LEE	POLK	662	GEORGE	PUTNAM
603	LENA	POLK	663	GEORGES	PUTNAM
604	LEONORE	POLK	664	GRANDIN	PUTNAM
605	LINK	POLK	665	HIGGINBOTHAM	PUTNAM
606	LITTLE CROOKED	POLK	666	KINGSLEY	PUTNAM
607	LIVINGSTON	POLK	667	LITTLE LAKE GEORGE	PUTNAM
608	LOWERY	POLK	668	LONG	PUTNAM
609	LULU	POLK	669	LONG POND	PUTNAM
610	MARIAN	POLK	670	MARGARET	PUTNAM
611	MARIANA	POLK	671	MCCARTHY	PUTNAM
612	MARION	POLK	672	MCCLOUD	PUTNAM
613	MATTIE	POLK	673	MOSS LEE	PUTNAM
614	MAUDE	POLK	674	SANTA ROSA	PUTNAM
615	MAY	POLK	675	STELLA	PUTNAM
616	MAYO	POLK	676	SUGGS	PUTNAM
617	MCLEOD	POLK	677	SWAN	PUTNAM
618	MIRROR	POLK	678	WALL	PUTNAM
619	MOODY	POLK	679	WINNOTT	PUTNAM
620	MORTON	POLK	680	BEAR	SANTA ROSA
621	MOUNTAIN	POLK	681	LOWER MYAKKA	SARASOTA
622	MUD	POLK	682	UPPER MYAKKA	SARASOTA
623	MYRTLE	POLK	683	ADA	SEMINOLE
624	OTIS	POLK	684	BANANA	SEMINOLE
625	PARKER	POLK	685	BEAR	SEMINOLE
626	PIERCE	POLK	686	BRANTLEY	SEMINOLE
627	REEDY	POLK	687	BUCK	SEMINOLE
628	ROCHELLE	POLK	688	CATHERINE	SEMINOLE
629	ROSALIE	POLK	689	CHARM	SEMINOLE
630	ROY	POLK	690	CRYSTAL	SEMINOLE
631	RUBY	POLK	691	ELEVENTH HOLE	SEMINOLE
632	SANITARY	POLK	692	FAIRY	SEMINOLE
633	SARDEN	POLK	693	FLORIDA	SEMINOLE
634	SCOTT	POLK	694	FRANCIS	SEMINOLE
635	SEARS	POLK	695	GENEVA	SEMINOLE
636	SHIPP	POLK	696	GOLDEN	SEMINOLE
637	SILVER	POLK	697	GRACE	SEMINOLE
638	SMART	POLK	698	HORSESHOE	SEMINOLE
639	SPIRIT	POLK	699	HOWELL	SEMINOLE
640	SPRING	POLK	700	ISLAND	SEMINOLE
641	STAN	POLK	701	JENNIE	SEMINOLE
642	STAR	POLK	702	JESSUP	SEMINOLE
643	SUMMIT	POLK	703	KATHRYN	SEMINOLE
644	SURVEYORS	POLK	704	LINDEN	SEMINOLE
645	SWOPE	POLK	705	LOTUS	SEMINOLE
646	TENNESSEE	POLK	706	MARION	SEMINOLE
647	THOMAS	POLK	707	MARKHAM	SEMINOLE
648	TIGER	POLK	708	MARY	SEMINOLE
649	TRACY	POLK	709	MILLS	SEMINOLE
650	WALES	POLK	710	MINNIE	SEMINOLE
651	WECHYAKAPKA	POLK	711	MIRROR	SEMINOLE
652	WHISTLER	POLK	712	MULLET	SEMINOLE
653	WINTERSET	POLK	713	MYRTLE	SEMINOLE
654	WIRE	POLK	714	ORIENTA	SEMINOLE
655	ADAHO	PUTNAM	715	PEARL	SEMINOLE
656	ANDERSON CUE	PUTNAM	716	PRAIRIE	SEMINOLE
657	EDWARD	PUTNAM	717	SEMINOLE	SEMINOLE
658	GOLDEN	PUTNAM	718	SILVER	SEMINOLE
659	GOMO	PUTNAM	719	SPRING	SEMINOLE
660	GOWDEN	PUTNAM	720	SYLVAN	SEMINOLE

Table C-2. (Continued)

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*************************************************
*                  FLORIDA LAKES                *
* LISTING OF 788 FLORIDA LAKES IN THE DATABASE  *
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```

721	TRIPLET	SEMINOLE
722	DEATON	SUMTER
723	MICNA	SUMTER
724	OKAHUMPKA	SUMTER
725	PANASOFFKEE	SUMTER
726	LOUISE	SUWANNEE
727	LOW	SUWANNEE
728	SUSAN	SUWANNEE
729	BUTLER	UNION
730	PALESTINE	UNION
731	SWIFTS CREEK POND	UNION
732	ANGELES	VOLUSIA
733	ASHBY	VOLUSIA
734	BATON	VOLUSIA
735	BERESFORD	VOLUSIA
736	BETHEL	VOLUSIA
737	BLUE	VOLUSIA
738	BUTLER	VOLUSIA
739	DAUGHARTY	VOLUSIA
740	DEXTER	VOLUSIA
741	DIAS	VOLUSIA
742	DUPONT	VOLUSIA
743	HARNEY	VOLUSIA
744	HIRES	VOLUSIA
745	HUTCHINSON	VOLUSIA
746	LINDSEY	VOLUSIA
747	LOUISE	VOLUSIA
748	MOLLY	VOLUSIA
749	MONROE	VOLUSIA
750	NORTH TALMADGE	VOLUSIA
751	PUZZLE	VOLUSIA
752	SOUTH TALMADGE	VOLUSIA
753	TATUM	VOLUSIA
754	THERESA	VOLUSIA
755	THREE ISLAND	VOLUSIA
756	WINNEMISETT	VOLUSIA
757	WINGO	VOLUSIA
758	WOODRUFF	VOLUSIA
759	ELLEN	WAKULLA
760	OTTER	WAKULLA
761	SANTA FE	WAKULLA
762	DEFUNEAK	WALTON
763	JACKSON	WALTON
764	JUNIPER	WALTON
765	OYSTER	WALTON
766	STANLEY	WALTON
767	WESTERN	WALTON
768	BEAR HAMMOCKS POND	WASHINGTON
769	BOGGY	WASHINGTON
770	BOWEN	WASHINGTON
771	CLARKS	WASHINGTON
772	CRYSTAL	WASHINGTON
773	DUNFORD POND	WASHINGTON
774	GAP POND	WASHINGTON
775	GULLY POND	WASHINGTON
776	HAMMOCK	WASHINGTON
777	HICKS POND	WASHINGTON
778	LUCAS POND	WASHINGTON
779	MCDANIEL	WASHINGTON
780	PATE POND	WASHINGTON
781	PAYNE POND	WASHINGTON
782	PINEY POND	WASHINGTON
783	PORTER	WASHINGTON
784	RIVER PONDS	WASHINGTON
785	SMITH	WASHINGTON
786	STILL POND	WASHINGTON
787	THE DEADENING LAKES	WASHINGTON
788	WAGES POND	WASHINGTON

Many lakes from STORET had no nutrient (no phosphorus or nitrogen) data. These lakes only contain information on other water quality parameters. After merger in the overall data set (also including the macrophyte data set), there remained 75 lakes with no nutrient or macrophyte data. These are listed in Table C-3.

Another source of data was the digitized land use map prepared by FDER in cooperation with FSU. This source did not add any new lakes to the overall total, but it did enhance the breadth of the data base. There are 133 Florida lakes with information on all three parameters: nutrients, macrophytes, and land use. These 133 lakes are listed in Table C-4. The table also lists the average TSI of the lake, the total drainage area of the lake in acres, and the total macrophyte coverage in acres. The 133 lakes are the most studied of the 788 lakes in the data base.

A user can use the following SAS program to subset the 133 lakes from the mean data set.

```
//SAVE DD UNIT=TAPE9,DISP=OLD,LABEL=(2,NL),VOL=SER=LAKES
*** ;
DATA LAKER ;
SET SAVE.LAKE ;
*** ;
IF TOTWDS NE . AND TOTLAND NE . AND TSI NE . ;
*** ;
```

LAKE DATA SOURCES

There were seventeen data sources for the lake observations in File 1. The lake data source is coded only in File 1 under the character variable named SOURCE. The abbreviations used for the 17 sources are as follows:

Table C-3. Lakes in the Data Base with No Nutrient or Macrophyte Data.

FLORIDA LAKES

THESE LAKES HAVE NO NUTRIENT, MACROPHYTE, OR LANDUSE DATA.

OBS	LAKE	COUNTY
1	GEORGES POND	ALACHUA
2	CLEAR	BREVARD
3	FOX	BREVARD
4	DEERFIELD	BROWARD
5	40 ACRE POND	CHARLOTTE
6	LOCH LOMMOND	CLAY
7	MONTGOMERY	COLUMBIA
8	BLUE	DADE
9	CAROLINE	DADE
10	LAKE NO MIAMI BEACH	DADE
11	MAULE	DADE
12	HIGHLAND	HERNANDO
13	SAND POINT POND	HERNANDO
14	SIMMONS PRAIRIE	HERNANDO
15	SPARKMAN	HERNANDO
16	MCCOY	HIGHLANDS
17	PEARL	HIGHLANDS
18	BURRELL	HILLSBOROUGH
19	CAMP DOROTHY THOMAS	HILLSBOROUGH
20	DEUBELL	HILLSBOROUGH
21	FAIRY	HILLSBOROUGH
22	HORSE	HILLSBOROUGH
23	MINE POND	HILLSBOROUGH
24	ROBERTA	HILLSBOROUGH
25	ROBLES	HILLSBOROUGH
26	ROGERS	HILLSBOROUGH
27	DEAD	JACKSON
28	MCCORMICK	JACKSON
29	SEVENTEEN MILE POND	JACKSON
30	WADDELLS MILL POND	JACKSON
31	SIMPSON	JEFFERSON
32	AKRON	LAKE
33	MESSANT SPRING	LAKE
34	SEMINOLE SPRINGS	LAKE
35	CHATEAU SUR-MER	LEE
36	PINE	LEE
37	ELLA	LEON
38	RUM	LEON
39	UNNAMED	LEON
40	WILSON	LEON
41	ELBOW POND	MADISON
42	HONEY	MADISON
43	WARD	MANATEE
44	LOU	MARION
45	TOHAHAWK	MARION
46	FANNY	ORANGE
47	HARNEY	ORANGE
48	INGRAM	ORANGE
49	KEHOE	ORANGE
50	LITTLE SAND LAKE	ORANGE
51	NEEDHAM	ORANGE
52	NONA	ORANGE
53	UNNAMED-WINDERMERE	ORANGE
54	LAKE Y	PASCO
55	RAY POND	PASCO
56	TWIN	PASCO
57	BLUE JORDAN SWAMP	POLK
58	LEE	POLK
59	LEONORE	POLK
60	SARDEN	POLK
61	STAN	POLK

Table C-3. (Continued)

```
*****************************************
*          FLORIDA LAKES                *
*                                       *
*    THESE LAKES HAVE NO NUTRIENT,      *
*    MACROPHYTE, OR LANDUSE DATA.       *
*****************************************
```

OBS	LAKE	COUNTY
62	COMO	PUTNAM
63	HIGGINBOTHAM	PUTNAM
64	KINGSLEY	PUTNAM
65	LONG	PUTNAM
66	BUCK	SEMINOLE
67	FRANCIS	SEMINOLE
68	BLUE	VOLUSIA
69	TATUM	VOLUSIA
70	BOGGY	WASHINGTON
71	BOWEN	WASHINGTON
72	HAMMOCK	WASHINGTON
73	PINEY POND	WASHINGTON
74	RIVER PONDS	WASHINGTON
75	STILL POND	WASHINGTON

Table C-4. Lakes in the Data Base with All Three Parameters: Nutrients, Macrophytes, Land Use.

FLORIDA LAKES

THESE LAKES HAVE NUTRIENT, MACROPHYTE, AND LANDUSE DATA

OBS	LAKE	COUNTY	TSI	TOTLAND	TOTWDS
1	ALICE	ALACHUA	46.1997	11233	1.0
2	ALTHO	ALACHUA	48.8923	2562	50.0
3	BIVENS ARM	ALACHUA	73.8222	1942	1.0
4	LOCHLOOSA	ALACHUA	66.3293	56482	2801.0
5	NEWNANS	ALACHUA	72.8944	73035	35.0
6	ORANGE	ALACHUA	58.6582	394508	2687.0
7	SANTA FE	ALACHUA	44.9024	15800	51.0
8	OCEAN POND	BAKER	44.4469	9814	25.0
9	DEER POINT	BAY	34.7674	277960	1675.0
10	SAMPSON	BRADFORD	50.1993	76482	96.0
11	POINSETT	BREVARD	62.5434	316846	270.0
12	SOUTH	BREVARD	60.5478	12901	221.0
13	WASHINGTON	BREVARD	59.2688	304818	47.0
14	WINDER	BREVARD	57.6223	334902	287.0
15	TSALA APOPKA	CITRUS	40.8403	194169	11055.0
16	BROOKLYN	CLAY	28.9545	11164	8.0
17	GENEVA	CLAY	30.5668	36253	425.0
18	JOHNSON	CLAY	39.8276	4465	4.0
19	LOWERY	CLAY	26.5844	10378	43.0
20	CRESCENT	FLAGLER	66.6953	346182	70.0
21	DISSTON	FLAGLER	46.0393	16996	144.0
22	TALQUIN	GADSDEN	55.0627	332898	115.0
23	DEAD	GULF	38.4853	636485	201.0
24	WIMICO	GULF	54.6411	264873	41.0
25	LINDSEY	HERNANDO	58.8249	2312	1.5
26	CLAY	HIGHLANDS	69.6974	5851	156.0
27	FRANCIS	HIGHLANDS	52.3146	43200	353.0
28	GRASSY	HIGHLANDS	50.5372	9249	763.5
29	ISTOKPOGA	HIGHLANDS	55.5771	385666	2355.0
30	JACKSON	HIGHLANDS	36.9884	9597	30.5
31	JOSEPHINE	HIGHLANDS	58.8037	32212	575.0
32	JUNE-IN-WINTER	HIGHLANDS	36.5173	24858	2715.0
33	LETTA	HIGHLANDS	45.2449	2426	8.0
34	LITTLE RED WATER	HIGHLANDS	56.8071	2510	10.0
35	LOTELA	HIGHLANDS	38.6445	8671	15.0
36	PLACID	HIGHLANDS	41.8738	17877	345.0
37	SEBRING	HIGHLANDS	62.6779	4242	9.0
38	THONOTOSASSA	HILLSBOROUGH	69.5114	28387	10.0
39	BLUE CYPRESS	INDIAN RIVER	56.5176	206309	108.0
40	MICCOSUKEE	JEFFERSON	28.1167	108949	3001.0
41	BEAUCLAIR	LAKE	87.5434	97713	30.4
42	CHERRY	LAKE	43.3817	105628	9.0
43	DENHAM	LAKE	67.2749	12292	5.0
44	DORA	LAKE	81.3832	123535	112.0
45	DORR	LAKE	49.3715	3946	33.0
46	EUSTIS	LAKE	72.2715	383133	72.0
47	GRIFFIN	LAKE	76.7512	466522	60.0
48	HARRIS	LAKE	63.0923	227811	165.0
49	HOLLY	LAKE	18.9297	592	55.0
50	LOUISA	LAKE	51.5573	77320	21.0
51	MINNEHAHA	LAKE	45.4036	84098	43.0
52	MINNEOLA	LAKE	35.3654	105628	23.0
53	UMATILLA	LAKE	51.6351	1732	15.0
54	WILDCAT	LAKE	20.5974	2584	43.0
55	YALE	LAKE	55.6904	44525	530.0
56	IAMONIA	LEON	38.9006	49964	1613.0
57	JACKSON	LEON	46.6855	27821	1310.0
58	LONG POND	LEVY	58.8587	37936	125.0
59	ROUSSEAU	LEVY	33.3063	1132123	3010.0
60	CHERRY	MADISON	41.5442	1086	10.0
61	BRYANT	MARION	48.2220	7938	35.0

Table C-4. (Continued)

****
* FLORIDA LAKES *
* *
* THESE LAKES HAVE NUTRIENT, *
* MACROPHYTE, AND LANDUSE DATA *
****

OBS	LAKE	COUNTY	TSI	TOTLAND	TOTWDS
62	OCKLAWAHA	MARION	45.5520	1354543	7071.0
63	WEIR	MARION	42.3359	35056	45.0
64	OKEECHOBEE	OKEECHOBEE	65.4655	3132447	40582.0
65	APOPKA	ORANGE	86.1035	58503	1200.0
66	BUTLER	ORANGE	33.2847	30954	70.0
67	CONWAY	ORANGE	39.7876	8929	185.0
68	DOWN	ORANGE	40.0912	3281	20.0
69	FAIRVIEW	ORANGE	28.5415	1354	200.0
70	HART	ORANGE	49.5651	140291	65.0
71	HOLDENS	ORANGE	53.1066	7683	11.0
72	JOHNS	ORANGE	51.3680	2975	65.0
73	MAITLAND	ORANGE	55.7675	9553	200.0
74	MARY JANE	ORANGE	62.9193	110343	41.0
75	SHEEN	ORANGE	25.7079	36427	25.0
76	SHERWOOD	ORANGE	58.4243	10788	7.0
77	SUSANNAH	ORANGE	56.4683	2909	10.0
78	TIBET	ORANGE	36.4585	36427	60.0
79	ALLIGATOR	OSCEOLA	41.5277	19348	716.5
80	CYPRESS	OSCEOLA	76.8375	730890	100.0
81	EAST TOHOPEKALIGA	OSCEOLA	48.4977	116248	252.0
82	HATCHINEHA	OSCEOLA	69.2974	598728	135.0
83	KISSIMMEE	OSCEOLA	58.9022	964881	1685.0
84	LIZZIE	OSCEOLA	43.1393	3743	428.0
85	MARIAN	OSCEOLA	70.5441	37302	159.0
86	TOHOPEKALIGA	OSCEOLA	68.8681	363422	2700.0
87	CLEAR	PASCO	45.9729	646	4.0
88	IOLA	PASCO	36.9081	358	42.0
89	PADGETT	PASCO	32.4028	87	370.0
90	MAGGIORE	PINELLAS	91.6232	3449	13.0
91	SEMINOLE	PINELLAS	77.6326	10433	58.0
92	TARPON	PINELLAS	47.4111	33573	755.0
93	ALFRED	POLK	50.1596	1905	8.0
94	ARBUCKLE	POLK	59.3220	107909	117.0
95	ARIANA	POLK	61.7043	5127	8.0
96	BANANA	POLK	94.9294	8783	10.5
97	CANNON	POLK	74.0412	445	15.0
98	CLINCH	POLK	39.4619	19387	44.0
99	CROOKED	POLK	35.4724	19387	220.0
100	ELOISE	POLK	74.0530	2725	5.5
101	FANNIE	POLK	52.6842	1778	37.0
102	HAINES	POLK	61.8161	2896	9.0
103	HAMILTON	POLK	67.7963	12094	50.0
104	HANCOCK	POLK	92.1931	60418	95.0
105	HENRY	POLK	62.1696	2038	25.0
106	HOLLINGSWORTH	POLK	84.7658	15030	13.0
107	JULIANA	POLK	55.6274	3433	11.0
108	LOWERY	POLK	56.6225	5488	4.5
109	LULU	POLK	92.2429	1411	20.0
110	MARION	POLK	63.9110	24063	148.0
111	MATTIE	POLK	60.9887	10321	11.0
112	MIRROR	POLK	75.4815	1729	10.0
113	OTIS	POLK	44.8458	1067	46.0
114	PARKER	POLK	79.2933	9382	37.0
115	PIERCE	POLK	58.6275	75109	3265.0
116	REEDY	POLK	63.8976	38123	250.0
117	ROSALIE	POLK	50.1647	84862	220.0
118	SHIPP	POLK	87.8369	3607	5.0
119	TIGER	POLK	59.7494	95685	50.0
120	WALES	POLK	46.4007	1696	220.0
121	WEOHYAKAPKA	POLK	51.8740	60836	255.0
122	GEORGE	PUTNAM	67.6260	955254	550.0

Table C-4. (Continued)

****
* FLORIDA LAKES *
* *
* THESE LAKES HAVE NUTRIENT, *
* MACROPHYTE, AND LANDUSE DATA *
****

OBS	LAKE	COUNTY	TSI	TOTLAND	TOTWDS
123	GEORGES	PUTNAM	42.6417	11103	15
124	JESSUP	SEMINOLE	83.5960	85667	320
125	OKAHUMPKA	SUMTER	47.2510	182166	236
126	PANASOFFKEE	SUMTER	51.0366	225029	700
127	BUTLER	UNION	49.1131	3062	24
128	PALESTINE	UNION	47.2026	12376	35
129	ASHBY	VOLUSIA	54.5959	38005	24
130	HARNEY	VOLUSIA	46.2325	569002	95
131	MONROE	VOLUSIA	59.8031	516328	19
132	PUZZLE	VOLUSIA	62.3641	537870	325
133	PORTER	WASHINGTON	33.6470	5414	612

SOURCE	SOURCE DESCRIPTION
STORET	EPA DATA BASE.
BREZONIK	55 FLORIDA LAKE STUDY IN 1969.
DNR	DEPARTMENT OF NATURAL RESOURCES MACROPHYTE STUDY
FISH&GAME	THE FISH AND GAME COMMISSION LAKE WATER QUALITY STUDY OF 103 LAKES
LAKE CLAS	URBAN LAKE SAMPLES GATHERED AS PART OF THIS STUDY
HENDRY	LAKE WATER QUALITY DATA GATHERED AS PART OF THE ACID-PRECIPITATION STUDY IN FLORIDA
AQ. WEED	LAKE WATER QUALITY DATA ON 165 LAKES COLLECTED BY THE CENTER FOR AQUATIC WEEDS
CRISMAN	LAKE WATER QUALITY DATA COLLECTED AS PART OF THE LAKE CONWAY STUDY
FDER	42 LAKES SAMPLED BY THE DEPARTMENT OF ENVIRONMENTAL REGULATION
USGS-DER	96 LAKES SAMPLED BY THE USGS IN COOPERATION WITH FDER
NES LAKES	THE 40 NATIONAL EUTROPHICATION SURVEY LAKES
BCWRD	BREVARD COUNTY STUDY OF SOUTH LAKE
F. I. T.	FLORIDA INSTITUTE OF TECHNOLOGY STUDY OF LAKE WASHINGTON
UF. ENV. EN	UNIVERSITY OF FLORIDA STUDY OF THE OKLAWAHA CHAIN OF LAKES
SWFWMD	SOUTH WEST FLORIDA WATER MANANGEMENT DISTRICT STUDY OF 53 FLORIDA LAKES
F. T. U.	UNIVERSITY OF CENTRAL FLORIDA STUDY OF LAKE EOLA.
F. S. U.	FLORIDA STATE UNIVERSITY STUDY OF LAKE JACKSON IN LEON COUNTY.

Thus, if a user was interested in only the STORET data on File 1, he or she could use the following subsetting program to isolate the STORET data source.

```
//SAVE DD UNIT=TAPE9,DISP=OLD,LABEL=(1,NL),VOL=SER=LAKES
*** ;
DATA LAKER ;
SET SAVE.LAKE ;
**** ;
IF SOURCE = 'STORET' ;
*** ;
```

This would select approximately 6500 observations from the possible 9500 observations on File 1.

The STORET data sources can be broken down further into which agency collected and coded in the data. AGENCY is a character variable found only in File 1. The three different agencies in this data base are:

AGENCY	AGENCY DESCRIPTION
112WRD	USGS SAMPLED AND CODED.
21FLA	FDER SAMPLED OR CODED.
112EPALES	EPA SAMPLED AND CODED.

For example if it were desired to only use STORET data collected by the USGS then the following program would be used.

```
//SAVE DD UNIT=TAPE9,DISP=OLD,LABEL=(1,NL),VOL=SER=LAKES
*** ;
DATA LAKER ;
SET SAVE.LAKE ;
*** ;
IF SOURCE = 'STORET' AND AGENCY = '112WRD' ;
*** ;
```

The statistical variables are found only in the mean data set, or File 2. These were calculated using PROC MEANS of SAS. The variables are listed in Table C-1. The actual means of the variables are resaved under the old variable name. Thus the variable name of total nitrogen, TN, signifies the sample value in File 1 and the mean value in File 2.

The next subset in Table C-1 contains selected nutrient variables. They are found in both Files 1 and 2, with the difference being that File 1 contains measured values while File 2 has the mean values of the nutrients. Note that phosphorus is always in units of mg/L not µg/L. The nutrient variables are the variables used in the calculation of trophic state indices (TSI values).

The trophic state variables are found only on File 2 of the tape. There are 573 calculated TSI's for individual lakes. Since TSI's were calculated on the basis of the limiting nutrient of the lake, two of the three TSI's based on nitrogen and phosphorus will be missing. Note: missing data in SAS are denoted by a dot (.). The ratio of nitrogen to phosphorus has been calculated and is saved under the variable NPRATIO. NPRATIO determines the limiting nutrient in the lake system as follows.

NPRATIO < 10	Nitrogen limited lake.	TSITN NE .
10 < NPRATIO < 30	Nutrient balanced lake.	TSIINT NE .
NPRATIO > 30	Phosphorus limited lake.	TSITP NE .

Next are listed 41 water quality variables. Not all variables were collected by each data source. It would be helpful to dump the data from a source before including a variable in an analysis.

Under the subset "Time and Space Variables" are listed the time and date an observation was collected plus lake drainage and surface areas. The surface and drainage areas were collected by four different groups:

1. Surface area and drainage areas from the 1969 Florida Lakes Gazetteer.

2. Surface areas and drainage areas from the 1980 publication D.W. Foose, Geological Survey Report, 81-482, "Drainage areas of Selected Sites in Florida" by the USGS.

3. The 1979-1981 USGS-FDER study of 96 Florida lakes. This also includes lake volumes.

4. The National Eutrophication Survey study of 40 Florida lakes. This data set also includes lake volumes under the variable name - VOLNES.

Macrophyte coverage data were collected by the Department of Natural Resources (DNR) on 340 Florida lakes during 1979. Their report was the sole source of macrophyte areal data. They surveyed more than 12 species of plant cover, but only 12 were included in this data base because of either their importance and/or frequency among the surveyed lakes. There are 15 macrophyte variables. The lake surface area recorded under variable LAKEAREA was taken from the 1969 Florida Lake Gazetteer and is not a new measurement.

There are eight land use variables listed in the land use subset. The data were obtained from the digitized land use map of Florida prepared by FSU/DER. These variables are explained more fully in Chapter 4 and Appendix G.

FILE 1 DESCRIPTION

File 1 of the magnetic tape contains lake data by observation. There are 105 different variables in File 1. File 1 has variable subsets:

1. Character variables
2. Selected nutrient variables
3. Water quality variables
4. Time and space variables
5. Macrophyte variables
6. Landuse variables

FILE 2 DESCRIPTION

File 2 of the magnetic tape contains the means, by lake, of the variables in File 1. Thus, File 2 has more variables but fewer observations than 1. File 2 has 131 different variables. This file will probably be used frequently in analyses and has the following variable subsets:

1. Character variables
2. Selected nutrient values
3. Water quality variables
4. Time and space variables
5. Macrophyte variables
6. Land use variables
7. Statistical variables
8. Trophic state variables

The mean data set does not contain values for most of the character variables, except for lake and county names. Thus, the data source code, SOURCE, is missing from File 2. Those users interested in only certain subsets of the Florida Lake Data Base should write a subsetting program in SAS to select those sources from File 1 of the magnetic tape. The SAS Procedure, PROC MEANS, can then be used to create a new mean data set.

The following SAS program was used to create the mean data set on a disk data set.

```
//   EXEC SAS,SPACE=800
//SAVE   DD UNIT=TAPE9,LABEL=(4,NL),DISP=(OLD),VOL=SER=SWM92
//SAVER   DD UNIT=SYSDA,DSN=UF.A0063473.LAKE.MEAN,DISP=(NEW,CATLG),
//   SPACE=(TRK,(20,10),RLSE)
DATA LAKER ;
SET SAVE.LAKE ;
*** ;
```

```
PROC MEANS NOPRINT ; BY COUNTY LAKE ;
VAR
TN TOTP SECCHI COLOR CHLA TURB YEAR ORGN TKN ORTHOP04 NO2NO3 NH3  COND DO
BOD5 PH CO2 CO3 HCO3 NCH CAHARD HARDNESS RESIDUE FRESIDUE NRESIDUE
DISSOL TC INORGC ORGC SI SODIUM ALK PALK MAGNES CA AL DISSO2 SIO
SULFATE CHLORIDE LIGTAN COD TSOLIDS FLUORIDE MONTH DAY  SALINITY
TEMP DEPTH SS VSS STAGE PHAEO POTASS IRON COPPER ZINC SURFAREA
DRNAREA VOLUME ELEV LAT LONG JULIAN LAKEAREA HYACINTH PANICUMR
PANICUMH PANICUMG SPATTERD NAIADS HYDRILLA LILY BLADWORT PONTEDER TYPHA
WATERMIL TOTWDS COVER TIME HYDRO URBAN AGRICUL FOREST WATER WETLANDS
SURFNES AVEDEPTH MAXDEPTH VOLNES SAGAZZ LAKETYPE LATGZ LONGGZ SURF80
ELEV80 AREA80 DRAIN TOTLAND ;
ID
R1 R2 R3 R4 ;
OUTPUT OUT = SAVER.LAKE
N = N1 N2 MIN = MNTN MNTP MNSD MNCOL MNCHLA MNTURB MNYR
      STD = STDTN STDTP STDSD STDCOL STDCHLA STDTURB
          MAX = MXTN MXTP MXSD MXCOL MXCHLA MXTURB MXYR MEAN =
TN TOTP SECCHI COLOR CHLA TURB YEAR ORGN TKN ORTHOP04 NO2NO3 NH3  COND DO
BOD5 PH CO2 CO3 HCO3 NCH CAHARD HARDNESS RESIDUE FRESIDUE NRESIDUE
DISSOL TC INORGC ORGC SI SODIUM ALK PALK MAGNES CA AL DISSO2 SIO
SULFATE CHLORIDE LIGTAN COD TSOLIDS FLUORIDE MONTH DAY  SALINITY
TEMP DEPTH SS VSS STAGE PHAEO POTASS IRON COPPER ZINC SURFAREA
DRNAREA VOLUME ELEV LAT LONG JULIAN LAKEAREA HYACINTH PANICUMR
PANICUMH PANICUMG SPATTERD NAIADS HYDRILLA LILY BLADWORT PONTEDER TYPHA
WATERMIL TOTWDS COVER TIME HYDRO URBAN AGRICUL FOREST WATER WETLANDS
SURFNES AVEDEPTH MAXDEPTH VOLNES SAGAZZ LAKETYPE LATGZ LONGGZ SURF80
ELEV80 AREA80 DRAIN TOTLAND ;
```

FILE 3 DESCRIPTION

File 3 is a copy of the fish kill data for Florida lakes. These data were obtained from the STORET fish kill file. The variables of File 3 are:

FISHKILL	NUMBER OF FISH KILLED.
LAT	LATITUDE OF COUNTY CENTER.
LONG	LONGITUDE OF COUNTY CENTER.
LAKE	LAKE NAME.
COUNTY	COUNTY NAME.
GAME	PERCENT GAME FISH KILLED.
NONGAME	PERCENT NONGAME FISH KILLED.
YEAR	YEAR OF FISHKILL.
MONTH	MONTH OF FISHKILL.
DAY	DAY OF FISHKILL.

FILE 4 DESCRIPTION

File 4 is a listing of municipal discharges into Florida lakes. The variables of File 4 are:

LAKE	LAKE NAME.
COUNTY	COUNTY NAME.
GMSID	IDENTIFICATION NUMBER.
FLOW	STP OUTFLOW, MGD.
FLOWTYPE	TREATMENT LEVEL 2 - SECONDARY 3 - TERTIARY

FILE 5 DESCRIPTION

File 5 is a listing of industrial discharges into Florida lakes. It was not possible to obtain waste flow information on the industrial dischargers. The variables in File 5 are:

LAKE	LAKE NAME.
COUNTY	COUNTY NAME.
INDUSTRY	INDUSTRIAL DISCHARGER FIRM NAME.

FILE 6 DESCRIPTION

File 6 is a listing of boat ramp information on 199 Florida lakes. The variables in File 6 are:

LAKE	LAKE NAME.
COUNTY	COUNTY NAME.
R1	FIRST GAZETTEER REMARK CODE.
R2	SECOND GAZETTEER REMARK CODE.
R3	THIRD GAZETTEER REMARK CODE.
R4	FOURTH GAZETTEER REMARK CODE.

The remarks were copied from the 1969 edition of the Florida Lakes Gazetteer. (The remarks are not available on the current edition of the Gazetteer.) The remark codes work in the following way. Combine the four remark codes in the order R1-R2-R3-R4. The groupings with meaning are:

CA	Combined access to the lake. Public and private boat ramps.
RP	Private ramp.
AP	Private access.
R	Public ramp.
A	Public access.
M	Meandering in original land survey of Florida.
G	USGS gaged lake.

FILE 7 DESCRIPTION

File 7 contains a subset of the digitized Florida land use maps that were used in Chapter 4 to generate the predicted phosphorus and nitrogen loads. The variables of File 7 are:

HYDRO	HYDROLOGIC UNIT NUMBER.
URBAN	URBAN AREA IN HYDROLOGIC UNIT, ACRES.
AGRICUL	AGRICULTURAL AREA, ACRES.
WATER	OPEN WATER AREA, ACRES.
WETLANDS	WETLAND AREA, ACRES.
FOREST	FORESTED AREA, ACRES.
TOTLAND	TOTAL LAND AREA IN THE HYDROLOGIC UNIT NUMBER.

FILE 8 DESCRIPTION

File 8 is a copy of the current edition of Florida Lake Gazetteer. This is approximately the same as the version published in 1969 and contains information on 3189 named and 4129 unnamed Florida lakes . This totals to 7318 lake names which is not to imply that there are a total of 7318 lakes in the State. There are 210 lake names that refer to two or more multiple lakes. Including the multiple lakes gives the frequently quoted number of 7712 Florida lakes. The variables of File 8 and their meaning are:

LAKE.	LAKE NAME.
COUNTY.	COUNTY NAME.
SURFAREA.	LAKE SURFACE AREA, ACRES.
ELEVATE.	LAKE ELEVATION, FEET.
LAKETYPE.	LAKETYPE 1 - INFLOW ONLY 2 - OUTFLOW ONLY 3 - INFLOW-OUTFLOW 4 - LANDLOCKED
LAT.	LAKE LATITUDE.
LONG.	LAKE LONGITUDE.
TOPONO.	TOPOGRAPHIC UNIT NUMBER.
LOCATE.	SECTION - TOWNSHIP - RANGE OF THE LAKE.

STORET DATA RETRIEVAL

Selected lake water quality data from the EPA STORET computer system for Florida lakes were retrieved by the University of Florida using the RET program of STORET. STORET is a computerized data base maintained by the US EPA at the North Carolina Computer Center (NCCC).

A magnetic tape containing the Florida lake data was purchased by U.F. from the NCCC. The following STORET program transferred 45 water quality parameters to the magnetic tape, which was then mailed to the University of Florida for entry into an SAS data base.

```
PGM=RET, MORE=5, PURP=105/ACA, STC=12, EXTRACT=AMBNT AND LAKE,
P=10, P=11, P=65, P=70, P=75, P=77, P=80, P=95, P=300,
P=301, P=310, P=400, P=405, P=410, P=440, P=445, P=600,
P=605, P=608, P=610, P=613, P=615, P=618, P=620, P=625,
P=660, P=665, P=660, P=685, P=630, P=650, P=690, P=900,
P=902, P=31501, P=31616, P=31679, P=70300, P=70301,
P=71846, P=71851, P=71856, P=71887, P=71886,
```

The SAS program listed in Table C-5 was then used at the University of Florida to read the magnetic tape and enter the data into a SAS data set.

TROPHIC STATE INDEX CALCULATIONS

An important part of the overall project was the calculation of trophic state index (TSI) for those lakes with sufficient nutrient information. The following SAS program was used to generate the TSI's for 573 Florida lakes.

```
//SAVE  DD UNIT=SYSDA,DISP=OLD,DSN=UF.A0063473.LAKE.MEAN
OPTIONS NONUMBER NODATE ;
DATA LAKER ;
SET SAVE.LAKE ;
IF TOTP = .  AND TN = .  THEN DELETE ;
*** ;
NPRATIO = TN / TOTP ;
TOTP = TOTP * 1000.0 ;
*** ;
IF N2 EQ 0 AND TN NE .  THEN  DO ;
TSITN = 10.0 * ( 5.966 + 2.15 * LOG(TN) ) ;
END ;
*** ;
IF N1 EQ 0 AND TOTP NE .  THEN DO ;
TSITP = 10.0 * ( 2.36 * LOG(TOTP) - 2.38 ) ;
END ;
*** ;
*** ;
NUMB = MAX ( N1 ,N2 ) ;
*** ;
TSICL = 16.8 + 14.4 * LOG(CHLA) ;
TSISD = ( 60.0 - 30.0 * LOG(SECCHI) ) ;
*** ;
IF NPRATIO NE .  THEN DO ;
*** ;
IF NPRATIO LE 10.0 THEN DO ;
TSITN = 10.0 * ( 5.96 + 2.15 * LOG(TN) ) ;
TSITP = . ;
TSIINT = . ;
END ;
*** ;
IF NPRATIO GE 30.0 THEN DO ;
TSITP = 10.0 * ( 2.36 * LOG(TOTP) - 2.38 ) ;
TSITN = . ;
TSIINT = . ;
END ;
*** ;
IF NPRATIO LT 30.0 AND NPRATIO GT 10.0 THEN DO ;
TSIINT = 5 * ( 5.6 + 1.98 * LOG(TN) - 1.84 + 1.86 * LOG(TOTP) ) ;
TSITN = . ;
TSITP = . ;
END ;
*** ;
END ;
*** ;
IF NPRATIO EQ .  AND TOTP NE .  THEN TSIINT = 10.0 *
                                    ( -1.84 + 1.86 * LOG(TOTP) ) ;
IF NPRATIO EQ .  AND TN   NE .  THEN TSIINT = 10.0 *
                                    (5.6 + 1.98 * LOG(TN) ) ;


 TSI = MEAN( TSICL,TSISD,TSIINT,TSITN,TSITP ) ;
```

Table C-5. Program to Access STORET Data Stored on UF Computer.

```
0000 //FLLAKE  JOB (1006,3478,50,2,0),'BOB DICKINSON',CLASS=2
0001 /*PASSWORD
0002 /*ROUTE  PRINT REMOTE0
0003 /*SETUP        TAPE9,1
0004 //  EXEC SAS
0005 //GAZZ  DD UNIT=TAPE9,DISP=OLD,LABEL=(1,NL),
0006 //  DCB=(RDPT=ACC,RECFM=VB,LRECL=305,BLKSIZE=6180),VOL=SER=FLAKE
0007 //SAVE  DD UNIT=SYSDA,DISP=(NEW,CATLG),SPACE=(TRK,(25,25),RLSE),
0008 //  DSN=UF.A0063473.S1.STORET2
0009 *** ;
0010 ***    SAVE THE DATA READ FROM THE STORET TAPE INTO THE
0011 ***         DATA SET THAT BEGINS WITH THE DDNAME SAVE
0012 *** ;
0013 DATA SAVE.LAKE ;
0014 INFILE GAZZ ;
0015 ARRAY T $ 10 T1-T12 ;
0016 ARRAY P P1-P44 ;
0017 LENGTH DESCRIPT $ 100. ;
0018 ***  ;
0019 ***   READ THE TWENTY PARAMETER DATA LINES  ;
0020 ***        THESE ARE THE PARAMETER DESCRIPTOR LINES THAT DESCRIBE
0021 ***             THE STORET CODES SAVED ON THE TAPE ;
0022 ***                                          ;
0023 DO I = 1 TO 20 ;
0024 *** ;
0025 ***    THERE ARE TEN PARAMETERS PER LINE - MAXIMUM ;
0026 ***  ;
0027 INPUT T1 26-35 T2 36-45 T3 46-55 T4 56-65 T5 66-75 T6 76-85
0028       T7 86-95 T8 96-105 T9 106-115 T10 116-125 T11 126-135
0029       T12 136-145 ;
0030 PUT T1 1-10 T2 11-20 T3 21-30 T4 31-40 T5 41-50
0031     T6 51-60 T7 61-70 T8 71-80 T9 81-90 T10 91-100
0032     T11 101-110 T12 111-120 ;
0033 END;
0034 DROP T1-T12 ;
0035 *** ;
0036 ***  READ THE DELIMITER CARD ;
0037 *** ;
0038 INPUT ;
0039 *** ;
0040 ***  READ THE ACTUAL DATA VALUE RECORDS ;
0041 *** ;
0042 DO J = 1 TO 90000 ;
0043 INPUT AGENCY $ 1-8 STATION $ 9-23 HELL 24-25 YY $ 26-27 @ ;
0044 *** ;
0045 *** IF COLUMNS 24-25 IS 99 READ THE STATION DATA RECORDS ;
0046 ***  THERE ARE 50 PARAMETERS ON A RECORD ;
0047 *** ;
0048 IF HELL = 99 THEN DO ;
0049 *** ;
0050 *** IF THE YEAR = 99 THEN THE DATA DELIMITER RECORD HAS BEEN READ ;
0051 *** ;
0052 IF YY = '99' THEN DO ;
0053 DROP YY ;
0054 INPUT ;
0055    END;
```

Table C-5. (continued.)

```
0056 ***  ;
     ***   IF THE YEAR IS NOT 99 THEN AN ACTUAL DATA RECORD HAS BEEN READ ;
0058 ***  ;
0059 ELSE DO ;
0060 INPUT @ 26 DATE YYMMDD6. TIME 32-35 P1 RB4. P2 RB4. P3 RB4. P4 RB4.
0061 P5 RB4. P6 RB4. P7 RB4. P8 RB4. P9 RB4. P10 RB4. P11 RB4.
0062 P12 RB4. P13 RB4. P14 RB4. P15 RB4. P16 RB4. P17 RB4. P18 RB4. P19 RB4.
0063 P20 RB4. P21 RB4. P22 RB4. P23 RB4. P24 RB4. P25 RB4. P26 RB4. P27 RB4.
0064 P28 RB4. P29 RB4.
0065 P30 RB4. P31 RB4. P32 RB4. P33 RB4. P34 RB4. P35 RB4. P36 RB4. P37 RB4.
0066 P38 RB4. P39 RB4.
0067 P40 RB4. P41 RB4. P42 RB4. P43 RB4. P44 RB4 . ;
0068 ***  ;
0069 DO OVER P ;
0070 IF P < 1.0E-10 THEN P = . ;
0071 END ;
0072 ***  ;
0073 ***  ;
0074 ***    IF THERE ARE NUTRIENTS OR CHLOROPHYL OR SECCHI DISK OR COLOR
0075 ***              OR TURBIDITY ON THE DATA LINE JUST READ THEN SAVE
0076 ***              IT ON THE DISC DATA SET ;
0077 ***  ;
0078 ***  ;
0079 IF P4 = . AND P5 = . AND P6 = . AND P7 = . AND P17 = .
0080    AND P18 = . AND P19 = . AND P20 = . AND P21 = . AND P22 = .
0081    AND P23 = . AND P24 = . AND P25 = . AND P26 = . AND P27 = .
0082    AND P30 = . AND P31 = . AND P40 = . AND P41 = . AND P42 = .
0083    AND P43 = . AND P44 = . THEN DO ;
0084                            END ;
0085 ***  ;
0086 ***  ;
0087    ELSE DO ;
0088    DROP P10 P35 P36 P37 ;
0089    DROP HELL I J ;
0090 ***  ;
0091 ***   RENAME ALL THE VARIABLES TO MAKE THEM SOMEWHAT MORE UNDERSTANDABLE ;
0092 ***   ;
0093    RENAME   P1 = TEMPC P2 = TEMPF P3 = STAGE P4 = TURR P5 = TURBH
0094             P6 = SECCHI  P7 = COLOR  P8 = COND P9 = DO P11 = BOD5
0095             P12 = PH P13 = CO2 P14 = TALK P15 = HCO3 P16 = CO3
0096             P17 = TOTN P18 = ORGN  P19 = DNH3 P20 = TNH3
0097             P21 = DNO2 P22 = NO2 P23 = DNO3 P24 = NO3 P25 = TKN
0098             P26 = ORTHOPO4 P27 = TOTP P28 = TORGC P29 = TINORGC
0099             P30 = NO2NO3 P31 = TOTPPO4 P32 = TOC P33 = TH P34 = NCH
0100             P38 = RESIDUE P39 = DISSOL P40 = DNH4 P41 = DASNO3
0101             P42 = DASNO2  P43 = TOTNNO3 P44 = TOTPO4 ;
0102 ***  ;
0103    IF J > 60000 THEN OUTPUT ;
0104    END ;
0105 ***  ;
     ***  THE ABOVE END IS THE END FOR THE DO OVER P STATEMENT ;
     ***  ;
0108 ***  ;
```

Table C-5. (continued.)

```
0109 ***  ;
0110 END ;
0111 ***  ;
0112 ***   THIS IS THE END FROM THE ELSE DO OF THE NON 99 YEAR ;
0113 ***  ;
0114 ***   THIS IS THE END FROM THE IF HELL = 99 THEN CARD ;
0115 END;
0116 ***   IF COLUMNS 24-25 ARE NOT 99 THEN READ THE STATION DESCRIPTION CARDS
0117 ELSE DO ;
0118 IF HELL = 2 THEN INPUT @26 LATD LATM LATS LONGD LONGM LONGS ;
0119 IF HELL = 3 THEN INPUT DESCRIPT $ 26-145 ;
0120 ***  ;
0121 ***     LOCATE GIVES THE COUNTY IN WHICH THE LAKE IS LOCATED ;
0122 ***  ;
0123 IF HELL = 4 THEN INPUT @26 LOCATE ;
0124 IF HELL =1 OR HELL > 4 THEN INPUT ;
0125 END    ;
0126 *** THIS IS THE END FROM THE J = 1 TO 40000 CARD ;
0127 END ;
0128 ***  ;
0129 STOP ;
0130 PROC PRINT ;
0131 /*
```

PHOSPHORUS AND NITROGEN LOADINGS

The following program was used to generate a predicted phosphorus and nitrogen concentration for 310 Florida lakes. The model used was Vollenweider's original 1969 model with the sedimentation coefficient set equal to zero. It was not assumed that there was no sedimentation loss but rather that the overall average of Florida lakes was balanced between lakes with phosphorus loss to the sediments and lakes in which phosphorus was released from the lake sediments.

```
//  EXEC SAS,PLOT=
//SAVE  DD UNIT=SYSDA,DISP=OLD,DSN=UF.A0063473.LAKE.MEAN
OPTIONS NONUMBER NODATE PS=70 ;
◆◆◆ ;
DATA LAKERS ;
LENGTH COUNTY $ 20. LAKE $ 20. ;
◆◆◆ ;
INPUT LAKE &$ COUNTY &$ INDUSTRY ;
◆◆◆ ;
CARDS ;
ALLIGATOR   OSCEOLA    1
APOPKA   ORANGE   3
BANANA  POLK   1
BEAUCLAIR   LAKE   1
BLUE CYPRESS  INDIAN RIVER   7
YALE   LAKE    4
THONOTOSASSA   HILLSBOROUGH  4
TOHOPEKALIGA   OSCEOLA  2
HANCOCK  POLK  5
HARRIS   LAKE  2
JESSUP   SEMINOLE  2
MONROE  VOLUSIA  3
LENA  POLK   4
PARKER  POLK  3
CATHERINE  LAKE  2
GRIFFIN  LAKE  2
DENHAM  LAKE  1
TROUT  LAKE  1
EUSTIS  LAKE  1
LOTELA  HIGHLANDS  1
REEDY  POLK  1
FAIRVIEW  ORANGE  1
HAINES   POLK   1
MINNEOLA  LAKE  1
PROC SORT ; BY COUNTY LAKE ;
◆◆◆ ;
```

```
DATA LAKE1 ;
SET SAVE.LAKE ;
IF TOTLAND = . THEN DELETE ;
♦♦♦ ;
♦♦♦ ;
DATA LAKER ;
SET LAKE1 ;
♦♦♦ ;
WATER = WATER / 2.471 ;
WETLANDS = WETLANDS / 2.471 ;
FOREST = FOREST / 2.471 ;
URBAN = URBAN / 2.471 ;
AGRICUL = AGRICUL / 2.471 ;
TOTLAND = TOTLAND / 2.471 ;
♦♦♦ ;
♦♦♦ ;
IF AREA80 NE . THEN DA = AREA80 ;
IF DA EQ . AND DRAIN NE . THEN DA = DRAIN ;
IF DA EQ . AND DRNAREA NE. THEN DA = DRNAREA ;
IF DA NE . THEN DA = DA / 2.471 ;
IF DA EQ . AND TOTLAND NE. THEN DA = TOTLAND ;
♦♦♦ ;
♦♦♦♦     CORRECT FOR INCORRECT TOTLAND AREAS ♦♦♦♦ ;
♦♦♦♦ ;
IF DA GT 1.2 ♦ TOTLAND OR DA LT 0.8 ♦ TOTLAND THEN DO ;
FOREST = FOREST ♦ DA / TOTLAND ;
URBAN  = URBAN ♦  DA / TOTLAND ;
AGRICUL= AGRICUL♦ DA / TOTLAND ;
WATER  = WATER  ♦ DA / TOTLAND ;
WETLANDS= WETLANDS ♦ DA / TOTLAND ;
TOTLAND = DA ;
♦♦♦♦;
END ;
♦♦♦ ;
DEVELOP = 100.0 ♦ ( URBAN + AGRICUL ) / ( TOTLAND - WATER ) ;
♦♦♦ ;
♦♦♦
   PLOAD AND NLOAD UNITS ARE KG/YR .
   THE COEFS ARE IN UNITS OF KG/HECTARE/YEAR
♦♦♦    ;
PLOAD = .67 ♦ AGRICUL + .51 ♦ WATER + .82 ♦ URBAN + .25 ♦ WETLANDS
        + .32 ♦ FOREST ;
NLOAD = 20.6 ♦ AGRICUL + 7.5 ♦ WATER + 5.67 ♦ URBAN + 5.46 ♦ WETLANDS
        + 2.19 ♦ FOREST ;
♦♦♦ ;
IF SURF80 EQ 0 THEN SURF80 = . ;
IF SURFAREA EQ 0 THEN SURFAREA = . ;
IF SURF80 NE . THEN SA = SURF80 ;
IF SA EQ . AND SURFAREA NE . THEN SA = SURFAREA ;
IF SA EQ . AND SURFNES NE . THEN SA = SURFNES ;
IF SA EQ . AND SAGAZZ NE . THEN SA = SAGAZZ ;
IF SA EQ . AND LAKEAREA NE . THEN SA = LAKEAREA ;
♦♦♦ ;
SA = SA / 2.471 ;
♦♦♦ ;
PROC SORT ; BY COUNTY LAKE ;
♦♦♦ ;
DATA LAKES ;
MERGE LAKER LAKERS ;
BY COUNTY LAKE ;
♦♦♦ ;
```

```
/*INCLUDE GMSID
/*INCLUDE MUNICIPA
***;
DATA MERGER;
MERGE MUNIC(IN=INA) GMSID;
BY GMSID;
IF INA = 1;
***;
***;
DATA MERGE1;
SET MERGER;
***;
IF FLOWTYPE = 2 THEN DO;
NIT = 16.0;
PHO = 7.0 ;
END;
IF FLOWTYPE = 3 THEN DO;
NIT = 2.0;
PHO = 1.0;
END;
***;
POINTLN = FLOW * 365.0 * 3.785 * NIT;
POINTLP = FLOW * 365.0 * 3.785 * PHO;
***;
FLOW = 12.0 * FLOW * 365.0 * 3.068;
***;
PROC SORT; BY COUNTY LAKE;
***;
PROC MEANS NOPRINT ; BY COUNTY LAKE;
VAR POINTLN POINTLP FLOW;
OUTPUT OUT = NEW SUM = POINTLN POINTLP FLOW;
***;
DATA MERGE2;
MERGE LAKES NEW;
BY COUNTY LAKE;
***;
DATA NEWER;
SET MERGE2;
***;
IF(COUNTY EQ 'ALACHUA' ) THEN RUNOFF = 12.5 ;
IF ( COUNTY = 'OKEECHOBEE' ) THEN RUNOFF = 7.5;
IF(COUNTY EQ 'BAKER' ) THEN RUNOFF = 12.5 ;
IF(COUNTY EQ 'BAY' ) THEN RUNOFF = 22.5 ;
IF(COUNTY EQ 'BRADFORD' ) THEN RUNOFF = 22.5 ;
IF(COUNTY EQ 'BREVARD' ) THEN RUNOFF = 15 ;
IF(COUNTY EQ 'BROWARD' ) THEN RUNOFF = 7.5 ;
IF(COUNTY EQ 'CALHOUN' ) THEN RUNOFF = 22.5 ;
IF(COUNTY EQ 'CITRUS' ) THEN RUNOFF = 7.5 ;
IF(COUNTY EQ 'CLAY' ) THEN RUNOFF = 12.5 ;
IF(COUNTY EQ 'COLLIER' ) THEN RUNOFF = 7.5 ;
IF(COUNTY EQ 'COLUMBIA' ) THEN RUNOFF = 22.5 ;
IF(COUNTY EQ 'DADE' ) THEN RUNOFF = 7.5 ;
IF(COUNTY EQ 'DESOTO' ) THEN RUNOFF = 12.5 ;
IF(COUNTY EQ 'DIXIE' ) THEN RUNOFF = 12.5 ;
IF(COUNTY EQ 'ESCAMBIA' ) THEN RUNOFF = 27.5 ;
IF(COUNTY EQ 'FLAGLER' ) THEN RUNOFF = 12.5 ;
IF(COUNTY EQ 'FRANKLIN' ) THEN RUNOFF = 22.5 ;
IF(COUNTY EQ 'GADSDEN' ) THEN RUNOFF = 17.5 ;
IF(COUNTY EQ 'GLADES' ) THEN RUNOFF = 7.5 ;
IF(COUNTY EQ 'GULF' ) THEN RUNOFF = 22.5 ;
IF(COUNTY EQ 'HAMILTON' ) THEN RUNOFF = 17.5 ;
IF(COUNTY EQ 'HARDEE' ) THEN RUNOFF = 12.5 ;
IF(COUNTY EQ 'HENDRY' ) THEN RUNOFF = 7.5 ;
IF(COUNTY EQ 'HERNANDO' ) THEN RUNOFF = 20 ;
IF(COUNTY EQ 'HIGHLANDS' ) THEN RUNOFF = 7.5 ;
IF(COUNTY EQ 'HILLSBOROUGH' ) THEN RUNOFF = 12.5 ;
```

```
IF(COUNTY EQ 'HOLMES' ) THEN RUNOFF = 22.5  ;
IF(COUNTY EQ 'INDIAN RIVER' ) THEN RUNOFF = 17.5  ;
IF(COUNTY EQ 'JACKSON' ) THEN RUNOFF = 22.5  ;
IF(COUNTY EQ 'JEFFERSON' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'LAFAYETTE' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'LAKE' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'LEE' ) THEN RUNOFF = 7.5  ;
IF(COUNTY EQ 'LEON' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'LEVY' ) THEN RUNOFF = 7.5  ;
IF(COUNTY EQ 'LIBERTY' ) THEN RUNOFF = 22.5  ;
IF(COUNTY EQ 'MADISON' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'MANATEE' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'MARION' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'MARTIN' ) THEN RUNOFF = 7.5  ;
IF(COUNTY EQ 'OKALOOSA' ) THEN RUNOFF = 27.5  ;
IF(COUNTY EQ 'ORANGE' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'OSCEOLA' ) THEN RUNOFF = 10  ;
IF(COUNTY EQ 'PALM BEACH' ) THEN RUNOFF = 7.5  ;
IF(COUNTY EQ 'PASCO' ) THEN RUNOFF = 20  ;
IF(COUNTY EQ 'PINELLAS' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'POLK' ) THEN RUNOFF = 10  ;
IF(COUNTY EQ 'PUTNAM' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'SANTA FE' ) THEN RUNOFF = 22.5  ;
IF(COUNTY EQ 'SARASOTA' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'SEMINOLE' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'SUMTER' ) THEN RUNOFF = 7.5  ;
IF(COUNTY EQ 'SUWANNEE' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'TAYLOR' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'UNION' ) THEN RUNOFF = 22.5  ;
IF(COUNTY EQ 'VOLUSIA' ) THEN RUNOFF = 12.5  ;
IF(COUNTY EQ 'WAKULLA' ) THEN RUNOFF = 17.5  ;
IF(COUNTY EQ 'WALTON' ) THEN RUNOFF = 22.5  ;
IF(COUNTY EQ 'WASHINGTON' ) THEN RUNOFF = 22.5  ;
***  ;
IF FLOW NE . THEN FLOW = FLOW / ( TOTLAND * 2.471 ) ;
RUNOFF = SUM ( RUNOFF , FLOW ) ;
RUNOFF = RUNOFF * .3048 / 12.0 ;
***  ;
***       NATM AND PATM HAVE UNITS OF KG/YR.    *** ;
***  ;
PATM = .51 * WATER ;
NATM = 7.5 * WATER ;
***  ;
PLOAD = SUM (PLOAD,POINTLP) ;
NLOAD = SUM (NLOAD,POINTLN) ;
***  ;
PATM = 100.0 * PATM / PLOAD ;
NATM = 100.0 * NATM / NLOAD ;
***  ;
NPOINT = 100.0 * POINTLN / NLOAD ;
PPOINT = 100.0 * POINTLP / PLOAD ;
***  ;
PNPOINT = 100.0 - SUM ( PATM , PPOINT ) ;
NNPOINT = 100.0 - SUM ( NATM , NPOINT ) ;
***  ;
IF TOTP EQ . THEN DELETE ;
***  ;
****
```

```
    CALCULATE THE PREDICTED PHOSPHORUS AND NITROGEN CONCENTRATIONS
*** ;
***  ;
PRTP = PLOAD * 0.10 / SA ;
PRTN = NLOAD * 0.10 / SA ;
OS   = RUNOFF * TOTLAND / SA ;
*** ;
TOTP = TOTP / 1000.0 ;
TOTP = LOG(TOTP) ;
PRTP = LOG(PRTP) ;
PRTN = LOG(PRTN) ;
OS   = - LOG(OS) ;
**** ;
GOPTIONS DEVICE = GOULD ;
*** ;
DATA BOB1 ;
SET NEWER ;
IF NPRATIO GT 10.00 THEN DELETE ;
**** ;
PROC GLM ;
MODEL TOTP = PRTP OS / P ;
OUTPUT OUT=BOBBY PREDICTED = PRETP ;
*** ;
PROC GPLOT ;
PLOT TOTP * PRETP = '*' ;
*** ;
TITLE1 PREDICTED VERSUS MEASURED PHOSPHORUS LOG CONCENTRATIONS ;
FOOTNOTE1 NITROGEN LIMITED FLORIDA LAKES ;
LABEL   PRETP = PREDICTED CONCENTRATION OF PHOSPHORUS
        PRTN = PREDICTED CONCENTRATION OF NITROGEN
        TOTP = MEASURED  CONCENTRATION OF PHOSPHORUS
        TN   = MEASURED  CONCENTRATION OF NITROGEN ;
*** ;
DATA BOB2 ;
SET NEWER ;
IF NPRATIO LT 30.0 THEN DELETE ;
*** ;
PROC GLM ;
MODEL TOTP = PRTP OS / P ;
OUTPUT OUT=BOBBY PREDICTED = PRETP ;
*** ;
PROC GPLOT ;
PLOT TOTP * PRETP = '*' ;
*** ;
TITLE1 PREDICTED VERSUS MEASURED PHOSPHORUS LOG CONCENTRATIONS ;
FOOTNOTE1 PHOSPHORUS LIMITED FLORIDA LAKES ;
LABEL   PRETP = PREDICTED CONCENTRATION OF PHOSPHORUS
        PRTN = PREDICTED CONCENTRATION OF NITROGEN
        TOTP = MEASURED  CONCENTRATION OF PHOSPHORUS
        TN   = MEASURED  CONCENTRATION OF NITROGEN ;
*** ;
DATA BOB3 ;
SET NEWER;
IF NPRATIO LT 10.0 OR NPRATIO GT 30.0 THEN DELETE ;
*** ;
PROC GLM ;
MODEL TOTP = PRTP OS / P ;
OUTPUT OUT=BOBBY PREDICTED = PRETP ;
*** ;
PROC GPLOT ;
PLOT TOTP * PRETP = '*' ;
*** ;
TITLE1 PREDICTED VERSUS MEASURED PHOSPHORUS LOG CONCENTRATIONS ;
FOOTNOTE1 NUTRIENT BALANCED FLORIDA LAKES ;
```

SUMMARY

In conclusion, the Florida Lake Eutrophication Data base is available from NERDC on tape volume LAKES. The eight files of the magnetic tape contain the raw data values, the mean data set, and assorted special information pertaining to the preparation of this report. Anyone requiring further information can contact Dr. Wayne C. Huber or Dr. James P. Heaney at the Environmental Engineering Sciences Department of the University of Florida at the following phone numbers: (904) 392-0846 or 392-0840.

APPENDIX D

LABORATORY TECHNIQUES OF VARIOUS LAKE STUDIES

The following tables explain laboratory techniques used to process lake water quality samples for six of the studies described in Chapter 2.

Table D-1. Sampling and Laboratory Techniques for the 55 Lake Study.

PARAMETER	EVALUATIVE METHOD
1. Temperature (water)	Measured by Whitney underwater thermistor thermometer
2. Dissolved Oxygen	Winkler-azide modification (A.P.H.A., 1965)
3. pH	Determined with Beckman Zeromatic or Corning pH meter on samples collected in DO bottles to prevent CO_2 transfer with the atmosphere
4. Acidity	Potentiometric titration to pH 8.3 with 0.01 N NaOH
5. Alkalinity	Potentiometric titration to pH 4.5-5.1 with 0.01 N H_2SO_4
6. Conductivity	Beckman conductivity bridge (A.P.H.A., 1965)
7. Color	Sample is centrifuged for 1 hour. The supernatant is compared against standard chloroplatinate at 425 mμ with a Spectronic 20
8. Turbidity	Hellige turbidimeter (A.P.H.A., 1965)
9. BOD	Undiluted, unseeded samples according to A.P.H.A., (1965)
10. COD	A.P.H.A. (1965)
11. Total Solids	100 ml aliquot evaporated to dryness at 105°C in a tarred evaporating dish (A.P.H.A., 1965)
12. Suspended Solids	A suitable aliquot is filtered through a glass fiber mat in a Gooch crucible and dried at 105°C
13. Chloride	Mercuric nitrate procedure (A.P.H.A., 1965)
14. Sulfate	Turbidimetric method (A.P.H.A., 1965)
15. Cations	Atomic absorption spectrophotometry with a Beckman 979.

Table D-1. (Continued)

PARAMETER	EVALUATIVE METHOD
16. Fluoride	Orion ion specific electrode and Corning Model 10 expanded scale pH meter
17. Silica	Heteropoly blue method for reactive silica (A.P.H.A., 1965)
18. Total Organic Nitrogen	Kjeldahl method (A.P.H.A., 1965)
19. Particulate Organic Nitrogen	200-500 ml aliquot filtered through Millipore 0.8μ filter cover with 5 ml of 2% $MgCO_2$ suspension. The cake is washed and scraped off and nitrogen is determined by Kjeldahl procedure as above
20. Ammonia	Determined by method of Grasshoff (1966) on Technicon AutoAnalyzer. The method involves reaction of ammonia with bromine under controlled pH to yield monobromamine, which reacts with starch and iodide to yield the blue iodine-starch complex
21. Nitrite	The method described by Jenkins (1965) was adapted for the AutoAnalyzer. Nitrite is reacted with sulfanilic acid to form a diazonium ion which is coupled with N-(1-naphthyl)-ethylenediamine dihydrochloride to form a purple-colored azo dye
22. Nitrate	The automated brucine method of Kahn and Brezenski (1967) was modified to produce optimum results on the AutoAnalyzer
23. Orthophosphate	The single reagent molybdenum blue method of Murphy and Riley (1962) was adapted to the AutoAnalyzer
24. Total Phosphate	Samples are autoclaved at 15 psi for one hour in the presence of potassium persulfate and sulfuric acid. The single reagent method of Murphy and Riley (1962) is used to measure the orthophosphate formed by digestion with a Klett colorimeter

Table D-2. Sampling and Laboratory Techniques for the Acid Rain Study.

	PARAMETER	EVALUATIVE METHOD
1.	pH	Orion Model 801 Ionalyzer in the lab. An Orion Model 401 Ionalyzer in the field
2.	Conductivity	Beckman Model RC 16B2 conductivity bridge
3.	Dissolved Oxygen	YSI Model 51A Oxygen Meter, Hydrolab Monitor, or Winkler wet chemical technique
4.	Temperature	YSI Model 51A Oxygen Meter or Hydrolab Monitor
5.	Color	Sample centrifuged and compared against standard chloroplatinate solution at 420 mm on a Bausch and Lomb Spectromic 88
6.	Turbidity	Hach Turbidimeter Model 2424 standardized with formazin suspensions
7.	Alkalinity	Titration with standard acid using color indicators
8.	Total Kjeldahl Nitrogen (TKN)	Manual semi-micro digestion followed by analysis of ammonium on neutralized samples by alkaline phenol method on AutoAnalyzer
9.	Ammonium	Alkaline phenol method on AutoAnalyzer
10.	Nitrate	Cadmium (wire) reduction method on AutoAnalyzer
11.	Total Phosphorus	Sample digested with ammonium sulfate, and measured using the single reagent molybdenum blue test on an unfiltered sample
12.	Orthophosphate	Measured at 880 nm using the molybdenum blue test on a filtered sample
13.	Total Inorganic and Organic Carbon	Measured by combusting samples in a Beckman Model 915 TOC Analyzer with analysis in a Beckman Model 865 Infrared Analyzer TC - IC = OC

Table D-2. (Continued)

PARAMETER	EVALUATIVE METHOD
14. Silica	Molybdenum blue method on Technicon AutoAnalyzer. (Analogous to manual method in APHA 1975).
15. Sulfate	Methylthymol blue method on Technicon AutoAnalyzer
16. Chloride	Ferricyanide method on Technicon Auto-Analyzer
17. Aluminum	Eriochrome Cyanine R Method on Technicon AutoAnalyzer
18. Fluoride	Orion Model 96-09 Specific Ion Electrode
19. Cations (Calcium, Magnesium, Sodium, Potassium)	Varian Model 1200 atomic absorption spectrophotometer

Table D-3. Sampling and Laboratory Techniques for the NES Lakes.

	PARAMETER	EVALUATIVE METHOD
1.	pH	Beckman Electromate portable pH meter
2.	Conductivity	Beckman Model RB3338 conductivity Bridge
3.	Dissolved Oxygen	Titrated with phenylarsine oxide
4.	Dissolved Orthophosphate	Single reagent methods involving colorimetric determination of antimony-phosphomolybdate complex
5.	Total Phosphorus	Persulfate oxidation followed by the above method for dissolved orthophosphate
6.	Nitrite-N	Diazotization of sulfanilamide by nitrite coupled with N-(1-naphthyl)-ethylene diamine
7.	Nitrite-Nitrate-N	Cadmium reduction followed by the above method for Nitrite-N
8.	Nitrate-N	Determined by difference between the preceding two reactions
9.	Ammonia-N	Alkaline phenol hypochlorite reaction producing indophenol blue
10.	Kjeldahl-N	Acid digestion followed by the above procedure for ammonia nitrogen
11.	Total Alkalinity	Methyl orange colorimetric

Table D-4. Sampling and Laboratory Techniques for the Florida Game and Freshwater Fish Commission Study.

PARAMETER	EVALUATIVE METHOD
1. Water clarity	20 cm. black and white, weighted, brass Secchi disk.
2. pH	Beckman Instruments Company Model N portable pH meter.
3. Total and phenol alkalinity	Procedures outlined in 12th edition of Standard Methods, APHA (1965). Titrated with .02 N H_2SO_4. Alchohlic phenolphthalein and mixed methyl-red-bromcresol green used as indicators.
4. Temperature	Precision Scientific Company Thermister.
5. Specific conductivity	Industrial Instruments, Inc., RB 3-327 Solu Bridge.
6. Dissolved oxygen	Iodemetric Method in Standard Methods, except .025 N solution of phenylarsene oxide used instead of sodium thiosulphate.
7. CO_2	Standard Methods using alcoholic phenolphthalein indicator and .045 N sodium carbonate.
8. Total, filterable, and non-filterable residues	Standard Methods. Filtration accomplished using 3-micron millipore filter.
9. Hardness	Calculated from the Mg, Ca, and Fe content of samples as per Standard Methods.
10. Sulphides	Amine-sulphuric acid colorimetric method in Standard Methods. Results recorded as H_2S positive or negative.
11. Sulphates	Turbidimetric method in Standard Methods.
12. Turbidity	Bausch and Lomb Spectronic 20 with 1 inch curettes at 450 nm.
13. Tonnin-lignin	Tungstophosphoric-Molybdophosphoric acid method in Standard Methods. Perkin-Elmer 202 UV-Visible Spectrophotometer with 10 mm. cells used for color determinations.

Table D-4. (continued)

PARAMETER	EVALUATIVE METHOD
14. Ca, Mg, K, Na	Perkin-Elmer 290 atomic absorption spectrophotometer.
15. Chloride	Argentometric method in Standard Methods.
16. Fluoride	Zirconium-Eriochrome cyanine R method in Rainwater and Thatcher (1960).
17. Fe	Phenanthroline method in Standard Methods.
18. Nitrate	Modified brucine-sulfamic acid method as used by the FWPCA (1967). Further modification in that brucine-sulfamic acid was added to the NaCl solution to minimize pipetting error (Kahn and Brezenski, 1967).
19. Ammonia and organic nitrogen	Kjedahl digestion-distillation, Nesslerization of distillate aliquots and absorbance measurements with spectrophotometer. Digestion and recovery made by using copper sulphate-sulfuric acid methods in 10th edition of Standard Methods.
20. Ortho-and total phosphate	Stannous-chloride-molybdate method in Standard Methods.
21. Chlorophyll a	Detailed procedures in Project Report F-21-3, 1968-69.
22. Phaeophytin	
23. Phosphatase	
24. Phtoplankton counts	
25. Benthic invertebrates sampling	

Table D-5. Sampling and Laboratory Techniques for the Aquatic Weeds Study.

PARAMETER	EVALUATIVE METHOD
1. Water clarity	20 cm. black and white Secchi disk.
2. Temperature	Yellow Springs Instrument Company Model 51A oxygen - temperature meter.
3. Specific conductance	Yellow Springs Instrument Company Model 31 conductivity bridge.
4. pH	Orion Model 601A pH meter.
5. Total & phenol alkalinity	By titration with .02 N H_2SO_4 (A.P.H.A. 1976) (403 in 15th edition). Endpoint determination was made by use of Orion 601A pH meter and phenolphthalein and bromcresol green-methyl red indicators.
6. Total & calcium hardness	By titration with HexaVer chelating reagent (Hach Chemical Company, 1975). ManVer hardness indicator and CalVer calcium indicator (Hach Chemical Company, 1975) were used for endpoint determination.
7. Calcium concentration	Calculated from calcium hardness concentration.
8. Magnesium concentration	Calculated from the difference between total and calcium hardness concentrations.
9. Chloride concentration	By titration with .0141 N mercuric nitrate. Diphenylcarbazone used for endpoint determination (A.P.H.A. 1976, 407 B in 15th ed.).
10. Silica concentration	Heteropoly blue method (A.P.H.A. 1976, 425 D in 15th edition.).
11. Total iron concentration	Ferrozine method (Hach C.C. 1975).
12. Total phosphorus concentration	Using procedures of Murphy and Riley (1952) with a persulfate digestion (Menzel and Corwin 1955).
13. Total nitrogen concentration	Modified Kjeldahl technique described by Nelson and Sommers (1975).
Analysis of parameters 14-18 made after water was filtered through a GELMAN TYPE A-E GLASS FIBER FILTER.	
14. Sulfate concentration	Turbidimetric method with SulfaVer IV sulfate reagent (Hach C.C. 1975).
15. Color	Platinum-cobalt method and Nessler tubes (A.P.H.A. 1975, 204A in 15th edition).

Table D-5. (continued)

PARAMETER	EVALUATIVE METHOD
16. Sodium concentration	Flame photometry (A.P.H.A. 1976, 325 B in 15th edition).
17. Potassium concentration	Flame photometry (A.P.H.A. 1976, 322 B in 15th edition).
18. Chlorophyll *a*	Methods of Richards and Thompson (1952) Yentsch and Menzel (1963). Values calculated by equations of Parson and Strickland (1963).

Table D-6. Sampling and Laboratory Techniques Used to Study the Urban Lakes.

PARAMETER	EVALUATIVE METHOD
1. Water clarity	20 cm black and white Secchi disk.
2. Temperature and dissolved oxygen profile	YSI model 54 oxygen - temperature meter.
3. Specific conductance	YSI model 31 conductivity bridge.
4. pH	Orion research ionalyzer model 801.
5. Color	true color was measured using the Perkin-Elmer 552 spectrophotometer at 420 nm after filtering through Whatman GF/A Filter paper (A.P.H.A. 1980, 204B in 15th edition.)
6. Alkalinity	by titration with .02 μ H_2SO_4 with ORION 301 pH meter to a pH of 4.5 (A.P.H.A. 1980, 403 in 15th edition).
7. Turbidity	Hach 2100A turbidimeter (A.P.H.A. 1980, 214 A in 15th edition.)
8. Total phosphorus	persulfate digestion and ascorbic acid (ammonium molybdate) method with colormetric measurement with Perkin Elmer spectrophotometer at 655 nm (A.P.H.A. 1980, 424C, 424F in 15th edition.)
9. Total Kjeldahl nitrogen	semi-micro Kjeldahl digestion with determination of ammonium using phenate method and Technicon Auto Analyzer II SC colorimeter (A.P.H.A. 1980, 420B in 15th edition.)
10. $(NO_3^- + NO_2^-) - N$	cadmium reduction method using Technicon Auto Analyzer II SC colorimeter (A.P.H.A. 1980, 418C in 15th edition.)
11. Total nitrogen	TKN and $(NO_3^- + NO_2^-) - N$ are added.
12. Chloride Cl^-	Autometer Ferricyanide Method using Technicon Auto Anlayzer II SC colorimeter (A.P.H.A. 1980, 407D in 15th edition.)
13. HCO_3^-	calculated from alkalinity and pH measurements (A.P.H.A. 1980, 403 in 15th edition.)

Table D-6. (continued)

PARAMETER	EVALUATIVE METHOD
14. Ca, Mg, Na, K	Flame Photometry Perkin-Elmer model 5000 Atomic Absorption spectrophotometer.
15. Chlorophyll *a*	spectrophotometric determination using trichromatic method (A.P.H.A. 1980, 1002G1 in 15th edition.)
16. Phytoplankton	qualitative identification.

APPENDIX E

CALCULATION OF TOTAL NITROGEN CONCENTRATIONS FROM VARYING REPORTED FORMS OF NITROGEN

The determination of total nitrogen concentration is fundamental to any comprehensive lake study. Nitrogen is present in various organic and inorganic forms, and is found in all lakes, sometimes as the limiting nutrient. Nitrogen levels and fluctuations contribute to a greater understanding of a lake's degree of eutrophication and can serve as indicators of a lake's trophic state. Total nitrogen, together with total phosphorus, Secchi disk depth, and total chlorophyll a, are the basis for trophic state determinations of Florida lakes in this classification project.

Data sources included numerous lake studies with many differing objectives. Some studies investigated a relatively small number of lakes with an in-depth analysis, while others looked at large numbers of lakes from a more general view. Because of this, and the varying purposes of each study, the parameter values taken as a whole were neither consistent, nor complete. Due to the significance of this element, the vast majority of studies did include some measurement of nitrogen concentration. However, nitrogen is present in lakes in various forms, and the reported forms from the data base studies did not coincide with one another. Thus, the problem of consistent total nitrogen determinations from inconsistent reported values became critical.

The forms of nitrogen most often reported included the following:

(all values given in mg/L as Nitrogen)

	Form	STORET Code
1)	Total nitrogen	00600
2)	Total Kjeldahl nitrogen	00625
3)	Total organic nitrogen	00605
4)	Dissolved ammonia nitrogen	00608
5)	Total ammonia nitrogen	00610

	Form	STORET Code
6)	Dissolved nitrite nitrogen	00613
7)	Total nitrite nitrogen	00616
8)	Dissolved nitrate nitrogen	00618
9)	Total nitrate nitrogen	00620
10)	Total (nitrite + nitrate) nitrogen	00630

Total nitrogen is the sum of nitrogen in the forms of organic, ammonia (NH_3), nitrite (NO_2) and nitrate (NO_3). Obviously, if a total nitrogen value was given, this was subsequently used in the trophic state index determinations. A large number of studies did not include total nitrogen values, however, and other measures had to be used to arrive at a value.

Total Kjeldahl nitrogen (TKN) values appeared in many studies. TKN is the sum of total organic nitrogen and ammonia. Where TKN values were given, along with NO_2 and NO_3 values, these were summed to arrive at a total nitrogen value. Where only TKN values were reported, these were simply used as the estimate for total nitrogen. This approximation can be inaccurate, since TKN does not include the inorganic nitrogen forms NO_2 and NO_3. However, nitrate, NO_3, which can reach significant levels in some lakes, can nonetheless be expected to be proportionally smaller when compared to TKN. Nitrate, NO_2, is typically found only in trace amounts in surface waters. Total inorganic nitrogen is the sum of nitrogen in the forms of ammonia, nitrite and nitrate and is generally < 1.0 mg/L as N. In highly eutrophic lakes, total inorganic nitrogen can reach as high as 1.0 mg/L as N, but some of this is as NH_3, which is included in TKN values. Additionally, organic nitrogen is consistently much higher than total inorganic nitrogen throughout the full eutrophic range from oligotrophic to highly eutrophic.

Total organic nitrogen, which includes such compounds as proteins, peptides, nucleic acids, and amines, were sometimes reported, either with or without NO_3, NO_2, and NH_3 values. When inorganic values were available,

these were added to the total organic values to arrive at a total nitrogen value. Where they were missing, the total organic nitrogen figures served as the approximation to total nitrogen to use in the trophic state determination.

Because the lakes being investigated were not generally associated with any wastewater treatment facilities or sewage dumping procedures, it was assumed that nearly all of the inorganic nitrogen was in the dissolved state. Thus, where only dissolved NH_3, NO_2, and NO_3 values were reported, these were approximated as the total NH_3, NO_2, and NO_3 values.

In summary, if a study reported only a total nitrogen or TKN or total organic value, a reasonable estimate of total nitrogen could still be expected. Any additional inorganic values only helped to reduce the error encountered. It should also be pointed out that total nitrogen was only one of four parameters that determine a lake's trophic state index, and thus small errors in nitrogen calculations should be expected to have minimal effects on this index.

APPENDIX F

SUBGROUPINGS OF LAKES USED IN TSI ANALYSIS

Table F-1. Trophic State Index for 326 Phosphorus Limited Lakes in Florida, TN/TP $\geq$ 30.

Table F-2. Trophic State Index for 91 Nitrogen Limited Lakes in Florida, TN/TP $\leq$ 10.

Table F-3. Trophic State Index for 156 Nutrient Balanced Lakes in Florida, 10 < TN/TP < 30.

Table F-4. Florida Lakes Used in Regression Analysis of Chapter 3.

Table F-1. Trophic State Index - Phosphorus Limited Lakes.

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*********************************************************
*   TROPHIC STATE INDEX - PHOSPHORUS LIMITED LAKES      *
*                                                       *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES           *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                   *
*     TSI = MEAN TROPHIC STATE INDEX                    *
*  TSITP  = TROPHIC STATE INDEX FOR PHOSPHORUS LAKES    *
*********************************************************
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSITP
SHIBB	POLK	4	31.1286	87.8360	.	88.1476	87.5302
MAY	POLK	1	36.3750	86.8626	.	92.1096	79.6158
BONNY	POLK	3	30.1761	83.1756	84.1826	83.4790	81.8651
HOWARD	POLK	26	44.8159	80.4176	88.4026	83.3742	69.4761
CENTER	OSCEOLA	3	30.4506	76.9095	.	83.4791	70.3400
MIRROR	POLK	12	36.9513	75.4815	77.8544	79.4148	69.1754
LEELAND	LEE	1	33.3158	74.1025	.	.	74.1025
DRUID	ORANGE	1	48.3333	73.9095	73.3617	80.7944	67.5603
DAN	HILLSBOROUGH	3	77.2920	70.7731	.	.	70.7731
CHEROKEE	ORANGE	1	41.8868	70.7054	73.5867	68.6305	69.8989
MORRISON POND	CITRUS	3	52.8620	70.5335	.	.	70.5335
DEATON	SUMTER	6	69.3665	69.8433	68.8619	79.7265	60.9416
DENHAM	LAKE	3	50.5897	67.2749	.	76.1254	58.4245
LOCHLOOSA	ALACHUA	23	35.3504	66.3293	62.8658	65.8677	70.2544
CHARLES	MARION	2	32.3229	66.0372	.	.	66.0372
SPRING	POLK	12	30.6505	65.5383	67.8315	59.5238	69.2595
RUSSELL	OSCEOLA	5	33.0595	65.2451	49.8850	77.4590	68.3912
BAMBI	DADE	1	48.0000	64.2541	72.3642	57.1407	63.2576
LITTLE LAKE HARRIS	LAKE	13	42.1127	64.0424	.	58.6006	69.4842
MARION	POLK	70	47.3285	63.9110	60.9670	67.1284	63.6377
GREENSHAW	HILLSBOROUGH	4	40.3904	63.7763	.	.	63.7763
WINTERSET	POLK	26	38.6539	63.7653	68.8555	58.0316	64.4090
UNNAMED	MARION	2	80.2984	63.2575	.	.	63.2575
HARRIS	LAKE	37	41.0480	63.0923	60.1475	64.7260	64.4035
JOEL	OSCEOLA	2	43.0351	63.0053	61.3110	72.4473	55.2577
MARY JANE	ORANGE	66	32.9423	62.9193	51.5367	75.2644	61.9567
MAUDE	POLK	1	32.0588	62.8661	66.0153	63.1608	59.4221
LIPSEY	HILLSBOROUGH	3	53.0786	62.2531	.	.	62.2531
TURKEY POND	HILLSBOROUGH	1	43.7044	61.2041	.	.	61.2041
SILVER	ORANGE	1	38.6667	61.1037	69.7022	57.1407	56.4683
EAGLE	POLK	6	61.3863	60.6180	62.0113	67.9711	51.8716
ROCK	ORANGE	1	34.5238	59.9941	64.5765	50.9969	64.4090
PRESTON	OSCEOLA	2	40.0635	59.8725	57.5983	64.3954	57.6197
ROCHELLE	POLK	7	35.1635	59.7360	57.2554	60.7485	61.2042
BOWLING	PASCO	1	59.1289	58.9549	.	.	58.9549
PIERCE	POLK	28	35.8218	58.6275	60.9009	55.0192	59.9624
PALATKA POND	ALACHUA	5	32.6904	57.5123	51.9447	57.6912	62.9009
MONA	SUMTER	7	36.2970	56.7767	53.2852	56.8392	60.2055
TROUT	OSCEOLA	3	37.5349	56.7311	53.7353	61.0626	55.3953
CRUM	HILLSBOROUGH	3	44.4388	56.6424	.	.	56.6424
LOWERY	POLK	35	37.9382	56.6225	51.2226	57.2163	61.4286
PEARL	ORANGE	2	42.0000	56.4683	.	.	56.4683
SUSANNAH	ORANGE	1	41.3333	56.4683	.	.	56.4683
MCLEOD	POLK	3	47.4886	56.4682	.	.	56.4682
MARION	HILLSBOROUGH	1	76.0000	56.1065	.	75.4802	36.7328
YALE	LAKE	54	35.3618	55.6904	58.2575	48.1188	60.6949
HARTRIDGE	POLK	18	33.1065	55.6702	60.5724	49.5370	56.9013
MYRTLE	OSCEOLA	3	38.5125	55.3830	55.7959	56.6645	53.6886
HARVEY	HILLSBOROUGH	2	42.9784	55.1886	.	.	55.1886
LENA	POLK	5	65.5850	55.1193	.	.	55.1193
MARGARET	PUTNAM	3	35.5083	54.1837	45.2933	70.2278	47.0300
STARVATION	HILLSBOROUGH	8	30.3997	54.0649	.	.	54.0649
CYPRESS POND	MONROE	2	39.2930	53.6886	.	.	53.6886
CONLIN	OSCEOLA	1	46.4445	53.1377	.	61.8627	44.4128
BLUE LAGOON	DADE	1	47.1429	53.0689	57.8502	53.3057	48.0507
FANNIE	POLK	4	30.9896	52.6842	.	.	52.6842
COON	OSCEOLA	2	37.1591	52.3541	52.5627	55.3310	49.1486
WHISTLER	POLK	2	48.3652	52.1655	.	.	52.1655
BIG BASS	MARION	7	73.0509	52.0571	.	57.2150	46.8993
UNATILLA	LAKE	8	39.8598	51.6351	.	.	51.6351
LOUISA	LAKE	31	32.8268	51.5573	40.1008	61.8122	52.7589
PROSPECT	BROWARD	4	32.2271	50.8720	.	.	50.8720
GRASSY	HIGHLANDS	4	46.5714	50.5372	.	.	50.5372
MOUNTAIN	HERNANDO	3	37.8545	50.4565	44.0463	52.9083	54.4148
SUSAN	SUWANNEE	3	61.6287	50.3611	48.5286	64.6801	37.8746
SUE	ORANGE	8	61.3739	50.1977	.	.	50.1977
ALFRED	POLK	3	69.9930	50.1596	.	.	50.1596
SOUTH BASS	DADE	1	42.4000	49.8893	49.6663	47.8360	52.1655
HART	ORANGE	6	55.3694	49.5651	37.7170	66.9879	43.9903

Table F-1. (Continued)

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*********************************************************
*   TROPHIC STATE INDEX - PHOSPHORUS LIMITED LAKES      *
*                                                       *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES           *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                   *
*     TSI = MEAN TROPHIC STATE INDEX                    *
*   TSITP = TROPHIC STATE INDEX FOR PHOSPHORUS LAKES    *
*********************************************************
```

LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSITP
PIERCE	HILLSBOROUGH	1	40.267	49.6543	.	49.430	49.6789
GEORGIA	ORANGE	8	50.327	49.6538	.	.	49.6538
ELLEN	HILLSBOROUGH	1	34.348	49.0531	54.5952	42.366	50.1977
LADY	LAKE	8	38.180	49.0462	.	.	49.0462
WALL	PUTNAM	4	33.061	48.0603	37.7201	50.997	55.4639
CHURCH	LAKE	9	48.684	47.5223	.	.	47.5223
OKAHUMPKA	SUMTER	7	46.953	47.2510	39.5538	55.007	47.1925
FERGUSON	PASCO	2	85.313	46.8995	.	.	46.8995
PITTS POND	LAKE	2	57.410	46.8995	.	.	46.8995
UNNAMED LAKE	HILLSBOROUGH	1	55.304	46.8993	.	.	46.8993
MUD	MARION	1	41.774	46.8993	.	.	46.8993
DISSTON	FLAGLER	4	123.290	46.0393	25.7592	84.579	27.7798
MOODY	PASCO	2	39.728	45.4809	.	.	45.4809
CREWS	PASCO	6	33.715	45.0203	35.2009	48.171	51.6887
OTIS	POLK	5	35.723	44.8458	.	.	44.8458
MAGDALENE	HILLSBOROUGH	27	35.402	44.3534	39.6850	45.900	47.4752
OSCEOLA	ORANGE	3	70.698	44.3413	.	-0.061	88.7437
APSHAWA	LAKE	5	34.493	43.7480	.	.	43.7480
SAXON	PASCO	2	45.484	43.7479	.	.	43.7479
SKY	DADE	1	51.053	43.5412	44.1903	40.744	45.6888
WEST CROOKED	LAKE	8	41.289	43.4572	.	.	43.4572
LITTLE LAKE WEIR	MARION	7	47.246	43.4423	41.2762	43.901	45.1503
LOUISE	DADE	1	54.348	43.4061	40.8150	39.206	50.1977
LIZZIE	OSCEOLA	4	32.248	43.1393	.	34.537	51.7421
HELENE	POLK	4	33.332	42.9770	.	.	42.9770
HOPE	ORANGE	50	31.750	42.7544	.	35.441	50.0678
GOOSE	PASCO	1	62.040	42.5967	.	.	42.5967
HANCOCK	PASCO	1	63.193	42.5967	.	.	42.5967
DEFUNEAK	WALTON	2	31.200	42.5966	.	.	42.5966
CHARITY	ORANGE	50	45.435	42.5748	.	36.845	48.3011
CARR	LEON	3	30.168	42.3629	47.9427	39.710	39.4362
WEIR	MARION	55	45.313	42.3359	43.0197	37.688	46.3005
CORN LANDING	FRANKLIN	3	43.986	40.5436	31.5118	53.306	36.8134
TOWNSEND POND	LAFAYETTE	4	72.023	40.3158	41.5792	51.874	27.4943
CHURCH	HILLSBOROUGH	4	35.304	40.1101	.	.	40.1101
FAITH	ORANGE	50	30.965	39.6092	.	31.608	47.6106
CLEARWATER	ALACHUA	5	47.414	39.1932	31.1028	36.075	50.4020
SADDLEBACK	HILLSBOROUGH	5	39.748	39.1056	.	.	39.1056
JAMONIA	LEON	5	38.824	38.9006	47.3318	35.995	33.3752
FLORENCE	LAKE	2	70.985	38.7613	.	.	38.7613
CALM	HILLSBOROUGH	5	36.921	38.7611	.	.	38.7611
SMITH	WASHINGTON	3	34.634	38.6876	29.8660	48.284	37.9131
LOTELA	HIGHLANDS	12	32.116	38.6445	34.6953	29.427	51.8108
VENUS	ORANGE	1	70.594	37.3303	.	.	37.3303
STILL POND	ALACHUA	5	53.438	37.3150	28.9186	46.659	36.3669
DINNER	HIGHLANDS	6	35.951	36.3419	37.0400	28.059	43.9271
PINE	LAKE	2	63.856	35.8075	.	.	35.8075
MYSTIC	MADISON	3	44.800	35.4365	35.5532	.	35.3197
CATHERINE	LAKE	11	34.316	35.2137	53.5682	-10.586	62.6587
JESSAMINE	ORANGE	3	37.887	34.8520	39.6195	23.091	41.8452
THOMAS	PASCO	5	36.978	34.8439	.	.	34.8439
TIGERTAIL	BROWARD	3	42.982	34.3407	29.9946	.	38.6869
LIVE OAK	OSCEOLA	1	63.200	33.9033	.	37.266	30.5410
LAURENCE EAST	DADE	1	61.250	33.4293	33.5494	25.105	41.6331
CLEAR	PALM BEACH	3	41.283	33.3616	.	17.935	48.7883
STANLEY	WALTON	3	31.079	33.0803	33.9439	32.246	33.0511
PADGETT	PASCO	9	39.171	32.4028	30.0797	23.814	43.3145
SMITH	MARION	3	31.730	32.1545	28.2504	30.910	37.3041
SUN	HOLMES	3	31.077	32.0911	26.5393	.	37.6429
MERIAL	BAY	4	66.596	30.8802	18.7428	.	43.0175
LUCIEN	ORANGE	31	31.120	30.7694	.	20.193	41.3458
CHAPMAN	HILLSBOROUGH	4	103.132	30.5414	.	.	30.5414
DEER	HILLSBOROUGH	1	32.249	30.5414	.	.	30.5414
LONG	HILLSBOROUGH	1	59.124	30.5414	.	.	30.5414
BLANTON	PASCO	1	73.142	30.5414	.	.	30.5414
MARIANA	POLK	2	138.198	30.5414	.	.	30.5414
ECHO	POLK	1	64.000	30.5410	.	.	30.5410
BIG FISH	PASCO	1	72.000	30.5410	.	.	30.5410
CAKES POND	PASCO	1	90.000	30.5410	.	.	30.5410

Table F-1. (Continued)

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*******************************************************
*   TROPHIC STATE INDEX - PHOSPHORUS LIMITED LAKES    *
*                                                     *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES         *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                 *
*     TSI = MEAN TROPHIC STATE INDEX                  *
*  TSITP  = TROPHIC STATE INDEX FOR PHOSPHORUS LAKES  *
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSITP
BROOKLYN	CLAY	18	32	28.9545	29.5164	23.0233	34.32
POWELL	BAY	2	79	28.9128	.	.	28.91
STELLA	PUTNAM	3	36	28.5504	31.1028	18.0385	36.51
FAIRVIEW	ORANGE	4	40	28.5415	30.7630	15.9566	38.90
MERRITTS MILL POND	JACKSON	6	49	28.3729	11.2134	29.4707	44.43
WESTERN	WALTON	3	51	26.9706	20.3298	43.3069	17.28
SHEEN	ORANGE	3	69	25.7079	.	.	25.71
CATALINA	DADE	1	62	24.4401	33.0922	9.6871	30.54
KELL	HILLSBOROUGH	2	116	20.9726	.	.	20.97
BIRD	PASCO	1	98	20.9726	.	.	20.97
WINNEMISETT	VOLUSIA	9	49	17.5835	14.1746	5.6604	32.92
BUTLER	VOLUSIA	1	64	16.4320	.	.	16.43
DUNFORD POND	WASHINGTON	3	31	15.8288	13.3853	11.7169	22.38
ROUND	JACKSON	3	31	14.5735	14.3653	13.5023	15.85
EDWARD	PUTNAM	3	48	12.1016	22.2056	7.6693	6.43
COMPASS	JACKSON	4	43	11.0971	10.5567	12.2550	10.44
MCKENZIE	CALHOUN	3	49	11.0034	16.8000	10.2214	5.99
MIRROR	CALHOUN	3	32	6.7063	13.9813	1.0566	5.08
KING	PASCO	2	161	.	.	.	4.61
PIERCE	PASCO	1	2873103	.	.	.	-229.11

Table F-2. Trophic State Index - Nitrogen Limited Lakes.

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*********************************************************
*   TROPHIC STATE INDEX - NITROGEN LIMITED LAKES        *
*                                                       *
*     NUMB = NUMBER OF NITROGEN DATA VALUES             *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                   *
*      TSI = MEAN TROPHIC STATE INDEX                   *
*   TSITN  = TROPHIC STATE INDEX FOR NITROGEN LAKES     *
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSITN
BANANA	POLK	11	6.23477	94.9294	100.371	88.883	95.5340
EFFIE	POLK	13	2.74008	94.0446	94.295	94.352	93.4871
WESTON	ORANGE	16	1.14946	93.2107	.	.	93.2107
LULU	POLK	41	1.79477	92.2429	95.715	91.783	89.2301
HANCOCK	POLK	23	6.14223	92.1931	89.267	90.695	96.6176
MUNSON	LEON	23	2.25565	89.5314	86.572	88.397	93.6254
HOLLINGSWORTH	POLK	10	9.56329	84.7658	85.102	81.745	87.4504
LOVELY	ORANGE	16	1.71399	84.0548	.	.	84.0548
BROOKER	HILLSBOROUGH	1	6.09804	83.9944	.	.	83.9944
JESSUP	SEMINOLE	110	7.42799	83.5960	85.841	79.395	85.5516
FRANCIS	MADISON	5	3.85227	82.0973	71.584	86.547	88.1606
UNNAMED 20	ALACHUA	8	5.23706	81.8200	81.222	85.670	78.5677
WEKIVA	ORANGE	9	1.93659	80.6074	.	.	80.6074
MARY	SEMINOLE	3	6.95000	79.7922	.	107.807	51.7774
SEMINOLE	PINELLAS	15	2.74289	77.6326	79.103	78.613	75.1817
LAWNE	ORANGE	28	1.43927	76.1830	75.656	58.594	94.2975
ALLIGATOR	COLUMBIA	26	3.32361	75.7516	77.284	70.883	79.0873
BURNT POND	ALACHUA	5	4.12336	75.3289	75.035	74.341	76.6104
KANAPAHA	ALACHUA	5	5.76798	74.8002	65.603	79.618	79.1795
MAYO	POLK	8	9.38393	74.5166	.	74.849	74.1845
TROUT	LAKE	14	4.11786	74.3839	81.574	70.304	71.2737
ELOISE	POLK	38	4.12763	74.0530	77.711	66.883	77.5649
RIVENS ARM	ALACHUA	8	3.55190	73.8222	72.866	74.772	73.8287
PAYNES PRAIRIE	ALACHUA	1	1.34921	72.9285	.	74.849	71.0085
CYPRESS POND	COLLIER	26	7.79538	72.6844	.	.	72.6844
WHITE TURKEY POND	PASCO	1	0.52672	71.0470	.	.	71.0470
ALLIGATOR	PINELLAS	8	2.28614	70.8445	69.096	80.318	63.1195
BLACK	ORANGE	8	6.14583	70.5382	.	.	70.5382
BERESFORD	VOLUSIA	4	9.73235	70.4252	.	.	70.4252
THONOTOSASSA	HILLSBOROUGH	119	1.40111	69.5114	74.454	75.290	58.7904
TOHOPEKALIGA	OSCEOLA	165	5.01726	68.8681	80.828	53.429	72.3476
CLEAR	ALACHUA	8	4.64214	68.7292	67.574	67.167	71.4467
MIZE	ALACHUA	8	8.80105	68.4232	69.280	74.706	61.2831
CONNIE	POLK	21	2.50881	65.8815	.	61.863	69.9004
LONG	ORANGE	9	8.42989	65.5038	.	.	65.5038
HICPOCHEE	GLADES	1	8.53047	64.9414	.	61.063	68.8202
OSBORNE	PALM BEACH	5	9.66004	64.8452	69.896	60.335	64.3045
COOTER POND7	ALACHUA	5	8.71345	63.5387	60.586	61.856	68.1737
FISH & MARK	OSCEOLA	1	7.96667	63.4301	.	.	63.4301
GIBSON	POLK	18	5.35973	63.3165	57.081	68.678	64.1904
FISH	OSCEOLA	1	7.91333	63.2857	.	.	63.2857
FISH & COLLEEN	OSCEOLA	1	7.23125	62.7354	.	.	62.7354
HOWELL	SEMINOLE	30	1.08789	62.3045	74.259	41.992	70.6627
ROWELL	BRADFORD	13	6.29982	62.1146	60.619	69.044	56.6812
HAINES	POLK	16	6.69110	61.8161	58.757	63.707	62.9835
MATTIE	POLK	8	1.80641	60.9887	51.613	70.825	60.5275
UNDERHILL	ORANGE	38	7.77426	59.6006	65.363	40.052	73.3865
MYSTIC	LIBERTY	1	5.00000	59.6000	.	.	59.6000
U MIAMI POND	MONROE	2	0.71469	58.6438	.	.	58.6438
LITTLE ORANGE	ALACHUA	5	9.80800	57.0611	45.346	61.856	63.9808
ECLA	ORANGE	58	4.76450	56.5938	61.437	57.246	51.0983
TUSCAWILLA	ALACHUA	2	3.52540	56.5183	47.701	60.000	61.8534
MAITLAND	ORANGE	33	7.43767	55.7675	48.542	45.063	73.6976
TALQUIN	GADSDEN	41	5.18993	55.0627	51.365	62.628	51.1952
UNNAMED 27	ALACHUA	5	2.24242	54.3226	64.271	47.836	50.8610
BEAR	SANTA ROSA	10	4.49472	54.2541	70.163	45.713	46.8865
ELEVENTH HOLE	SEMINOLE	2	4.66875	53.3286	.	.	53.3286
MANATEE RESERVOIR	MANATEE	7	5.21312	52.7098	45.381	54.530	58.2175
IRMA	ORANGE	2	7.18063	52.4622	48.757	57.141	51.4893
JEFFORDS	ALACHUA	5	5.96525	52.0299	46.231	60.606	49.2528
SYLVIA	BROWARD	1	8.62500	51.6221	.	.	51.6221
BEVILLES POND	ALACHUA	5	5.97424	50.7432	60.434	38.612	53.1843
UPPER MYAKKA	SARASOTA	9	3.94802	49.1810	45.224	38.913	63.4053
KILLARNEY	ORANGE	6	9.92767	48.4959	54.148	38.636	52.7037
BUGG SPRING	LAKE	1	9.15385	48.4373	.	.	48.4373
JACKSON	LEON	169	4.06582	46.6855	43.397	44.169	52.4905
ALICE	ALACHUA	8	0.63732	46.1997	43.425	47.742	47.4318
CROSBY	BRADFORD	13	6.42115	44.6857	39.021	42.552	52.4840
OCEAN POND	BAKER	28	9.72735	44.4469	36.612	52.474	44.2541

Table F-2. (Continued)

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*******************************************************
*   TROPHIC STATE INDEX - NITROGEN LIMITED LAKES      *
*                                                     *
*     NUMB = NUMBER OF NITROGEN DATA VALUES           *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                 *
*      TSI = MEAN TROPHIC STATE INDEX                 *
*  TSITN  = TROPHIC STATE INDEX FOR NITROGEN LAKES    *
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSITN
ELA	ORANGE	8	6.27684	43.006	47.7014	34.974	46.352
LANTERN	COLLIER	2	2.05886	42.244	.	.	42.244
SPRING	SEMINOLE	18	1.51565	42.028	.	7.841	76.216
MOUNTAIN	POLK	4	8.63846	42.023	.	.	42.023
BUFFUM	POLK	6	6.66018	41.497	31.2209	53.969	39.300
MABEL	ORANGE	9	3.31661	41.254	.	.	41.254
KARICK	OKALOOSA	8	3.58363	40.429	41.9718	36.154	43.160
CONWAY	ORANGE	25	7.70929	39.788	35.5822	32.027	51.753
MARKHAM	SEMINOLE	1	5.30000	37.233	.	.	37.233
ZULU	HERNANDO	1	9.41485	34.684	.	.	34.684
ENOLA	LAKE	1	6.00000	33.715	.	.	33.715
PORTER	WASHINGTON	10	8.59716	33.647	18.1725	46.135	36.633
CITRUS PARK	HILLSBOROUGH	1	7.87274	32.887	.	.	32.887
BRYAN	ORANGE	7	5.86364	29.755	.	.	29.755
PEBBLE	CLAY	3	8.92342	27.818	.	.	27.818
DUPONT	VOLUSIA	2	4.54839	26.199	.	.	26.199
SELLERS	LAKE	1	8.55000	21.629	.	.	21.629
GOVERNOR HILL	DIXIE	5	6.10420	20.416	21.1215	-15.140	55.268
DEER	POLK	2	7.43993	14.719	.	.	14.719
ANGELES	VOLUSIA	1	5.84210	12.338	.	.	12.338
ALEXANDER SPRINGS	LAKE	2	2.44476	9.614	.	.	9.614
THERESA	VOLUSIA	1	2.81818	-15.086	.	.	-15.086

Table F-3. Trophic State Index - Nutrient Balanced Lakes.

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*********************************************************
*     TROPHIC STATE INDEX - INTERMEDIATE LAKES          *
*                                                       *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES           *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                   *
*     TSI = MEAN TROPHIC STATE INDEX                    *
*  TSINUTR= TROPHIC STATE INDEX FOR INTERMEDIATE LKS    *
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR
BANANA	SEMINOLE	1	.	124.434	.	.	124.434
GEORGE	BROWARD	1	.	110.694	.	.	110.694
IVESON POND	DUVAL	1	18.4650	107.262	.	.	107.262
DAVIS	ORANGE	1	20.5600	99.263	103.149	108.283	86.356
MAGGIORE	PINELLAS	11	15.8434	91.623	89.672	99.167	86.031
GRADY	HILLSBOROUGH	1	.	89.122	.	.	89.122
SQUIRREL PRAIRIE	HERNANDO	2	14.3221	87.814	.	.	87.814
BEAUCLAIR	LAKE	66	13.8959	87.543	85.471	91.086	86.073
BONNETT	POLK	1	.	86.866	.	.	86.866
APOPKA	ORANGE	265	18.5542	86.103	76.516	98.154	83.641
SCOTT	POLK	20	12.5668	85.521	82.882	92.670	81.010
DORA	LAKE	159	23.9580	81.383	81.989	85.495	76.666
CARLTON	ORANGE	14	29.6923	79.982	81.701	81.857	76.389
JAX	HIGHLANDS	7	23.8968	79.495	.	111.240	47.750
PARKER	POLK	15	16.2468	79.293	80.040	83.466	74.375
ANNIE	POLK	2	16.6197	77.303	.	87.013	67.594
CYPRESS	OSCEOLA	64	15.5292	76.828	81.103	81.305	68.104
GRIFFIN	LAKE	275	22.1267	76.751	76.776	80.152	73.325
JESSAMINE	PASCO	1	.	76.229	.	.	76.229
BRANTLEY	SEMINOLE	1	.	76.104	.	116.437	35.771
HUNTER	POLK	2	10.5349	74.961	73.663	87.489	63.532
POCKET	ORANGE	1	29.8000	74.672	.	107.807	41.537
CANNON	POLK	30	27.7762	74.041	83.400	75.077	63.647
BEE HAVEN BAY	HAMILTON	2	24.2083	73.881	.	.	73.881
CHARLOTTE	HIGHLANDS	1	.	73.515	.	.	73.515
NEWNANS	ALACHUA	37	17.4545	72.894	74.177	76.453	68.053
BUSTIS	LAKE	250	28.9682	72.271	68.409	79.184	69.221
LOTUS	SEMINOLE	1	11.2500	71.818	.	.	71.818
WAUBERG	ALACHUA	11	13.6084	71.172	74.214	67.735	71.567
ROY	POLK	1	.	70.794	.	.	70.794
MARIAN	OSCEOLA	66	17.0764	70.544	73.413	69.340	68.879
HORSESHOE	ORANGE	3	14.1507	70.103	.	.	70.103
SUMMIT	POLK	7	.	69.903	.	.	69.903
CLAY	HIGHLANDS	14	10.0041	69.697	68.714	63.452	76.926
CLARKS	WASHINGTON	2	.	69.584	.	.	69.584
TURKEY	ORANGE	9	28.7445	69.432	.	84.111	54.753
HATCHINEHA	OSCEOLA	38	17.0601	69.297	66.175	76.597	65.120
SHADOW	ORANGE	2	12.2143	69.132	.	.	69.132
LINK	POLK	1	.	69.131	.	.	69.131
LUCERNE	ORANGE	1	22.3000	68.715	69.884	66.694	69.568
HAWTHORNE	ALACHUA	8	22.7496	68.653	72.504	67.647	65.808
CALF POND	ALACHUA	4	10.4208	67.990	60.135	70.700	73.134
JACKSON	OSCEOLA	3	12.5921	67.891	59.086	80.318	64.269
HAMILTON	POLK	2	11.7229	67.796	.	69.431	66.161
LITTLE CROOKED	POLK	3	19.0035	67.708	51.837	95.028	56.260
GEORGE	PUTNAM	22	14.9071	67.626	69.370	68.401	65.107
MIDDLE	PASCO	1	.	67.256	.	.	67.256
HORSESHOE	LAKE	2	21.5771	67.219	.	.	67.219
DEVLAH	POLK	2	30.0000	67.152	69.811	68.630	63.014
CROOKED	ORANGE	3	21.2416	66.705	.	.	66.705
CRESCENT	FLAGLER	20	17.2475	66.695	65.491	73.087	61.508
MYRTLE	DADE	1	20.6667	66.156	68.482	66.694	63.291
MILLS	SEMINOLE	4	28.1667	66.094	.	88.949	43.240
OKEECHOBEE	OKEECHOBEE	621	14.2655	65.465	56.834	71.685	67.877
GARFIELD	POLK	3	10.0755	65.362	.	.	65.362
CLARKE	PALM BEACH	1	29.0000	65.321	.	.	65.321
DIXIE	LAKE	15	26.8194	65.144	.	66.691	63.597
DOCTORS	CLAY	25	12.3783	65.139	64.296	65.601	65.520
DEXTER	VOLUSIA	7	10.0504	65.088	58.089	72.164	65.010
JESSIE	POLK	30	15.0174	64.654	69.793	61.611	62.559
PORTER	ORANGE	47	23.5154	64.528	.	75.480	53.575
WIMAUMA	HILLSBOROUGH	1	.	64.451	.	.	64.451
WHITEFIELDS PRAIRIE	HERNANDO	2	12.5807	63.901	.	.	63.901
REEDY	POLK	84	24.4231	63.898	65.566	64.739	61.387
GUM SLOUGH POND	MONROE	4	21.5177	63.691	.	.	63.691
HIGHLAND	ORANGE	1	23.8235	62.830	68.282	70.700	49.509
SEBRING	HIGHLANDS	5	11.5557	62.678	41.584	84.579	61.471
SOUTH	LAKE	3	20.7373	62.657	.	62.685	62.630
SALT	PINELLAS	1	.	62.635	.	.	62.635

Table F-3. (Continued)

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*******************************************************
*     TROPHIC STATE INDEX - INTERMEDIATE LAKES        *
*                                                     *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES         *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                 *
*     TSI = MEAN TROPHIC STATE INDEX                  *
*  TSINUTR= TROPHIC STATE INDEX FOR INTERMEDIATE LKS  *
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR
BEINSETT	BREVARD	43	24.4030	62.5434	57.2462	69.0374	61.3467
IVANHOE	ORANGE	9	11.9087	62.0860	61.6410	61.5308	63.0781
GLENADA	HIGHLANDS	7	10.2416	61.7657	64.6113	55.4076	65.2901
ARIANA	POLK	9	18.7730	61.7043	62.0850	61.8326	61.1952
AJAY	OSCEOLA	4	17.5537	61.6588	.	59.5238	63.7938
SWOOPE	POLK	7	28.3449	61.5664	.	54.0542	69.0786
HOURGLASS	ORANGE	1	25.5000	61.0876	.	.	61.0876
LITTLE LAKE GEORGE	PUTNAM	3	16.1911	60.8752	.	.	60.8752
SAWGRASS	PINELLAS	2	15.4737	60.7323	.	60.0000	61.4646
IDYLWILD	POLK	13	19.9734	60.6254	67.6008	57.2768	56.9986
LITTLE BONNET	HIGHLANDS	1	.	60.6220	.	.	60.6220
SOUTH	BREVARD	16	27.6787	60.5478	75.2643	35.4800	70.8989
SAWGRASS	BREVARD	5	26.4000	60.3662	.	66.6906	54.0419
PUZZLE	VOLUSIA	14	.	60.3474	.	.	60.3474
CHUNKY POND	LEVY	5	16.9841	60.2512	.	.	60.2512
SEMINOLE	SEMINOLE	3	11.7848	59.8317	50.7206	81.4686	47.3060
PEARL	SEMINOLE	5	19.2215	59.8262	.	.	59.8262
MONROE	VOLUSIA	69	14.4001	59.8031	71.5106	29.8682	78.0304
LITTLE LAKE JACKSON	HIGHLANDS	1	16.5714	59.7804	.	.	59.7804
TIGER	POLK	4	19.6140	59.7494	56.8547	70.6572	51.7363
FISH	LAKE	1	.	59.7146	.	.	59.7146
AGNES	POLK	4	14.4636	59.5093	58.9622	64.2930	55.2728
ARBUCKLE	POLK	51	29.5125	59.3220	59.0049	64.0441	54.9169
WASHINGTON	BREVARD	44	22.0407	59.2688	58.7827	57.5275	61.4961
PRETTY	HILLSBOROUGH	2	.	59.1931	.	.	59.1931
KISSIMMEE	OSCEOLA	91	24.6702	58.9022	62.1376	54.0757	60.4932
LONG POND	LEVY	2	19.6552	58.8587	50.0662	68.6305	57.8593
LINDSEY	HERNANDO	9	25.6383	58.8249	62.0518	53.4558	60.9671
JOSEPHINE	HIGHLANDS	14	14.7256	58.8037	50.3621	69.4609	56.5880
ORANGE	ALACHUA	51	23.1465	58.6582	59.9419	60.0689	55.9637
VAN DYKE	HILLSBOROUGH	6	20.8528	58.6537	.	.	58.6537
HELEN BLAZES	BREVARD	6	19.1238	58.1495	.	58.0601	58.2389
EATON	MARION	5	17.9252	58.1364	33.4993	85.0874	55.8225
SILVER	POLK	10	.	57.9757	.	.	57.9757
WINDER	BREVARD	20	22.2279	57.6223	.	59.2749	55.9697
SYLVAN	ORANGE	1	10.1875	57.5276	.	.	57.5276
MINNIE	SEMINOLE	2	.	57.5238	.	.	57.5238
GULLY POND	WASHINGTON	2	.	57.2308	.	.	57.2308
ELIZABETH	ALACHUA	5	17.3704	57.1611	43.7540	72.4655	55.2639
LITTLE SEC WATER	HIGHLANDS	4	13.3141	56.8071	57.1231	69.1535	44.1446
SUWANNEE	PASCO	3	16.7452	56.7379	60.6106	53.1727	56.4305
GRASSY	LAKE	1	.	56.6917	.	.	56.6917
WATERMELON POND	ALACHUA	5	18.9063	56.6764	54.3426	60.6061	55.0804
BLUE CYPRESS	INDIAN RIVER	105	18.4812	56.5176	42.8862	65.8316	60.8351
KOON	LAFAYETTE	4	17.7772	56.4876	42.9565	63.5257	62.9763
TRAFFORD	COLLIER	21	19.4265	55.9705	61.4922	37.6055	68.8138
MIRROR	SEMINOLE	1	.	55.8010	.	.	55.8010
ELBERT	POLK	1	.	55.6538	.	.	55.6538
JULIANA	POLK	8	28.2480	55.6274	63.8029	53.5122	49.5670
ISTOKPOGA	HIGHLANDS	100	17.0055	55.5771	55.9903	49.2390	61.5021
WIRE	POLK	1	11.4634	55.5752	65.1894	42.3664	59.1699
ADAIR	ORANGE	1	20.7742	55.5578	.	.	55.5578
HORSESHOE	SEMINOLE	6	20.8904	55.5520	52.6624	58.8994	55.0941
SPIRIT	POLK	3	.	55.5321	.	54.0542	57.0100
CATHERINE	SEMINOLE	1	.	55.4978	.	88.9487	22.0470
ERICK	OSCEOLA	5	26.5432	55.4609	52.2755	56.6645	57.4386
SEARS	POLK	3	.	55.4122	.	54.0542	56.7702
LAFAYETTE	LEON	3	12.7714	55.0087	.	.	55.0087
HENRY	POLK	2	.	55.0035	.	.	55.0035
WAGES POND	WASHINGTON	2	.	54.9735	.	.	54.9735
HORSE	HERNANDO	2	10.1889	54.9653	.	.	54.9653
BASS	ORANGE	1	29.7500	54.8287	.	.	54.8287
WIMICO	GULF	12	17.6403	54.6411	36.2330	79.7413	47.9490
DEXTER	POLK	3	.	54.6339	.	.	54.6339
ASHBY	VOLUSIA	6	22.5186	54.5959	51.8230	66.2805	45.6842
GRANDIN	PUTNAM	4	14.2024	54.5688	.	.	54.5688
DARSEY	POLK	2	.	54.5205	.	.	54.5205
WATERTOWN	COLUMBIA	8	16.6625	54.3991	55.9471	46.7651	60.4852
SILVER	LAKE	2	.	54.3637	.	.	54.3637

Table F-3. (Continued)

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*     TROPHIC STATE INDEX - INTERMEDIATE LAKES        *
*                                                     *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES         *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                 *
*       TSI = MEAN TROPHIC STATE INDEX                *
*   TSINUTR= TROPHIC STATE INDEX FOR INTERMEDIATE LKS *
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR
MUD	BELK	2	.	54.3636	.	.	54.3636
EGYPT	HILLSBOROUGH	1	18.8236	54.2066	63.3236	52.1291	47.1769
NEFF	HERNANDO	3	22.1256	54.1588	.	.	54.1588
EYSTRE	HERNANDO	1	15.7345	54.0462	.	.	54.0462
RED BEACH	HIGHLANDS	8	16.4515	53.5606	55.1010	59.3519	46.2296
STARKE	ORANGE	1	26.0000	53.4949	.	.	53.4949
DAMON	HIGHLANDS	3	21.6923	53.2384	.	.	53.2384
ADAIR	PUTNAM	5	25.3672	53.1332	40.2611	68.2331	50.9053
HOLDENS	ORANGE	1	25.0000	53.1066	.	.	53.1066
ZEBRA	HERNANDO	1	29.3527	53.0251	.	.	53.0251
UNNAMED 10	ALACHUA	8	14.0035	52.7796	50.9651	48.8531	58.5206
CLEAR	ORANGE	1	24.0000	52.7024	.	.	52.7024
HIAWATHA	LAKE	29	18.2572	52.6152	.	52.0075	53.2229
BALDWIN	ORANGE	3	16.2550	52.5921	61.0171	48.5102	48.2491
SPRING	HERNANDO	3	17.5833	52.5822	.	.	52.5822
BEAUTY	ORANGE	1	15.1890	52.4578	.	.	52.4578
MANN	ORANGE	3	23.3567	52.4335	.	.	52.4335
GUM	POLK	1	.	52.4039	.	.	52.4039
JACKSON	HILLSBOROUGH	1	27.0270	52.3815	.	.	52.3815
FRANCIS	HIGHLANDS	55	23.1271	52.3146	61.0412	42.9611	52.9414
WEOHYAKAPKA	POLK	69	16.6117	51.8740	46.9070	56.9239	51.7911
SHERWOOD	ORANGE	2	.	51.7020	.	.	51.7020
SMART	POLK	2	.	51.7020	.	.	51.7020
MOLLY	VOLUSIA	2	28.0000	51.6647	.	.	51.6647
DESSON	POLK	4	24.0811	51.4967	.	.	51.4967
DIAS	VOLUSIA	3	12.1337	51.4140	43.3293	59.6685	51.2441
JOHNS	ORANGE	12	16.1947	51.3680	46.7182	54.8165	52.5688
MYRTLE	POLK	2	13.0538	51.2753	.	.	51.2753
STAR	POLK	6	12.9437	51.1068	44.9746	51.1759	57.1700
PANASOFFKEE	SUMTER	55	16.6644	51.0366	51.0511	53.0801	48.9785
LAGOON	ORANGE	12	13.6047	50.6056	.	.	50.6056
SAMPSON	BRADFORD	28	13.8359	50.1993	44.2688	51.5351	54.7939
ROSALIE	POLK	56	18.7550	50.1647	42.4243	56.3300	51.7398
SUGGS	PUTNAM	8	22.6990	49.9609	36.9415	62.7470	50.1943
DOSSON	HILLSBOROUGH	2	25.5374	49.8166	.	.	49.8166
GENTRY	OSCEOLA	9	24.6609	49.6837	41.8964	62.2476	44.9071
PASADENA	PASCO	3	29.5058	49.6273	47.9886	53.7084	47.1849
DORR	LAKE	17	14.8247	49.3715	42.5195	60.1909	45.4042
ANN	POLK	2	.	49.2591	.	.	49.2591
BUTLER	UNION	10	20.5470	49.1131	47.3059	57.7408	42.2925
MOSS LEE	PUTNAM	5	19.7285	49.0868	46.3424	48.2387	52.6792
THOMAS	POLK	13	24.1410	49.0487	.	47.3598	50.7375
ALTHO	ALACHUA	15	12.7826	48.8923	43.6923	52.1314	50.8531
CAMP	PASCO	3	24.7399	48.8515	.	.	48.8515
OYSTER	WALTON	3	16.2823	48.6945	36.8026	63.5335	45.7474
MINNEHAHA	ORANGE	6	15.0200	48.6699	48.0069	45.1195	52.8834
EAST TOHOPEKALIGA	OSCEOLA	41	15.5621	48.4977	42.9828	50.0697	52.4406
TSALA APOPKA(E)	CITRUS	10	10.9460	48.4683	37.6356	52.9795	54.7894
VIRGINIA	ORANGE	15	11.1405	48.4132	59.7696	34.5376	50.9324
BRYANT	MARION	1	26.6667	48.2220	.	.	48.2220
FRANCIS	ORANGE	4	26.3695	48.1111	.	.	48.1111
TSALA APOPKA(I)	CITRUS	7	21.1609	47.9450	50.7282	44.3871	48.7196
TARPON	PINELLAS	127	11.8294	47.4111	44.5617	39.3676	58.3041
FAIRY	SEMINOLE	3	24.2267	47.2720	.	.	47.2720
PALESTINE	UNION	7	22.7000	47.2026	41.8335	61.3515	38.4230
FLAT	LAKE	1	.	46.8221	.	.	46.8221
SCHIMMERHORN	LAKE	1	.	46.8221	.	.	46.8221
TUTUOLA	LAKE	1	13.2500	46.8213	.	.	46.8213
TRIPLET	SEMINOLE	1	13.2500	46.8213	.	.	46.8213
ANOKA	HIGHLANDS	1	.	46.6350	.	.	46.6350
RED WATER	HIGHLANDS	1	.	46.6350	.	.	46.6350
WALES	POLK	12	20.6469	46.4007	54.5604	38.0882	46.5535
HARNEY	VOLUSIA	22	14.7873	46.2325	55.6458	12.4285	70.6230
TENNESSEE	POLK	1	.	46.0627	.	.	46.0627
CLEAR	PASCO	10	18.8922	45.9729	51.2805	39.4889	47.1492
LITTLE SANTA FE	ALACHUA	5	21.0497	45.8301	38.5226	49.4803	49.4873
OTTER	WAKULLA	3	17.4458	45.7883	32.1318	62.0698	43.1633
OCKLAWAHA	MARION	63	19.4303	45.5520	50.1272	37.9364	48.5922
BRADFORD	LEON	6	18.2804	45.4674	48.2797	45.8999	42.2225

Table F-3. (Continued)

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*     TROPHIC STATE INDEX - INTERMEDIATE LAKES           *
*                                                        *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES            *
* NPRATIO = NITROGEN/PHOSPHORUS RATIO                    *
*     TSI = MEAN TROPHIC STATE INDEX                     *
*  TSINUTR= TROPHIC STATE INDEX FOR INTERMEDIATE LKS     *
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LAKE	COUNTY	NUMB	NPRATIO	TSI	TSICL	TSISD	TSINUTR
MINNEHAHA	LAKE	36	27.6530	45.4036	44.6627	47.8647	43.7835
WEBB AREA	CHARLOTTE	4	14.0881	48.3086	46.1536	39.4889	50.2432
ROSALIE	HILLSBOROUGH	1	20.6563	45.2688	.	43.6050	46.9327
LETTA	HIGHLANDS	15	10.7644	45.2449	38.0476	52.4990	45.1881
HICKORY POND	ALACHUA	5	23.2515	45.1463	44.2761	42.7016	48.4611
SANTA FE	ALACHUA	41	13.3916	44.9024	45.6189	37.6494	51.4389
BRIGHT	LAKE	1	.	44.8624	.	.	44.8624
MARY	LAKE	1	.	44.8624	.	.	44.8624
SWATARA	LAKE	1	.	44.8624	.	.	44.8624
ROSALIE	OSCEOLA	1	17.8437	44.7666	.	44.0494	45.4837
CHARLES	HILLSBOROUGH	6	20.6231	44.4988	.	.	44.4988
TRACY	POLK	11	15.8030	44.3216	46.3794	34.1478	52.4377
HUNTLEY	HIGHLANDS	5	21.4315	44.2294	41.2218	43.6271	47.8394
STEMPER	HILLSBOROUGH	3	25.9565	44.0228	.	.	44.0228
META	ALACHUA	5	26.6495	44.0144	38.4587	40.4302	53.1543
PARKER	PASCO	2	13.9826	43.8535	.	.	43.9535
EMMA	LAKE	10	14.8325	43.7672	.	36.7932	50.7413
CHERRY	LAKE	13	15.0375	43.3817	43.4036	42.9343	43.8072
JENNIE	SEMINOLE	2	.	43.3358	.	.	43.3358
SYLVAN	SEMINOLE	4	.	43.0734	.	.	43.0734
KEYSTONE	HILLSBOROUGH	3	22.5333	43.0541	.	.	43.0541
LOUISE	SUWANNEE	3	27.5703	42.9051	43.7046	41.6347	43.3761
LUCY	LAKE	9	19.0747	42.7317	.	33.5739	51.8895
BAY	LAKE	2	.	42.6716	.	.	42.6716
GEORGES	PUTNAM	10	18.3562	42.6417	30.2797	.	55.0036
ANNIE	HIGHLANDS	61	18.6302	42.0221	54.8019	19.2639	52.0005
PLACID	HIGHLANDS	39	21.3524	41.8738	46.0467	37.9357	41.6391
ADA	SEMINOLE	1	.	41.6726	.	.	41.6726
EATON	VOLUSIA	1	13.7000	41.6284	.	.	41.6284
CHERRY	MADISON	3	10.1893	41.5442	44.0945	41.7554	38.7826
ALLIGATOR	OSCEOLA	63	24.3780	41.5277	34.4884	42.7493	47.3454
UNNAMED 25	ALACHUA	5	20.8511	41.3292	31.8308	42.0349	50.1220
TSALA APOPKA(H)	CITRUS	24	20.1895	41.3078	37.8041	37.4089	48.7104
HAMPTON	BRADFORD	5	23.4228	40.9524	41.9187	36.3463	44.5923
TSALA APOPKA	CITRUS	85	12.2340	40.8403	32.9713	28.2316	61.3181
HUNTERS	HERNANDO	1	.	40.7118	.	.	40.7118
BLUE	PASCO	1	.	40.7118	.	.	40.7118
MOON	PASCO	11	13.1961	40.3663	34.3008	36.2914	50.5067
JACKSON	WALTON	8	21.9002	40.2290	41.0408	39.1224	40.5237
ISLAND FORD	HILLSBOROUGH	1	25.9677	40.1741	.	.	40.1741
SIRENA	HIGHLANDS	9	22.0298	40.1245	.	39.4890	40.7600
DOWN	ORANGE	21	29.9343	40.0912	18.0752	45.2580	56.9404
JOHNSON	CLAY	7	12.3836	39.8276	34.7158	50.3375	34.4294
NAN	ORANGE	1	26.8421	39.6445	44.4037	35.0127	39.5172
ARETTA	POLK	8	19.7895	39.6109	45.9209	31.1560	41.7558
BEAR	SEMINOLE	3	.	39.5940	.	.	39.5940
GOLDEN	SEMINOLE	2	.	39.5727	.	33.2597	45.8857
KLINCH	POLK	6	18.8053	39.4619	45.5201	38.3296	34.5360
HOBBS	HILLSBOROUGH	3	27.9841	39.2439	.	.	39.2439
PATE POND	WASHINGTON	3	21.1041	38.9547	41.7783	43.6915	31.3944
LITTLE LAKE BRYAN	ORANGE	6	.	38.9519	.	.	38.9519
CARROLL	HILLSBOROUGH	7	26.9032	38.8659	46.9228	28.0587	41.6162
JUNIPER	WALTON	3	19.6622	38.7586	44.9576	34.1555	37.1627
THREE ISLAND	VOLUSIA	1	24.7895	38.7296	.	.	38.7296
ROUND	HILLSBOROUGH	5	28.6729	38.4998	.	.	38.4998
DEAD	GULF	18	22.4633	38.4853	37.5462	40.9508	36.9588
ANGELO	HIGHLANDS	1	.	38.2281	.	.	38.2281
LELIA	HIGHLANDS	1	.	38.2281	.	.	38.2281
CLEARWATER	POLK	1	.	38.2281	.	.	38.2281
PRAIRIE	SEMINOLE	1	.	37.6918	.	.	37.6918
SANTA FE	WAKULLA	3	21.9388	37.5826	41.1728	36.9585	34.6165
ELLEN	WAKULLA	3	26.7349	37.3578	33.4490	48.0591	30.5654
SWIFTS CREEK POND	UNION	1	.	37.3206	.	.	37.3206
KATHARINE	DADE	1	22.1053	37.0743	34.4224	39.2056	37.5950
JACKSON	HIGHLANDS	39	17.6294	36.9884	40.8319	28.3783	41.7550
ICLA	PASCO	8	17.3560	36.9081	39.7934	24.4189	46.5120
BUENA VISTA	ORANGE	7	.	36.7815	.	.	36.7815
JUNE-IN-WINTER	HIGHLANDS	68	29.2633	36.5173	47.8707	18.6671	43.0141
TIDET	ORANGE	11	21.4335	36.4585	34.2090	36.1364	39.0301

Table F-3. (Continued)

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*     TROPHIC STATE INDEX - INTERMEDIATE LAKES          *
*                                                       *
*     NUMB = NUMBER OF PHOSPHORUS DATA VALUES           *
* NPRATIC = NITROGEN/PHOSPHORUS RATIO                   *
*       TSI = MEAN TROPHIC STATE INDEX                  *
*  TSINUTR= TROPHIC STATE INDEX FOR INTERMEDIATE LKS    *
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LAKE	COUNTY	NUMB	NPRATIC	TSI	TSICL	TSISD	TSINUTR
SILVER	SEMINOLE	1	.	36.3138	.	.	36.3138
ANDERSON CUE	PUTNAM	12	22.8237	36.6511	33.4727	30.045	43.4352
FLORIDA	SEMINOLE	5	11.9062	35.6385	.	12.206	59.0711
SUNSHINE	HILLSBOROUGH	1	23.1096	35.5193	.	.	35.5193
CROOKED	POLK	21	16.3964	35.4724	34.6587	31.288	40.4702
MINNEOLA	LAKE	43	25.5131	35.3654	34.5108	31.088	40.4972
BAY	ORANGE	22	28.5408	34.8520	38.2990	21.683	44.5737
DEER POINT	BAY	39	19.0148	34.7674	23.5079	38.838	41.9560
HUTCHINSON	VOLUSIA	1	29.3571	34.5405	.	.	34.5405
HANCOCK	LAKE	1	.	33.9296	.	.	33.9296
NORRIS	LAKE	1	.	33.9296	.	.	33.9296
JOHIO	ORANGE	2	.	33.9296	.	.	33.9296
ROUSSEAU	LEVY	57	11.9443	33.3063	28.7242	25.806	45.3891
BUTLER	ORANGE	98	22.5129	33.2847	22.7012	37.306	39.8469
LOUISE	VOLUSIA	1	13.7368	32.8853	.	.	32.8853
BIG SAND	ORANGE	2	20.2241	32.7113	.	41.683	23.7400
TULANE	HIGHLANDS	1	.	31.9697	.	.	31.9697
WINNOTT	PUTNAM	5	25.0435	31.5991	30.5554	21.739	42.4988
CRESCENT	LAKE	3	29.9434	31.2584	32.3509	27.042	34.3826
WINCRO	VOLUSIA	9	27.4019	30.8951	33.9439	29.040	29.7018
VICTOR	HOLMES	3	23.6071	30.5904	31.9374	29.713	30.1210
GENEVA	CLAY	28	11.5177	30.5668	25.2700	24.590	41.8409
COHEESEE POND	JACKSON	7	21.9976	30.4955	28.0156	25.472	37.9985
HENRY	DADE	1	29.4737	30.1603	31.6265	18.411	40.4431
KINGSLEY	CLAY	47	22.7570	29.9464	31.4156	15.033	43.3906
MELTON	LAKE	1	.	29.7792	.	.	29.7792
GALILEE	PUTNAM	9	19.1750	29.7210	26.8531	27.399	34.9106
KERR	MARION	49	22.9508	29.6859	24.2148	27.496	37.3467
MICCOSUKEE	JEFFERSON	17	22.5473	28.1167	45.3140	-16.142	55.1783
HURRICANE	OKALOOSA	3	28.6259	27.8945	31.2795	22.606	29.7958
KATHRYN	LAKE	2	15.7499	27.4391	.	.	27.4391
CRYSTAL	SEMINOLE	1	.	27.3262	.	.	27.3262
LOWERY	CLAY	18	14.0888	26.5844	27.5641	24.098	28.0916
SWAN	PUTNAM	8	17.8609	26.3065	23.5681	25.223	30.1285
MCCLOUD	PUTNAM	12	23.7200	26.1775	27.5551	15.196	35.7773
WHITE WESTERN	BAY	3	10.5714	25.8060	15.1225	28.059	34.2367
COWPEN	PUTNAM	10	17.9167	24.8985	25.4909	22.513	26.6922
GAP POND	WASHINGTON	3	25.3656	22.6326	22.6387	14.878	30.3813
MAGNOLIA	CLAY	13	17.4374	21.6531	23.6458	14.320	26.9937
KATHRYN	SEMINOLE	2	.	20.8823	.	-9.252	51.0169
WILDCAT	LAKE	3	28.5781	20.5974	18.8820	21.503	21.4077
LONG POND	PUTNAM	5	11.6393	20.2553	21.6452	16.381	22.7393
SANTA ROSA	PUTNAM	9	14.3011	20.1566	26.0751	6.081	28.3137
SELLERS	MARION	4	25.8420	19.4889	26.5393	7.437	24.4901
HOLLY	LAKE	2	.	16.8869	.	.	16.8869
SHEELAR	CLAY	4	28.9630	12.9921	20.7432	-2.167	20.4000
TURKEY PEN POND	CALHOUN	3	13.1509	10.1188	9.4441	13.502	7.4099
CRYSTAL	WASHINGTON	3	18.8743	6.2241	6.4951	-2.591	14.7682
BAY	HILLSBOROUGH	2	.	3.9948	.	.	3.9948

Table F-4. Lakes Used In Regression Analyses.

OBS	LAKE	COUNTY	SOURCE
1	ALICE	ALACHUA	BREZONIK
2	ALTHO	ALACHUA	BREZONIK
3	BEVILLES POND	ALACHUA	BREZONIK
4	BIVENS ARM	ALACHUA	BREZONIK
5	BURNT POND	ALACHUA	BREZONIK
6	CALF POND	ALACHUA	BREZONIK
7	CLEAR	ALACHUA	BREZONIK
8	CLEARWATER	ALACHUA	BREZONIK
9	COOTER POND7	ALACHUA	BREZONIK
10	ELIZABETH	ALACHUA	BREZONIK
11	HAWTHORNE	ALACHUA	BREZONIK
12	HICKORY POND	ALACHUA	BREZONIK
13	JEGGORD	ALACHUA	BREZONIK
14	KANAPAHA	ALACHUA	BREZONIK
15	LITTLE ORANGE	ALACHUA	BREZONIK
16	LITTLE SANTA FE	ALACHUA	BREZONIK
17	LOCHLOOSA	ALACHUA	AQ.WEED
18	META	ALACHUA	BREZONIK
19	MIZE	ALACHUA	BREZONIK
20	MOSS LEE	ALACHUA	BREZONIK
21	NEWNANS	ALACHUA	AQ.WEED
22	ORANGE	ALACHUA	AQ.WEED
23	PALATKA POND	ALACHUA	BREZONIK
24	SANTA FE	ALACHUA	BREZONIK
25	STILL POND	ALACHUA	BREZONIK
26	TUSCAWILLA	ALACHUA	BREZONIK
27	UNNAMED 10	ALACHUA	BREZONIK
28	UNNAMED 20	ALACHUA	BREZONIK
29	UNNAMED 25	ALACHUA	BREZONIK
30	UNNAMED 27	ALACHUA	BREZONIK
31	WATERMELON POND	ALACHUA	BREZONIK
32	WAUBERG	ALACHUA	AQ.WEED
33	OCEAN POND	BAKER	AQ.WEED
34	DEER POINT	BAY	AQ.WEED
35	MERIAL	BAY	AQ.WEED
36	CROSBY	BRADFORD	AQ.WEED
37	HAMPTON	BRADFORD	AQ.WEED
38	ROWELL	BRADFORD	AQ.WEED
39	SAMPSON	BRADFORD	AQ.WEED
40	HELEN BLAZES	BREVARD	USGS-DER
41	POINSETT	BREVARD	AQ.WEED
42	SOUTH	BREVARD	FISH&GAME
43	WASHINGTON	BREVARD	AQ.WEED
44	TIGERTAIL	BROWARD	AQ.WEED
45	DEAD	CALHOUN	AQ.WEED
46	MCKENZIE	CALHOUN	AQ.WEED
47	MIRROR	CALHOUN	AQ.WEED
48	TURKEY PEN POND	CALHOUN	AQ.WEED
49	WEBB AREA	CHARLOTTE	FISH&GAME
50	TSALA APOPKA	CITRUS	AQ.WEED
51	TSALA APOPKA(F)	CITRUS	FISH&GAME
52	TSALA APOPKA(H)	CITRUS	FISH&GAME
53	TSALA APOPKA(I)	CITRUS	FISH&GAME
54	BROOKLYN	CLAY	BREZONIK
55	DOCTORS	CLAY	MES LAKES
56	GENEVA	CLAY	AQ.WEED
57	JOHNSON	CLAY	HENDRY
58	KINGSLEY	CLAY	AQ.WEED
59	LOWERY	CLAY	FISH&GAME
60	MAGNOLIA	CLAY	AQ.WEED
61	SAND HILL	CLAY	BREZONIK
62	SHEELER	CLAY	HENDRY
63	TRAFFORD	COLLIER	AQ.WEED
64	ALLIGATOR	COLUMBIA	AQ.WEED
65	WATERTOWN	COLUMBIA	AQ.WEED
66	BAMBI	DADE	LAKE CLAS
67	BLUE LAGOON	DADE	LAKE CLAS
68	CATALINA	DADE	LAKE CLAS
69	HENRY	DADE	LAKE CLAS
70	KATHARINE	DADE	LAKE CLAS
71	LAURENCE EAST	DADE	LAKE CLAS
72	LOUISE	DADE	LAKE CLAS

Table F-4. (Continued)

FLORIDA LAKES

LAKES IN REGRESSION ANALYSES

DES	LAKE	COUNTY	SOURCE
73	MYRTLE	DADE	LAKE CLAS
74	SKY	DADE	LAKE CLAS
75	SOUTH BASS	DADE	LAKE CLAS
76	GOVERNOR HILL	DIXIE	FISH&GAME
77	CRESCENT	FLAGLER	AQ.WEED
78	DISSTON	FLAGLER	AQ.WEED
79	CORN LANDING	FRANKLIN	AQ.WEED
80	SUWANNEE	GADSDEN	AQ.WEED
81	TALQUIN	GADSDEN	AQ.WEED
82	DEAD	GULF	FISH&GAME
83	WIMICO	GULF	AQ.WEED
84	LINDLEY	HERNANDO	AQ.WEED
85	MOUNTAIN	HERNANDO	AQ.WEED
86	ANNIE	HIGHLANDS	BREZONIK
87	CLAY	HIGHLANDS	BREZONIK
88	DAMON	HIGHLANDS	USGS-DER
89	DINNER	HIGHLANDS	AQ.WEED
90	FRANCIS	HIGHLANDS	BREZONIK
91	GLENADA	HIGHLANDS	NES LAKES
92	HUNTLEY	HIGHLANDS	AQ.WEED
93	ISTOKPOGA	HIGHLANDS	AQ.WEED
94	JACKSON	HIGHLANDS	AQ.WEED
95	JOSEPHINE	HIGHLANDS	AQ.WEED
96	JUNE-IN-WINTER	HIGHLANDS	FISH&GAME
97	LETTA	HIGHLANDS	FISH&GAME
98	LITTLE RED WATER	HIGHLANDS	AQ.WEED
99	LOTELA	HIGHLANDS	AQ.WEED
100	PLACID	HIGHLANDS	AQ.WEED
101	RED BEACH	HIGHLANDS	AQ.WEED
102	SEBRING	HIGHLANDS	AQ.WEED
103	BROOKER	HILLSBOROUGH	USGS-DER
104	CARROLL	HILLSBOROUGH	LAKE CLAS
105	EGYPT	HILLSBOROUGH	LAKE CLAS
106	ELLEN	HILLSBOROUGH	LAKE CLAS
107	KEYSTONE	HILLSBOROUGH	USGS-DER
108	MAGDALENE	HILLSBOROUGH	LAKE CLAS
109	THONOTOSASSA	HILLSBOROUGH	USGS-DER
110	SUN	HOLMES	AQ.WEED
111	VICTOR	HOLMES	AQ.WEED
112	BLUE CYPRESS	INDIAN RIVER	AQ.WEED
113	COMPASS	JACKSON	AQ.WEED
114	MERRITTS MILL POND	JACKSON	AQ.WEED
115	OCHEESEE POND	JACKSON	AQ.WEED
116	ROUND	JACKSON	AQ.WEED
117	MICCOSUKEE	JEFFERSON	FISH&GAME
118	KOON	LAFAYETTE	FISH&GAME
119	TOWNSEND POND	LAFAYETTE	AQ.WEED
120	BEAUCLAIR	LAKE	FISH&GAME
121	CATHERINE	LAKE	FISH&GAME
122	CHERRY	LAKE	FISH&GAME
123	CRESCENT	LAKE	AQ.WEED
124	DENHAM	LAKE	USGS-DER
125	DORA	LAKE	AQ.WEED
126	DORR	LAKE	AQ.WEED
127	ENOLA	LAKE	USGS-DER
128	EUSTIS	LAKE	AQ.WEED
129	GRIFFIN	LAKE	AQ.WEED
130	HARRIS	LAKE	AQ.WEED
131	KATHRYN	LAKE	USGS-DER
132	LOUISA	LAKE	AQ.WEED
133	MINNEHAHA	LAKE	AQ.WEED
134	MINNEOLA	LAKE	AQ.WEED
135	TROUT	LAKE	NES LAKES
136	TUTUOLA	LAKE	USGS-DER
137	WILDCAT	LAKE	AQ.WEED
138	YALE	LAKE	AQ.WEED
139	CARR	LEON	AQ.WEED
140	IAMONIA	LEON	AQ.WEED
141	JACKSON	LEON	AQ.WEED
142	MUNSON	LEON	AQ.WEED
143	LONG POND	LEVY	BREZONIK
144	ROUSSEAU	LEVY	AQ.WEED

Table F-4. (Continued)

FLORIDA LAKES

LAKES IN REGRESSION ANALYSES

OBS	LAKE	COUNTY	SOURCE
145	MYSTIC	LIBERTY	USGS-DER
146	CHERRY	MADISON	AQ.WEED
147	FRANCIS	MADISON	FISH&GAME
148	MYSTIC	MADISON	AQ.WEED
149	MANATEE RESERVOIR	MANATEE	AQ.WEED
150	BRYANT	MARION	USGS-DER
151	EATON	MARION	AQ.WEED
152	KERR	MARION	AQ.WEED
153	OCKLAWAHA	MARION	FISH&GAME
154	SELLERS	MARION	AQ.WEED
155	SMITH	MARION	AQ.WEED
156	WEIR	MARION	AQ.WEED
157	HURRICANE	OKALOOSA	AQ.WEED
158	KARICK	OKALOOSA	AQ.WEED
159	OKEECHOBEE	OKEECHOBEE	AQ.WEED
160	APOPKA	ORANGE	AQ.WEED
161	BALDWIN	ORANGE	AQ.WEED
162	BASS	ORANGE	USGS-DER
163	BUTLER	ORANGE	AQ.WEED
164	CARLTON	ORANGE	FISH&GAME
165	CHEROKEE	ORANGE	LAKE CLAS
166	CLEAR	ORANGE	USGS-DER
167	CONWAY	ORANGE	AQ.WEED
168	DAVIS	ORANGE	LAKE CLAS
169	DOWN	ORANGE	AQ.WEED
170	DRUID	ORANGE	LAKE CLAS
171	FAIRVIEW	ORANGE	AQ.WEED
172	HART	ORANGE	AQ.WEED
173	HIGHLAND	ORANGE	LAKE CLAS
174	HOLDEN	ORANGE	USGS-DER
175	HOURGLASS	ORANGE	USGS-DER
176	IRMA	ORANGE	LAKE CLAS
177	IVANHOE	ORANGE	LAKE CLAS
178	JESSAMINE	ORANGE	AQ.WEED
179	JOHNS	ORANGE	AQ.WEED
180	KILLARNEY	ORANGE	FISH&GAME
181	LAWNE	ORANGE	AQ.WEED
182	LUCERNE	ORANGE	LAKE CLAS
183	MAITLAND	ORANGE	AQ.WEED
184	MANN	ORANGE	USGS-DER
185	MARY JANE	ORANGE	AQ.WEED
186	MINNEHAHA	ORANGE	NES LAKES
187	NAN	ORANGE	LAKE CLAS
188	OLA	ORANGE	FISH&GAME
189	PEARL	ORANGE	USGS-DER
190	ROCK	ORANGE	LAKE CLAS
191	SHEEN	ORANGE	USGS-DER
192	SILVER	ORANGE	LAKE CLAS
193	STARKE	ORANGE	USGS-DER
194	SUSANNAH	ORANGE	USGS-DER
195	TIBET	ORANGE	USGS-DER
196	UNDERHILL	ORANGE	AQ.WEED
197	VIRGINIA	ORANGE	AQ.WEED
198	ALLIGATOR	OSCEOLA	AQ.WEED
199	CYPRESS	OSCEOLA	AQ.WEED
200	EAST TOHOPEKALIGA	OSCEOLA	AQ.WEED
201	GENTRY	OSCEOLA	AQ.WEED
202	HATCHINEHA	OSCEOLA	AQ.WEED
203	KISSIMMEE	OSCEOLA	AQ.WEED
204	MARIAN	OSCEOLA	AQ.WEED
205	MARION	OSCEOLA	FISH&GAME
206	TOHOPEKALIGA	OSCEOLA	FISH&GAME
207	OSBORNE	PALM BEACH	AQ.WEED
208	CLEAR	PASCO	FISH&GAME
209	CREWS	PASCO	AQ.WEED
210	IDLA	PASCO	AQ.WEED
211	MOON	PASCO	AQ.WEED
212	PADGETT	PASCO	AQ.WEED
213	PASADENA	PASCO	AQ.WEED
214	THOMAS	PASCO	USGS-DER
215	ALLIGATOR	PINELLAS	FISH&GAME
216	MAGGIORE	PINELLAS	AQ.WEED

Table F-4. (Continued)

FLORIDA LAKES

LAKES IN REGRESSION ANALYSES

OBS	LAKE	COUNTY	SOURCE
217	SEMINOLE	PINELLAS	AQ.WEED
218	TARPON	PINELLAS	AQ.WEED
219	AGNES	POLK	AQ.WEED
220	ALFRED	POLK	USGS-DER
221	ARBUCKLE	POLK	AQ.WEED
222	ARETTA	POLK	AQ.WEED
223	ARIANA	POLK	AQ.WEED
224	BANANA	POLK	NES LAKES
225	BEULAH	POLK	LAKE CLAS
226	BUFFUM	POLK	AQ.WEED
227	CLINCH	POLK	AQ.WEED
228	CROOKED	POLK	FISH&GAME
229	EAGLE	POLK	AQ.WEED
230	ECHO	POLK	USGS-DER
231	EFFIE	POLK	FISH&GAME
232	ELOISE	POLK	FISH&GAME
233	GIBSON	POLK	AQ.WEED
234	HAINES	POLK	NES LAKES
235	HANCOCK	POLK	FISH&GAME
236	HOLLINGSWORTH	POLK	FISH&GAME
237	HOWARD	POLK	AQ.WEED
238	HUNTER	POLK	LAKE CLAS
239	JESSIE	POLK	FISH&GAME
240	JULIANA	POLK	FISH&GAME
241	LITTLE CROOKED	POLK	AQ.WEED
242	LOWERY	POLK	AQ.WEED
243	LULU	POLK	FISH&GAME
244	MARION	POLK	AQ.WEED
245	MATTIE	POLK	FISH&GAME
246	MAUDE	POLK	LAKE CLAS
247	PARKER	POLK	AQ.WEED
248	PIERCE	POLK	AQ.WEED
249	REEDY	POLK	AQ.WEED
250	ROSALIE	POLK	AQ.WEED
251	SCOTT	POLK	FISH&GAME
252	STAR	POLK	FISH&GAME
253	TIGER	POLK	AQ.WEED
254	TRACY	POLK	FISH&GAME
255	WALES	POLK	AQ.WEED
256	WEOHYAKAPKA	POLK	AQ.WEED
257	WIRE	POLK	LAKE CLAS
258	ADAHO	PUTNAM	BREZONIK
259	ANDERSON CUE	PUTNAM	BREZONIK
260	BROWARD	PUTNAM	AQ.WEED
261	COMPEN	PUTNAM	BREZONIK
262	GALLILEE	PUTNAM	BREZONIK
263	GEORGE	PUTNAM	AQ.WEED
264	GEORGES	PUTNAM	USGS-DER
265	LONG	PUTNAM	BREZONIK
266	MARGARET	PUTNAM	AQ.WEED
267	MCCLOUD	PUTNAM	BREZONIK
268	SANTA ROSA	PUTNAM	BREZONIK
269	STELLA	PUTNAM	AQ.WEED
270	SUGGS	PUTNAM	BREZONIK
271	SWAN	PUTNAM	BREZONIK
272	WALL	PUTNAM	BREZONIK
273	WOMMOT	PUTNAM	BREZONIK
274	BEAR	SANTA ROSA	AQ.WEED
275	UPPER MYAKKA	SARASOTA	AQ.WEED
276	HORSESHOE	SEMINOLE	NES LAKES
277	HOWELL	SEMINOLE	NES LAKES
278	JESSUP	SEMINOLE	AQ.WEED
279	LOTUS	SEMINOLE	USGS-DER
280	MILLS	SEMINOLE	USGS-DER
281	PEARL	SEMINOLE	USGS-DER
282	SEMINOLE	SEMINOLE	AQ.WEED
283	TRIPLET	SEMINOLE	USGS-DER
284	DEATON	SUMTER	AQ.WEED
285	MIDMA	SUMTER	AQ.WEED
286	OKAHUMPKA	SUMTER	AQ.WEED
287	PANASOFFKEE	SUMTER	AQ.WEED
288	LOUISE	SUWANNEE	AQ.WEED

Table F-4. (Continued)

FLORIDA LAKES

LAKES IN REGRESSION ANALYSES

OBS	LAKE	COUNTY	SOURCE
289	SUSAN	SUWANNEE	AQ.WEED
290	BUTLER	UNION	AQ.WEED
291	PALESTINE	UNION	AQ.WEED
292	ASHBY	VOLUSIA	AQ.WEED
293	DEXTER	VOLUSIA	AQ.WEED
294	DIAS	VOLUSIA	AQ.WEED
295	HARNEY	VOLUSIA	AQ.WEED
296	MOLLY	VOLUSIA	USGS-DER
297	MONROE	VOLUSIA	AQ.WEED
298	WINNEMISETT	VOLUSIA	AQ.WEED
299	WINONA	VOLUSIA	FISH&GAME
300	ELLEN	WAKULLA	AQ.WEED
301	OTTER	WAKULLA	AQ.WEED
302	SANTA FE	WAKULLA	AQ.WEED
303	JACKSON	WALTON	AQ.WEED
304	JUNIPER BAY	WALTON	AQ.WEED
305	OYSTER	WALTON	AQ.WEED
306	STANLEY	WALTON	AQ.WEED
307	WESTERN	WALTON	AQ.WEED
308	CRYSTAL	WASHINGTON	AQ.WEED
309	DUNFORD POND	WASHINGTON	AQ.WEED
310	GAP POND	WASHINGTON	AQ.WEED
311	PATE POND	WASHINGTON	AQ.WEED
312	PORTER	WASHINGTON	FISH&GAME
313	SMITH	WASHINGTON	AQ.WEED

APPENDIX G

HYDROLOGIC UNIT NUMBERS ASSOCIATED WITH FLORIDA LAKES

Land use data are an essential component of lake assessments. Fortunately, the State of Florida had recently completed a large project which provided digitized Level II land use information for the entire State of Florida. This effort is described in the following report:

> Florida Department of Administration, 1979. Construction of a Land Characteristic Data Base for Comprehensive Water Management Planning, report prepared for Florida Dept. of Environmental Regulation, Tallahassee, FL.

Figure G-1 shows the major hydrologic units in Florida which have hydrologic units draining to lakes. The more detailed maps of these hydrologic units are presented in Figures G-2 to G-37. There are two maps for each hydrologic unit. The second map shows the individual catchments located in the hydrologic unit. In some cases, more than one hydrologic unit is shown on a single figure. Table G-2 shows the hydrologic unit number and the associated page in this appendix.

Thirty two lakes are shown by name in Figures G-2 to G-37. These lakes and their associated hydrologic unit are shown in Table G-2.

A total of 608 hydrologic units provided land use information for 325 Florida lakes. Table G-3 lists the land use information for these 608 hydrologic units. The data are arranged by hydrologic unit. A five digit number is listed under the column titled HYDRO. The first two digits indicate the major hydrologic unit, e.g., 11 for observation 1. The other three digits indicate the smaller hydrologic units contained in major unit 11. For example, observation 1 is 11020. Referring to Figure G-3, this smaller hydrologic unit is labeled 020 within the major hydrologic unit labelled as 11.

The hydrologic unit numbers of the 325 lakes are listed in Table G-4. The hydrologic master list is presented in Table G-5.

Figure G-1. Hydrologic Units in Florida with Designated Lakes.

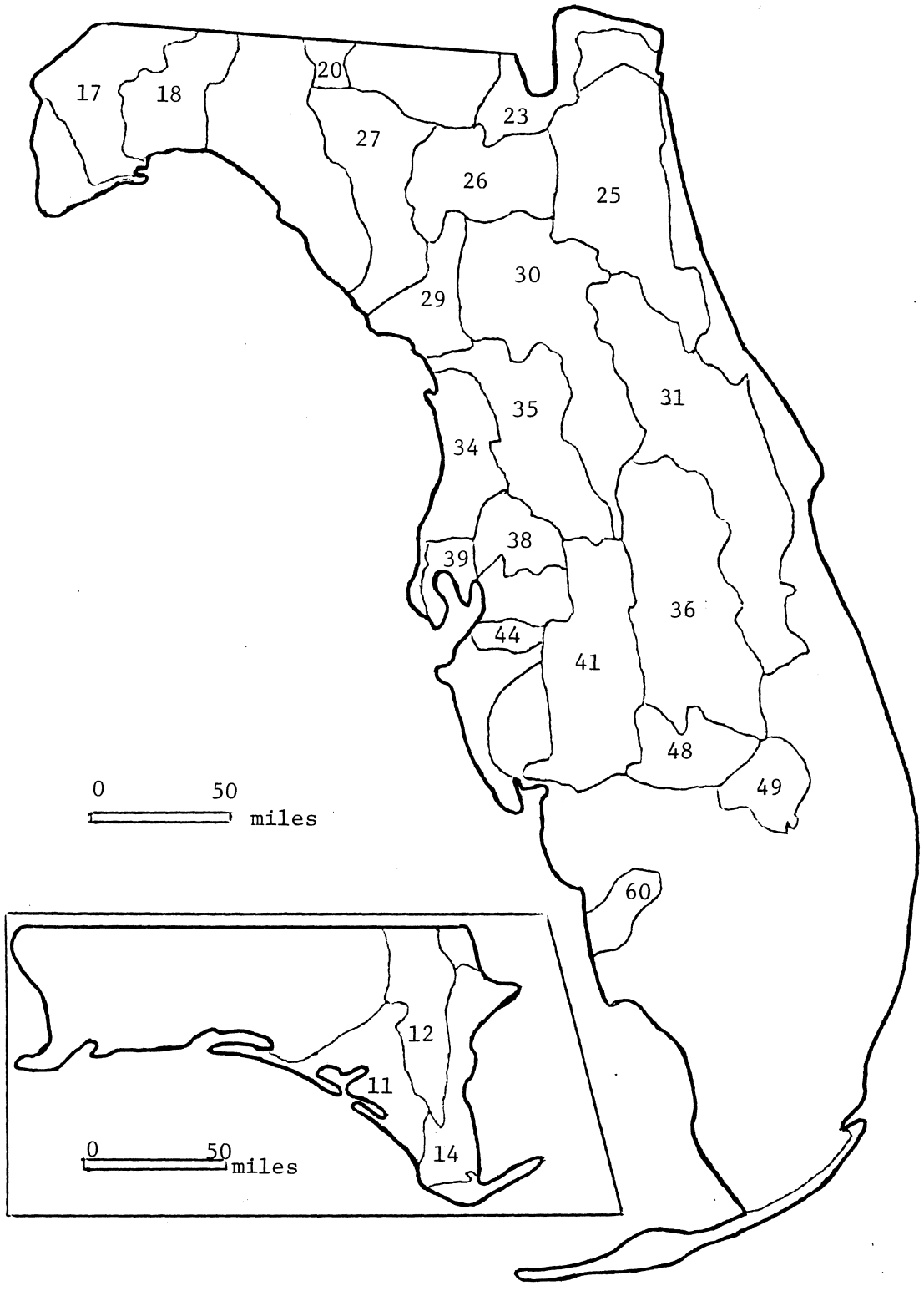

Table G-1. Page Numbers for Each Hydrologic Unit.

Hydrologic Unit Number	Page
11	6 - 7
12	8 - 9
14	8 - 9
17	10 - 11
18	12 - 13
20	14 - 15
23	16 - 17
25	18 - 19
26	20 - 21
27	14 - 15
29	22 - 23
30	24 - 25
31	26 - 27
34	28 - 29
35	30 - 31
36	32 - 33
38	28 - 29
39	34 - 35
41	36 - 37
44	34 - 35
48	38 - 39
49	40 - 41
60	40 - 41

Table G-2. Lakes Indicated by Name on the Hydrologic Unit Maps.

NAMED LAKE	HYDROLOGIC UNIT	NAMED LAKE	HYDROLOGIC UNIT
Arbuckle	36	Kissimmee	36
Blue Cypress	31	Levy	30
Crescent	25	Lochloosa	30
Cypress	36	Marian	36
Disston	25	Monroe	31
Doctors	25	Newnans	30
Dora	30	Okeechobee	49
Eustis	30	Panasoffkee	35
George	31	Pierce	36
Griffin	30	Poinsett	31
Hancock	41	Rosalie	36
Harris	30	Tohopekaliga	36
Hatchineha	36	Washington	31
Istokpoga	36	Weohyakapka	36
Jessup	31	Woodruff	31
Kerr	31	Yale	27

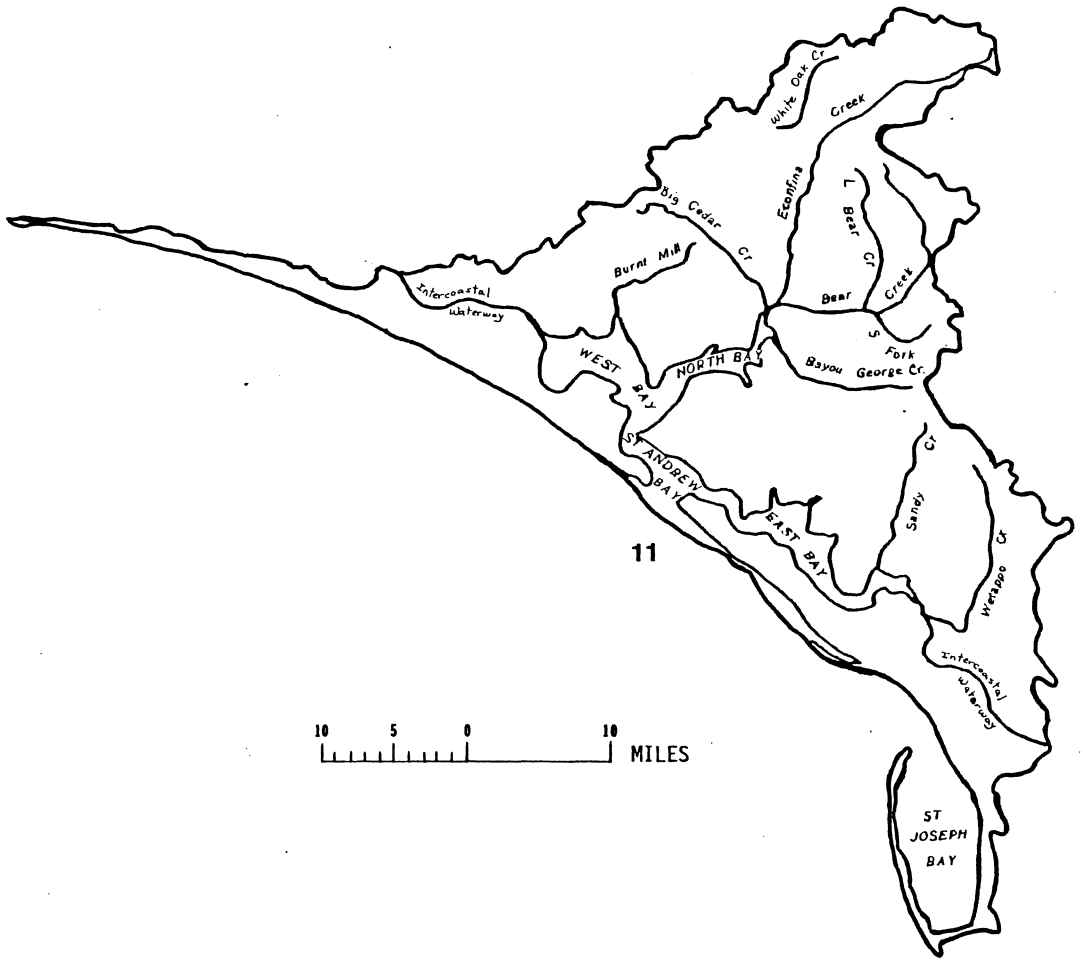

Figure G-2. Hydrologic Unit 11.

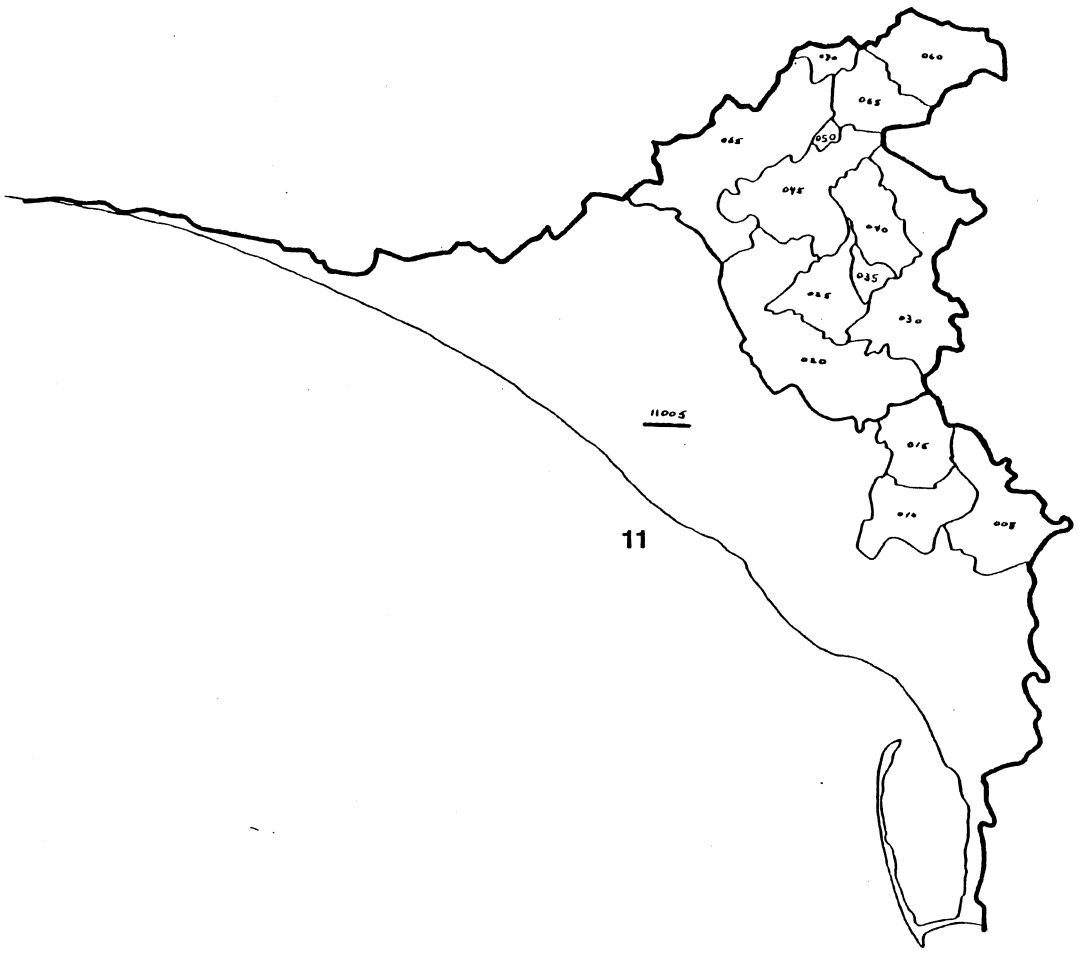

Figure G-3. Catchments in Hydrologic Unit 11.

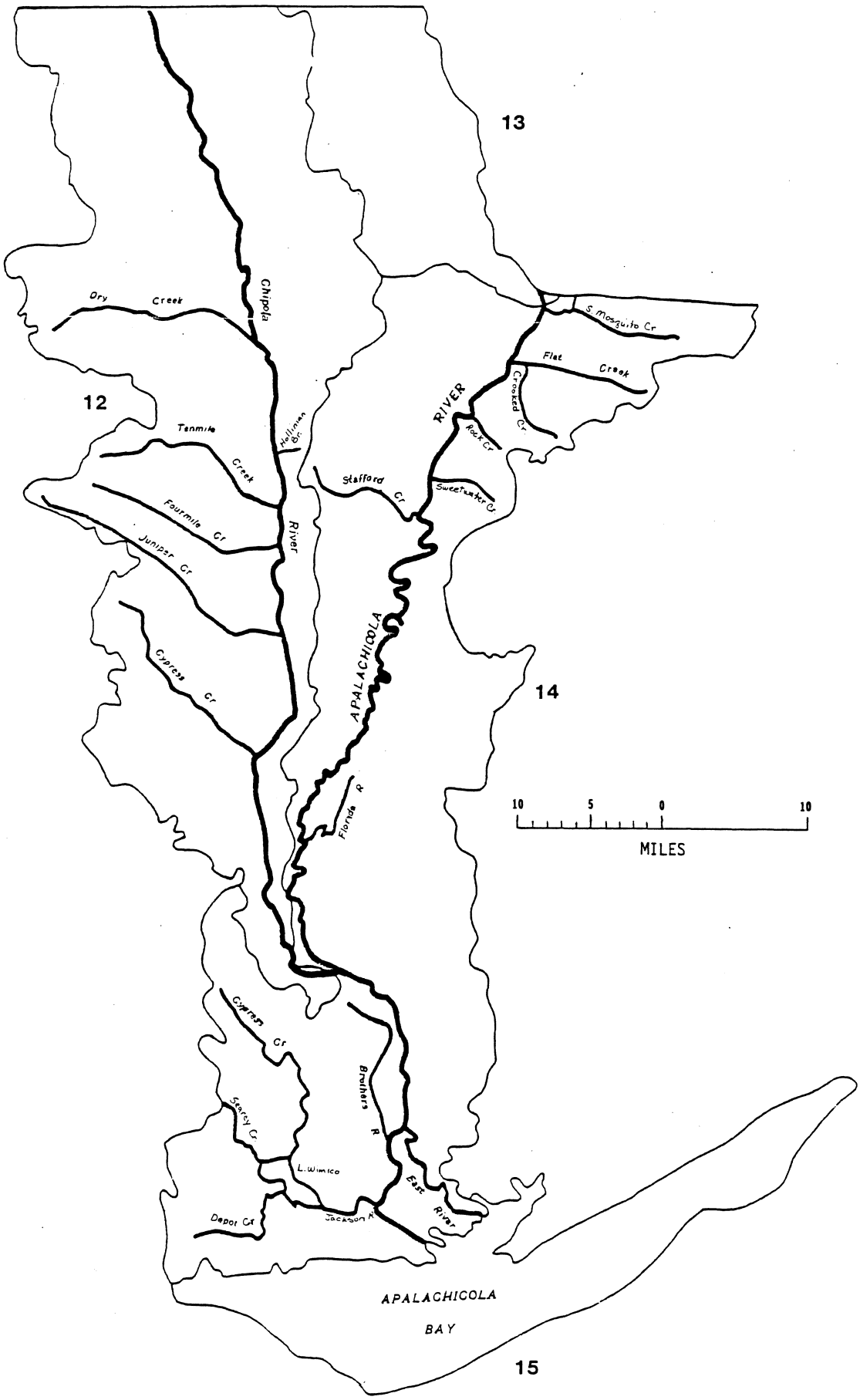

Figure G-4. Hydrologic Units 12-15.

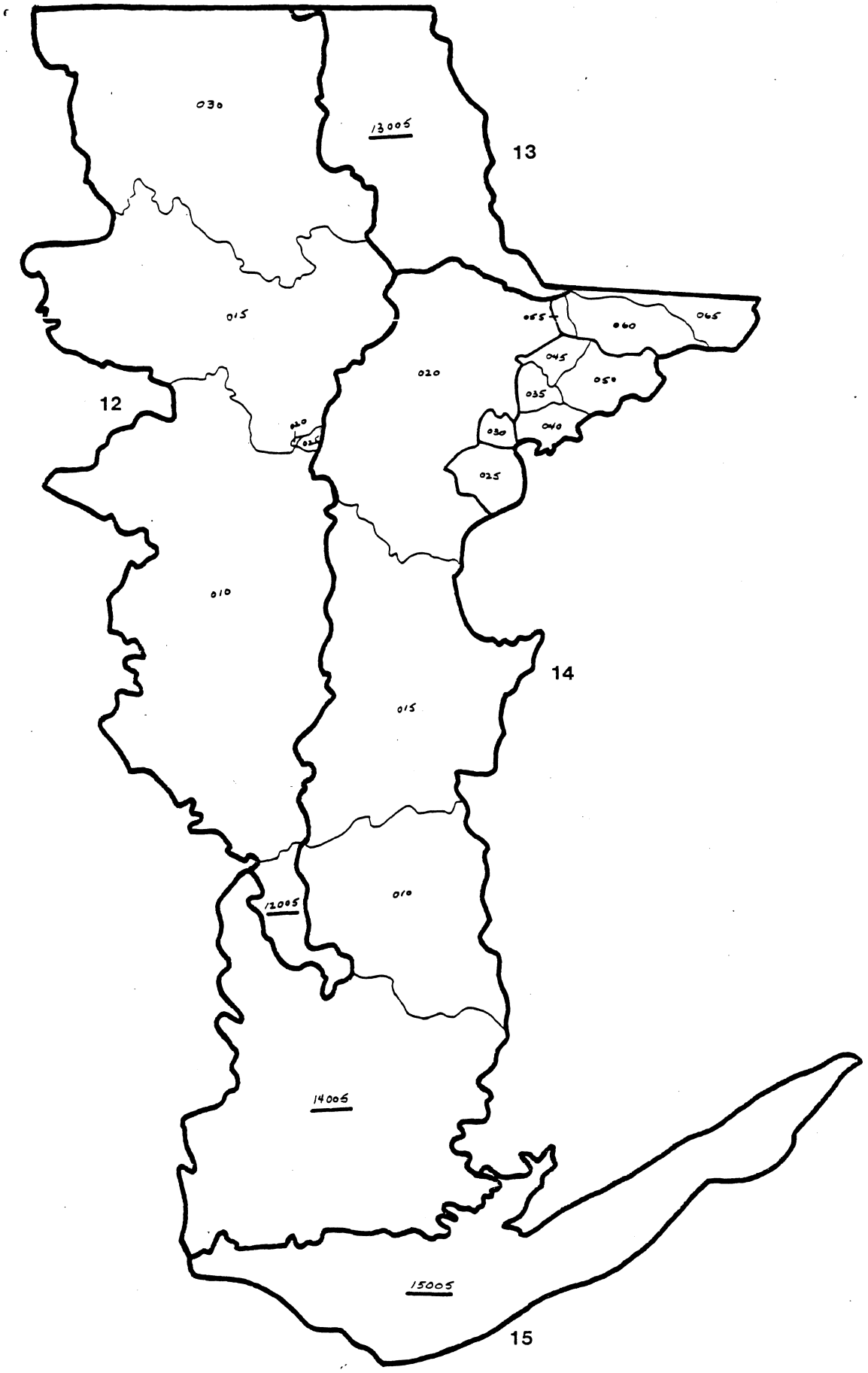

Figure G-5. Catchments in Hydrologic Units 12-15.



Figure G-6. Hydrologic Units 16 & 17.

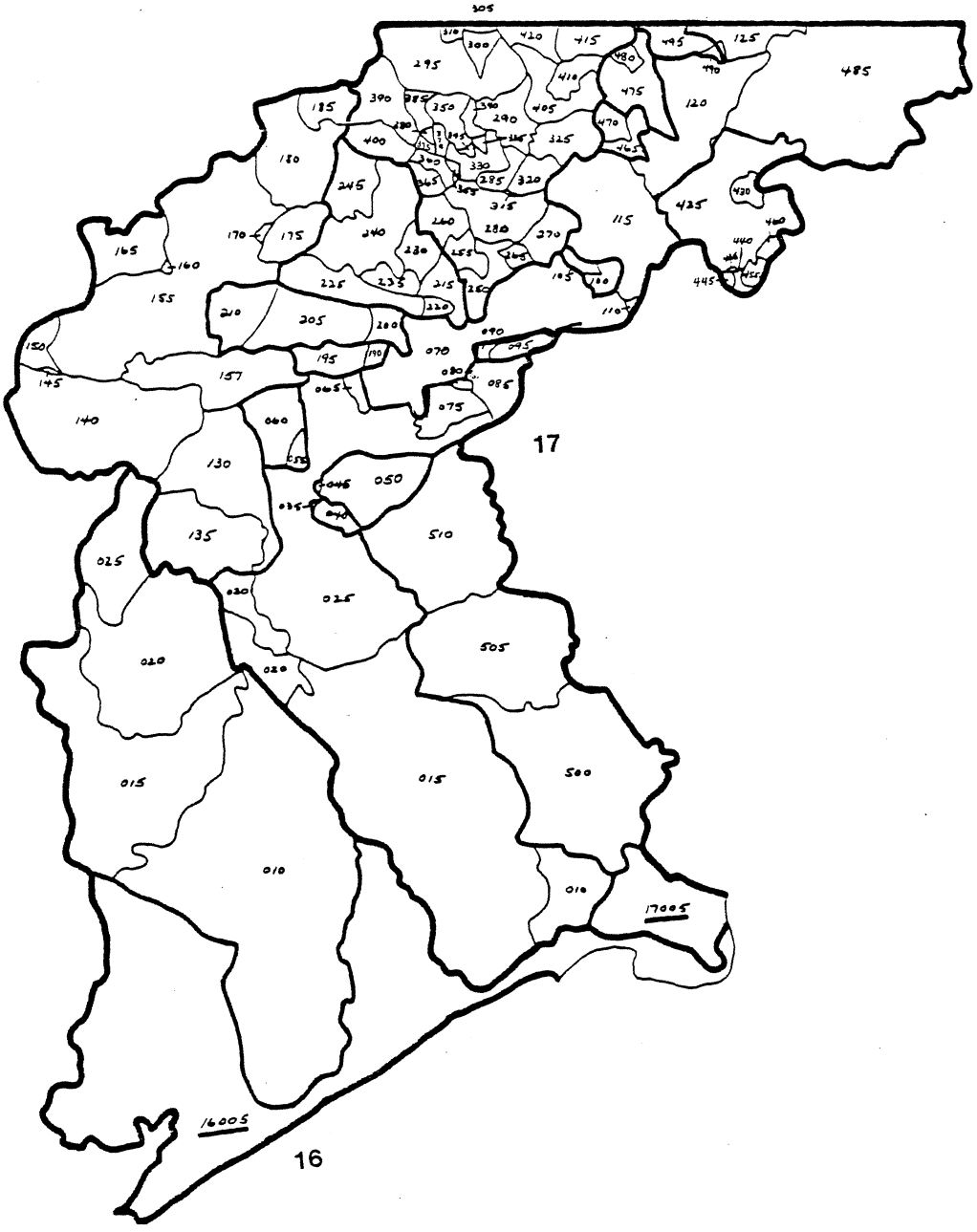

Figure G-7. Catchments in Hydrologic Units 16 & 17.

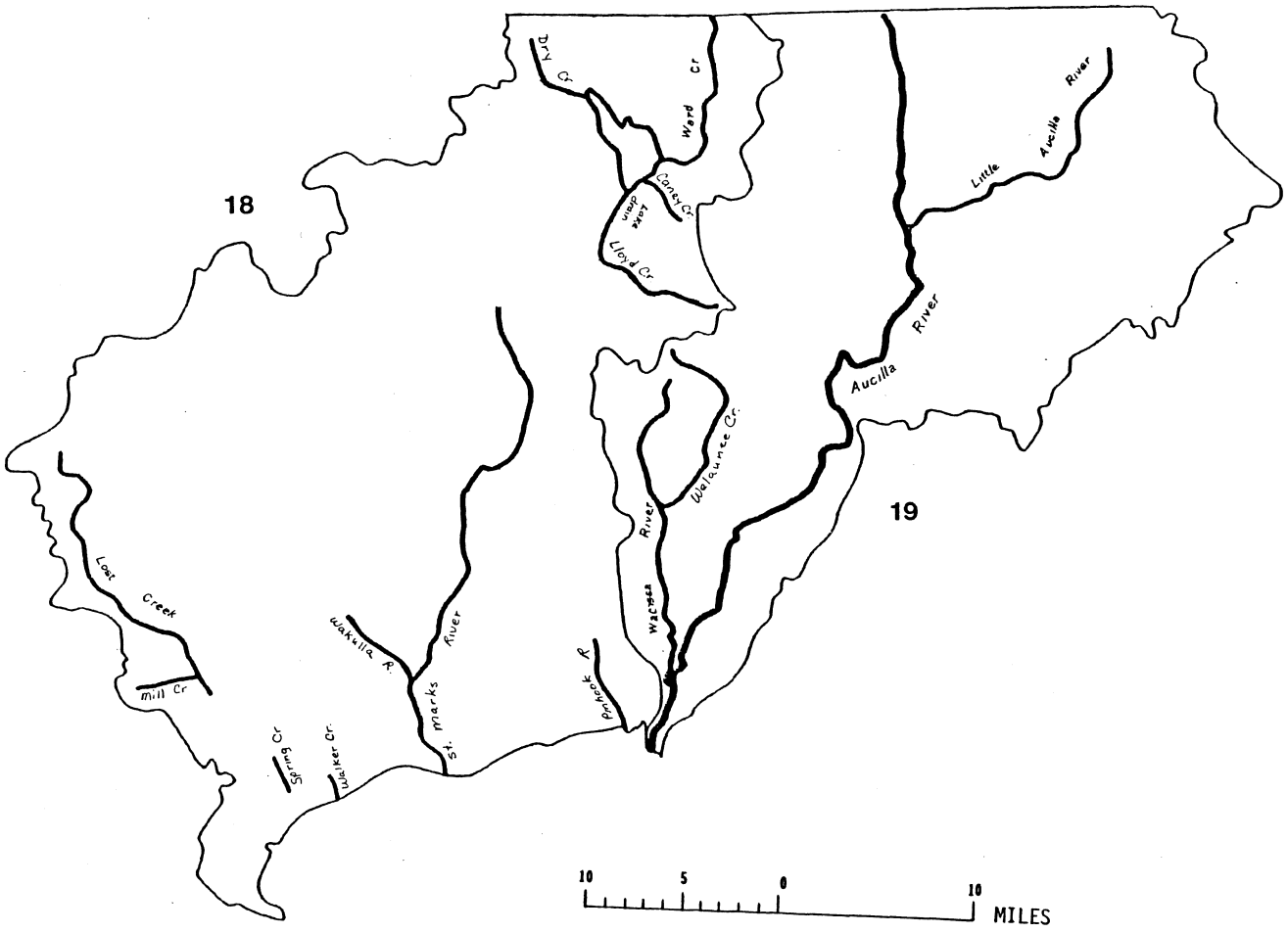

Figure G-8. Hydrologic Units 18 & 19.

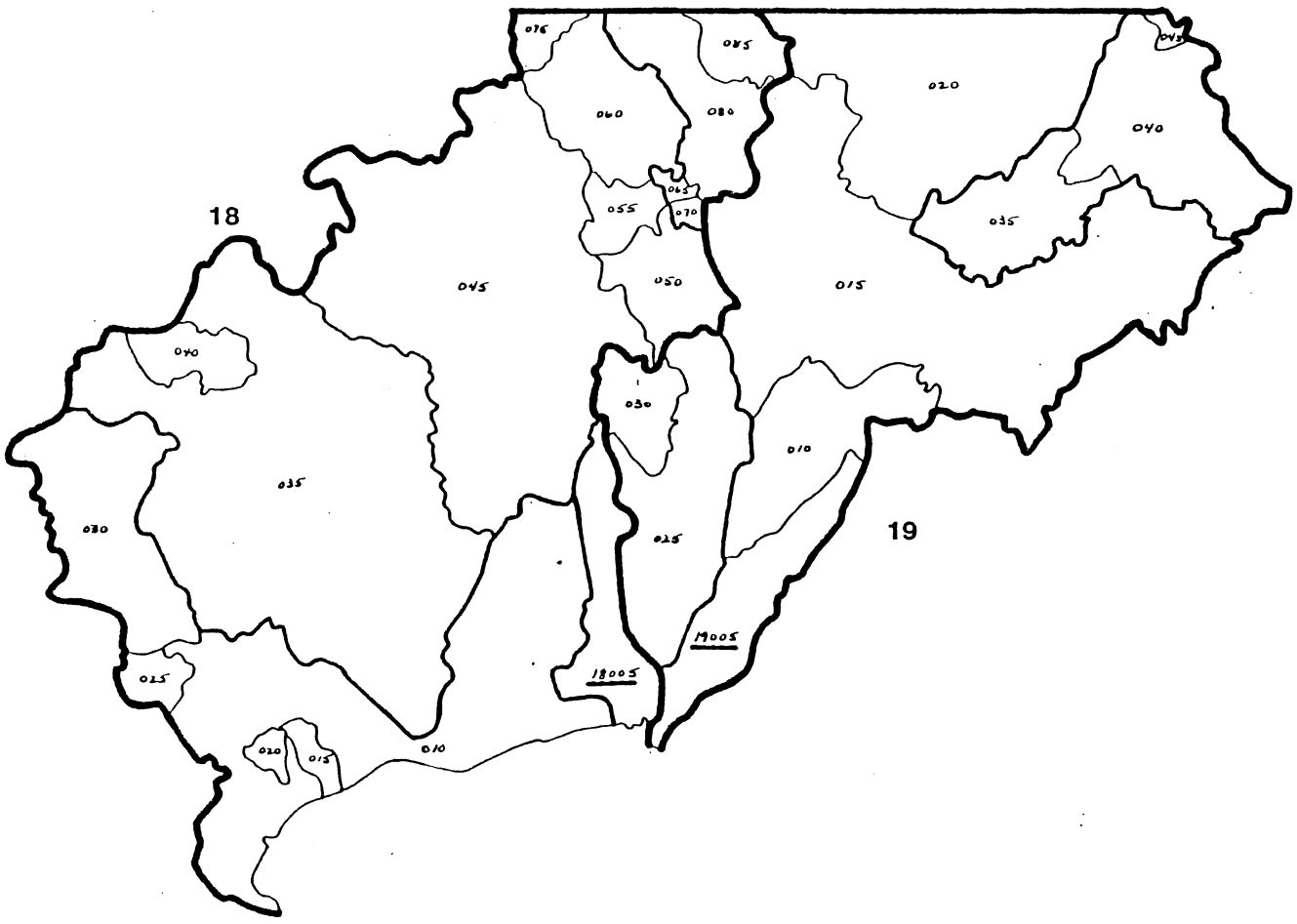

Figure G-9. Catchments in Hydrologic Units 18 & 19.

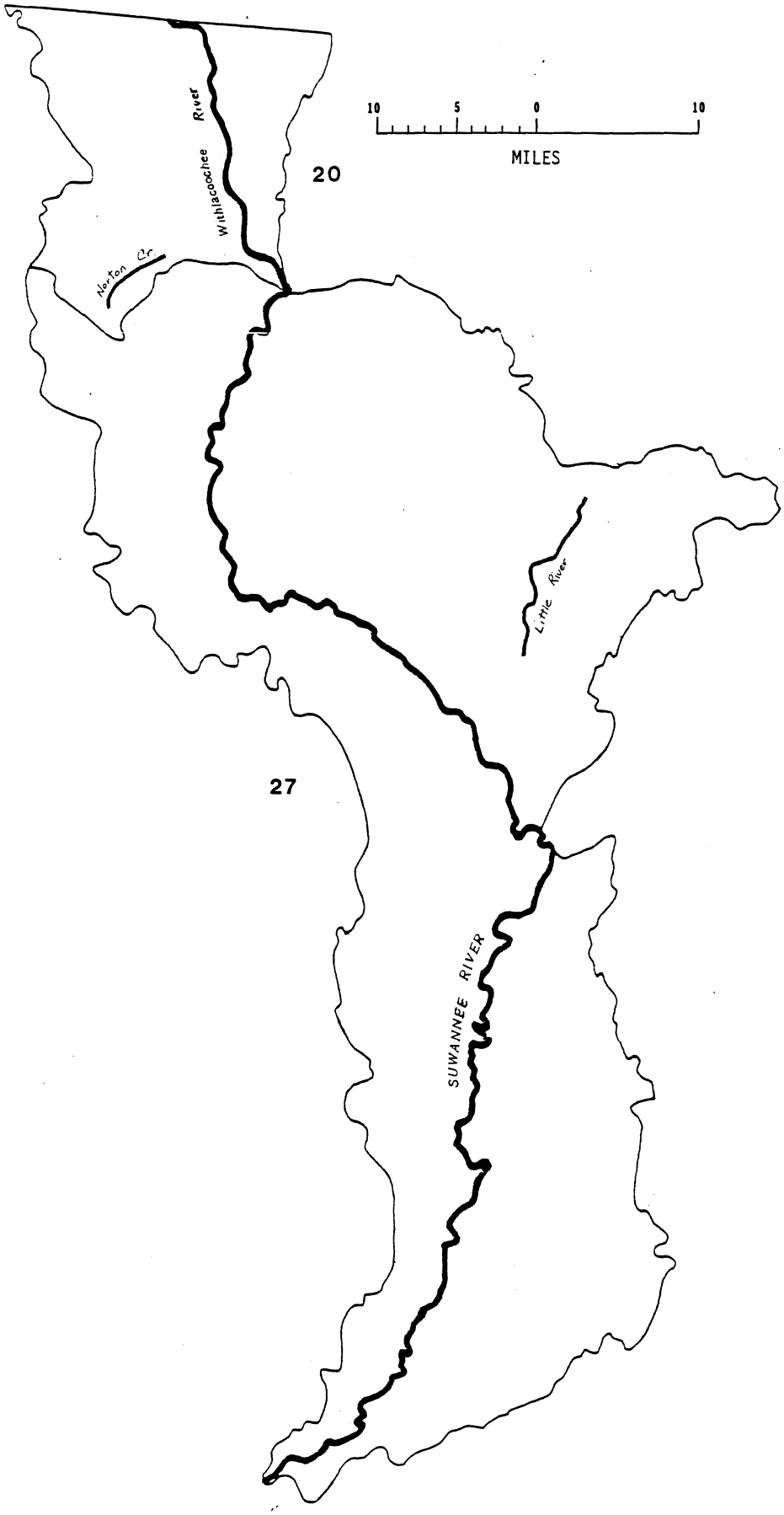

Figure G-10. Hydrologic Units 20 & 27.

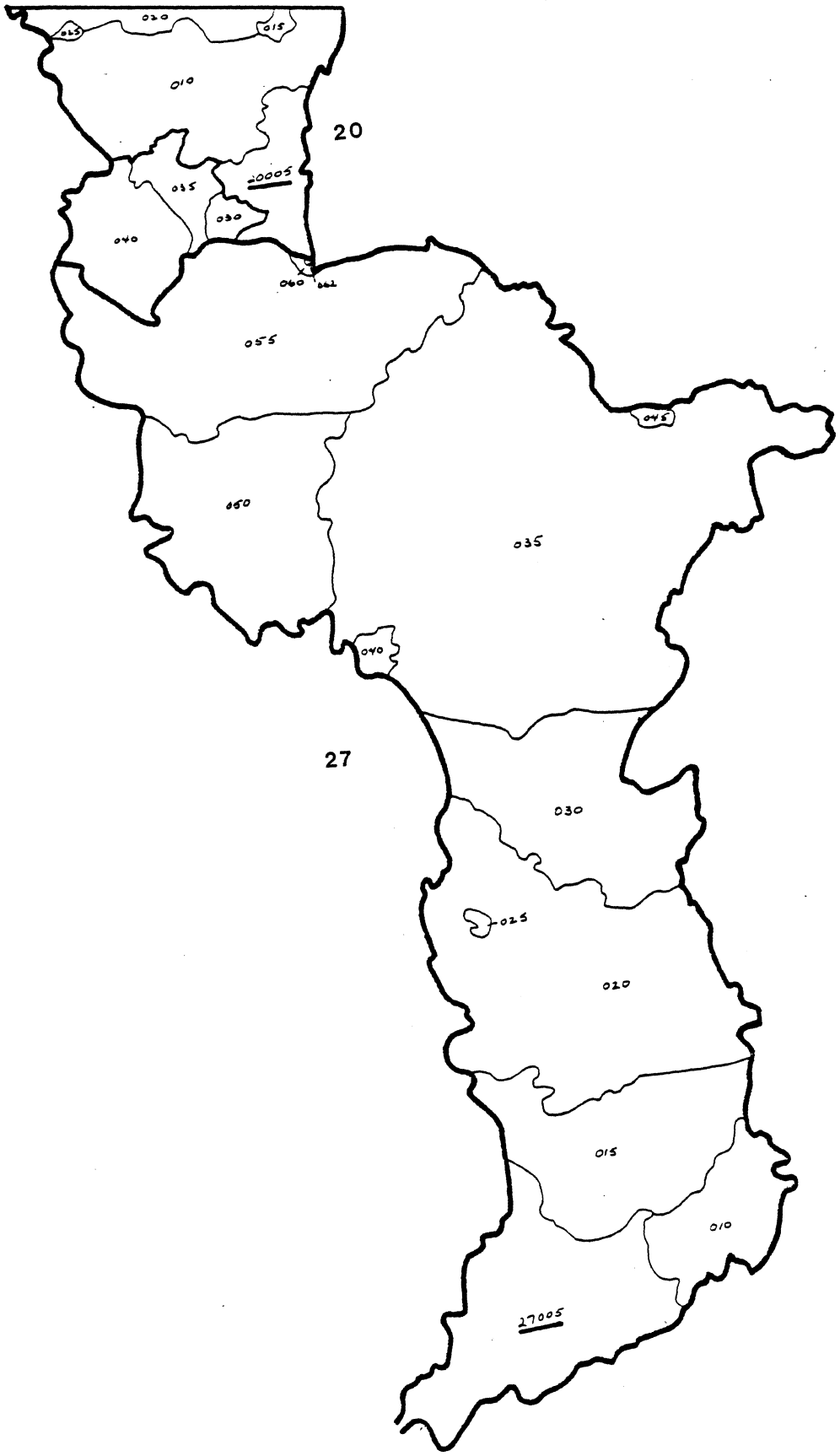

Figure G-11. Catchments in Hydrologic Units 20 & 27.

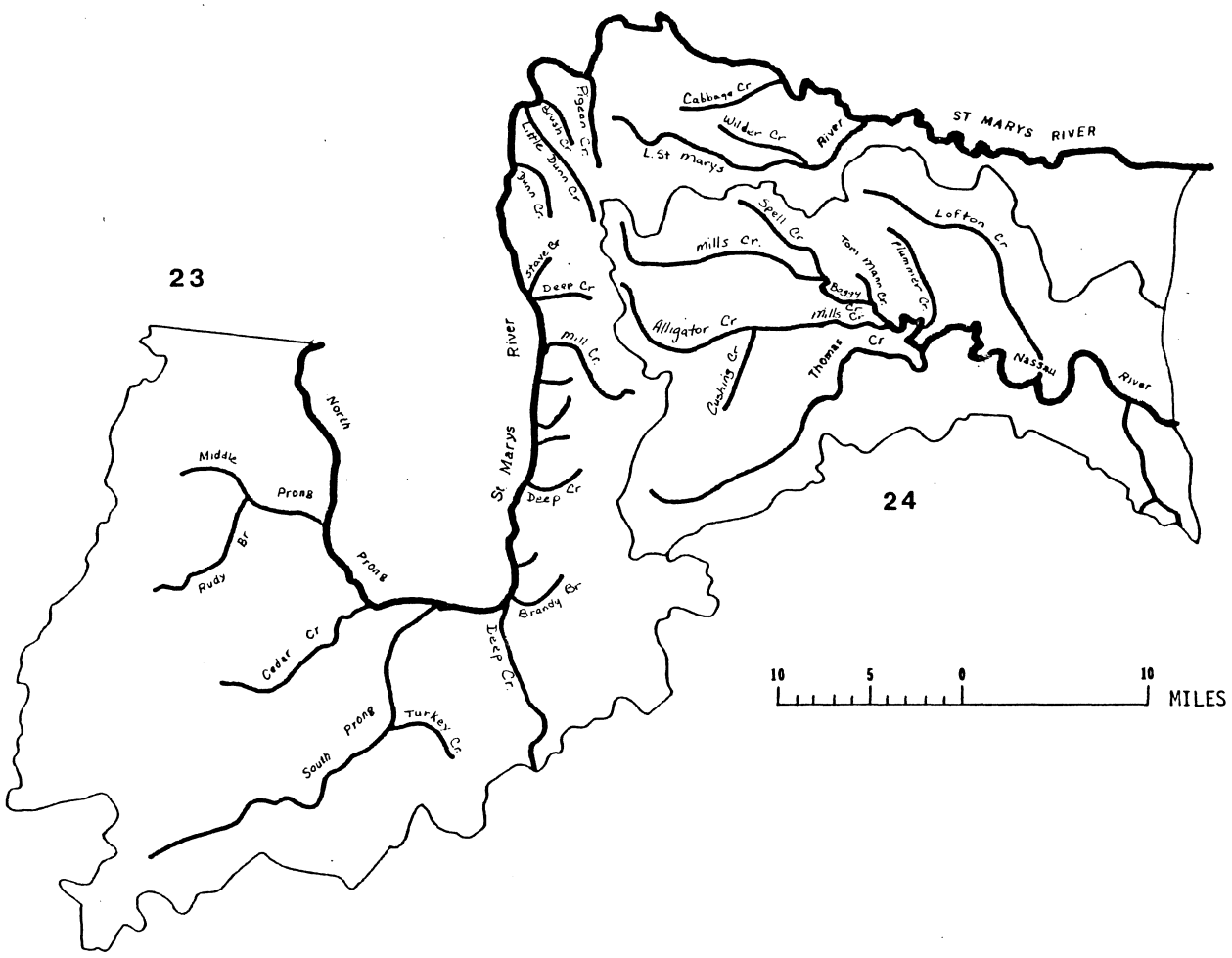

Figure G-12. Hydrologic Units 23 & 24.

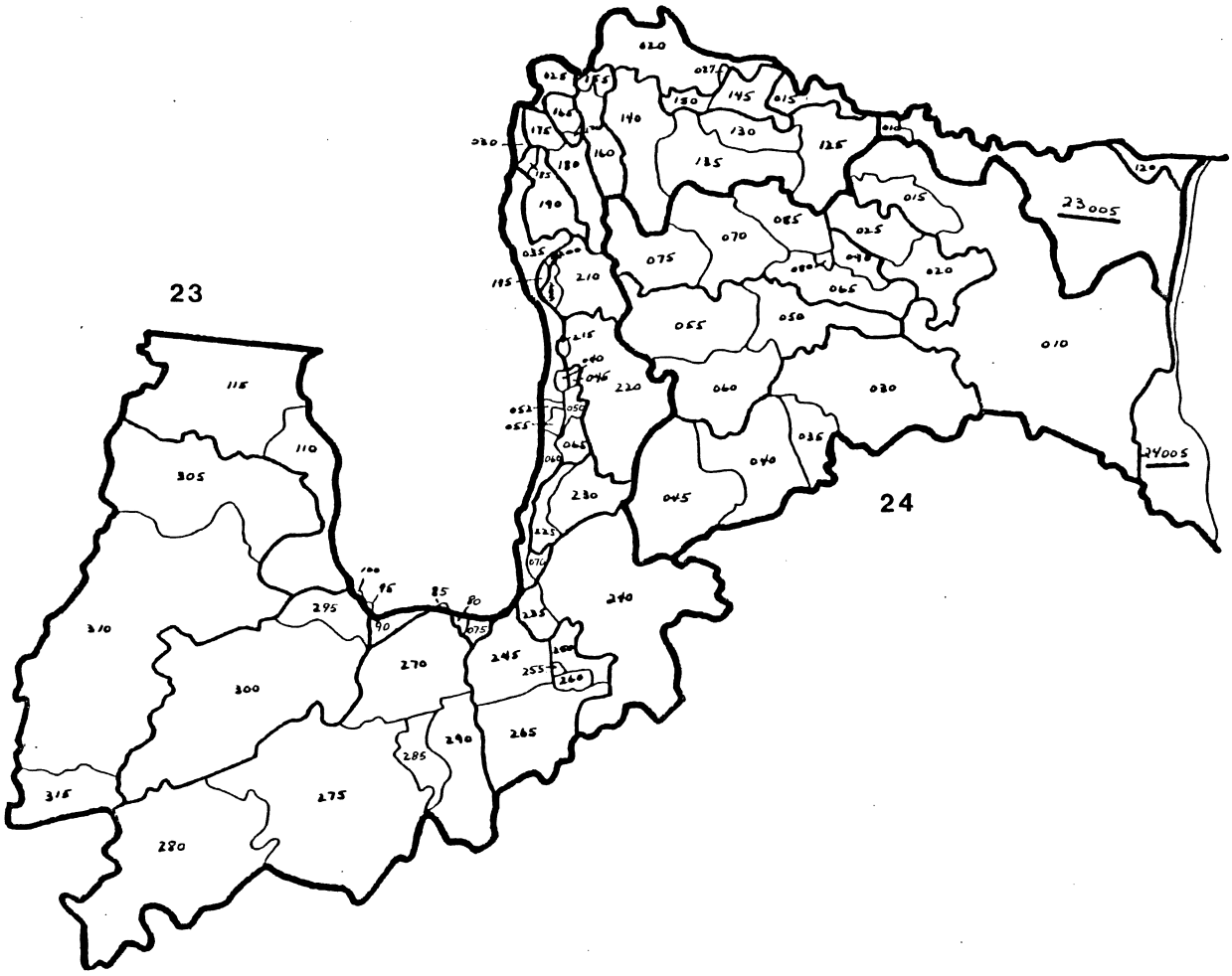

Figure G-13. Catchments in Hydrologic Units 23 & 24.

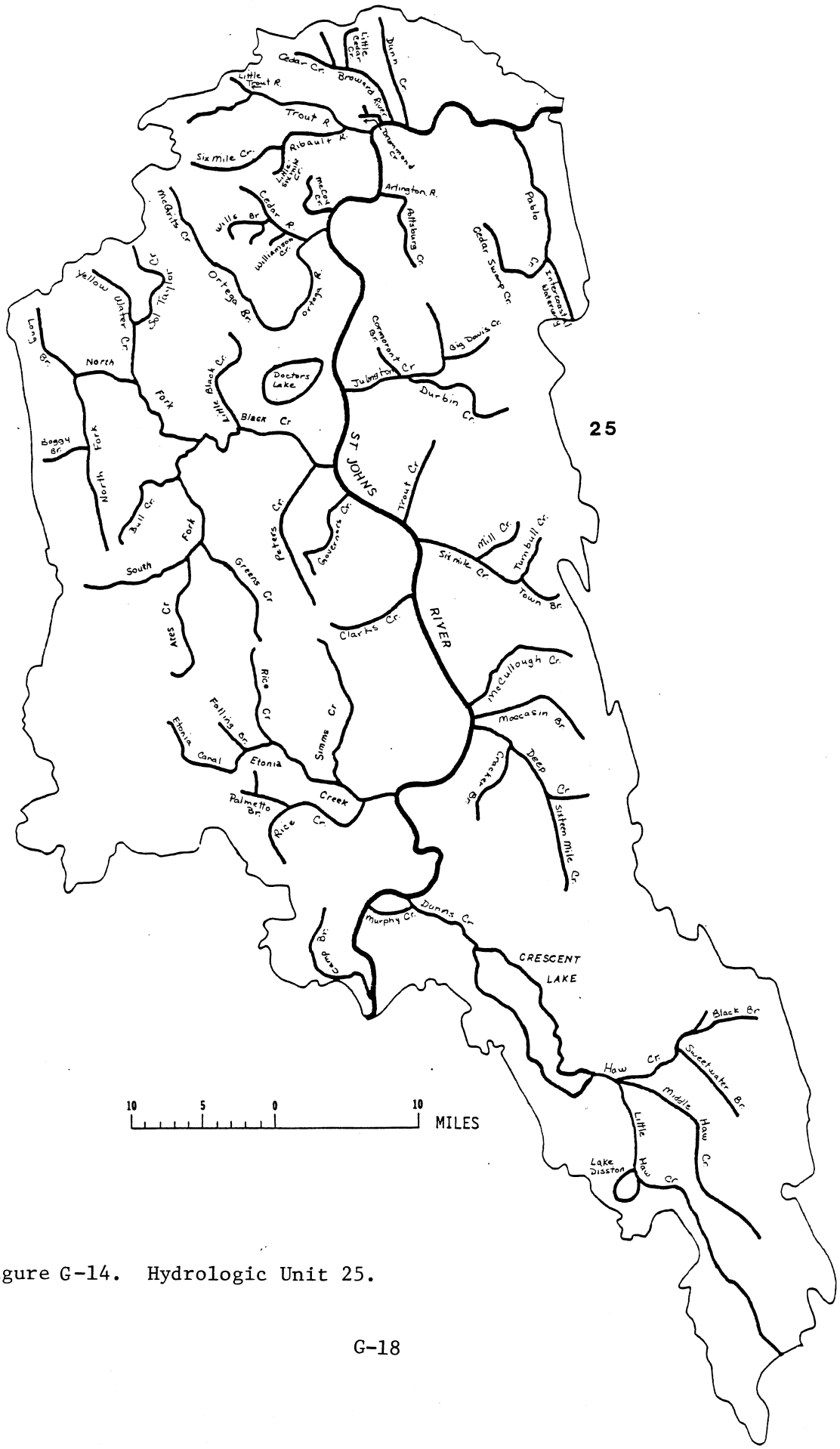

Figure G-14. Hydrologic Unit 25.

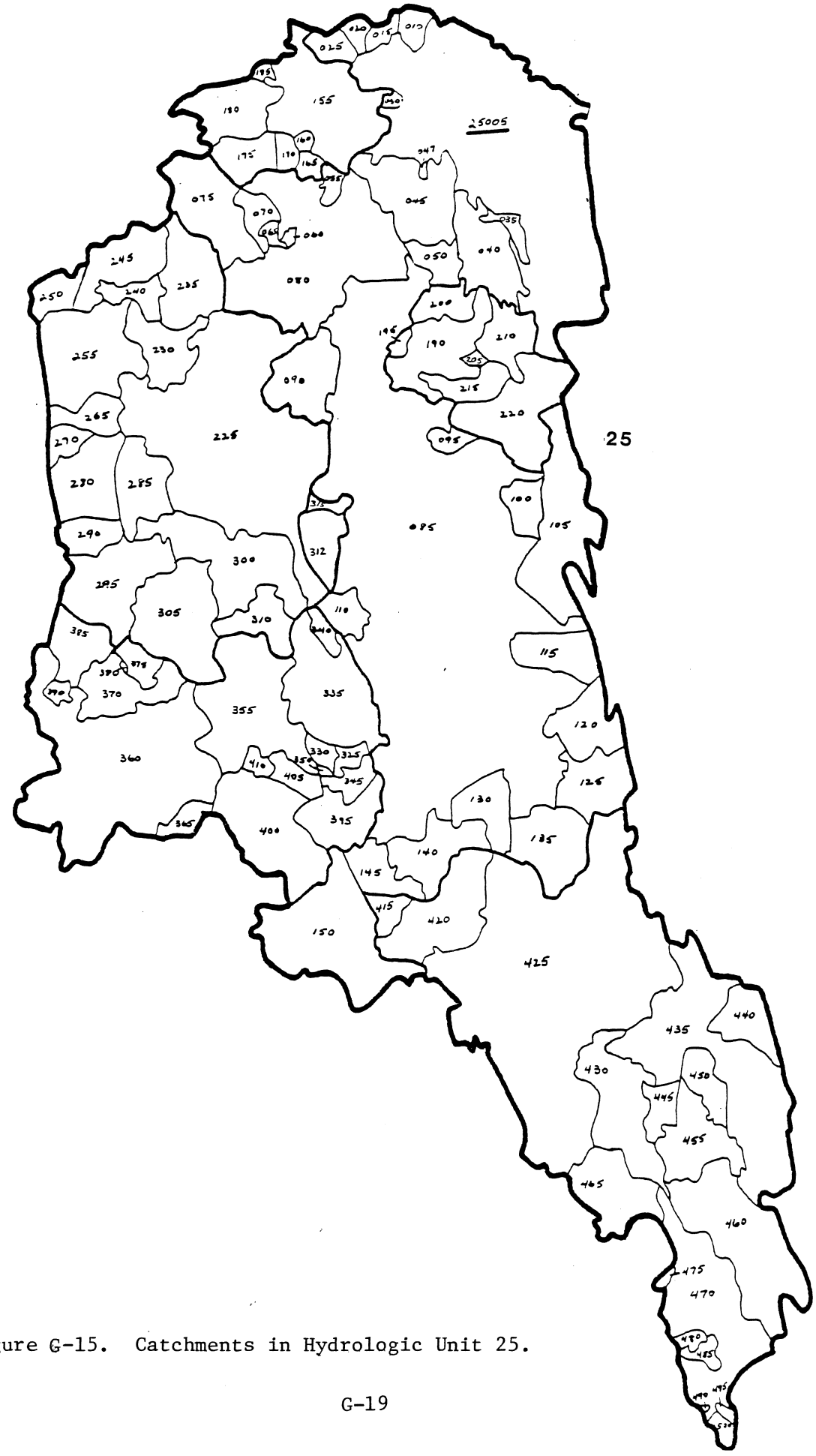

Figure G-15. Catchments in Hydrologic Unit 25.

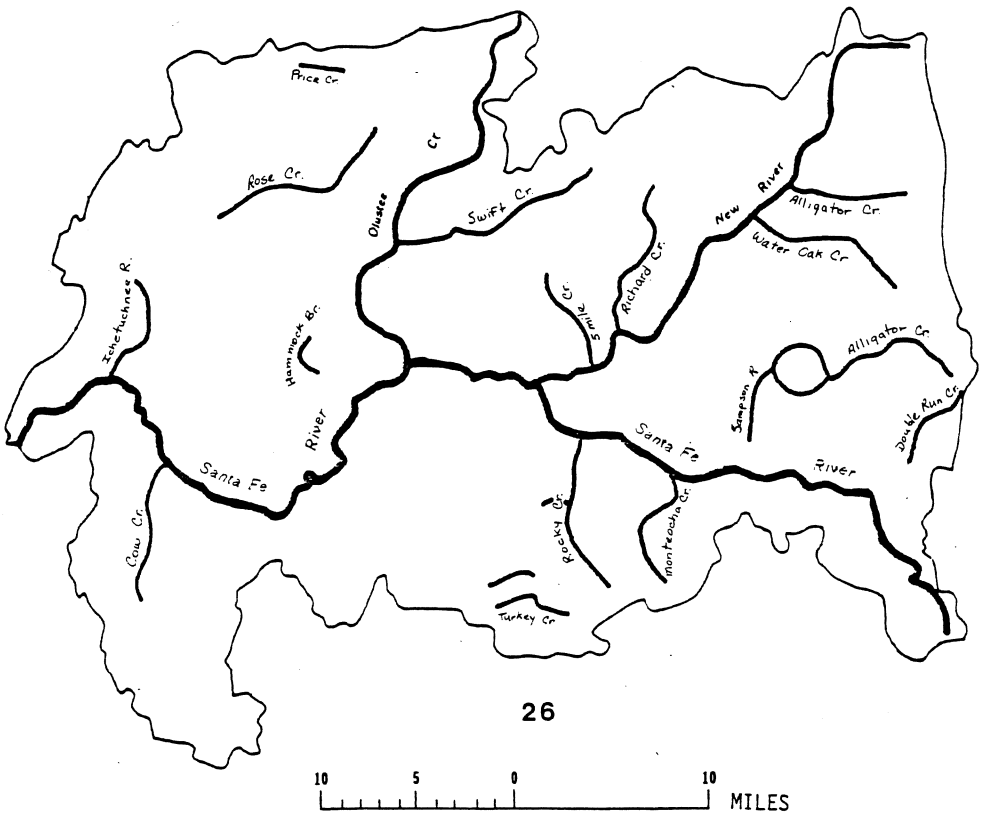

Figure G-16. Hydrologic Unit 26.

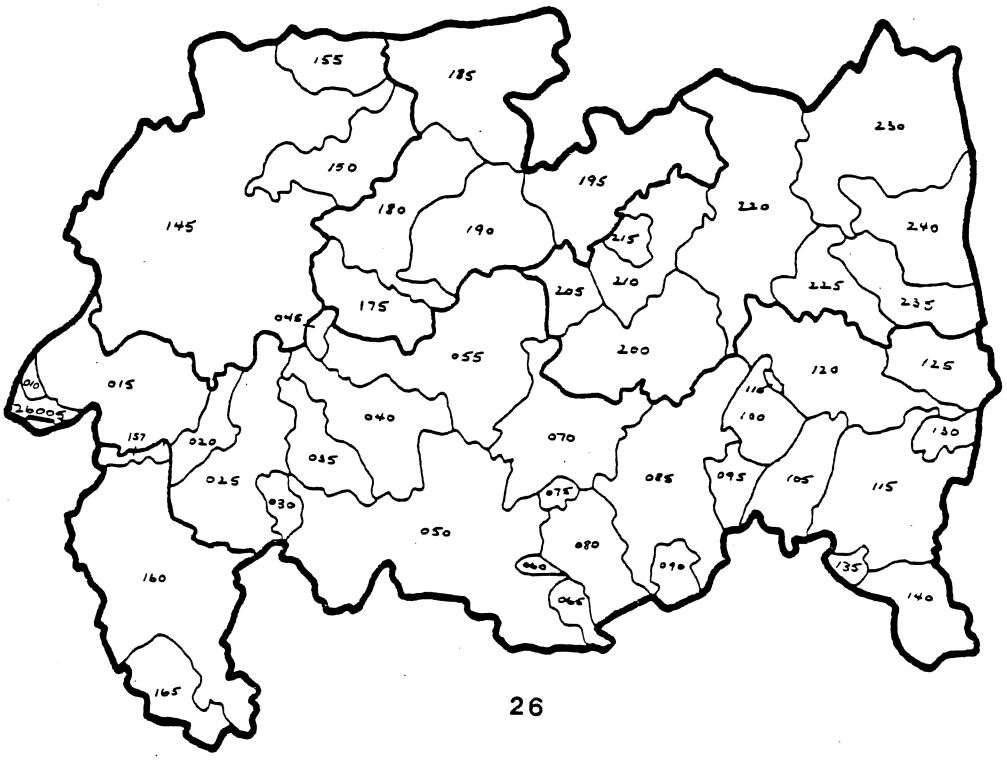

Figure G-17. Catchments in Hydrologic Unit 26.

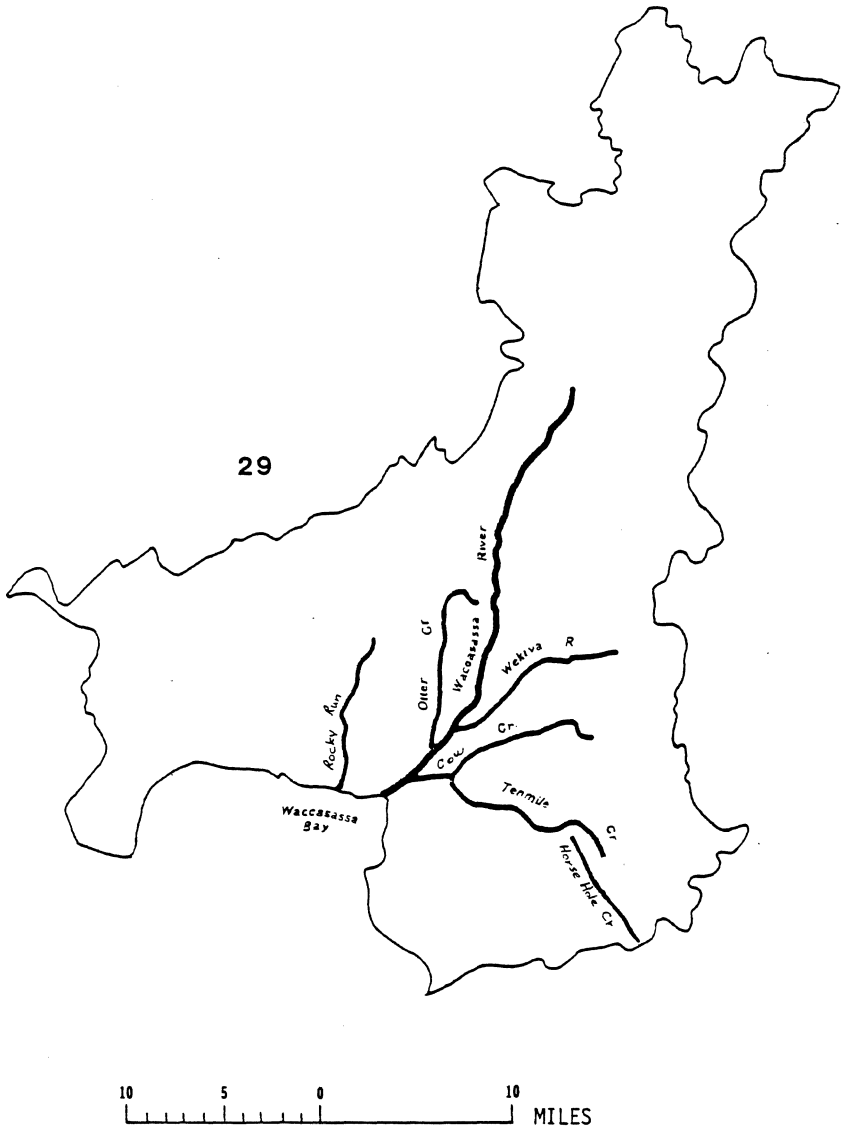

Figure G-18. Hydrologic Unit 29.

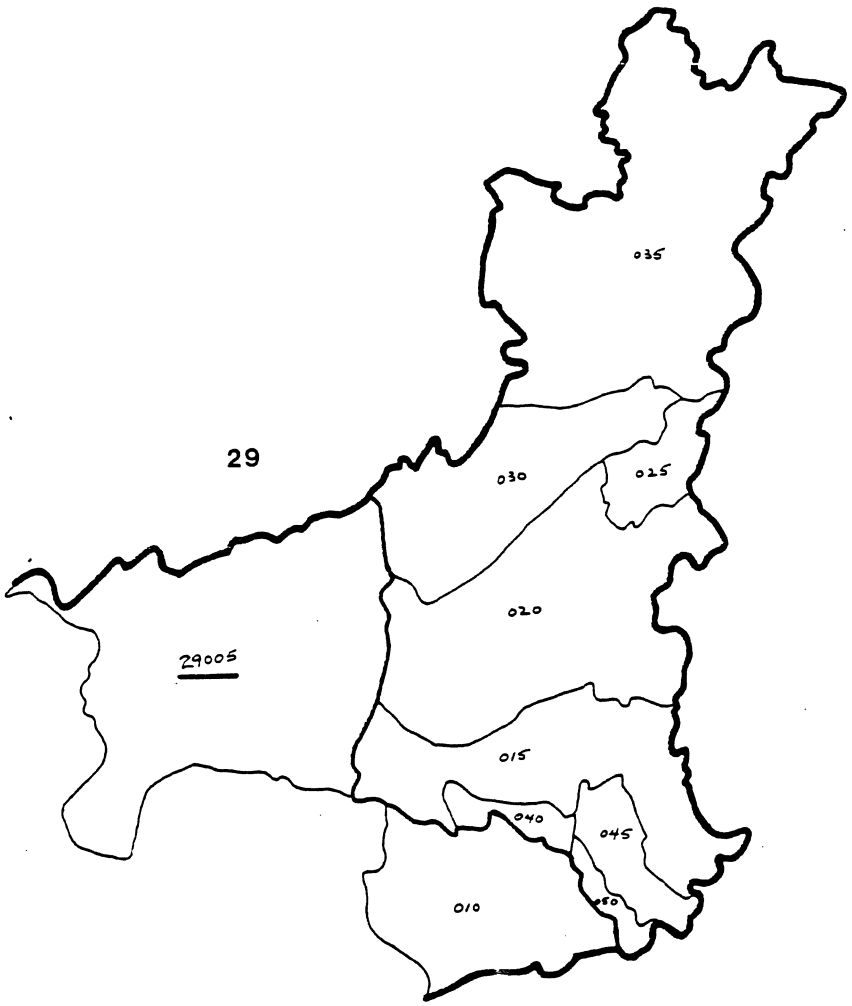

Figure G-19. Catchments in Hydrologic Unit 29.

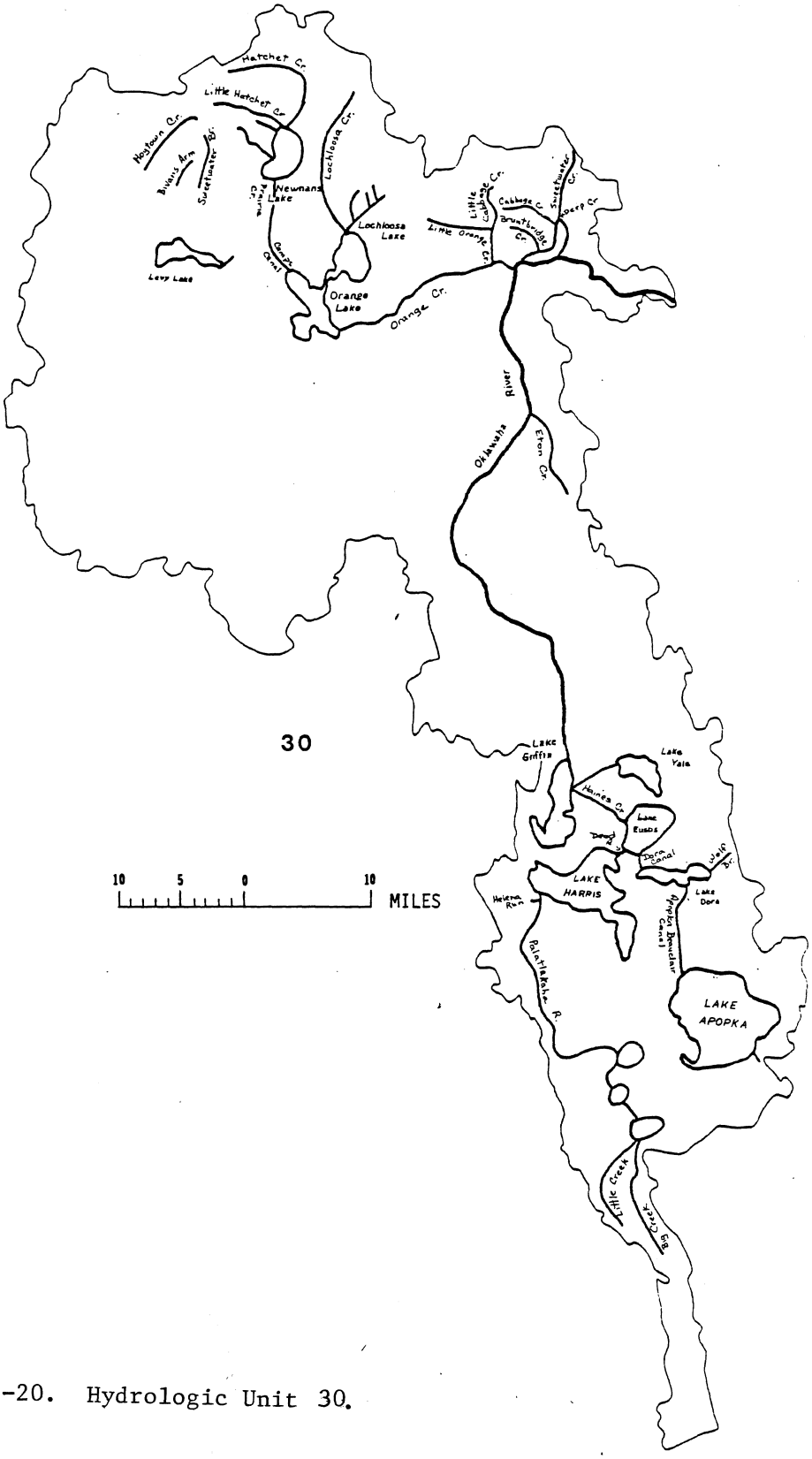

Figure G-20. Hydrologic Unit 30.

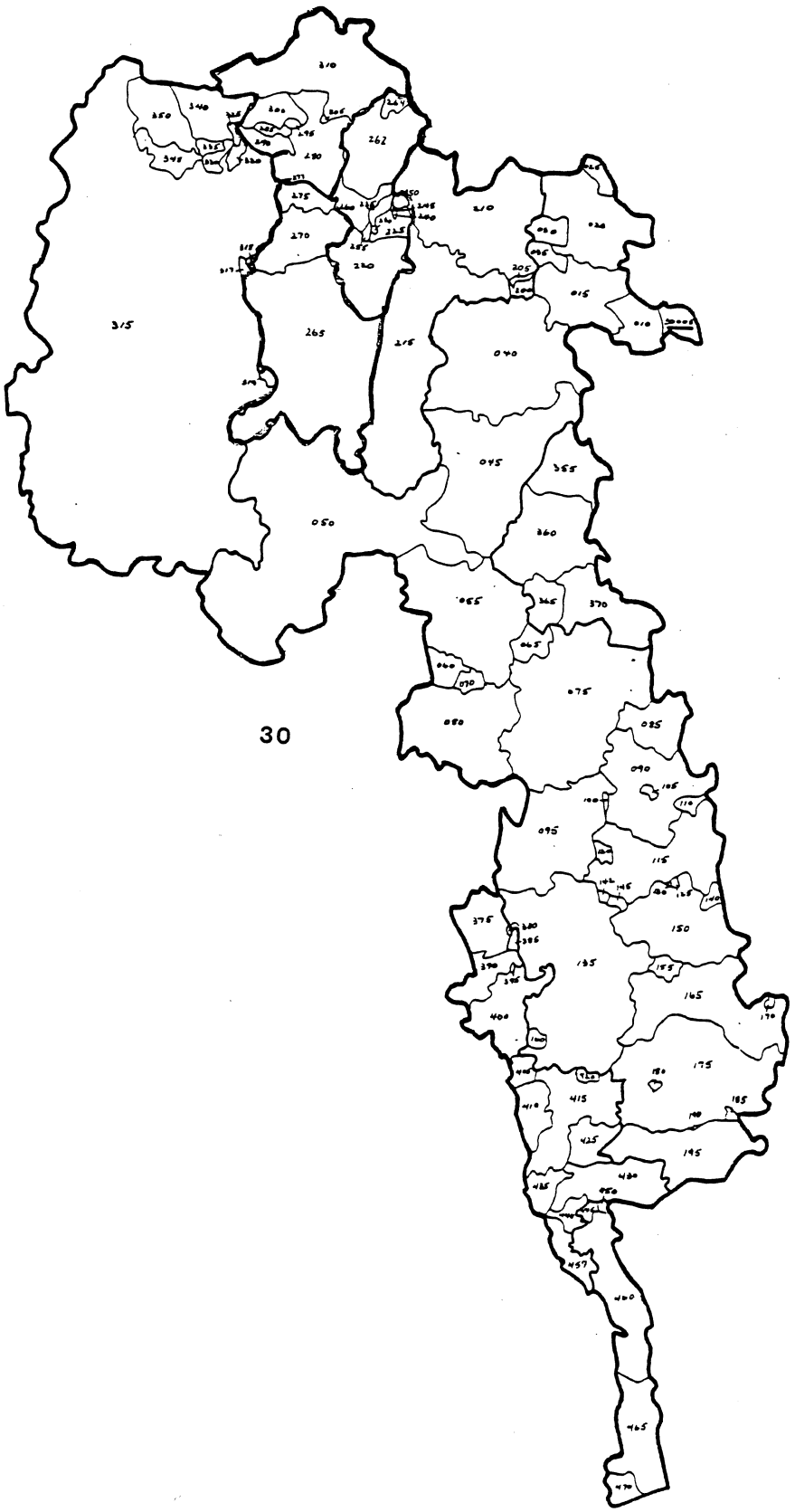

Figure G-21. Catchments in Hydrologic Unit 30.

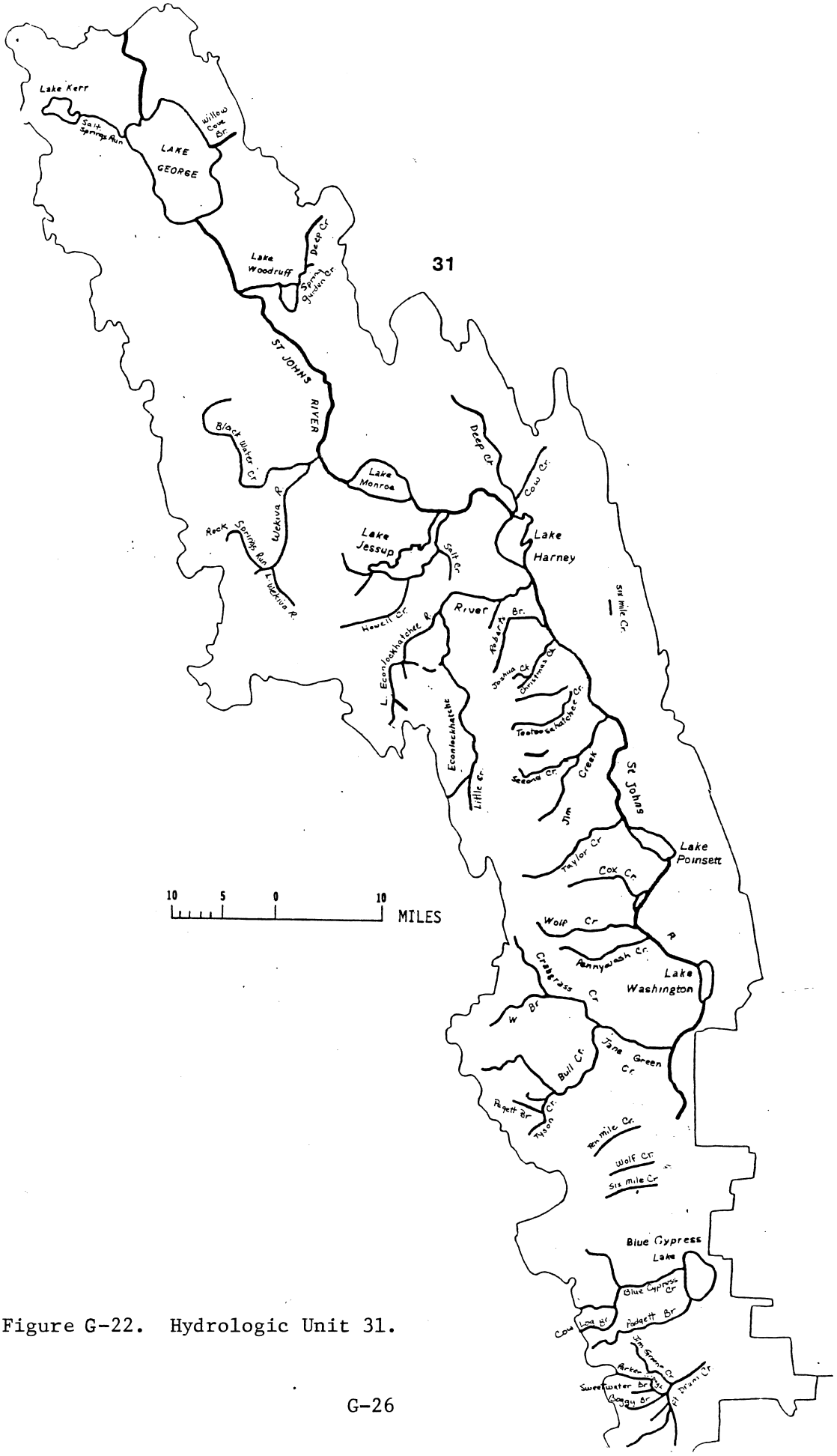

Figure G-22. Hydrologic Unit 31.

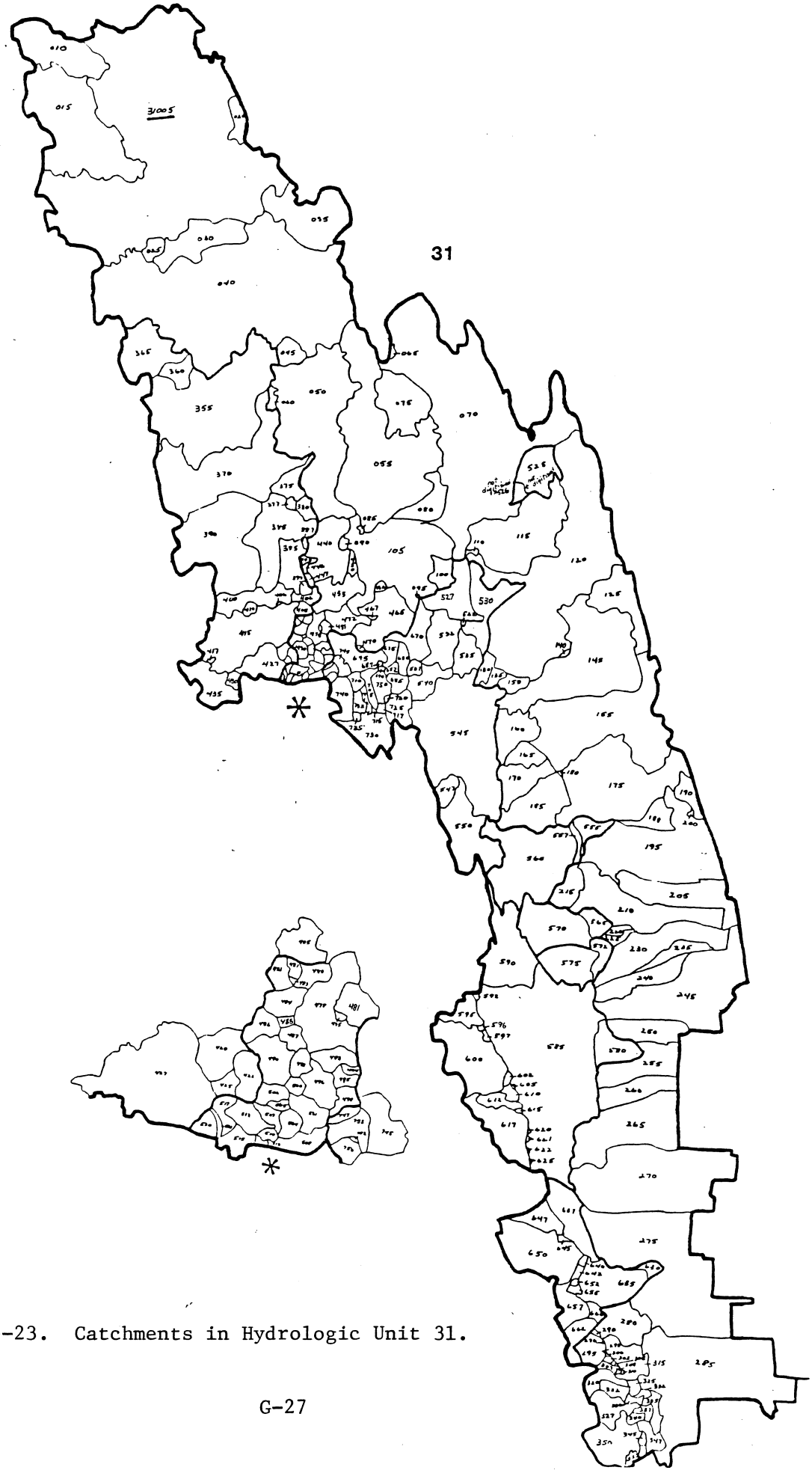

Figure G-23. Catchments in Hydrologic Unit 31.

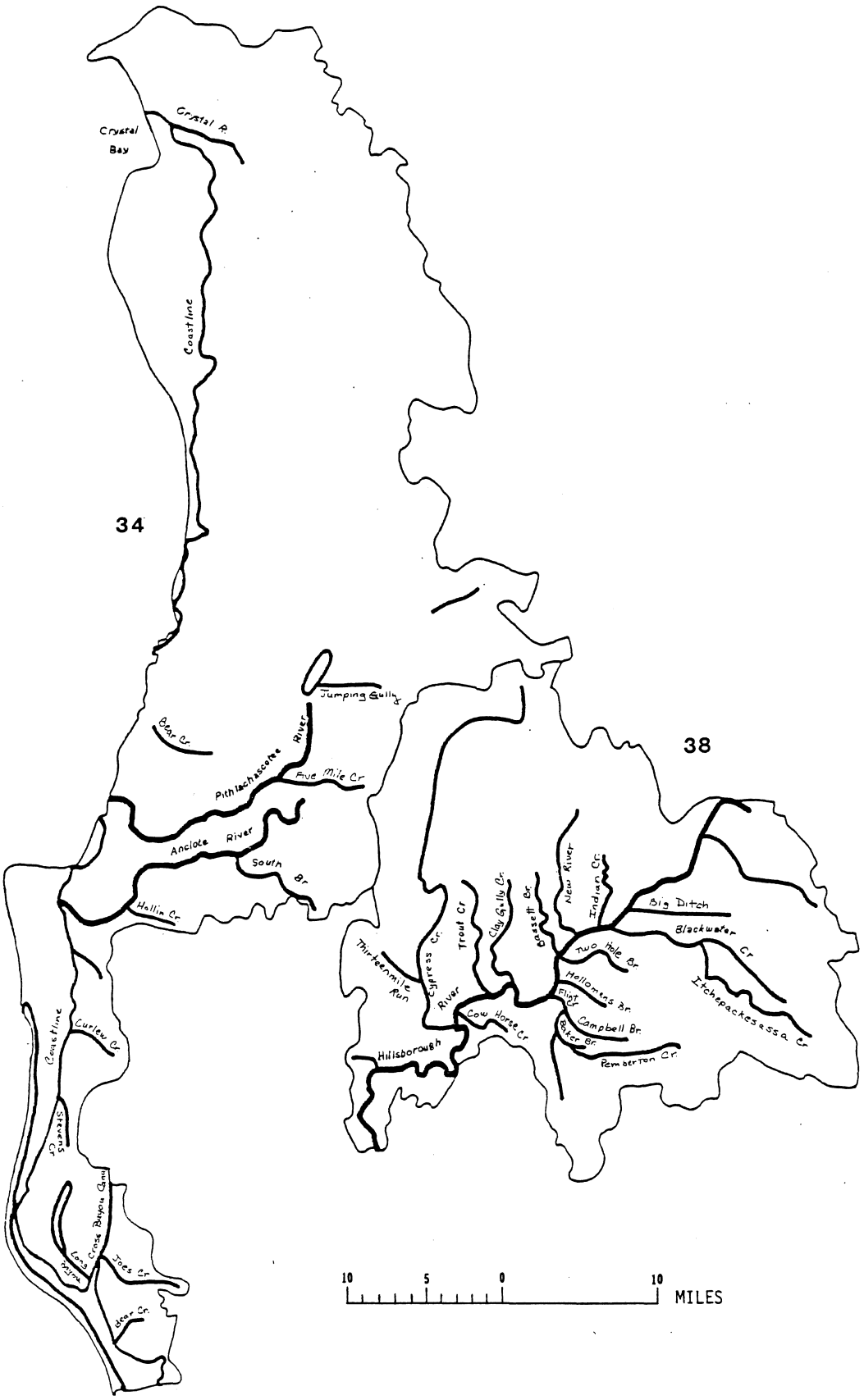

Figure G-24. Hydrologic Units 34 & 38.

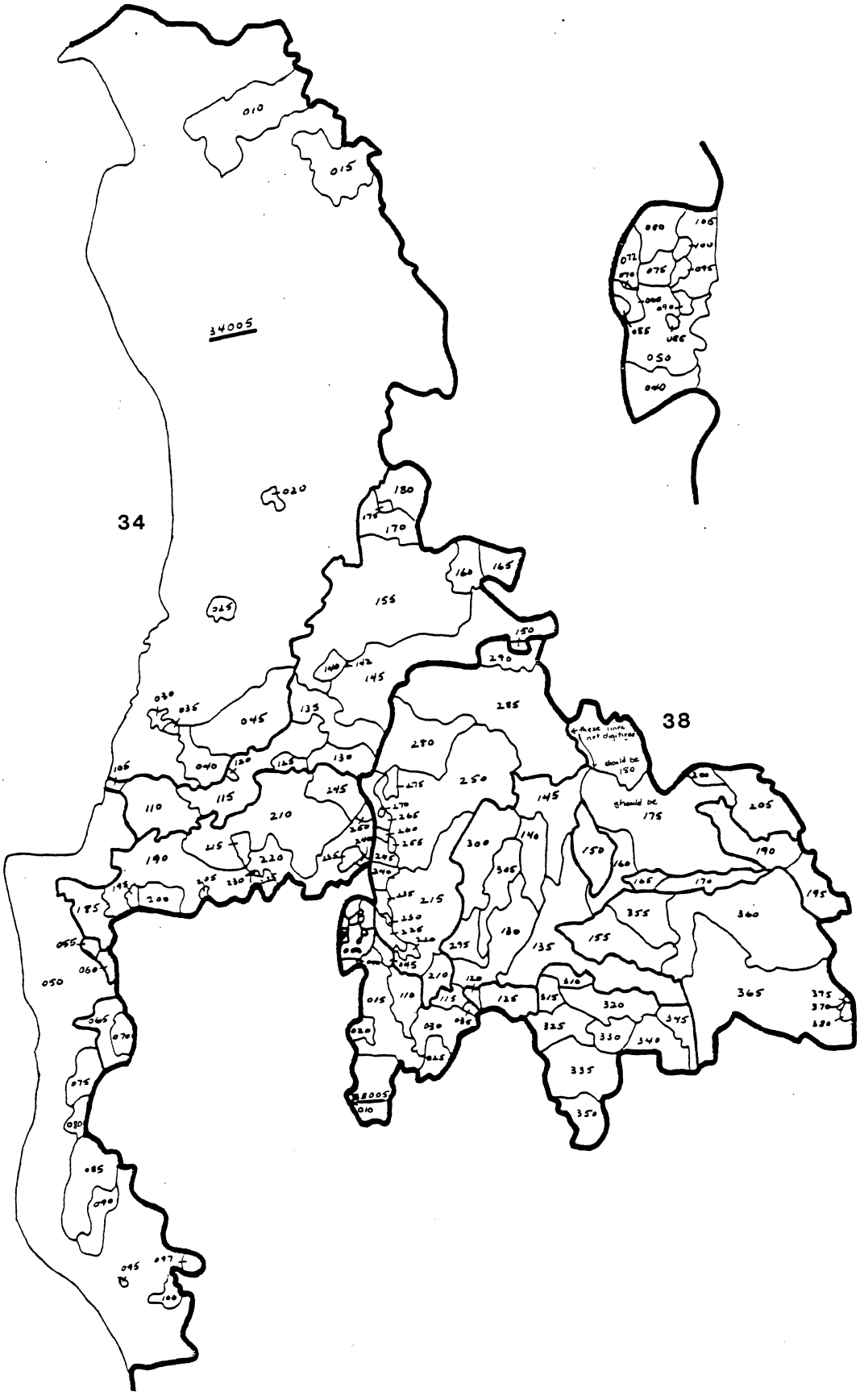

Figure G-25. Catchments in Hydrologic Units 34 & 38.

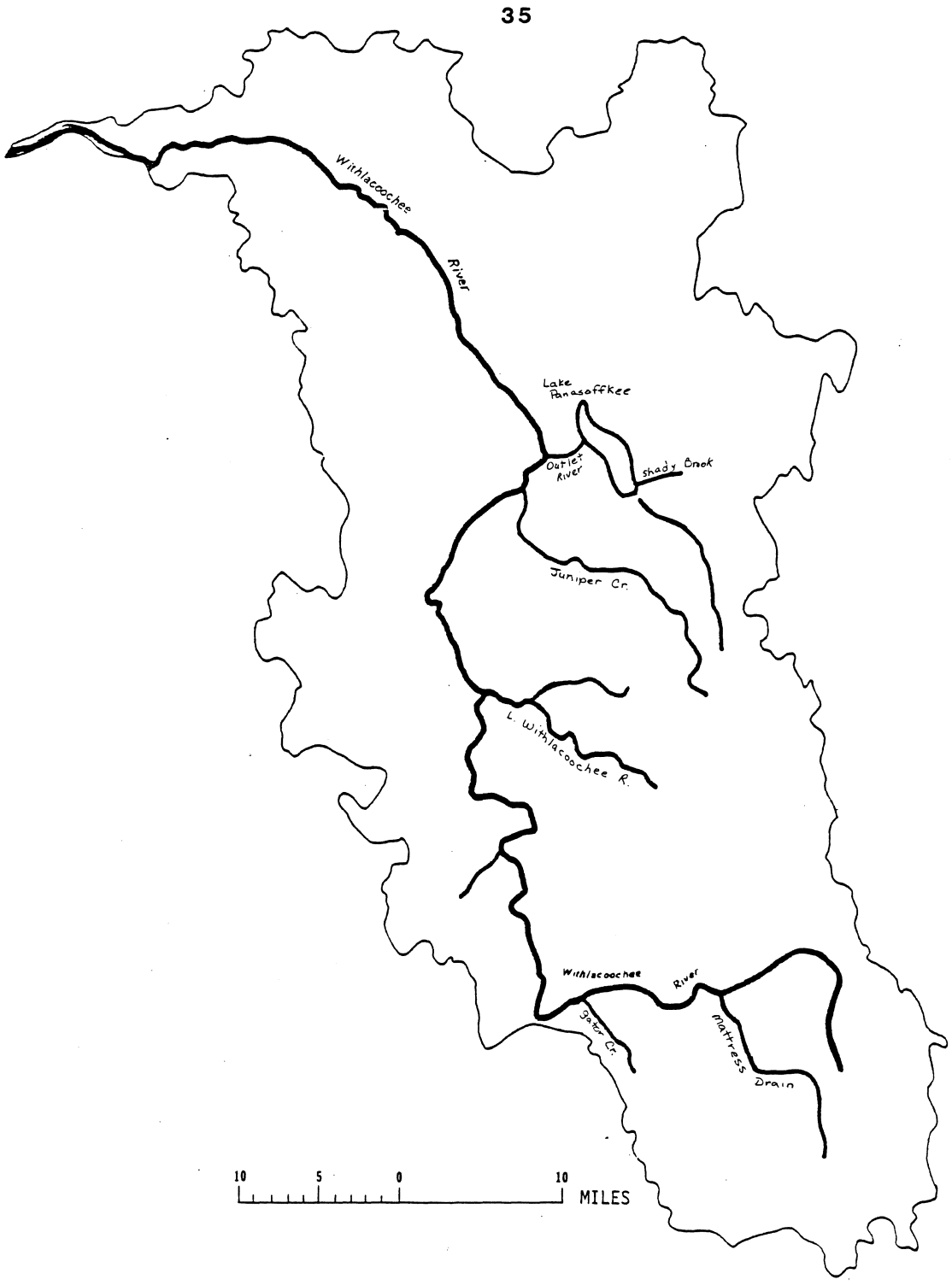

Figure G-26. Hydrologic Unit 35.

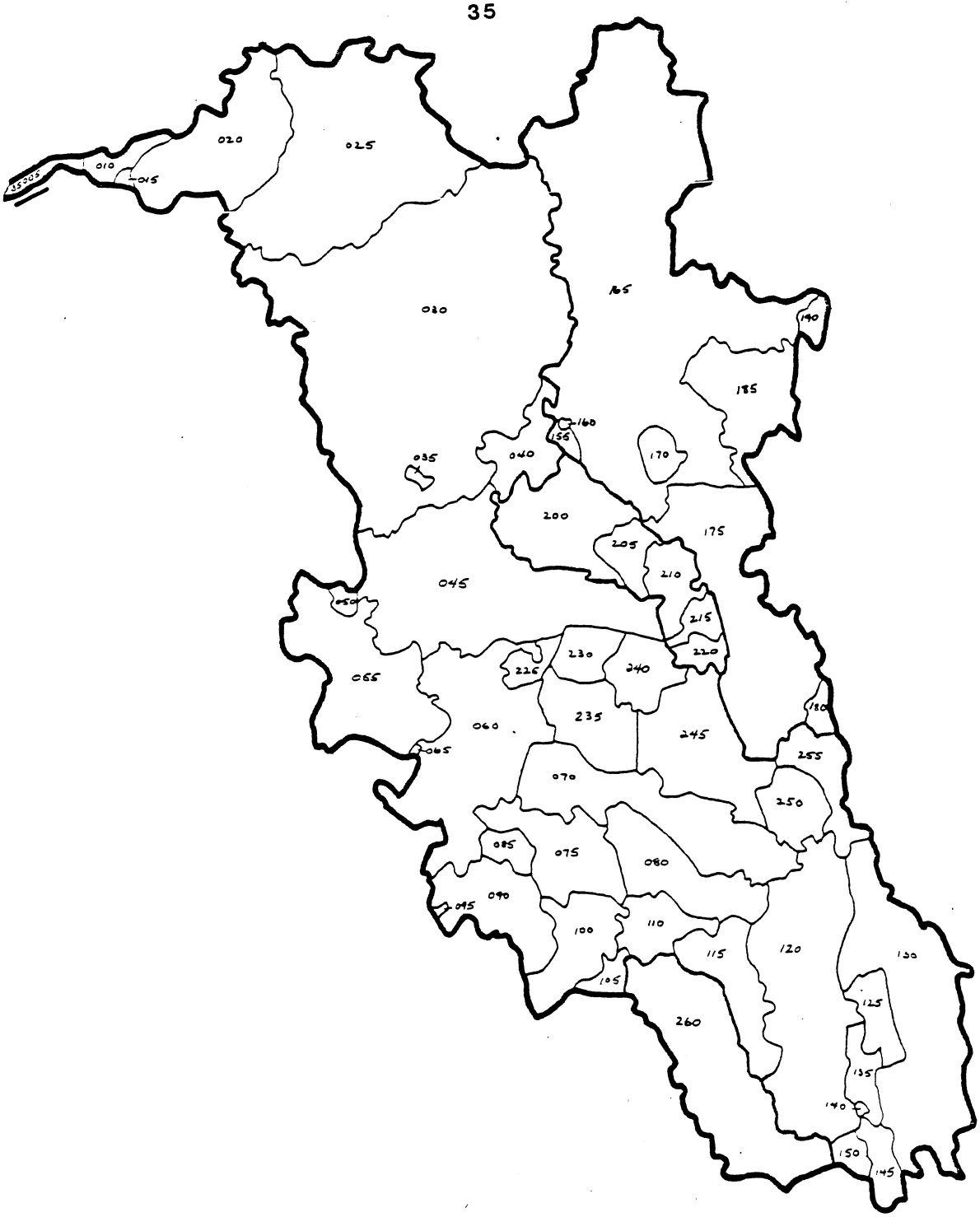

Figure G-27. Catchments in Hydrologic Unit 35.

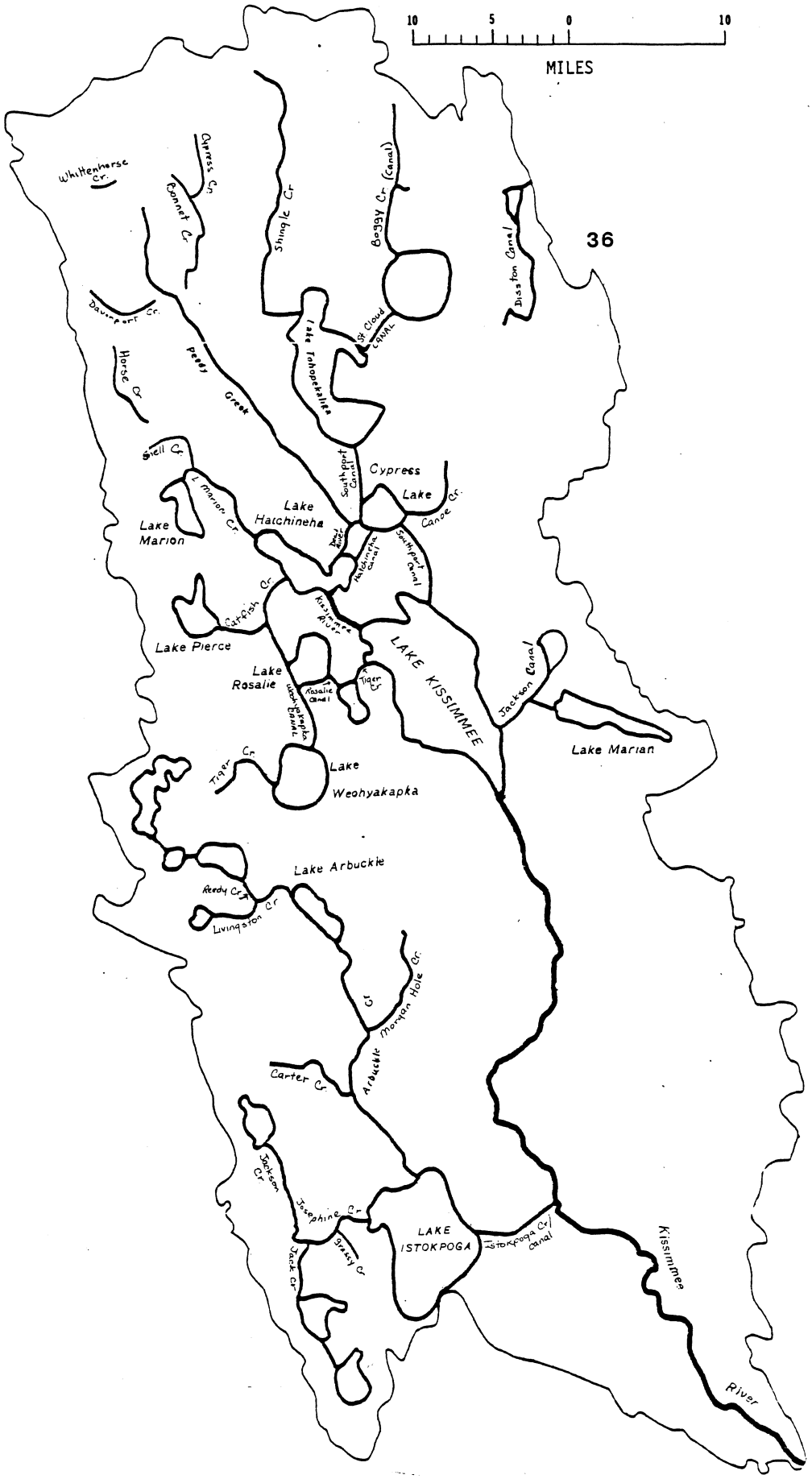

Figure G-28. Hydrologic Unit 36.

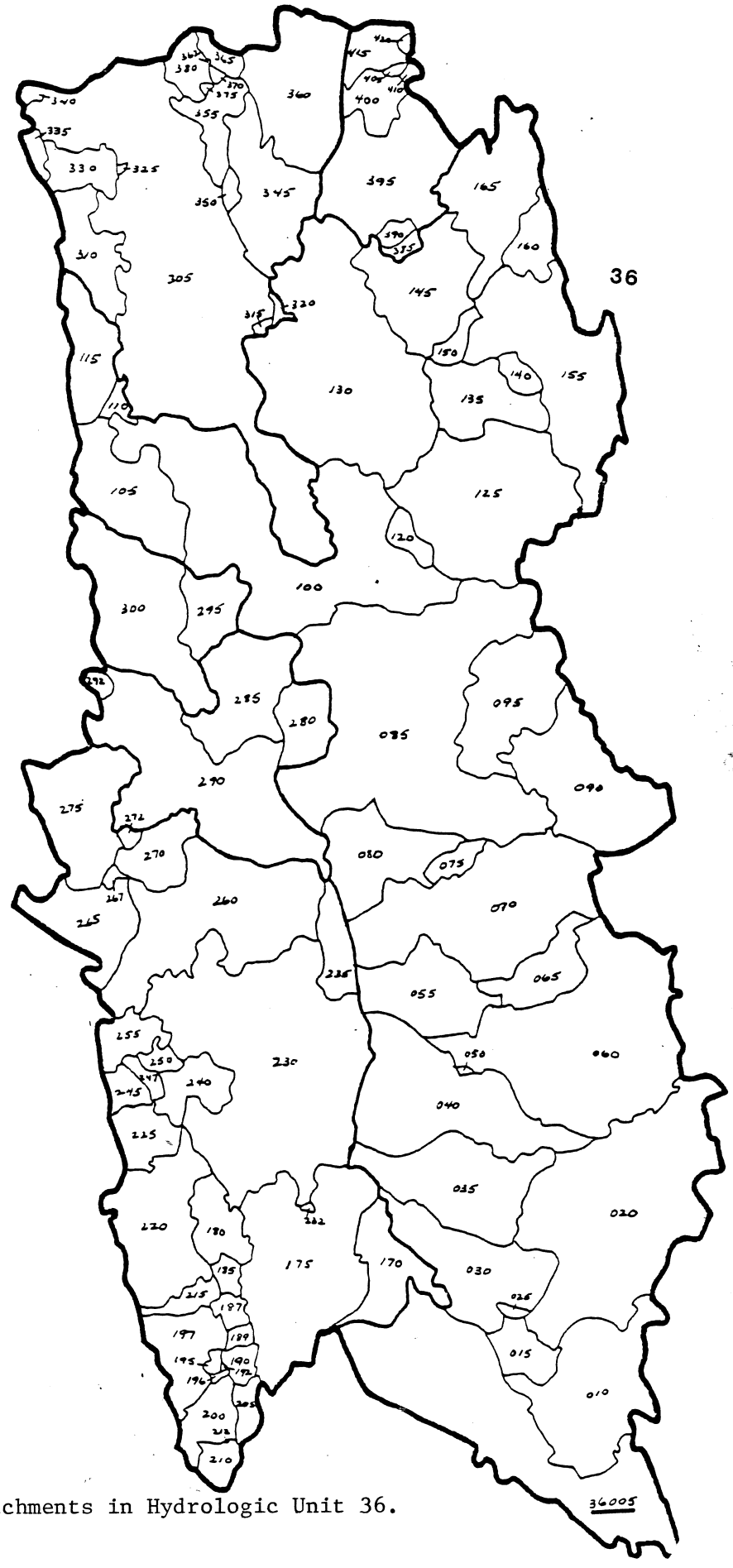

Figure G-29. Catchments in Hydrologic Unit 36.

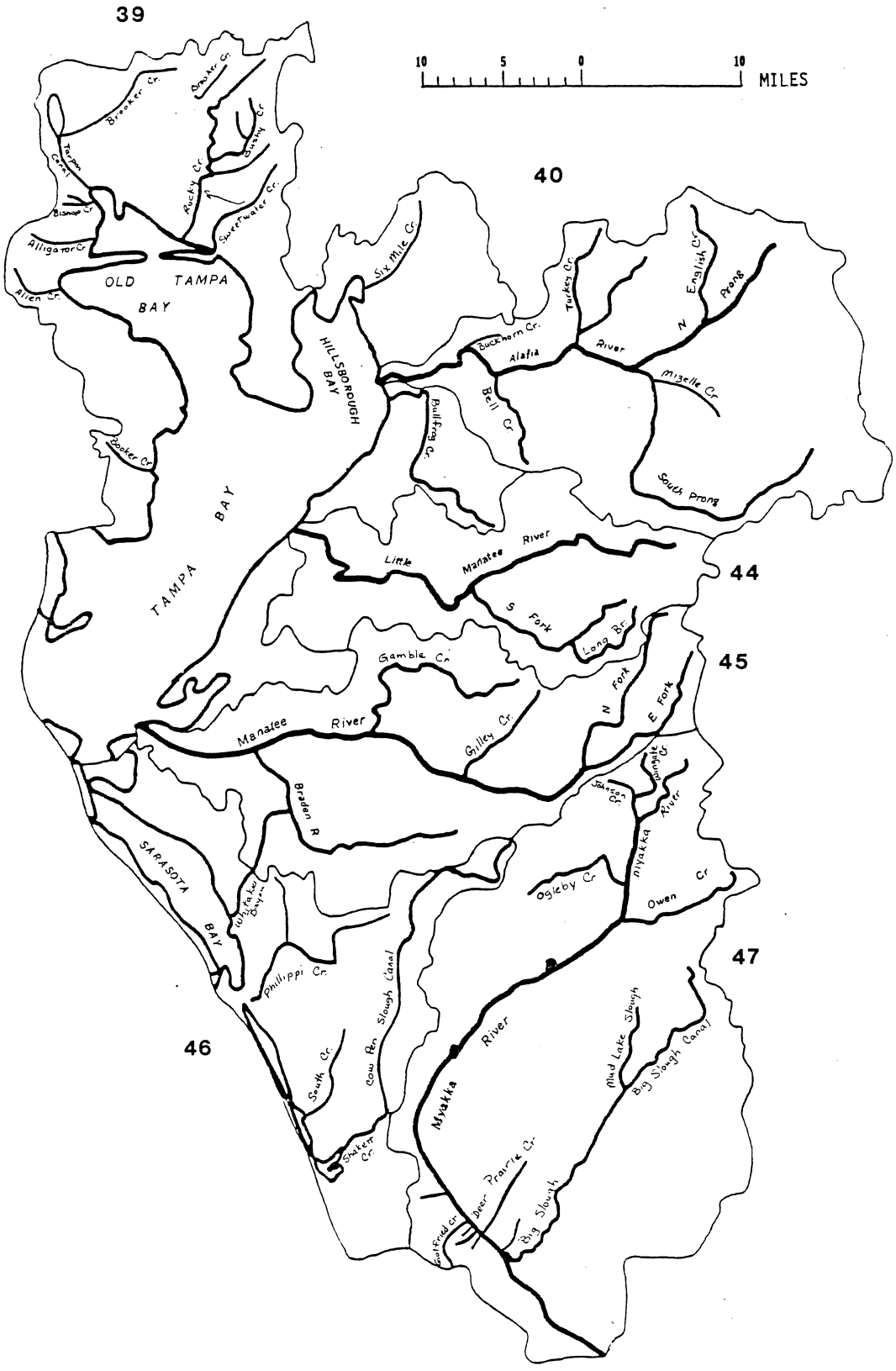

Figure G-30. Hydrologic Units 39, 40, 44-47.

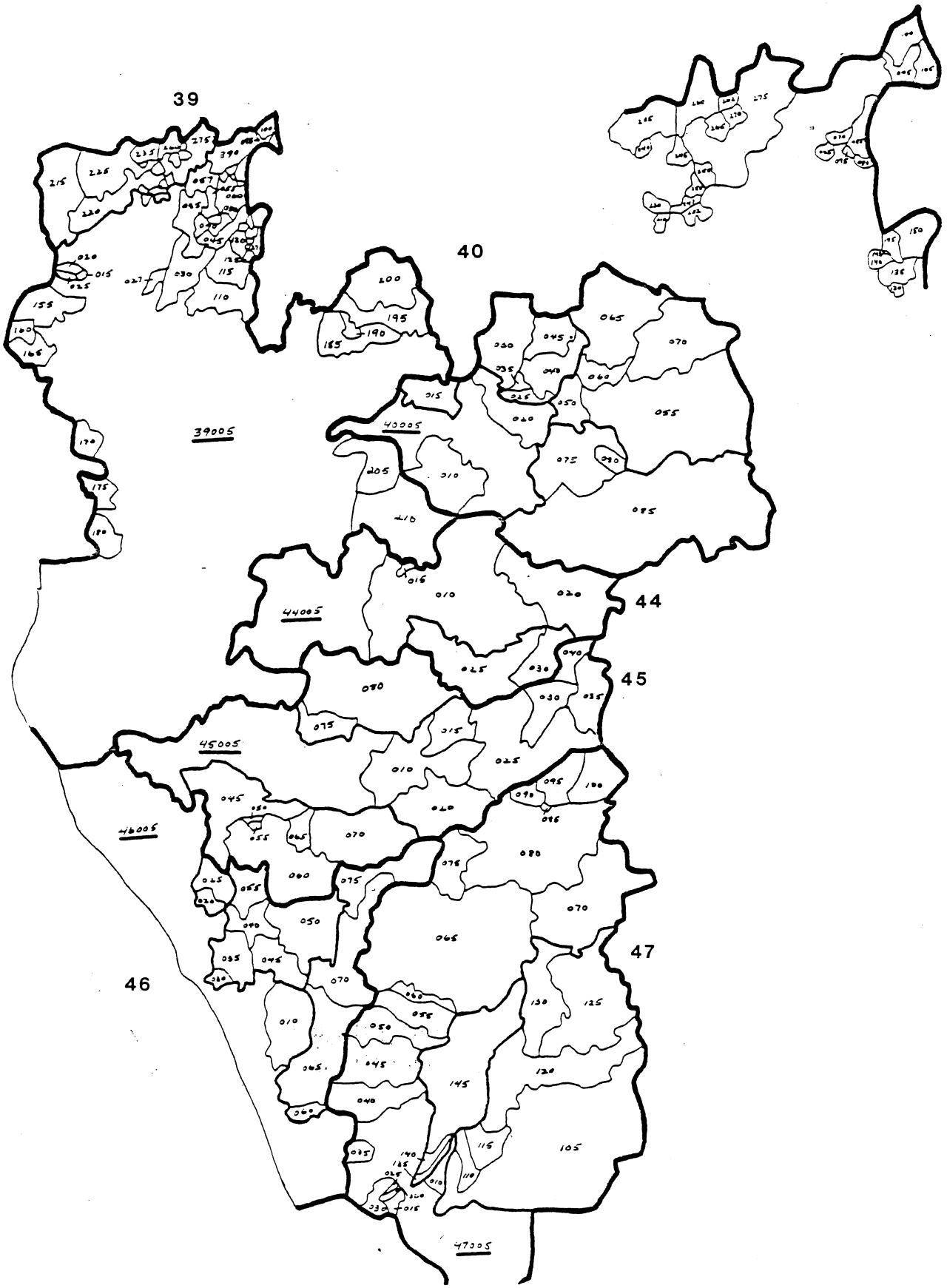

Figure G-31. Catchments in Hydrologic Units 39, 40, 44-47.

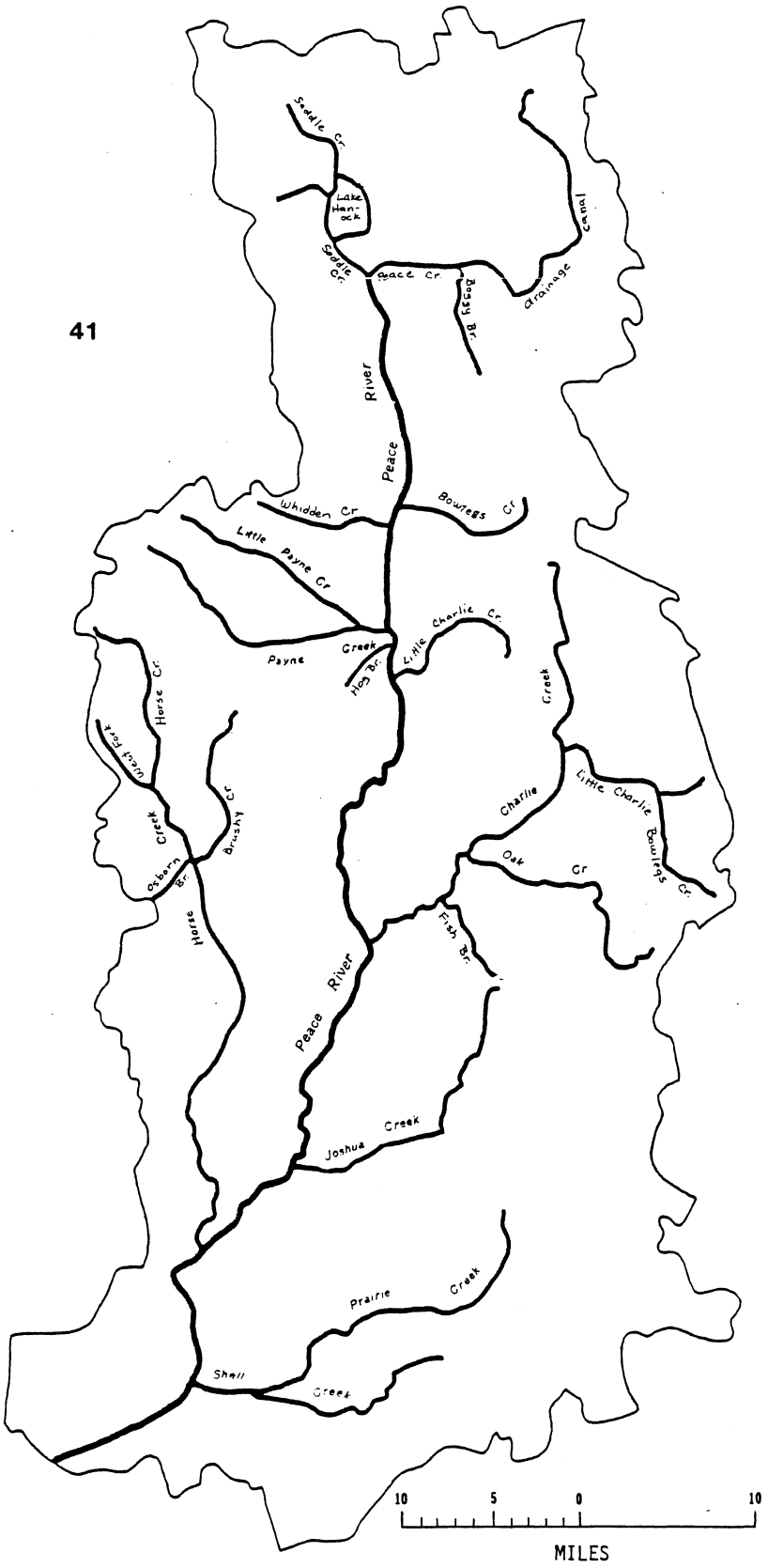

Figure G-32. Hydrologic Unit 41.

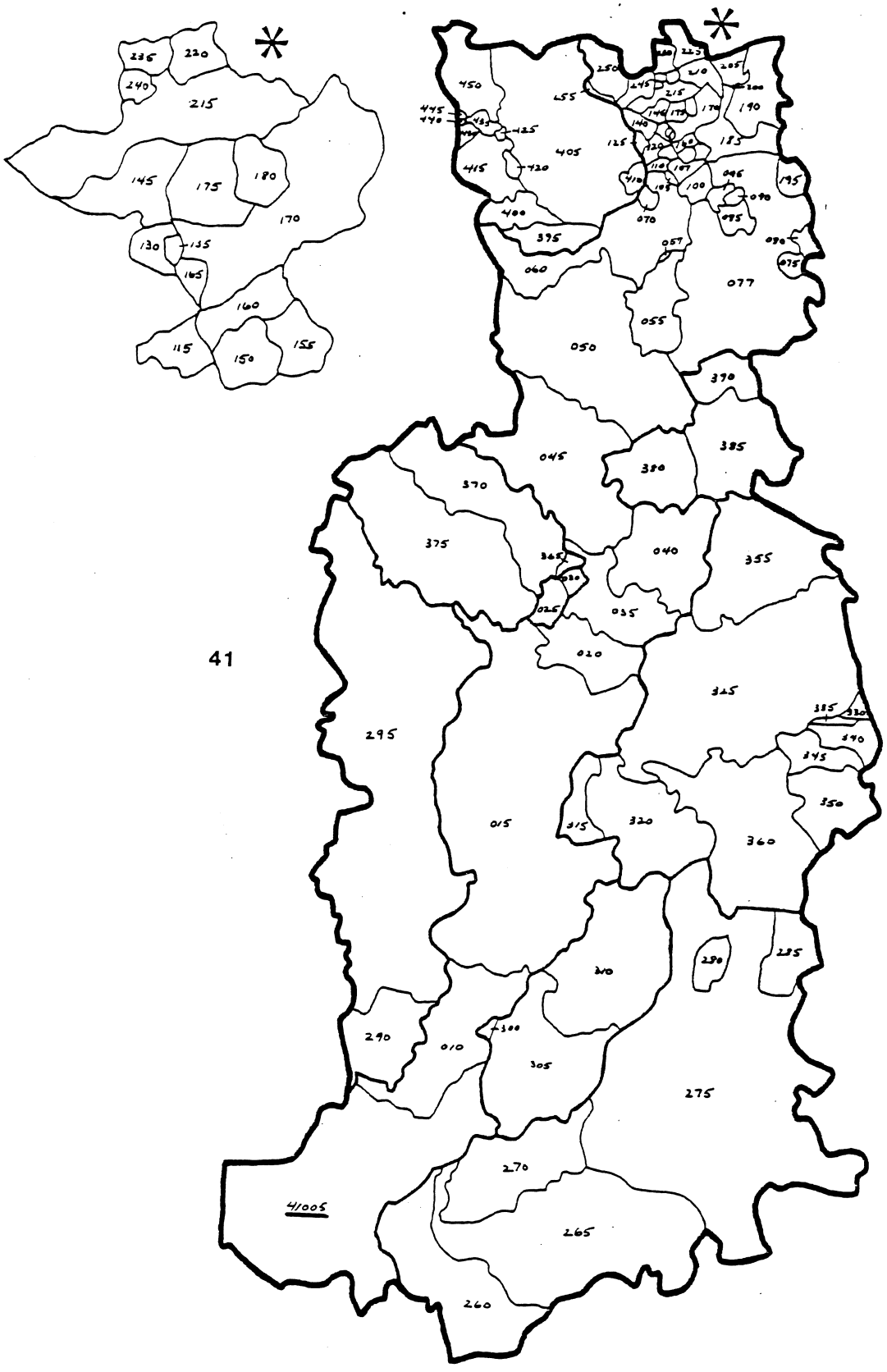

Figure G-33. Catchments in Hydrologic Unit 41.

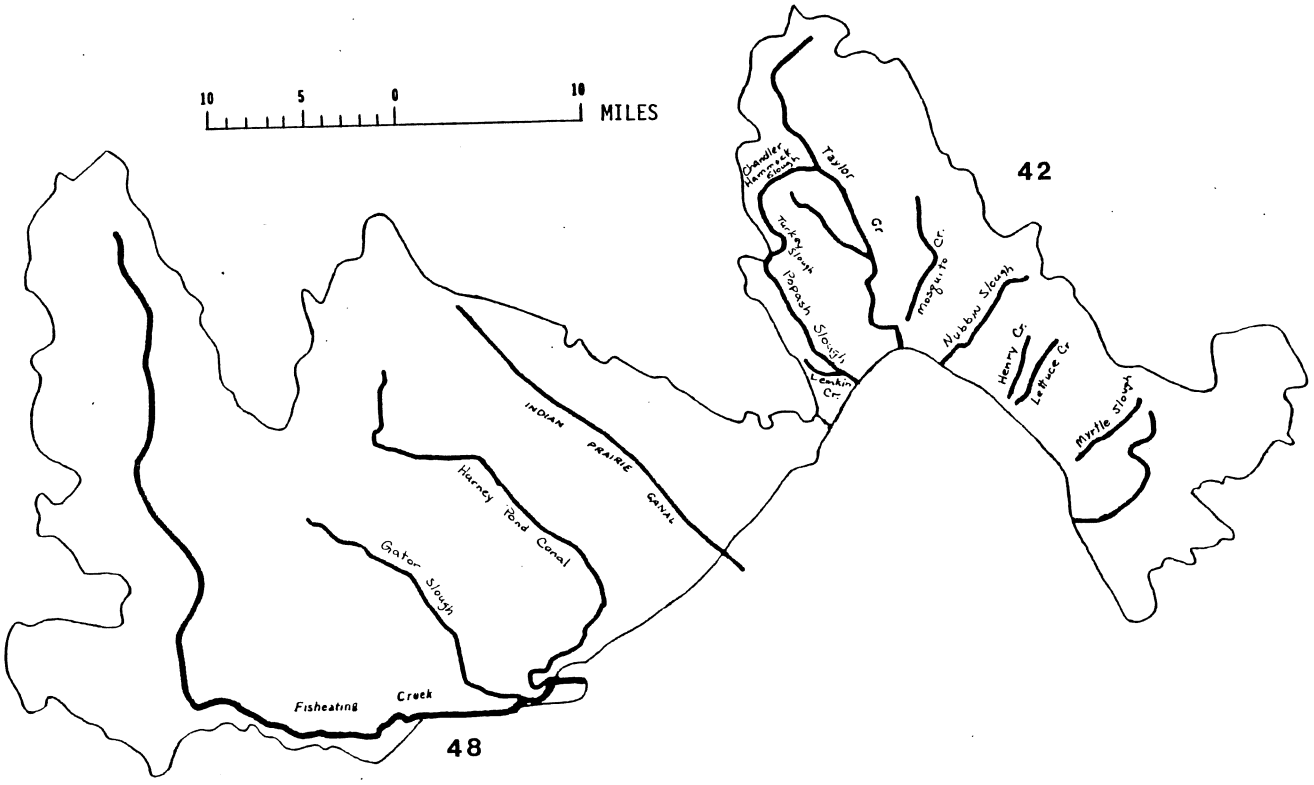

Figure G-34. Hydrologic Units 42 & 48.

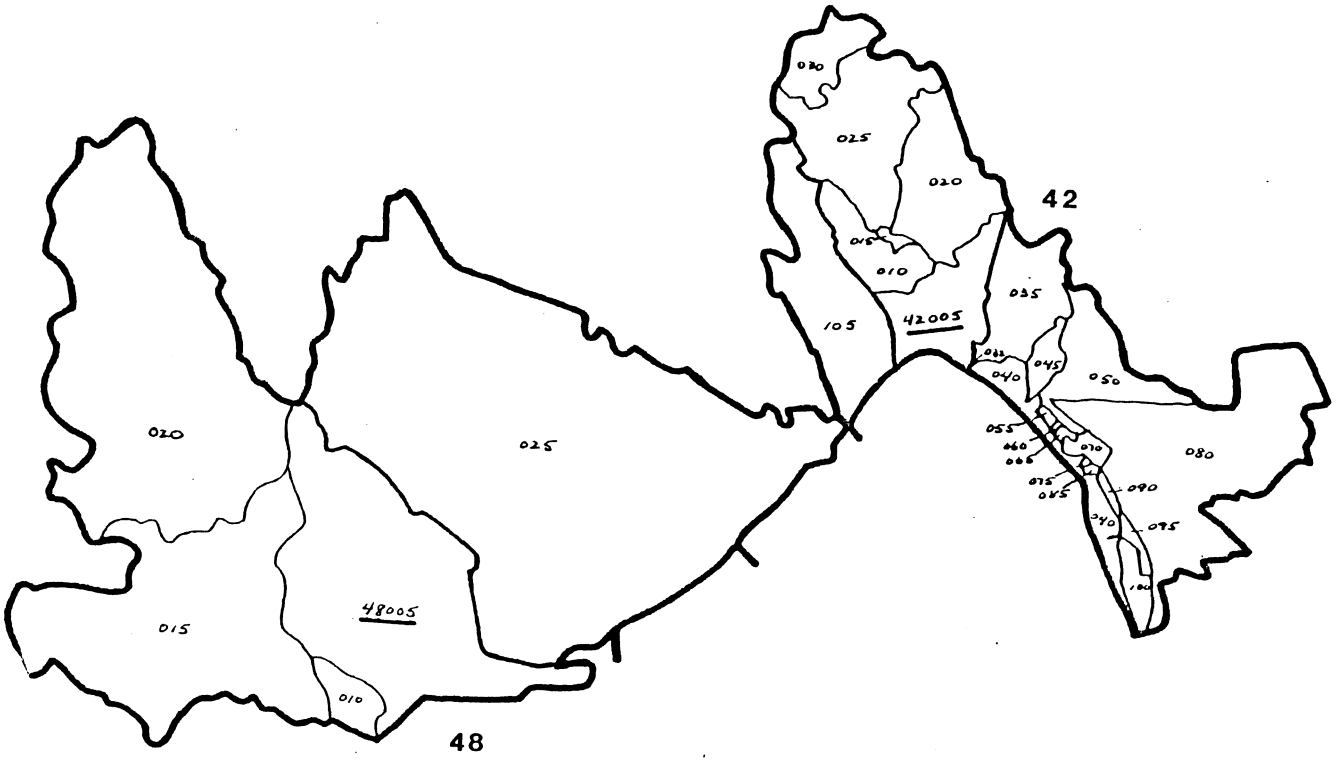

Figure G-35. Catchments in Hydrologic Units 42 & 48.

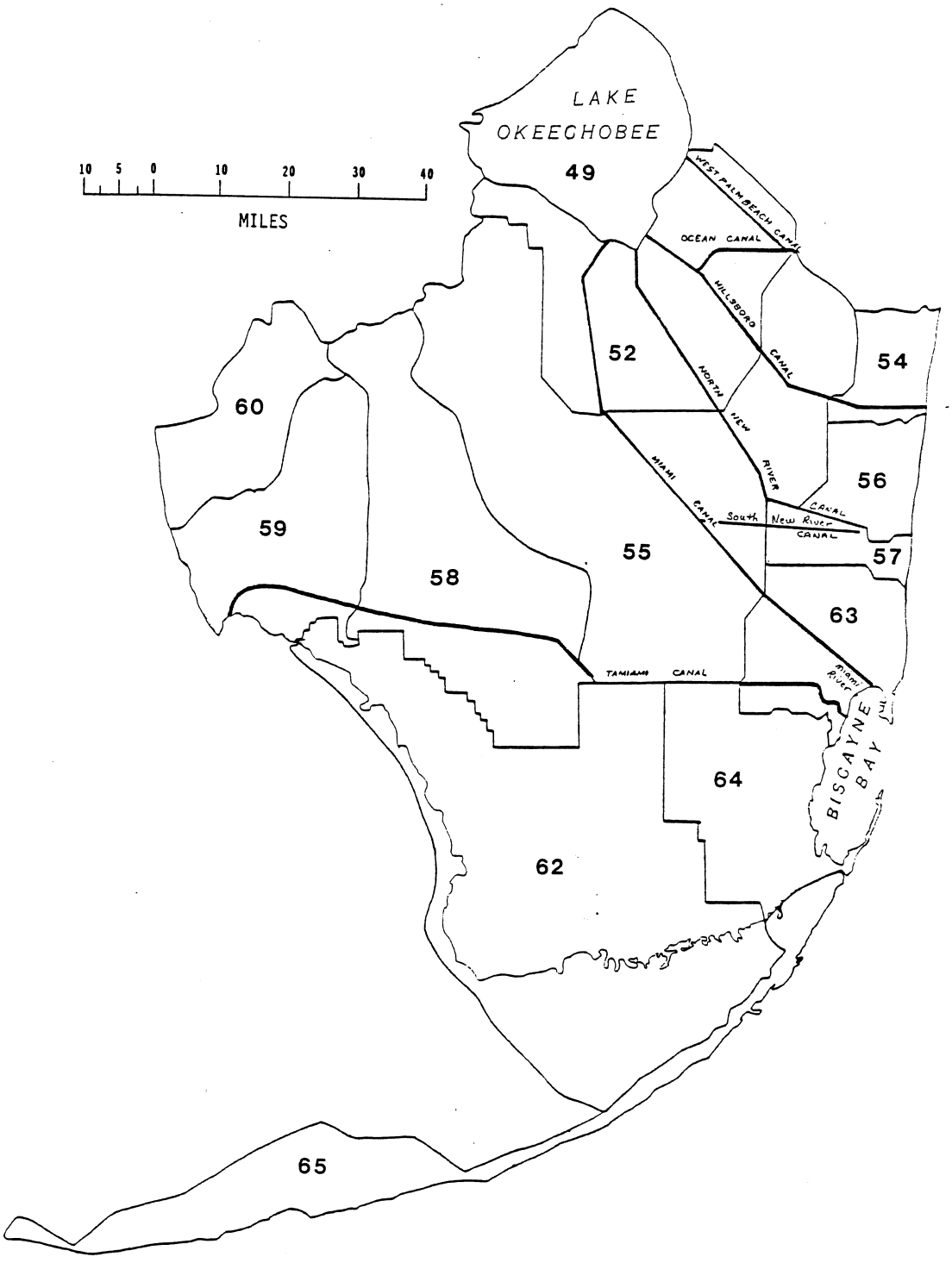

Figure G-36. Hydrologic Units 49, 52, 54-60, 62-65.



Figure G-37. Catchments in Hydrologic Units 49, 52, 54-60, 62-65.

Table G-3. Hydrologic Unit Numbers used in this study and associated land use, acres.

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
7205	69.19	101	205.1	296.5	0.0	672
11020	2157.18	51728	1087.2	2468.5	103.8	57545
11025	261.93	15881	640.0	635.0	0.0	17418
11030	170.50	41493	1346.7	0.0	0.0	43010
11035	46.95	3936	192.7	0.0	0.0	4176
11040	88.96	17280	348.4	22.2	0.0	17739
11045	0.00	32501	941.5	459.6	197.7	34100
11050	0.00	180	0.0	0.0	0.0	180
11055	32.12	17087	32.1	22.2	0.0	17173
11060	180.38	23615	1074.9	1027.9	22.2	25921
11065	229.80	45926	3185.1	2179.4	3763.3	55284
11070	0.00	4371	1032.9	9.9	0.0	5414
12010	1339.28	247636	20039.8	3874.5	0.0	272890
12015	1312.10	109112	55399.8	691.9	0.0	166516
12020	0.00	173	0.0	0.0	0.0	173
12025	9.88	603	706.7	0.0	0.0	1320
12030	7249.91	89398	97854.1	916.7	168.0	195587
14005	1411.00	146730	4484.0	19150.0	93098.0	264873
17070	1102.07	20981	363.2	7225.2	0.0	29672
17100	101.31	1767	0.0	24.7	0.0	1893
17105	224.86	645	0.0	0.0	0.0	870
17115	429.95	17211	3610.1	74.1	0.0	21325
17120	358.29	16580	1806.3	279.2	0.0	19024
17125	14.83	3479	857.4	0.0	0.0	4351
17190	0.00	919	0.0	170.5	0.0	1090
17195	0.00	4388	0.0	0.0	0.0	4388
17200	96.37	2669	0.0	217.4	0.0	2982
17205	0.00	11344	0.0	0.0	0.0	11344
17210	0.00	6956	0.0	0.0	0.0	6956
17215	0.00	2471	921.7	222.4	0.0	3615
17220	0.00	843	215.0	27.2	0.0	1085
17225	17.30	6069	496.7	0.0	0.0	6583
17230	106.25	1460	1529.5	0.0	0.0	3096
17235	0.00	1411	472.0	0.0	0.0	1883
17240	539.68	7186	6076.2	59.3	0.0	13860
17245	200.15	3029	2930.6	0.0	0.0	6160
17250	0.00	2782	343.5	585.6	39.5	3751
17255	14.83	1374	946.4	0.0	86.5	2422
17260	195.21	1925	1561.7	0.0	0.0	3682
17265	24.71	862	0.0	0.0	0.0	887
17270	69.19	3504	768.5	39.5	0.0	4381
17280	74.13	6430	1759.4	9.9	0.0	8273
17285	0.00	1979	126.0	0.0	0.0	2105
17290	172.97	4344	788.2	0.0	0.0	5305
17295	373.12	10956	3264.2	9.9	0.0	14604
17300	29.65	1228	434.9	0.0	0.0	1693
17305	0.00	180	264.4	0.0	0.0	445
17310	0.00	717	113.7	0.0	0.0	830
17315	0.00	59	0.0	0.0	0.0	59
17320	12.35	2730	160.6	0.0	0.0	2903
17325	59.30	3244	1887.8	210.0	0.0	5402
17330	170.50	2745	192.7	0.0	0.0	3109
17335	29.65	309	0.0	0.0	0.0	339
17340	46.95	729	261.9	0.0	0.0	1038
17345	29.65	222	0.0	0.0	0.0	252
17350	153.20	1784	1074.9	0.0	0.0	3012
17355	39.54	170	0.0	0.0	0.0	210
17360	896.97	744	81.5	0.0	0.0	1722
17365	486.79	890	588.1	0.0	0.0	1964
17370	306.40	415	0.0	0.0	0.0	722
17380	9.88	292	56.8	0.0	0.0	358
17385	51.89	1391	523.9	0.0	0.0	1967
17390	224.86	4008	2058.3	81.5	0.0	6373
17400	390.42	1705	1784.1	0.0	0.0	3879
17405	417.60	4384	2031.2	0.0	0.0	6832
17410	59.30	1554	1131.7	0.0	0.0	2745
17415	46.95	2926	1381.3	0.0	0.0	4354
17420	0.00	2199	872.3	22.2	0.0	3094
17425	3012.15	10198	3516.2	4517.0	1912.6	23156
17430	0.00	1132	387.9	0.0	0.0	1520
17436	2335.09	729	81.5	0.0	0.0	3146

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
17465	98.8	1868.1	640.0	0.0	0.00	2607
17470	976.0	4324.2	2836.7	49.4	0.00	8186
17475	7.4	719.1	86.5	49.4	0.00	862
17480	44.5	368.2	464.5	0.0	0.00	877
17485	365.7	34522.3	8727.6	588.1	5759.90	49964
17490	0.0	289.1	37.1	0.0	0.00	326
17495	32.1	2732.9	600.5	0.0	0.00	3366
18040	1949.6	9876.6	177.9	266.9	0.00	12271
18050	271.8	13852.4	5853.8	86.5	0.00	20065
18055	150.7	4255.1	4067.3	17.3	42.01	8532
18060	177.9	17662.7	10363.4	1418.4	4267.42	33890
18065	4.9	1000.8	882.1	0.0	0.00	1888
18070	9.9	514.0	1114.4	0.0	0.00	1638
18075	14.8	2261.0	2322.7	0.0	0.00	4599
18080	1062.5	18626.4	7726.8	39.5	192.74	27648
18085	27.2	7739.2	2723.0	150.7	49.42	10690
20015	57.0	641.0	529.0	315.0	608.00	2149
20025	350.0	103.0	144.0	489.0	0.00	1086
23280	39.5	35819.6	383.0	887.1	0.00	37129
23315	160.0	5773.0	22.0	1949.0	1911.00	9814
25090	4299.0	5672.0	1145.0	3979.0	931.00	16026
25290	1680.3	3071.5	0.0	1452.9	0.00	6205
25355	0.0	29634.7	2915.8	758.6	0.00	33309
25360	3526.1	48359.9	11470.4	7566.2	4344.02	75267
25365	266.0	3284.0	5.0	494.0	24.00	4074
25370	651.0	10224.0	643.0	2030.0	413.00	13961
25375	0.0	3762.0	206.0	497.0	0.00	4465
25385	29.7	7744.1	103.8	1571.6	0.00	9449
25390	583.2	415.1	0.0	716.6	0.00	1715
25425	1529.5	96828.6	24954.6	18878.4	3031.92	145223
25430	0.0	14868.0	6740.9	0.0	766.01	22375
25435	506.6	47680.4	4939.5	24.7	0.00	53151
25440	590.6	8495.3	59.3	123.5	0.00	9269
25445	0.0	3751.0	1613.6	0.0	0.00	5365
25450	0.0	7081.9	29.7	4.9	0.00	7116
25455	19.8	12594.7	2562.4	7.4	0.00	15184
25460	56.8	35298.2	27.2	143.3	12.35	35538
25465	0.0	12483.5	2547.6	1964.4	0.00	16996
25470	2448.8	29227.0	2960.3	1255.3	74.13	35965
25475	0.0	527.0	255.0	176.0	0.00	958
25480	0.0	803.0	432.0	399.0	3.00	1637
25485	8.0	980.0	969.0	676.0	174.00	2806
25490	616.0	296.0	635.0	375.0	282.00	2204
26120	874.7	19889.1	1994.1	3002.3	0.00	25760
26125	1366.5	9641.8	1386.2	86.5	0.00	12481
26135	279.2	1423.3	103.8	526.3	0.00	2333
26140	911.8	4934.6	1638.3	5105.1	877.20	13467
26155	3288.9	5903.2	1633.3	412.7	551.03	11789
26195	12.4	28428.9	506.6	630.1	0.00	29578
26215	640.0	1759.4	261.9	400.3	0.00	3062
27010	651.0	15413.0	20901.0	537.0	434.00	37936
27025	0.0	771.0	0.0	394.0	347.00	1512
27040	0.0	2912.0	125.0	266.0	1213.00	4516
27045	168.0	934.0	844.0	109.0	0.00	2054
29025	176.0	11860.0	2424.0	660.0	1001.00	16121
30005	0.0	3607.7	721.5	0.0	0.00	4329
30010	143.3	9276.1	7.4	113.7	0.00	9541
30015	71.7	14764.2	1094.7	3261.7	338.53	19531
30020	1366.5	22738.1	2436.4	1067.5	0.00	27608
30025	121.1	2846.6	108.7	37.1	9.88	3123
30030	0.0	3966.0	29.7	44.5	19.77	4060
30035	0.0	2814.5	54.4	9.9	74.13	2953
30040	1364.0	51727.9	4042.6	1638.3	610.34	59383
30045	636.9	47890.5	4045.0	323.7	108.72	53055
30050	15367.1	65807.7	71698.5	731.4	2199.19	155804
30055	476.9	9738.2	1769.2	66.7	74.13	12125
30060	224.9	919.2	1690.2	257.0	143.32	3235
30065	29.7	2167.1	1309.6	610.3	71.66	4188
30070	56.8	318.8	1000.8	135.9	664.70	2177
30075	491.7	39526.1	20188.1	4613.4	3827.58	68647
30080	1959.5	3691.7	22849.3	6184.9	370.65	35056

Table G-3. (Continued)

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*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
30085	0.00	11510	77	573.3	121.1	12281
30090	504.08	5592	14070	6268.9	3738.6	30173
30095	2723.04	4248	18216	9866.7	2204.1	37258
30100	0.00	0	282	2.5	0.0	284
30105	0.00	0	301	148.3	44.5	494
30110	447.25	12	818	299.0	0.0	1576
30115	3953.60	3926	12496	9263.8	1225.6	30865
30120	284.16	682	334	17.3	4.9	1322
30125	182.85	0	106	143.3	0.0	432
30135	4133.98	6452	40665	22330.4	1779.1	75361
30140	51.89	388	976	0.0	0.0	1416
30142	175.44	163	42	7.4	0.0	388
30145	350.88	366	94	111.2	0.0	922
30150	3676.85	2760	14838	7477.2	264.4	29017
30155	0.00	363	1913	34.6	0.0	2310
30160	0.00	497	2651	400.3	42.0	3590
30165	2228.84	3138	26872	437.4	190.3	32867
30170	214.98	91	114	22.2	0.0	442
30175	2115.18	4260	16805	30739.2	711.6	54631
30180	96.37	12	195	111.2	0.0	415
30185	123.55	0	195	0.0	0.0	319
30190	59.30	0	104	0.0	0.0	163
30195	1037.82	1310	27008	395.4	0.0	29751
30200	49.42	1359	163	0.0	0.0	1572
30205	0.00	445	20	0.0	0.0	465
30210	2283.20	33855	5859	3891.8	2490.8	48380
30215	1020.52	39435	21681	2646.4	3190.1	67972
30220	121.08	10838	697	6011.9	2290.6	19958
30225	160.61	3541	321	0.0	0.0	4023
30230	0.00	27	0	0.0	0.0	27
30235	0.00	1107	163	0.0	0.0	1270
30240	0.00	161	7	0.0	0.0	168
30245	0.00	94	0	0.0	0.0	94
30250	113.67	838	0	0.0	0.0	951
30255	0.00	146	0	0.0	0.0	146
30260	86.48	5135	566	0.0	0.0	5787
30262	205.09	17547	4403	69.2	0.0	22224
30264	0.00	704	1129	0.0	0.0	1833
30265	3325.97	14480	43868	8910.4	4277.3	74861
30270	197.68	13628	1260	177.9	941.5	16205
30272	242.16	2429	393	242.2	869.8	4176
30275	0.00	4431	726	0.0	185.3	5342
30277	0.00	12	44	0.0	0.0	57
30280	679.52	11164	1253	5841.4	66.7	19004
30285	207.56	630	603	0.0	0.0	1441
30290	1677.81	1648	536	0.0	34.6	3897
30295	133.43	299	49	0.0	0.0	482
30300	2379.57	3771	339	0.0	4.9	6494
30305	0.00	128	0	0.0	0.0	128
30310	1171.25	37594	2824	0.0	0.0	41589
30315	8169.13	178700	170850	3847.3	17665.2	379232
30317	234.74	514	5	2.5	0.0	756
30318	0.00	210	47	0.0	39.5	297
30319	2.47	489	586	12.4	0.0	1090
30320	1163.84	89	131	22.2	2.5	1408
30325	526.32	0	0	0.0	0.0	526
30330	1302.22	64	343	158.1	74.1	1942
30335	6142.91	3264	712	108.7	0.0	10227
30340	531.26	2266	5	0.0	0.0	2802
30345	1625.92	2945	833	158.1	0.0	5562
30350	3353.15	5874	3852	118.6	131.0	13329
30355	64.25	14527	0	449.7	202.6	15244
30360	1052.65	23358	1028	2379.6	1013.1	28832
30365	538.68	2083	1228	1425.8	976.0	6252
30370	573.27	15977	153	677.1	1519.7	18901
30375	778.36	3482	4097	299.0	1267.6	9924
30380	0.00	59	10	0.0	0.0	69
30385	0.00	72	588	7.4	0.0	667
30395	0.00	0	40	0.0	0.0	40
30400	474.43	371	18612	4000.5	1749.5	25207
30405	0.00	0	1984	556.0	459.6	3000

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
30410	299.0	509	4502.2	785.8	1821.1	7917
30415	1176.2	170	11892.9	3741.1	3578.0	20559
30420	0.0	0	803.1	168.0	0.0	971
30425	788.2	79	3316.1	2490.8	103.8	6778
30430	121.1	1280	12083.2	3919.0	205.1	17608
30435	0.0	1193	3244.4	973.6	0.0	5411
30440	0.0	852	1974.3	217.4	0.0	3044
30450	0.0	141	432.4	7.4	0.0	581
30455	0.0	610	420.1	121.1	0.0	1151
30457	0.0	3613	2661.3	59.3	44.5	6378
30460	27.2	10097	10783.4	318.8	1121.8	22348
30465	449.7	3536	9681.4	600.5	3153.0	17421
30470	155.7	0	778.4	825.3	1618.5	3378
31005	3817.7	132342	11418.5	52323.4	1949.6	201851
31010	160.6	18520	0.0	467.0	84.0	19232
31015	973.6	40139	160.6	3704.0	1121.8	46099
31020	103.8	717	1260.2	494.2	0.0	2575
31025	59.3	1898	0.0	336.1	29.7	2323
31030	909.3	12338	402.8	978.5	368.2	14996
31035	96.4	19074	2429.0	778.4	197.7	22575
31040	4037.6	104783	12636.7	8038.2	15251.0	144746
31045	111.2	3380	407.7	49.4	0.0	3949
31050	3209.8	40082	8255.6	2750.2	1571.6	55869
31055	14905.1	26781	9945.8	11465.4	2028.7	65126
31060	229.8	892	0.0	12.4	0.0	1134
31065	51.9	47	430.0	187.8	0.0	717
31070	1141.6	66502	34510.0	6918.8	4944.5	114017
31075	1655.6	10660	1952.1	709.2	71.7	15048
31080	281.7	2916	1576.5	496.7	1616.0	6887
31085	56.8	121	0.0	46.9	0.0	225
31090	175.4	183	76.6	165.6	0.0	600
31095	22.2	0	29.7	12.4	0.0	64
31100	0.0	2748	627.6	0.0	316.3	3692
31105	3632.4	11159	12841.8	7956.6	2797.2	38387
31110	0.0	5	289.1	0.0	0.0	294
31115	350.9	15607	6021.8	6241.7	2910.8	31132
31120	588.1	46727	19204.6	3951.1	13555.9	84026
31125	2517.9	4374	4818.4	121.1	1069.9	12901
31130	128.5	205	1709.9	0.0	61.8	2105
31135	0.0	497	1188.6	0.0	0.0	1685
31140	0.0	0	39.5	27.2	126.0	193
31145	1509.8	9768	15653.8	3755.9	17301.9	47989
31150	135.9	455	1737.1	0.0	0.0	2328
31155	2364.7	17191	12629.3	1171.3	14289.8	47646
31160	61.8	1184	7076.9	4.9	486.8	8814
31165	316.3	620	2438.9	32.1	580.7	3988
31170	54.4	3076	5589.4	42.0	180.4	8943
31175	602.9	14448	8411.3	916.7	16790.4	41169
31180	29.7	69	81.5	0.0	0.0	180
31185	4.9	4967	9730.8	17.3	0.0	14720
31188	494.2	722	3526.1	96.4	145.8	4984
31190	640.0	252	1492.5	42.0	600.5	3027
31195	5633.9	7124	9772.8	4539.2	14114.4	41184
31200	86.5	0	69.2	4.9	0.0	161
31205	269.3	2162	12582.3	447.3	3180.2	18641
31210	163.1	5298	14648.1	1255.3	3002.3	24367
31215	0.0	96	5186.6	54.4	380.5	5718
31220	0.0	136	261.9	37.1	593.0	1028
31225	0.0	348	543.6	61.8	385.5	1339
31230	177.9	2572	11534.6	160.6	4638.1	19084
31235	0.0	1497	1396.1	0.0	1826.1	4720
31240	0.0	1080	6024.3	2.5	1544.4	8651
31245	1571.6	6180	19819.9	3980.8	7615.6	39168
31250	0.0	1675	5105.1	617.7	2236.3	9634
31255	0.0	4156	2728.0	257.0	4892.6	12034
31260	0.0	2770	4761.6	2.5	897.0	8431
31265	0.0	9644	18441.1	34.6	165.6	28286
31270	0.0	23413	27499.8	54.4	276.8	51244
31275	0.0	33964	25345.0	6617.3	224.9	66151
31280	227.3	966	7440.2	12.4	39.5	8686
31285	832.7	21310	37245.4	54.4	387.9	59830

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
31290	0.00	0.0	138.4	0.00	0.000	138.4
31295	0.00	0.0	3563.2	98.84	368.179	4030.2
31296	0.00	0.0	14.8	0.00	0.000	14.8
31298	0.00	0.0	29.7	0.00	0.000	29.7
31300	0.00	0.0	74.1	0.00	0.000	74.1
31302	0.00	0.0	358.3	0.00	19.768	378.1
31305	0.00	0.0	850.0	0.00	32.123	882.1
31307	0.00	0.0	4.9	0.00	0.000	4.9
31309	7.41	0.0	84.0	46.95	0.000	138.4
31310	7.41	0.0	42.0	0.00	0.000	49.4
31315	360.77	481.8	5495.5	91.43	175.441	6605.0
31320	0.00	0.0	2812.0	93.90	74.130	2980.0
31322	0.00	227.3	1986.7	0.00	0.000	2214.0
31325	0.00	195.2	874.7	12.35	0.000	1082.3
31327	0.00	1396.1	3427.3	175.44	284.165	5283.0
31330	0.00	42.0	778.4	0.00	0.000	820.4
31332	0.00	86.5	430.0	0.00	0.000	516.4
31335	2.47	716.6	1707.5	0.00	0.000	2426.5
31337	4.94	244.6	973.6	0.00	0.000	1223.1
31340	0.00	0.0	810.5	0.00	0.000	810.5
31345	0.00	0.0	365.7	0.00	0.000	365.7
31347	12.35	202.6	2384.5	98.84	98.840	2797.2
31350	0.00	148.3	10973.7	177.91	499.142	11799.0
31352	0.00	0.0	1163.8	0.00	0.000	1163.8
31355	17.30	32978.0	17793.7	2216.49	709.177	53714.6
31360	0.00	3494.0	98.8	0.00	0.000	3592.8
31365	39.54	2525.4	2105.3	914.27	0.000	5584.5
31370	1361.52	21495.2	21631.1	360.77	336.056	45184.7
31375	101.31	3017.1	753.7	76.60	165.557	4114.2
31377	0.00	308.9	252.0	101.31	0.000	662.2
31380	0.00	855.0	1092.2	229.80	0.000	2177.0
31385	934.04	13837.6	2962.7	724.00	135.905	18594.3
31387	101.31	42.0	210.0	46.95	0.000	400.3
31390	3657.08	18505.3	16123.3	736.36	496.671	39518.7
31395	51.89	2871.3	1032.9	0.00	0.000	3956.1
31397	830.26	0.0	0.0	14.83	0.000	845.1
31400	5295.35	1566.6	3217.2	306.40	37.065	10422.7
31402	39.54	27.2	145.8	0.00	0.000	212.5
31405	743.77	39.5	148.3	182.85	0.000	1114.4
31410	417.60	0.0	331.1	244.63	0.000	993.3
31415	6970.69	2745.3	14015.5	1131.72	585.627	25448.8
31417	27.18	0.0	145.8	24.71	0.000	197.7
31420	889.56	0.0	0.0	343.47	0.000	1233.0
31422	721.53	0.0	0.0	84.01	0.000	805.5
31425	289.11	0.0	0.0	51.89	0.000	341.0
31427	3555.77	1648.2	635.0	336.06	0.000	6175.0
31430	476.90	12.4	733.9	0.00	32.123	1255.3
31435	1371.40	121.1	7588.4	741.30	0.000	9822.2
31440	3237.01	3664.5	4554.1	919.21	91.427	12466.2
31445	64.25	44.5	350.9	207.56	0.000	667.2
31446	234.74	111.2	81.5	24.71	0.000	452.2
31447	303.93	0.0	306.4	37.06	143.318	790.7
31450	150.73	1129.2	76.6	0.00	0.000	1356.6
31455	4744.32	2270.8	276.8	469.49	0.000	7761.4
31460	0.00	363.2	266.9	0.00	0.000	630.1
31465	973.57	5211.3	7541.5	518.91	0.000	14245.3
31467	0.00	14.8	168.0	0.00	0.000	182.9
31470	0.00	0.0	271.8	51.89	0.000	323.7
31472	971.10	1912.6	1139.1	395.36	0.000	4418.1
31475	34.59	14.8	14.8	0.00	0.000	64.2
31478	1905.14	2.5	170.5	541.15	0.000	2619.3
31480	338.53	0.0	24.7	81.54	0.000	444.8
31481	625.16	321.2	61.8	39.54	0.000	1047.7
31482	224.86	0.0	145.8	51.89	0.000	422.5
31483	553.50	0.0	29.7	172.97	0.000	756.1
31486	368.18	44.5	0.0	34.59	0.000	447.3
31487	1067.47	0.0	66.7	187.80	0.000	1322.0
31490	207.56	0.0	0.0	46.95	0.000	254.5
31492	5500.45	0.0	266.9	911.80	0.000	6679.1
31494	0.00	939.0	1200.0	252.00	0.000	2391.0
31517	108.72	0.0	0.0	0.00	0.000	108.7

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
31520	281.69	0.0	0.0	32.12	0.00	313.8
31521	101.31	0.0	0.0	0.00	0.00	101.3
31525	0.00	11047.8	32.1	0.00	24.71	11104.7
31527	160.61	6946.0	2683.5	412.66	0.00	10202.8
31530	76.60	5236.0	5646.2	331.11	625.16	11915.2
31532	138.38	7170.8	1255.3	202.62	0.00	8767.1
31535	484.32	1156.4	2933.1	948.86	34.59	5557.3
31537	108.72	600.5	469.5	0.00	0.00	1178.7
31540	531.26	1705.0	3130.8	2.47	0.00	5369.5
31545	2730.45	10798.3	39854.8	88.96	385.48	53857.9
31547	12.35	1247.9	1425.8	0.00	66.72	2752.7
31550	0.00	7662.6	9980.4	689.41	0.00	18332.3
31555	0.00	1831.0	1373.9	9.88	212.51	3427.3
31557	0.00	173.0	1233.0	27.18	22.24	1455.4
31560	0.00	7109.1	24297.3	1591.32	501.61	33499.3
31565	91.43	926.6	2587.1	54.36	0.00	3659.6
31570	0.00	430.0	16432.1	32.12	66.72	16960.9
31572	0.00	328.6	1371.4	0.00	0.00	1700.0
31575	0.00	988.4	9896.4	0.00	121.08	11005.8
31580	0.00	5510.3	1942.2	0.00	29.65	7482.2
31585	34.59	20805.8	70875.7	558.45	1732.17	94006.7
31590	9.88	4761.6	14640.7	2.47	88.96	19503.6
31592	0.00	46.9	4838.2	0.00	0.00	4885.2
31600	0.00	2730.5	17072.1	0.00	276.75	20079.3
31602	0.00	205.1	338.5	0.00	0.00	543.6
31605	0.00	158.1	1057.6	0.00	0.00	1215.7
31612	0.00	308.9	2619.3	0.00	64.25	2992.4
31617	202.62	3459.4	10978.7	12.35	7.41	14660.4
31620	0.00	42.0	313.8	0.00	0.00	355.8
31630	0.00	815.4	751.2	0.00	0.00	1566.6
31635	276.75	2352.4	11450.6	7.41	0.00	14087.2
31637	0.00	2584.7	6871.9	84.01	1828.54	11369.1
31640	64.25	29.7	662.2	2.47	0.00	758.6
31642	0.00	0.0	160.6	0.00	0.00	160.6
31645	0.00	128.5	422.5	0.00	0.00	551.0
31647	111.19	217.4	5221.2	0.00	126.02	5675.9
31650	469.26	1003.2	17988.9	51.89	1413.41	20946.7
31652	0.00	150.7	706.7	9.88	0.00	867.3
31655	0.00	46.9	89.0	0.00	0.00	135.9
31657	0.00	402.8	5045.8	51.89	877.20	6377.7
31660	205.09	387.9	990.9	49.42	7.41	1640.7
31662	0.00	96.4	4339.1	160.61	481.84	5077.9
31670	345.94	4420.6	2416.6	252.04	0.00	7435.2
31675	442.31	1213.3	316.3	17.30	0.00	1989.2
31680	212.51	1139.1	343.5	49.42	0.00	1744.5
31682	358.29	341.0	34.6	19.77	0.00	753.7
31685	429.95	219.9	1111.9	32.12	0.00	1793.9
31687	239.69	54.4	42.0	0.00	0.00	336.1
31690	51.89	7.4	2.5	0.00	0.00	61.8
31695	3545.88	2634.1	840.1	160.61	160.61	7341.3
31705	271.81	926.6	138.4	0.00	0.00	1336.8
31710	644.93	210.0	207.6	0.00	0.00	1062.5
31715	0.00	0.0	7.4	0.00	0.00	7.4
31717	0.00	24.7	486.8	0.00	0.00	511.5
31720	0.00	0.0	96.4	0.00	0.00	96.4
31725	0.00	1576.5	3553.3	0.00	0.00	5129.8
31730	570.80	2977.6	4954.4	0.00	0.00	8502.7
31732	202.62	257.0	207.6	0.00	0.00	667.2
31735	0.00	51.9	2.5	0.00	0.00	54.4
31740	3725.51	1359.0	1089.7	289.11	0.00	5463.4
31745	953.81	365.7	0.0	9.88	0.00	1329.4
31747	504.08	0.0	2.5	96.37	0.00	602.9
31750	679.52	1242.9	726.5	0.00	0.00	2648.9
31752	546.09	0.0	0.0	207.56	0.00	753.7
34025	673.00	627.0	43.0	318.00	0.00	1661.0
34085	7382.00	1126.0	1069.0	822.00	33.00	10433.0
34120	0.00	176.0	0.0	87.00	8.00	271.0
34150	0.00	8.0	247.0	103.00	0.00	358.0
34155	2426.52	15883.6	22298.3	328.64	56.83	40993.9
34165	22.00	263.0	2204.0	342.00	1020.00	3851.0
34180	1637.00	2044.0	1818.0	49.00	0.00	5547.0

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
*TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
34205	0.0	62	166.0	33.0	0.0	261
34225	692.0	0	529.0	315.0	0.0	1536
34235	79.0	0	1020.0	11.0	16.0	1126
34240	117.0	0	92.0	24.0	0.0	233
34250	130.0	0	361.0	195.0	0.0	687
35020	1680.3	23242	7410.5	2429.0	2520.4	37282
35025	2130.0	55990	25846.7	659.8	602.9	85230
35030	10015.0	110763	46929.2	7875.1	18586.9	194169
35035	234.7	0	600.5	74.1	2.5	912
35040	103.8	8616	916.7	743.8	2340.0	12721
35045	1838.4	34164	35140.1	993.3	2708.2	74844
35050	0.0	1060	583.2	111.2	175.4	1930
35055	2930.6	22704	14900.1	212.5	501.6	41248
35060	2651.4	24801	28248.5	901.9	691.9	57295
35065	0.0	0	131.0	46.9	0.0	178
35070	387.9	27179	14329.3	0.0	108.7	42005
35075	360.8	12622	8196.3	46.9	190.3	21416
35080	0.0	14525	9098.2	64.2	91.4	23778
35085	541.1	326	3543.4	69.2	0.0	4480
35090	4307.0	1045	15246.1	375.6	845.1	21819
35095	131.0	0	308.9	148.3	0.0	588
35100	884.6	5142	10919.3	12.4	560.9	17519
35105	0.0	2451	1102.1	0.0	0.0	3553
35110	0.0	5804	4835.7	7.4	0.0	10648
35115	0.0	6573	11527.2	0.0	111.2	18211
35120	859.9	20163	38167.1	741.3	672.1	60604
35125	0.0	4428	4178.5	128.5	0.0	8735
35130	583.2	27712	26847.4	345.9	5273.1	60762
35135	118.6	2765	3459.4	0.0	148.3	6491
35140	2.5	0	266.9	54.4	0.0	324
35145	118.6	1060	3414.9	1645.7	1579.0	7818
35150	249.6	128	1732.2	1015.6	0.0	3126
35155	254.5	724	709.2	69.2	0.0	1757
35160	150.7	128	0.0	24.7	0.0	304
35165	12280.9	50201	94145.1	4400.9	2414.2	163442
35170	143.3	1690	3212.3	61.8	0.0	5108
35175	560.9	9914	34665.7	3842.4	7497.0	56480
35180	279.2	815	1628.4	249.6	51.9	3025
35185	1697.6	2822	19281.2	1015.6	343.5	25160
35190	126.0	1799	11235.6	410.2	993.3	14564
35200	649.9	9657	15337.5	284.2	1895.3	27823
35205	32.1	625	6567.9	0.0	0.0	7225
35210	160.6	2024	7091.8	0.0	274.3	9550
35250	0.0	0	6964.0	90.0	5469.0	12522
36005	7.4	2656	61451.3	1613.7	6451.8	72381
36010	76.6	6123	28700.7	647.4	855.0	36403
36015	0.0	1421	5661.1	173.0	311.3	7566
36020	39.5	5945	69136.1	1052.6	4025.3	80199
36025	0.0	10	657.3	24.7	0.0	692
36030	0.0	9486	18401.5	583.2	229.8	28701
36035	0.0	6499	25023.8	706.7	1228.1	33457
36040	1873.0	8606	30699.7	575.7	3308.7	45064
36050	0.0	148	138.4	34.6	0.0	321
36055	22.2	1119	18562.2	281.7	2342.5	22328
36060	24.7	2288	62496.5	2050.9	9543.0	76403
36065	0.0	425	11040.4	126.0	699.3	12291
36070	229.8	4193	49027.1	689.4	4084.6	58224
36075	363.2	445	2345.0	86.5	39.5	3279
36080	432.4	3538	17719.5	108.7	390.4	22190
36085	1915.0	8730	63855.6	31127.2	6212.1	111840
36090	1032.9	2333	28273.2	4786.3	877.2	37302
36095	338.5	4023	22587.4	901.9	383.0	28234
36100	380.5	19862	51201.6	9459.0	5154.5	86058
36105	1952.1	5122	13298.9	3017.1	672.1	24063
36110	751.2	672	822.8	118.6	131.0	2496
36115	649.9	1483	10328.8	93.9	1875.5	14431
36120	170.5	563	3447.0	4.9	56.8	4243
36125	523.9	16343	35478.6	2468.5	704.2	55518
36130	7719.4	7435	49637.4	17640.5	1322.0	83755
36135	457.1	2560	9436.7	4178.5	491.7	17124
36140	133.4	418	1317.0	916.7	311.3	3096

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
36145	1378.8	1354.1	12742.9	10657.4	1554.26	27688
36150	390.4	276.8	2258.5	163.1	182.85	3272
36155	289.1	14188.5	26513.8	5722.8	4106.80	50821
36160	0.0	2186.8	3602.7	1060.1	1492.48	8342
36165	333.6	7608.2	18547.3	3192.5	266.87	29949
36170	19.8	2856.5	12350.1	0.0	0.00	15226
36175	1672.9	5157.0	19609.9	24761.9	1522.14	52724
36180	123.5	1448.0	7825.7	481.8	0.00	9879
36185	0.0	516.4	1658.0	7.4	0.00	2182
36187	14.8	840.1	1225.6	242.2	0.00	2323
36189	217.4	494.2	271.8	363.2	0.00	1347
36190	976.0	2846.6	6110.8	1134.2	22.24	11090
36197	101.3	1393.6	2018.8	3395.2	51.89	6961
36200	266.9	511.5	4870.3	2999.8	0.00	8648
36205	1556.7	1487.5	5327.5	877.2	0.00	9249
36215	14.8	54.4	805.5	526.3	0.00	1401
36220	768.5	8043.1	18221.2	2058.3	118.61	29210
36225	3232.1	1141.6	1546.8	2816.9	0.00	8737
36230	3264.2	23140.9	72630.1	336.1	827.78	100199
36232	0.0	84.0	133.4	0.0	0.00	217
36235	1445.5	859.9	6340.6	7.4	200.15	8854
36240	239.7	1524.6	6096.0	753.7	39.54	8653
36245	474.4	1371.4	1457.9	420.1	69.15	3793
36247	0.0	200.2	1793.9	291.6	0.00	2286
36250	22.2	0.0	1695.1	491.7	0.00	2209
36255	1942.2	0.0	4551.6	1203.4	98.84	7796
36260	1304.7	19523.4	24752.0	4341.5	677.05	50599
36265	303.9	5537.5	10869.9	1793.9	0.00	18505
36267	2.5	0.0	560.9	118.6	0.00	682
36270	919.2	3592.8	2794.7	3333.4	0.00	10640
36272	889.6	284.2	6763.1	133.4	24.71	8095
36275	810.5	3390.2	8154.3	5633.9	1398.59	19387
36280	0.0	679.5	7435.2	1932.3	775.89	10823
36285	187.8	6261.5	13071.6	4176.0	328.64	24026
36290	3170.3	22513.3	26116.0	7912.1	1124.30	60836
36292	946.4	89.0	259.5	249.6	0.00	1544
36295	22.2	4887.6	5549.9	76.6	407.71	10944
36300	941.5	9288.5	22412.0	4395.9	516.44	37554
36305	5764.8	53336.5	65753.3	5626.5	6671.70	137153
36310	343.5	4932.1	7904.7	835.2	363.24	14379
36315	672.1	91.4	173.0	0.0	0.00	937
36320	276.8	0.0	504.1	4.9	0.00	786
36325	0.0	46.9	224.9	0.0	0.00	272
36330	116.1	2592.1	3975.8	664.7	538.68	7887
36335	2.5	34.6	1213.3	622.7	7.41	1880
36340	0.0	0.0	647.4	190.3	0.00	838
36345	1102.1	6049.0	16291.3	1297.3	0.00	24740
36350	222.4	531.3	622.7	276.8	0.00	1653
36355	768.5	3627.4	2928.1	2115.2	0.00	9439
36360	13479.3	8586.7	7840.5	1588.9	0.00	31495
36362	12.4	0.0	0.0	4.9	0.00	17
36365	118.6	284.2	2068.2	810.5	0.00	3281
36370	71.7	0.0	454.7	227.3	0.00	754
36380	1579.0	2154.7	18149.5	4922.2	850.02	27655
36385	0.0	39.5	1579.0	2.5	14.83	1636
36390	0.0	155.7	1608.6	2.5	0.00	1767
36395	6617.3	6133.0	22589.9	541.1	0.00	35881
36400	4759.1	140.8	1037.8	2191.8	0.00	8130
36405	743.8	2.5	605.4	89.0	0.00	1441
36410	0.0	0.0	61.8	0.0	0.00	62
36415	6456.7	91.4	0.0	447.3	0.00	6995
36420	756.1	0.0	0.0	202.6	0.00	959
38040	98.0	0.0	695.0	68.0	111.00	972
38045	749.0	0.0	478.0	111.0	0.00	1338
38050	651.0	0.0	1029.0	98.0	236.00	2014
38060	8.0	0.0	0.0	0.0	0.00	8
38072	68.0	0.0	185.0	0.0	0.00	252
38080	220.0	0.0	470.0	179.0	0.00	868
38085	155.0	0.0	111.0	46.0	0.00	312
38105	304.0	0.0	513.0	160.0	0.00	977
38230	98.0	0.0	65.0	38.0	0.00	201

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
38235	258.00	0.00	472.00	100.00	206.000	1037.0
38240	727.00	155.00	1653.00	524.00	0.000	3059.0
38245	0.00	19.00	65.00	3.00	0.000	87.0
38255	0.00	125.00	111.00	103.00	0.000	339.0
38260	247.00	79.00	1604.00	622.00	402.000	2953.0
38265	0.00	3.00	125.00	0.00	95.000	223.0
38270	166.00	0.00	543.00	174.00	3.000	885.0
38315	0.00	22.24	1198.43	832.73	0.000	2053.4
38320	378.06	32.12	6244.22	32.12	44.478	6731.0
38325	469.49	123.55	5332.42	29.65	140.847	6096.0
38330	906.86	427.48	1855.72	32.12	66.717	3288.9
38340	1808.77	1717.34	2982.50	66.72	108.724	6684.1
38345	1769.24	467.02	1287.39	9.88	0.000	3533.5
38350	1387.00	643.00	3607.00	133.00	0.000	5770.0
38370	682.00	0.00	9.88	121.08	0.000	813.0
39010	0.00	0.00	149.00	22.00	0.000	171.0
39065	54.36	0.00	113.67	7.41	0.000	175.4
39070	30.00	0.00	798.00	65.00	24.000	917.0
39085	57.00	0.00	209.00	0.00	0.000	266.0
39095	43.00	0.00	518.00	41.00	0.000	603.0
39100	328.00	0.00	670.00	71.00	0.000	1069.0
39105	250.00	0.00	239.00	152.00	0.000	641.0
39125	174.00	0.00	60.00	87.00	0.000	320.0
39127	1262.00	0.00	125.00	337.00	0.000	1723.0
39135	157.00	0.00	73.00	0.00	0.000	231.0
39140	326.17	0.00	195.21	54.36	0.000	575.7
39150	462.08	22.24	353.35	242.16	0.000	1079.8
39170	2008.00	71.00	432.00	38.00	347.000	2896.0
39180	2586.00	307.00	5.00	361.00	190.000	3449.0
39215	1771.71	1378.82	6330.70	2609.38	0.000	12090.6
39220	464.55	2172.01	4531.81	59.30	91.427	7319.1
39225	548.56	1971.86	4371.20	64.25	303.933	7259.8
39230	0.00	0.00	269.00	49.00	0.000	318.0
39235	51.89	118.61	1611.09	32.12	0.000	1813.7
39245	90.00	0.00	171.00	109.00	0.000	369.0
39247	0.00	0.00	244.00	33.00	0.000	277.0
39250	0.00	0.00	665.00	263.00	0.000	928.0
39260	290.00	0.00	980.00	326.00	19.000	1615.0
39262	98.00	0.00	81.00	57.00	0.000	236.0
39265	152.00	0.00	242.00	133.00	0.000	527.0
39270	3.00	0.00	111.00	68.00	0.000	182.0
39275	588.10	820.37	3190.06	491.73	0.000	5090.3
39390	266.87	501.61	3123.34	126.02	0.000	4017.8
41070	1172.00	0.00	768.00	459.00	0.000	2399.0
41075	195.21	0.00	84.01	148.26	0.000	427.5
41080	677.05	0.00	1282.45	266.87	0.000	2226.4
41085	0.00	143.32	1223.14	427.48	0.000	1793.9
41090	0.00	0.00	365.71	232.27	0.000	598.0
41100	541.15	29.65	694.35	1215.73	0.000	2480.9
41105	163.09	37.06	911.80	506.55	0.000	1618.5
41107	766.01	308.87	123.55	86.48	0.000	1284.9
41110	1709.93	0.00	652.34	921.68	0.000	3284.0
41125	27.18	0.00	24.71	0.00	0.000	51.9
41130	1111.95	9.88	12.35	439.84	0.000	1574.0
41140	298.99	51.89	12.35	42.01	0.000	405.2
41145	486.79	17.30	54.36	484.32	0.000	1042.8
41150	573.27	76.60	150.73	170.50	0.000	971.1
41155	0.00	71.66	29.65	163.09	0.000	264.4
41160	1517.19	69.19	691.88	412.66	0.000	2690.9
41165	3.00	0.00	616.00	130.00	0.000	749.0
41170	116.14	323.70	437.37	741.30	0.000	1618.5
41175	612.81	0.00	155.67	229.80	0.000	998.3
41180	111.19	27.18	128.49	269.34	0.000	536.2
41190	2537.72	163.09	4647.95	2816.94	422.541	10588.2
41195	74.13	88.96	1855.72	429.95	116.137	2564.9
41200	118.61	76.60	649.87	9.88	27.181	882.1
41205	135.90	350.88	593.04	775.89	0.000	1855.7
41210	437.37	439.84	827.78	699.29	116.137	2520.4
41215	1158.90	378.06	511.50	805.55	2.471	2856.5
41220	348.41	0.00	32.12	56.83	0.000	437.4
41225	197.68	422.54	1667.92	286.64	130.963	2705.7

Table G-3. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
41230	180.4	0.0	902	652	0.0	1735
41235	111.2	0.0	175	77	0.0	363
41240	0.0	0.0	47	37	0.0	84
41245	617.7	0.0	778	460	81.5	1937
41250	958.7	0.0	1957	1752	0.0	4668
41255	642.5	0.0	22	188	0.0	852
41405	7610.7	16953.5	14408	8846	946.4	48765
41410	136.0	52.0	898	665	0.0	1751
41415	2760.1	2789.8	1824	563	29.7	7967
41420	771.0	4702.3	277	395	494.2	6640
41425	227.3	215.0	104	20	0.0	566
41430	2097.9	9295.9	529	1520	121.1	13563
41435	86.5	0.0	12	2	0.0	101
41440	2844.1	158.1	437	126	0.0	3566
41450	3111.0	1270.1	929	2926	153.2	8389
42005	2656.3	405.2	12847	499	771.0	17178
42010	2011.4	1836.0	5948	116	145.8	10057
42015	24.7	242.2	536	0	0.0	803
42020	306.4	2196.7	19743	52	79.1	22377
42025	407.7	3214.8	25770	0	232.3	29625
42030	0.0	0.0	9783	0	168.0	9951
42032	0.0	0.0	0	12	4.9	17
42035	56.8	1069.9	15814	37	126.0	17104
42040	286.6	54.4	6511	10	1359.0	8221
42045	0.0	0.0	3328	0	0.0	3328
42050	0.0	2485.8	13603	0	274.3	16363
42055	0.0	0.0	437	0	0.0	437
42060	0.0	46.9	136	0	0.0	183
42065	0.0	138.4	635	0	0.0	773
42070	0.0	449.7	1579	0	0.0	2029
42075	0.0	0.0	153	0	0.0	153
42080	0.0	8567.0	41095	40	4183.4	53885
42085	0.0	180.4	262	0	0.0	442
42090	0.0	640.0	69	0	0.0	709
42095	0.0	728.9	633	0	4.9	1366
42100	0.0	29.7	3576	0	59.3	3664
42105	2574.8	3597.8	22891	124	360.8	29548
44015	176.0	0.0	103	147	0.0	426
47050	0.0	2261.0	3783	435	420.1	6899
47055	219.9	1289.9	4327	0	684.5	6521
47060	0.0	630.1	1226	0	412.7	2268
47065	180.4	9762.9	44288	969	3355.6	58555
47070	2.5	1181.1	22192	195	0.0	23571
47075	0.0	135.9	6523	0	756.1	7415
47080	0.0	6503.7	26576	230	583.2	33892
47085	0.0	61.8	163	0	0.0	225
47090	0.0	71.7	1969	20	0.0	2061
47095	0.0	427.5	5177	27	0.0	5631
47100	0.0	906.9	5963	0	0.0	6869
48005	0.0	16318.5	49445	208	9221.8	75193
48010	91.4	2006.5	4238	0	7.4	6343
48015	98.8	14667.9	57251	0	7168.4	79186
48020	0.0	10027.3	104014	546	5799.4	120387
48025	1410.9	26296.4	191821	521	4232.8	224283
49000	192.7	8643.6	4920	344423	86277.4	444456
60010	1482.0	1216.0	9057	4196	4636.0	20586

Table G-4. Hydrologic Unit Numbers by Lake and associated land use, acres.

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*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
ALICE	ALACHUA	30335	6747.00	3346	782	119.00	239.0	11233
ALTHO	ALACHUA	26135	307.00	1124	114	578.00	440.0	2562
BIVENS ARM	ALACHUA	30330	1302.22	64	343	158.14	74.1	1942
LITTLE ORANGE	ALACHUA	30220	121.08	10838	697	6011.94	2290.6	19958
LITTLE ORANGE	ALACHUA	30225	160.61	3541	321	0.00	0.0	4023
LITTLE ORANGE	ALACHUA	30230	0.00	27	0	0.00	0.0	27
LITTLE ORANGE	ALACHUA	30235	0.00	1107	163	0.00	0.0	1270
LITTLE ORANGE	ALACHUA	30240	0.00	161	7	0.00	0.0	168
LITTLE ORANGE	ALACHUA	30245	0.00	94	0	0.00	0.0	94
LITTLE ORANGE	ALACHUA	30250	113.67	838	0	0.00	0.0	951
LITTLE ORANGE	ALACHUA	30255	0.00	146	0	0.00	0.0	146
LITTLE ORANGE	ALACHUA	30260	86.48	5135	566	0.00	0.0	5787
LITTLE ORANGE	ALACHUA	30262	205.09	17547	4403	69.19	0.0	22224
LITTLE ORANGE	ALACHUA	30264	0.00	704	1129	0.00	0.0	1833
LITTLE ORANGE	ALACHUA	30265	3325.97	14480	43868	8910.43	4277.3	74861
LITTLE ORANGE	ALACHUA	30270	197.68	13628	1260	177.91	941.5	16205
LITTLE ORANGE	ALACHUA	30272	242.16	2429	393	242.16	869.8	4176
LITTLE ORANGE	ALACHUA	30275	0.00	4431	726	0.00	185.3	5342
LITTLE ORANGE	ALACHUA	30277	0.00	12	44	0.00	0.0	57
LITTLE ORANGE	ALACHUA	30280	679.52	11164	1253	5841.44	66.7	19004
LITTLE ORANGE	ALACHUA	30285	207.56	630	603	0.00	0.0	1441
LITTLE ORANGE	ALACHUA	30290	1677.81	1648	536	0.00	34.6	3897
LITTLE ORANGE	ALACHUA	30295	133.43	299	49	0.00	0.0	482
LITTLE ORANGE	ALACHUA	30300	2379.57	3771	339	0.00	4.9	6494
LITTLE ORANGE	ALACHUA	30305	0.00	128	0	0.00	0.0	128
LITTLE ORANGE	ALACHUA	30310	1171.25	37594	2824	0.00	0.0	41589
LITTLE ORANGE	ALACHUA	30315	8169.13	178700	170850	3847.35	17665.2	379232
LITTLE ORANGE	ALACHUA	30317	234.74	514	5	2.47	0.0	756
LITTLE ORANGE	ALACHUA	30318	0.00	210	47	0.00	39.5	297
LITTLE ORANGE	ALACHUA	30319	2.47	489	586	12.35	0.0	1090
LITTLE ORANGE	ALACHUA	30320	1163.84	89	131	22.24	2.5	1408
LITTLE ORANGE	ALACHUA	30325	526.32	0	0	0.00	0.0	526
LITTLE ORANGE	ALACHUA	30330	1302.22	64	343	158.14	74.1	1942
LITTLE ORANGE	ALACHUA	30335	6142.91	3264	712	108.72	0.0	10227
LITTLE ORANGE	ALACHUA	30340	531.25	2266	5	0.00	0.0	2802
LITTLE ORANGE	ALACHUA	30345	1625.92	2945	833	158.14	0.0	5562
LITTLE ORANGE	ALACHUA	30350	3353.15	5874	3852	118.61	131.0	13329
LITTLE SANTA FE	ALACHUA	26135	279.22	1423	104	526.32	0.0	2333
LITTLE SANTA FE	ALACHUA	26140	911.80	4935	1638	5105.09	877.2	13467
LOCHLOOSA	ALACHUA	30220	121.08	10838	697	6011.94	2290.6	19958
LOCHLOOSA	ALACHUA	30225	160.61	3541	321	0.00	0.0	4023
LOCHLOOSA	ALACHUA	30230	0.00	27	0	0.00	0.0	27
LOCHLOOSA	ALACHUA	30235	0.00	1107	163	0.00	0.0	1270
LOCHLOOSA	ALACHUA	30240	0.00	161	7	0.00	0.0	168
LOCHLOOSA	ALACHUA	30245	0.00	94	0	0.00	0.0	94
LOCHLOOSA	ALACHUA	30250	113.67	838	0	0.00	0.0	951
LOCHLOOSA	ALACHUA	30255	0.00	146	0	0.00	0.0	146
LOCHLOOSA	ALACHUA	30260	86.48	5135	566	0.00	0.0	5787
LOCHLOOSA	ALACHUA	30262	205.09	17547	4403	69.19	0.0	22224
LOCHLOOSA	ALACHUA	30264	0.00	704	1129	0.00	0.0	1833
NEWNANS	ALACHUA	30280	679.52	11164	1253	5841.44	66.7	19004
NEWNANS	ALACHUA	30285	207.56	630	603	0.00	0.0	1441
NEWNANS	ALACHUA	30290	1677.81	1648	536	0.00	34.6	3897
NEWNANS	ALACHUA	30295	133.43	299	49	0.00	0.0	482
NEWNANS	ALACHUA	30300	2379.57	3771	339	0.00	4.9	6494
NEWNANS	ALACHUA	30305	0.00	128	0	0.00	0.0	128
NEWNANS	ALACHUA	30310	1171.25	37594	2824	0.00	0.0	41589
ORANGE	ALACHUA	30220	121.08	10838	697	6011.94	2290.6	19958
ORANGE	ALACHUA	30225	160.61	3541	321	0.00	0.0	4023
ORANGE	ALACHUA	30230	0.00	27	0	0.00	0.0	27
ORANGE	ALACHUA	30235	0.00	1107	163	0.00	0.0	1270
ORANGE	ALACHUA	30240	0.00	161	7	0.00	0.0	168
ORANGE	ALACHUA	30245	0.00	94	0	0.00	0.0	94
ORANGE	ALACHUA	30250	113.67	838	0	0.00	0.0	951
ORANGE	ALACHUA	30255	0.00	146	0	0.00	0.0	146
ORANGE	ALACHUA	30260	86.48	5135	566	0.00	0.0	5787
ORANGE	ALACHUA	30262	205.09	17547	4403	69.19	0.0	22224
ORANGE	ALACHUA	30264	0.00	704	1129	0.00	0.0	1833
ORANGE	ALACHUA	30265	3325.97	14480	43868	8910.43	4277.3	74861
ORANGE	ALACHUA	30270	197.68	13628	1260	177.91	941.5	16205
ORANGE	ALACHUA	30272	242.16	2429	393	242.16	869.8	4176

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
ORANGE	ALACHUA	30275	0.00	4431	726	0.00	185.3	5342
ORANGE	ALACHUA	30277	0.00	12	44	0.00	0.0	57
ORANGE	ALACHUA	30280	679.52	11164	1253	5941.44	66.7	19004
ORANGE	ALACHUA	30285	207.56	630	603	0.00	0.0	1441
ORANGE	ALACHUA	30290	1677.81	1648	536	0.00	34.6	3897
ORANGE	ALACHUA	30295	133.43	299	49	0.00	0.0	482
ORANGE	ALACHUA	30300	2379.57	3771	339	0.00	4.9	6494
ORANGE	ALACHUA	30305	0.00	128	0	0.00	0.0	128
ORANGE	ALACHUA	30310	1171.25	37594	2824	0.00	0.0	41589
ORANGE	ALACHUA	30315	8169.13	178700	170850	3947.35	17665.2	379232
ORANGE	ALACHUA	30317	274.74	514	5	2.47	0.0	756
ORANGE	ALACHUA	30318	0.00	210	47	0.00	39.5	297
ORANGE	ALACHUA	30319	2.47	489	586	12.35	0.0	1090
ORANGE	ALACHUA	30320	1163.84	89	131	22.24	2.5	1408
ORANGE	ALACHUA	30325	526.32	0	0	0.00	0.0	526
ORANGE	ALACHUA	30330	1302.22	64	343	158.14	74.1	1942
ORANGE	ALACHUA	30335	6142.91	3264	712	108.72	0.0	10227
ORANGE	ALACHUA	30340	531.26	2266	5	0.00	0.0	2802
ORANGE	ALACHUA	30345	1625.92	2945	833	158.14	0.0	5562
ORANGE	ALACHUA	30350	3353.15	5974	3852	118.61	131.0	13329
SANTA FE	ALACHUA	26135	279.22	1423	104	526.32	0.0	2333
SANTA FE	ALACHUA	26140	911.80	4935	1638	5105.09	877.2	13467
OCEAN POND	BAKER	23315	160.00	5773	22	1949.00	1911.0	9814
DEER POINT	BAY	11020	2157.18	51728	1087	2468.53	103.8	57545
DEER POINT	BAY	11025	261.93	15881	640	635.05	0.0	17418
DEER POINT	BAY	11030	170.50	41493	1347	0.00	0.0	43010
DEER POINT	BAY	11035	46.95	3936	193	0.00	0.0	4176
DEER POINT	BAY	11040	88.96	17280	348	22.24	0.0	17739
DEER POINT	BAY	11045	0.00	32501	941	459.61	197.7	34100
DEER POINT	BAY	11050	0.00	180	0	0.00	0.0	180
DEER POINT	BAY	11055	32.12	17087	32	22.24	0.0	17173
DEER POINT	BAY	11060	180.38	23615	1075	1027.94	22.2	25921
DEER POINT	BAY	11065	229.80	45926	3185	2179.42	3763.3	55284
DEER POINT	BAY	11070	0.00	4371	1033	9.88	0.0	5414
MERIAL	BAY	11065	229.80	45926	3185	2179.42	3763.3	55284
ROWELL	BRADFORD	26125	1366.46	9642	1386	86.48	0.0	12481
SAMPSON	BRADFORD	26120	874.73	19889	1994	3002.26	0.0	25760
SAMPSON	BRADFORD	26125	1366.46	9642	1386	86.48	0.0	12481
POINSETT	BREVARD	31195	5633.88	7124	9773	4539.23	14114.4	41184
POINSETT	BREVARD	31200	86.48	0	69	4.94	0.0	161
POINSETT	BREVARD	31205	269.34	2162	12582	447.25	3180.2	18641
POINSETT	BREVARD	31210	163.09	5298	14648	1255.27	3002.3	24367
POINSETT	BREVARD	31215	0.00	96	5187	54.36	380.5	5718
POINSETT	BREVARD	31220	0.00	136	262	37.06	593.0	1028
POINSETT	BREVARD	31225	0.00	348	544	61.77	385.5	1339
POINSETT	BREVARD	31230	177.91	2572	11535	160.61	4638.1	19084
POINSETT	BREVARD	31235	0.00	1497	1396	0.00	1826.1	4720
POINSETT	BREVARD	31240	0.00	1080	6024	2.47	1544.4	8651
POINSETT	BREVARD	31245	1571.56	6180	19820	3980.78	7615.6	39168
POINSETT	BREVARD	31250	0.00	1675	5105	617.75	2236.3	9634
POINSETT	BREVARD	31255	0.00	4156	2728	256.98	4892.6	12034
POINSETT	BREVARD	31260	0.00	2770	4762	2.47	897.0	8431
POINSETT	BREVARD	31265	0.00	9644	18441	34.59	165.6	28286
POINSETT	BREVARD	31270	0.00	23413	27500	54.36	276.8	51244
POINSETT	BREVARD	31275	0.00	33964	25345	6617.34	224.9	66151
POINSETT	BREVARD	31280	227.33	966	7440	12.35	39.5	8686
POINSETT	BREVARD	31285	832.73	21310	37245	54.36	387.9	59830
POINSETT	BREVARD	31290	0.00	0	138	0.00	0.0	138
POINSETT	BREVARD	31295	0.00	0	3563	98.84	368.2	4030
POINSETT	BREVARD	31296	0.00	0	15	0.00	0.0	15
POINSETT	BREVARD	31298	0.00	0	30	0.00	0.0	30
POINSETT	BREVARD	31300	0.00	0	74	0.00	0.0	74
POINSETT	BREVARD	31302	0.00	0	358	0.00	19.8	378
POINSETT	BREVARD	31305	0.00	0	850	0.00	32.1	882
POINSETT	BREVARD	31307	0.00	0	5	0.00	0.0	5
POINSETT	BREVARD	31309	7.41	0	84	46.95	0.0	138
POINSETT	BREVARD	31310	7.41	0	42	0.00	0.0	49
POINSETT	BREVARD	31315	360.77	482	5496	91.43	175.4	6605
POINSETT	BREVARD	31320	0.00	0	2812	93.90	74.1	2980
POINSETT	BREVARD	31322	0.00	227	1987	0.00	0.0	2214
POINSETT	BREVARD	31325	0.00	195	875	12.35	0.0	1082

Table G-4. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
POINSETT	BREVARD	31327	0.00	1396.1	3427.3	175.44	284.16	5283.0
POINSETT	BREVARD	31330	0.00	42.0	778.4	0.00	0.00	820.4
POINSETT	BREVARD	31332	0.00	86.5	430.0	0.00	0.00	516.4
POINSETT	BREVARD	31335	2.47	716.6	1707.5	0.00	0.00	2426.5
POINSETT	BREVARD	31337	4.94	244.6	973.6	0.00	0.00	1223.1
POINSETT	BREVARD	31340	0.00	0.0	810.5	0.00	0.00	810.5
POINSETT	BREVARD	31345	0.00	0.0	365.7	0.00	0.00	365.7
POINSETT	BREVARD	31347	12.35	202.6	2384.5	98.84	98.84	2797.2
POINSETT	BREVARD	31350	0.00	148.3	10973.7	177.91	499.14	11799.0
POINSETT	BREVARD	31565	91.43	926.6	2587.1	54.36	0.00	3659.6
POINSETT	BREVARD	31570	0.00	430.0	16432.1	32.12	66.72	16960.9
POINSETT	BREVARD	31572	0.00	328.6	1371.4	0.00	0.00	1700.0
POINSETT	BREVARD	31575	0.00	988.4	9896.4	0.00	121.08	11005.8
POINSETT	BREVARD	31580	0.00	5510.3	1942.2	0.00	29.65	7482.2
POINSETT	BREVARD	31585	34.59	20805.8	70875.7	558.45	1732.17	94006.7
POINSETT	BREVARD	31590	9.88	4761.6	14640.7	2.47	88.96	19503.6
POINSETT	BREVARD	31592	0.00	46.9	4838.2	0.00	0.00	4885.2
POINSETT	BREVARD	31600	0.00	2730.5	17072.1	0.00	276.75	20079.3
POINSETT	BREVARD	31602	0.00	205.1	338.5	0.00	0.00	543.6
POINSETT	BREVARD	31605	0.00	158.1	1057.6	0.00	0.00	1215.7
POINSETT	BREVARD	31612	0.00	308.9	2619.3	0.00	64.25	2992.4
POINSETT	BREVARD	31617	202.62	3459.4	10978.7	12.35	7.41	14660.4
POINSETT	BREVARD	31620	0.00	42.0	313.8	0.00	0.00	355.8
POINSETT	BREVARD	31630	0.00	815.4	751.2	0.00	0.00	1566.6
POINSETT	BREVARD	31635	276.75	2352.4	11450.6	7.41	0.00	14087.2
POINSETT	BREVARD	31637	0.00	2584.7	6871.9	84.01	1828.54	11369.1
POINSETT	BREVARD	31640	64.25	29.7	662.2	2.47	0.00	758.6
POINSETT	BREVARD	31642	0.00	0.0	160.6	0.00	0.00	160.6
POINSETT	BREVARD	31645	0.00	128.5	422.5	0.00	0.00	551.0
POINSETT	BREVARD	31647	111.19	217.4	5221.2	0.00	126.02	5675.9
POINSETT	BREVARD	31650	489.26	1003.2	17988.9	51.89	1413.41	20946.7
POINSETT	BREVARD	31652	0.00	150.7	706.7	9.88	0.00	867.3
POINSETT	BREVARD	31655	0.00	46.9	89.0	0.00	0.00	135.9
POINSETT	BREVARD	31657	0.00	402.8	5045.8	51.89	877.20	6377.7
POINSETT	BREVARD	31660	205.09	387.9	950.9	49.42	7.41	1640.7
POINSETT	BREVARD	31662	0.00	96.4	4339.1	160.61	481.84	5077.9
SHAPPES	BREVARD	31190	703.00	152.0	1639.0	706.00	784.00	3984.0
SOUTH	BREVARD	31125	2518.00	4374.0	4818.0	121.00	1070.00	12901.0
WASHINGTON	BREVARD	31245	1571.56	6180.0	19819.9	3980.78	7615.62	39167.8
WASHINGTON	BREVARD	31250	0.00	1675.3	5105.1	617.75	2236.25	9634.4
WASHINGTON	BREVARD	31255	0.00	4156.2	2728.0	256.98	4892.58	12033.8
WASHINGTON	BREVARD	31260	0.00	2770.0	4761.6	2.47	896.97	8431.1
WASHINGTON	BREVARD	31265	0.00	9644.3	18441.1	34.59	165.56	28285.5
WASHINGTON	BREVARD	31270	0.00	23412.7	27499.8	54.36	276.75	51243.6
WASHINGTON	BREVARD	31275	0.00	33963.9	25345.0	6617.34	224.86	66151.1
WASHINGTON	BREVARD	31280	227.33	966.2	7440.2	12.35	39.54	8685.6
WASHINGTON	BREVARD	31285	832.73	21309.9	37245.4	54.36	387.95	59930.3
WASHINGTON	BREVARD	31290	0.00	0.0	138.4	0.00	0.00	138.4
WASHINGTON	BREVARD	31295	0.00	0.0	3563.2	98.84	368.18	4030.2
WASHINGTON	BREVARD	31296	0.00	0.0	14.8	0.00	0.00	14.8
WASHINGTON	BREVARD	31298	0.00	0.0	29.7	0.00	0.00	29.7
WASHINGTON	BREVARD	31300	0.00	0.0	74.1	0.00	0.00	74.1
WASHINGTON	BREVARD	31302	0.00	0.0	358.3	0.00	19.77	378.1
WASHINGTON	BREVARD	31305	0.00	0.0	850.0	0.00	32.12	882.1
WASHINGTON	BREVARD	31307	0.00	0.0	4.9	0.00	0.00	4.9
WASHINGTON	BREVARD	31309	7.41	0.0	84.0	46.95	0.00	138.4
WASHINGTON	BREVARD	31310	7.41	0.0	42.0	0.00	0.00	49.4
WASHINGTON	BREVARD	31315	360.77	481.8	5495.5	91.43	175.44	6605.0
WASHINGTON	BREVARD	31320	0.00	0.0	2812.0	93.90	74.13	2980.0
WASHINGTON	BREVARD	31322	0.00	227.3	1986.7	0.00	0.00	2214.0
WASHINGTON	BREVARD	31325	0.00	195.2	874.7	12.35	0.00	1082.3
WASHINGTON	BREVARD	31327	0.00	1396.1	3427.3	175.44	284.16	5283.0
WASHINGTON	BREVARD	31330	0.00	42.0	778.4	0.00	0.00	820.4
WASHINGTON	BREVARD	31332	0.00	86.5	430.0	0.00	0.00	516.4
WASHINGTON	BREVARD	31335	2.47	716.6	1707.5	0.00	0.00	2426.5
WASHINGTON	BREVARD	31337	4.94	244.6	973.6	0.00	0.00	1223.1
WASHINGTON	BREVARD	31340	0.00	0.0	810.5	0.00	0.00	810.5
WASHINGTON	BREVARD	31345	0.00	0.0	365.7	0.00	0.00	365.7
WASHINGTON	BREVARD	31347	12.35	202.6	2384.5	98.84	98.84	2797.2
WASHINGTON	BREVARD	31350	0.00	148.3	10973.7	177.91	499.14	11799.0
WASHINGTON	BREVARD	31580	0.00	5510.3	1942.2	0.00	29.65	7482.2

Table G-4. (Continued)

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*                                               *
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*                                               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
WASHINGTON	BREVARD	31585	34.59	20805.8	70875.7	558.45	1732.17	94006.7
WASHINGTON	BREVARD	31590	9.88	4761.6	14640.7	2.47	88.96	19503.6
WASHINGTON	BREVARD	31592	0.00	46.9	4838.2	0.00	0.00	4885.2
WASHINGTON	BREVARD	31600	0.00	2730.5	17072.1	0.00	276.75	20079.3
WASHINGTON	BREVARD	31602	0.00	205.1	338.5	0.00	0.00	543.6
WASHINGTON	BREVARD	31605	0.00	158.1	1057.6	0.00	0.00	1215.7
WASHINGTON	BREVARD	31612	0.00	308.9	2619.3	0.00	64.25	2992.4
WASHINGTON	BREVARD	31617	202.62	3459.4	10978.7	12.35	7.41	14660.4
WASHINGTON	BREVARD	31620	0.00	42.0	313.8	0.00	0.00	355.8
WASHINGTON	BREVARD	31630	0.00	815.4	751.2	0.00	0.00	1566.6
WASHINGTON	BREVARD	31635	276.75	2352.4	11450.6	7.41	0.00	14087.2
WASHINGTON	BREVARD	31637	0.00	2584.7	6871.9	84.01	1828.54	11369.1
WASHINGTON	BREVARD	31640	64.25	29.7	662.2	2.47	0.00	758.6
WASHINGTON	BREVARD	31642	0.00	0.0	160.6	0.00	0.00	160.6
WASHINGTON	BREVARD	31645	0.00	128.5	422.5	0.00	0.00	551.0
WASHINGTON	BREVARD	31647	111.19	217.4	5221.2	0.00	126.02	5675.9
WASHINGTON	BREVARD	31650	489.26	1003.2	17988.9	51.89	1413.41	20946.7
WASHINGTON	BREVARD	31652	0.00	150.7	706.7	9.88	0.00	867.3
WASHINGTON	BREVARD	31655	0.00	46.9	89.0	0.00	0.00	135.9
WASHINGTON	BREVARD	31657	0.00	402.8	5045.8	51.89	877.20	6377.7
WASHINGTON	BREVARD	31660	205.09	387.9	990.9	49.42	7.41	1640.7
WASHINGTON	BREVARD	31662	0.00	96.4	4339.1	160.61	481.84	5077.9
WINDER	BREVARD	31210	163.09	5297.8	14648.1	1255.27	3002.26	24366.5
WINDER	BREVARD	31215	0.00	96.4	5186.6	54.36	380.53	5717.9
WINDER	BREVARD	31220	0.00	135.9	261.9	37.06	593.04	1027.9
WINDER	BREVARD	31225	0.00	348.4	543.6	61.77	385.48	1339.3
WINDER	BREVARD	31230	177.91	2572.3	11534.6	160.61	4638.07	19083.5
WINDER	BREVARD	31235	0.00	1497.4	1396.1	0.00	1826.07	4719.6
WINDER	BREVARD	31240	0.00	1079.8	6024.3	2.47	1544.37	8651.0
WINDER	BREVARD	31245	1571.56	6180.0	19819.9	3980.78	7615.62	39167.9
WINDER	BREVARD	31250	0.00	1575.3	5105.1	617.75	2236.25	9634.4
WINDER	BREVARD	31255	0.00	4156.2	2728.0	256.98	4892.58	12033.8
WINDER	BREVARD	31260	0.00	2770.0	4761.6	2.47	896.97	8431.1
WINDER	BREVARD	31265	0.00	9644.3	18441.1	34.59	165.56	28285.5
WINDER	BREVARD	31270	0.00	23412.7	27499.8	54.36	276.75	51243.6
WINDER	BREVARD	31275	0.00	33963.9	25345.0	6617.34	224.86	66151.1
WINDER	BREVARD	31280	227.33	966.2	7440.2	12.35	39.54	8685.6
WINDER	BREVARD	31285	832.73	21309.9	37245.4	54.36	387.95	59830.3
WINDER	BREVARD	31290	0.00	0.0	138.4	0.00	0.00	138.4
WINDER	BREVARD	31295	0.00	0.0	3563.2	98.84	368.18	4030.2
WINDER	BREVARD	31296	0.00	0.0	14.8	0.00	0.00	14.8
WINDER	BREVARD	31298	0.00	0.0	29.7	0.00	0.00	29.7
WINDER	BREVARD	31300	0.00	0.0	74.1	0.00	0.00	74.1
WINDER	BREVARD	31302	0.00	0.0	358.3	0.00	19.77	378.1
WINDER	BREVARD	31305	0.00	0.0	850.0	0.00	32.12	882.1
WINDER	BREVARD	31307	0.00	0.0	4.9	0.00	0.00	4.9
WINDER	BREVARD	31309	7.41	0.0	84.0	46.95	0.00	138.4
WINDER	BREVARD	31310	7.41	0.0	42.0	0.00	0.00	49.4
WINDER	BREVARD	31315	360.77	481.8	5495.5	91.43	175.44	6605.0
WINDER	BREVARD	31320	0.00	0.0	2812.0	93.90	74.13	2980.0
WINDER	BREVARD	31322	0.00	227.3	1986.7	0.00	0.00	2214.0
WINDER	BREVARD	31325	0.00	195.2	874.7	12.35	0.00	1082.3
WINDER	BREVARD	31327	0.00	1396.1	3427.3	175.44	284.16	5283.0
WINDER	BREVARD	31330	0.00	42.0	778.4	0.00	0.00	820.4
WINDER	BREVARD	31332	0.00	86.5	430.0	0.00	0.00	516.4
WINDER	BREVARD	31335	2.47	716.6	1707.5	0.00	0.00	2426.5
WINDER	BREVARD	31337	4.94	244.6	973.6	0.00	0.00	1223.1
WINDER	BREVARD	31340	0.00	0.0	810.5	0.00	0.00	810.5
WINDER	BREVARD	31345	0.00	0.0	365.7	0.00	0.00	365.7
WINDER	BREVARD	31347	12.35	202.6	2384.5	98.84	98.84	2797.2
WINDER	BREVARD	31350	0.00	148.3	10973.7	177.91	499.14	11799.0
WINDER	BREVARD	31565	91.43	926.6	2587.1	54.36	0.00	3659.6
WINDER	BREVARD	31570	0.00	430.0	16432.1	32.12	66.72	16960.9
WINDER	BREVARD	31572	0.00	328.6	1371.4	0.00	0.00	1700.0
WINDER	BREVARD	31575	0.00	988.4	9896.4	0.00	121.08	11005.8
WINDER	BREVARD	31580	0.00	5510.3	1942.2	0.00	29.65	7482.2
WINDER	BREVARD	31585	34.59	20805.8	70875.7	558.45	1732.17	94006.7
WINDER	BREVARD	31590	9.88	4761.6	14640.7	2.47	88.96	19503.6
WINDER	BREVARD	31592	0.00	46.9	4838.2	0.00	0.00	4885.2
WINDER	BREVARD	31600	0.00	2730.5	17072.1	0.00	276.75	20079.3
WINDER	BREVARD	31602	0.00	205.1	338.5	0.00	0.00	543.6

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM EDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
WINDER	BREVARD	31605	0.0	158	1057.6	0.0	0.0	1216
WINDER	BREVARD	31612	0.0	309	2619.3	0.0	64.2	2992
WINDER	BREVARD	31617	202.6	3459	10978.7	12.4	7.4	14660
WINDER	BREVARD	31620	0.0	42	313.8	0.0	0.0	356
WINDER	BREVARD	31630	0.0	815	751.2	0.0	0.0	1567
WINDER	BREVARD	31635	276.8	2352	11450.6	7.4	0.0	14087
WINDER	BREVARD	31637	0.0	2585	6871.9	84.0	1828.5	11369
WINDER	BREVARD	31640	64.2	30	662.2	2.5	0.0	759
WINDER	BREVARD	31642	0.0	0	160.6	0.0	0.0	161
WINDER	BREVARD	31645	0.0	128	422.5	0.0	0.0	551
WINDER	BREVARD	31647	111.2	217	5221.2	0.0	126.0	5676
WINDER	BREVARD	31650	489.3	1003	17988.9	51.9	1413.4	20947
WINDER	BREVARD	31652	0.0	151	706.7	9.9	0.0	867
WINDER	BREVARD	31655	0.0	47	89.0	0.0	0.0	136
WINDER	BREVARD	31657	0.0	403	5045.8	51.9	877.2	5378
WINDER	BREVARD	31660	205.1	388	990.9	49.4	7.4	1641
WINDER	BREVARD	31662	0.0	96	4339.1	160.6	481.8	5078
LITTLE	CITRUS	35035	258.0	0	660.0	84.0	3.0	1004
TSALA APOPKA	CITRUS	35030	10015.0	110763	46929.2	7875.1	18586.9	194169
TSALA APOPKA(F)	CITRUS	35030	10015.0	110763	46929.2	7875.1	18586.9	194169
TSALA APOPKA(H)	CITRUS	35030	10015.0	110763	46929.2	7875.1	18586.9	194169
TSALA APOPKA(I)	CITRUS	35030	10015.0	110763	46929.2	7875.1	18586.9	194169
BROOKLYN	CLAY	25385	29.7	7744	103.8	1571.6	0.0	9449
BROOKLYN	CLAY	25390	583.2	415	0.0	716.6	0.0	1715
DOCTORS	CLAY	25090	4299.0	5672	1145.0	3979.0	931.0	16026
GENEVA	CLAY	25360	3526.1	48360	11470.4	7566.2	4344.0	75267
GENEVA	CLAY	25385	29.7	7744	103.8	1571.6	0.0	9449
GENEVA	CLAY	25390	583.2	415	0.0	716.6	0.0	1715
GEORGES	CLAY	25355	0.0	29635	2915.8	758.6	0.0	33309
JOHNSON	CLAY	25375	0.0	3762	206.0	497.0	0.0	4465
KINGSLEY	CLAY	25290	1680.3	3071	0.0	1452.9	0.0	6205
LOWERY	CLAY	25385	33.0	7876	114.0	1726.0	630.0	10378
SMITH	CLAY	25370	651.0	10224	643.0	2030.0	413.0	13961
TRAFFORD	COLLIER	60010	1482.0	1216	9057.0	4196.0	4636.0	20586
ALLIGATOR	COLUMBIA	26155	3288.9	5903	1633.3	412.7	551.0	11789
GOVERNOR HILL	DIXIE	27025	0.0	771	0.0	394.0	347.0	1512
CRESCENT	FLAGLER	25425	1529.5	96829	24954.6	18878.4	3031.9	145223
CRESCENT	FLAGLER	25430	0.0	14868	6740.9	0.0	766.0	22375
CRESCENT	FLAGLER	25435	506.6	47680	4939.5	24.7	0.0	53151
CRESCENT	FLAGLER	25440	590.6	8495	59.3	123.5	0.0	9269
CRESCENT	FLAGLER	25445	0.0	3751	1613.6	0.0	0.0	5365
CRESCENT	FLAGLER	25450	0.0	7082	29.7	4.9	0.0	7116
CRESCENT	FLAGLER	25455	19.8	12595	2562.4	7.4	0.0	15184
CRESCENT	FLAGLER	25460	56.8	35298	27.2	143.3	12.4	35538
CRESCENT	FLAGLER	25465	0.0	12483	2547.6	1964.4	0.0	16996
CRESCENT	FLAGLER	25470	2448.8	29227	2960.3	1255.3	74.1	35965
DISSTON	FLAGLER	25465	0.0	12483	2547.6	1964.4	0.0	16996
TALQUIN	GADSDEN	17070	1102.1	20981	363.2	7225.2	0.0	29672
TALQUIN	GADSDEN	17100	101.3	1767	0.0	24.7	0.0	1893
TALQUIN	GADSDEN	17105	224.9	645	0.0	0.0	0.0	870
TALQUIN	GADSDEN	17115	430.0	17211	3610.1	74.1	0.0	21325
TALQUIN	GADSDEN	17120	358.3	16580	1806.3	279.2	0.0	19024
TALQUIN	GADSDEN	17125	14.8	3479	857.4	0.0	0.0	4351
TALQUIN	GADSDEN	17190	0.0	919	0.0	170.5	0.0	1090
TALQUIN	GADSDEN	17195	0.0	4388	0.0	0.0	0.0	4388
TALQUIN	GADSDEN	17200	96.4	2669	0.0	217.4	0.0	2982
TALQUIN	GADSDEN	17205	0.0	11344	0.0	0.0	0.0	11344
TALQUIN	GADSDEN	17210	0.0	6956	0.0	0.0	0.0	6956
TALQUIN	GADSDEN	17215	0.0	2471	921.7	222.4	0.0	3615
TALQUIN	GADSDEN	17220	0.0	843	215.0	27.2	0.0	1085
TALQUIN	GADSDEN	17225	17.3	6069	496.7	0.0	0.0	6583
TALQUIN	GADSDEN	17230	106.3	1460	1529.5	0.0	0.0	3096
TALQUIN	GADSDEN	17235	0.0	1411	472.0	0.0	0.0	1883
TALQUIN	GADSDEN	17240	538.7	7186	6076.2	59.3	0.0	13860
TALQUIN	GADSDEN	17245	200.2	3029	2930.6	0.0	0.0	6160
TALQUIN	GADSDEN	17250	0.0	2782	343.5	585.6	39.5	3751
TALQUIN	GADSDEN	17255	14.8	1374	946.4	0.0	86.5	2422
TALQUIN	GADSDEN	17260	195.2	1925	1561.7	0.0	0.0	3682
TALQUIN	GADSDEN	17265	24.7	862	0.0	0.0	0.0	887
TALQUIN	GADSDEN	17270	69.2	3504	768.5	39.5	0.0	4381
TALQUIN	GADSDEN	17280	74.1	6430	1759.4	9.9	0.0	8273

Table G-4. (Continued)

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*          FLORIDA LAND USE DATA            *
*                                           *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES        *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
TALQUIN	GADSDEN	17285	0.00	1979	126.0	0.0	0.0	2105
TALQUIN	GADSDEN	17290	172.97	4344	788.2	0.0	0.0	5305
TALQUIN	GADSDEN	17295	373.12	10956	3264.2	5.9	0.0	14604
TALQUIN	GADSDEN	17300	29.65	1228	434.9	0.0	0.0	1693
TALQUIN	GADSDEN	17305	0.00	180	264.4	0.0	0.0	445
TALQUIN	GADSDEN	17310	0.00	717	113.7	0.0	0.0	830
TALQUIN	GADSDEN	17315	0.00	59	0.0	0.0	0.0	59
TALQUIN	GADSDEN	17320	12.35	2730	160.6	0.0	0.0	2903
TALQUIN	GADSDEN	17325	59.30	3244	1887.8	210.0	0.0	5402
TALQUIN	GADSDEN	17330	170.50	2746	192.7	0.0	0.0	3109
TALQUIN	GADSDEN	17335	29.65	309	0.0	0.0	0.0	339
TALQUIN	GADSDEN	17340	46.95	729	261.9	0.0	0.0	1038
TALQUIN	GADSDEN	17345	29.65	222	0.0	0.0	0.0	252
TALQUIN	GADSDEN	17350	153.20	1784	1074.9	0.0	0.0	3012
TALQUIN	GADSDEN	17355	39.54	170	0.0	0.0	0.0	210
TALQUIN	GADSDEN	17360	896.97	744	81.5	0.0	0.0	1722
TALQUIN	GADSDEN	17365	486.79	890	588.1	0.0	0.0	1964
TALQUIN	GADSDEN	17370	306.40	415	0.0	0.0	0.0	722
TALQUIN	GADSDEN	17380	9.88	292	56.8	0.0	0.0	358
TALQUIN	GADSDEN	17385	51.89	1391	523.9	0.0	0.0	1967
TALQUIN	GADSDEN	17390	224.86	4008	2058.3	81.5	0.0	6373
TALQUIN	GADSDEN	17400	390.42	1705	1784.1	0.0	0.0	3879
TALQUIN	GADSDEN	17405	417.60	4384	2031.2	0.0	0.0	6832
TALQUIN	GADSDEN	17410	59.30	1554	1131.7	0.0	0.0	2745
TALQUIN	GADSDEN	17415	46.95	2926	1381.3	0.0	0.0	4354
TALQUIN	GADSDEN	17420	0.00	2199	872.3	22.2	0.0	3094
TALQUIN	GADSDEN	17425	3012.15	10198	3516.2	4517.0	1912.6	23156
TALQUIN	GADSDEN	17430	0.00	1132	387.9	0.0	0.0	1520
TALQUIN	GADSDEN	17436	2335.09	729	81.5	0.0	0.0	3146
TALQUIN	GADSDEN	17465	98.84	1868	640.0	0.0	0.0	2607
TALQUIN	GADSDEN	17470	976.04	4324	2836.7	49.4	0.0	8186
TALQUIN	GADSDEN	17475	7.41	719	86.5	49.4	0.0	862
TALQUIN	GADSDEN	17480	44.48	368	464.5	0.0	0.0	877
TALQUIN	GADSDEN	17485	365.71	34522	8727.6	588.1	5759.9	49964
TALQUIN	GADSDEN	17490	0.00	289	37.1	0.0	0.0	326
TALQUIN	GADSDEN	17495	32.12	2733	600.5	0.0	0.0	3366
DEAD	GULF	12010	1339.28	247636	20039.8	3974.5	0.0	272890
DEAD	GULF	12015	1312.10	109112	55399.8	691.9	0.0	166516
DEAD	GULF	12020	0.00	173	0.0	0.0	0.0	173
DEAD	GULF	12025	9.88	603	706.7	0.0	0.0	1320
DEAD	GULF	12030	7249.91	89398	97654.1	916.7	168.0	195587
WIMICO	GULF	14005	1411.00	146730	4484.0	19150.0	93098.0	364873
OCTAHATCHEE	HAMILTON	20015	57.00	641	529.0	315.0	608.0	2149
CREWS	HERNANDO	34155	2665.00	16284	24491.0	423.0	1224.0	45088
HORSE	HERNANDO	34180	1637.00	2044	1818.0	49.0	0.0	5547
HUNTERS	HERNANDO	34025	673.00	627	43.0	318.0	0.0	1661
LINDSEY	HERNANDO	35050	0.00	1164	641.0	315.0	193.0	2312
NEFF	HERNANDO	34165	22.00	263	2204.0	342.0	1020.0	3851
SPRING	HERNANDO	35065	0.00	0	144.0	52.0	0.0	195
APTHORPE	HIGHLANDS	36187	14.83	840	1225.6	242.2	0.0	2323
APTHORPE	HIGHLANDS	36189	217.45	494	271.8	363.2	0.0	1347
APTHORPE	HIGHLANDS	36190	976.04	2847	6110.8	1134.2	22.2	11090
CLAY	HIGHLANDS	36189	217.45	494	271.8	363.2	0.0	1347
CLAY	HIGHLANDS	36190	976.04	2847	6110.8	1134.2	22.2	11090
FRANCIS	HIGHLANDS	36197	101.31	1394	2018.8	3395.2	51.9	6961
FRANCIS	HIGHLANDS	36200	266.87	511	4870.3	2999.8	0.0	8648
FRANCIS	HIGHLANDS	36205	1556.73	1488	5327.5	877.2	0.0	9249
FRANCIS	HIGHLANDS	36215	14.83	54	805.5	526.3	0.0	1401
GRASSY	HIGHLANDS	36205	1556.73	1488	5327.5	877.2	0.0	9249
HUNTLEY	HIGHLANDS	36190	976.04	2847	6110.8	1134.2	22.2	11090
ISTOKPOGA	HIGHLANDS	36175	1672.87	5157	19609.9	24761.9	1522.1	52724
ISTOKPOGA	HIGHLANDS	36180	123.55	1448	7825.7	481.8	0.0	9879
ISTOKPOGA	HIGHLANDS	36185	0.00	516	1658.0	7.4	0.0	2182
ISTOKPOGA	HIGHLANDS	36187	14.83	840	1225.6	242.2	0.0	2323
ISTOKPOGA	HIGHLANDS	36189	217.45	494	271.8	363.2	0.0	1347
ISTOKPOGA	HIGHLANDS	36190	976.04	2847	6110.8	1134.2	22.2	11090
ISTOKPOGA	HIGHLANDS	36197	101.31	1394	2018.8	3395.2	51.9	6961
ISTOKPOGA	HIGHLANDS	36200	266.87	511	4870.3	2999.8	0.0	8648
ISTOKPOGA	HIGHLANDS	36205	1556.73	1488	5327.5	877.2	0.0	9249
ISTOKPOGA	HIGHLANDS	36215	14.83	54	805.5	526.3	0.0	1401
ISTOKPOGA	HIGHLANDS	36220	768.48	8043	18221.2	2058.3	118.6	29210

Table G-4. (Continued).

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*****************************************
*          FLORIDA LAND USE DATA        *
*                                       *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU  *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES   *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
ISTOKPOGA	HIGHLANDS	36225	3232.1	1141.6	1546.8	2816.94	0.00	8737
ISTOKPOGA	HIGHLANDS	36230	3264.2	23140.9	72630.1	336.06	827.78	100129
ISTOKPOGA	HIGHLANDS	36232	0.0	84.0	133.4	0.00	0.00	217
ISTOKPOGA	HIGHLANDS	36235	1445.5	859.9	6340.6	7.41	200.15	8853
ISTOKPOGA	HIGHLANDS	36240	239.7	1524.6	6096.0	753.65	39.54	8653
ISTOKPOGA	HIGHLANDS	36245	474.4	1371.4	1457.9	420.07	69.19	3793
ISTOKPOGA	HIGHLANDS	36247	0.0	200.2	1793.9	291.58	0.00	2286
ISTOKPOGA	HIGHLANDS	36250	22.2	0.0	1695.1	491.73	0.00	2209
ISTOKPOGA	HIGHLANDS	36255	1942.2	0.0	4551.6	1203.38	98.84	7796
ISTOKPOGA	HIGHLANDS	36260	1304.7	19523.4	24752.0	4341.55	677.05	50599
ISTOKPOGA	HIGHLANDS	36265	303.9	5537.5	10869.9	1793.95	0.00	18505
ISTOKPOGA	HIGHLANDS	36267	2.5	0.0	560.9	118.61	0.00	682
ISTOKPOGA	HIGHLANDS	36270	919.2	3592.8	2794.7	3333.38	0.00	10640
ISTOKPOGA	HIGHLANDS	36272	889.6	284.2	6763.1	133.43	24.71	8095
ISTOKPOGA	HIGHLANDS	36275	810.5	3390.2	8154.3	5633.88	1298.59	19387
JACKSON	HIGHLANDS	36225	3232.1	1141.6	1546.8	2816.94	0.00	8737
JOSEPHINE	HIGHLANDS	36220	768.5	8043.1	18221.2	2058.34	118.61	29210
JOSEPHINE	HIGHLANDS	36225	3232.1	1141.6	1546.8	2816.94	0.00	8737
JUNE-IN-WINTER	HIGHLANDS	36197	101.3	1393.6	2018.8	3295.15	51.89	6861
JUNE-IN-WINTER	HIGHLANDS	36200	266.9	511.5	4870.3	2999.79	0.00	8648
JUNE-IN-WINTER	HIGHLANDS	36205	1556.7	1487.5	5327.5	877.20	0.00	9249
LEITA	HIGHLANDS	36250	24.0	0.0	1862.0	540.00	0.00	2426
LITTLE LAKE JACKSON	HIGHLANDS	36225	3232.1	1141.6	1546.8	2816.94	0.00	8737
LITTLE RED WATER	HIGHLANDS	36247	0.0	220.0	1970.0	320.00	0.00	2510
LOTELA	HIGHLANDS	36255	2133.0	0.0	4999.0	1430.00	109.00	8671
PLACID	HIGHLANDS	36200	266.9	511.5	4870.3	2999.79	0.00	8648
PLACID	HIGHLANDS	36205	1556.7	1487.5	5327.5	877.20	0.00	9249
RUSSELL	HIGHLANDS	36305	5764.8	53336.5	65753.3	5626.47	6671.70	137152
RUSSELL	HIGHLANDS	36310	343.5	4932.1	7904.7	835.20	363.24	14379
RUSSELL	HIGHLANDS	36315	672.1	91.4	173.0	0.00	0.00	937
RUSSELL	HIGHLANDS	36320	276.8	0.0	504.1	4.94	0.00	786
RUSSELL	HIGHLANDS	36325	0.0	46.9	224.9	0.00	0.00	272
RUSSELL	HIGHLANDS	36330	116.1	2592.1	3975.8	664.70	538.68	7887
RUSSELL	HIGHLANDS	36335	2.5	34.6	1213.3	622.69	7.41	1880
RUSSELL	HIGHLANDS	36340	0.0	0.0	647.4	190.27	0.00	839
RUSSELL	HIGHLANDS	36345	1102.1	6049.0	16291.3	1297.27	0.00	24740
RUSSELL	HIGHLANDS	36350	222.4	531.3	622.7	276.75	0.00	1653
RUSSELL	HIGHLANDS	36355	768.5	3627.4	2928.1	2115.18	0.00	9439
[illegible]ELL	HIGHLANDS	36360	13479.3	8586.7	7840.5	1508.85	0.00	31495
[illegible]ELL	HIGHLANDS	36362	12.4	0.0	0.0	4.94	0.00	17
[illegible]SELL	HIGHLANDS	36365	118.6	284.2	2068.2	810.49	0.00	3281
RUSSELL	HIGHLANDS	36370	71.7	0.0	454.7	227.33	0.00	754
RUSSELL	HIGHLANDS	36380	1579.0	2154.7	18149.5	4922.23	850.02	27655
SEBRING	HIGHLANDS	36245	521.0	1506.0	1601.0	537.00	76.00	4242
ALICE	HILLSBOROUGH	39245	90.0	0.0	171.0	109.00	0.00	369
BAY	HILLSBOROUGH	39140	326.2	0.0	195.2	54.36	0.00	576
BAY	HILLSBOROUGH	39150	462.1	22.2	353.4	242.16	0.00	1080
BIRD	HILLSBOROUGH	38050	651.0	0.0	1029.0	98.00	236.00	2014
BROWNS	HILLSBOROUGH	39100	328.0	0.0	670.0	71.00	0.00	1069
BUCK	HILLSBOROUGH	39230	0.0	0.0	269.0	49.00	0.00	318
CALM	HILLSBOROUGH	39265	152.0	0.0	242.0	133.00	0.00	527
CARROLL	HILLSBOROUGH	39127	1262.0	0.0	125.0	337.00	0.00	1723
CHAPMAN	HILLSBOROUGH	38045	749.0	0.0	478.0	111.00	0.00	1338
CHARLES	HILLSBOROUGH	38085	155.0	0.0	111.0	46.00	0.00	312
COOPER	HILLSBOROUGH	38105	304.0	0.0	513.0	160.00	0.00	977
CRENSHAW	HILLSBOROUGH	38072	68.0	0.0	185.0	0.00	0.00	252
DAN	HILLSBOROUGH	34205	0.0	62.0	166.0	33.00	0.00	261
DOSSON	HILLSBOROUGH	39065	60.0	0.0	125.0	8.00	0.00	193
ECHO	HILLSBOROUGH	39247	0.0	0.0	244.0	33.00	0.00	277
ELLEN	HILLSBOROUGH	39135	157.0	0.0	73.0	0.00	0.00	231
GLASS	HILLSBOROUGH	39010	0.0	0.0	149.0	22.00	0.00	171
HANNA	HILLSBOROUGH	38230	98.0	0.0	65.0	38.00	0.00	201
HARVEY	HILLSBOROUGH	39095	43.0	0.0	518.0	41.00	0.00	603
HOBBS	HILLSBOROUGH	39105	250.0	0.0	239.0	152.00	0.00	641
ISLAND FORD	HILLSBOROUGH	39260	290.0	0.0	980.0	326.00	19.00	1615
KEENE	HILLSBOROUGH	38235	258.0	0.0	472.0	100.00	206.00	1037
KELL	HILLSBOROUGH	38240	727.0	155.0	1653.0	524.00	0.00	3059
MAGDALENE	HILLSBOROUGH	39150	508.0	16.0	388.0	266.00	8.00	1186
MOUND	HILLSBOROUGH	39270	3.0	0.0	111.0	68.00	0.00	182
MUD	HILLSBOROUGH	38340	1987.0	882.0	3276.0	193.00	1124.00	7461
PLATT	HILLSBOROUGH	38040	98.0	0.0	695.0	68.00	111.00	972

Table G-4. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
PRETTY	HILLSBOROUGH	39390	266.87	501.6	3123.3	126.02	0.00	4017.8
RAINBOW	HILLSBOROUGH	39250	0.00	0.0	665.0	263.00	0.00	928.0
SADDLEBACK	HILLSBOROUGH	38060	8.00	0.0	0.0	0.00	0.00	8.0
STARVATION	HILLSBOROUGH	39085	57.00	0.0	209.0	0.00	0.00	266.0
SUNSHINE	HILLSBOROUGH	39065	54.36	0.0	113.7	7.41	0.00	175.4
THOMAS	HILLSBOROUGH	38080	220.00	0.0	470.0	179.00	0.00	868.0
THONOTOSASSA	HILLSBOROUGH	38315	0.00	22.2	1198.4	832.73	0.00	2053.4
THONOTOSASSA	HILLSBOROUGH	38320	378.06	32.1	6244.2	32.12	44.48	6731.0
THONOTOSASSA	HILLSBOROUGH	38325	469.49	123.5	5332.4	29.65	140.85	6096.0
THONOTOSASSA	HILLSBOROUGH	38330	906.86	427.5	1855.7	32.12	66.72	3288.9
THONOTOSASSA	HILLSBOROUGH	38340	1908.77	1717.3	2982.5	66.72	108.72	6684.1
THONOTOSASSA	HILLSBOROUGH	38345	1769.24	467.0	1287.4	9.88	0.00	3533.5
VALRICO	HILLSBOROUGH	38350	1387.00	643.0	3607.0	133.00	0.00	5770.0
VAN DYKE	HILLSBOROUGH	39070	30.00	0.0	798.0	65.00	24.00	917.0
WHITE TROUT	HILLSBOROUGH	39125	174.00	0.0	60.0	87.00	0.00	320.0
WIMAUMA	HILLSBOROUGH	44015	176.00	0.0	103.0	147.00	0.00	426.0
WOOD	HILLSBOROUGH	39262	98.00	0.0	81.0	57.00	0.00	236.0
BLUE CYPRESS	INDIAN RIVER	31275	0.00	33963.9	25345.0	6617.34	224.86	66151.1
BLUE CYPRESS	INDIAN RIVER	31280	227.33	966.2	7440.2	12.35	39.54	8685.6
BLUE CYPRESS	INDIAN RIVER	31285	832.73	21309.9	37245.4	54.36	387.95	59830.3
BLUE CYPRESS	INDIAN RIVER	31290	0.00	0.0	138.4	0.00	0.00	138.4
BLUE CYPRESS	INDIAN RIVER	31295	0.00	0.0	3563.2	98.84	368.18	4030.2
BLUE CYPRESS	INDIAN RIVER	31296	0.00	0.0	14.8	0.00	0.00	14.8
BLUE CYPRESS	INDIAN RIVER	31298	0.00	0.0	29.7	0.00	0.00	29.7
BLUE CYPRESS	INDIAN RIVER	31300	0.00	0.0	74.1	0.00	0.00	74.1
BLUE CYPRESS	INDIAN RIVER	31302	0.00	0.0	358.3	0.00	19.77	378.1
BLUE CYPRESS	INDIAN RIVER	31305	0.00	0.0	850.0	0.00	32.12	882.1
BLUE CYPRESS	INDIAN RIVER	31307	0.00	0.0	4.9	0.00	0.00	4.9
BLUE CYPRESS	INDIAN RIVER	31309	7.41	0.0	84.0	46.95	0.00	138.4
BLUE CYPRESS	INDIAN RIVER	31310	7.41	0.0	42.0	0.00	0.00	49.4
BLUE CYPRESS	INDIAN RIVER	31315	360.77	481.8	5495.5	91.43	175.44	6605.0
BLUE CYPRESS	INDIAN RIVER	31320	0.00	0.0	2812.0	93.90	74.13	2980.0
BLUE CYPRESS	INDIAN RIVER	31322	0.00	227.3	1986.7	0.00	0.00	2214.0
BLUE CYPRESS	INDIAN RIVER	31325	0.00	195.2	874.7	12.35	0.00	1082.3
BLUE CYPRESS	INDIAN RIVER	31327	0.00	1396.1	3427.3	175.44	284.16	5283.0
BLUE CYPRESS	INDIAN RIVER	31330	0.00	42.0	778.4	0.00	0.00	820.4
BLUE CYPRESS	INDIAN RIVER	31332	0.00	86.5	430.0	0.00	0.00	516.4
BLUE CYPRESS	INDIAN RIVER	31335	2.47	716.6	1707.5	0.00	0.00	2426.5
BLUE CYPRESS	INDIAN RIVER	31337	4.94	244.6	973.6	0.00	0.00	1223.1
BLUE CYPRESS	INDIAN RIVER	31340	0.00	0.0	810.5	0.00	0.00	810.5
BLUE CYPRESS	INDIAN RIVER	31345	0.00	0.0	365.7	0.00	0.00	365.7
BLUE CYPRESS	INDIAN RIVER	31347	12.35	202.6	2384.5	98.84	98.84	2797.2
BLUE CYPRESS	INDIAN RIVER	31350	0.00	148.3	10973.7	177.91	499.14	11799.0
BLUE CYPRESS	INDIAN RIVER	31630	0.00	815.4	751.2	0.00	0.00	1566.6
BLUE CYPRESS	INDIAN RIVER	31635	276.75	2352.4	11450.6	7.41	0.00	14087.2
BLUE CYPRESS	INDIAN RIVER	31637	0.00	2584.7	6871.9	84.01	1828.54	11369.1
BLUE CYPRESS	INDIAN RIVER	31640	64.25	29.7	662.2	2.47	0.00	758.6
BLUE CYPRESS	INDIAN RIVER	31642	0.00	0.0	160.6	0.00	0.00	160.6
BLUE CYPRESS	INDIAN RIVER	31645	0.00	128.5	422.5	0.00	0.00	551.0
BLUE CYPRESS	INDIAN RIVER	31647	111.19	217.4	5221.2	0.00	126.02	5675.9
BLUE CYPRESS	INDIAN RIVER	31650	489.26	1003.2	17988.9	51.89	1413.41	20946.7
BLUE CYPRESS	INDIAN RIVER	31652	0.00	150.7	706.7	9.88	0.00	867.3
BLUE CYPRESS	INDIAN RIVER	31655	0.00	46.9	89.0	0.00	0.00	135.9
BLUE CYPRESS	INDIAN RIVER	31657	0.00	402.8	5045.8	51.89	877.20	6377.7
BLUE CYPRESS	INDIAN RIVER	31660	205.09	387.9	990.9	49.42	7.41	1640.7
BLUE CYPRESS	INDIAN RIVER	31662	0.00	96.4	4339.1	160.61	481.84	5077.9
MICCOSUKEE	JEFFERSON	18050	271.81	13852.4	5853.8	86.48	0.00	20064.5
MICCOSUKEE	JEFFERSON	18055	150.73	4255.1	4067.3	17.30	42.01	8532.4
MICCOSUKEE	JEFFERSON	18060	177.91	17662.7	10363.4	1418.35	4267.42	33889.8
MICCOSUKEE	JEFFERSON	18065	4.94	1000.8	882.1	0.00	0.00	1887.8
MICCOSUKEE	JEFFERSON	18070	9.88	514.0	1114.4	0.00	0.00	1638.3
MICCOSUKEE	JEFFERSON	18075	14.83	2261.0	2322.7	0.00	0.00	4598.5
MICCOSUKEE	JEFFERSON	18080	1062.53	18626.4	7726.8	39.54	192.74	27648.0
MICCOSUKEE	JEFFERSON	18085	27.18	7739.2	2723.0	150.73	49.42	10689.5
TOWNSEND POND	LAFAYETTE	27040	0.00	2912.0	125.0	266.00	1213.00	4516.0
APSHAWA	LAKE	30420	0.00	0.0	882.0	185.00	0.00	1067.0
BAY	LAKE	35250	0.00	0.0	6964.0	90.00	5469.00	12522.0
BEAR	LAKE	31410	459.00	0.0	364.0	269.00	0.00	1091.0
BEAUCLAIR	LAKE	30155	0.00	363.2	1912.6	34.59	0.00	2310.4
BEAUCLAIR	LAKE	30160	0.00	496.7	2651.4	400.30	42.01	3590.4
BEAUCLAIR	LAKE	30165	2228.84	3138.2	26872.1	437.37	190.27	32866.8

Table G-4. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM EDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
BEAUCLAIR	LAKE	30170	214.98	91.4	113.7	22.2	0.00	442.3
BEAUCLAIR	LAKE	30175	2115.18	4260.0	16805.3	30739.2	711.65	54631.3
BEAUCLAIR	LAKE	30180	96.37	12.4	195.2	111.2	0.00	415.1
BEAUCLAIR	LAKE	30185	123.55	0.0	195.2	0.0	0.00	318.8
BEAUCLAIR	LAKE	30190	59.30	0.0	103.8	0.0	0.00	163.1
BEAUCLAIR	LAKE	30195	1037.82	1309.6	27008.0	395.4	0.00	29750.8
CATHERINE	LAKE	35180	307.00	3.0	1789.0	331.0	950.00	3379.0
CHERRY	LAKE	30415	1176.20	170.5	11892.9	3741.1	3578.01	20558.7
CHERRY	LAKE	30420	0.00	0.0	803.1	168.0	0.00	971.1
CHERRY	LAKE	30425	788.25	79.1	3316.1	2490.8	103.78	6778.0
CHERRY	LAKE	30430	121.08	1280.0	12083.2	3919.0	205.09	17608.3
CHERRY	LAKE	30435	0.00	1193.5	3244.4	973.6	0.00	5411.5
CHERRY	LAKE	30440	0.00	852.5	1974.3	217.4	0.00	3044.3
CHERRY	LAKE	30450	0.00	140.8	432.4	7.4	0.00	580.7
CHERRY	LAKE	30455	0.00	610.3	420.1	121.1	0.00	1151.5
CHERRY	LAKE	30457	0.00	3612.6	2661.3	59.3	44.48	6377.7
CHERRY	LAKE	30460	27.18	10096.5	10783.4	318.8	1121.83	22347.7
CHERRY	LAKE	30465	449.72	3536.0	9681.4	600.5	3153.00	17420.5
CHERRY	LAKE	30470	155.67	0.0	778.4	825.3	1618.50	3377.9
CHURCH	LAKE	30160	0.00	309.0	2912.0	486.0	282.00	3990.0
CRYSTAL	LAKE	41425	250.00	195.0	114.0	22.0	41.00	622.0
DENHAM	LAKE	30375	855.00	703.0	4500.0	1721.0	4513.00	12292.0
DORA	LAKE	30140	51.89	387.9	976.0	0.0	0.00	1415.9
DORA	LAKE	30150	3676.85	2760.1	14838.4	7477.2	264.40	29017.0
DORA	LAKE	30155	0.00	363.2	1912.6	34.6	0.00	2310.4
DORA	LAKE	30165	2228.84	3138.2	26872.1	437.4	190.27	32866.8
DORA	LAKE	30175	2115.18	4260.0	16805.3	30739.2	711.65	54631.3
DORA	LAKE	30185	123.55	0.0	195.2	0.0	0.00	318.8
DORA	LAKE	30195	1037.82	1309.6	27008.0	395.4	0.00	29750.8
DORR	LAKE	31365	0.00	3051.0	109.0	0.0	787.00	3946.0
EUSTIS	LAKE	30115	3953.60	3926.4	12495.8	9263.8	1225.62	30865.3
EUSTIS	LAKE	30135	4133.98	6451.8	40665.2	22330.4	1779.12	75360.6
EUSTIS	LAKE	30140	51.89	387.9	976.0	0.0	0.00	1415.9
EUSTIS	LAKE	30145	350.88	365.7	93.9	111.2	0.00	921.7
EUSTIS	LAKE	30150	3676.85	2760.1	14838.4	7477.2	264.40	29017.0
EUSTIS	LAKE	30155	0.00	363.2	1912.6	34.6	0.00	2310.4
EUSTIS	LAKE	30165	2228.84	3138.2	26872.1	437.4	190.27	32866.8
EUSTIS	LAKE	30175	2115.18	4260.0	16805.3	30739.2	711.65	54631.3
EUSTIS	LAKE	30185	123.55	0.0	195.2	0.0	0.00	318.8
EUSTIS	LAKE	30195	1037.82	1309.6	27008.0	395.4	0.00	29750.8
EUSTIS	LAKE	30375	778.36	3481.6	4096.9	299.0	1267.62	9923.5
EUSTIS	LAKE	30380	0.00	59.3	9.9	0.0	0.00	69.2
EUSTIS	LAKE	30385	0.00	71.7	588.1	7.4	0.00	667.2
EUSTIS	LAKE	30395	0.00	0.0	39.5	0.0	0.00	39.5
EUSTIS	LAKE	30400	474.43	370.6	18611.6	4000.5	1749.47	25206.7
EUSTIS	LAKE	30405	0.00	0.0	1984.2	556.0	459.61	2999.8
EUSTIS	LAKE	30410	298.99	509.0	4502.2	785.8	1821.13	7917.1
EUSTIS	LAKE	30415	1176.20	170.5	11892.9	3741.1	3578.01	20558.7
EUSTIS	LAKE	30420	0.00	0.0	803.1	168.0	0.00	971.1
EUSTIS	LAKE	30425	788.25	79.1	3316.1	2490.8	103.78	6778.0
EUSTIS	LAKE	30430	121.08	1280.0	12083.2	3919.0	205.09	17608.3
EUSTIS	LAKE	30435	0.00	1193.5	3244.4	973.6	0.00	5411.5
EUSTIS	LAKE	30440	0.00	852.5	1974.3	217.4	0.00	3044.3
EUSTIS	LAKE	30450	0.00	140.8	432.4	7.4	0.00	580.7
EUSTIS	LAKE	30455	0.00	610.3	420.1	121.1	0.00	1151.5
EUSTIS	LAKE	30457	0.00	3612.6	2661.3	59.3	44.48	6377.7
EUSTIS	LAKE	30460	27.18	10096.5	10783.4	318.8	1121.83	22347.7
EUSTIS	LAKE	30465	449.72	3536.0	9681.4	600.5	3153.00	17420.5
EUSTIS	LAKE	30470	155.67	0.0	778.4	825.3	1618.50	3377.9
FLORENCE	LAKE	30180	106.00	0.0	214.0	122.0	14.00	456.0
GLONA	LAKE	30435	0.00	0.0	3563.0	1069.0	1311.00	5944.0
GRIFFIN	LAKE	30085	0.00	11509.9	76.6	573.3	121.08	12280.9
GRIFFIN	LAKE	30090	504.08	5591.9	14069.9	6268.9	3738.62	30173.4
GRIFFIN	LAKE	30095	2725.04	4247.6	18216.2	9866.7	2204.13	37257.7
GRIFFIN	LAKE	30100	0.00	0.0	281.7	2.5	0.00	284.2
GRIFFIN	LAKE	30105	0.00	0.0	301.5	148.3	44.48	494.2
GRIFFIN	LAKE	30110	447.25	12.4	817.9	299.0	0.00	1576.5
GRIFFIN	LAKE	30115	3952.60	3926.4	12495.8	9263.8	1225.62	30865.3
GRIFFIN	LAKE	30120	284.16	682.0	333.6	17.3	4.94	1322.0
GRIFFIN	LAKE	30135	4133.98	6451.8	40665.2	22330.4	1779.12	75360.6
GRIFFIN	LAKE	30140	51.89	387.9	976.0	0.0	0.00	1415.9

Table G-4. (Continued)

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*          FLORIDA LAND USE DATA                    *
*                                                   *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU       *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
GRIFFIN	LAKE	30145	350.88	365.7	93.9	111.2	0.00	921.7
GRIFFIN	LAKE	30150	3676.85	2760.1	14838.4	7477.2	264.40	29017.0
GRIFFIN	LAKE	30155	0.00	363.2	1912.6	34.6	0.00	2310.4
GRIFFIN	LAKE	30165	2228.84	3138.2	26872.1	437.4	190.27	32866.8
GRIFFIN	LAKE	30175	2115.18	4260.0	16805.3	30739.2	711.65	54631.3
GRIFFIN	LAKE	30185	123.55	0.0	195.2	0.0	0.00	318.8
GRIFFIN	LAKE	30195	1037.82	1309.6	27008.0	395.4	0.00	29750.8
GRIFFIN	LAKE	30375	778.36	3481.6	4096.9	299.0	1267.62	9923.5
GRIFFIN	LAKE	30380	0.00	59.3	9.9	0.0	0.00	69.2
GRIFFIN	LAKE	30385	0.00	71.7	588.1	7.4	0.00	667.2
GRIFFIN	LAKE	30395	0.00	0.0	39.5	0.0	0.00	39.5
GRIFFIN	LAKE	30400	474.43	370.6	18611.6	4000.5	1749.47	25206.7
GRIFFIN	LAKE	30405	0.00	0.0	1984.2	556.0	459.61	2999.8
GRIFFIN	LAKE	30410	298.99	509.0	4502.2	785.8	1821.13	7917.1
GRIFFIN	LAKE	30415	1176.20	170.5	11892.9	3741.1	3578.01	20558.7
GRIFFIN	LAKE	30420	0.00	0.0	803.1	168.0	0.00	971.1
GRIFFIN	LAKE	30425	788.25	79.1	3316.1	2490.8	103.78	6778.0
GRIFFIN	LAKE	30430	121.08	1280.0	12083.2	3919.0	205.09	17608.3
GRIFFIN	LAKE	30435	0.00	1193.5	3244.4	973.6	0.00	5411.5
GRIFFIN	LAKE	30440	0.00	852.5	1974.3	217.4	0.00	3044.3
GRIFFIN	LAKE	30450	0.00	140.8	432.4	7.4	0.00	580.7
GRIFFIN	LAKE	30455	0.00	610.3	420.1	121.1	0.00	1151.5
GRIFFIN	LAKE	30457	0.00	3612.6	2661.3	59.3	44.48	6377.7
GRIFFIN	LAKE	30460	27.18	10096.5	10783.4	318.8	1121.83	22347.7
GRIFFIN	LAKE	30465	449.72	3536.0	9681.4	600.5	3153.00	17420.5
GRIFFIN	LAKE	30470	155.67	0.0	778.4	825.3	1618.50	3377.9
HARRIS	LAKE	30135	4133.98	6451.8	40665.2	22330.4	1779.12	75360.6
HARRIS	LAKE	30375	778.36	3481.6	4096.9	299.0	1267.62	9923.5
HARRIS	LAKE	30380	0.00	59.3	9.9	0.0	0.00	69.2
HARRIS	LAKE	30385	0.00	71.7	588.1	7.4	0.00	667.2
HARRIS	LAKE	30395	0.00	0.0	39.5	0.0	0.00	39.5
HARRIS	LAKE	30400	474.43	370.6	18611.6	4000.5	1749.47	25206.7
HARRIS	LAKE	30405	0.00	0.0	1984.2	556.0	459.61	2999.8
HARRIS	LAKE	30410	298.99	509.0	4502.2	785.8	1821.13	7917.1
HARRIS	LAKE	30415	1176.20	170.5	11892.9	3741.1	3578.01	20558.7
HARRIS	LAKE	30420	0.00	0.0	803.1	168.0	0.00	971.1
HARRIS	LAKE	30425	788.25	79.1	3316.1	2490.8	103.78	6778.0
HARRIS	LAKE	30430	121.08	1280.0	12083.2	3919.0	205.09	17608.3
HARRIS	LAKE	30435	0.00	1193.5	3244.4	973.6	0.00	5411.5
HARRIS	LAKE	30440	0.00	852.5	1974.3	217.4	0.00	3044.3
HARRIS	LAKE	30450	0.00	140.8	432.4	7.4	0.00	580.7
HARRIS	LAKE	30455	0.00	610.3	420.1	121.1	0.00	1151.5
HARRIS	LAKE	30457	0.00	3612.6	2661.3	59.3	44.48	6377.7
HARRIS	LAKE	30460	27.18	10096.5	10783.4	318.8	1121.83	22347.7
HARRIS	LAKE	30465	449.72	3536.0	9681.4	600.5	3153.00	17420.5
HARRIS	LAKE	30470	155.67	0.0	778.4	825.3	1618.50	3377.9
HIDDEN	LAKE	36335	3.00	38.0	1333.0	692.0	8.00	2073.0
HOLLY	LAKE	30105	0.00	0.0	331.0	212.0	49.00	592.0
LADY	LAKE	35190	138.90	1976.0	12341.0	1542.0	1091.00	17087.0
LITTLE LAKE HARRIS	LAKE	30135	4133.98	6451.8	40665.2	22330.4	1779.12	75360.6
LITTLE LAKE HARRIS	LAKE	30375	778.36	3481.6	4096.9	299.0	1267.62	9923.5
LITTLE LAKE HARRIS	LAKE	30380	0.00	59.3	9.9	0.0	0.00	69.2
LITTLE LAKE HARRIS	LAKE	30385	0.00	71.7	588.1	7.4	0.00	667.2
LITTLE LAKE HARRIS	LAKE	30395	0.00	0.0	39.5	0.0	0.00	39.5
LITTLE LAKE HARRIS	LAKE	30400	474.43	370.6	18611.6	4000.5	1749.47	25206.7
LITTLE LAKE HARRIS	LAKE	30405	0.00	0.0	1984.2	556.0	459.61	2999.8
LITTLE LAKE HARRIS	LAKE	30410	298.99	509.0	4502.2	785.8	1821.13	7917.1
LITTLE LAKE HARRIS	LAKE	30415	1176.20	170.5	11892.9	3741.1	3578.01	20558.7
LITTLE LAKE HARRIS	LAKE	30420	0.00	0.0	803.1	168.0	0.00	971.1
LITTLE LAKE HARRIS	LAKE	30425	788.25	79.1	3316.1	2490.8	103.78	6778.0
LITTLE LAKE HARRIS	LAKE	30430	121.08	1280.0	12083.2	3919.0	205.09	17608.3
LITTLE LAKE HARRIS	LAKE	30435	0.00	1193.5	3244.4	973.6	0.00	5411.5
LITTLE LAKE HARRIS	LAKE	30440	0.00	852.5	1974.3	217.4	0.00	3044.3
LITTLE LAKE HARRIS	LAKE	30450	0.00	140.8	432.4	7.4	0.00	580.7
LITTLE LAKE HARRIS	LAKE	30455	0.00	610.3	420.1	121.1	0.00	1151.5
LITTLE LAKE HARRIS	LAKE	30457	0.00	3612.6	2661.3	59.3	44.48	6377.7
LITTLE LAKE HARRIS	LAKE	30460	27.18	10096.5	10783.4	318.8	1121.83	22347.7
LITTLE LAKE HARRIS	LAKE	30465	449.72	3536.0	9681.4	600.5	3153.00	17420.5
LITTLE LAKE HARRIS	LAKE	30470	155.67	0.0	778.4	825.3	1618.50	3377.9
LOUISA	LAKE	30430	121.08	1280.0	12083.2	3919.0	205.09	17608.3
LOUISA	LAKE	30435	0.00	1193.5	3244.4	973.6	0.00	5411.5

Table G-4. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
LOUISA	LAKE	30440	0.0	852	1974.3	217.45	0.0	3044
LOUISA	LAKE	30450	0.0	141	432.4	7.41	0.0	581
LOUISA	LAKE	30455	0.0	610	420.1	121.08	0.0	1151
LOUISA	LAKE	30457	0.0	3613	2661.3	59.30	44.5	6378
LOUISA	LAKE	30460	27.2	10097	10783.4	318.76	1121.8	22348
LOUISA	LAKE	30465	449.7	3536	9681.4	600.45	3153.0	17421
LOUISA	LAKE	30470	155.7	0	778.4	825.31	1618.5	3378
MINNEHAHA	LAKE	30425	788.2	79	3316.1	2490.77	103.8	6778
MINNEHAHA	LAKE	30430	121.1	1280	12083.2	3919.01	205.1	17608
MINNEHAHA	LAKE	30435	0.0	1193	3244.4	973.57	0.0	5411
MINNEHAHA	LAKE	30440	0.0	852	1974.3	217.45	0.0	3044
MINNEHAHA	LAKE	30450	0.0	141	432.4	7.41	0.0	581
MINNEHAHA	LAKE	30455	0.0	610	420.1	121.08	0.0	1151
MINNEHAHA	LAKE	30457	0.0	3613	2661.3	59.30	44.5	6378
MINNEHAHA	LAKE	30460	27.2	10097	10783.4	318.76	1121.8	22348
MINNEHAHA	LAKE	30465	449.7	3536	9681.4	600.45	3153.0	17421
MINNEHAHA	LAKE	30470	155.7	0	778.4	825.31	1618.5	3378
MINNECLA	LAKE	30415	1176.2	170	11892.9	3741.09	3578.0	20559
MINNECLA	LAKE	30420	0.0	0	803.1	168.03	0.0	971
MINNECLA	LAKE	30425	788.2	79	3316.1	2490.77	103.8	6778
MINNECLA	LAKE	30430	121.1	1280	12083.2	3919.01	205.1	17608
MINNECLA	LAKE	30435	0.0	1193	3244.4	973.57	0.0	5411
MINNECLA	LAKE	30440	0.0	852	1974.3	217.45	0.0	3044
MINNECLA	LAKE	30450	0.0	141	432.4	7.41	0.0	581
MINNECLA	LAKE	30455	0.0	610	420.1	121.08	0.0	1151
MINNECLA	LAKE	30457	0.0	3613	2661.3	59.30	44.5	6378
MINNECLA	LAKE	30460	27.2	10097	10783.4	318.76	1121.8	22348
MINNECLA	LAKE	30465	449.7	3536	9681.4	600.45	3153.0	17421
MINNECLA	LAKE	30470	155.7	0	778.4	825.31	1618.5	3378
NORRIS	LAKE	31355	19.0	16756	19544.0	3213.00	20244.0	59776
PINE	LAKE	31060	252.0	529	0.0	14.00	451.0	1246
TROUT	LAKE	36340	0.0	0	711.0	209.00	0.0	920
UMATILLA	LAKE	30110	491.0	14	898.0	328.00	0.0	1732
WEST CROOKED	LAKE	30125	201.0	0	117.0	157.00	0.0	475
WILDCAT	LAKE	31025	65.0	2011	0.0	402.00	106.0	2584
YALE	LAKE	30085	0.0	11510	76.6	573.27	121.1	12281
YALE	LAKE	30090	504.1	5592	14069.9	6268.93	3738.6	30173
YALE	LAKE	30100	0.0	0	281.7	2.47	0.0	284
YALE	LAKE	30105	0.0	0	301.5	148.26	44.5	494
BRADFORD	LEON	18040	1949.6	9877	177.9	266.87	0.0	12271
HALL	LEON	17430	0.0	1243	426.0	0.00	0.0	1669
TAMGNIA	LEON	17485	365.7	34522	8727.6	588.10	5759.9	49964
JACKSON	LEON	17425	3012.1	10198	3516.2	4516.99	1912.6	23156
JACKSON	LEON	17430	0.0	1132	387.9	0.00	0.0	1520
JACKSON	LEON	17436	2335.1	729	81.5	0.00	0.0	3146
CHUNKY POND	LEVY	29025	176.0	11860	2424.0	660.00	1001.0	16121
LONG POND	LEVY	27010	651.0	15413	20901.0	537.00	434.0	37936
ROUSSEAU	LEVY	35020	1680.3	23242	7410.5	2428.99	2520.4	37282
ROUSSEAU	LEVY	35025	2130.0	55990	25846.7	659.76	602.9	85230
ROUSSEAU	LEVY	35030	10015.0	110763	46929.2	7875.08	18586.9	194169
ROUSSEAU	LEVY	35035	234.7	0	600.5	74.13	2.5	912
ROUSSEAU	LEVY	35040	103.8	8616	916.7	743.77	2340.0	12721
ROUSSEAU	LEVY	35045	1838.4	34164	35140.1	993.34	2708.2	74844
ROUSSEAU	LEVY	35050	0.0	1060	583.2	111.19	175.4	1930
ROUSSEAU	LEVY	35055	2930.6	22704	14900.1	212.51	501.6	41248
ROUSSEAU	LEVY	35060	2651.4	24801	28248.5	901.91	691.9	57295
ROUSSEAU	LEVY	35065	0.0	0	131.0	46.95	0.0	178
ROUSSEAU	LEVY	35070	387.9	27179	14329.3	0.00	108.7	42005
ROUSSEAU	LEVY	35075	360.8	12622	8196.3	46.95	190.3	21416
ROUSSEAU	LEVY	35080	0.0	14525	9098.2	64.25	91.4	23778
ROUSSEAU	LEVY	35085	541.1	326	3543.4	69.19	0.0	4480
ROUSSEAU	LEVY	35090	4307.0	1045	15246.1	375.59	845.1	21819
ROUSSEAU	LEVY	35095	131.0	0	308.9	148.26	0.0	588
ROUSSEAU	LEVY	35100	894.6	5142	10919.3	12.35	560.9	17519
ROUSSEAU	LEVY	35105	0.0	2451	1102.1	0.00	0.0	3553
ROUSSEAU	LEVY	35110	0.0	5804	4835.7	7.41	0.0	10648
ROUSSEAU	LEVY	35115	0.0	6573	11527.2	0.00	111.2	18211
ROUSSEAU	LEVY	35120	859.9	20163	38167.1	741.30	672.1	60604
ROUSSEAU	LEVY	35125	0.0	4428	4178.5	128.49	0.0	8735
ROUSSEAU	LEVY	35130	583.2	27712	26847.4	345.94	5273.1	60762
ROUSSEAU	LEVY	35135	118.6	2765	3459.4	0.00	148.3	6491

Table G-4. (Continued)

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*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
ROUSSEAU	LEVY	35140	2.5	0.0	266.9	54.4	0.00	324
ROUSSEAU	LEVY	35145	118.6	1060.1	3414.9	1645.7	1578.97	7818
ROUSSEAU	LEVY	35150	249.6	128.5	1732.2	1015.6	0.00	3126
ROUSSEAU	LEVY	35155	254.5	724.0	709.2	69.2	0.00	1757
ROUSSEAU	LEVY	35160	150.7	128.5	0.0	24.7	0.00	304
ROUSSEAU	LEVY	35165	12280.9	50200.8	94145.1	4400.9	2414.17	163442
ROUSSEAU	LEVY	35170	143.3	1690.2	3212.3	61.8	0.00	5108
ROUSSEAU	LEVY	35175	560.9	9913.7	34665.7	3842.4	7497.01	56480
ROUSSEAU	LEVY	35180	279.2	815.4	1628.4	249.6	51.89	3025
ROUSSEAU	LEVY	35185	1697.6	2821.9	19281.2	1015.6	343.47	25160
ROUSSEAU	LEVY	35190	126.0	1798.9	11235.6	410.2	993.24	14564
ROUSSEAU	LEVY	35200	649.9	9656.7	15337.5	284.2	1895.26	27823
ROUSSEAU	LEVY	35205	32.1	625.2	6567.9	0.0	0.00	7225
ROUSSEAU	LEVY	35210	160.6	2023.7	7091.8	0.0	274.28	9550
CHERRY	MADISON	20025	350.0	103.0	144.0	489.0	0.00	1086
BOWERS	MARION	30070	62.0	350.0	1099.0	879.0	730.00	3121
BRYANT	MARION	30365	592.0	2206.0	1349.0	2638.0	1153.00	7938
DELANCY	MARION	31010	176.0	19869.0	0.0	605.0	565.00	21215
HALFMOON	MARION	30370	630.0	17508.0	168.0	2413.0	1710.00	22428
KERR	MARION	31015	1069.0	44086.0	176.0	5300.0	1232.00	51865
LITTLE LAKE WEIR	MARION	30080	1959.5	3691.7	22849.3	6184.9	370.65	35056
NICOTOON	MARION	30085	0.0	12642.0	84.0	763.0	133.00	13622
OCKLAWAHA	MARION	30005	0.0	3607.7	721.5	0.0	0.00	4329
OCKLAWAHA	MARION	30010	143.3	9276.1	7.4	113.7	0.00	9541
OCKLAWAHA	MARION	30015	71.7	14764.2	1094.7	3261.7	338.53	19531
OCKLAWAHA	MARION	30020	1366.5	22738.1	2436.4	1067.5	0.00	27608
OCKLAWAHA	MARION	30025	121.1	2846.6	108.7	37.1	9.88	3123
OCKLAWAHA	MARION	30030	0.0	3966.0	29.7	44.5	19.77	4060
OCKLAWAHA	MARION	30035	0.0	2814.5	54.4	9.9	74.13	2953
OCKLAWAHA	MARION	30040	1364.0	51727.9	4042.6	1638.3	610.34	59383
OCKLAWAHA	MARION	30045	686.9	47890.5	4045.0	323.7	108.72	53055
OCKLAWAHA	MARION	30050	15367.1	65807.7	71698.5	731.4	2199.19	155804
OCKLAWAHA	MARION	30055	476.9	9738.2	1769.2	66.7	74.13	12125
OCKLAWAHA	MARION	30060	224.9	919.2	1690.2	257.0	143.32	3235
OCKLAWAHA	MARION	30065	29.7	2167.1	1309.6	610.3	71.66	4188
OCKLAWAHA	MARION	30070	56.8	318.8	1000.8	135.9	664.70	2177
OCKLAWAHA	MARION	30075	491.7	39526.1	20188.1	4613.4	3827.58	68647
OCKLAWAHA	MARION	30080	1959.5	3691.7	22849.3	6184.9	370.65	35056
OCKLAWAHA	MARION	30085	0.0	11509.9	76.6	573.3	121.08	12281
OCKLAWAHA	MARION	30090	504.1	5591.9	14069.9	6268.9	3738.62	30173
OCKLAWAHA	MARION	30095	2723.0	4247.6	18216.2	9866.7	2204.13	37258
OCKLAWAHA	MARION	30100	0.0	0.0	281.7	2.5	0.00	284
OCKLAWAHA	MARION	30105	0.0	0.0	301.5	148.3	44.48	494
OCKLAWAHA	MARION	30110	447.3	12.4	817.9	299.0	0.00	1576
OCKLAWAHA	MARION	30115	3953.6	3926.4	12495.8	9263.8	1225.62	30865
OCKLAWAHA	MARION	30120	284.2	682.0	333.6	17.3	4.94	1322
OCKLAWAHA	MARION	30125	182.9	0.0	106.3	143.3	0.00	432
OCKLAWAHA	MARION	30135	4134.0	6451.8	40665.2	22330.4	1779.12	75361
OCKLAWAHA	MARION	30140	51.9	387.9	976.0	0.0	0.00	1416
OCKLAWAHA	MARION	30142	175.4	163.1	42.0	7.4	0.00	388
OCKLAWAHA	MARION	30145	350.9	365.7	93.9	111.2	0.00	922
OCKLAWAHA	MARION	30150	3676.8	2760.1	14838.4	7477.2	264.40	29017
OCKLAWAHA	MARION	30155	0.0	363.2	1912.6	34.6	0.00	2310
OCKLAWAHA	MARION	30160	0.0	496.7	2651.4	400.3	42.01	3590
OCKLAWAHA	MARION	30165	2228.8	3138.2	26872.1	437.4	190.27	32867
OCKLAWAHA	MARION	30170	215.0	91.4	113.7	22.2	0.00	442
OCKLAWAHA	MARION	30175	2115.2	4260.0	16805.3	30739.2	711.65	54631
OCKLAWAHA	MARION	30180	96.4	12.4	195.2	111.2	0.00	415
OCKLAWAHA	MARION	30185	123.5	0.0	195.2	0.0	0.00	319
OCKLAWAHA	MARION	30190	59.3	0.0	103.8	0.0	0.00	163
OCKLAWAHA	MARION	30195	1037.8	1309.6	27008.0	395.4	0.00	29751
OCKLAWAHA	MARION	30200	49.4	1359.0	163.1	0.0	0.00	1572
OCKLAWAHA	MARION	30205	0.0	444.8	19.8	0.0	0.00	465
OCKLAWAHA	MARION	30210	2283.2	33855.2	5858.7	3891.8	2490.77	48380
OCKLAWAHA	MARION	30215	1020.5	39434.7	21680.6	2646.4	3190.06	67972
OCKLAWAHA	MARION	30220	121.1	10837.8	696.8	6011.9	2290.62	19959
OCKLAWAHA	MARION	30225	160.6	3540.9	321.2	0.0	0.00	4023
OCKLAWAHA	MARION	30230	0.0	27.2	0.0	0.0	0.00	27
OCKLAWAHA	MARION	30235	0.0	1107.0	163.1	0.0	0.00	1270
OCKLAWAHA	MARION	30240	0.0	160.6	7.4	0.0	0.00	168
OCKLAWAHA	MARION	30245	0.0	93.9	0.0	0.0	0.00	94

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
OCKLAWAHA	MARION	30250	113.67	837.7	0.0	0.0	0.00	951
OCKLAWAHA	MARION	30255	0.00	145.8	0.0	0.0	0.00	146
OCKLAWAHA	MARION	30260	86.48	5134.7	565.9	0.0	0.00	5787
OCKLAWAHA	MARION	30262	205.09	17546.6	4403.3	69.2	0.00	22224
OCKLAWAHA	MARION	30264	0.00	704.2	1129.2	0.0	0.00	1833
OCKLAWAHA	MARION	30265	3325.97	14480.1	43867.7	8910.4	4277.30	74861
OCKLAWAHA	MARION	30270	197.68	13627.6	1260.2	177.9	941.45	16205
OCKLAWAHA	MARION	30272	242.16	2429.0	392.9	242.2	869.79	4176
OCKLAWAHA	MARION	30275	0.00	4430.5	726.5	0.0	185.32	5142
OCKLAWAHA	MARION	30277	0.00	12.4	44.5	0.0	0.00	57
OCKLAWAHA	MARION	30280	679.52	11164.0	1252.8	5841.4	66.72	19004
OCKLAWAHA	MARION	30285	207.56	630.1	602.9	0.0	0.00	1441
OCKLAWAHA	MARION	30290	1677.81	1648.2	536.2	0.0	34.59	3897
OCKLAWAHA	MARION	30295	133.43	299.0	49.4	0.0	0.00	482
OCKLAWAHA	MARION	30300	2379.57	3770.7	338.5	0.0	4.94	6494
OCKLAWAHA	MARION	30305	0.00	128.5	0.0	0.0	0.00	128
OCKLAWAHA	MARION	30310	1171.25	37593.8	2824.4	0.0	0.00	41589
OCKLAWAHA	MARION	30355	64.25	14527.0	0.0	449.7	202.62	15244
OCKLAWAHA	MARION	30360	1052.65	23358.4	1027.9	2379.6	1013.11	28832
OCKLAWAHA	MARION	30365	538.68	2083.1	1228.1	1425.8	976.04	6252
OCKLAWAHA	MARION	30370	573.27	15977.5	153.2	677.1	1519.66	18901
OCKLAWAHA	MARION	30375	778.36	3481.6	4096.9	299.0	1267.62	9924
OCKLAWAHA	MARION	30380	0.00	59.3	9.9	0.0	0.00	69
OCKLAWAHA	MARION	30385	0.00	71.7	588.1	7.4	0.00	667
OCKLAWAHA	MARION	30395	0.00	0.0	39.5	0.0	0.00	40
OCKLAWAHA	MARION	30400	474.43	370.6	18611.6	4000.5	1749.47	25207
OCKLAWAHA	MARION	30405	0.00	0.0	1984.2	556.0	459.61	3000
OCKLAWAHA	MARION	30410	298.99	509.0	4502.2	785.8	1821.13	7917
OCKLAWAHA	MARION	30415	1176.20	170.5	11892.9	3741.1	3578.01	20559
OCKLAWAHA	MARION	30420	0.00	0.0	803.1	168.0	0.00	971
OCKLAWAHA	MARION	30425	788.25	79.1	3316.1	2490.8	103.78	6778
OCKLAWAHA	MARION	30430	121.08	1280.0	12083.2	3919.0	205.09	17608
OCKLAWAHA	MARION	30435	0.00	1193.5	3244.4	973.6	0.00	5411
OCKLAWAHA	MARION	30440	0.00	852.5	1974.3	217.4	0.00	3044
OCKLAWAHA	MARION	30450	0.00	140.3	432.4	7.4	0.00	581
OCKLAWAHA	MARION	30455	0.00	610.3	420.1	121.1	0.00	1151
OCKLAWAHA	MARION	30457	0.00	3612.6	2661.3	59.3	44.48	6378
OCKLAWAHA	MARION	30460	27.18	10096.5	10783.4	318.8	1121.83	22348
OCKLAWAHA	MARION	30465	449.72	3536.0	9681.4	600.5	3153.00	17421
OCKLAWAHA	MARION	30470	155.67	0.0	778.4	825.3	1618.50	3378
SMITH	MARION	25370	247.00	963.0	1856.0	440.0	204.00	3710
WEIR	MARION	30080	1959.50	3691.7	22849.3	6184.9	370.65	35056
OKEECHOBEE	OKEECHOBEE	36005	7.41	2656.3	61451.3	1813.7	6451.78	72181
OKEECHOBEE	OKEECHOBEE	36010	76.60	6123.1	28700.7	647.4	854.97	36403
OKEECHOBEE	OKEECHOBEE	36015	0.00	1420.8	5661.1	173.0	311.35	7566
OKEECHOBEE	OKEECHOBEE	36020	39.54	5945.2	69136.1	1052.6	4025.26	80199
OKEECHOBEE	OKEECHOBEE	36025	0.00	9.9	657.3	24.7	0.00	692
OKEECHOBEE	OKEECHOBEE	36030	0.00	9486.2	18401.5	583.2	229.80	28701
OKEECHOBEE	OKEECHOBEE	36035	0.00	6498.7	25023.8	706.7	1228.09	33457
OKEECHOBEE	OKEECHOBEE	36040	1873.02	8606.5	30699.7	575.7	3308.67	45064
OKEECHOBEE	OKEECHOBEE	36050	0.00	148.3	138.4	34.6	0.00	321
OKEECHOBEE	OKEECHOBEE	36055	22.24	1119.4	18562.2	281.7	2342.51	22328
OKEECHOBEE	OKEECHOBEE	36060	24.71	2288.1	62496.5	2050.9	9543.00	76403
OKEECHOBEE	OKEECHOBEE	36065	0.00	425.0	11040.4	126.0	699.29	12291
OKEECHOBEE	OKEECHOBEE	36070	229.80	4193.3	49027.1	689.4	4084.56	58224
OKEECHOBEE	OKEECHOBEE	36075	363.24	444.8	2345.0	86.5	39.54	3279
OKEECHOBEE	OKEECHOBEE	36080	432.42	3538.5	17719.5	108.7	390.42	22190
OKEECHOBEE	OKEECHOBEE	36085	1915.02	8730.0	63855.6	31127.2	6212.09	111840
OKEECHOBEE	OKEECHOBEE	36090	1032.88	2332.6	28273.2	4786.3	877.20	37302
OKEECHOBEE	OKEECHOBEE	36095	338.53	4022.8	22587.4	901.9	383.00	28234
OKEECHOBEE	OKEECHOBEE	36100	380.53	19861.9	51201.6	9459.0	5154.51	86058
OKEECHOBEE	OKEECHOBEE	36105	1952.09	5122.4	13298.9	3017.1	672.11	24063
OKEECHOBEE	OKEECHOBEE	36110	751.18	672.1	822.8	118.6	130.96	2496
OKEECHOBEE	OKEECHOBEE	36115	649.87	1482.6	10328.8	93.9	1875.49	14431
OKEECHOBEE	OKEECHOBEE	36120	170.50	563.4	3447.0	4.9	56.83	4243
OKEECHOBEE	OKEECHOBEE	36125	523.85	16343.2	35478.6	2468.5	704.23	55518
OKEECHOBEE	OKEECHOBEE	36130	7719.40	7435.2	49637.4	17640.5	1321.98	83755
OKEECHOBEE	OKEECHOBEE	36135	457.13	2560.0	9436.7	4178.5	491.73	17124
OKEECHOBEE	OKEECHOBEE	36140	133.43	417.6	1317.0	916.7	311.35	3096
OKEECHOBEE	OKEECHOBEE	36145	1378.82	1354.1	12742.9	10657.4	1554.26	27688
OKEECHOBEE	OKEECHOBEE	36150	390.42	276.8	2258.5	163.1	182.85	3272

Table G-4. (Continued)

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*          FLORIDA LAND USE DATA        *
*                                       *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU  *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES   *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
OKEECHOBEE	OKEECHOBEE	36155	289.1	14188.5	26513.8	5722.8	4106.80	50821
OKEECHOBEE	OKEECHOBEE	36160	0.0	2186.8	3602.7	1060.1	1492.48	8342
OKEECHOBEE	OKEECHOBEE	36165	333.6	7608.2	18547.3	3192.5	266.87	29949
OKEECHOBEE	OKEECHOBEE	36170	19.8	2856.5	12350.1	0.0	0.00	15226
OKEECHOBEE	OKEECHOBEE	36175	1672.9	5157.0	19609.9	24761.9	1522.14	52724
OKEECHOBEE	OKEECHOBEE	36180	123.5	1448.0	7825.7	481.8	0.00	9879
OKEECHOBEE	OKEECHOBEE	36185	0.0	516.4	1658.0	7.4	0.00	2182
OKEECHOBEE	OKEECHOBEE	36187	14.8	840.1	1225.6	242.2	0.00	2323
OKEECHOBEE	OKEECHOBEE	36189	217.4	494.2	271.8	363.2	0.00	1347
OKEECHOBEE	OKEECHOBEE	36190	976.0	2846.6	6110.8	1134.2	22.24	11090
OKEECHOBEE	OKEECHOBEE	36197	101.3	1393.6	2018.8	3395.2	51.89	6961
OKEECHOBEE	OKEECHOBEE	36200	266.9	511.5	4870.3	2999.8	0.00	8648
OKEECHOBEE	OKEECHOBEE	36205	1556.7	1487.5	5327.5	877.2	0.00	9249
OKEECHOBEE	OKEECHOBEE	36215	14.8	54.4	805.5	526.3	0.00	1401
OKEECHOBEE	OKEECHOBEE	36220	768.5	8043.1	18221.2	2058.3	118.61	29210
OKEECHOBEE	OKEECHOBEE	36225	3232.1	1141.6	1546.8	2816.9	0.00	8737
OKEECHOBEE	OKEECHOBEE	36230	3264.2	23140.9	72630.1	336.1	827.78	100199
OKEECHOBEE	OKEECHOBEE	36232	0.0	84.0	133.4	0.0	0.00	217
OKEECHOBEE	OKEECHOBEE	36235	1445.5	859.9	6340.6	7.4	200.15	8854
OKEECHOBEE	OKEECHOBEE	36240	239.7	1524.6	6096.0	753.7	39.54	8653
OKEECHOBEE	OKEECHOBEE	36245	474.4	1371.4	1457.9	420.1	69.19	3793
OKEECHOBEE	OKEECHOBEE	36247	0.0	200.2	1793.9	291.6	0.00	2286
OKEECHOBEE	OKEECHOBEE	36250	22.2	0.0	1695.1	491.7	0.00	2209
OKEECHOBEE	OKEECHOBEE	36255	1942.2	0.0	4551.6	1203.4	98.84	7796
OKEECHOBEE	OKEECHOBEE	36260	1304.7	19523.4	24752.0	4341.5	677.05	50599
OKEECHOBEE	OKEECHOBEE	36265	303.9	5537.5	10869.9	1793.9	0.00	18505
OKEECHOBEE	OKEECHOBEE	36267	2.5	0.0	560.9	118.6	0.00	682
OKEECHOBEE	OKEECHOBEE	36270	919.2	3592.8	2794.7	3333.4	0.00	10640
OKEECHOBEE	OKEECHOBEE	36272	889.6	284.2	6763.1	133.4	24.71	8095
OKEECHOBEE	OKEECHOBEE	36275	810.5	3390.2	8154.3	5633.9	1398.59	19387
OKEECHOBEE	OKEECHOBEE	36280	0.0	679.5	7435.2	1932.3	775.89	10823
OKEECHOBEE	OKEECHOBEE	36285	187.8	6261.5	13071.6	4176.0	328.64	24026
OKEECHOBEE	OKEECHOBEE	36290	3170.3	22513.3	26116.0	7912.1	1124.30	60836
OKEECHOBEE	OKEECHOBEE	36292	946.4	89.0	259.5	249.6	0.00	1544
OKEECHOBEE	OKEECHOBEE	36295	22.2	4887.6	5549.9	76.6	407.71	10944
OKEECHOBEE	OKEECHOBEE	36300	941.5	9288.5	22412.0	4395.9	516.44	37554
OKEECHOBEE	OKEECHOBEE	36305	5764.8	53336.5	65753.3	5626.5	6671.70	137153
OKEECHOBEE	OKEECHOBEE	36310	343.5	4932.1	7904.7	835.2	363.24	14379
OKEECHOBEE	OKEECHOBEE	36315	672.1	91.4	173.0	0.0	0.00	937
OKEECHOBEE	OKEECHOBEE	36320	276.8	0.0	504.1	4.9	0.00	786
OKEECHOBEE	OKEECHOBEE	36325	0.0	46.9	224.9	0.0	0.00	272
OKEECHOBEE	OKEECHOBEE	36330	116.1	2592.1	3975.8	664.7	538.68	7887
OKEECHOBEE	OKEECHOBEE	36335	2.5	34.6	1213.3	622.7	7.41	1880
OKEECHOBEE	OKEECHOBEE	36340	0.0	0.0	647.4	190.3	0.00	838
OKEECHOBEE	OKEECHOBEE	36345	1102.1	6049.0	16291.3	1297.3	0.00	24740
OKEECHOBEE	OKEECHOBEE	36350	222.4	531.3	622.7	276.8	0.00	1653
OKEECHOBEE	OKEECHOBEE	36355	768.5	3627.4	2928.1	2115.2	0.00	9439
OKEECHOBEE	OKEECHOBEE	36360	13479.3	8586.7	7840.5	1588.9	0.00	31495
OKEECHOBEE	OKEECHOBEE	36362	12.4	0.0	0.0	4.9	0.00	17
OKEECHOBEE	OKEECHOBEE	36365	118.6	284.2	2068.2	810.5	0.00	3281
OKEECHOBEE	OKEECHOBEE	36370	71.7	0.0	454.7	227.3	0.00	754
OKEECHOBEE	OKEECHOBEE	36380	1579.0	2154.7	18149.5	4922.2	850.02	27655
OKEECHOBEE	OKEECHOBEE	36385	0.0	39.5	1579.0	2.5	14.83	1636
OKEECHOBEE	OKEECHOBEE	36390	0.0	155.7	1608.6	2.5	0.00	1767
OKEECHOBEE	OKEECHOBEE	36395	6617.3	6133.0	22589.9	541.1	0.00	35881
OKEECHOBEE	OKEECHOBEE	36400	4759.1	140.8	1037.8	2191.8	0.00	8130
OKEECHOBEE	OKEECHOBEE	36405	743.8	2.5	605.4	89.0	0.00	1441
OKEECHOBEE	OKEECHOBEE	36410	0.0	0.0	61.8	0.0	0.00	62
OKEECHOBEE	OKEECHOBEE	36415	6456.7	91.4	0.0	447.3	0.00	6995
OKEECHOBEE	OKEECHOBEE	36420	756.1	0.0	0.0	202.6	0.00	959
OKEECHOBEE	OKEECHOBEE	42005	2656.3	405.2	12846.7	499.1	770.95	17178
OKEECHOBEE	OKEECHOBEE	42010	2011.4	1836.0	5947.7	116.1	145.79	10057
OKEECHOBEE	OKEECHOBEE	42015	24.7	242.2	536.2	0.0	0.00	803
OKEECHOBEE	OKEECHOBEE	42020	306.4	2196.7	19743.3	51.9	79.07	22377
OKEECHOBEE	OKEECHOBEE	42025	407.7	3214.8	25770.1	0.0	232.27	29625
OKEECHOBEE	OKEECHOBEE	42030	0.0	0.0	9782.7	0.0	168.03	9951
OKEECHOBEE	OKEECHOBEE	42032	0.0	0.0	0.0	12.4	4.94	17
OKEECHOBEE	OKEECHOBEE	42035	56.8	1069.9	15814.4	37.1	126.02	17104
OKEECHOBEE	OKEECHOBEE	42040	286.6	54.4	6511.1	9.9	1359.05	8221
OKEECHOBEE	OKEECHOBEE	42045	0.0	0.0	3328.4	0.0	0.00	3328
OKEECHOBEE	OKEECHOBEE	42050	0.0	2485.8	13602.9	0.0	274.28	16363

Table G-4. (Continued).

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*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
OKEECHOBEE	OKEECHOBEE	42055	0.00	0.0	437	0	0.0	437
OKEECHOBEE	OKEECHOBEE	42060	0.00	46.9	136	0	0.0	183
OKEECHOBEE	OKEECHOBEE	42065	0.00	138.4	635	0	0.0	773
OKEECHOBEE	OKEECHOBEE	42070	0.00	449.7	1579	0	0.0	2029
OKEECHOBEE	OKEECHOBEE	42075	0.00	0.0	153	0	0.0	153
OKEECHOBEE	OKEECHOBEE	42080	0.00	8567.0	41095	40	4183.4	53885
OKEECHOBEE	OKEECHOBEE	42085	0.00	180.4	262	0	0.0	442
OKEECHOBEE	OKEECHOBEE	42090	0.00	640.0	69	0	0.0	709
OKEECHOBEE	OKEECHOBEE	42095	0.00	728.9	633	0	4.9	1366
OKEECHOBEE	OKEECHOBEE	42100	0.00	29.7	3576	0	58.3	3664
OKEECHOBEE	OKEECHOBEE	42105	2574.78	3597.8	22891	124	360.8	29548
OKEECHOBEE	OKEECHOBEE	48005	0.00	16318.5	49445	208	9221.8	75193
OKEECHOBEE	OKEECHOBEE	48010	91.43	2006.5	4238	0	7.4	6343
OKEECHOBEE	OKEECHOBEE	48015	98.84	14667.9	57251	0	7168.4	79186
OKEECHOBEE	OKEECHOBEE	48020	0.00	10027.3	104014	546	5799.4	120387
OKEECHOBEE	OKEECHOBEE	49025	1410.94	26296.4	191821	521	4232.8	224283
OKEECHOBEE	OKEECHOBEE	49000	192.74	8643.6	4920	344423	86277.4	444456
ADAIR	ORANGE	31517	119.00	0.0	0	0	0.0	119
APOPKA	ORANGE	30175	2115.18	4260.0	16305	30739	711.6	54631
APOPKA	ORANGE	30180	96.37	12.4	195	111	0.0	415
APOPKA	ORANGE	30185	123.55	0.0	195	0	0.0	319
APOPKA	ORANGE	30190	59.30	0.0	104	0	0.0	163
APOPKA	ORANGE	30195	1037.82	1309.6	27008	395	0.0	29751
BASS	ORANGE	36405	743.77	2.5	605	89	0.0	1441
BELL	ORANGE	31486	404.00	0.0	0	38	49.0	491
BESSIE	ORANGE	36370	79.00	0.0	499	250	0.0	828
BRYAN	ORANGE	36350	244.00	524.0	684	304	60.0	1816
BUTLER	ORANGE	36362	12.35	0.0	0	5	0.0	17
BUTLER	ORANGE	36365	118.61	284.2	2068	810	0.0	3281
BUTLER	ORANGE	36380	1578.97	2154.7	18149	4922	850.0	27655
CHARITY	ORANGE	31482	247.00	0.0	160	57	0.0	464
CLEAR	ORANGE	36415	6456.72	91.4	0	447	0.0	6995
CONWAY	ORANGE	36400	4759.15	140.8	1038	2192	0.0	8130
DOWN	ORANGE	36365	118.61	284.2	2068	810	0.0	3281
FAIRVIEW	ORANGE	31420	977.00	0.0	0	377	0.0	1354
FAITH	ORANGE	31480	372.00	0.0	27	90	0.0	489
FRANCIS	ORANGE	30170	236.00	100.0	125	24	0.0	486
HART	ORANGE	36135	457.13	2560.0	9437	4178	491.7	17124
HART	ORANGE	36150	390.42	276.8	2258	163	182.9	3272
HART	ORANGE	36160	0.00	2186.8	3603	1060	1492.5	8342
HART	ORANGE	36165	333.58	7608.2	18547	3193	266.9	29949
HERRICK	ORANGE	31430	524.00	14.0	806	35	35.0	1414
HOLDENS	ORANGE	36415	6456.72	91.4	0	447	0.0	6995
HOPE	ORANGE	31481	687.00	0.0	68	43	353.0	1151
JOHIO	ORANGE	31417	30.00	0.0	160	27	0.0	217
JOHNS	ORANGE	30195	1037.82	1309.6	27008	395	0.0	29751
KILLARNEY	ORANGE	31490	228.00	0.0	0	52	0.0	280
LAWNE	ORANGE	31427	3905.00	1810.0	697	369	0.0	6782
LITTLE LAKE FAIRVIEW	ORANGE	31422	7.00	0.0	0	92	0.0	995
LOUISE	ORANGE	36362	12.35	0.0	0	5	0.0	17
LOUISE	ORANGE	36365	118.61	284.2	2068	810	0.0	3281
LOUISE	ORANGE	36370	71.66	0.0	455	227	0.0	754
LOUISE	ORANGE	36380	1578.97	2154.7	18149	4922	850.0	27655
MAITLAND	ORANGE	31478	7613.00	2.0	437	1500	0.0	9553
MANN	ORANGE	36415	6456.72	91.4	0	447	0.0	6995
MARY JANE	ORANGE	36135	457.13	2560.0	9437	4178	491.7	17124
MARY JANE	ORANGE	36150	390.42	276.8	2258	163	182.9	3272
MARY JANE	ORANGE	36160	0.00	2186.8	3603	1060	1492.5	8342
PICKETT	ORANGE	31535	532.00	830.0	3222	1080	478.0	6142
POCKET	ORANGE	36355	768.48	3627.4	2928	2115	0.0	9439
POCKET	ORANGE	36362	12.35	0.0	0	5	0.0	17
POCKET	ORANGE	36365	118.61	284.2	2068	810	0.0	3281
POCKET	ORANGE	36370	71.66	0.0	455	227	0.0	754
POCKET	ORANGE	36380	1578.97	2154.7	18149	4922	850.0	27655
PORTER	ORANGE	36410	0.00	0.0	62	0	0.0	62
SHEEN	ORANGE	36355	768.48	3627.4	2928	2115	0.0	9439
SHEEN	ORANGE	36362	12.35	0.0	0	5	0.0	17
SHEEN	ORANGE	36365	118.61	284.2	2068	810	0.0	3281
SHEEN	ORANGE	36370	71.66	0.0	455	227	0.0	754
SHEEN	ORANGE	36380	1578.97	2154.7	18149	4922	850.0	27655
SHERWOOD	ORANGE	31435	1506.00	133.0	8335	814	0.0	10788

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
SILVER	ORANGE	31425	318.0	0.0	0.0	57.0	0.00	375
SPIER	ORANGE	31747	556.0	0.0	0.0	106.0	0.00	662
SPRING	ORANGE	31520	309.0	0.0	0.0	35.0	0.00	345
SUSANNAH	ORANGE	31750	746.0	90.0	798.0	0.0	1276.00	2909
TIBET	ORANGE	36355	768.5	3627.4	2928.1	2115.2	0.00	9439
TIBET	ORANGE	36362	12.4	0.0	0.0	4.9	0.00	17
TIBET	ORANGE	36365	118.6	284.2	2068.2	810.5	0.00	3281
TIBET	ORANGE	36370	71.7	0.0	454.7	227.3	0.00	754
TIBET	ORANGE	36380	1579.0	2154.7	18149.5	4922.2	850.02	27655
UNDERHILL	ORANGE	36420	756.1	0.0	0.0	202.6	0.00	959
WAUNATTA	ORANGE	31470	0.0	0.0	299.0	57.0	0.00	356
WEKIVA	ORANGE	31427	3555.8	1648.2	635.0	336.1	0.00	6175
AJAY	OSCEOLA	36165	333.6	7608.2	18547.3	3192.5	266.87	29949
ALLIGATOR	OSCEOLA	36130	7719.4	7435.2	49637.4	17640.5	1321.98	83755
CENTER	OSCEOLA	36140	133.4	417.6	1317.0	916.7	311.35	3096
COON	OSCEOLA	36140	133.4	417.6	1317.0	916.7	311.35	3096
CYPRESS	OSCEOLA	36100	380.5	19861.9	51201.6	9459.0	5154.51	86058
CYPRESS	OSCEOLA	36105	1952.1	5122.4	13298.9	3017.1	672.11	24063
CYPRESS	OSCEOLA	36110	751.2	672.1	822.8	118.6	130.96	2496
CYPRESS	OSCEOLA	36115	649.9	1482.6	10328.8	92.9	1875.49	14431
CYPRESS	OSCEOLA	36120	170.5	563.4	3447.0	4.9	56.83	4243
CYPRESS	OSCEOLA	36125	523.9	16343.2	35478.6	2468.5	704.23	55518
CYPRESS	OSCEOLA	36130	7719.4	7435.2	49637.4	17640.5	1321.98	83755
CYPRESS	OSCEOLA	36135	457.1	2560.0	9436.7	4178.5	491.73	17124
CYPRESS	OSCEOLA	36140	133.4	417.6	1317.0	916.7	311.35	3096
CYPRESS	OSCEOLA	36145	1378.8	1354.1	12742.9	10657.4	1554.26	27688
CYPRESS	OSCEOLA	36150	390.4	276.8	2258.5	163.1	182.85	3272
CYPRESS	OSCEOLA	36155	289.1	14188.5	26513.8	5722.8	4106.80	50821
CYPRESS	OSCEOLA	36160	0.0	2186.8	3602.7	1060.1	1492.48	8342
CYPRESS	OSCEOLA	36165	333.6	7608.2	18547.3	3192.5	266.87	29949
CYPRESS	OSCEOLA	36305	5764.8	53336.5	65753.3	5626.5	6671.70	137153
CYPRESS	OSCEOLA	36310	343.5	4932.1	7904.7	835.2	363.24	14379
CYPRESS	OSCEOLA	36315	672.1	91.4	173.0	0.0	0.00	937
CYPRESS	OSCEOLA	36320	276.8	0.0	504.1	4.9	0.00	786
CYPRESS	OSCEOLA	36325	0.0	46.9	224.9	0.0	0.00	272
CYPRESS	OSCEOLA	36330	116.1	2592.1	3975.8	664.7	538.68	7887
CYPRESS	OSCEOLA	36335	2.5	34.6	1213.3	622.7	7.41	1880
CYPRESS	OSCEOLA	36340	0.0	0.0	647.4	190.3	0.00	838
CYPRESS	OSCEOLA	36345	1102.1	6049.0	16291.3	1297.3	0.00	24740
CYPRESS	OSCEOLA	36350	222.4	531.3	622.7	276.6	0.00	1653
CYPRESS	OSCEOLA	36355	768.5	3627.4	2928.1	2115.2	0.00	9439
CYPRESS	OSCEOLA	36360	13479.3	8586.7	7840.5	1588.9	0.00	31495
CYPRESS	OSCEOLA	36362	12.4	0.0	0.0	4.9	0.00	17
CYPRESS	OSCEOLA	36365	118.6	284.2	2068.2	810.5	0.00	3281
CYPRESS	OSCEOLA	36370	71.7	0.0	454.7	227.3	0.00	754
CYPRESS	OSCEOLA	36380	1579.0	2154.7	18149.5	4922.2	850.02	27655
CYPRESS	OSCEOLA	36385	0.0	39.5	1579.0	2.5	14.83	1636
CYPRESS	OSCEOLA	36390	0.0	155.7	1608.6	2.5	0.00	1767
CYPRESS	OSCEOLA	36395	6617.3	6133.0	22589.9	541.1	0.00	35881
CYPRESS	OSCEOLA	36400	4759.1	140.8	1037.8	2191.8	0.00	8130
CYPRESS	OSCEOLA	36405	743.8	2.5	605.4	89.0	0.00	1441
CYPRESS	OSCEOLA	36410	0.0	0.0	61.8	0.0	0.00	62
CYPRESS	OSCEOLA	36415	6456.7	91.4	0.0	447.3	0.00	6995
CYPRESS	OSCEOLA	36420	756.1	0.0	0.0	202.6	0.00	959
EAST TOHOPEKALIGA	OSCEOLA	36145	1378.8	1354.1	12742.9	10657.4	1554.26	27688
EAST TOHOPEKALIGA	OSCEOLA	36150	390.4	276.8	2258.5	163.1	182.85	3272
EAST TOHOPEKALIGA	OSCEOLA	36155	289.1	14188.5	26513.8	5722.8	4106.80	50821
EAST TOHOPEKALIGA	OSCEOLA	36160	0.0	2186.8	3602.7	1060.1	1492.48	8342
EAST TOHOPEKALIGA	OSCEOLA	36165	333.6	7608.2	18547.3	3192.5	266.87	29949
EAST TOHOPEKALIGA	OSCEOLA	36365	118.6	284.2	2068.2	810.5	0.00	3281
EAST TOHOPEKALIGA	OSCEOLA	36370	71.7	0.0	454.7	227.3	0.00	754
EAST TOHOPEKALIGA	OSCEOLA	36380	1579.0	2154.7	18149.5	4922.2	850.02	27655
EAST TOHOPEKALIGA	OSCEOLA	36385	0.0	39.5	1579.0	2.5	14.83	1636
EAST TOHOPEKALIGA	OSCEOLA	36390	0.0	155.7	1608.6	2.5	0.00	1767
EAST TOHOPEKALIGA	OSCEOLA	36395	6617.3	6133.0	22589.9	541.1	0.00	35881
EAST TOHOPEKALIGA	OSCEOLA	36400	4759.1	140.8	1037.8	2191.8	0.00	8130
EAST TOHOPEKALIGA	OSCEOLA	36405	743.8	2.5	605.4	89.0	0.00	1441
EAST TOHOPEKALIGA	OSCEOLA	36410	0.0	0.0	61.8	0.0	0.00	62
EAST TOHOPEKALIGA	OSCEOLA	36415	6456.7	91.4	0.0	447.3	0.00	6995
EAST TOHOPEKALIGA	OSCEOLA	36420	756.1	0.0	0.0	202.6	0.00	959
GENTRY	OSCEOLA	36125	523.9	16343.2	35478.6	2468.5	704.23	55518

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*************************************************
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
GENTRY	OSCEOLA	36135	457.1	2560.0	9436.7	4178.5	491.73	17124
HATCHINEHA	OSCEOLA	36100	390.5	19861.9	51201.6	9459.0	5154.51	86058
HATCHINEHA	OSCEOLA	36105	1952.1	5122.4	13298.9	3017.1	672.11	24063
HATCHINEHA	OSCEOLA	36110	751.2	672.1	822.8	118.6	130.96	2496
HATCHINEHA	OSCEOLA	36115	649.9	1482.6	10328.8	93.9	1875.49	14431
HATCHINEHA	OSCEOLA	36120	170.5	563.4	3447.0	4.9	56.83	4243
HATCHINEHA	OSCEOLA	36125	523.9	16343.2	35478.6	2468.5	704.23	55518
HATCHINEHA	OSCEOLA	36130	7719.4	7435.2	49637.4	17640.5	1321.98	83755
HATCHINEHA	OSCEOLA	36135	457.1	2560.0	9436.7	4178.5	491.73	17124
HATCHINEHA	OSCEOLA	36140	133.4	417.6	1317.0	916.7	311.35	3096
HATCHINEHA	OSCEOLA	36145	1378.8	1354.1	12742.9	10657.4	1554.26	27688
HATCHINEHA	OSCEOLA	36150	390.4	276.8	2258.5	163.1	182.85	3272
HATCHINEHA	OSCEOLA	36155	289.1	14188.5	26513.8	5722.8	4106.80	50821
HATCHINEHA	OSCEOLA	36160	0.0	2186.8	3602.7	1060.1	1492.48	8342
HATCHINEHA	OSCEOLA	36165	333.6	7608.2	18547.3	3192.5	266.87	29949
HATCHINEHA	OSCEOLA	36305	5764.8	53336.5	65753.3	5626.5	6671.70	137153
HATCHINEHA	OSCEOLA	36310	343.5	4932.1	7904.7	835.2	363.24	14379
HATCHINEHA	OSCEOLA	36315	672.1	91.4	173.0	0.0	0.00	937
HATCHINEHA	OSCEOLA	36320	276.8	0.0	504.1	4.9	0.00	786
HATCHINEHA	OSCEOLA	36325	0.0	46.9	224.9	0.0	0.00	272
HATCHINEHA	OSCEOLA	36330	116.1	2592.1	3975.8	664.7	538.68	7887
HATCHINEHA	OSCEOLA	36335	2.5	34.6	1213.3	622.7	7.41	1880
HATCHINEHA	OSCEOLA	36340	0.0	0.0	647.4	190.3	0.00	838
HATCHINEHA	OSCEOLA	36345	1102.1	6049.0	16291.3	1297.3	0.00	24740
HATCHINEHA	OSCEOLA	36350	222.4	531.3	622.7	276.8	0.00	1653
HATCHINEHA	OSCEOLA	36355	768.5	3627.4	2926.1	2115.2	0.00	9439
HATCHINEHA	OSCEOLA	36360	13479.3	8586.7	7840.5	1588.9	0.00	31495
HATCHINEHA	OSCEOLA	36362	12.4	0.0	0.0	4.9	0.00	17
HATCHINEHA	OSCEOLA	36365	118.6	284.2	2068.2	810.5	0.00	3281
HATCHINEHA	OSCEOLA	36370	71.7	0.0	454.7	227.3	0.00	754
HATCHINEHA	OSCEOLA	36380	1579.0	2154.7	18149.5	4922.2	850.02	27655
HATCHINEHA	OSCEOLA	36385	0.0	39.5	1579.0	2.5	14.83	1636
HATCHINEHA	OSCEOLA	36390	0.0	155.7	1608.6	2.5	0.00	1767
HATCHINEHA	OSCEOLA	36395	6617.3	6133.0	22589.9	541.1	0.00	35881
HATCHINEHA	OSCEOLA	36400	4759.1	140.8	1037.8	2191.8	0.00	8130
HATCHINEHA	OSCEOLA	36405	743.8	2.5	605.4	89.0	0.00	1441
HATCHINEHA	OSCEOLA	36410	0.0	0.0	61.8	0.0	0.00	62
HATCHINEHA	OSCEOLA	36415	6456.7	91.4	0.0	447.3	0.00	6995
HATCHINEHA	OSCEOLA	36420	756.1	0.0	0.0	202.6	0.00	959
JACKSON	OSCEOLA	36095	338.5	4022.8	22587.4	901.9	383.00	28234
KISSIMMEE	OSCEOLA	36085	1915.0	8730.0	63855.6	31127.2	6212.09	111840
KISSIMMEE	OSCEOLA	36090	1032.9	2332.6	28273.2	4786.3	877.20	37302
KISSIMMEE	OSCEOLA	36095	338.5	4022.8	22587.4	901.9	383.00	28234
KISSIMMEE	OSCEOLA	36100	380.5	19861.9	51201.6	9459.0	5154.51	86058
KISSIMMEE	OSCEOLA	36105	1952.1	5122.4	13298.9	3017.1	672.11	24063
KISSIMMEE	OSCEOLA	36110	751.2	672.1	822.8	118.6	130.96	2496
KISSIMMEE	OSCEOLA	36115	649.9	1482.6	10328.8	93.9	1875.49	14431
KISSIMMEE	OSCEOLA	36120	170.5	563.4	3447.0	4.9	56.83	4243
KISSIMMEE	OSCEOLA	36125	523.9	16343.2	35478.6	2468.5	704.23	55518
KISSIMMEE	OSCEOLA	36130	7719.4	7435.2	49637.4	17640.5	1321.98	83755
KISSIMMEE	OSCEOLA	36135	457.1	2560.0	9436.7	4178.5	491.73	17124
KISSIMMEE	OSCEOLA	36140	133.4	417.6	1317.0	916.7	311.35	3096
KISSIMMEE	OSCEOLA	36145	1378.8	1354.1	12742.9	10657.4	1554.26	27688
KISSIMMEE	OSCEOLA	36150	390.4	276.8	2258.5	163.1	182.85	3272
KISSIMMEE	OSCEOLA	36155	289.1	14188.5	26513.8	5722.8	4106.80	50821
KISSIMMEE	OSCEOLA	36160	0.0	2186.8	3602.7	1060.1	1492.48	8342
KISSIMMEE	OSCEOLA	36165	333.6	7608.2	18547.3	3192.5	266.87	29949
KISSIMMEE	OSCEOLA	36280	0.0	679.5	7435.2	1932.3	775.89	10823
KISSIMMEE	OSCEOLA	36285	187.8	6261.5	13071.6	4176.0	328.64	24026
KISSIMMEE	OSCEOLA	36290	3170.3	22513.3	26116.0	7912.1	1124.30	60836
KISSIMMEE	OSCEOLA	36292	946.4	89.0	259.5	249.6	0.00	1544
KISSIMMEE	OSCEOLA	36295	22.2	4887.6	5549.9	76.6	407.71	10944
KISSIMMEE	OSCEOLA	36300	941.5	9288.5	22412.0	4395.9	516.44	37554
KISSIMMEE	OSCEOLA	36305	5764.8	53336.5	65753.3	5626.5	6671.70	137153
KISSIMMEE	OSCEOLA	36310	343.5	4932.1	7904.7	835.2	363.24	14379
KISSIMMEE	OSCEOLA	36315	672.1	91.4	173.0	0.0	0.00	937
KISSIMMEE	OSCEOLA	36320	276.8	0.0	504.1	4.9	0.00	786
KISSIMMEE	OSCEOLA	36325	0.0	46.9	224.9	0.0	0.00	272
KISSIMMEE	OSCEOLA	36330	116.1	2592.1	3975.8	664.7	538.68	7887
KISSIMMEE	OSCEOLA	36335	2.5	34.6	1213.3	622.7	7.41	1880
KISSIMMEE	OSCEOLA	36340	0.0	0.0	647.4	190.3	0.00	838

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*************************************************
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
KISSIMMEE	OSCEOLA	36345	1102.1	6049.0	16291	1297.3	0.00	24740
KISSIMMEE	OSCEOLA	36350	222.4	531.3	623	276.8	0.00	1653
KISSIMMEE	OSCEOLA	36355	768.5	3627.4	2928	2115.2	0.00	9439
KISSIMMEE	OSCEOLA	36360	13479.3	8586.7	7840	1588.9	0.00	31495
KISSIMMEE	OSCEOLA	36362	12.4	0.0	0	4.9	0.00	17
KISSIMMEE	OSCEOLA	36365	118.6	284.2	2068	810.5	0.00	3281
KISSIMMEE	OSCEOLA	36370	71.7	0.0	455	227.3	0.00	754
KISSIMMEE	OSCEOLA	36380	1579.0	2154.7	18149	4922.2	850.02	27655
KISSIMMEE	OSCEOLA	36385	0.0	39.5	1579	2.5	14.83	1636
KISSIMMEE	OSCEOLA	36390	0.0	155.7	1609	2.5	0.00	1767
KISSIMMEE	OSCEOLA	36395	6617.3	6133.0	22590	541.1	0.00	35881
KISSIMMEE	OSCEOLA	36400	4759.1	140.8	1038	2191.8	0.00	8130
KISSIMMEE	OSCEOLA	36405	743.8	2.5	605	89.0	0.00	1441
KISSIMMEE	OSCEOLA	36410	0.0	0.0	62	0.0	0.00	62
KISSIMMEE	OSCEOLA	36415	6456.7	91.4	0	447.3	0.00	6995
KISSIMMEE	OSCEOLA	36420	756.1	0.0	0	202.6	0.00	959
LIZZIE	OSCEOLA	36140	133.4	417.6	1317	916.7	311.35	3096
MARIAN	OSCEOLA	36090	1032.9	2332.6	28273	4786.3	877.20	37302
RUNNYMEDE	OSCEOLA	36150	429.0	54.0	2481	380.0	451.00	3794
RUSSELL	OSCEOLA	99999	24530.0	82267.0	128751	19187.0	8431.00	263166
TOHOPEKALIGA	OSCEOLA	36130	7719.4	7435.2	49637	17640.5	1321.98	83755
TOHOPEKALIGA	OSCEOLA	36145	1378.8	1354.1	12743	10657.4	1554.26	27688
TOHOPEKALIGA	OSCEOLA	36305	5764.8	53336.5	65753	5626.5	6671.70	137153
TOHOPEKALIGA	OSCEOLA	36315	672.1	91.4	173	0.0	0.00	937
TOHOPEKALIGA	OSCEOLA	36320	276.8	0.0	504	4.9	0.00	786
TOHOPEKALIGA	OSCEOLA	36345	1102.1	6049.0	16291	1297.3	0.00	24740
TOHOPEKALIGA	OSCEOLA	36360	13479.3	8586.7	7840	1588.9	0.00	31495
TOHOPEKALIGA	OSCEOLA	36385	0.0	39.5	1579	2.5	14.83	1636
TOHOPEKALIGA	OSCEOLA	36390	0.0	155.7	1609	2.5	0.00	1767
TOHOPEKALIGA	OSCEOLA	36395	6617.3	6133.0	22590	541.1	0.00	35881
TOHOPEKALIGA	OSCEOLA	36400	4759.1	140.8	1038	2191.8	0.00	8130
TOHOPEKALIGA	OSCEOLA	36405	743.8	2.5	605	89.0	0.00	1441
TOHOPEKALIGA	OSCEOLA	36410	0.0	0.0	62	0.0	0.00	62
TOHOPEKALIGA	OSCEOLA	36415	6456.7	91.4	0	447.3	0.00	6995
TOHOPEKALIGA	OSCEOLA	36420	756.1	0.0	0	202.6	0.00	959
TROUT	OSCEOLA	36140	133.4	417.6	1317	916.7	311.35	3096
BELL	PASCO	38260	247.0	79.0	1604	622.0	402.00	2953
CAMP	PASCO	34235	79.0	0.0	1020	11.0	16.00	1126
CLEAR	PASCO	35095	144.0	0.0	339	163.0	0.00	646
CREWS	PASCO	34155	2426.5	15883.6	22298	328.6	56.83	40994
CURVE	PASCO	38270	166.0	0.0	543	174.0	3.00	885
EAST	PASCO	38255	0.0	125.0	111	103.0	0.00	339
ICLA	PASCO	34150	0.0	8.0	247	103.0	0.00	358
KING	PASCO	38265	0.0	3.0	125	0.0	95.00	223
LINDA	PASCO	34240	117.0	0.0	92	24.0	0.00	233
MOON	PASCO	34120	0.0	176.0	0	87.0	8.00	271
PADGETT	PASCO	38245	0.0	19.0	65	3.0	0.00	87
THOMAS	PASCO	34250	130.0	0.0	361	195.0	0.00	687
MAGGIORE	PINELLAS	39180	2586.0	307.0	5	361.0	190.00	3449
SAWGRASS	PINELLAS	39170	2008.0	71.0	432	38.0	347.00	2896
SEMINOLE	PINELLAS	34085	7382.0	1126.0	1069	822.0	33.00	10433
TARPON	PINELLAS	39215	1771.7	1378.8	6331	2609.4	0.00	12091
TARPON	PINELLAS	39220	464.5	2172.0	4532	59.3	91.43	7319
TARPON	PINELLAS	39225	548.6	1971.9	4371	64.2	303.93	7260
TARPON	PINELLAS	39235	51.9	118.6	1611	32.1	0.00	1814
TARPON	PINELLAS	39275	588.1	820.4	3190	491.7	0.00	5090
ALFRED	POLK	41230	198.0	0.0	991	716.0	0.00	1905
ANN	POLK	34225	692.0	0.0	529	315.0	0.00	1536
ANNIE	POLK	41195	81.0	98.0	2038	600.0	128.00	2945
ARBUCKLE	POLK	36260	1304.7	19523.4	24752	4341.5	677.05	50599
ARBUCKLE	POLK	36265	303.9	5537.5	10870	1793.9	0.00	18505
ARBUCKLE	POLK	36267	2.5	0.0	561	118.6	0.00	682
ARBUCKLE	POLK	36270	919.2	3592.8	2795	3333.4	0.00	10640
ARBUCKLE	POLK	36272	889.6	284.2	6763	133.4	24.71	8095
ARBUCKLE	POLK	36275	810.5	3390.2	8154	5633.9	1398.59	19387
ARIANA	POLK	41250	1053.0	0.0	2149	1924.0	0.00	5127
BANANA	POLK	41415	3032.0	2983.0	2003	651.0	114.00	8783
BEULAH	POLK	38370	682.0	0.0	10	121.1	0.00	813
BONNY	POLK	41435	86.5	0.0	12	2.5	0.00	101
CANNON	POLK	41440	2844.1	158.1	437	126.0	0.00	3566
CLINCH	POLK	36267	2.5	0.0	561	118.6	0.00	682

Table G-4. (Continued)

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*          FLORIDA LAND USE DATA                    *
*                                                   *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU       *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
CLINCH	POLK	36272	889.56	284.16	6761.13	133.43	24.71	8095.0
CLINCH	POLK	36275	810.49	3390.21	8154.30	5633.88	1398.59	19387.5
CONNIE	POLK	41175	673.00	0.00	171.00	252.00	0.00	1096.0
CROOKED	POLK	36275	810.49	3390.21	8154.30	5633.88	1398.59	19387.5
CUMMINGS	POLK	41235	122.00	0.00	193.00	84.00	0.00	399.0
DEER	POLK	41125	30.00	0.00	27.00	0.00	0.00	57.0
EAGLE	POLK	41410	136.00	52.00	898.00	665.00	0.00	1751.0
ECHO	POLK	41220	383.00	0.00	35.00	62.00	0.00	480.0
EFFIE	POLK	41075	195.21	0.00	84.01	148.26	0.00	427.5
EFFIE	POLK	41080	677.05	0.00	1282.45	266.87	0.00	2226.4
ELBERT	POLK	41160	1666.00	0.00	760.00	453.00	76.00	2956.0
ELOISE	POLK	41085	0.00	143.32	1223.14	427.48	0.00	1793.9
ELOISE	POLK	41090	0.00	0.00	365.71	232.27	0.00	598.0
ELOISE	POLK	41100	541.15	29.65	694.35	1215.73	0.00	2480.9
FANNIE	POLK	41085	0.00	143.32	1223.14	427.48	0.00	1793.9
FANNIE	POLK	41090	0.00	0.00	365.71	232.27	0.00	598.0
FANNIE	POLK	41100	541.15	29.65	694.35	1215.73	0.00	2480.9
FANNIE	POLK	41105	163.09	37.06	911.80	506.55	0.00	1618.5
FANNIE	POLK	41107	766.01	308.87	123.55	86.48	0.00	1284.9
FANNIE	POLK	41110	1709.93	0.00	652.34	921.68	0.00	3284.0
FANNIE	POLK	41125	27.18	0.00	24.71	0.00	0.00	51.9
FANNIE	POLK	41130	1111.95	9.88	12.35	439.84	0.00	1574.0
FANNIE	POLK	41140	298.99	51.89	12.35	42.01	0.00	405.2
FANNIE	POLK	41145	486.79	17.30	54.36	484.32	0.00	1042.8
FANNIE	POLK	41150	573.27	76.60	150.73	170.50	0.00	971.1
FANNIE	POLK	41155	0.00	71.66	29.65	163.09	0.00	264.4
FANNIE	POLK	41160	1517.19	69.19	691.88	412.66	0.00	2690.9
FANNIE	POLK	41170	116.14	323.70	437.37	741.30	0.00	1618.5
FANNIE	POLK	41175	612.81	0.00	155.67	229.80	0.00	998.3
FANNIE	POLK	41180	111.19	27.18	128.49	269.34	0.00	536.2
FANNIE	POLK	41200	118.61	76.60	649.87	9.88	27.18	882.1
FANNIE	POLK	41205	135.90	350.88	593.04	775.89	0.00	1855.7
FANNIE	POLK	41210	437.37	439.84	827.78	699.29	116.14	2520.4
FANNIE	POLK	41215	1158.90	378.06	511.50	805.55	2.47	2856.5
FANNIE	POLK	41220	348.41	0.00	32.12	56.83	0.00	437.4
FANNIE	POLK	41225	197.68	422.54	1667.92	286.64	130.96	2705.7
FANNIE	POLK	41230	180.38	0.00	901.91	652.34	0.00	1734.6
FANNIE	POLK	41235	111.19	0.00	175.44	76.60	0.00	363.2
FANNIE	POLK	41240	0.00	0.00	46.95	37.06	0.00	84.0
FANNIE	POLK	41245	617.75	0.00	778.36	459.61	81.54	1937.3
FANNIE	POLK	41250	958.75	0.00	1957.03	1751.94	0.00	4667.7
GEORGE	POLK	41240	0.00	0.00	52.00	41.00	0.00	92.0
GUM	POLK	41225	217.00	0.00	1832.00	459.00	608.00	3116.0
HAINES	POLK	41210	480.00	0.00	909.00	896.00	611.00	2896.0
HAMILTON	POLK	41085	0.00	143.32	1223.14	427.48	0.00	1793.9
HAMILTON	POLK	41090	0.00	0.00	365.71	232.27	0.00	598.0
HAMILTON	POLK	41100	541.15	29.65	694.35	1215.73	0.00	2480.9
HAMILTON	POLK	41105	163.09	37.06	911.80	506.55	0.00	1618.5
HAMILTON	POLK	41107	766.01	308.87	123.55	86.48	0.00	1284.9
HAMILTON	POLK	41110	1709.93	0.00	652.34	921.68	0.00	3284.0
HAMILTON	POLK	41125	27.18	0.00	24.71	0.00	0.00	51.9
HAMILTON	POLK	41130	1111.95	9.88	12.35	439.84	0.00	1574.0
HAMILTON	POLK	41140	298.99	51.89	12.35	42.01	0.00	405.2
HAMILTON	POLK	41145	486.79	17.30	54.36	484.32	0.00	1042.8
HAMILTON	POLK	41150	573.27	76.60	150.73	170.50	0.00	971.1
HAMILTON	POLK	41155	0.00	71.66	29.65	163.09	0.00	264.4
HAMILTON	POLK	41160	1517.19	69.19	691.88	412.66	0.00	2690.9
HAMILTON	POLK	41170	116.14	323.70	437.37	741.30	0.00	1618.5
HAMILTON	POLK	41175	612.81	0.00	155.67	229.80	0.00	998.3
HAMILTON	POLK	41180	111.19	27.18	128.49	269.34	0.00	536.2
HAMILTON	POLK	41190	2537.72	163.09	4647.95	2816.94	422.54	10588.2
HAMILTON	POLK	41195	74.13	88.96	1855.72	429.95	116.14	2564.9
HAMILTON	POLK	41200	118.61	76.60	649.87	9.88	27.18	882.1
HAMILTON	POLK	41205	135.90	350.88	593.04	775.89	0.00	1855.7
HAMILTON	POLK	41210	437.37	439.84	827.78	699.29	116.14	2520.4
HAMILTON	POLK	41215	1158.90	378.06	511.50	805.55	2.47	2856.5
HAMILTON	POLK	41220	348.41	0.00	32.12	56.83	0.00	437.4
HAMILTON	POLK	41225	197.68	422.54	1667.92	286.64	130.96	2705.7
HAMILTON	POLK	41230	180.38	0.00	901.91	652.34	0.00	1734.6
HAMILTON	POLK	41235	111.19	0.00	175.44	76.60	0.00	363.2
HAMILTON	POLK	41240	0.00	0.00	46.95	37.06	0.00	84.0

Table G-4. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM EDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
HAMILTON	POLK	41245	617.75	0.0	778.4	459.61	81.54	1937.7
HAMILTON	POLK	41250	958.75	0.0	1957.0	1751.94	0.00	4667.7
HANCOCK	POLK	41405	7610.68	16953.5	14408.4	8846.18	946.33	49765.2
HANCOCK	POLK	41415	2760.11	2789.8	1823.6	563.49	29.65	7966.5
HANCOCK	POLK	41420	770.95	4702.3	276.8	395.36	494.20	6639.6
HANCOCK	POLK	41425	227.33	215.0	103.8	19.77	0.00	565.9
HANCOCK	POLK	41430	2097.88	9295.9	528.8	1519.66	121.08	13563.3
HANCOCK	POLK	41435	86.48	0.0	12.4	2.47	0.00	101.7
HANCOCK	POLK	41440	2844.12	158.1	437.4	126.02	0.00	3565.7
HANCOCK	POLK	41450	3110.99	1270.1	929.1	2925.66	153.20	8389.0
HARTRIDGE	POLK	41145	935.00	0.0	60.0	532.00	19.00	1145.0
HELENE	POLK	35140	3.00	0.0	293.0	60.00	0.00	356.0
HENRY	POLK	41205	149.00	0.0	651.0	852.00	385.00	2038.0
HOLLINGSWORTH	POLK	41430	2097.88	9295.9	528.8	1519.66	121.08	13563.3
HOWARD	POLK	41085	0.00	143.3	1223.1	427.48	0.00	1793.9
HOWARD	POLK	41090	0.00	0.0	365.7	232.27	0.00	598.0
HOWARD	POLK	41100	541.15	29.7	694.4	1215.73	0.00	2480.9
HOWARD	POLK	41105	163.09	37.1	911.8	506.55	0.00	1618.5
HOWARD	POLK	41107	766.01	308.9	123.5	86.48	0.00	1284.9
HOWARD	POLK	41110	1709.93	0.0	652.3	921.68	0.00	3284.0
IDA	POLK	36272	977.00	147.0	7428.0	174.00	193.00	8918.0
JULIANA	POLK	35150	274.00	0.0	1903.0	1115.00	141.00	3433.0
LENA	POLK	41250	958.75	0.0	1957.0	1751.94	0.00	4667.7
LENA	POLK	41255	642.46	0.0	22.2	187.80	0.00	852.5
LIVINGSTON	POLK	36265	303.93	5537.5	10869.9	1793.95	0.00	19505.3
LOWERY	POLK	30470	171.00	0.0	855.0	2684.00	1778.00	5488.0
LULU	POLK	41085	0.00	143.3	1223.1	427.48	0.00	1793.9
LULU	POLK	41090	0.00	0.0	365.7	232.27	0.00	598.0
LULU	POLK	41100	541.15	29.7	694.4	1215.73	0.00	2480.9
LULU	POLK	41105	163.09	37.1	911.8	506.55	0.00	1618.5
LULU	POLK	41107	766.01	308.9	123.5	86.48	0.00	1284.9
MARIAM	POLK	41155	0.00	43.0	33.0	179.00	35.00	290.0
MARIANA	POLK	41245	678.00	0.0	855.0	594.00	90.00	2217.0
MARION	POLK	36105	1952.09	5122.4	13298.9	3017.09	672.11	24062.6
MATTIE	POLK	35145	130.00	14.0	3751.0	3542.00	2885.00	10321.0
MCLEOD	POLK	41070	1172.00	0.0	768.0	459.00	0.00	2399.0
MIRROR	POLK	41130	1221.00	11.0	14.0	483.00	0.00	1729.0
MORTON	POLK	41440	2844.12	158.1	437.4	126.02	0.00	3565.7
MOUNTAIN	POLK	41080	744.00	0.0	1409.0	293.00	0.00	2445.0
MYRTLE	POLK	41085	0.00	143.3	1223.1	427.48	0.00	1793.9
MYRTLE	POLK	41090	0.00	0.0	365.7	232.27	0.00	598.0
OTIS	POLK	41150	630.00	30.0	166.0	187.00	54.00	1067.0
PARKER	POLK	41450	3417.00	1159.0	1020.0	3382.00	404.00	9382.0
PIERCE	POLK	36300	941.45	9288.5	22412.0	4395.91	516.44	37554.3
REEDY	POLK	36270	919.21	3592.8	2794.7	3333.38	0.00	10640.1
REEDY	POLK	36272	889.56	284.2	6763.1	133.43	24.71	8095.0
REEDY	POLK	36275	810.49	3390.2	8154.3	5633.88	1398.59	19387.5
ROCHELLE	POLK	41085	0.00	143.3	1223.1	427.48	0.00	1793.9
ROCHELLE	POLK	41090	0.00	0.0	365.7	232.27	0.00	598.0
ROCHELLE	POLK	41100	541.15	29.7	694.4	1215.73	0.00	2480.9
ROCHELLE	POLK	41105	163.09	37.1	911.8	506.55	0.00	1618.5
ROCHELLE	POLK	41107	766.01	308.9	123.5	86.48	0.00	1284.9
ROCHELLE	POLK	41110	1709.93	0.0	652.3	921.68	0.00	3284.0
ROCHELLE	POLK	41125	27.18	0.0	24.7	0.00	0.00	51.9
ROCHELLE	POLK	41130	1111.95	9.9	12.4	439.84	0.00	1574.0
ROCHELLE	POLK	41140	298.99	51.9	12.4	42.01	0.00	405.2
ROCHELLE	POLK	41145	486.79	17.3	54.4	484.32	0.00	1042.8
ROCHELLE	POLK	41150	573.27	76.6	150.7	170.50	0.00	971.1
ROCHELLE	POLK	41155	0.00	71.7	29.7	163.09	0.00	264.4
ROCHELLE	POLK	41160	1517.19	69.2	691.9	412.66	0.00	2690.9
ROCHELLE	POLK	41210	437.37	439.8	827.8	699.29	116.14	2520.4
ROCHELLE	POLK	41215	1158.90	378.1	511.5	805.55	2.47	2856.5
ROCHELLE	POLK	41220	348.41	0.0	32.1	56.83	0.00	437.4
ROCHELLE	POLK	41225	197.68	422.5	1667.9	286.64	130.96	2705.7
ROCHELLE	POLK	41230	180.38	0.0	901.9	652.34	0.00	1734.6
ROCHELLE	POLK	41235	111.19	0.0	175.4	76.60	0.00	363.2
ROCHELLE	POLK	41240	0.00	0.0	46.9	37.06	0.00	84.0
ROCHELLE	POLK	41245	617.75	0.0	778.4	459.61	81.54	1937.3
ROCHELLE	POLK	41250	958.75	0.0	1957.0	1751.94	0.00	4667.7
ROSALIE	POLK	36285	187.80	6261.5	13071.6	4175.99	328.64	24025.5
ROSALIE	POLK	36290	3170.29	22513.3	26116.0	7912.14	1124.30	60836.0

Table G-4. (Continued)

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*          FLORIDA LAND USE DATA                    *
*                                                   *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU       *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
PUPY	POLK	41090	0.0	0	402.0	255.0	0.0	657
SHIPP	POLK	41085	0.0	143	1223.1	427.5	0.0	1794
SHIPP	POLK	41090	0.0	0	365.7	232.3	0.0	598
SHIPP	POLK	41100	541.1	30	694.4	1215.7	0.0	2481
SHIPP	POLK	41105	163.1	37	911.8	506.6	0.0	1619
SHIPP	POLK	41107	766.0	309	123.5	86.5	0.0	1285
SHIPP	POLK	41110	1709.9	0	652.3	921.7	0.0	3284
SILVER	POLK	41165	3.0	0	616.0	130.0	0.0	749
SMART	POLK	41180	122.0	0	141.0	296.0	30.0	589
TIGER	POLK	36280	0.0	680	7435.2	1932.3	775.9	10823
TIGER	POLK	36285	187.8	6262	13071.6	4176.0	328.6	24026
TIGER	POLK	36290	3170.3	22513	26116.0	7912.1	1124.3	60836
WALES	POLK	36292	1039.0	98	285.0	274.0	0.0	1696
WEOHYAKAPKA	POLK	36290	3170.3	22513	26116.0	7912.1	1124.3	60836
WINTERSET	POLK	41085	0.0	143	1223.1	427.5	0.0	1794
WINTERSET	POLK	41090	0.0	0	365.7	232.3	0.0	598
GEORGE	PUTNAM	31010	160.6	18520	0.0	467.0	84.0	19232
GEORGE	PUTNAM	31015	973.6	40139	160.6	3704.0	1121.8	46099
GEORGE	PUTNAM	31020	103.8	717	1260.2	494.2	0.0	2575
GEORGE	PUTNAM	31025	59.3	1898	0.0	336.1	29.7	2323
GEORGE	PUTNAM	31030	909.3	12338	402.8	978.5	368.2	14996
GEORGE	PUTNAM	31035	96.4	19074	2429.0	778.4	197.7	22575
GEORGE	PUTNAM	31040	4037.6	104783	12636.7	8038.2	15251.0	144746
GEORGE	PUTNAM	31045	111.2	3380	407.7	49.4	0.0	3949
GEORGE	PUTNAM	31050	3209.8	40082	8255.6	2750.2	1571.6	55969
GEORGE	PUTNAM	31055	14905.1	26781	9945.8	11465.4	2029.7	65126
GEORGE	PUTNAM	31060	229.8	892	0.0	12.4	0.0	1134
GEORGE	PUTNAM	31065	51.9	47	430.0	187.8	0.0	717
GEORGE	PUTNAM	31070	1141.6	66502	34510.0	6918.8	4944.5	114017
GEORGE	PUTNAM	31075	1655.6	10660	1952.1	709.2	71.7	15048
GEORGE	PUTNAM	31080	281.7	2916	1576.5	496.7	1616.0	6887
GEORGE	PUTNAM	31085	56.8	121	0.0	46.9	0.0	225
GEORGE	PUTNAM	31090	175.4	183	76.6	165.6	0.0	600
GEORGE	PUTNAM	31095	22.2	0	29.7	12.4	0.0	64
GEORGE	PUTNAM	31100	0.0	2748	627.6	0.0	316.3	3692
GEORGE	PUTNAM	31105	3632.4	11159	12841.8	7956.6	2797.2	38387
GEORGE	PUTNAM	31110	0.0	5	289.1	0.0	0.0	294
GEORGE	PUTNAM	31115	350.9	15607	6021.8	6241.7	2910.8	31132
GEORGE	PUTNAM	31120	588.1	46727	19204.6	3951.1	13555.9	84026
GEORGE	PUTNAM	31125	2517.9	4374	4818.4	121.1	1069.9	12901
GEORGE	PUTNAM	31130	128.5	205	1709.9	0.0	61.8	2105
GEORGE	PUTNAM	31135	0.0	497	1188.6	0.0	0.0	1685
GEORGE	PUTNAM	31140	0.0	0	39.5	27.2	126.0	193
GEORGE	PUTNAM	31145	1509.8	9768	15652.8	3755.9	17301.9	47989
GEORGE	PUTNAM	31150	135.9	455	1737.1	0.0	0.0	2328
GEORGE	PUTNAM	31155	2364.7	17191	12629.3	1171.3	14289.8	47646
GEORGE	PUTNAM	31160	61.8	1184	7076.9	4.9	486.8	8814
GEORGE	PUTNAM	31165	316.3	620	2438.9	32.1	580.7	3989
GEORGE	PUTNAM	31170	54.4	3076	5589.4	42.0	180.4	8943
GEORGE	PUTNAM	31175	602.9	14448	8411.3	916.7	16790.4	41169
GEORGE	PUTNAM	31180	29.7	69	81.5	0.0	0.0	180
GEORGE	PUTNAM	31185	4.9	4967	9730.8	17.3	0.0	14720
GEORGE	PUTNAM	31188	494.2	722	3526.1	96.4	145.8	4984
GEORGE	PUTNAM	31190	640.0	252	1492.5	42.0	600.5	3027
GEORGE	PUTNAM	31195	5633.9	7124	9772.8	4539.2	14114.4	41184
GEORGE	PUTNAM	31200	86.5	0	69.2	4.9	0.0	161
GEORGE	PUTNAM	31205	269.3	2162	12592.3	447.3	3180.2	18641
GEORGE	PUTNAM	31210	163.1	5298	14648.1	1255.3	3002.3	24367
GEORGE	PUTNAM	31215	0.0	96	5186.6	54.4	380.5	5718
GEORGE	PUTNAM	31220	0.0	136	261.9	37.1	593.0	1028
GEORGE	PUTNAM	31225	0.0	348	543.6	61.8	385.5	1339
GEORGE	PUTNAM	31230	177.9	2572	11534.6	160.6	4638.1	19084
GEORGE	PUTNAM	31235	0.0	1497	1396.1	0.0	1826.1	4720
GEORGE	PUTNAM	31240	0.0	1080	6024.3	2.5	1544.4	8651
GEORGE	PUTNAM	31245	1571.6	6180	19819.9	3980.8	7615.6	39168
GEORGE	PUTNAM	31250	0.0	1675	5105.1	617.7	2236.3	9634
GEORGE	PUTNAM	31255	0.0	4156	2728.0	257.0	4892.6	12034
GEORGE	PUTNAM	31260	0.0	2770	4761.6	2.5	897.0	8431
GEORGE	PUTNAM	31265	0.0	9644	18441.1	34.6	165.6	28286
GEORGE	PUTNAM	31270	0.0	23413	27499.8	54.4	276.8	51244
GEORGE	PUTNAM	31275	0.0	33964	25345.0	6617.3	224.9	66151

Table G-4. (Continued)

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*              FLORIDA LAND USE DATA                *
*                                                   *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU       *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
GEORGE	PUTNAM	31280	227.33	966.2	7440.2	12.35	39.536	8685.6
GEORGE	PUTNAM	31285	832.72	21309.9	37245.4	54.36	387.947	59830.3
GEORGE	PUTNAM	31290	0.00	0.0	138.4	0.00	0.000	138.4
GEORGE	PUTNAM	31295	0.00	0.0	3563.2	98.84	368.179	4030.2
GEORGE	PUTNAM	31296	0.00	0.0	14.8	0.00	0.000	14.8
GEORGE	PUTNAM	31298	0.00	0.0	29.7	0.00	0.000	29.7
GEORGE	PUTNAM	31300	0.00	0.0	74.1	0.00	0.000	74.1
GEORGE	PUTNAM	31302	0.00	0.0	358.3	0.00	19.768	378.1
GEORGE	PUTNAM	31305	0.00	0.0	850.0	0.00	32.123	882.1
GEORGE	PUTNAM	31307	0.00	0.0	4.9	0.00	0.000	4.9
GEORGE	PUTNAM	31309	7.41	0.0	84.0	46.95	0.000	138.4
GEORGE	PUTNAM	31310	7.41	0.0	42.0	0.00	0.000	49.4
GEORGE	PUTNAM	31315	360.77	481.8	5495.5	91.43	175.441	6605.0
GEORGE	PUTNAM	31320	0.00	0.0	2812.0	93.90	74.130	2980.0
GEORGE	PUTNAM	31322	0.00	227.3	1986.7	0.00	0.000	2214.0
GEORGE	PUTNAM	31325	0.00	195.2	874.7	12.35	0.000	1092.3
GEORGE	PUTNAM	31327	0.00	1396.1	3427.3	175.44	284.165	5283.0
GEORGE	PUTNAM	31330	0.00	42.0	778.4	0.00	0.000	820.4
GEORGE	PUTNAM	31332	0.00	86.5	430.0	0.00	0.000	516.4
GEORGE	PUTNAM	31335	2.47	716.6	1707.5	0.00	0.000	2426.5
GEORGE	PUTNAM	31337	4.94	244.6	973.6	0.00	0.000	1223.1
GEORGE	PUTNAM	31340	0.00	0.0	810.5	0.00	0.000	810.5
GEORGE	PUTNAM	31345	0.00	0.0	365.7	0.00	0.000	365.7
GEORGE	PUTNAM	31347	12.35	202.6	2384.5	98.84	98.840	2797.2
GEORGE	PUTNAM	31350	0.00	148.3	10973.7	177.91	499.142	11799.0
GEORGE	PUTNAM	31352	0.00	0.0	1163.8	0.00	0.000	1163.8
GEORGE	PUTNAM	31355	17.30	32978.0	17793.7	2216.49	709.177	53714.6
GEORGE	PUTNAM	31360	0.00	3494.0	98.8	0.00	0.000	3592.8
GEORGE	PUTNAM	31365	39.54	2525.4	2105.3	914.27	0.000	5584.5
GEORGE	PUTNAM	31370	1361.52	21495.2	21631.1	360.77	336.056	45184.7
GEORGE	PUTNAM	31375	101.31	3017.1	753.7	76.60	165.557	4114.2
GEORGE	PUTNAM	31377	0.00	308.9	252.0	101.31	0.000	662.2
GEORGE	PUTNAM	31380	0.00	855.0	1092.2	229.80	0.000	2177.0
GEORGE	PUTNAM	31385	934.04	13837.6	2962.7	724.00	135.905	18594.3
GEORGE	PUTNAM	31387	101.31	42.0	210.0	46.95	0.000	400.3
GEORGE	PUTNAM	31390	3657.08	18505.3	16123.3	736.36	496.671	39518.7
GEORGE	PUTNAM	31395	51.89	2871.3	1032.9	0.00	0.000	3956.1
GEORGE	PUTNAM	31397	830.26	0.0	0.0	14.83	0.000	845.1
GEORGE	PUTNAM	31400	5295.35	1566.6	3217.2	306.40	37.065	10422.7
GEORGE	PUTNAM	31402	39.54	27.2	145.8	0.00	0.000	212.5
GEORGE	PUTNAM	31405	743.77	39.5	148.3	182.85	0.000	1114.4
GEORGE	PUTNAM	31410	417.60	0.0	331.1	244.63	0.000	993.3
GEORGE	PUTNAM	31415	6970.69	2745.3	14015.5	1131.72	585.627	25448.8
GEORGE	PUTNAM	31417	27.18	0.0	145.8	24.71	0.000	197.7
GEORGE	PUTNAM	31420	889.56	0.0	0.0	343.47	0.000	1233.0
GEORGE	PUTNAM	31422	721.53	0.0	0.0	84.01	0.000	805.5
GEORGE	PUTNAM	31425	289.11	0.0	0.0	51.89	0.000	341.0
GEORGE	PUTNAM	31427	3555.77	1648.2	635.0	336.06	0.000	6175.0
GEORGE	PUTNAM	31430	476.90	12.4	733.9	0.00	32.123	1255.3
GEORGE	PUTNAM	31435	1371.40	121.1	7588.4	741.30	0.000	9822.2
GEORGE	PUTNAM	31440	3237.01	3664.5	4554.1	919.21	91.427	12466.2
GEORGE	PUTNAM	31445	64.25	44.5	350.9	207.56	0.000	667.2
GEORGE	PUTNAM	31446	234.74	111.2	81.5	24.71	0.000	452.2
GEORGE	PUTNAM	31447	303.93	0.0	306.4	37.06	143.318	790.7
GEORGE	PUTNAM	31450	150.73	1129.2	76.6	0.00	0.000	1356.6
GEORGE	PUTNAM	31455	4744.32	2270.8	276.8	469.49	0.000	7761.4
GEORGE	PUTNAM	31460	0.00	363.2	266.9	0.00	0.000	630.1
GEORGE	PUTNAM	31465	973.57	5211.3	7541.5	518.91	0.000	14245.3
GEORGE	PUTNAM	31467	0.00	14.8	168.0	0.00	0.000	182.9
GEORGE	PUTNAM	31470	0.00	0.0	271.8	51.89	0.000	323.7
GEORGE	PUTNAM	31472	971.10	1912.6	1139.1	395.36	0.000	4418.1
GEORGE	PUTNAM	31475	34.59	14.8	14.8	0.00	0.000	64.2
GEORGE	PUTNAM	31478	1905.14	2.5	170.5	541.15	0.000	2619.3
GEORGE	PUTNAM	31480	338.53	0.0	24.7	81.54	0.000	444.8
GEORGE	PUTNAM	31481	625.16	321.2	61.8	39.54	0.000	1047.7
GEORGE	PUTNAM	31482	224.86	0.0	145.8	51.89	0.000	422.5
GEORGE	PUTNAM	31483	553.50	0.0	29.7	172.97	0.000	756.1
GEORGE	PUTNAM	31486	368.18	44.5	0.0	34.59	0.000	447.3
GEORGE	PUTNAM	31487	1067.47	0.0	66.7	187.80	0.000	1322.0
GEORGE	PUTNAM	31490	207.56	0.0	0.0	46.95	0.000	254.5
GEORGE	PUTNAM	31492	5500.45	0.0	266.9	911.80	0.000	6679.1

Table G-4. (Continued).

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*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
GEORGE	PUTNAM	31517	108.72	0	0.0	0.0	0.00	109
GEORGE	PUTNAM	31520	281.69	0	0.0	32.1	0.00	314
GEORGE	PUTNAM	31521	101.31	0	0.0	0.0	0.00	101
GEORGE	PUTNAM	31525	0.00	11048	32.1	0.0	24.71	11105
GEORGE	PUTNAM	31527	160.61	6946	2683.5	412.7	0.00	10203
GEORGE	PUTNAM	31530	76.60	5236	5646.2	331.1	625.16	11915
GEORGE	PUTNAM	31532	138.38	7171	1255.3	202.6	0.00	8767
GEORGE	PUTNAM	31535	484.32	1156	2933.1	948.9	34.59	5557
GEORGE	PUTNAM	31537	109.72	600	469.5	0.0	0.00	1179
GEORGE	PUTNAM	31540	531.26	1705	3130.8	2.5	0.00	5369
GEORGE	PUTNAM	31545	2730.45	10798	39854.8	89.0	385.48	53958
GEORGE	PUTNAM	31547	12.35	1248	1425.8	0.0	66.72	2753
GEORGE	PUTNAM	31550	0.00	7663	9980.4	689.4	0.00	18332
GEORGE	PUTNAM	31555	0.00	1831	1373.9	9.9	212.51	3427
GEORGE	PUTNAM	31557	0.00	173	1233.0	27.2	22.24	1455
GEORGE	PUTNAM	31560	0.00	7109	24297.3	1591.3	501.61	33499
GEORGE	PUTNAM	31565	91.43	927	2587.1	54.4	0.00	3660
GEORGE	PUTNAM	31570	0.00	430	16432.1	32.1	66.72	16961
GEORGE	PUTNAM	31572	0.00	329	1371.4	0.0	0.00	1700
GEORGE	PUTNAM	31575	0.00	988	9896.4	0.0	121.08	11006
GEORGE	PUTNAM	31580	0.00	5510	1942.2	0.0	29.65	7482
GEORGE	PUTNAM	31585	34.59	20806	70875.7	558.4	1732.17	94007
GEORGE	PUTNAM	31590	9.88	4762	14640.7	2.5	88.96	19504
GEORGE	PUTNAM	31592	0.00	47	4838.2	0.0	0.00	4885
GEORGE	PUTNAM	31600	0.00	2730	17072.1	0.0	276.75	20079
GEORGE	PUTNAM	31602	0.00	205	338.5	0.0	0.00	544
GEORGE	PUTNAM	31605	0.00	158	1057.6	0.0	0.00	1216
GEORGE	PUTNAM	31612	0.00	309	2619.3	0.0	64.25	2993
GEORGE	PUTNAM	31617	202.62	3459	10978.7	12.4	7.41	14660
GEORGE	PUTNAM	31620	0.00	42	313.9	0.0	0.00	356
GEORGE	PUTNAM	31630	0.00	815	751.2	0.0	0.00	1567
GEORGE	PUTNAM	31635	276.75	2352	11450.6	7.4	0.00	14087
GEORGE	PUTNAM	31637	0.00	2585	6871.9	84.0	1828.54	11369
GEORGE	PUTNAM	31640	64.25	30	662.2	2.5	0.00	759
GEORGE	PUTNAM	31642	0.00	0	160.6	0.0	0.00	161
GEORGE	PUTNAM	31645	0.00	128	422.5	0.0	0.00	551
GEORGE	PUTNAM	31647	111.19	217	5221.2	0.0	126.02	5676
GEORGE	PUTNAM	31650	489.26	1003	17988.9	51.9	1413.41	20947
GEORGE	PUTNAM	31652	0.00	151	706.7	9.9	0.00	867
GEORGE	PUTNAM	31655	0.00	47	89.0	0.0	0.00	136
GEORGE	PUTNAM	31657	0.00	402	5045.8	51.9	877.20	6378
GEORGE	PUTNAM	31660	205.09	388	990.9	49.4	7.41	1641
GEORGE	PUTNAM	31662	0.00	96	4339.1	160.6	481.84	5078
GEORGE	PUTNAM	31670	345.94	4421	2416.6	252.0	0.00	7435
GEORGE	PUTNAM	31675	442.31	1213	316.3	17.3	0.00	1989
GEORGE	PUTNAM	31680	212.51	1139	343.5	49.4	0.00	1745
GEORGE	PUTNAM	31682	358.29	341	34.6	19.8	0.00	754
GEORGE	PUTNAM	31685	429.95	220	1111.9	32.1	0.00	1794
GEORGE	PUTNAM	31687	239.69	54	42.0	0.0	0.00	336
GEORGE	PUTNAM	31690	51.89	7	2.5	0.0	0.00	62
GEORGE	PUTNAM	31695	3545.88	2634	840.1	160.6	160.61	7341
GEORGE	PUTNAM	31705	271.81	927	138.4	0.0	0.00	1337
GEORGE	PUTNAM	31710	644.93	210	207.6	0.0	0.00	1063
GEORGE	PUTNAM	31715	0.00	0	7.4	0.0	0.00	7
GEORGE	PUTNAM	31717	0.00	25	486.8	0.0	0.00	511
GEORGE	PUTNAM	31720	0.00	0	96.4	0.0	0.00	96
GEORGE	PUTNAM	31725	0.00	1576	3553.3	0.0	0.00	5130
GEORGE	PUTNAM	31730	570.80	2978	4954.4	0.0	0.00	8503
GEORGE	PUTNAM	31732	202.62	257	207.6	0.0	0.00	667
GEORGE	PUTNAM	31735	0.00	52	2.5	0.0	0.00	54
GEORGE	PUTNAM	31740	2725.51	1359	1089.7	289.1	0.00	5463
GEORGE	PUTNAM	31745	953.81	366	0.0	9.9	0.00	1329
GEORGE	PUTNAM	31747	504.08	0	2.5	96.4	0.00	603
GEORGE	PUTNAM	31750	679.52	1243	726.5	0.0	0.00	2649
GEORGES	PUTNAM	25355	0.00	9878	972.0	253.0	0.00	11103
GRANDIN	PUTNAM	25365	266.00	3284	5.0	494.0	24.00	4074
LITTLE LAKE GEORGE	PUTNAM	31005	3817.69	132342	11418.5	52323.4	1949.62	201851
LITTLE LAKE GEORGE	PUTNAM	31010	160.61	18520	0.0	467.0	84.01	19232
LITTLE LAKE GEORGE	PUTNAM	31015	973.57	40139	160.6	3704.0	1121.93	46099
LITTLE LAKE GEORGE	PUTNAM	31020	103.78	717	1260.2	494.2	0.00	2575
LITTLE LAKE GEORGE	PUTNAM	31025	59.30	1898	0.0	336.1	29.65	2323

Table G-4. (Continued).

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*          FLORIDA LAND USE DATA                    *
*                                                   *
*  HYDRO - HYDROLOGIC UNIT AREA FROM EDER/FSU       *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
LITTLE LAKE GEORGE	PUTNAM	31030	909.3	12330	402.8	978.5	368.2	14996
LITTLE LAKE GEORGE	PUTNAM	31035	96.4	19074	2429.0	778.4	197.7	22575
LITTLE LAKE GEORGE	PUTNAM	31040	4037.6	104783	12636.7	8038.2	15251.0	144746
LITTLE LAKE GEORGE	PUTNAM	31045	111.2	3380	407.7	49.4	0.0	3949
LITTLE LAKE GEORGE	PUTNAM	31050	3209.8	40082	8255.6	2750.2	1571.6	55969
LITTLE LAKE GEORGE	PUTNAM	31055	14905.1	26781	9945.8	11465.4	2028.7	65126
LITTLE LAKE GEORGE	PUTNAM	31060	229.8	892	0.0	12.4	0.0	1134
LITTLE LAKE GEORGE	PUTNAM	31065	51.9	47	430.0	187.8	0.0	717
LITTLE LAKE GEORGE	PUTNAM	31070	1141.6	66502	34510.0	6918.8	4944.5	114017
LITTLE LAKE GEORGE	PUTNAM	31075	1655.6	10660	1952.1	709.2	71.7	15048
LITTLE LAKE GEORGE	PUTNAM	31080	281.7	2916	1576.5	496.7	1616.0	6887
LITTLE LAKE GEORGE	PUTNAM	31085	56.8	121	0.0	46.9	0.0	225
LITTLE LAKE GEORGE	PUTNAM	31090	175.4	183	76.6	165.6	0.0	600
LITTLE LAKE GEORGE	PUTNAM	31095	22.2	0	29.7	12.4	0.0	64
LITTLE LAKE GEORGE	PUTNAM	31100	0.0	2748	627.6	0.0	316.3	3692
LITTLE LAKE GEORGE	PUTNAM	31105	3632.4	11159	12841.8	7956.6	2797.2	38387
LITTLE LAKE GEORGE	PUTNAM	31110	0.0	5	289.1	0.0	0.0	294
LITTLE LAKE GEORGE	PUTNAM	31115	350.9	15607	6021.8	6241.7	2910.8	31132
LITTLE LAKE GEORGE	PUTNAM	31120	588.1	46727	19204.6	3951.1	13555.9	84026
LITTLE LAKE GEORGE	PUTNAM	31125	2517.9	4374	4818.4	171.1	1069.9	12901
LITTLE LAKE GEORGE	PUTNAM	31130	128.5	205	1709.9	0.0	61.8	2105
LITTLE LAKE GEORGE	PUTNAM	31135	0.0	497	1188.6	0.0	0.0	1685
LITTLE LAKE GEORGE	PUTNAM	31140	0.0	0	39.5	27.2	126.0	193
LITTLE LAKE GEORGE	PUTNAM	31145	1509.8	9768	15653.8	3755.9	17301.9	47989
LITTLE LAKE GEORGE	PUTNAM	31150	135.9	455	1737.1	0.0	0.0	2329
LITTLE LAKE GEORGE	PUTNAM	31155	2364.7	17191	12629.3	1171.3	14289.8	47646
LITTLE LAKE GEORGE	PUTNAM	31160	61.8	1184	7076.9	4.9	486.8	8814
LITTLE LAKE GEORGE	PUTNAM	31165	316.3	620	2438.9	32.1	580.7	3989
LITTLE LAKE GEORGE	PUTNAM	31170	54.4	3076	5589.4	42.0	180.4	8943
LITTLE LAKE GEORGE	PUTNAM	31175	602.9	14448	8411.2	916.7	16790.4	41169
LITTLE LAKE GEORGE	PUTNAM	31180	29.7	69	81.5	0.0	0.0	180
LITTLE LAKE GEORGE	PUTNAM	31185	4.9	4967	9730.8	17.3	0.0	14720
LITTLE LAKE GEORGE	PUTNAM	31188	494.2	722	3526.1	96.4	145.8	4984
LITTLE LAKE GEORGE	PUTNAM	31190	640.0	252	1492.5	42.0	600.5	3027
LITTLE LAKE GEORGE	PUTNAM	31195	5633.9	7124	9772.8	4539.2	14114.4	41184
LITTLE LAKE GEORGE	PUTNAM	31200	86.5	0	69.2	4.9	0.0	161
LITTLE LAKE GEORGE	PUTNAM	31205	269.3	2162	12582.3	447.3	3180.2	18641
LITTLE LAKE GEORGE	PUTNAM	31210	163.1	5298	14648.1	1255.3	3002.3	24367
LITTLE LAKE GEORGE	PUTNAM	31215	0.0	96	5186.6	54.4	380.5	5718
LITTLE LAKE GEORGE	PUTNAM	31220	0.0	136	261.9	37.1	593.0	1028
LITTLE LAKE GEORGE	PUTNAM	31225	0.0	348	543.6	61.8	385.5	1339
LITTLE LAKE GEORGE	PUTNAM	31230	177.9	2572	11534.6	160.6	4638.1	19084
LITTLE LAKE GEORGE	PUTNAM	31235	0.0	1497	1396.1	0.0	1826.1	4720
LITTLE LAKE GEORGE	PUTNAM	31240	0.0	1080	6024.3	2.5	1544.4	8651
LITTLE LAKE GEORGE	PUTNAM	31245	1571.6	6180	19819.9	3980.9	7615.6	39168
LITTLE LAKE GEORGE	PUTNAM	31250	0.0	1675	5105.1	617.7	2236.3	9634
LITTLE LAKE GEORGE	PUTNAM	31255	0.0	4156	2728.0	257.0	4892.6	12034
LITTLE LAKE GEORGE	PUTNAM	31260	0.0	2770	4761.6	2.5	897.0	8431
LITTLE LAKE GEORGE	PUTNAM	31265	0.0	9644	18441.1	34.6	165.6	28286
LITTLE LAKE GEORGE	PUTNAM	31270	0.0	23413	27499.8	54.4	276.8	51244
LITTLE LAKE GEORGE	PUTNAM	31275	0.0	33964	25345.0	6617.3	224.9	66151
LITTLE LAKE GEORGE	PUTNAM	31280	227.3	966	7440.2	12.4	39.5	8686
LITTLE LAKE GEORGE	PUTNAM	31285	832.7	21310	37245.4	54.4	387.9	59830
LITTLE LAKE GEORGE	PUTNAM	31290	0.0	0	138.4	0.0	0.0	138
LITTLE LAKE GEORGE	PUTNAM	31295	0.0	0	3563.2	98.8	368.2	4030
LITTLE LAKE GEORGE	PUTNAM	31296	0.0	0	14.8	0.0	0.0	15
LITTLE LAKE GEORGE	PUTNAM	31298	0.0	0	29.7	0.0	0.0	30
LITTLE LAKE GEORGE	PUTNAM	31300	0.0	0	74.1	0.0	0.0	74
LITTLE LAKE GEORGE	PUTNAM	31302	0.0	0	359.3	0.0	19.8	378
LITTLE LAKE GEORGE	PUTNAM	31305	0.0	0	850.0	0.0	32.1	882
LITTLE LAKE GEORGE	PUTNAM	31307	0.0	0	4.9	0.0	0.0	5
LITTLE LAKE GEORGE	PUTNAM	31309	7.4	0	84.0	46.9	0.0	138
LITTLE LAKE GEORGE	PUTNAM	31310	7.4	0	42.0	0.0	0.0	49
LITTLE LAKE GEORGE	PUTNAM	31315	360.8	482	5495.5	91.4	175.4	6605
LITTLE LAKE GEORGE	PUTNAM	31320	0.0	0	2812.0	93.9	74.1	2980
LITTLE LAKE GEORGE	PUTNAM	31322	0.0	227	1986.7	0.0	0.0	2214
LITTLE LAKE GEORGE	PUTNAM	31325	0.0	195	874.7	12.4	0.0	1082
LITTLE LAKE GEORGE	PUTNAM	31327	0.0	1396	3427.3	175.4	284.2	5283
LITTLE LAKE GEORGE	PUTNAM	31330	0.0	42	778.4	0.0	0.0	820
LITTLE LAKE GEORGE	PUTNAM	31332	0.0	86	430.0	0.0	0.0	516
LITTLE LAKE GEORGE	PUTNAM	31335	2.5	717	1707.5	0.0	0.0	2427

Table G-4. (Continued).

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*          FLORIDA LAND USE DATA                *
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*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
*                                               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
LITTLE LAKE GEORGE	PUTNAM	31337	4.94	244.6	973.6	0.00	0.000	1223.1
LITTLE LAKE GEORGE	PUTNAM	31340	0.00	0.0	810.5	0.00	0.000	810.5
LITTLE LAKE GEORGE	PUTNAM	31345	0.00	0.0	365.7	0.00	0.000	365.7
LITTLE LAKE GEORGE	PUTNAM	31347	12.35	202.6	2384.5	98.84	98.840	2797.2
LITTLE LAKE GEORGE	PUTNAM	31350	0.00	148.3	10973.7	177.91	499.140	11799.0
LITTLE LAKE GEORGE	PUTNAM	31352	0.00	0.0	1163.8	0.00	0.000	1163.8
LITTLE LAKE GEORGE	PUTNAM	31355	17.30	32978.0	17793.7	2216.49	709.177	53714.6
LITTLE LAKE GEORGE	PUTNAM	31360	0.00	3494.0	98.8	0.00	0.000	3592.8
LITTLE LAKE GEORGE	PUTNAM	31365	39.54	2525.4	2105.3	914.27	0.000	5584.5
LITTLE LAKE GEORGE	PUTNAM	31370	1361.52	21495.2	21631.1	260.77	336.056	45084.7
LITTLE LAKE GEORGE	PUTNAM	31375	101.31	3017.1	753.7	76.60	165.557	4114.2
LITTLE LAKE GEORGE	PUTNAM	31377	0.00	308.9	252.0	101.31	0.000	662.2
LITTLE LAKE GEORGE	PUTNAM	31380	0.00	855.0	1092.2	229.80	0.000	2177.0
LITTLE LAKE GEORGE	PUTNAM	31385	934.04	13837.6	2962.7	724.00	135.905	18594.1
LITTLE LAKE GEORGE	PUTNAM	31387	101.31	42.0	210.0	46.95	0.000	400.2
LITTLE LAKE GEORGE	PUTNAM	31390	3657.08	18505.3	16123.3	736.36	496.671	39518.7
LITTLE LAKE GEORGE	PUTNAM	31395	51.89	2871.3	1032.9	0.00	0.000	3956.1
LITTLE LAKE GEORGE	PUTNAM	31397	830.26	0.0	0.0	14.83	0.000	845.1
LITTLE LAKE GEORGE	PUTNAM	31400	5295.35	1566.6	3217.2	306.40	37.065	10422.7
LITTLE LAKE GEORGE	PUTNAM	31402	39.54	27.2	145.8	0.00	0.000	212.5
LITTLE LAKE GEORGE	PUTNAM	31405	743.77	39.5	148.3	182.85	0.000	1114.4
LITTLE LAKE GEORGE	PUTNAM	31410	417.60	0.0	331.1	244.63	0.000	993.3
LITTLE LAKE GEORGE	PUTNAM	31415	6970.69	2745.3	14015.5	1131.72	585.627	25448.8
LITTLE LAKE GEORGE	PUTNAM	31417	27.18	0.0	145.8	24.71	0.000	197.7
LITTLE LAKE GEORGE	PUTNAM	31420	889.56	0.0	0.0	343.47	0.000	1233.0
LITTLE LAKE GEORGE	PUTNAM	31422	721.53	0.0	0.0	84.01	0.000	805.5
LITTLE LAKE GEORGE	PUTNAM	31425	289.11	0.0	0.0	51.89	0.000	341.0
LITTLE LAKE GEORGE	PUTNAM	31427	3555.77	1648.2	635.0	336.06	0.000	6175.0
LITTLE LAKE GEORGE	PUTNAM	31430	476.90	12.4	733.9	0.00	32.123	1255.3
LITTLE LAKE GEORGE	PUTNAM	31435	1371.40	121.1	7588.4	741.30	0.000	9822.2
LITTLE LAKE GEORGE	PUTNAM	31440	3237.01	3664.5	4554.1	919.21	91.427	12466.2
LITTLE LAKE GEORGE	PUTNAM	31445	64.25	44.5	350.9	207.56	0.000	667.2
LITTLE LAKE GEORGE	PUTNAM	31446	234.74	111.2	81.5	24.71	0.000	452.2
LITTLE LAKE GEORGE	PUTNAM	31447	303.93	0.0	306.4	37.06	143.318	790.7
LITTLE LAKE GEORGE	PUTNAM	31450	150.73	1129.2	76.6	0.00	0.000	1356.6
LITTLE LAKE GEORGE	PUTNAM	31455	4744.32	2270.8	276.8	469.45	0.000	7761.4
LITTLE LAKE GEORGE	PUTNAM	31460	0.00	363.2	266.9	0.00	0.000	630.1
LITTLE LAKE GEORGE	PUTNAM	31465	973.57	5211.3	7541.5	518.91	0.000	14245.3
LITTLE LAKE GEORGE	PUTNAM	31467	0.00	14.8	168.0	0.00	0.000	182.9
LITTLE LAKE GEORGE	PUTNAM	31470	0.00	0.0	271.8	51.89	0.000	323.7
LITTLE LAKE GEORGE	PUTNAM	31472	971.10	1912.6	1139.1	395.36	0.000	4418.1
LITTLE LAKE GEORGE	PUTNAM	31475	34.59	14.8	14.8	0.00	0.000	64.2
LITTLE LAKE GEORGE	PUTNAM	31478	1905.14	2.5	170.5	541.15	0.000	2619.3
LITTLE LAKE GEORGE	PUTNAM	31480	338.53	0.0	24.7	81.54	0.000	444.8
LITTLE LAKE GEORGE	PUTNAM	31481	625.16	321.2	61.8	39.54	0.000	1047.7
LITTLE LAKE GEORGE	PUTNAM	31482	224.86	0.0	145.8	51.89	0.000	422.5
LITTLE LAKE GEORGE	PUTNAM	31483	553.50	0.0	29.7	172.97	0.000	756.1
LITTLE LAKE GEORGE	PUTNAM	31486	368.18	44.5	0.0	34.59	0.000	447.3
LITTLE LAKE GEORGE	PUTNAM	31487	1067.47	0.0	66.7	187.80	0.000	1322.0
LITTLE LAKE GEORGE	PUTNAM	31490	207.56	0.0	0.0	46.95	0.000	254.5
LITTLE LAKE GEORGE	PUTNAM	31492	5500.45	0.0	266.9	911.80	0.000	6679.1
LITTLE LAKE GEORGE	PUTNAM	31517	108.72	0.0	0.0	0.00	0.000	108.7
LITTLE LAKE GEORGE	PUTNAM	31520	281.69	0.0	0.0	32.12	0.000	313.8
LITTLE LAKE GEORGE	PUTNAM	31521	101.31	0.0	0.0	0.00	0.000	101.3
LITTLE LAKE GEORGE	PUTNAM	31525	0.00	11047.8	32.1	0.00	24.710	11104.7
LITTLE LAKE GEORGE	PUTNAM	31527	160.61	6946.0	2683.5	412.66	0.000	10202.8
LITTLE LAKE GEORGE	PUTNAM	31530	76.60	5236.0	5646.2	331.11	625.163	11915.2
LITTLE LAKE GEORGE	PUTNAM	31532	138.38	7170.8	1255.3	202.62	0.000	8767.1
LITTLE LAKE GEORGE	PUTNAM	31535	484.32	1156.4	2933.1	948.86	34.594	5557.3
LITTLE LAKE GEORGE	PUTNAM	31537	108.72	600.5	469.5	0.00	0.000	1178.7
LITTLE LAKE GEORGE	PUTNAM	31540	531.26	1705.0	3130.8	2.47	0.000	5369.5
LITTLE LAKE GEORGE	PUTNAM	31545	2730.45	10798.3	39854.8	88.96	385.476	53957.9
LITTLE LAKE GEORGE	PUTNAM	31547	12.35	1247.9	1425.8	0.00	66.717	2752.7
LITTLE LAKE GEORGE	PUTNAM	31550	0.00	7662.6	9980.4	689.41	0.000	18332.3
LITTLE LAKE GEORGE	PUTNAM	31555	0.00	1831.0	1373.9	9.88	212.506	3427.3
LITTLE LAKE GEORGE	PUTNAM	31557	0.00	173.0	1233.0	27.18	22.239	1455.4
LITTLE LAKE GEORGE	PUTNAM	31560	0.00	7109.1	24297.3	1591.32	501.613	33499.3
LITTLE LAKE GEORGE	PUTNAM	31565	91.43	926.6	2587.1	54.36	0.000	3659.6
LITTLE LAKE GEORGE	PUTNAM	31570	0.00	430.0	16432.1	32.12	66.717	16960.9
LITTLE LAKE GEORGE	PUTNAM	31572	0.00	328.6	1371.4	0.00	0.000	1700.0
LITTLE LAKE GEORGE	PUTNAM	31575	0.00	988.4	9996.4	0.00	121.379	11105.8

Table G-4. (Continued).

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*          FLORIDA LAND USE DATA             *
*                                            *
*  HYDRO - HYDROLOGIC UNIT AREA FROM EDER/FSU *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES        *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
LITTLE LAKE GEORGE	PUTNAM	31580	0.00	5510.3	1942.2	0.000	29.65	7482.2
LITTLE LAKE GEORGE	PUTNAM	31585	34.59	20805.8	70875.7	558.446	1732.17	94006.7
LITTLE LAKE GEORGE	PUTNAM	31590	9.88	4761.6	14640.7	2.471	88.96	19503.6
LITTLE LAKE GEORGE	PUTNAM	31592	0.00	46.9	4838.2	0.000	0.00	4885.2
LITTLE LAKE GEORGE	PUTNAM	31600	0.00	2730.5	17072.1	0.000	276.75	20079.3
LITTLE LAKE GEORGE	PUTNAM	31602	0.00	205.1	338.5	0.000	0.00	543.6
LITTLE LAKE GEORGE	PUTNAM	31605	0.00	158.1	1057.6	0.000	0.00	1215.7
LITTLE LAKE GEORGE	PUTNAM	31612	0.00	308.9	2619.3	0.000	64.25	2992.4
LITTLE LAKE GEORGE	PUTNAM	31617	202.62	3459.4	10978.7	12.355	7.41	14660.4
LITTLE LAKE GEORGE	PUTNAM	31620	0.00	42.0	313.8	0.000	0.00	355.8
LITTLE LAKE GEORGE	PUTNAM	31630	0.00	815.4	751.2	0.000	0.00	1566.6
LITTLE LAKE GEORGE	PUTNAM	31635	276.75	2352.4	11450.6	7.413	0.00	14087.2
LITTLE LAKE GEORGE	PUTNAM	31637	0.00	2584.7	6871.9	84.014	1826.54	11369.1
LITTLE LAKE GEORGE	PUTNAM	31640	64.25	29.7	662.2	2.471	0.00	758.6
LITTLE LAKE GEORGE	PUTNAM	31642	0.00	0.0	160.6	0.000	0.00	160.6
LITTLE LAKE GEORGE	PUTNAM	31645	0.00	128.5	422.5	0.000	0.00	551.0
LITTLE LAKE GEORGE	PUTNAM	31647	111.19	217.4	5221.2	0.000	126.02	5675.9
LITTLE LAKE GEORGE	PUTNAM	31650	489.26	1003.2	17988.9	51.891	1413.41	20946.7
LITTLE LAKE GEORGE	PUTNAM	31652	0.00	150.7	706.7	9.884	0.00	867.3
LITTLE LAKE GEORGE	PUTNAM	31655	0.00	46.9	89.0	0.000	0.00	135.9
LITTLE LAKE GEORGE	PUTNAM	31657	0.00	402.8	5045.8	51.891	877.20	6377.7
LITTLE LAKE GEORGE	PUTNAM	31660	205.09	387.9	990.9	49.420	7.41	1640.7
LITTLE LAKE GEORGE	PUTNAM	31662	0.00	96.4	4339.1	160.615	481.84	5077.9
LITTLE LAKE GEORGE	PUTNAM	31670	345.94	4420.6	2416.6	252.042	0.00	7435.2
LITTLE LAKE GEORGE	PUTNAM	31675	442.31	1213.3	316.3	17.297	0.00	1989.2
LITTLE LAKE GEORGE	PUTNAM	31680	212.51	1135.1	343.5	49.420	0.00	1744.6
LITTLE LAKE GEORGE	PUTNAM	31682	358.29	341.0	34.6	19.768	0.00	753.7
LITTLE LAKE GEORGE	PUTNAM	31685	429.95	219.9	1111.9	32.123	0.00	1793.9
LITTLE LAKE GEORGE	PUTNAM	31687	239.69	54.4	42.0	0.000	0.00	336.1
LITTLE LAKE GEORGE	PUTNAM	31690	51.89	7.4	2.5	0.000	0.00	61.8
LITTLE LAKE GEORGE	PUTNAM	31695	3545.88	2634.1	840.1	160.615	160.61	7341.3
LITTLE LAKE GEORGE	PUTNAM	31705	271.81	926.6	138.4	0.000	0.00	1336.8
LITTLE LAKE GEORGE	PUTNAM	31710	644.93	210.0	207.6	0.000	0.00	1062.5
LITTLE LAKE GEORGE	PUTNAM	31715	0.00	0.0	7.4	0.000	0.00	7.4
LITTLE LAKE GEORGE	PUTNAM	31717	0.00	24.7	486.8	0.000	0.00	511.5
LITTLE LAKE GEORGE	PUTNAM	31720	0.00	0.0	96.4	0.000	0.00	96.4
LITTLE LAKE GEORGE	PUTNAM	31725	0.00	1576.5	3553.3	0.000	0.00	5129.8
LITTLE LAKE GEORGE	PUTNAM	31730	570.80	2977.6	4954.4	0.000	0.00	8502.7
LITTLE LAKE GEORGE	PUTNAM	31732	202.62	257.0	207.6	0.000	0.00	667.2
LITTLE LAKE GEORGE	PUTNAM	31735	0.00	51.9	2.5	0.000	0.00	54.4
LITTLE LAKE GEORGE	PUTNAM	31740	2725.51	1359.0	1089.7	289.107	0.00	5463.4
LITTLE LAKE GEORGE	PUTNAM	31745	953.81	365.7	0.0	9.884	0.00	1329.4
LITTLE LAKE GEORGE	PUTNAM	31747	504.08	0.0	2.5	96.369	0.00	602.9
LITTLE LAKE GEORGE	PUTNAM	31750	679.52	1242.9	726.5	0.000	0.00	2648.9
LITTLE LAKE GEORGE	PUTNAM	31752	546.09	0.0	0.0	207.564	0.00	753.7
LOWER MYAKKA	SARASOTA	47050	0.00	2261.0	3783.1	434.896	420.07	6899.0
LOWER MYAKKA	SARASOTA	47055	219.92	1289.9	4326.7	0.000	684.47	6521.0
LOWER MYAKKA	SARASOTA	47060	0.00	630.1	1225.6	0.000	412.66	2268.4
LOWER MYAKKA	SARASOTA	47065	180.38	9762.9	44287.7	968.632	3355.62	58555.3
LOWER MYAKKA	SARASOTA	47070	2.47	1181.1	22192.1	195.209	0.00	23570.9
LOWER MYAKKA	SARASOTA	47075	0.00	135.9	6523.4	0.000	756.13	7415.5
LOWER MYAKKA	SARASOTA	47080	0.00	6503.7	26575.6	229.803	583.16	33892.2
LOWER MYAKKA	SARASOTA	47085	0.00	61.8	163.1	0.000	0.00	224.9
LOWER MYAKKA	SARASOTA	47090	0.00	71.7	1969.4	19.768	0.00	2060.8
LOWER MYAKKA	SARASOTA	47095	0.00	427.5	5176.7	27.181	0.00	5631.4
LOWER MYAKKA	SARASOTA	47100	0.00	906.9	5962.5	0.000	0.00	6869.4
UPPER MYAKKA	SARASOTA	47065	180.38	9762.9	44287.7	968.632	3355.62	58555.3
UPPER MYAKKA	SARASOTA	47070	2.47	1181.1	22192.1	195.209	0.00	23570.9
UPPER MYAKKA	SARASOTA	47075	0.00	135.9	6523.4	0.000	756.13	7415.5
UPPER MYAKKA	SARASOTA	47080	0.00	6503.7	26575.6	229.803	583.16	33892.2
UPPER MYAKKA	SARASOTA	47085	0.00	61.8	163.1	0.000	0.00	224.9
UPPER MYAKKA	SARASOTA	47090	0.00	71.7	1969.4	19.768	0.00	2060.8
UPPER MYAKKA	SARASOTA	47095	0.00	427.5	5176.7	27.181	0.00	5631.4
UPPER MYAKKA	SARASOTA	47100	0.00	906.9	5962.5	0.000	0.00	6869.4
ADA	SEMINOLE	31085	62.00	133.0	0.0	52.000	0.00	247.0
BEAR	SEMINOLE	31410	417.60	0.0	331.1	244.629	0.00	993.3
CHARM	SEMINOLE	31095	24.00	0.0	33.0	14.000	0.00	71.0
FLORIDA	SEMINOLE	31402	43.00	30.0	160.0	0.000	0.00	233.0
GENEVA	SEMINOLE	31110	0.00	5.0	318.0	0.000	0.00	323.0
GRACE	SEMINOLE	31446	258.00	122.0	90.0	27.000	0.00	497.0
ISLAND	SEMINOLE	31447	334.00	0.0	337.0	198.000	157.00	1026.0

Table G-4. (Continued).

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*          FLORIDA LAND USE DATA            *
*                                           *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES        *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
JESSUP	SEMINOLE	31100	0.0	2748	628	0.00	316.3	3692
JESSUP	SEMINOLE	31105	3632.4	11159	12842	7956.62	2797.2	38387
JESSUP	SEMINOLE	31110	0.0	5	289	0.00	0.0	294
JESSUP	SEMINOLE	31440	3237.0	3664	4554	919.21	91.4	12466
JESSUP	SEMINOLE	31445	64.2	44	351	207.56	0.0	667
JESSUP	SEMINOLE	31446	234.7	111	82	24.71	0.0	452
JESSUP	SEMINOLE	31447	303.9	0	306	37.06	143.2	791
JESSUP	SEMINOLE	31450	150.7	1129	77	0.00	0.0	1357
JESSUP	SEMINOLE	31455	4744.3	2271	277	469.49	0.0	7761
JESSUP	SEMINOLE	31460	0.0	363	267	0.00	0.0	630
JESSUP	SEMINOLE	31465	973.6	5211	7541	518.91	0.0	14245
JESSUP	SEMINOLE	31467	0.0	15	168	0.00	0.0	183
JESSUP	SEMINOLE	31470	0.0	0	272	51.89	0.0	324
JESSUP	SEMINOLE	31472	971.1	1913	1139	395.36	0.0	4418
JESSUP	SEMINOLE	31475	34.6	15	15	0.00	0.0	64
JESSUP	SEMINOLE	31478	1905.1	2	170	541.15	0.0	2619
JESSUP	SEMINOLE	31480	338.5	0	25	81.54	0.0	445
JESSUP	SEMINOLE	31481	625.2	321	62	39.54	0.0	1048
JESSUP	SEMINOLE	31482	224.9	0	146	51.89	0.0	423
JESSUP	SEMINOLE	31483	553.5	0	30	172.97	0.0	756
JESSUP	SEMINOLE	31486	368.2	44	0	34.56	0.0	447
JESSUP	SEMINOLE	31487	1067.5	0	67	187.80	0.0	1322
JESSUP	SEMINOLE	31490	207.6	0	0	46.95	0.0	255
JESSUP	SEMINOLE	31492	5500.4	0	267	911.80	0.0	6679
JESSUP	SEMINOLE	31517	108.7	0	0	0.00	0.0	109
JESSUP	SEMINOLE	31520	281.7	0	0	32.12	0.0	314
JESSUP	SEMINOLE	31521	101.3	0	0	0.00	0.0	101
JESSUP	SEMINOLE	31525	0.0	11048	32	0.00	24.7	11105
JESSUP	SEMINOLE	31527	160.6	6946	2684	412.66	0.0	10203
JESSUP	SEMINOLE	31530	76.6	5236	5646	331.11	625.2	11915
LINDEN	SEMINOLE	31387	111.0	46	231	52.00	0.0	440
MARION	SEMINOLE	31397	912.0	0	0	16.00	0.0	928
MARKHAM	SEMINOLE	31377	0.0	269	277	111.00	71.0	727
MARY	SEMINOLE	31090	193.0	119	84	182.00	81.0	660
MYRTLE	SEMINOLE	31445	71.0	49	385	228.00	0.0	733
ORIENTA	SEMINOLE	31405	817.0	43	163	201.00	0.0	1224
SYLVAN	SEMINOLE	31494	0.0	939	1200	252.00	0.0	2391
LKAHUMPKA	SUMTER	35165	13489.0	41760	103403	7485.00	16029.0	182166
PANASOFFKEE	SUMTER	35165	12280.9	50201	94145	4400.85	2414.2	163442
PANASOFFKEE	SUMTER	35170	143.3	1690	3212	61.77	0.0	5108
PANASOFFKEE	SUMTER	35175	560.9	9914	34666	3842.40	7497.0	56480
LOA	SUWANNEE	27045	168.0	934	844	109.00	0.0	2054
BUTLER	UNION	26215	640.0	1759	262	400.30	0.0	3062
PALESTINE	UNION	23280	39.5	35820	383	887.09	0.0	37129
SWIFTS CREEK POND	UNION	26195	12.4	28429	507	630.10	0.0	29578
ASHBY	VOLUSIA	31070	381.0	22167	11503	2306.00	1648.0	38005
DAUGHARTY	VOLUSIA	25485	8.0	980	969	676.00	174.0	2806
DEXTER	VOLUSIA	31040	4037.6	104783	12637	8038.16	15251.0	144746
DUPONT	VOLUSIA	31075	1818.0	11516	2144	858.00	271.0	16607
HARNEY	VOLUSIA	31115	350.9	15607	6022	6241.75	2910.8	31132
HARNEY	VOLUSIA	31120	588.1	46727	19205	3951.13	13555.9	84026
HARNEY	VOLUSIA	31125	2517.9	4374	4818	121.08	1069.9	12901
HARNEY	VOLUSIA	31130	128.5	205	1710	0.00	61.8	2105
HARNEY	VOLUSIA	31135	0.0	497	1189	0.00	0.0	1685
HARNEY	VOLUSIA	31140	0.0	0	40	27.18	126.0	193
HARNEY	VOLUSIA	31145	1509.8	9768	15654	3755.92	17301.9	47989
HARNEY	VOLUSIA	31150	135.9	455	1737	0.00	0.0	2328
HARNEY	VOLUSIA	31155	2364.7	17191	12629	1171.25	14289.8	47646
HARNEY	VOLUSIA	31160	61.8	1184	7077	4.94	486.8	8814
HARNEY	VOLUSIA	31165	316.3	620	2439	32.12	580.7	3988
HARNEY	VOLUSIA	31170	54.4	3076	5589	42.01	180.4	8943
HARNEY	VOLUSIA	31175	602.9	14448	8411	916.74	16790.4	41169
HARNEY	VOLUSIA	31180	29.7	69	82	0.00	0.0	180
HARNEY	VOLUSIA	31185	4.9	4967	9731	17.30	0.0	14720
HARNEY	VOLUSIA	31188	494.2	722	3526	96.37	145.8	4984
HARNEY	VOLUSIA	31190	640.0	252	1492	42.01	600.5	3027
HARNEY	VOLUSIA	31195	5633.9	7124	9773	4539.23	14114.4	41184
HARNEY	VOLUSIA	31200	86.5	0	69	4.94	0.0	161
HARNEY	VOLUSIA	31205	269.3	2162	12582	447.25	3180.2	18641
HARNEY	VOLUSIA	31210	163.1	5298	14648	1255.27	3002.3	24367
HARNEY	VOLUSIA	31215	0.0	96	5197	54.36	380.5	5718

Table G-4. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
HARNEY	VOLUSIA	31220	0.00	135.9	261.9	37.06	593.04	1027.9
HARNEY	VOLUSIA	31225	0.00	348.4	543.6	61.77	385.48	1339.3
HARNEY	VOLUSIA	31230	177.91	2572.3	11534.6	160.61	4638.07	19083.5
HARNEY	VOLUSIA	31235	0.00	1497.4	1396.1	0.00	1826.07	4719.6
HARNEY	VOLUSIA	31240	0.00	1079.8	6024.3	2.47	1544.37	8651.0
HARNEY	VOLUSIA	31245	1571.56	6180.0	19819.9	3980.78	7615.62	39167.8
HARNEY	VOLUSIA	31250	0.00	1675.3	5105.1	617.75	2236.25	9634.4
HARNEY	VOLUSIA	31255	0.00	4156.2	2728.0	256.98	4892.58	12033.8
HARNEY	VOLUSIA	31260	0.00	2770.0	4761.6	2.47	896.97	8431.1
HARNEY	VOLUSIA	31265	0.00	9644.3	18441.1	34.59	165.56	28285.5
HARNEY	VOLUSIA	31270	0.00	23412.7	27499.8	54.36	276.75	51243.6
HARNEY	VOLUSIA	31275	0.00	33963.9	25345.0	6617.34	224.86	66151.1
HARNEY	VOLUSIA	31280	227.33	966.2	7440.2	12.35	39.54	8685.6
HARNEY	VOLUSIA	31285	832.73	21309.9	37245.4	54.36	387.95	59830.3
HARNEY	VOLUSIA	31290	0.00	0.0	138.4	0.00	0.00	138.4
HARNEY	VOLUSIA	31295	0.00	0.0	3563.2	98.84	368.18	4030.2
HARNEY	VOLUSIA	31296	0.00	0.0	14.8	0.00	0.00	14.8
HARNEY	VOLUSIA	31298	0.00	0.0	29.7	0.00	0.00	29.7
HARNEY	VOLUSIA	31300	0.00	0.0	74.1	0.00	0.00	74.1
HARNEY	VOLUSIA	31302	0.00	0.0	358.3	0.00	19.77	378.1
HARNEY	VOLUSIA	31305	0.00	0.0	850.0	0.00	32.12	882.1
HARNEY	VOLUSIA	31307	0.00	0.0	4.9	0.00	0.00	4.9
HARNEY	VOLUSIA	31309	7.41	0.0	84.0	46.95	0.00	138.4
HARNEY	VOLUSIA	31310	7.41	0.0	42.0	0.00	0.00	49.4
HARNEY	VOLUSIA	31315	360.77	481.8	5495.5	91.43	175.44	6605.0
HARNEY	VOLUSIA	31320	0.00	0.0	2812.0	93.90	74.13	2980.0
HARNEY	VOLUSIA	31322	0.00	227.3	1986.7	0.00	0.00	2214.0
HARNEY	VOLUSIA	31325	0.00	195.2	874.7	12.35	0.00	1082.3
HARNEY	VOLUSIA	31327	0.00	1396.1	3427.3	175.44	284.16	5283.0
HARNEY	VOLUSIA	31330	0.00	42.0	778.4	0.00	0.00	820.4
HARNEY	VOLUSIA	31332	0.00	86.5	430.0	0.00	0.00	516.4
HARNEY	VOLUSIA	31335	2.47	716.6	1707.5	0.00	0.00	2426.5
HARNEY	VOLUSIA	31337	4.94	244.6	973.6	0.00	0.00	1223.1
HARNEY	VOLUSIA	31340	0.00	0.0	810.5	0.00	0.00	810.5
HARNEY	VOLUSIA	31345	0.00	0.0	365.7	0.00	0.00	365.7
HARNEY	VOLUSIA	31347	12.35	202.6	2384.5	98.84	98.84	2797.2
HARNEY	VOLUSIA	31350	0.00	148.3	10973.7	177.91	499.14	11799.0
HARNEY	VOLUSIA	31527	160.61	6946.0	2683.5	412.66	0.00	10202.8
HARNEY	VOLUSIA	31530	76.60	5236.0	5646.2	331.11	625.16	11915.2
HARNEY	VOLUSIA	31532	138.38	7170.8	1255.3	202.62	0.00	8767.1
HARNEY	VOLUSIA	31535	484.32	1156.4	2933.1	948.86	34.59	5557.3
HARNEY	VOLUSIA	31537	108.72	600.5	469.5	0.00	0.00	1178.7
HARNEY	VOLUSIA	31540	531.26	1705.0	3130.8	2.47	0.00	5369.5
HARNEY	VOLUSIA	31545	2730.45	10798.3	39854.8	89.96	385.48	53857.9
HARNEY	VOLUSIA	31547	12.35	1247.9	1425.8	0.00	66.72	2752.7
HARNEY	VOLUSIA	31550	0.00	7662.6	9980.4	689.41	0.00	18332.3
HARNEY	VOLUSIA	31555	0.00	1831.0	1373.9	9.88	212.51	3427.3
HARNEY	VOLUSIA	31557	0.00	173.0	1233.0	27.18	22.24	1455.4
HARNEY	VOLUSIA	31560	0.00	7109.1	24297.3	1591.32	501.61	33499.3
HARNEY	VOLUSIA	31565	91.43	926.6	2587.1	54.36	0.00	3659.6
HARNEY	VOLUSIA	31570	0.00	430.0	16432.1	32.12	66.72	16960.9
HARNEY	VOLUSIA	31572	0.00	328.6	1371.4	0.00	0.00	1700.0
HARNEY	VOLUSIA	31575	0.00	988.4	9896.4	0.00	121.08	11005.8
HARNEY	VOLUSIA	31580	0.00	5510.3	1942.2	0.00	29.65	7482.2
HARNEY	VOLUSIA	31585	34.59	20805.8	70875.7	558.45	1732.17	94006.7
HARNEY	VOLUSIA	31590	9.88	4761.6	14640.7	2.47	88.96	19503.6
HARNEY	VOLUSIA	31592	0.00	46.9	4838.2	0.00	0.00	4885.2
HARNEY	VOLUSIA	31600	0.00	2730.5	17072.1	0.00	276.75	20079.3
HARNEY	VOLUSIA	31602	0.00	205.1	338.5	0.00	0.00	543.6
HARNEY	VOLUSIA	31605	0.00	158.1	1057.6	0.00	0.00	1215.7
HARNEY	VOLUSIA	31612	0.00	308.9	2619.3	0.00	64.25	2992.4
HARNEY	VOLUSIA	31617	202.62	3459.4	10978.7	12.35	7.41	14660.4
HARNEY	VOLUSIA	31620	0.00	42.0	313.8	0.00	0.00	355.8
HARNEY	VOLUSIA	31630	0.00	815.4	751.2	0.00	0.00	1566.6
HARNEY	VOLUSIA	31635	276.75	2352.4	11450.6	7.41	0.00	14087.2
HARNEY	VOLUSIA	31637	0.00	2584.7	6871.9	84.01	1828.54	11369.1
HARNEY	VOLUSIA	31640	64.25	29.7	662.2	2.47	0.00	758.6
HARNEY	VOLUSIA	31642	0.00	0.0	160.6	0.00	0.00	160.6
HARNEY	VOLUSIA	31645	0.00	128.5	422.5	0.00	0.00	551.0
HARNEY	VOLUSIA	31647	111.19	217.4	5221.2	0.00	126.02	5675.9
HARNEY	VOLUSIA	31650	489.26	1003.2	17988.9	51.89	1413.41	20946.7

Table G-4. (Continued)

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*          FLORIDA LAND USE DATA                    *
*                                                   *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU       *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
HARNEY	VOLUSIA	31652	0.0	150.7	706.7	9.9	0.0	867
HARNEY	VOLUSIA	31655	0.0	46.9	89.0	0.0	0.0	136
HARNEY	VOLUSIA	31657	0.0	402.8	5045.8	51.9	877.2	6378
HARNEY	VOLUSIA	31660	205.1	387.9	990.9	49.4	7.4	1641
HARNEY	VOLUSIA	31662	0.0	96.4	4339.1	160.6	481.8	5078
HARNEY	VOLUSIA	31670	345.9	4420.6	2416.6	252.0	0.0	7435
HARNEY	VOLUSIA	31675	442.3	1213.3	316.3	17.3	0.0	1989
HARNEY	VOLUSIA	31680	212.5	1139.1	343.5	49.4	0.0	1745
HARNEY	VOLUSIA	31682	358.3	341.0	34.6	19.8	0.0	754
HARNEY	VOLUSIA	31685	430.0	219.9	1111.9	32.1	0.0	1794
HARNEY	VOLUSIA	31687	239.7	54.4	42.0	0.0	0.0	336
HARNEY	VOLUSIA	31690	51.9	7.4	2.5	0.0	0.0	62
HARNEY	VOLUSIA	31695	3545.9	2634.1	840.1	160.6	160.6	7341
HARNEY	VOLUSIA	31705	271.8	926.6	138.4	0.0	0.0	1337
HARNEY	VOLUSIA	31710	644.9	210.0	207.6	0.0	0.0	1063
HARNEY	VOLUSIA	31715	0.0	0.0	7.4	0.0	0.0	7
HARNEY	VOLUSIA	31717	0.0	24.7	486.8	0.0	0.0	511
HARNEY	VOLUSIA	31720	0.0	0.0	96.4	0.0	0.0	96
HARNEY	VOLUSIA	31725	0.0	1576.5	3553.3	0.0	0.0	5130
HARNEY	VOLUSIA	31730	570.8	2977.6	4954.4	0.0	0.0	8503
HARNEY	VOLUSIA	31732	202.6	257.0	207.6	0.0	0.0	667
HARNEY	VOLUSIA	31735	0.0	51.9	2.5	0.0	0.0	54
HARNEY	VOLUSIA	31740	2725.5	1359.0	1089.7	289.1	0.0	5463
HARNEY	VOLUSIA	31745	953.8	365.7	0.0	9.9	0.0	1329
HARNEY	VOLUSIA	31747	504.1	0.0	2.5	96.4	0.0	603
HARNEY	VOLUSIA	31750	679.5	1242.9	726.5	0.0	0.0	2649
HIRES	VOLUSIA	25480	0.0	803.0	432.0	399.0	3.0	1637
LINDSEY	VOLUSIA	25490	616.0	296.0	635.0	375.0	282.0	2204
MONROE	VOLUSIA	31055	14905.1	26780.7	9945.8	11465.4	2028.7	65126
MONROE	VOLUSIA	31060	229.8	892.0	0.0	12.4	0.0	1134
MONROE	VOLUSIA	31065	51.9	46.9	430.0	187.8	0.0	717
MONROE	VOLUSIA	31070	1141.6	66502.0	34510.0	6918.8	4944.5	114017
MONROE	VOLUSIA	31075	1655.6	10659.9	1952.1	709.2	71.7	15048
MONROE	VOLUSIA	31080	281.7	2915.8	1576.5	496.7	1616.0	6887
MONROE	VOLUSIA	31085	56.8	121.1	0.0	46.9	0.0	225
MONROE	VOLUSIA	31090	175.4	182.9	76.6	165.6	0.0	600
MONROE	VOLUSIA	31095	22.2	0.0	29.7	12.4	0.0	64
MONROE	VOLUSIA	31100	0.0	2747.8	627.6	0.0	316.3	3692
MONROE	VOLUSIA	31105	3632.4	11159.0	12841.8	7956.6	2797.2	38387
MONROE	VOLUSIA	31110	0.0	4.9	289.1	0.0	0.0	294
MONROE	VOLUSIA	31115	350.9	15606.8	6021.8	6241.7	2910.8	31132
MONROE	VOLUSIA	31120	588.1	46726.6	19204.6	3951.1	13555.9	84026
MONROE	VOLUSIA	31125	2517.9	4373.7	4818.4	121.1	1069.9	12901
MONROE	VOLUSIA	31130	128.5	205.1	1709.9	0.0	61.8	2105
MONROE	VOLUSIA	31135	0.0	496.7	1188.6	0.0	0.0	1685
MONROE	VOLUSIA	31140	0.0	0.0	39.5	27.2	126.0	193
MONROE	VOLUSIA	31145	1509.8	9767.9	15653.8	3755.9	17301.9	47989
MONROE	VOLUSIA	31150	135.9	454.7	1737.1	0.0	0.0	2328
MONROE	VOLUSIA	31155	2364.7	17190.7	12629.3	1171.3	14289.8	47646
MONROE	VOLUSIA	31160	61.8	1183.6	7076.9	4.9	486.8	8814
MONROE	VOLUSIA	31165	316.3	620.2	2438.9	32.1	580.7	3988
MONROE	VOLUSIA	31170	54.4	3076.4	5589.4	42.0	180.4	8943
MONROE	VOLUSIA	31175	602.9	14447.9	8411.3	916.7	16790.4	41169
MONROE	VOLUSIA	31180	29.7	69.2	81.5	0.0	0.0	180
MONROE	VOLUSIA	31185	4.9	4966.7	9730.8	17.3	0.0	14720
MONROE	VOLUSIA	31188	494.2	721.5	3526.1	96.4	145.8	4984
MONROE	VOLUSIA	31190	640.0	252.0	1492.5	42.0	600.5	3027
MONROE	VOLUSIA	31195	5633.9	7123.9	9772.8	4539.2	14114.4	41184
MONROE	VOLUSIA	31200	86.5	0.0	69.2	4.9	0.0	161
MONROE	VOLUSIA	31205	269.3	2162.1	12582.3	447.3	3180.2	18641
MONROE	VOLUSIA	31210	163.1	5297.8	14648.1	1255.3	3002.3	24367
MONROE	VOLUSIA	31215	0.0	96.4	5186.6	54.4	380.5	5718
MONROE	VOLUSIA	31220	0.0	135.9	261.9	37.1	593.0	1028
MONROE	VOLUSIA	31225	0.0	348.4	543.6	61.8	385.5	1339
MONROE	VOLUSIA	31230	177.9	2572.3	11534.6	160.6	4638.1	19084
MONROE	VOLUSIA	31235	0.0	1497.4	1396.1	0.0	1826.1	4720
MONROE	VOLUSIA	31240	0.0	1079.8	6024.3	2.5	1544.4	8651
MONROE	VOLUSIA	31245	1571.6	6180.0	19819.9	3980.8	7615.6	39168
MONROE	VOLUSIA	31250	0.0	1675.3	5105.1	617.7	2236.3	9634
MONROE	VOLUSIA	31255	0.0	4156.2	2728.0	257.0	4892.6	12034
MONROE	VOLUSIA	31260	0.0	2770.0	4761.6	2.5	897.0	8431

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
MONROE	VOLUSIA	31265	0.00	9044.3	18441.1	34.59	165.56	28285.5
MONROE	VOLUSIA	31270	0.00	23412.7	27499.8	54.36	276.75	51243.6
MONROE	VOLUSIA	31275	0.00	33963.9	25345.0	6617.34	224.86	66151.1
MONROE	VOLUSIA	31280	227.33	966.2	7440.2	12.35	39.54	8685.6
MONROE	VOLUSIA	31285	832.73	21309.9	37245.4	54.36	387.95	59830.3
MONROE	VOLUSIA	31290	0.00	0.0	138.4	0.00	0.00	138.4
MONROE	VOLUSIA	31295	0.00	0.0	3563.2	98.84	368.18	4030.2
MONROE	VOLUSIA	31296	0.00	0.0	14.8	0.00	0.00	14.8
MONROE	VOLUSIA	31298	0.00	0.0	29.7	0.00	0.00	29.7
MONROE	VOLUSIA	31300	0.00	0.0	74.1	0.00	0.00	74.1
MONROE	VOLUSIA	31302	0.00	0.0	358.3	0.00	19.77	378.1
MONROE	VOLUSIA	31305	0.00	0.0	850.0	0.00	32.12	882.1
MONROE	VOLUSIA	31307	0.00	0.0	4.9	0.00	0.00	4.9
MONROE	VOLUSIA	31309	7.41	0.0	84.0	46.95	0.00	138.4
MONROE	VOLUSIA	31310	7.41	0.0	42.0	0.00	0.00	49.4
MONROE	VOLUSIA	31315	360.77	481.8	5495.5	91.43	175.44	6605.0
MONROE	VOLUSIA	31320	0.00	0.0	2812.0	93.90	74.13	2980.0
MONROE	VOLUSIA	31322	0.00	227.3	1986.7	0.00	0.00	2214.0
MONROE	VOLUSIA	31325	0.00	195.2	874.7	12.35	0.00	1082.3
MONROE	VOLUSIA	31327	0.00	1396.1	3427.3	175.44	284.16	5283.0
MONROE	VOLUSIA	31330	0.00	42.0	778.4	0.00	0.00	820.4
MONROE	VOLUSIA	31332	0.00	86.5	430.0	0.00	0.00	516.4
MONROE	VOLUSIA	31335	2.47	716.6	1707.5	0.00	0.00	2426.5
MONROE	VOLUSIA	31337	4.94	244.6	973.6	0.00	0.00	1223.1
MONROE	VOLUSIA	31340	0.00	0.0	810.5	0.00	0.00	810.5
MONROE	VOLUSIA	31345	0.00	0.0	365.7	0.00	0.00	365.7
MONROE	VOLUSIA	31347	12.35	202.6	2384.5	98.84	98.84	2797.2
MONROE	VOLUSIA	31350	0.00	148.3	10973.7	177.91	499.14	11799.0
MONROE	VOLUSIA	31440	3237.01	3664.5	4554.1	919.21	91.43	12466.2
MONROE	VOLUSIA	31445	64.25	44.5	350.9	207.56	0.00	667.2
MONROE	VOLUSIA	31446	234.74	111.2	81.5	24.71	0.00	452.2
MONROE	VOLUSIA	31447	303.93	0.0	306.4	37.06	143.32	790.7
MONROE	VOLUSIA	31450	150.73	1129.2	76.6	0.00	0.00	1356.6
MONROE	VOLUSIA	31455	4744.32	2270.8	276.8	469.49	0.00	7761.4
MONROE	VOLUSIA	31460	0.00	363.2	266.9	0.00	0.00	630.1
MONROE	VOLUSIA	31465	973.57	5211.3	7541.5	518.91	0.00	14245.3
MONROE	VOLUSIA	31467	0.00	14.8	168.0	0.00	0.00	182.9
MONROE	VOLUSIA	31470	0.00	0.0	271.8	51.89	0.00	323.7
MONROE	VOLUSIA	31472	971.10	1912.6	1139.1	395.36	0.00	4418.1
MONROE	VOLUSIA	31475	34.59	14.8	14.8	0.00	0.00	64.2
MONROE	VOLUSIA	31478	1905.14	2.5	170.5	541.15	0.00	2619.3
MONROE	VOLUSIA	31480	338.53	0.0	24.7	81.54	0.00	444.8
MONROE	VOLUSIA	31481	625.16	321.2	61.8	39.54	0.00	1047.7
MONROE	VOLUSIA	31482	224.86	0.0	145.8	51.89	0.00	422.5
MONROE	VOLUSIA	31483	553.50	0.0	29.7	172.97	0.00	756.1
MONROE	VOLUSIA	31486	368.18	44.5	0.0	34.59	0.00	447.3
MONROE	VOLUSIA	31497	1067.47	0.0	66.7	187.80	0.00	1322.0
MONROE	VOLUSIA	31490	207.56	0.0	0.0	46.95	0.00	254.5
MONROE	VOLUSIA	31492	5500.45	0.0	266.9	911.90	0.00	6679.1
MONROE	VOLUSIA	31517	108.72	0.0	0.0	0.00	0.00	108.7
MONROE	VOLUSIA	31520	281.69	0.0	0.0	32.12	0.00	313.8
MONROE	VOLUSIA	31521	101.31	0.0	0.0	0.00	0.00	101.3
MONROE	VOLUSIA	31525	0.00	11047.8	32.1	0.00	24.71	11104.7
MONROE	VOLUSIA	31527	160.61	6946.0	2683.5	412.66	0.00	10202.8
MONROE	VOLUSIA	31530	76.60	5236.0	5646.2	331.11	625.16	11915.2
MONROE	VOLUSIA	31532	138.38	7170.8	1255.3	202.62	0.00	8767.1
MONROE	VOLUSIA	31535	484.32	1156.4	2933.1	948.86	34.59	5557.3
MONROE	VOLUSIA	31537	108.72	600.5	469.5	0.00	0.00	1178.7
MONROE	VOLUSIA	31540	531.26	1705.0	3130.8	2.47	0.00	5369.5
MONROE	VOLUSIA	31545	2730.45	10798.3	39854.8	88.96	385.48	53857.9
MONROE	VOLUSIA	31547	12.35	1247.9	1425.8	0.00	66.72	2752.7
MONROE	VOLUSIA	31550	0.00	7662.6	9980.4	689.41	0.00	18332.3
MONROE	VOLUSIA	31555	0.00	1831.0	1373.9	9.88	212.51	3427.3
MONROE	VOLUSIA	31557	0.00	173.0	1233.0	27.18	22.24	1455.4
MONROE	VOLUSIA	31560	0.00	7109.1	24297.3	1591.32	501.61	33499.3
MONROE	VOLUSIA	31565	91.43	926.6	2587.1	54.36	0.00	3659.6
MONROE	VOLUSIA	31570	0.00	430.0	16432.1	32.12	66.72	16960.9
MONROE	VOLUSIA	31572	0.00	328.6	1371.4	0.00	0.00	1700.0
MONROE	VOLUSIA	31575	0.00	988.4	9896.4	0.00	121.08	11005.8
MONROE	VOLUSIA	31580	0.00	5510.3	1942.2	0.00	29.65	7482.2
MONROE	VOLUSIA	31585	34.59	20805.8	70875.7	558.45	1732.17	94006.7

Table G-4. (Continued)

FLORIDA LAND USE DATA

HYDRO - HYDROLOGIC UNIT AREA FROM FDER/FSU
TOTLAND - TOTAL DRAINAGE AREA, ACRES

LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
MONROE	VOLUSIA	31590	9.88	4761.6	14640.7	2.47	89.0	19501.6
MONROE	VOLUSIA	31592	0.00	46.9	4838.2	0.00	0.0	4885.2
MONROE	VOLUSIA	31600	0.00	2730.5	17072.1	0.00	276.8	20079.3
MONROE	VOLUSIA	31602	0.00	205.1	338.5	0.00	0.0	543.6
MONROE	VOLUSIA	31605	0.00	158.1	1057.6	0.00	0.0	1215.7
MONROE	VOLUSIA	31612	0.00	308.9	2619.3	0.00	64.2	2992.4
MONROE	VOLUSIA	31617	202.62	3459.4	10978.7	12.35	7.4	14660.4
MONROE	VOLUSIA	31620	0.00	42.0	313.8	0.00	0.0	355.8
MONROE	VOLUSIA	31630	0.00	815.4	751.2	0.00	0.0	1566.6
MONROE	VOLUSIA	31635	276.75	2352.4	11450.6	7.41	0.0	14087.2
MONROE	VOLUSIA	31637	0.00	2584.7	6871.9	84.01	1828.5	11369.1
MONROE	VOLUSIA	31640	64.25	29.7	662.2	2.47	0.0	758.6
MONROE	VOLUSIA	31642	0.00	0.0	160.6	0.00	0.0	160.6
MONROE	VOLUSIA	31645	0.00	128.5	422.5	0.00	0.0	551.0
MONROE	VOLUSIA	31647	111.19	217.4	5221.2	0.00	126.0	5675.9
MONROE	VOLUSIA	31650	489.26	1003.2	17988.9	51.89	1413.4	20946.7
MONROE	VOLUSIA	31652	0.00	150.7	706.7	9.88	0.0	867.3
MONROE	VOLUSIA	31655	0.00	46.9	89.0	0.00	0.0	135.9
MONROE	VOLUSIA	31657	0.00	402.8	5045.8	51.89	877.2	6377.7
MONROE	VOLUSIA	31660	205.09	387.9	990.9	49.42	7.4	1640.7
MONROE	VOLUSIA	31662	0.00	96.4	4339.1	160.61	481.8	5077.9
MONROE	VOLUSIA	31670	345.94	4420.6	2416.6	252.04	0.0	7435.2
MONROE	VOLUSIA	31675	442.31	1213.3	316.3	17.30	0.0	1989.2
MONROE	VOLUSIA	31680	212.51	1139.1	343.5	49.42	0.0	1744.5
MONROE	VOLUSIA	31682	358.29	341.0	34.6	19.77	0.0	753.7
MONROE	VOLUSIA	31685	429.95	219.9	1111.9	32.12	0.0	1793.9
MONROE	VOLUSIA	31687	239.69	54.4	42.0	0.00	0.0	336.1
MONROE	VOLUSIA	31690	51.89	7.4	2.5	0.00	0.0	61.8
MONROE	VOLUSIA	31695	3545.88	2634.1	840.1	160.61	160.6	7341.3
MONROE	VOLUSIA	31705	271.81	926.6	138.4	0.00	0.0	1336.8
MONROE	VOLUSIA	31710	644.93	210.0	207.6	0.00	0.0	1062.5
MONROE	VOLUSIA	31715	0.00	0.0	7.4	0.00	0.0	7.4
MONROE	VOLUSIA	31717	0.00	24.7	486.8	0.00	0.0	511.5
MONROE	VOLUSIA	31720	0.00	0.0	96.4	0.00	0.0	96.4
MONROE	VOLUSIA	31725	0.00	1576.5	3553.3	0.00	0.0	5129.8
MONROE	VOLUSIA	31730	570.80	2977.6	4954.4	0.00	0.0	8502.7
MONROE	VOLUSIA	31732	202.62	257.0	207.6	0.00	0.0	667.2
MONROE	VOLUSIA	31735	0.00	51.9	2.5	0.00	0.0	54.4
MONROE	VOLUSIA	31740	2725.51	1359.0	1089.7	289.11	0.0	5463.4
MONROE	VOLUSIA	31745	953.81	365.7	0.0	9.88	0.0	1329.4
MONROE	VOLUSIA	31747	504.08	0.0	2.5	96.37	0.0	602.9
MONROE	VOLUSIA	31750	679.52	1242.9	726.5	0.00	0.0	2648.9
PUZZLE	VOLUSIA	31120	588.10	46726.6	19204.6	3951.13	13555.9	84026.4
PUZZLE	VOLUSIA	31125	2517.95	4373.7	4818.4	121.08	1069.9	12901.1
PUZZLE	VOLUSIA	31130	128.49	205.1	1709.9	0.00	61.8	2105.3
PUZZLE	VOLUSIA	31135	0.00	496.7	1188.6	0.00	0.0	1685.2
PUZZLE	VOLUSIA	31140	0.00	0.0	39.5	27.18	126.0	192.7
PUZZLE	VOLUSIA	31145	1509.78	9767.9	15653.8	3755.92	17301.9	47989.3
PUZZLE	VOLUSIA	31150	135.90	454.7	1737.1	0.00	0.0	2327.7
PUZZLE	VOLUSIA	31155	2364.75	17190.7	12629.3	1171.25	14289.8	47645.8
PUZZLE	VOLUSIA	31160	61.77	1183.6	7076.9	4.94	486.8	8814.1
PUZZLE	VOLUSIA	31165	316.29	620.2	2438.9	32.12	580.7	3988.2
PUZZLE	VOLUSIA	31170	54.36	3076.4	5589.4	42.01	180.4	8942.5
PUZZLE	VOLUSIA	31175	602.92	14447.9	8411.3	916.74	16790.4	41169.3
PUZZLE	VOLUSIA	31180	29.65	69.2	81.5	0.00	0.0	180.4
PUZZLE	VOLUSIA	31185	4.94	4966.7	9730.8	17.30	0.0	14719.7
PUZZLE	VOLUSIA	31188	494.20	721.5	3526.1	96.37	145.8	4984.0
PUZZLE	VOLUSIA	31190	639.99	252.0	1492.5	42.01	600.5	3027.0
PUZZLE	VOLUSIA	31195	5633.88	7123.9	9772.8	4539.23	14114.4	41184.2
PUZZLE	VOLUSIA	31200	86.48	0.0	69.2	4.94	0.0	160.6
PUZZLE	VOLUSIA	31205	269.34	2162.1	12582.3	447.25	3180.2	18641.2
PUZZLE	VOLUSIA	31210	163.09	5297.8	14648.1	1255.27	3002.3	24366.5
PUZZLE	VOLUSIA	31215	0.00	96.4	5186.6	54.36	380.5	5717.9
PUZZLE	VOLUSIA	31220	0.00	135.9	261.9	37.06	593.0	1027.9
PUZZLE	VOLUSIA	31225	0.00	348.4	543.6	61.77	385.5	1339.3
PUZZLE	VOLUSIA	31230	177.91	2572.3	11534.6	160.61	4638.1	19083.5
PUZZLE	VOLUSIA	31235	0.00	1497.4	1396.1	0.00	1826.1	4719.6
PUZZLE	VOLUSIA	31240	0.00	1079.8	6024.3	2.47	1544.4	8651.0
PUZZLE	VOLUSIA	31245	1571.56	6180.0	19819.9	3980.78	7615.6	39167.8
PUZZLE	VOLUSIA	31250	0.00	1675.3	5105.1	617.75	2236.3	9634.4
PUZZLE	VOLUSIA	31255	0.00	4156.2	2728.0	256.98	4892.6	12033.8

Table G-4. (Continued)

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*************************************************
*          FLORIDA LAND USE DATA                *
*                                               *
*  HYDRO - HYDROLOGIC UNIT AREA FROM EDER/FSU   *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES           *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
PUZZLE	VOLUSIA	31260	0.00	2770.0	4761.6	2.47	896.97	8431.1
PUZZLE	VOLUSIA	31265	0.00	9644.3	18441.1	34.59	165.56	28285.5
PUZZLE	VOLUSIA	31270	0.00	23412.7	27499.8	54.36	276.75	51243.6
PUZZLE	VOLUSIA	31275	0.00	37962.9	25345.0	6617.34	224.86	66151.1
PUZZLE	VOLUSIA	31280	227.33	966.2	7440.2	12.35	39.54	8685.6
PUZZLE	VOLUSIA	31285	832.73	21309.9	37245.4	54.36	387.95	59830.3
PUZZLE	VOLUSIA	31290	0.00	0.0	138.4	0.00	0.00	138.4
PUZZLE	VOLUSIA	31295	0.00	0.0	3563.2	98.84	368.18	4030.2
PUZZLE	VOLUSIA	31296	0.00	0.0	14.8	0.00	0.00	14.8
PUZZLE	VOLUSIA	31298	0.00	0.0	29.7	0.00	0.00	29.7
PUZZLE	VOLUSIA	31300	0.00	0.0	74.1	0.00	0.00	74.1
PUZZLE	VOLUSIA	31302	0.00	0.0	358.3	0.00	19.77	378.1
PUZZLE	VOLUSIA	31305	0.00	0.0	850.0	0.00	32.12	882.1
PUZZLE	VOLUSIA	31307	0.00	0.0	4.9	0.00	0.00	4.9
PUZZLE	VOLUSIA	31309	7.41	0.0	84.0	46.95	0.00	138.4
PUZZLE	VOLUSIA	31310	7.41	0.0	42.0	0.00	0.00	49.4
PUZZLE	VOLUSIA	31315	360.77	481.8	5495.5	91.43	175.44	6605.0
PUZZLE	VOLUSIA	31320	0.00	0.0	2812.0	93.90	74.13	2980.0
PUZZLE	VOLUSIA	31322	0.00	227.3	1986.7	0.00	0.00	2214.0
PUZZLE	VOLUSIA	31325	0.00	195.2	874.7	12.35	0.00	1082.3
PUZZLE	VOLUSIA	31327	0.00	1396.1	3427.3	175.44	284.16	5283.0
PUZZLE	VOLUSIA	31330	0.00	42.0	778.4	0.00	0.00	820.4
PUZZLE	VOLUSIA	31332	0.00	86.5	430.0	0.00	0.00	516.4
PUZZLE	VOLUSIA	31335	2.47	716.6	1707.5	0.00	0.00	2426.5
PUZZLE	VOLUSIA	31337	4.94	244.6	973.6	0.00	0.00	1223.1
PUZZLE	VOLUSIA	31340	0.00	0.0	810.5	0.00	0.00	810.5
PUZZLE	VOLUSIA	31345	0.00	0.0	365.7	0.00	0.00	365.7
PUZZLE	VOLUSIA	31347	12.35	202.6	2384.5	98.84	98.84	2797.2
PUZZLE	VOLUSIA	31350	0.00	148.3	10973.7	177.91	499.14	11799.0
PUZZLE	VOLUSIA	31527	160.61	6946.0	2683.5	412.66	0.00	10202.8
PUZZLE	VOLUSIA	31530	76.60	5236.0	5646.2	331.11	625.16	11915.2
PUZZLE	VOLUSIA	31532	138.38	7170.8	1255.3	202.62	0.00	8767.1
PUZZLE	VOLUSIA	31535	484.32	1156.4	2933.1	948.86	34.59	5557.3
PUZZLE	VOLUSIA	31537	108.72	600.5	469.5	0.00	0.00	1178.7
PUZZLE	VOLUSIA	31540	531.26	1705.0	3130.8	2.47	0.00	5369.5
PUZZLE	VOLUSIA	31545	2730.45	10798.3	39854.8	88.96	385.48	53857.9
PUZZLE	VOLUSIA	31547	12.35	1247.9	1425.8	0.00	66.72	2752.7
PUZZLE	VOLUSIA	31550	0.00	7662.6	9980.4	689.41	0.00	18332.3
PUZZLE	VOLUSIA	31555	0.00	1831.0	1373.9	9.88	212.51	3427.3
PUZZLE	VOLUSIA	31557	0.00	173.0	1233.0	27.18	22.24	1455.4
PUZZLE	VOLUSIA	31560	0.00	7109.1	24297.3	1591.32	501.61	33499.3
PUZZLE	VOLUSIA	31565	91.43	926.6	2587.1	54.36	0.00	3659.6
PUZZLE	VOLUSIA	31570	0.00	430.0	16432.1	32.12	66.72	16960.9
PUZZLE	VOLUSIA	31572	0.00	328.6	1371.4	0.00	0.00	1700.0
PUZZLE	VOLUSIA	31575	0.00	988.4	9896.4	0.00	121.08	11005.8
PUZZLE	VOLUSIA	31580	0.00	5510.3	1942.2	0.00	29.65	7482.2
PUZZLE	VOLUSIA	31585	34.59	20805.8	70875.7	558.45	1732.17	94006.7
PUZZLE	VOLUSIA	31590	9.88	4761.6	14640.7	2.47	88.96	19503.6
PUZZLE	VOLUSIA	31592	0.00	46.9	4838.2	0.00	0.00	4885.2
PUZZLE	VOLUSIA	31600	0.00	2730.5	17072.1	0.00	276.75	20079.3
PUZZLE	VOLUSIA	31602	0.00	205.1	338.5	0.00	0.00	543.6
PUZZLE	VOLUSIA	31605	0.00	158.1	1057.6	0.00	0.00	1215.7
PUZZLE	VOLUSIA	31612	0.00	308.9	2619.3	0.00	64.25	2992.4
PUZZLE	VOLUSIA	31617	202.62	3459.4	10978.7	12.35	7.41	14660.4
PUZZLE	VOLUSIA	31620	0.00	42.0	313.8	0.00	0.00	355.8
PUZZLE	VOLUSIA	31630	0.00	815.4	751.2	0.00	0.00	1566.6
PUZZLE	VOLUSIA	31635	276.75	2352.4	11450.6	7.41	0.00	14087.2
PUZZLE	VOLUSIA	31637	0.00	2584.7	6871.9	84.01	1828.54	11369.1
PUZZLE	VOLUSIA	31640	64.25	29.7	662.2	2.47	0.00	758.6
PUZZLE	VOLUSIA	31642	0.00	0.0	160.6	0.00	0.00	160.6
PUZZLE	VOLUSIA	31645	0.00	128.5	422.5	0.00	0.00	551.0
PUZZLE	VOLUSIA	31647	111.19	217.4	5221.2	0.00	126.02	5675.9
PUZZLE	VOLUSIA	31650	499.26	1003.2	17988.9	51.89	1413.41	20946.7
PUZZLE	VOLUSIA	31652	0.00	150.7	706.7	9.88	0.00	867.3
PUZZLE	VOLUSIA	31655	0.00	46.9	89.0	0.00	0.00	135.9
PUZZLE	VOLUSIA	31657	0.00	402.8	5045.8	51.89	877.20	6377.7
PUZZLE	VOLUSIA	31660	205.09	387.9	990.9	49.42	7.41	1640.7
PUZZLE	VOLUSIA	31662	0.00	96.4	4339.1	160.61	481.84	5077.9
PUZZLE	VOLUSIA	31670	345.94	4420.6	2416.6	252.04	0.00	7435.2
PUZZLE	VOLUSIA	31675	442.31	1213.3	316.3	17.30	0.00	1989.2
PUZZLE	VOLUSIA	31680	212.51	1139.1	343.5	49.42	0.00	1744.5

Table G-4. (Continued).

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*          FLORIDA LAND USE DATA                    *
*                                                   *
*  HYDRO - HYDROLOGIC UNIT AREA FROM FDEP/FSU       *
*TOTLAND - TOTAL DRAINAGE AREA, ACRES               *
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LAKE	COUNTY	HYDRO	URBAN	FOREST	AGRICUL	WATER	WETLANDS	TOTLAND
PUZZLE	VOLUSIA	31682	358.29	341.0	34.6	19.8	0.0	754
PUZZLE	VOLUSIA	31685	429.95	219.9	1111.9	32.1	0.0	1794
PUZZLE	VOLUSIA	31687	239.69	54.4	42.0	0.0	0.0	336
PUZZLE	VOLUSIA	31690	51.89	7.4	2.5	0.0	0.0	62
PUZZLE	VOLUSIA	31695	3545.88	2634.1	840.1	160.6	160.6	7341
PUZZLE	VOLUSIA	31705	271.81	926.6	138.4	0.0	0.0	1337
PUZZLE	VOLUSIA	31710	644.93	210.0	207.6	0.0	0.0	1063
PUZZLE	VOLUSIA	31715	0.00	0.0	7.4	0.0	0.0	7
PUZZLE	VOLUSIA	31717	0.00	24.7	486.8	0.0	0.0	511
PUZZLE	VOLUSIA	31720	0.00	0.0	96.4	0.0	0.0	96
PUZZLE	VOLUSIA	31725	0.00	1576.5	3553.3	0.0	0.0	5130
PUZZLE	VOLUSIA	31730	570.80	2977.6	4954.4	0.0	0.0	8503
PUZZLE	VOLUSIA	31732	202.62	257.0	207.6	0.0	0.0	667
PUZZLE	VOLUSIA	31735	0.00	51.9	2.5	0.0	0.0	54
PUZZLE	VOLUSIA	31740	2725.51	1359.0	1089.7	289.1	0.0	5463
PUZZLE	VOLUSIA	31745	953.81	365.7	0.0	9.9	0.0	1329
PUZZLE	VOLUSIA	31747	504.08	0.0	2.5	96.4	0.0	603
PUZZLE	VOLUSIA	31750	679.52	1242.9	726.5	0.0	0.0	2649
WINNEMISETT	VOLUSIA	31065	57.00	24.0	472.0	206.0	27.0	787
WINONO	VOLUSIA	25475	0.00	527.0	255.0	176.0	0.0	958
WOODRUFF	VOLUSIA	31040	4435.00	83274.0	13879.0	25579.0	48564.0	175731
JACKSON	WALTON	7205	69.19	101.3	205.1	296.5	0.0	672
PORTER	WASHINGTON	11070	0.00	4371.2	1032.9	9.9	0.0	5414

Table G-5. Hydrologic Master List.

HYDROLOGIC BASIN - CODE MASTER LIST

KEY TO HYDROLOGIC BASINS IN FLORIDA DELINEATED IN COOPERATION

WITH U.S.G.S. AND F.D.E.R.

01 PERDIDO RIVER BASIN PE-SW, NW
01005 - 01045
Perdido River 01005, 01025, 01035
Jacks Branch 01005 - 01010
Churchhouse Branch 01015 - 01020
McDavid Creek 01025 - 01030
Boggy Creek 01025
Brushy Creek 01040 - 01045

02 PERDIDO BAY INFLOW AND COASTAL AREA PE-SW, NW
02005 - 02030
Eleven Mile Creek 02010 - 02020
Bayou Marcus Creek 02025 - 02030

03 ESCAMBIA RIVER BASIN PE-NW
03005 - 03035
Escambia River 03005 - 03020, 03035
Big Rock Creek 03010
Tenmile Creek 03015
Pine Barren Creek 03040 - 03045
Moore Creek 03020 - 03025
Canoe Creek 03020, 03030

04 LOWER CONECUH RIVER BASIN PE-NW
04005

05 BLACKWATER RIVER BASIN PE-NE, NW
05005 - 05115
Blackwater River 05005 - 05015, 05030 - 05035, 05050
Pond Creek 05055, 05070
Hurricane Branch 05060 - 05065
Clear Creek 05005
Big Coldwater Creek 05075 - 05080
East Fork Big Coldwater Creek 05080 - 05085
West Fork Big Coldwater Creek 05080, 05090
Big Juniper Creek 05095 - 05105
Sweetwater Creek 05110 - 05115
Beaver Creek 05015
Muddy Branch 05020 - 05025
Panther Creek 05030
Boggy Hollow Creek 05040 - 05045

Table G-5. (Continued)

06 ESCAMBIA BAY, INFLOW AND COASTAL AREA PE-SW, SE, NE, NW
06005 - 06055
Escambia Bay 06005
Carpenter Creek 06015 - 06030
East Bay River 06035 - 06040
Liveoak Creek 06040 - 06045
Turtle Creek 06040, 06050 - 06055

07 YELLOW RIVER BASIN PE-SE, NE, NW
07005 - 07205
Yellow River 07005 - 07010, 07025, 07050, 07080 - 07090
Metts Creek 07015 - 07020
Malone Creek 07030 - 07035
Middle Creek 07040 - 07045
Turkey Gobbler Creek 07055 - 07060
Carspring Creek 07065 - 07070
Shoal River 07095, 07115 - 07135
Gopher Creek 07100 - 07105
Turkey Hen Creek 07095, 07110
Titi Creek 07155 - 07165
Poverty Creek 07125
Pond Creek 07170, 07195
Long Creek 07175 - 07180
Pine Log Creek 07185 - 07190
Juniper Creek 07195
Horsehead Creek 07195 - 07200
(Lake Jackson area 07205)
Turkey Creek 07135
Big Swamp Creek 07135, 07150
Gum Creek 07140 - 07145
Bagett Creek 07050, 07075

08 CHOCTAWHATCHEE BAY INFLOW AND COASTAL AREA PE-SE, NE
08005 - 08195 TA-NW
Choctawhatchee Bay 08005
Lightwood Knot Creek 08022 - 08025
Garnier Creek 08030 - 08035
No Name from Jacks Lake 08010
Toms Creek 08015 - 08020
Turkey Creek 08040, 08080
Juniper Creek 08045 - 08050
Anderson Branch 08055 - 08060
Tenmile Creek 08065 - 08070
Rogue Branch 08075
Swift Creek 08085 - 08090
Turkey Creek 08095 - 08100
Rocky Creek 08105, 08130, 08145
Long Creek 08110 - 08115
Long Creek 08120 - 08125
Little Rocky Creek 08135 - 08140
Basin Creek 08150 - 08155

Table G-5. (Continued).

Alaqua Creek 08160 - 08165
Four Mile Creek 08170
Lafayette Creek 08180 - 08185
Magnolia Creek 08190 - 08195

09 PEA RIVER BASIN PE-NE
09005 - 09035 TA-NW
Hurricane Creek 09010
Chestnut Creek 09005
Limestone Creek 09015
Spring Branch 09015 - 09020
Eightmile Creek 09025 - 09030
Natural Bridge Creek 09035

09007 Unidentified polygon

10 CHOCTAWHATCHEE RIVER BASIN PE-SE, NE
10005 - 10155 TA-SW, NW
Choctawhatchee River 10005, 10015 - 10025
Black Creek 10030, 10045
Camp Creek 10030
Pate Branch 10035 - 10040
Pine Log Creek 10005 - 10010
Holmes Creek 10015, 10050, 10065
Reedy Branch 10055 - 10060
Seven Runs 10070 - 10075
Bruce Creek 10080 - 10090
Sandy Creek 10095, 10105 - 10110
Mill Creek 10100
Blue Creek 10115
Wrights Creek 10120, 10135
Hathaway Mill Creek 10125 - 10130
Tenmile Creek 10135
West Pittman Creek 10140 - 10145
Fowler Branch 10150 - 10155

10027 Unidentified polygon

11 ST. ANDREW BAY INFLOW AND COASTAL AREA PE-SE
11005 - 11070 TA-SW, NW
West Bay 11005 AP-NW
Burnt Mill 11005
Intercoastal Waterway 11005
North Bay 11005
Big Cedar Creek 11020, 11065
Ecofina Creek 11020, 11045 - 11060
Bear Creek 11025 - 11030
Little Bear Creek 11035 - 11040
South Fork Bear Creek 11030

Table G-5. (Continued)

Bayou George Creek 11020
(White Oak Creek/Porter Lake 11065 - 11070)
East Bay 11005
Sandy Creek 11010 - 11015
Wetappo Creek 11005 - 11008

12 CHIPOLA RIVER BASIN — TA-SW, NW
12005 - 12030 — AP-NW
Chipola River 12005 - 12015, 12030
Cypress Creek 12010
Juniper Creek 12010
Fourmile Creek 12010
Tenmile Creek 12010
Holliman Branch 12020 - 12025
Dry Creek 12015

13 LOWER CHATTAHOOCHEE RIVER — TA-NE, NW
13005

14 APALACHICOLA RIVER BASIN — TA-SW, SE, NE, NW
14005 - 14065 — AP-NE, NW
Apalachicola River 14005 - 14020
Jackson River/Lake Wimico 14005
Cypress Creek 14005
Searcy Creek 14005
Depot Creek 14005
Brothers River 14005
East River 14005
Florida River 14005
Stafford Creek 14020
Sweetwater Creek 14025
Rock Creek 14030
Flat Creek 14030
Crooked Creek 14035 - 14040
Mosquito Creek 14055
South Mosquito Creek 14060
North Mosquito Creek 14060 - 14065

15 APALACHICOLA BAY COASTAL AREA AND OFFSHORE ISLANDS — AP-NE, NW

16 COASTAL AREA BETWEEN OCHLOCKONEE AND APALACHICOLA RIVERS — TA-SE, AP-NE
16005 - 16025
Carrabelle River 16005
Crooked River 16005 and 17015 (flows into Ochlockonee River)
New River 16010 - 16025
Juniper Creek 16010
Cat Branch 16015
Bay Creek 16020

Table G-5. (Continued)

17 OCHLOCKONEE RIVER BASIN — TA-SE, NE
17005 - 17495 — AP-NE

Ochlockonee Bay 17005
Ochlockonee River 17010 - 17015, 17025, 17065 - 17070, 17115 - 17125
(17070 Lake Talquin)
(17425 Lake Jackson)
No Name 17425 - 17430
No Name 17425, 17460
No Name 17425, 17436 - 17440, 17455
(17430 Lake Hall)
(17485 Lake Iomonia)
Crooked River 17015 and 16005 (flows into New River)
(Tiger Creek 17015 - 17020)
(Indian Creek 17025 - 17030)
Telogia Creek 17130, 17140, 17155, 17180 - 17185
Yellow Creek 17135
Big Creek 17130, 17157
Mill Branch 17145 - 17150
Mule Creek 17160 - 17165
Little Telogia Creek 17170 - 17175
Sweetwater Creek 17035 - 17040
Black Creek 17045 - 17050
Blue Creek 17055 - 17060
No Name 17065
Hammock Creek 17190 - 17195
Ocklawaha Creek 17200 - 17210
Freeman Creek 17070 - 17075
Harvey Creek 17070, 17085
Rocky Comfort Creek 17215, 17235 - 17245
Bear Creek 17220 - 17225
Turkey Creek 17230
Polk Creek 17090 - 17095
Little River 17250, 17280 - 17290
Richlander Creek 17255 - 17260
Monroe Creek 17265 - 17270
Hurricane Creek 17315 - 17325
Quincy Creek 17330, 17370 - 17375, 17400
Winkley Branch 17335 - 17340
Hubbert Branch 17345 - 17350
Tanyard Branch 17355 - 17365
Hollman Branch 17380 - 17385
No Name 17390
Willacoochee Creek 17290 - 17295, 17310
No Name 17300 - 17305
Atapulgus Creek 17405, 17420
Swamp Creek 17410 - 17415
Midway Branch 17100 - 17105
No Name 17465 - 17470
Ochlockonee River Tributary 17475
No Name 17480
Shaw Creek 17490 - 17495
Sopchoppy River 17500 - 17510

17080, 17110, 17445 Unidentified Polygons

Table G-5. (Continued)

18 ST. MARKS AND WAKULLA RIVERS AND COASTAL AREA BETWEEN AUCILLA AND OCHLOCKONEE RIVERS — TA-SE, NE; AP-NE; VA-SW, NW

18005 - 18085

- (Lost Creek 18010, 18030)
  - Mill Creek 18025
- Spring Creek 18020
- Walker Creek 18015
- St. Marks River 18010, 18035, 18045
  - Wakulla River 18035
  - (18040 Bradford Brook/Lake Bradford)
  - (18060 Lake Miccosukee)
    - Lake Drain/Lloyd Creek 18050 - 18055
    - Caney Creek 18065 - 18070
    - Ward Creek 18080 - 18085
    - Dry Creek 18060, 18075
- Pinhook River 18005

19 AUCILLA RIVER BASIN — TA-SE; VA-SW

19005 - 19045

- Aucilla River 19005 - 19020
  - Wassissa River 19025 - 19030
    - Welaunee Creek 19025
  - Little Aucilla River 19035 - 19040

19045 Unidentified Polygon

28 COASTAL AREAS BETWEEN SUWANNEE AND AUCILLA RIVERS — VA-SW; GV-SW, NW

28005 - 28120

- Ecofina River 28020 - 28025
  - (28030 Andrews Lake +)
  - (28035 Sampala Lake)
- Regular River 28010
- Fenholloway River 28040 - 28080
  - Spring Creek 28085 - 28090
    - Rocky Creek 28090
    - Pimple Creek 28095 - 28100
- Spring Warrior Creek 28015
- Steinhatchee River 28015, 28105 - 28120
  - Eightmile Creek 28120
  - Kettle Creek 28120

20 WITHLACOOCHEE RIVER BASIN — VA-SW, NE

20005 - 20040

- Withlacoochee River 20005 - 20010, 20020
  - (20015 Lake Octahatchee)
  - (20025 Cherry Lake)

20030, 20035 Unidentified Polygons

Table G-5. (Continued)

27 SUWANNEE RIVER BASIN BELOW WITHLACOOCHEE RIVER EXCLUDING SANTE FE RIVER BASIN — VA-SW, SE; GV-SW, SE, NE, NW
27005 - 27062
Suwannee River 27005, 27015 - 27020, 27030 - 27035, 27050 - 27062
(27010 Long Pond)
(27025 Governor Hill Lake +)
(27040 Townsend Lake +)
(27045 Low Lake +)
(Little River 27035)

21 ALAPAHA RIVER BASIN — VA-SW, NE, NW
21005 - 21025
Alapaha River 21005 - 21015, 21025
(Little Alapaha River 21010, 21020)

22 SUWANNEE RIVER BASIN ABOVE WITHLACOOCHEE RIVER EXCLUDING ALAPAHA RIVER BASIN — VA-SW, SE, NE, NW
22005 - 22020, 22030 - 22140
Suwannee River 22005 - 22020, 22030 - 22040
Rocky Creek 22045, 22060
No Name 22050 - 22055
Swifts Creek 22065 - 22070, 22085
No Name 22075 - 22080
Falling Creek 22090
Robinson Creek 22095 - 22100
Deep Creek 22105 - 22110
Roaring Creek 22115, 22140
Hunter Creek 22120 - 22125
Rocky Creek 22130 - 22135

26 SANTA FE RIVER BASIN — VA-SE; GV-NE
26005 - 26240
Santa Fe River 26005 - 26040, 26055, 26070, 26085, 26095, 26105, 26115, 26140
(No Name 26050, 26060)
(Turkey Creek 26050, 26065)
(26135 Lake Altho)
(Ichetucknee River 26145)
(Rose Creek 26145 - 26150)
(Price Creek/Alligator Lake 26155)
Cow Creek 26157 - 26160
(26165 Waters Lake +)
(Hammock Branch 26045)
Olustee Creek 26175 - 26185
Swift Creek 26190 - 26195
New River 26200, 26220, 26230
(26215 Lake Butler)
Five Mile Creek 26200 - 26205
Richard Creek 26200, 26210
Water Oak Creek 26220 - 26225, 26235
Alligator Creek 26230, 26240

Table G-5. (Continued)

Rocky Creek 26070, 26080
No Name 26075
Monteocha Creek 26085 - 26090
(Sampson River 26100 - 26110)
Sampson Lake 26120
Alligator Creek 26120 - 26125
(Double Run Creek 26115, 26130)

23 ST. MARYS RIVER BASIN VA-SE, NE
23005 - 23315 JX-SW, NW
St. Marys River 23005 - 23035, 23052 - 23060, 23075 - 23080, 23120
Little St. Marys River 23125, 23135 - 23140
Wilder Creek 23125 - 23130
Cabbage Creek 23145 - 23150
Pigeon Creek 23155 - 23160
Brush Creek 23025, 23165 - 23170
Little Dunn Creek 23175 - 23180
Dunn Creek 23185 - 23190
Stave Branch 23035, 23195 - 23200
Deep Creek 23035, 23205 - 23210
Mill Creek 23035, 23215, 23220
No Name 23035, 23040 - 23045
No Name 23050 - 23055
No Name 23060 - 23065
Deep Creek 23060, 23225 - 23230
No Name 23060, 23070
Brandy Branch 23235 - 23240
Deep Creek 23245, 23265
South Prong St. Marys River 23270 - 23280
Turkey Creek 23285 - 23290
North Prong St. Marys River 23085 - 23115
Cedar Creek 23295 - 23300
Middle Prong St. Marys River 23110, 23305
(23315 Ocean Pond)
Rudy Branch 23005 - 23310

23250, 23255, 23260 Unidentified Polygons

24 COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS JX-SW, NW
24005 - 24090
Nassau River 24005 - 24010
Loften Creek 24010 - 24015
Thomas Creek 24030 - 24045
Plummer Creek 24020 - 24025
Mills Creek/Alligator Creek 24050 - 24055
Cushing Creek 24050, 24060
Boggy Creek 24065
Tom Mann Swamp 24065, 24090
Mills Creek 24065 - 24075
Spell Creek 24080 - 24085

Table G-5. (Continued)

29 WACCASSA RIVER AND COASTAL AREA BETWEEN WITHLACOOCHEE AND SUWANNEE RIVERS — GV-SW, SE, NE

29005 - 29050

- Rocky Run 29005
- Coastal Area 29010
- Waccassa River 29015 - 29020, 29030 - 29035
  - (29025 Chunky Pond +)
  - Cow Creek 29015
    - Tenmile Creek 29040 - 29045
      - (Horse Hole Creek 29050)
  - Otter Creek 29015 - 29020
  - Wekiva River 29020

35 WITHLACOOCHEE RIVER BASIN — OR-SE, NW; PC- SE, NE

35005 - 35190, 35200 - 35260

- Withlacoochee River 35005 - 35030, 35040 - 35045, 35060, 35070 - 35075, 35100, 35130
  - (35035 Little Lake)
  - (35050 Lake Lindsey)
  - (35055 Unnamed Lakes)
  - (35065 Spring Lake)
  - (35080 Devils Creek Swamp)
  - (35090 Furguson Lake +)
  - (35095 Clear Lake +)
  - (35140 Lake Helene)
  - (35145 Lake Mattie +)
  - (35150 Lake Juliana +)
  - (35250 Bay Lake, Mill Pond Swamp)
  - (35255 Lake Erie, Mill Steam Swamp)
  - Outlet River 35155 -35160
    - (35165 Lake Okahumpka)
    - (35180 Lake Catherine +)
    - (35185 Unnamed Lake)
    - (35190 Lady Lake +)
    - Lake Panasoffkee 35165
      - Shady Brook 35165 - 35170
      - No Name 35165, 35175
  - Jumper Creek/Canal 35200 - 35220
  - Little Withlacoochee River 35225, 35235, 35245
    - Unnamed Canal 35230, 35240
  - No Name 35075, 35085 - 35090
  - Gator Creek 35260
  - Matress Drain 35120, 35135

25 ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER — VA-SE; GV-NE; JX-SW, NW; DB-SW, NW

25005 - 25255, 25265 - 25270, 25280 - 25315, 25325 - 25550

- St. Johns River 25005, 25045, 25080 - 25085, 25140 - 25150
  - (25090 Doctors Lake)
  - Pablo Creek 25005, 25040

Table G-5. (Continued)

Intercoastal Waterway 25005
Cedar Swamp Creek 25035
Dunn Creek 25005 - 25010
Broward River 25005
Little Cedar Creek 25005, 25015
No Name 25005, 25020
Cedar Creek 25005, 25025
Drummond Creek 25005
Turner Creek/Pond 25005, 25030
Trout River 25155, 25180
Ribault River 25155 - 25160
Six Mile Creek 25160, 25170 - 25175
Little Six Mile Creek 25160 - 25165
Little Trout River 25155, 25185
Arlington River 25045
Pottsburg Creek 25045 - 25050
McCory Creek 25055, 25080
Ortega River/Branch 25080
McGrits Creek 25075
Cedar River 25080
Williamson Creek 25060, 25080
Wills Branch 25070, 25080
No Name 25065, 25080
Julington Creek 25190 - 25200
Cormorant Branch 25190 - 25195
Durbin Creek 25215 - 25220
Big Davis Creek 25205 - 25210
Black Creek 25225
Peters Creek 25225
Little Black Creek 25225
North Fork Black Creek 25225 - 25230, 25255, 25265, 25280, 25290
Yellow Water Creek 25230, 25240 - 25245
Sol Taylor Creek 25235 - 25240
Long Branch 25250 - 25255
Boggy Branch 25265 - 25270
South Fork Black Creek 25225, 25295 - 25300
Bull Creek 25225, 25285
Greens Creek 25300, 25310
Ates Creek 25300 - 25305
Governor's Creek 25312 - 25315
Trout Creek 25085, 25095
Six Mile Creek 25085, 25105
Mill Creek 25085, 25100
Turnball Creek 25105
Town Branch 25105
Clarks Creek 25085, 25110
McCullough Creek 25085, 25115
Moccasin Branch 25085, 25120
Deep Creek 25085, 25125
Cracker Branch 25085, 25130
Sixteen Mile Creek 25085, 25135
Rice Creek 25395 - 25400
(25365 Lake Granden +)
(25370 Smith Lake/Hall Lake +)
(25375 Lake Johnson)

Table G-5. (Continued)

(25380 Unnamed Lake)
(25385 Sand Hill Lake +)
(25390 Brooklyn Lake)
Etonia Creek/Canal 25345 - 25360
Summs Creek 25325 - 25340
Rice Creek 25355
Falling Branch 25355
Palmetto Branch 25400
No Name 25400, 25410
Dunns Creek 25415 - 25420
(25475 Lake Winona)
(25480 Lake Hires +)
(25485 Lake Daugharty +)
(25490 Lake Lindley)
(25495 North Lake Talmadge +)
(25500 South Lake Talmadge +)
Crescent Lake 25425
Haw Creek 25430 - 25435
Sweetwater Branch 25435, 25450
Black Branch 25435 - 25440
Middle Haw Creek 25430, 25445, 25455 - 25460
Little Haw Creek 25430, 25465 - 25470
Murphy Creek 25415
Camp Branch 25150

25047 Unidentified Polygon

30 OKLAWAHA RIVER BASIN GV-SE, NE
30005 - 30450, 30457 - 30470 DB-SW, NW
Oklawaha River 30005 - 30015, 30040 - 30055, 30065, 30075 OR-SW, NW
(30060 Smith Lake)
(30070 Bowers Lake)
(30080 Lake Weir)
(30085 Nictoon Lake +)
(30105 Holley Lake +)
(30110 Lake Umitilla +)
(30125 West Crooked Lake)
(30130 Lake Dicie)
(30160 Church Lake +)
(30170 Lake Francis +)
(30180 Lake Florence)
(30195 Johns Lake +)
Deep Creek 30020
Sweetwater Creek 30020 - 30025
Cabbage Creek 30020, 30030
Bruntbridge Creek 30015, 30035
Orange Creek 30200, 30215, 30265
Little Orange Creek 30205 - 30210
Little Cabbage Creek 30210
Orange Lake/Cross Creek 30265
Lochloosa Lake 30220
Lochloosa Creek 30255 - 30264

Table G-5. (Continued)

No Name 30225
No Name 30230 - 30235
No Name 30240 - 30245
No Name 30225, 30250
Camps Canal 30265 - 30270
Prairie Creek 30275 - 30280
Newnans Lake 30280
No Name 30280 - 30290
No Name 30280, 30295
Little Hatchet Creek 30280, 30300
Hatchet Creek 30280, 30305 - 30310
Eton Creek 30355 - 30360
(30365 Lake Bryant +)
(30370 Halfmoon Lake +)
Lake Griffin 30095
Canal to Lake Yale 30095 - 30100
Lake Yale 30090
Haines Creek 30095, 30120
Lake Eustis 30115
Dora Canal 30145
Lake Dora 30150
Wolf Branch 30140, 30150
Apopka Beauclair Canal 30150 - 30155, 30165
Lake Apopka 30175
No Name 30185
Dead River 30142
Lake Harris 30135
Palatlakaha River 30385 - 30390, 30400 - 30415, 30425 - 30430
(30375 Lake Denham)
(30395 Unnamed Lake)
(30415 Lake Minneola +)
(30420 Apshawa Lake +)
(30425 Lake Minnehaha +)
(30430 Lake Louisa)
(30435 Lake Glona +)
Helena Run 30375 - 30380
Little Creek 30440, 30457
Big Creek 30450, 30460
(30445 Bear Lake +)
(30470 Lake Lowery)
(Paynes Prairie 30315)
(30319 Unnamed Lake)
(30335 Lake Alice)
Hogtown Creek 30315, 30340 - 30350
Sweetwater Branch 30315, 30320 - 30325
Bivans Arm 30315, 30330
Levy Lake 30315
No Name 30317 - 30318

30190, 30465, 30495 Unidentified Polygons

31 ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER — DB-SW
31005 - 31484, 31486 - 31662, 31670 - 31695, 31705 - 31754 — OR-SW, SW, NE, NW; FP-SE, NE, NW

St. Johns River 31005, 31030, 31040 - 31055, 31070, 31080, 31115 - 31120, 31140 - 31145, 31155, 31175, 31195, 31205 - 31210, 31220 - 31265 (St. Johns Swamp 31270 - 31275)

(31010 Lake Delancy +)
(31025 Wildcat Lake)
(31060 Pine Lake +)
(31065 Lake Winnemissett)
(31075 Dupont Lake +)
(31085 Lake Ada)
(31090 Lake Mary +)
(31095 Lake Charm)
(31110 Lake Geneva)
(31190 Sharpes Lake)
(31200 Unnamed Lake)
(31445 Lake Myrtle)
(31446 Grace Lake)
(31447 Island Lake +)
(31470 Lake Waunatta)
(31475 Unnamed Lake)
(31478 Lake Maitland)
(31480 Lake Faith +)
(31481 Lake Hope)
(31482 Lake Charity)
(31484 Lake Sybelia)
(31486 Lake Bell)
(31487 Lake Gem)
(31488 Park Lake)
(31490 Lake Killarney)
(31492 Lake Midget)
(31493 Lake Osceola)
(31494 Lake Sylvan)
(31495 Lake Mizell)
(31496 Lake Virginia)
(31498 Lake Berry)
(31500 Unnamed Lake)
(31502 Lake Winyah)
(31504 Lake Rowena)
(31507 Lake Formosa)
(31508 Druid Lake +)
(31510 Lake Highland)
(31512 Lake Ivanhoe)
(31513 Park Lake)
(31515 Lake Concord)
(31517 Lake Adair)
(31520 Spring Lake)
(31521 Creek between Spring Lake and Lake Adair)
(31531 Lake Sue)

Lake George 31005
Salt Springs Run 31005, 31015
Lake Kerr 31015
Willow Cove Branch 31005, 31020
Lake Dexter/Lake Woodruff/Spring Garden Run 31040

Table G-5. (Continued)

Deep Creek 31035 - 31040
Wekiva River 31375, 31385 - 31390
(31355 Lake Norris)
(31360 Black Water Swamp)
(31365 Lake Dorr)
(31377 Lake Markham +)
(31380 Lake Sylvan +)
(31387 Linden Lake)
(31397 Lake Marion +)
(31402 Lake Elonida +)
(31405 Lake Orienta)
(31410 Bear Lake)
(31417 Lake Johns)
(31420 Lake Fairview)
(31422 Little Lake Fairview)
(31425 Lake Silver)
(31427 Lawne Lake +)
(31430 Lake Herrick)
(31435 Lake Sherwood +)
Blackwater Creek 31355, 31370
Little Wekiva River 31395, 31400, 31406, 31415
Rock Springs Run 31390
Lake Monroe 31055
Lake Jessup 31105
Gee Creek 31455
Soldier Creek 31440, 31450
Howell Creek 31460 - 31467, 31472
Salt Creek 31100
Deep Creek 31070
Cow Creek 31525 - 31526
Lake Harney 31115
Econlockhatchee River 31527 - 31532, 31540 - 31547
(31522 Unnamed Lake)
(31535 Lake Pickett)
(31747 Lake Spier)
(31750 Lake Susannah)
(31752 Creek into Lake Corrine)
(31753 Lake Corrine)
Mills Creek/Silcox Branch 31530
Little Econlockhatchee River 31670 - 31675, 31687 - 31690, 31712 - 31715, 31717, 31730, 31750
No Name 31680
No Name 31682 - 31685
No Name 31695, 31710
No Name 31720 - 31725
No Name 31690, 31705
No Name 31537 - 31540
Little Creek 31550
Roberts Branch 31120, 31130
Christmas Creek 31120, 31150
Joshua Creek 31135
(Shad Creek/Six Mile Creek 31125, 31145)
Tootoosahatchee Creek 31145, 31155 - 31160

No Name 31145
(No Name 31165)
Jim Creek 31155, 31180 - 31185
Second Creek 31155, 31170
Taylor Creek 31555 - 31560
Lake Poinsett 31195
Lake Winder 31210
Cox Creek 31210 - 31215
Wolf Creek 31565 - 31570
Pennywash Creek 31572 - 31575
Lake Washington 31245
Jane Green Creek 31580 - 31590
Crabgrass Creek 31585 - 31590
West Branch Jane Creen Creek 31585, 31595
Bull Creek 31585, 31600
Tyson Creek 31585, 31617
No Name 31585, 31610
Pagett Branch 31612 - 31615
(Ten Mile Creek 31265)
(Wolf Creek 31270)
(Six Mile Creek 31270)
Blue Cypress Lake 31275
Blue Cypress Creek 31630 - 31637
Cow Log Branch 31635, 31660 - 31662
No Name 31657 - 31660
Padgett Branch 31275 - 31280, 31290 - 31295
(Ft. Drum Creek 31285, 31335, 31337, 31347 - 31350)
Jim Green Creek 31285, 31315
Sweetwater Branch 31322 - 31325, 31332
Parker Slough 31320, 31325
Boggy Branch 31327 - 31330
No Name 31337 - 31340

31188, 31296, 31298, 31300, 31302, 31305, 31307, 31309, 31310, 31345, 31352, 31483, 31592, 31596, 31597, 31602, 31605, 31620, 31621, 31622, 31625, 31640, 31642, 31645, 31647, 31650, 31652, 31655, 31735, 31740, 31745 Unidentified Polygons

32 COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET — JX-SW
32005 - 32090 — DB-SW, SE, NE, NW
OR-NE

North River 32005
Tolomato River 32005
Guano River 32005
Moultrie Creek 32015 - 32025
No Name 32030
Matanzas River 32005
Moses Creek 32005 - 32010
Pellicer Creek 32005, 32035 - 32040
Pringle Branch 32040
Dave Branch 32040
Steven's Branch 32040
Fish Swamp 32045 - 32050
Tomoka Basin 32005
Tomoka River 32052 - 32055, 32062, 32075

Table G-5. (Continued)

Groover Branch 32052
Little Tomoka River 32060, 32065
Halifax River 32005
Spruce Creek 32070, 32085 - 32090
Turnball Creek 32090
No Name 32070, 32080

33 COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET — DB-SE, OR-SE, NE, FP-NE
33005 - 33035
Indian River Lagoon (Mosquito Lagoon) 33005
Banana River 33005
Indian River 33005
Eau Gallie River 33005 - 33010
Crane Creek 33030 - 33035
Turkey Creek 33005, 33020
Melbourne Tillman Canal 33005, 33015
Goat Creek 33005, 33020
Turkey Creek 33005, 33020
Trout Creek 33005

33025 Unidentified Polygon

37 COASTAL AREA - SEBASTIAN INLET TO ST. LUCIE RIVER — FP-SE, NE
37005 - 37055
Indian River 37005
Sebastian Creek 37005
North Prong Sebastian Creek 37005, 37055
South Prong Sebastian Creek 37005
Moore Creek 37010
(Gomez Creek 37005, 37020)
Joe Gore Slough 37020, 37030
No Name 37030, 37045
No Name 37025
No Name 37005, 37015
(37052 Unnamed Lake)

37035, 37040, 37050 Unidentified Polygons

34 COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER — OR-SW, NW, PC-SE, NE
34005 - 34250
(34020 Unnamed Lakes)
(34025 Hunters Lake +)
(34095 Sewage Disposal Plant)
Crystal River 34005 - 34010
(Bear Creek 34030 - 34045)
Pithlachascotee River 34105 - 34115, 34135
(34120 Moon Lake)
(34150 Lake Iola)

(34165 Neff Lake +)
(34180 Horse Lake +)
Crews Lake 34155
Jumping Gully 34140 - 34145
(No Name 34155 - 34160)
Five Mile Creek 34125 - 34130
Anclote River 34185 - 34190, 34210
(34205 Lake Dan)
(34225 Lake Ann +)
(34230 Black Lake)
(34235 Camp Lake +)
(34240 Lake Linda +)
(34250 Lake Thomas +)
Hollins Creek 34195 - 34200
South Branch Anclote River 34215 - 34220
No Name 34055 - 34060
Curlew Creek 34065 - 34070
Stevenson Creek 34075 - 34080
Long Bayou 34090
Lake Seminole 34085
Cross Bayou Canal 34050
Joes Creek 34050, 34097
Bear Creek 34050, 34100

34015, 34170, 34175, 34245 Unidentified Polygons

38 HILLSBORO RIVER BASIN PC-SE
38005 - 34060, 38070 - 38180, 38190 - 38380 TM-NE
Hillsboro River 38005, 38015, 38025 - FP-NW
38035, 38110 - 38115, OR-SW
38130 - 38135, 38160,
38175, 38200 - 38205
(38040 Platt Lake +)
(38045 Chapman Lake +)
(38050 Bird Lake +)
(38055 Round Lake)
(38060 Saddleback Lake)
(38072 Crenshaw Lake)
(38075 Reinheimer Lake +)
(38080 Lake Thomas +)
(38085 Lake Charles)
(38090 Creek from Brant Lake)
(38095 Crystal Lake)
(38100 North Crystal Lake)
(38105 Brant Lake/Cooper Lake)
No Name 38015 - 38020
Cypress Creek 38115, 38210 - 38215, 38250, 38280 - 38290
(38230 Hanna Lake +)
(38235 Keene Lake +)
(38240 Lake Kell +)
(38245 Lake Padgett +)
(38255 East Lake)
(38260 Bell Lake)
(38265 King Lake +)
(38270 Curve Lake)

(38275 Unnamed Lakes)
Thirteenmile Run 38220 - 38225
Cow Horse Creek 38120 - 38125
Trout River 38295 - 38300
Clay Gully Creek 38130, 38305
Flint Creek 38310
(38315 Lake Thonotosassa)
(38340 Mud Lake)
(38350 Valrico Lake)
Campbell Branch 38320
Baker Branch 38315 - 38325
No Name 38325, 38335
Pemberton Creek 38325 - 38330, 38340 - 38345
Hollomans Branch 38315
Two Hole Branch 38155
Basset Branch 38135 - 38140
New River 38135, 38145
Indian Creek 38150
Blackwater Creek 38355 - 38360
Polk
(38370 Lake Beulah)
(38375 Lake Wire)
(38380 Hunter Lake)
Itchepackesassa Creek 38365
Big Ditch 38165 - 38170
No Name 38190 - 38195

38010, 38070, 38180 Unidentified Polygons

39 TAMPA BAY AND COASTAL AREAS PC-SE
39005 - 39085, 39095 - 39275, 39390 TM-NE, NW
Tampa Bay 39005
(39010 Glass Lake)
(39065 Dosson Lake)
(39070 Van Dyke Lake)
(39075 Unnamed Lake)
(39080 Unnamed Lakes)
(39085 Starvation Lake)
(39095 Lake Harvey +)
(39100 Browns Lake +)
(39105 Lake Hobbs +)
(39125 White Trout Lake +)
(39127 Lake Caroll +)
(39130 Unnamed Lake)
(39135 Lake Ellen +)
(39140 Bay Lake)
(39143 - 39145 Canal between Bay Lake and Lake Magdalene)
(39150 Lake Magdalene +)
(39170 Sawgrass Lake)
(39180 Lake Maggiore)
Booker Creek 39005, 39175
Allen Creek 39160 - 39165
Alligator Creek 39155
Bishop Creek 39015, 39025
No Name 39020

Table G-5. (Continued)

Tarpon Canal 39005, 39215
(39215 Lake Tarpon)
(39230 Buck Lake)
(39240 Sunset Lake)
(39245 Lake Alice)
(39247 Echo Lake)
(39250 Rainbow Lake)
(39252 Church Lake +)
(39255 Lake Jaunito)
(39260 Island Ford Lake +)
(39262 Lake Wood +)
(39265 Lake Calm)
(39270 Mound Lake)
Brooker Creek 39215 - 39225, 39235, 39275
Cabbagehead Bayou 39027
Rocky Creek 39030 - 39035, 39057, 39390
No Name 39035, 39045
Brushy Creek 39040, 39060
No Name 39050 - 39055
Sweetwater Creek 39110 - 39120
Palm River/Six Mile Creek 39185 - 39200
Bullfrog Creek 39205 - 39210

40 ALAFIA RIVER BASIN — PC-SE
40005 - 40085 — TM-NE
Alafia River 40005, 40020 — OR-SW
Buckhorn Creek 40015 — FP-NW
Bell Creek 40005 - 40010
No Name 40025, 40035 - 40045
Turkey Creek 40030
North Prong Alafia River 40050 - 40055, 40070
English Creek 40060 - 40065
South Prong Alafia River 40075, 40085
Mizelle Creek 40075 - 40080

44 LITTLE MANATEE RIVER BASIN — TM-NE, NW
44005 - 44030
Little Manatee River 44005 - 44010, 44020
(44015 Lake Wimauma)
South Fork Little Manatee River 44025
Long Branch 44025 - 44030

45 MANATEE RIVER BASIN — TM-NE, NW
45005 - 45080
Manatee River 45005 - 45010, 45020 - 45025
Braden River 45045 - 45070
Gap Creek/Pearce Canal 45045 and 46025 (flows into Whitaker Bayou)
Gamble Creek 45075 - 45080
Gilley Creek 45010 - 45015
North Fork Manatee River 45025 - 45030, 45040
East Fork Manatee River 45025, 45035

Table G-5. (Continued)

46 COASTAL AREA BETWEEN MYAKKA AND MANATEE RIVERS — TM-NE, NW
46005 - 46075
- Sarasota Bay 46005
  - Whitaker Bayou 46020 - 46025
    - Pearce Canal 46025 and 45045 (flows into Gap Creek)
- Little Sarasota Bay 46005
  - Phillippi Creek 46030 - 46050
    - No Name 46040, 46055
  - South Creek 46005 - 46010
- Dona Bay 46005
  - Shakett Creek 46060 - 46065
    - Cow Pen Slough Canal 46065 - 46075

47 MYAKKA RIVER BASIN — TM-SE, NE
47005 - 47145
- Myakka River 47005, 47040 - 47070, 47080, 47100
  - Big Slough/Canal 47105 - 47125
    - Mud Lake Slough 47130
  - No Name 47005 - 47010
  - Deer Prairie Creek 47135 - 47145
  - No Name 47015
  - No Name 47005, 47020
  - No Name 47005, 47025
  - Gotfried Creek 47005, 47030
  - No Name 47035
  - Owen Creek 47070
  - Ogleby Creek 47075 - 47080
  - Wingate Creek 47080 - 47085, 47095
    - Johnson Creek 47085 - 47090

41 PEACE RIVER BASIN — TM-SE, NE, OR-SW, FP-SW, NW, PB-NW
41005 - 41450
- Peace River 41005 - 41020, 41035, 41045 - 41050, 41060
  - (41070 Lake McLeod)
  - (41075 Lake Effie +)
  - (41080 Mountain Lake +)
  - (41085 Lake Myrtle +)
  - (41090 Lake Ruby)
  - (41095 Lake Winterset +)
  - (41100 Lake Eloise)
  - (41005 Canal to Settling Pond)
  - (41107 Lake Lulu +)
  - (41110 Lake Shipp)
  - (41115 Lake May)
  - (41120 Lake Howard)
  - (41125 Lake Deer)
  - (41130 Lake Mirror)
  - (41135 Spring Lake)
  - (41140 Lake Cannon +)
  - (41145 Lake Hartridge +)
  - (41150 Lake Otis +)

Table -5. (Continued)

(41155 Mariam +)
(41160 Lake Elbert)
(41165 Lake Silver)
(41170 Lake Fannie)
(41175 Lake Connie +)
(41180 Lake Smart)
(41190 Lake Hamilton +)
(41195 Lake Annie +)
(41200 Canal between Lake Henry and Lake Hamilton)
(41205 Lake Henry)
(41210 Lake Haines +)
(41215 Lake Rochelle +)
(41220 Lake Echo)
(41225 Gum Lake +)
(41230 Lake Alfred +)
(41235 Lake Cummings)
(41240 Lake George)
(41245 Lake Mariana)
(41250 Lake Ariana +)
(41255 Lake Lena)
Shell Creek 41260 - 41265
Prairie Creek 41270 - 41275
Horse Creek 41290 - 41295
Osborn Branch 41295
Brushy Creek 41295
West Fork Horse Creek 41295
Joshua Creek 41300 - 41310
Charlie Creek 41315 - 41325, 41355
Fish Branch 41320
Oak Creek 41360
Little Charlie Bowlegs Creek 41325, 41335 - 41350
No Name 41330 - 41335
Little Charlie Creek 41035 - 41040
Hog Branch 41025 - 41030
Payne Creek 41365 - 41375
Little Payne Creek 41370
Whidden Creek 41045
Bowlegs Creek 41380 - 41385
(41390 Lake Buffum) → Polk
Peace Creek Drainage Canal 41060, 41077, 41185
Boggy Branch 41055 - 41057
Saddle Creek (including Lake Hancock) 41395 - 41405
(41410 Eagle Lake +)
(41415 Banana Lake)
(41425 Crystal Lake)
(41430 Lake Hollingsworth +)
(41435 Lake Bonny +)
(41440 Lake Morton)
(41445 Lake Mirror)
(41450 Lake Parker +)
No Name 41405, 41415 - 41420

41280, 41285 Unidentified Polygons

50 CHARLOTTE HARBOR AND COASTAL AREA — TM-SE, NE
50005 - 50055 — PB-NW

- Charlotte Harbor 50005
  - Alligator Creek 50030 - 50035
    - North Prong Alligator Creek 50045 - 50050
    - South Prong Alligator Creek 50040, 50055
  - Myakka Cutoff 50025
  - Trout Creek 50020
  - Coral Creek 50010
    - East Branch Coral Creek 50010 - 50015
    - West Branch Coral Creek 50005 - 50010
- Lemon Bay 50005
  - Oyster Creek 50005 - 50007

36 KISSIMMEE RIVER BASIN — OR-SW, SE
36005 - 36040, 36050 - 36420 — FP-SW, SE, NE, NW

- Kissimmee River 36005 - 36040, 36050 - 36085, 36100
  - (36135 Alligator Lake +)
  - (36140 Lake Lizzie +)
  - (36150 Lake Runnymede)
  - (36165 Lake Hart +)
  - (36400 Lake Conway +)
  - (36405 Bass Lake)
  - (36410 Lake Portor)
  - (36415 Lake Holden +)
  - (36420 Lake Underhill)
  - Istokpoga Creek/Canal 36030, 36170
    - (36187 Lake Apthorpe)
    - (36189 Lake Clay)
    - (36190 Lake Huntley +)
    - (36192 Lake Pearl)
    - (36195 Lake Sirena)
    - (36196 Mirror Lake +)
    - (36205 Grassy Lake)
    - (36210 Lake Annie)
    - (36212 Creek between Lake Annie and Lake Placid)
    - (36215 Lake Francis +)
    - (36245 Lake Sebring)
    - (36247 Little Red Water Lake +)
    - (36250 Lake Leta +)
    - (36255 Lake Lotela +)
    - (36267 Silver Lake)
    - (36272 Lake Ida)
    - Lake Istokpoga 36175
      - Josephine Creek 36180, 36220
        - Lake Josephine/Jackson Creek 36220
          - Lake Jackson 36225
        - Grassy Creek 36185
          - Jack Creek 36215 - 36220
            - Lake June-in-Winter/No Name Creek 36197
              - Lake Placid 36200
      - Arbuckle Creek 36230 - 36232
        - Carter Creek 36230, 36240

Table G-5. (Continued)

Morgan Hole Creek 36230 - 36235
Lake Arbuckle/Livingston Creek 36260
Lake Livingston 36265
Reedy Creek 36260
Lake Reedy 36270
Lake Clinch to Crooked Lake 36275
Lake Kissimmee 36085
Jackson Canal/Lake Jackson/No Name Canal 36095
Lake Marion 36090
Tiger Creek/Tiger Lake/Rosalie Canal 36280, 36290
(36292 Lake Wales)
Lake Rosalie/No Name Canal to Catfish Creek 36285
Weohyakapka Canal 36285 - 36290
Lake Weohyakapka/Tiger Creek 36290
Southport Canal to Cypress Lake 36085, 36100
Lake Hatchineha 36100
Catfish Creek 36295 - 36300
Lake Pierce 36300
Lake Marion Creek 36100 - 36105
Snell Creek 36100
(Horse Creek 36110 - 36115)
Lake Marion 36105
Hatchineha Canal to Cypress Lake 36100
Dead River to Cypress Lake 36305
Reedy Creek 36305
(36335 Hidden Lake)
(36340 Trout Lake)
(36350 Lake Bryan)
(36362 Creek between Lake Down and Lake Butler)
(36365 Lake Down)
(36370 Lake Bessie)
(36375 Lake Louise)
(36380 Lake Butler)
(Davenport Creek 36305 - 36310)
(Bonnet Creek 36305)
Cypress Creek 36305, 36355
(Whittenhorse Creek 36325 - 36330)
Cypress Lake 36100
Canoe Creek 36120, 36125
Lake Tohopekaliga/St. Cloud Canal 36130
East Lake Tohopekaliga 36145
Boggy Creek/Canal 36145, 36385 - 36395
(Disston Canal 36155 - 36160 and 31547 (to Econlockhatchee River)
(Lake Mary Jane 36160)
Shingle Creek 36305, 36315 - 36320, 36345, 36360

42 TAYLOR CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTH — FP-SE, PB-NE

42005 - 42105
No Name 42040, 42080, 42095
Myrtle Slough 42070, 42080
Lettuce Creek 42050
Henry Creek 42045

Table G-5. (Continued)

Nubbin Slough 42032 - 42035
Taylor Creek 42005 - 42015, 42025 - 42030
No Name 42010
Chandler Hammock Slough/Turkey Slough 42025, 42105
(Mosquito Creek 42005, 42020)
Lemkin Creek 42105
Popash Slough/Turkey Slough 42105

42055, 42060, 42065, 42075, 42085, 42090, 42100 Unidentified Polygons

48	FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST 48005 - 48025 Indian Prairie Canal 48025 Harney Pond Canal 48025 Fisheating Creek 48005 - 48020 Gator Slough 48005	FP-SW, SE PB-NW
51	CALOOSAHATCHEE RIVER BASIN 51005, 51070 - 51080 Caloosahatchee River/Caloosahatchee Canal 51005 Orange River 51070 - 51080 Jacks Branch 51005	TM-SE FP-SW PB-SW, NW
61	PART OF LOWER FLORIDA BASIN 61005 - 61010 Estero River 61005 - 61010	PB-SW, NW
43	PART OF LOWER FLORIDA BASIN 43005 - 43010, 43050 - 43060 St. Lucie River 43050 Warner Creek 43050 - 43055 North Fork St. Lucie River 43050 Ten Mile Creek 43050 Five Mile Creek 43050 (43060 The Savannahs) South Fork St. Lucie River/St. Lucie Canal 43005 No Name 43010	FP-SE PB-NE
53	PART OF LOWER FLORIDA BASIN 53000 West Palm Beach Canal 53000 and 52000	PB-NE
49	LAKE OKEECHOBEE 49000	FP-SW, SE PB-NE, NW