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Water Resources Data Florida Water Year 1990

Volume 1A. Northeast Florida Surface Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-90-1A
Prepared in cooperation with the State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 1990

1989

OCTOBER

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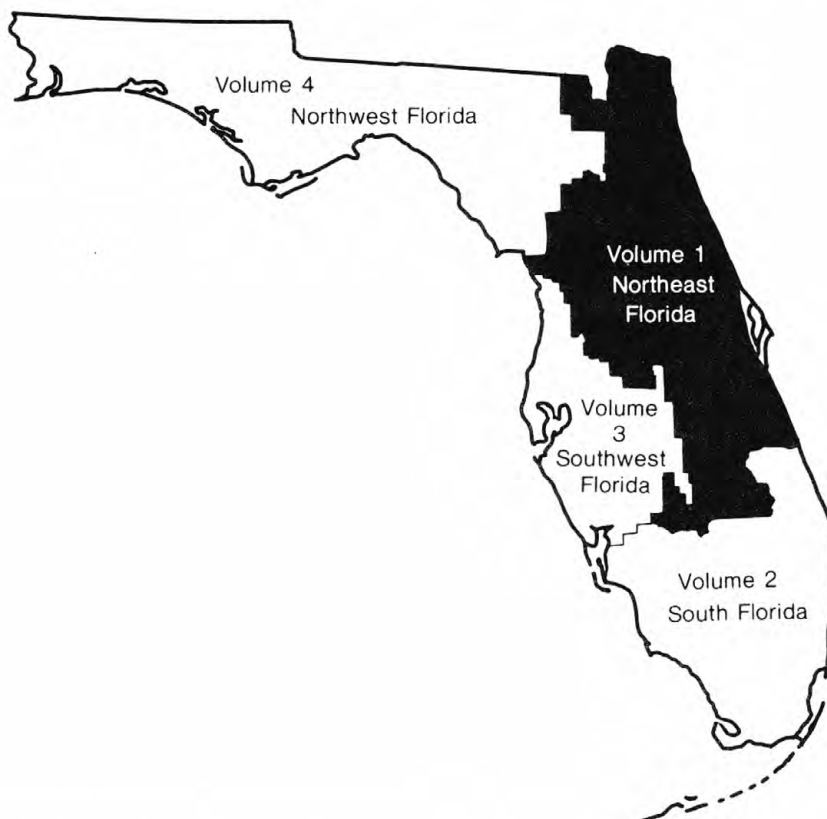
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UNITED STATES DEPARTMENT OF THE INTERIOR

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Prepared in cooperation with the
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and with other agencies as listed
under cooperation

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WATER RESOURCES DATA - FLORIDA, 1990
Volume 1A: Northeast Florida

PREFACE

This volume of the annual hydrologic data report of Florida is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Florida are contained in four volumes:

- Volume 1. Northeast Florida
- Volume 2. South Florida
- Volume 3. Southwest Florida
- Volume 4. Northwest Florida

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The water-resources data for northeast Florida were processed and prepared for publication under the supervision of Larry D. Fayard, Chief, Hydrologic Surveillance and Data Analysis Section.

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16. Abstract (Limit: 200 words) Water resources data for the 1990 water year in Florida consist of continuous or daily discharge for 349 streams, periodic discharge for 40 streams, miscellaneous discharge for 75 streams, continuous or daily stage for 105 streams, continuous daily tide stage for 12 sites, periodic stage for 25 streams, peak discharge for 41 streams, and peak stage for 40 streams; continuous or daily elevations for 70 lakes, periodic elevations for 70 lakes; continuous ground-water levels for 441 wells, periodic ground-water levels for 1,229 wells, and miscellaneous water-level measurements for 1,908 wells; quality-of-water data for 145 surface-water sites and 799 wells. The data for northeast Florida include continuous or daily discharge for 164 streams, periodic discharge for 27 streams, miscellaneous discharge for 22 streams, continuous or daily stage for 2 streams, continuous or daily tide stage for 3 sites, periodic stage for 13 streams, peak discharge for 17 streams, and peak stage for 30 streams; continuous or daily elevations for 41 lakes, periodic elevations for 53 lakes; continuous ground-water levels for 76 wells, periodic ground-water levels for 161 wells, and miscellaneous water-level measurements for 878 wells; quality-of-water data for 51 surface-water sites and 78 wells. These data represent the National Water Data System records collected by the U.S. Geological Survey and cooperating local, state and federal agencies in Florida.				
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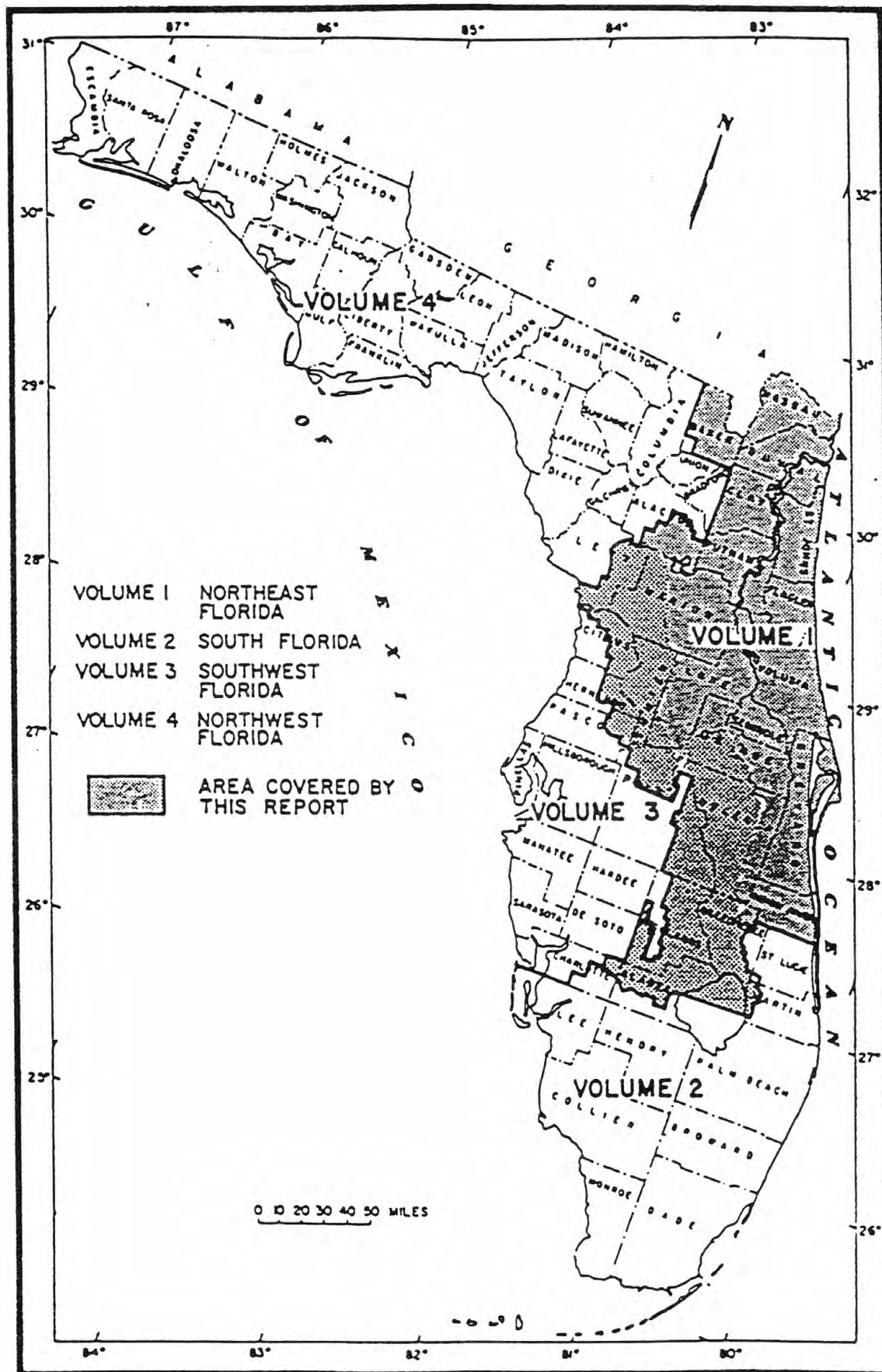


Figure 1.--Geographic area covered by this report.

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INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, local, and Federal agencies, obtains a large amount of data pertaining to the water resources of Florida each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State.

The data for northeast Florida include continuous or daily discharge for 164 streams, periodic discharge for 27 streams, miscellaneous discharge for 22 streams, continuous or daily stage for 2 streams, continuous or daily tide stage for 3 sites, periodic stage for 13 streams, peak discharge for 17 streams, and peak stage for 30 streams; continuous or daily elevations for 41 lakes, periodic elevations for 53 lakes; continuous ground-water levels for 76 wells, periodic ground-water levels for 161 wells, and miscellaneous water-level measurements for 878 wells; quality-of-water data for 51 surface-water sites and 78 wells.

This series of annual reports for Florida began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Florida were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report FL-90-1A." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (407) 648-6191.

COOPERATION

The U.S. Geological Survey and agencies of the State of Florida have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

U.S. Army Corps of Engineers, Jacksonville District	City of Daytona Beach
U.S. Army Corps of Engineers, Savannah District	City of Edgewater
Florida Department of Environmental Regulation	City of Jacksonville
Florida Department of Natural Resources	City of Jacksonville Beach
St. Johns River Water Management District	City of Lake Mary
South Florida Water Management District	City of Ocala
Southwest Florida Water Management District	City of Port Orange
County of Polk	Jacksonville Electric Authority
County of St. Johns	Lake County Water Authority
City of Cocoa	Reedy Creek Improvement District

Assistance with funds or services was given by the U.S. Army Corps of Engineers, Jacksonville District, in collecting records at hydrologic stations throughout the Subdistrict.

Organizations that provided data are acknowledged in station descriptions.

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SUMMARY OF HYDROLOGIC CONDITIONS

Rainfall was below normal throughout northeastern Florida during most of the water year. Monthly totals were generally below normal each month except for December, February, June, and July. Total rainfall deficiencies were generally less than 7 inches in the southern part but were greater than 23 inches in the northern part of the study area.

Streamflow hydrographs for representative gaging stations in the area covered by this report are presented in figures 2 through 11. These hydrographs are for one station in the St. Marys River basin, three stations in the St. Johns River basin, one in the Fisheating Creek basin, two in the Kissimmee River basin, and three in the Withlacoochee River basin.

Monthly mean streamflow at St. Marys River near Macclenny (fig. 2) during the 1990 water year was below the long-term mean monthly discharge for each month.

In the St. Johns River basin, which includes the Oklawaha River, streamflows were below mean monthly discharges throughout most of the year. At St. Johns River near Cocoa (fig. 3) monthly streamflows were less than the mean monthly discharge every month except for January. At St. Johns River near De Land (fig. 4) and Oklawaha River near Conner (fig. 5), monthly mean streamflow was below the long-term mean monthly discharge throughout the year.

In Fisheating Creek and Kissimmee River basins, runoff was below average. Monthly mean discharges for Fisheating Creek at Palmdale (fig. 6) were less than long-term mean monthly discharges for December through June, and September. Monthly mean discharges also were below the long-term mean monthly discharge at Reedy Creek near Vineland (fig. 7) for October, November, January, March, April, and June, and Kissimmee River at S-65, near Lake Wales (fig. 8) for October through December and March through September.

In the Withlacoochee River basin, monthly mean streamflow was below the long-term mean monthly discharge throughout the year at the three representative gaging stations; Withlacoochee River at Trilby (fig. 9), Little Withlacoochee River at Rerdell (fig. 10), and Withlacoochee River near Holder (fig. 11).

The mean discharge for the water year at all of these representative gaging stations was below the long-term mean annual discharge. The following table presents a summary of mean discharge for the 1990 water year and mean annual discharges for the long-term base periods, in cubic feet per second.

Station number	Station name	Mean annual discharge		Mean	
		Base period	Discharge (ft ³ /s)	Discharge 1990 water year (ft ³ /s)	Departure from mean annual discharge (percent)
	<u>St. Marys River basin</u>				
02231000	St. Marys River near Macclenny	1927-89	670	242	-64
	<u>St. Johns River basin</u>				
02232400	St. Johns River near Cocoa	1954-89	965	579	-40
02236000	St. Johns River near De Land	1934-89	3,067	1,674	-45
02240000	Oklawaha River near Conner	1931-46, 1978-89	1,140	790	-31
	<u>Fisheating Creek basin</u>				
02256500	Fisheating Creek at Palmdale	1932-89	251	248	- 1
	<u>Kissimmee River basin</u>				
02266300	Reedy Creek near Vineland	1967-89	34.2	33.8	- 1
02268903	Kissimmee River at S-65, near Lake Wales	1934-89	1,032	485	-53
	<u>Withlacoochee River basin</u>				
02312000	Withlacoochee River at Trilby	1931-89	348	70.1	-80
02312200	Little Withlacoochee River at Rerdell	1959-89	81.9	6.19	-92
02313000	Withlacoochee River near Holder	1932-89	1,073	363	-66

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

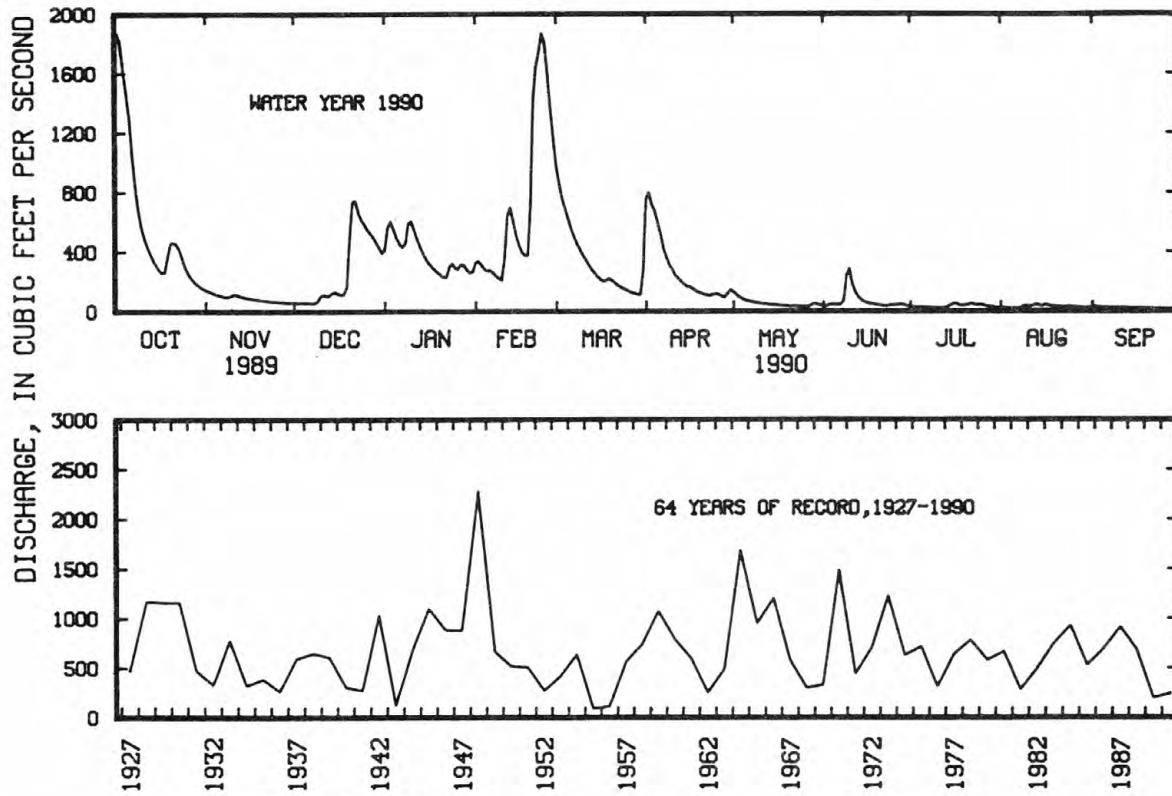


Figure 2.--Water-year and long-term hydrograph for 02231000
St. Marys River near Macclenny, FL.

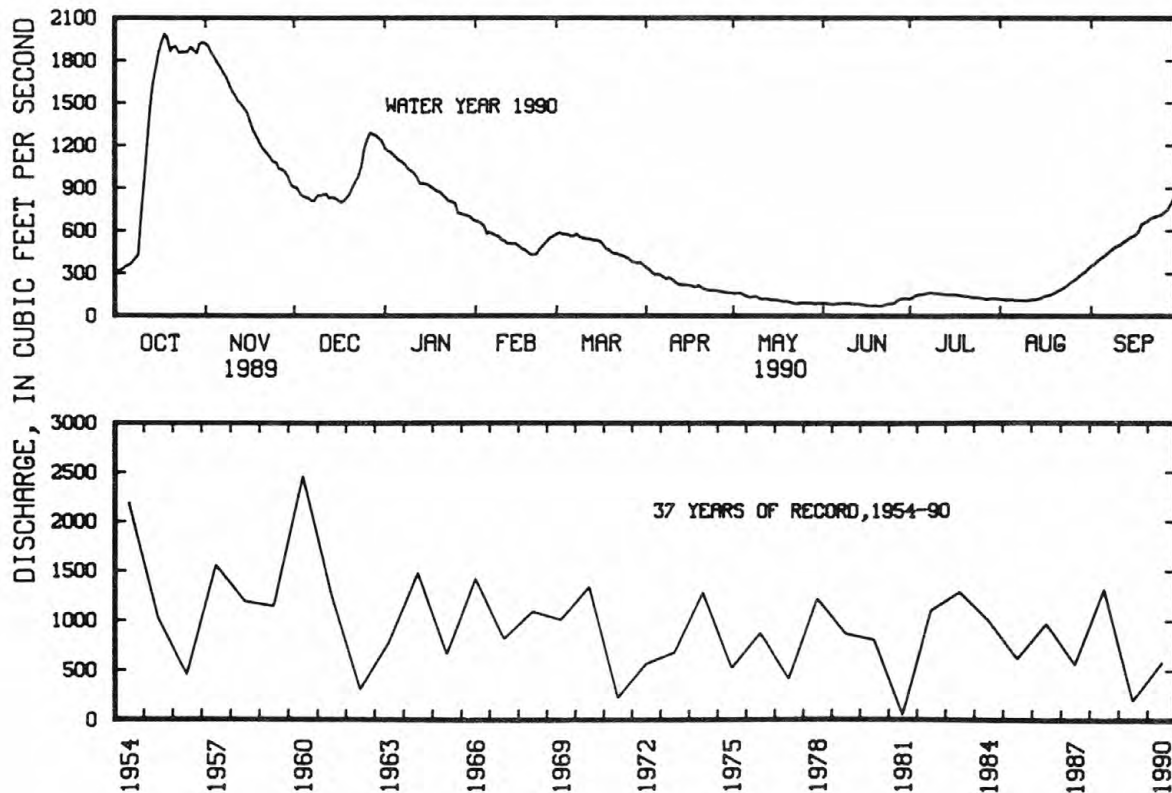


Figure 3.--Water-year and long-term hydrographs for 02232400
St. Johns River near Cocoa, FL.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

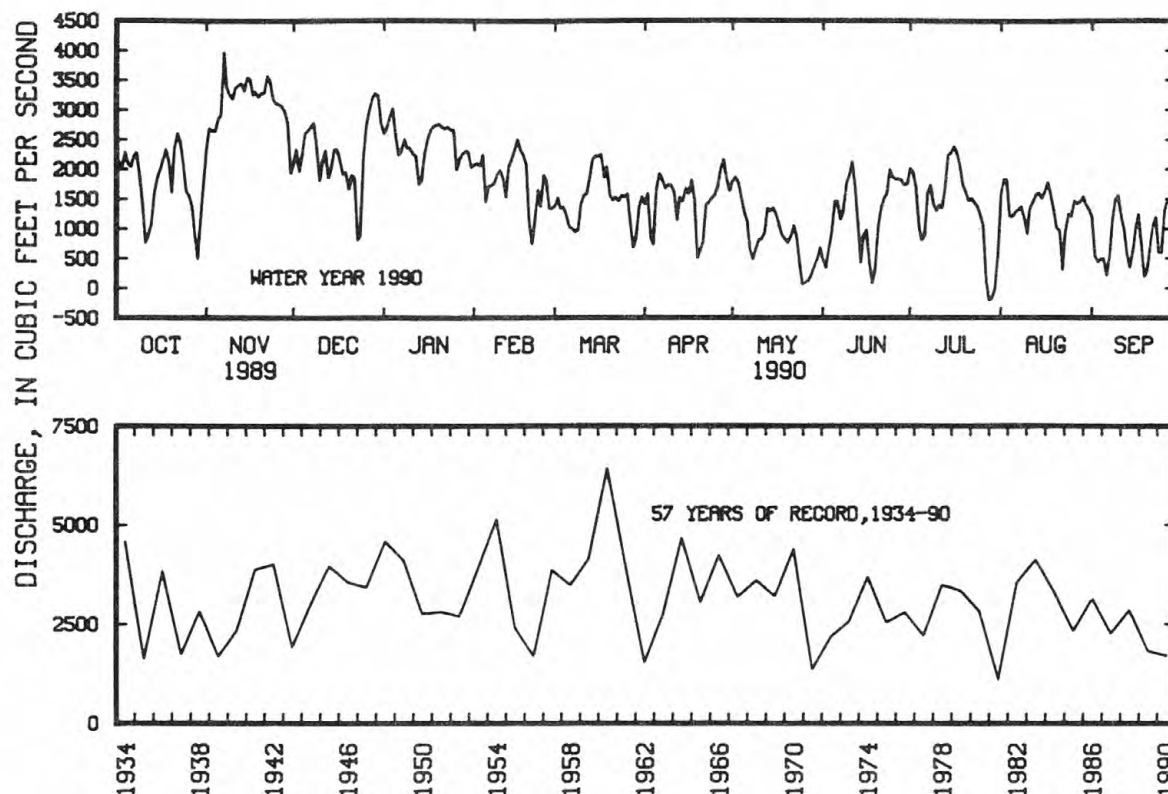


Figure 4.--Water-year and long-term hydrographs for 02236000
St. Johns River near De Land, FL.

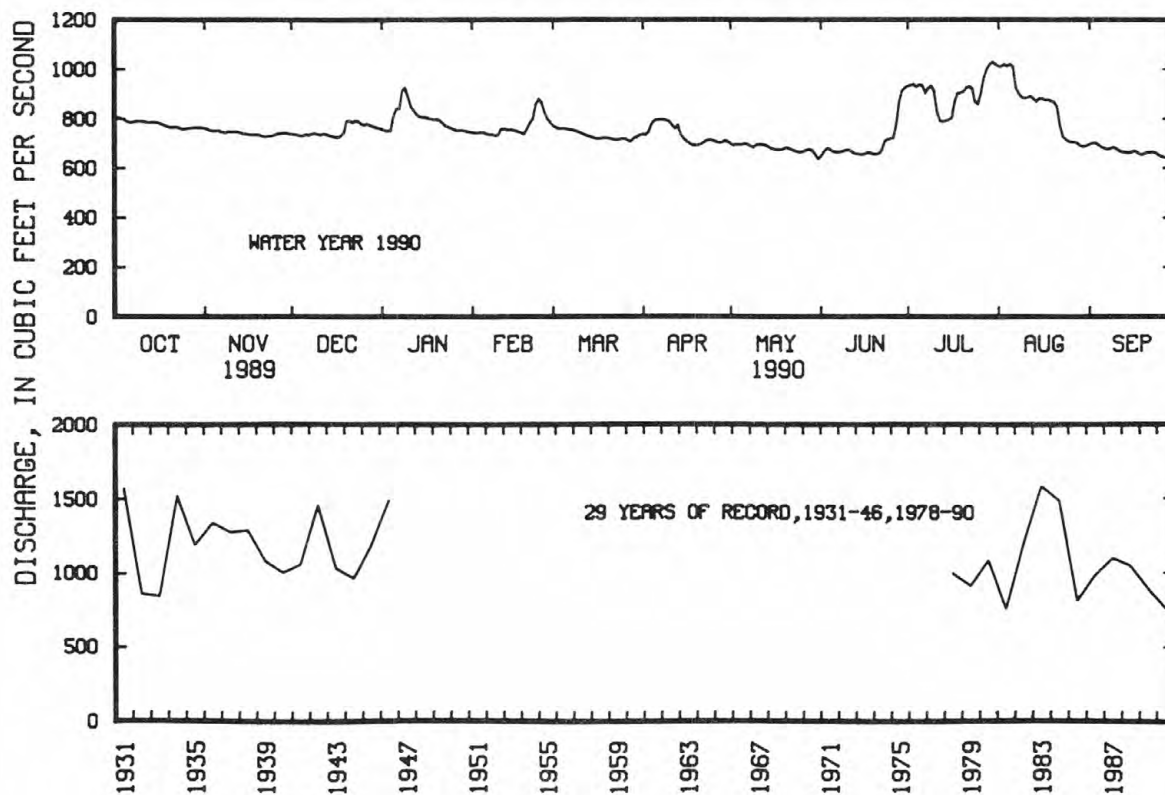


Figure 5.--Water-year and long-term hydrographs for 02240000
Oklawaha River near Conner, FL.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

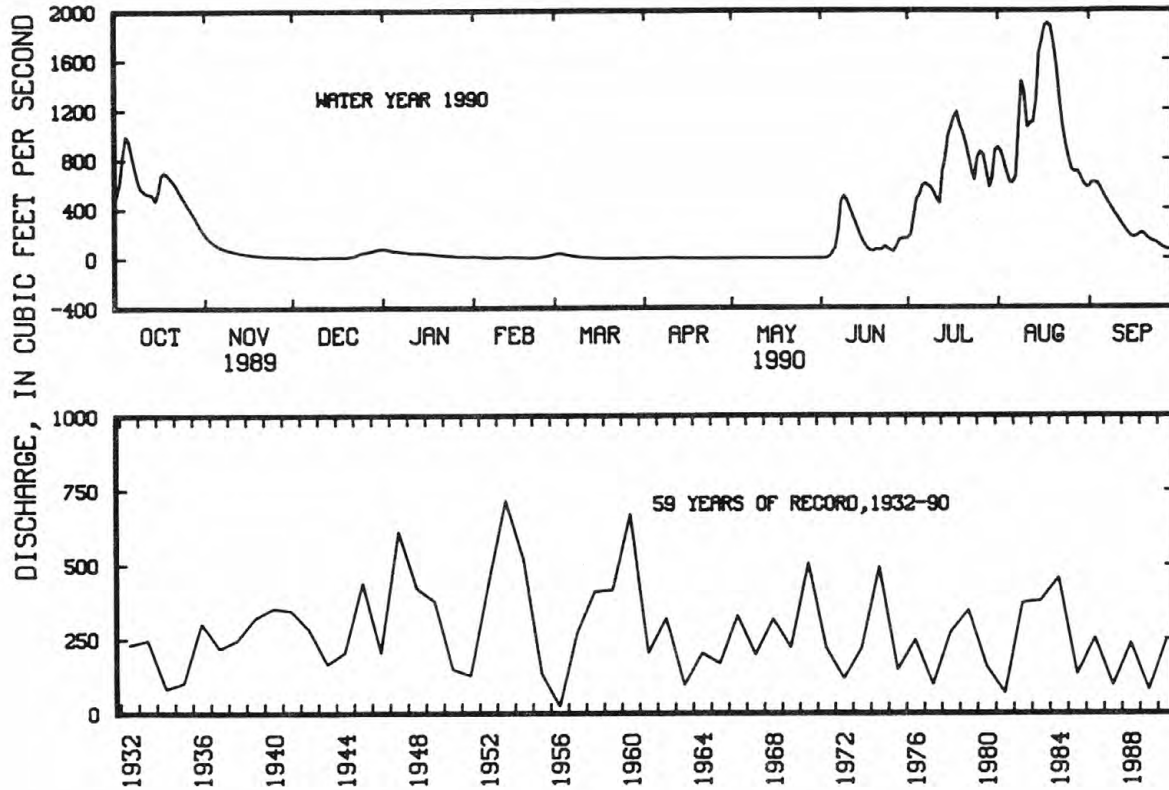


Figure 6.--Water-year and long-term hydrographs for 02256500
Fisheating Creek at Palmdale, FL.

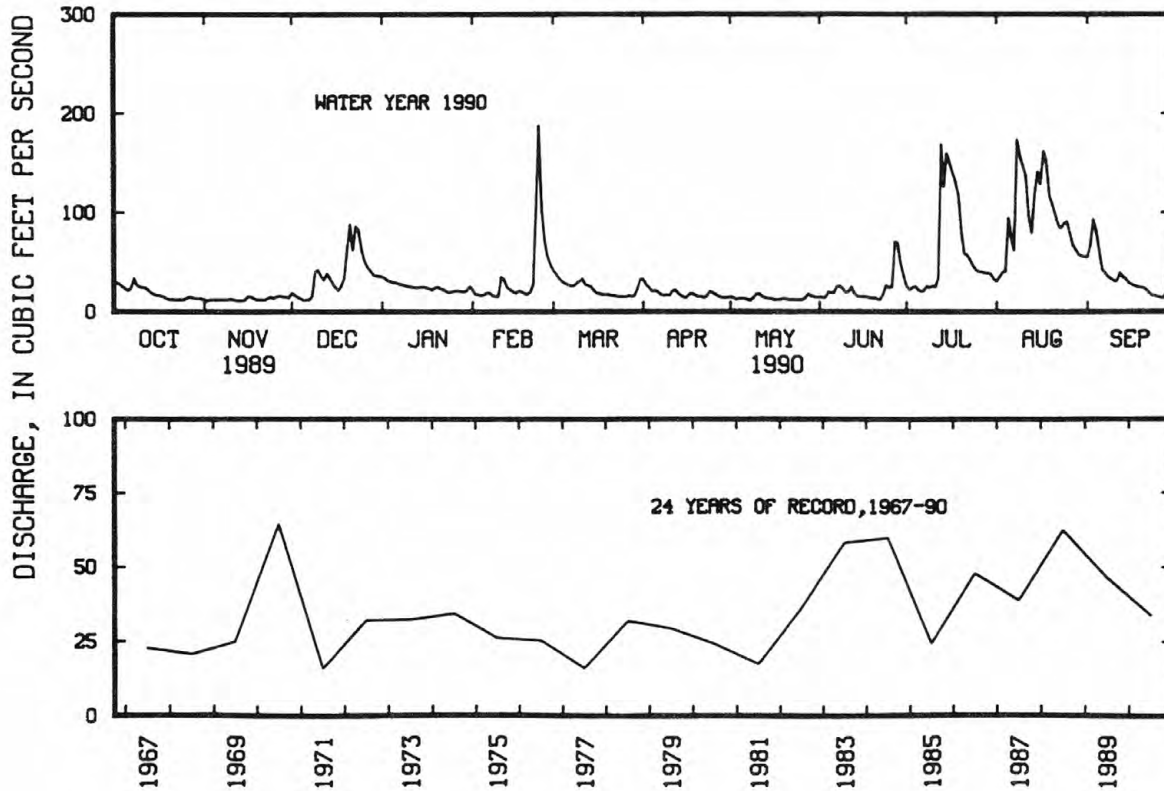


Figure 7.--Water-year and long-term hydrographs for 02266300
Reedy Creek near Vineland, FL.

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SUMMARY OF HYDROLOGIC CONDITIONS--Continued

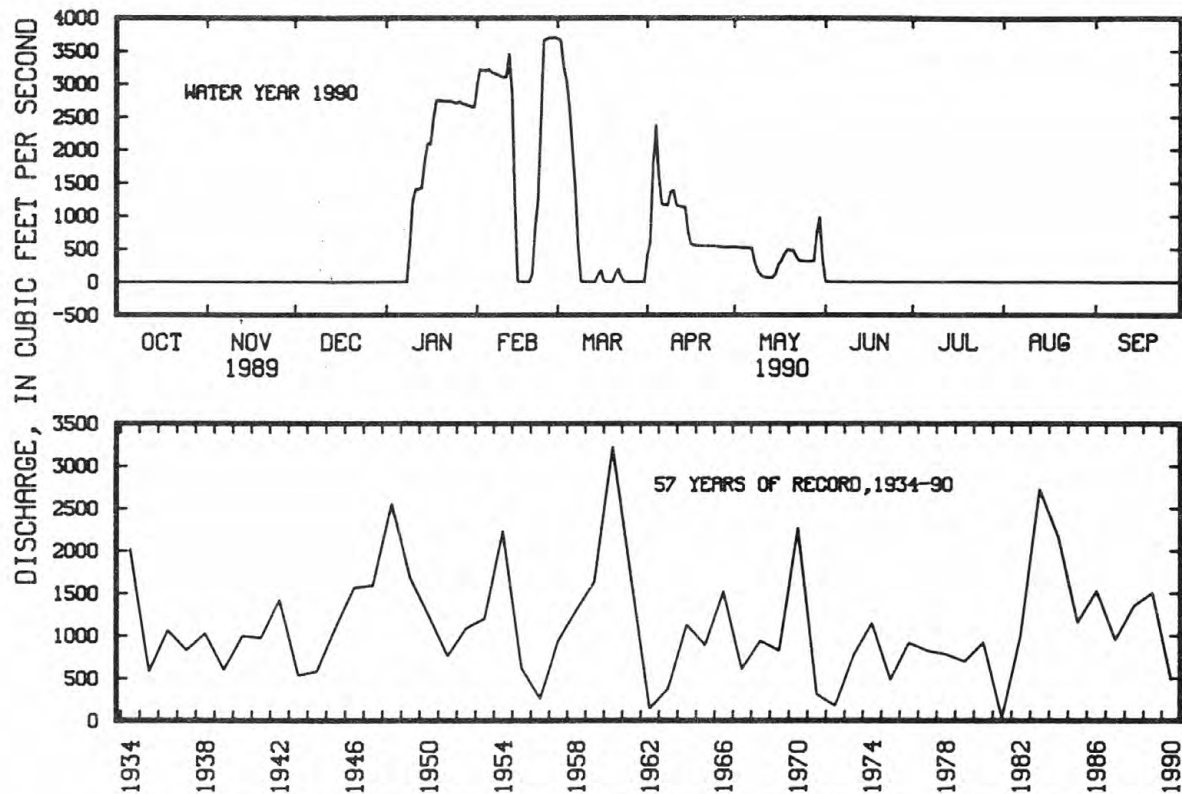


Figure 8.--Water-year and long-term hydrographs for 02268903
Kissimmee River at S-65 near Lake Wales, FL.

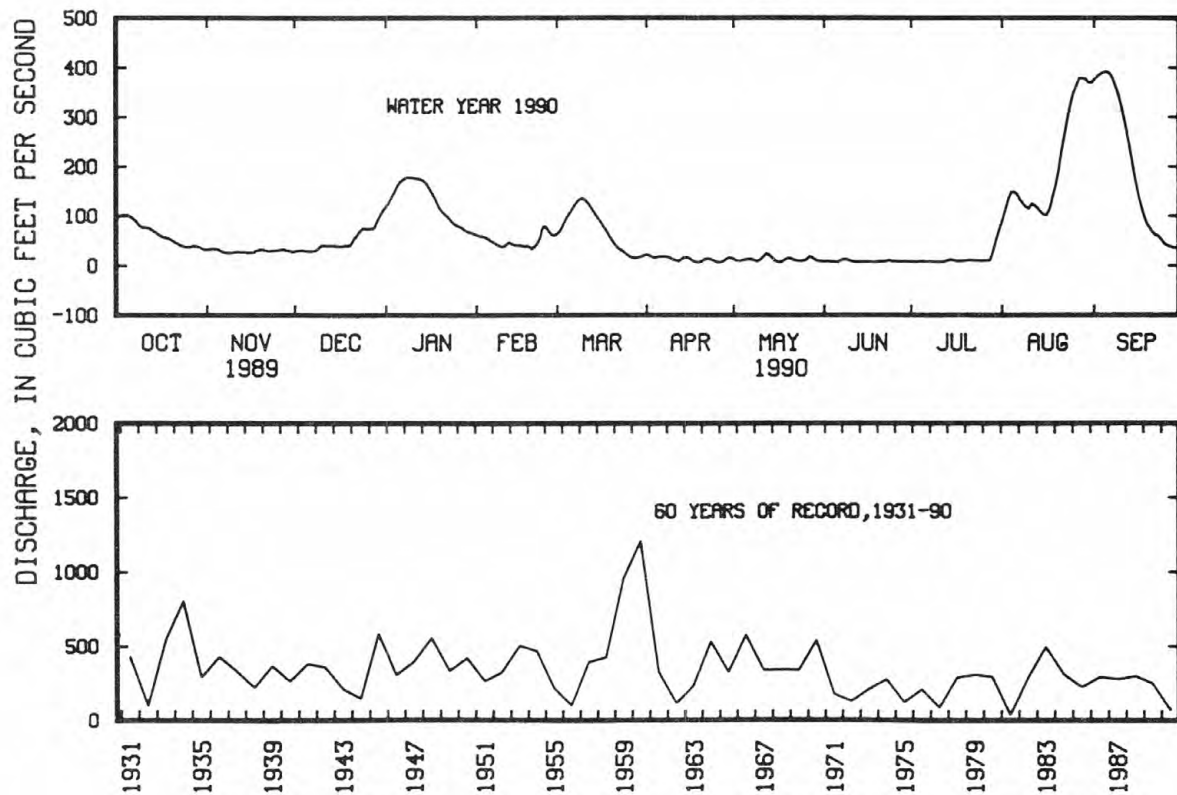


Figure 9.--Water-year and long-term hydrographs for 02312000
Withlacoochee River at Trilby, FL.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

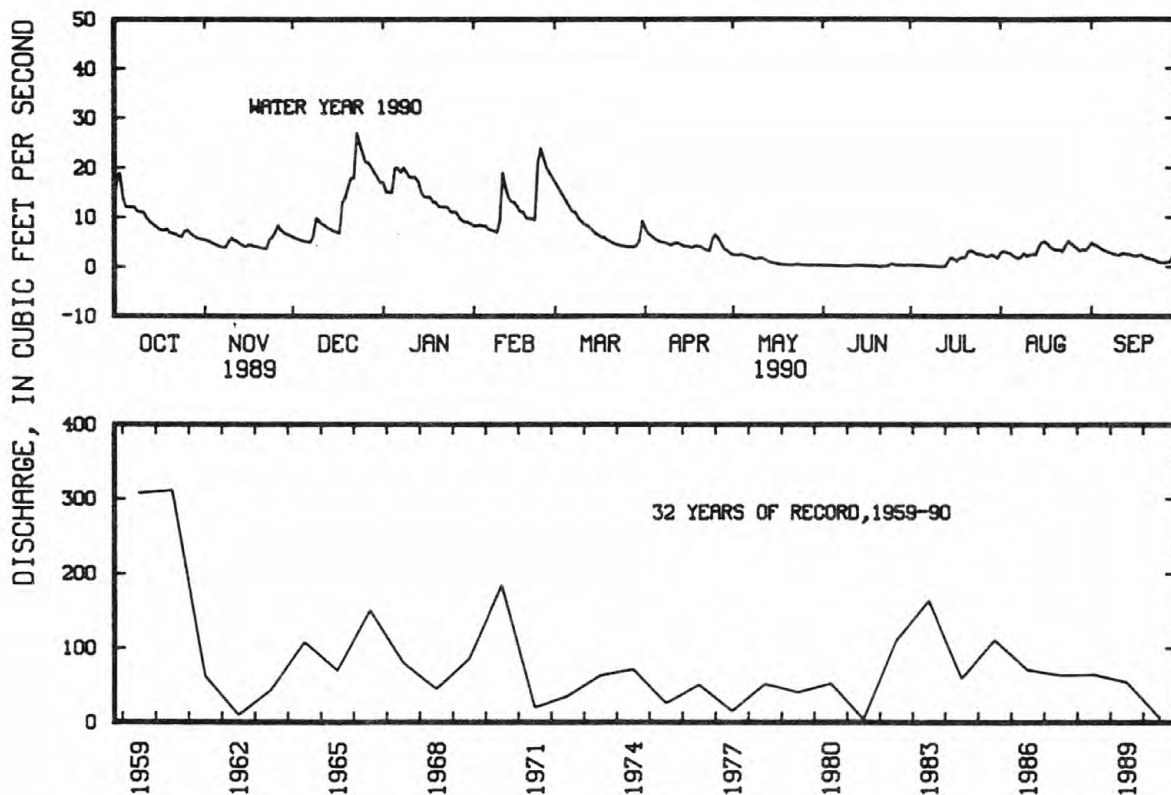


Figure 10.--Water-year and long-term hydrographs for 02312200
Little Withlacoochee River at Rerdell, FL.

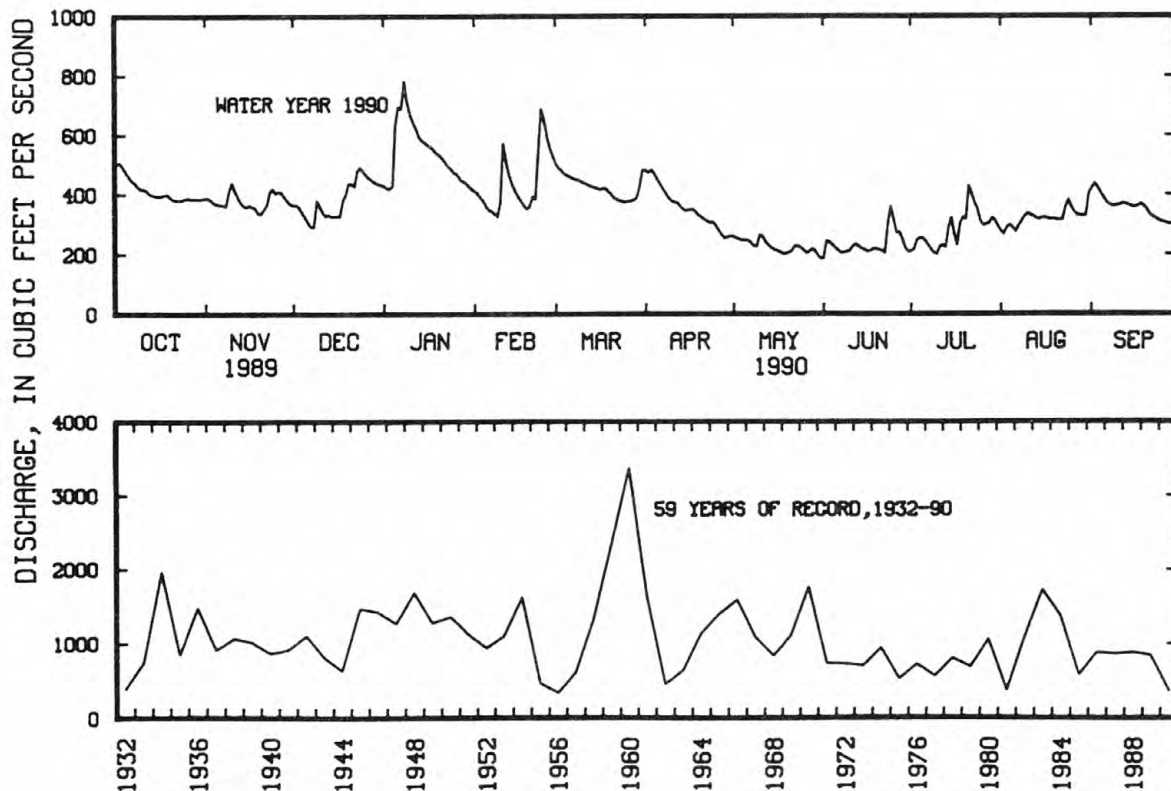


Figure 11.--Water-year and long-term hydrographs for 02313000
Withlacoochee River near Holder, FL.

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SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council.

The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research. The NASQAN stations in Florida are shown in figure 12.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

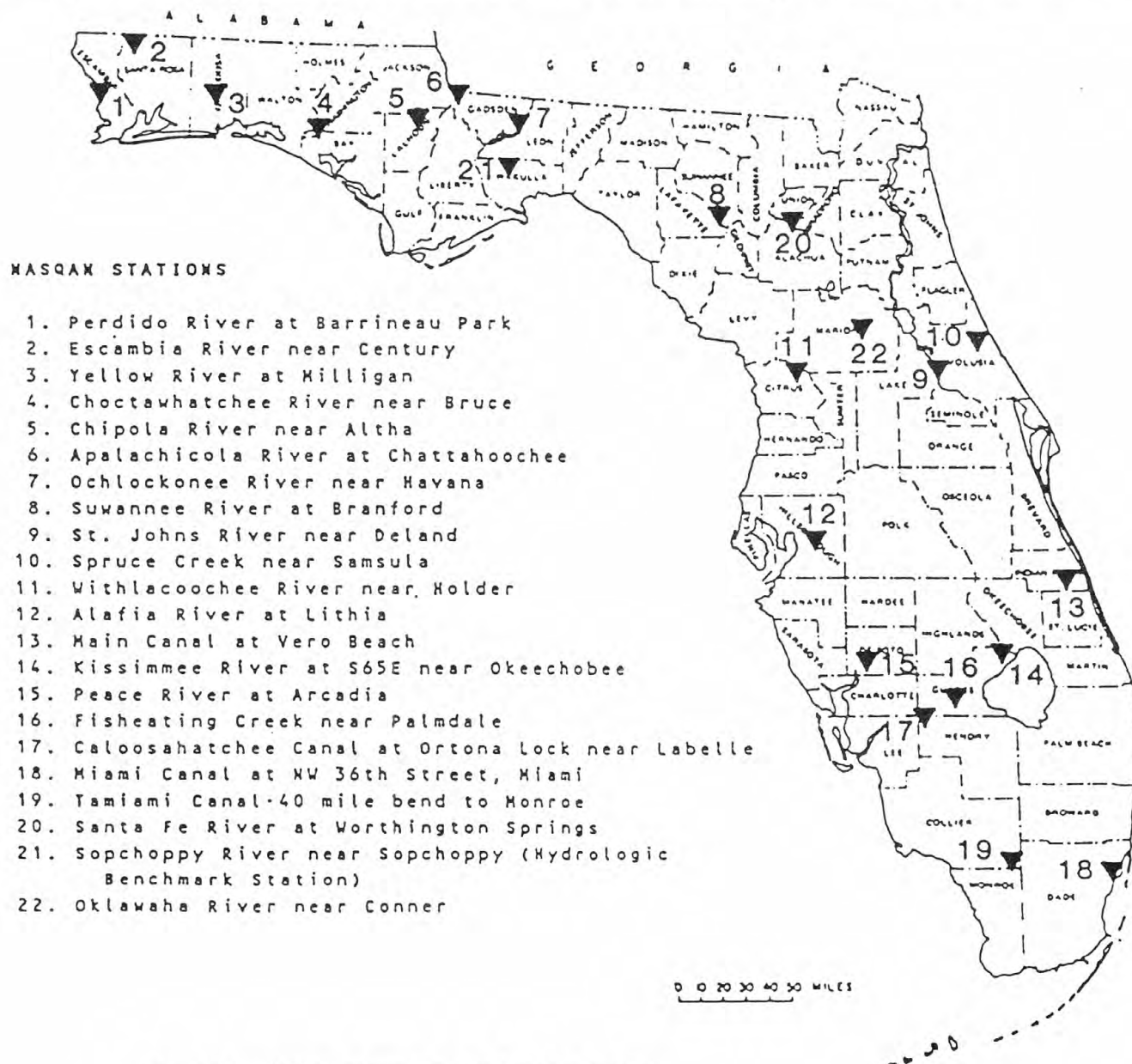


Figure 12.--NASQAN stations in the State of Florida.

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EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1990 water year that began October 1, 1989, and ended September 30, 1990. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous observations are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 02228500, which appears just to the left of the station name, includes the 2-digit part number "02" plus the 6- to 12-digit downstream-order number "228500." The part number designates the major river basin; for example, part "02" is the South Atlantic Slope and eastern Gulf of Mexico basins.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)

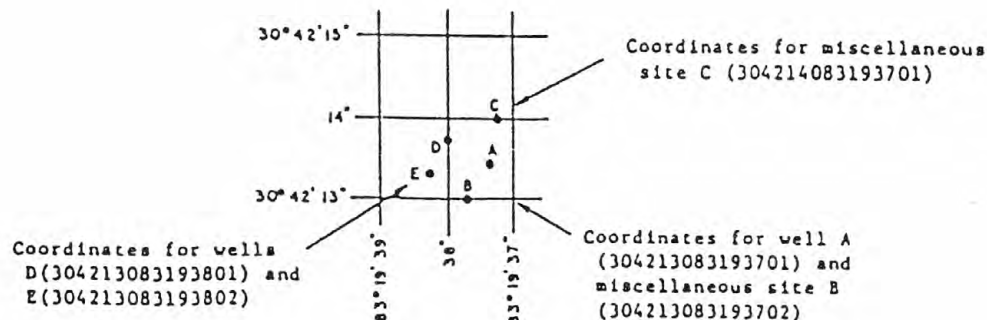


Figure 13.--System for numbering wells and miscellaneous sites.
(latitude and longitude)

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Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake elevation, similarly, are those for which stage may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a stage-recording device or daily or weekly observations, but need not be. Because daily mean discharges and lake elevations commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Location of all complete-record and partial-record stations for which data are given in this report are shown in figures preceding each sub-basin.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily mean discharges.

Records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location, period of record, average discharge, historical extremes, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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LOCATION.--Information on locations is obtained from the most accurate base maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given.

DRAINAGE AREA.--Drainage areas are delineated and measured using the most accurate topographic maps available, and are updated as necessary.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see DEFINITION OF TERMS), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic foot per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic foot per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic foot per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown

are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1.0 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic foot per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Orlando Subdistrict office of the Florida District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where water-quality data are collected systematically over a period of years, usually less frequently than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station or a periodic observation station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the quality of the water in its natural state. To assure this, certain measurements, such as water temperature, pH, alkalinity, specific conductance, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the natural water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For stations equipped with water-quality monitors, the records consist of daily mean values for each constituent measured and are based upon unit values (hourly or 15-minute recordings). These unit values may be obtained from the Orlando Subdistrict, 224 West Center Street, Suite 1006, Altamonte Springs, FL 32714.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Accuracy of the Records

In March 1989 the National Water-Quality Laboratory uncovered a bias in the turbidimetric method for sulfate analyses made from 1982 through 1989. Sulfate values below 75 mg/L as determined by the turbidimetric method have a median positive bias of 2 mg/L above the true value. In this report, sulfate values for NASQAN stations were determined using the turbidimetric method, and the data have not been corrected for this bias. Sulfate values for non-NASQAN stations in this report were determined in the Florida District QW Services unit using the chromatograph method and these data are not biased.

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Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a recording or sampling device, which may be time- or event-activated, is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

Printed output	Remark
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Ground-water level data from a statewide network of observation wells are published herein. The records include data from wells equipped with water-level recorders and data from wells where water levels are measured periodically.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table.

Water-level records are obtained from direct measurements with a steel tape, pressure gage, manometer, or from the graph or punched tape of a water-level recorder. The measurements in this report are given in feet above National Geodetic Vertical Datum of 1929 or in some tables as feet below land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

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Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on hourly, daily, weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of record, with reference to National Geodetic Vertical Datum of 1929, and the dates of their occurrence.

A table of water levels follows the station description for each well. For wells equipped with recorders, only abbreviated tables are published; generally, daily maximums are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality in the report area. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published immediately following the ground-water-level records of each county. Data for quality of ground water are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. The Remark Codes listed for surface-water-quality records are also applicable to ground-water-quality records.

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ACCESS TO WATSTORE DATA

The National WATer Data STORage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

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DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/mi^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day (cubic foot per second per day) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

CFSM (cubic foot per second per square mile) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloro-platinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (ft^3/s or cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ($\mu\text{g/L}$, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

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Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one millionth of the amount of radioactivity represented by a micro-curie, which is the quantity of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegrations per minute.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

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Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom.....	Animal
Phylum.....	Arthropoda
Class.....	Insecta
Order.....	Ephemeroptera
Family.....	Ephemeridae
Genus.....	<u>Hexagenia</u>
Species.....	<u>Hexagenia limbata</u>

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1990, is called the "1990 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publications, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. WATER TEMPERATURE-INFLUENTIAL FACTORS, FIELD MEASUREMENT, AND DATA PRESENTATION, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. GUIDELINES FOR COLLECTION AND FIELD ANALYSIS OF GROUND-WATER SAMPLES FOR SELECTED UNSTABLE CONSTITUENTS, W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. APPLICATION OF SURFACE GEOPHYSICS TO GROUND-WATER INVESTIGATIONS, by A.A.R. Zohdy, G.P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
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- 3-A1. GENERAL FIELD AND OFFICE PROCEDURES FOR INDIRECT DISCHARGE MEASUREMENTS, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
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- 3-A13. COMPUTATION OF CONTINUOUS RECORDS OF STREAMFLOW, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
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- 3-B2. INTRODUCTION TO GROUND-WATER HYDRAULICS, A PROGRAMED TEXT FOR SELF-INSTRUCTION, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.1-D1.
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STAGE, DISCHARGE, AND WATER QUALITY OF STREAMS

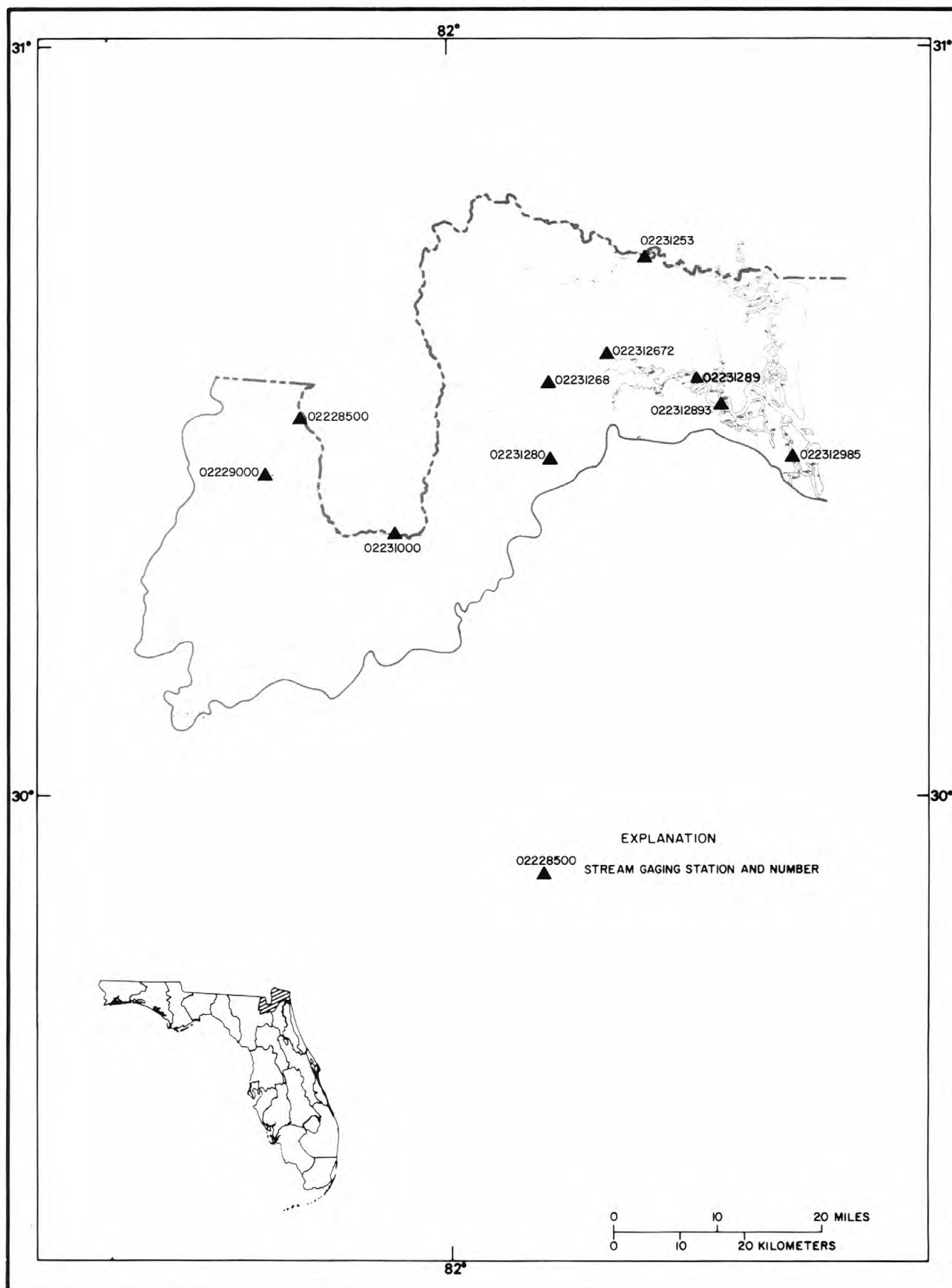


Figure 14.--Location of stream gaging stations in the St. Marys River basin and the coastal area between the St. Marys and St. Johns Rivers.

ALTAMAHA-ST. MARYS RIVER

ST. MARYS RIVER BASIN

02228500 NORTH PRONG ST. MARYS RIVER AT MONIAC, GA

LOCATION.--Lat 30°31'03", long 82°13'50", in NW¼ sec.8, T.1 N., R.21 E., Baker County, FL, Hydrologic Unit 03070204, near right bank at upstream side of bridge on State Highway 2 and 94, 0.2 mi upstream from Georgia Southern & Florida Railway bridge, 0.4 mi west of Moniac, 1.0 mi downstream from Moccasin Creek, and 122 mi upstream from mouth of St. Marys River.

DRAINAGE AREA.--160 mi², approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

PERIOD OF RECORD.--January 1921 to December 1923 (published as St. Marys River at Moniac), January 1927 to June 1930, July 1932 to June 1934, October 1950 to current year.

REVISED RECORDS.--WSP 1234; Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 89.40 ft above National Geodetic Vertical Datum of 1929. Prior to June 30, 1934, nonrecording gage at site 800 ft downstream at datum 3.22 ft higher. Oct. 3, 1950 to Oct. 17, 1988, water-stage recorder at present site and datum.

REMARKS.--No gage height record from Oct. 1, 1989 to Aug. 10, 1990. Discharge measurements only.

AVERAGE DISCHARGE.--44 years (water years 1922-23, 1928-29, 1933, 1951-89), 156 ft³/s, 13.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s, Apr. 5, 1973, gage height, 22.98 ft; no flow for many days in some years; minimum gage height, 3.62 ft, June 26, 1955.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
OCT			MAY		
04...	1220	438	22...	0950	.74
DEC			22...	1010	.79
05...	0815	10	JUL		
JAN			24...	1110	.80
23...	0945	210	AUG		
MAR			29...	0950	1.0
20...	0815	66			

ALTAMAHA-ST. MARYS RIVERS

ST. MARYS RIVER BASIN

02229000 MIDDLE PRONG ST. MARYS RIVER AT TAYLOR, FL

LOCATION.--Lat 30°26'10", long 82°17'15", in SW¼ sec.2, T.1 S., R.20 E., Baker County, Hydrologic Unit 03070204, near center of span on upstream side of bridge on State Highway 125, 0.5 mi southeast of Taylor, 0.9 mi upstream from Little River, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--125 mi², approximately.

PERIOD OF RECORD.--September 1955 to September 1967, April 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 89.51 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to April 1976 at same site at datum 0.11 ft lower.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--26 years (water years 1956-67, 1977-90), 109 ft³/s, 11.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,920 ft³/s, Sept. 12, 1964, gage height, 14.49 ft, present datum; minimum, 0.03 ft³/s, June 6, 1985, gage height, 0.89 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 254 ft³/s, Oct. 1, gage height, 6.73 ft, occurred on recession following peak of Sept. 29, 1989; maximum independent peak discharge, 226 ft³/s, Feb. 21, gage height, 6.40 ft; minimum discharge, 0.11 ft³/s, Sept. 25,26,27; minimum gage height, 1.10 ft, Sept. 25,26,27,28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	10	2.6	60	54	145	173	12	.21	.42	.18	.46
2	210	8.9	2.5	69	50	140	137	8.8	.20	.33	.15	.44
3	177	7.8	2.0	63	46	136	143	6.4	.34	.45	.14	.38
4	152	6.9	1.4	58	43	132	134	4.6	.24	.66	.14	.36
5	134	6.1	.98	55	40	125	115	3.3	.25	.42	.14	.35
6	120	5.5	1.1	54	38	118	100	2.6	.45	.41	.14	.31
7	109	5.0	1.3	57	36	110	89	1.9	.60	.35	.18	.24
8	101	4.7	2.5	70	35	103	81	1.4	.68	.31	.25	.22
9	92	6.1	4.7	74	31	96	74	.98	16	.28	.23	.21
10	85	7.9	5.6	69	34	89	69	.79	36	.24	.30	.21
11	80	7.7	5.7	65	81	82	65	.64	30	.20	.49	.20
12	75	7.1	7.0	61	84	75	61	.88	21	.29	.62	.21
13	71	6.4	9.4	57	70	68	55	.94	15	.27	.42	.18
14	66	6.1	11	54	60	62	49	.78	10	.64	1.5	.16
15	61	5.8	11	51	53	57	44	.61	7.5	.81	1.5	.16
16	57	5.5	11	50	48	51	39	.51	5.7	1.3	.70	.16
17	54	5.4	12	48	46	48	35	.72	4.9	.98	.53	.16
18	65	5.0	16	47	45	54	31	.74	4.1	.74	.46	.15
19	57	4.7	32	45	50	49	27	.63	2.9	.62	.38	.14
20	50	4.7	66	43	175	44	25	.82	2.1	.44	.36	.13
21	42	4.3	62	42	214	40	23	1.0	1.5	.39	.32	.13
22	37	4.7	52	43	184	35	20	1.2	1.1	.34	.29	.13
23	32	5.2	48	41	187	32	19	1.1	.98	.30	.28	.13
24	28	4.9	46	40	204	28	23	1.1	.95	.29	.26	.12
25	25	4.5	43	38	184	25	20	.91	.81	.27	.24	.11
26	22	4.6	42	46	166	23	15	.48	.66	.23	.21	.12
27	19	3.5	41	45	156	20	12	.43	.58	.23	.19	.12
28	17	3.4	39	41	150	18	11	.49	.47	.23	.21	.13
29	15	3.5	37	39	---	17	20	.44	.43	.22	.20	.16
30	13	2.7	34	37	---	22	17	.31	.34	.20	.31	.19
31	11	---	33	50	---	153	---	.25	---	.18	.53	---
TOTAL	2323	168.6	682.78	1612	2564	2197	1726	57.75	165.99	13.04	11.85	6.17
MEAN	74.9	5.62	22.0	52.0	91.6	70.9	57.5	1.86	5.53	.42	.38	.21
MAX	246	10	66	74	214	153	173	12	36	1.3	1.5	.46
MIN	11	2.7	.98	37	31	17	11	.25	.20	.18	.14	.11
CFSM	.60	.04	.18	.42	.73	.57	.46	.01	.04	.00	.00	.00
IN.	.69	.05	.20	.48	.76	.65	.51	.02	.05	.00	.00	.00

CAL YR 1989	TOTAL	13508.85	MEAN	37.0	MAX	547	MIN	.32	CFSM	.30	IN.	4.02
WTR YR 1990	TOTAL	11528.18	MEAN	31.6	MAX	246	MIN	.11	CFSM	.25	IN.	3.43

ALTAMAHA-ST. MARYS RIVERS

ST. MARYS RIVER BASIN

02231000 ST. MARYS RIVER NEAR MACCLENNY, FL

LOCATION.--Lat 30°21'31", long 82°04'54", in NW¼ sec.2, T.2 S., R.22 E., Baker County, Hydrologic Unit 03070204, on right bank 200 ft downstream from site of former Stokes Bridge, 1 mi downstream from confluence of North and South Prongs, 6 mi northeast of Macclenny, and 100 mi upstream from mouth.

DRAINAGE AREA.--700 mi², approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

PERIOD OF RECORD.--October 1926 to current year.

REVISED RECORDS.--WSP 1082: 1928(M), 1945(M). WSP 1142: 1928, 1945. WSP 1434: 1927. WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 40.00 ft above National Geodetic Vertical Datum of 1929 (levels by Mees and Mees). Prior to Feb. 21, 1939, nonrecording gage and Feb. 21, 1939, to Aug. 15, 1948, water-stage recorder, at site of former bridge 200 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 15-19, 22-30, Dec. 1-5, April 7-15, June 24-27. Records fair.

AVERAGE DISCHARGE.--64 years, 663 ft³/s, 12.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,100 ft³/s, Sept. 25, 1947; maximum gage height, 23.25 ft, Sept. 13, 1964, from floodmark; minimum discharge observed, 12 ft³/s, May 22, 1932; minimum gage height observed, 0.04 ft, June 4, 5, 1927.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 01	0100	(a)	*11.17	Feb. 24	1500	*1,890	10.30

(a) Backwater from St. Marys River near Gross, Florida.

Minimum discharge, 16 ft³/s, part or all of each day Sept. 24-28, minimum gage height, 0.66 ft, Sept. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1860	144	60	416	333	973	760	132	37	31	24	28
2	1870	136	60	568	339	851	804	111	36	29	23	31
3	1810	127	59	603	311	757	714	95	45	29	22	27
4	1620	120	59	549	286	686	670	83	50	29	21	26
5	1470	113	59	493	270	622	599	75	47	28	21	25
6	1300	107	58	451	276	557	517	69	49	27	20	25
7	1050	102	58	429	260	501	420	64	47	26	20	24
8	833	97	59	461	237	456	360	60	74	26	27	23
9	682	101	72	594	220	416	310	57	247	24	37	23
10	572	113	106	606	210	380	280	55	287	24	37	23
11	495	119	116	544	360	345	240	52	181	23	33	24
12	437	109	107	486	646	313	220	50	128	24	40	24
13	389	100	107	435	700	283	200	47	96	26	50	22
14	346	96	128	388	601	257	180	45	76	33	41	21
15	308	92	131	349	508	234	165	44	63	44	35	21
16	279	88	121	321	441	215	165	42	55	57	48	21
17	256	85	113	298	394	201	151	40	52	52	40	21
18	265	82	116	278	373	206	138	38	51	41	35	22
19	366	78	168	260	374	221	127	38	46	38	34	21
20	462	75	482	243	712	208	119	36	42	44	32	19
21	465	74	739	229	1410	190	113	35	39	46	30	18
22	450	72	747	232	1640	176	108	37	36	54	28	18
23	415	70	665	301	1740	163	107	36	36	48	30	17
24	354	68	615	322	1870	152	114	34	43	43	34	17
25	298	67	583	290	1810	142	119	34	44	46	30	16
26	255	66	550	286	1600	133	112	33	46	42	27	16
27	223	64	525	319	1360	125	101	34	48	34	25	16
28	200	63	499	310	1150	118	95	49	50	31	25	16
29	181	62	465	278	---	113	121	57	41	30	24	18
30	166	61	429	257	---	111	146	48	35	27	24	20
31	153	---	393	270	---	282	---	41	---	25	25	---
TOTAL	19830	2751	8449	11866	20431	10387	8275	1671	2127	1081	942	643
MEAN	640	91.7	273	383	730	335	276	53.9	70.9	34.9	30.4	21.4
MAX	1870	144	747	606	1870	973	804	132	287	57	50	31
MIN	153	61	58	229	210	111	95	33	35	23	20	16
CFSM	.91	.13	.39	.55	1.04	.48	.39	.08	.10	.05	.04	.03
IN.	1.05	.15	.45	.63	1.09	.55	.44	.09	.11	.06	.05	.03

CAL YR 1989	TOTAL 86427	MEAN 237	MAX 1870	MIN 22	CFSM .34	IN. 4.59
WTR YR 1990	TOTAL 88453	MEAN 242	MAX 1870	MIN 16	CFSM .35	IN. 4.70

ALTAMAHA-ST. MARYS RIVERS

ST. MARYS RIVER BASIN

02231000 ST. MARYS RIVER NEAR MACCLENLY, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.12	2.39	1.54	4.33	3.84	7.14	6.14	2.27	1.10	.99	.84	.93
2	11.14	2.31	---	5.18	3.88	6.59	6.37	2.04	1.07	.95	.82	.99
3	10.96	2.22	---	5.37	3.70	6.14	5.92	1.87	1.22	.94	.80	.90
4	10.31	2.14	---	5.08	3.54	5.78	5.70	1.74	1.30	.94	.79	.88
5	9.37	2.07	1.43	4.77	3.43	5.46	5.34	1.64	1.25	.92	.77	.87
6	8.45	2.00	1.42	4.53	3.47	5.12	4.90	1.56	1.27	.90	.75	.86
7	7.45	1.94	1.41	4.40	3.36	4.82	---	1.50	1.25	.89	.77	.84
8	6.50	1.89	1.43	4.58	3.20	4.56	---	1.45	1.62	.88	.90	.82
9	5.76	1.93	1.60	5.31	3.08	4.33	---	1.40	3.18	.85	1.09	.81
10	5.20	2.07	1.99	5.38	3.00	4.12	---	1.37	3.54	.84	1.09	.82
11	4.78	2.13	2.10	5.05	3.97	3.92	---	1.33	2.74	.83	1.02	.85
12	4.45	2.02	2.00	4.73	5.58	3.72	---	1.29	2.23	.84	1.14	.85
13	4.17	1.93	2.00	4.44	5.85	3.52	---	1.26	1.89	.88	1.30	.81
14	3.92	1.88	2.22	4.17	5.35	3.34	---	1.22	1.65	1.01	1.16	.78
15	3.69	---	2.26	3.94	4.85	3.18	---	1.20	1.48	1.20	1.06	.77
16	3.49	---	2.15	3.77	4.47	3.04	2.59	1.17	1.37	1.41	1.26	.77
17	3.34	---	2.07	3.62	4.21	2.92	2.46	1.13	1.33	1.33	1.14	.78
18	3.39	---	2.10	3.49	4.08	2.96	2.33	1.11	1.31	1.15	1.05	.81
19	4.04	---	2.60	3.36	4.09	3.08	2.22	1.10	1.23	1.11	1.04	.77
20	4.59	1.64	4.69	3.25	5.86	2.98	2.13	1.07	1.17	1.21	1.00	.73
21	4.61	1.62	6.05	3.14	8.77	2.83	2.06	1.05	1.12	1.23	.96	.71
22	4.53	---	6.08	3.16	9.58	2.69	2.01	1.08	1.08	1.36	.93	.70
23	4.32	---	5.68	3.64	9.88	2.57	2.00	1.06	1.07	1.26	.95	.69
24	3.97	---	5.43	3.77	10.25	2.47	2.07	1.04	---	1.19	1.03	.68
25	3.62	---	5.26	3.57	10.07	2.37	2.13	1.03	---	1.24	.95	.67
26	3.33	---	5.08	3.54	9.42	2.28	2.06	1.02	1.05	1.16	.90	.67
27	3.10	1.67	4.95	3.75	8.62	2.20	1.93	1.03	---	1.04	.86	.67
28	2.91	---	4.80	3.70	7.82	2.12	1.87	1.28	1.30	.99	.86	.68
29	2.75	---	4.61	3.49	---	2.06	2.15	1.39	1.15	.95	.84	.70
30	2.60	---	4.40	3.34	---	2.05	2.41	1.26	1.05	.91	.84	.76
31	2.48	---	4.20	3.43	---	3.38	---	1.15	---	.87	.86	---
MEAN	5.30	---	---	4.11	5.61	3.67	---	1.33	---	1.04	.96	.79
MAX	11.14	---	---	5.38	10.25	7.14	---	2.27	---	1.41	1.30	.99
MIN	2.48	---	---	3.14	3.00	2.05	---	1.02	---	.83	.75	.67

ALTAMAHA ST. MARYS RIVERS

ST. MARYS RIVER BASIN

02231253 ST. MARYS RIVER NEAR GROSS, FL

LOCATION.--Lat 30°44'29", long 81°41'17", in land grant 41, T.4 N., R.26 E., Nassau County, Hydrologic Unit 03070204, at Florida-Georgia state line, near center of span on upstream side of bridge on U.S. Highway 17, 1.8 mi downstream from Little St. Marys River, 2.1 mi north of Gross, and 21 mi upstream from mouth.

DRAINAGE AREA.--1,360 mi², approximately.

PERIOD OF RECORD.--April 1966 to September 1972, October 1972 to September 1973 (gage heights only), October 1973 to August 1975, October 1980 to September 1983, October 1984 to September 1990 (discontinued).

GAGE.--Water-stage and electromagnetic current meter recorders. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929. April 1966 to August 1975 water-stage and deflection meter recorder at same site and datum.

REMARKS.--No record Sept. 1-30, velocity probe malfunction. Records poor. Discharge computed from continuous electromagnetic current meter record and represents net of much larger upstream and downstream discharges. The stage record published is the maximum and minimum tide event for each calendar day.

AVERAGE DISCHARGE.--10 years (water years 1967-72, 1981-82, 1987, 1989), 1,529 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 17,300 ft³/s, Nov. 2, 1969; maximum gage height, 14.60 ft, Nov. 1, 1969; maximum daily reverse flow, 7,620 ft³/s, Oct. 4, 1989, caused by storms and extreme high tides; minimum gage height, 5.63 ft, Feb. 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,140 ft³/s, Feb. 28; maximum gage height, 13.86 ft, Oct. 29; maximum daily reverse flow, 7,620 ft³/s, Oct. 4, caused by storms and extreme high tides; minimum gage height, 7.07 ft, Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-1910	3010	2830	3430	3050	4480	4270	1840	1550	1960	1600	---
2	3330	2240	2840	2910	2930	4330	4040	1410	2080	1660	816	---
3	2160	2720	2700	3400	2330	4080	3290	1290	2220	1440	1470	---
4	-7620	2550	1990	3170	2000	2980	2460	1500	2110	2630	1860	---
5	-2440	2050	2100	2490	1620	2770	2200	1840	512	3270	2370	---
6	3450	2490	1520	414	2490	2630	2160	458	1930	2880	2480	---
7	3410	2140	2140	1690	1950	820	1680	1670	3070	3140	2300	---
8	1750	1360	1450	1840	1860	3370	1900	2290	2610	3300	2290	---
9	797	1700	1860	2130	2530	3360	2940	2320	2470	3630	2480	---
10	1340	1100	1950	2280	2840	2650	3120	2440	2750	3950	2490	---
11	-1700	1290	2180	2390	2700	2580	2860	2030	1980	3970	1720	---
12	-1090	2010	2060	3340	3790	2890	2180	2020	2450	3690	2550	---
13	603	2090	3120	2580	3590	2770	2620	2730	2690	3550	2240	---
14	576	2340	2680	2950	3380	2320	2730	2110	3100	3380	1900	---
15	-229	2490	2730	3350	3000	2220	2960	2110	2370	2580	1650	---
16	223	3240	2790	3060	2950	2460	2670	2460	1650	2270	1280	---
17	1220	2080	2720	2840	2270	2990	2540	2340	907	1850	1220	---
18	1400	2400	3350	2790	2010	2300	1930	1170	2270	2070	1380	---
19	2480	2100	3480	2420	1660	2490	2100	1300	2130	1730	2520	---
20	1970	1880	4380	1820	908	2570	2570	984	1920	2070	2540	---
21	1600	1680	4130	1490	2550	2140	1400	1110	2470	2460	2710	---
22	1460	1090	3030	1740	3350	2210	648	1090	3090	2420	2780	---
23	977	1770	3450	1870	2210	2090	1140	1040	2880	2350	3280	---
24	1450	844	3530	1530	4410	1060	2800	2670	2360	2390	3380	---
25	1840	1920	3250	2160	3230	1670	2630	3040	2650	2300	3390	---
26	2150	2030	3060	2910	4180	1880	2670	2760	2710	2300	3270	---
27	2490	1930	2500	1870	4640	2060	2300	2690	2860	2070	3220	---
28	3070	2380	2590	2750	5140	3360	3010	2310	2810	2200	3170	---
29	2470	2190	2600	2740	---	3540	2650	3060	2560	2590	3390	---
30	3560	2000	2850	2990	---	3530	2710	1970	2320	2470	3360	---
31	3750	---	2940	3040	---	4620	---	1730	---	2170	3430	---
TOTAL	34537	61114	84800	76384	79568	85220	75178	59782	69479	80740	74536	---
MEAN	1114	2037	2735	2464	2842	2749	2506	1928	2316	2605	2404	---
MAX	3750	3240	4380	3430	5140	4620	4270	3060	3100	3970	3430	---
MIN	-7620	844	1450	414	908	820	648	458	512	1440	816	---

CAL YR 1989 TOTAL 636325 MEAN 1743 MAX 4650 MIN -7620

NOTE.--Negative figures indicate reverse flow.

ALTAMAHA ST. MARYS RIVERS

ST. MARYS RIVER BASIN

02231253 ST. MARYS RIVER NEAR GROSS, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.46	13.13	13.01	12.49	12.87	13.45	13.22	12.62	13.07	12.57	12.77	---
2	13.20	13.14	12.91	12.80	12.84	13.58	13.16	12.85	12.91	12.83	12.98	---
3	13.24	13.20	12.40	12.63	12.63	13.41	12.98	12.81	12.78	13.03	13.12	---
4	13.23	13.11	12.61	12.60	12.59	13.07	12.89	12.79	12.56	13.02	13.16	---
5	13.46	13.25	12.35	12.49	12.64	13.30	12.79	12.58	13.11	12.79	13.09	---
6	13.07	13.07	12.48	12.67	13.16	13.40	12.69	12.99	13.19	12.88	13.05	---
7	12.75	12.79	12.48	13.04	13.14	13.48	12.93	13.14	12.92	13.03	13.06	---
8	12.87	12.91	12.92	13.25	13.09	13.83	13.21	13.03	12.82	13.05	13.04	---
9	13.64	12.92	13.57	13.00	13.11	13.43	13.19	12.95	12.84	13.11	13.03	---
10	13.65	13.07	13.36	12.90	12.93	12.94	12.99	12.73	12.83	13.03	13.06	---
11	13.65	13.13	13.37	13.03	13.10	13.03	12.86	12.75	12.63	12.84	13.06	---
12	13.55	13.28	13.36	12.74	13.01	12.97	12.85	12.78	13.13	12.73	13.01	---
13	13.56	13.37	13.00	13.00	12.87	12.95	12.97	12.91	13.28	12.60	12.98	---
14	13.64	13.47	13.06	13.07	12.69	12.84	13.09	12.61	13.12	12.51	12.92	---
15	13.69	13.38	13.11	12.93	12.61	12.97	12.90	12.68	12.83	12.62	12.91	---
16	13.61	12.87	12.82	12.73	12.37	12.93	12.77	12.84	13.15	12.76	12.98	---
17	13.53	12.93	13.06	12.59	11.85	12.69	12.61	12.71	13.53	12.95	13.15	---
18	13.48	12.73	12.94	12.55	12.39	12.20	12.65	12.62	13.46	12.96	13.35	---
19	12.99	12.57	13.01	12.35	12.59	12.42	13.20	12.73	13.38	13.07	13.39	---
20	12.51	12.42	12.69	12.53	12.69	12.48	12.97	12.90	13.42	13.12	13.35	---
21	12.70	12.06	12.88	12.38	13.44	12.75	12.83	12.95	13.43	13.05	13.30	---
22	12.79	12.43	12.64	11.93	13.22	12.79	13.18	13.09	13.24	13.00	13.15	---
23	13.07	12.35	13.28	12.43	12.92	12.82	13.49	13.78	13.25	12.96	13.19	---
24	13.18	12.69	12.97	12.74	12.49	12.93	13.38	13.72	13.15	13.12	12.94	---
25	13.25	12.87	13.11	12.87	13.09	13.08	13.31	13.66	13.28	13.12	12.81	---
26	13.50	12.95	12.61	12.24	13.53	13.39	13.27	13.54	13.26	13.18	12.68	---
27	13.67	13.00	12.84	12.71	13.58	13.79	13.25	13.42	13.15	13.37	12.69	---
28	13.82	12.96	12.48	12.79	13.55	13.83	13.31	13.31	12.99	13.40	12.75	---
29	13.86	12.75	12.78	12.91	---	13.72	13.17	13.31	12.69	13.24	12.69	---
30	13.84	13.11	12.83	12.79	---	13.51	13.03	13.02	12.54	12.94	12.81	---
31	13.48	---	12.87	12.77	---	13.32	---	13.04	---	12.73	12.94	---
MEAN	13.35	12.93	12.90	12.71	12.89	13.14	13.04	13.00	13.06	12.96	13.01	---
MAX	13.86	13.47	13.57	13.25	13.58	13.83	13.49	13.78	13.53	13.40	13.39	---
MIN	12.51	12.06	12.35	11.93	11.85	12.20	12.61	12.58	12.54	12.51	12.68	---

CAL YR 1989 MEAN 13.03 MAX 14.10 MIN 12.06

ALTAMAHA-ST. MARYS RIVERS

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

02231268 ALLIGATOR CREEK AT CALLAHAN, FL

LOCATION.--Lat 30°33'59", long 81°50'01", in NW¼ sec. 29, T.2 N., R.25 E., Nassau County, Hydrologic Unit 03070205, on downstream side of bridge on U.S. Highway 1, 0.2 mi northwest of the intersection of U.S. Highway 1 and State Highway 200 at Callahan.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--9 years, 11.4 ft³/s, 11.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 495 ft³/s, Sept. 2, 1985, gage height, 13.85 ft; no flow for many days in some years; minimum gage height, 6.08 ft, Sept. 24-28, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 191 ft³/s, Oct. 1, stage falling, peak occurred Sept. 29, 1989; maximum independent peak discharge, 60 ft³/s, Dec. 20, Feb. 21, gage height, 8.30 ft; no peak above base discharge of 150 ft³/s; no flow Sept. 24-27; minimum gage height, 6.08 ft, Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	2.3	1.6	20	16	8.5	17	1.4	.16	.06	.09	.09
2	65	2.1	1.5	33	12	7.4	8.7	1.1	.15	.13	.08	.08
3	35	1.8	1.5	18	8.7	6.7	5.1	.89	.17	.22	.08	.07
4	20	1.5	1.4	11	7.5	6.0	3.8	.78	.14	.25	.09	.07
5	12	1.4	1.4	8.9	6.4	5.3	2.8	.75	.14	.52	.06	.13
6	7.9	1.3	1.4	7.9	5.6	4.6	2.2	.71	.36	.45	.06	.09
7	6.0	1.3	1.4	7.5	5.0	4.2	1.8	.70	.48	.35	.13	.09
8	4.8	1.3	2.2	18	4.6	3.8	1.5	.60	.52	.26	.12	.06
9	3.7	1.5	3.8	30	4.3	3.7	1.4	.53	.37	.18	.13	.09
10	3.2	1.7	7.9	19	6.5	3.5	1.4	.53	.30	.09	.12	.07
11	3.0	1.9	7.1	13	17	3.3	1.3	.53	.24	.06	.15	.08
12	2.8	1.6	5.1	9.7	23	2.9	1.3	.52	.19	.05	.13	.10
13	2.8	1.4	5.4	7.7	12	2.6	1.2	.40	.13	.23	.08	.09
14	2.5	1.3	7.9	6.6	8.2	2.4	1.1	.27	.08	.12	.11	.09
15	2.3	1.3	6.4	5.7	6.7	2.3	1.1	.23	.06	.11	.13	.11
16	2.2	1.5	4.4	5.4	5.8	2.2	1.1	.21	.17	.07	.11	.10
17	2.1	1.5	3.6	5.1	5.3	2.3	1.1	.20	.24	.07	.22	.10
18	2.1	1.5	4.7	4.9	5.1	2.9	1.0	.21	.40	.08	.13	.08
19	2.5	1.3	21	4.6	6.4	3.5	1.1	.22	.43	.07	.09	.08
20	3.3	1.3	56	4.3	31	2.8	1.4	.28	.37	.07	.09	.08
21	2.9	1.3	40	5.8	53	2.2	1.5	.22	.30	.06	.10	.06
22	2.1	1.3	20	15	37	2.0	1.3	.19	.26	.06	.11	.06
23	1.6	1.5	15	25	43	1.9	1.1	.17	.18	.05	.09	.02
24	1.5	2.0	13	13	48	1.7	1.1	.16	.11	.04	.11	.00
25	1.3	2.5	11	10	33	1.5	1.0	.14	.08	.06	.15	.00
26	1.3	2.4	9.8	17	19	1.5	.91	.16	.10	.04	.09	.00
27	1.3	2.3	9.8	18	13	1.4	.84	.16	.08	.05	.10	.00
28	1.8	2.1	9.0	12	10	1.4	1.7	.16	.05	.10	.06	.23
29	3.3	2.0	7.8	8.6	---	1.4	2.2	.14	.06	.09	.05	.23
30	3.5	1.8	6.8	7.7	---	2.8	2.1	.14	.06	.07	.22	.24
31	2.7	---	6.2	12	---	6.7	---	.15	---	.08	.18	---
TOTAL	336.5	50.0	294.1	384.4	453.1	105.4	71.15	12.85	6.38	4.14	3.46	2.59
MEAN	10.9	1.67	9.49	12.4	16.2	3.40	2.37	.41	.21	.13	.11	.086
MAX	130	2.5	56	33	53	8.5	17	1.4	.52	.52	.22	.24
MIN	1.3	1.3	1.4	4.3	4.3	1.4	.84	.14	.05	.04	.05	.00
CFSM	.78	.12	.68	.89	1.16	.24	.17	.03	.02	.01	.01	.01
IN.	.89	.13	.78	1.02	1.20	.28	.19	.03	.02	.01	.01	.01

CAL YR 1989 TOTAL 2499.74 MEAN 6.85 MAX 376 MIN .06 CFSM .49 IN. 6.64
WTR YR 1990 TOTAL 1724.07 MEAN 4.72 MAX 130 MIN .00 CFSM .34 IN. 4.58

ALTAMAHA-ST. MARYS RIVERS

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

02231280 THOMAS CREEK NEAR CRAWFORD, FL

LOCATION.--Lat 30°27'39", long 81°49'57", in NW¼ sec.32, T.1 N., R.25 E., Duval County, Hydrologic Unit 03070205, on downstream side of bridge on Acree Road, 4.4 mi southeast of Crawford, 4.4 mi northwest of Dinsmore, 7.1 mi south of Callahan, and 24 mi upstream from mouth.

DRAINAGE AREA.--29.9 mi².

PERIOD OF RECORD.--January 1965 to current year.

REVISED RECORDS.--WDR FL-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--25 years, 33.6 ft³/s, 15.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft³/s, Apr. 4, 1973, gage height, 21.04 ft, from rating curve extended above 1,600 ft³/s; no flow, creek dry, Sept. 26-28, 1990.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1950 reached a stage of 23.3 ft, from floodmark pointed out by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 340 ft³/s, stage falling, peak occurred Sept. 29, 1989, maximum independent peak discharge 120 ft³/s, Feb. 23, gage height 16.97 ft, no peak above base of 300 ft³/s; no flow, creek dry, Sept 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e340	8.6	6.6	28	15	27	36	4.9	1.6	1.4	1.2	2.3
2	e220	8.1	6.4	35	14	22	16	3.7	1.6	2.6	1.1	1.8
3	136	7.8	6.3	28	13	20	16	3.1	1.7	8.0	1.1	1.6
4	95	7.2	6.1	23	12	18	12	2.8	2.0	12	1.3	1.6
5	66	6.8	6.4	20	11	16	8.8	2.6	2.0	6.4	1.2	1.7
6	47	6.7	6.5	20	10	14	7.3	2.5	2.1	3.7	1.1	1.7
7	34	6.6	6.6	21	9.8	13	6.4	2.4	2.3	2.7	.99	1.5
8	26	6.7	8.1	31	9.4	13	5.7	2.3	2.5	2.2	1.3	1.4
9	21	7.5	27	38	9.0	12	5.3	2.3	2.6	1.9	1.6	1.4
10	18	9.7	31	29	12	11	5.1	2.4	2.1	1.8	1.6	1.5
11	18	8.2	18	22	35	11	4.8	2.3	1.9	1.7	1.7	1.4
12	17	7.1	15	19	35	9.7	4.5	2.1	1.7	1.6	1.6	1.4
13	16	6.6	22	17	21	8.9	4.2	2.1	1.6	1.7	1.7	1.3
14	14	6.1	22	15	16	8.4	4.1	2.0	1.5	1.8	1.7	1.3
15	13	6.3	16	14	14	8.0	4.0	1.9	1.5	2.0	1.9	1.3
16	13	6.6	14	14	13	7.6	3.9	1.9	1.6	1.9	1.9	1.4
17	12	6.6	13	13	12	7.7	3.7	1.9	2.9	1.7	1.8	1.3
18	12	6.4	16	13	11	12	3.5	1.8	2.9	1.7	2.6	1.2
19	13	6.3	33	12	13	11	3.7	1.8	2.1	2.1	2.2	1.1
20	12	6.1	76	12	66	8.7	4.3	2.0	1.8	2.0	1.8	1.0
21	11	5.9	71	12	89	7.6	4.0	2.0	1.7	1.8	1.6	.96
22	9.7	5.5	51	13	88	7.1	3.6	2.1	1.6	1.7	1.5	.88
23	8.9	7.0	42	14	111	6.7	3.6	2.1	1.7	1.6	1.5	.72
24	8.5	9.9	36	13	114	6.3	3.7	2.0	1.9	1.5	1.4	.40
25	8.0	8.7	32	12	91	5.9	3.3	1.9	1.8	1.4	1.3	.05
26	7.9	8.1	31	18	64	5.6	3.1	1.8	1.6	1.3	1.3	.00
27	9.2	8.0	31	21	46	5.3	2.9	1.7	1.6	1.3	1.3	.00
28	9.1	8.1	29	18	35	5.5	3.2	1.7	1.6	1.4	1.4	.00
29	8.5	8.0	25	16	---	5.5	11	1.8	1.6	1.7	1.4	.56
30	8.2	7.3	21	14	---	6.5	8.2	1.7	1.6	1.5	1.4	2.0
31	8.6	---	20	15	---	31	---	1.6	---	1.4	2.2	---
TOTAL	1240.6	218.5	745.0	590	989.2	352.0	205.9	69.2	56.7	77.5	47.69	34.77
MEAN	40.0	7.28	24.0	19.0	35.3	11.4	6.86	2.23	1.89	2.50	1.54	1.16
MAX	340	9.9	76	38	114	31	36	4.9	2.9	12	2.6	2.3
MIN	7.9	5.5	6.1	12	9.0	5.3	2.9	1.6	1.5	1.3	.99	.00
CFSM	1.34	.24	.80	.64	1.18	.38	.23	.07	.06	.08	.05	.04
IN.	1.54	.27	.93	.73	1.23	.44	.26	.09	.07	.10	.06	.04

CAL YR 1989 TOTAL 7612.8 MEAN 20.9 MAX 1000 MIN 1.5 CFSM .70 IN. 9.47
WTR YR 1990 TOTAL 4627.06 MEAN 12.7 MAX 340 MIN .00 CFSM .42 IN. 5.76

e Estimated

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

02231289 NASSAU RIVER NEAR HEDGES, FL

LOCATION.--Lat 30°34'28" long 81°36'32", in land grant 47, T.2 N., R.27 E., Nassau County, Hydrologic Unit 03070205, near left bank at upstream side of bridge on U.S. Highway 17, 0.5 mi north of Halfmoon Island, 1.8 mi south of Hedges, and about 21 mi upstream from mouth.

DRAINAGE AREA.--274 mi², approximately, does not include Inconstantion Creek.

GAGE.--Water-stage recorder. Since Aug. 1, 1985, auxiliary water-stage recorder about 5.0 mi downstream from base gage. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Discharge represents net of much larger upstream and downstream discharges.

EXTREMES FOR PERIOD OR RECORD.--Maximum daily discharge, 11,300 ft³/s, Sept. 2, 1985; maximum gage height, 14.50 ft, Jan. 21, 1984; maximum daily reverse flow, 3,370 ft³/s, May 26, 1988; minimum gage height, 6.00 ft, Feb. 29, 1984.

Note.--Data for 1990 water year unavailable for publication.
Data will be published in 1991 data report.

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL

LOCATION.--Lat 30°27'42", long 81°26'59", in NW¼ sec. , T.1 N., R.28 E., Duval County, Hydrologic Unit 03070205, at channel marker 67 in Gunnison Cut, 0.9 mi north of the confluence of Sisters Creek and Fort George River, 1.5 mi northeast of Cedar Point, and 15.6 mi south of Fernandina Beach.

DRAINAGE AREA.--Indeterminate.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--February 1987 to current year.

GAGE.--Satellite data collection platform. Datum of gage is 12.60 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Stage affected by tide. The stage record published is the maximum and minimum tide event for each calendar day.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height 17.75 ft, Mar. 9, 1989; minimum, 8.72 ft, Apr. 7, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 17.24 ft, Oct. 29; minimum, 8.96 ft, Feb. 25.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.17	16.01	15.76	14.84	15.50	16.28	15.77	14.58	15.77	15.20	---	15.98
2	15.75	15.99	15.63	15.39	15.42	16.46	15.68	14.71	15.52	15.53	---	16.37
3	15.78	16.09	15.01	15.11	15.12	16.24	15.66	15.03	15.41	15.79	---	16.24
4	15.75	15.92	15.20	15.08	15.04	15.78	15.52	14.76	15.10	15.76	---	16.35
5	16.07	16.15	14.93	14.90	14.94	16.06	15.37	14.83	15.94	15.55	---	16.57
6	15.58	15.89	14.96	15.25	15.92	16.24	15.23	15.02	16.05	15.70	---	16.50
7	15.18	15.51	14.92	15.80	15.91	16.23	15.52	15.31	15.64	15.92	15.97	16.36
8	15.36	15.65	15.67	16.18	15.85	16.77	15.86	15.01	15.56	16.01	16.03	16.17
9	16.59	15.72	16.74	15.86	15.90	16.31	15.92	15.28	15.56	15.88	15.93	16.21
10	16.50	16.03	16.56	15.72	15.54	15.71	15.64	15.00	15.27	15.61	16.02	16.31
11	16.71	16.14	16.62	15.86	15.84	15.68	15.02	---	15.94	15.42	16.04	16.34
12	16.62	16.44	16.60	15.46	15.38	15.60	15.59	---	15.96	15.49	15.96	16.47
13	16.72	16.64	15.96	15.81	15.12	15.48	15.63	---	16.12	15.19	15.90	16.47
14	16.97	16.76	16.07	15.78	15.05	15.62	15.71	---	15.93	15.09	15.84	16.50
15	17.10	16.58	16.05	15.53	15.04	15.46	15.49	---	15.56	15.31	15.81	16.22
16	16.97	15.80	15.54	15.26	14.64	15.50	15.14	---	15.88	15.50	15.96	16.34
17	16.83	15.79	15.84	15.01	13.97	15.09	14.56	---	16.57	15.79	16.32	16.69
18	16.57	15.39	15.66	14.95	14.56	14.48	14.38	---	16.56	15.84	16.60	16.72
19	15.87	15.06	15.54	14.67	14.99	14.69	15.02	---	16.58	16.04	16.64	16.55
20	15.33	14.90	15.05	14.88	15.00	14.65	15.09	---	16.74	16.14	16.50	16.35
21	15.39	14.10	15.36	14.70	16.09	15.26	15.14	---	16.78	16.12	16.20	16.16
22	15.41	14.87	15.09	14.20	15.87	15.32	15.74	---	16.50	15.96	16.27	15.90
23	15.77	14.70	16.15	14.77	15.38	15.43	16.24	---	16.34	16.12	16.04	15.90
24	15.96	15.25	15.74	15.28	14.82	15.56	16.04	---	16.48	16.09	15.85	15.92
25	16.09	15.55	15.93	15.52	15.59	15.91	15.99	---	16.26	16.06	15.54	15.54
26	16.51	15.68	15.28	14.68	16.16	16.10	15.79	---	16.30	16.06	15.35	15.34
27	16.79	15.75	15.53	15.38	16.23	16.13	15.43	---	16.05	16.34	15.34	15.28
28	17.21	15.72	14.97	15.38	16.24	16.12	15.56	---	15.78	16.36	15.42	15.49
29	17.24	15.47	15.43	15.61	---	16.52	15.09	---	15.28	16.11	15.36	15.72
30	17.07	15.92	15.50	15.36	---	16.49	14.61	---	15.10	15.67	15.50	15.92
31	16.56	---	15.56	15.30	---	16.16	---	---	---	15.39	15.66	---
MEAN	16.27	15.72	15.64	15.27	15.40	15.78	15.45	---	15.95	15.78	---	16.16
MAX	17.24	16.76	16.74	16.18	16.24	16.77	16.24	---	16.78	16.36	---	16.72
MIN	15.18	14.10	14.92	14.20	13.97	14.48	14.38	---	15.10	15.09	---	15.28

CAL YR 1989 MEAN 15.77 MAX 17.75 MIN 13.83

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.49	11.26	10.72	9.72	10.14	10.50	10.86	10.40	11.26	10.38	---	11.38
2	11.14	11.33	10.72	10.10	10.10	10.68	10.88	11.24	11.02	10.58	---	11.43
3	11.06	11.76	10.10	9.92	9.96	10.62	10.81	11.24	10.56	11.49	---	11.04
4	11.42	11.78	10.41	9.82	9.72	11.20	10.92	11.55	10.46	11.16	---	10.79
5	11.99	11.99	9.97	9.63	10.48	11.47	10.78	10.61	10.32	10.71	---	11.08
6	11.63	11.48	10.02	9.73	10.76	11.23	10.28	11.28	11.12	10.36	---	10.93
7	11.02	10.98	9.90	10.20	10.30	11.67	9.91	11.66	10.63	10.69	10.59	10.70
8	11.03	10.73	10.56	9.64	9.83	11.92	10.58	11.20	10.41	10.64	10.67	10.29
9	12.70	10.10	10.11	9.43	10.02	10.92	11.00	11.51	10.47	10.67	10.76	10.30
10	11.94	10.01	10.22	9.28	9.69	10.20	10.24	11.54	10.33	10.48	10.59	10.79
11	11.81	9.88	10.04	9.08	9.75	10.27	9.98	---	10.12	10.28	10.63	10.96
12	11.25	9.73	9.76	9.08	10.12	10.43	10.56	---	11.04	10.10	10.48	11.36
13	10.94	9.50	9.50	9.54	10.22	10.26	11.02	---	11.39	9.89	10.56	11.37
14	10.51	9.72	9.45	10.13	10.25	10.42	11.32	---	11.22	10.00	10.20	11.39
15	10.32	9.92	9.70	10.50	10.54	10.93	11.31	---	10.66	9.54	10.18	10.97
16	10.23	10.01	9.88	10.54	10.28	10.84	11.24	---	11.00	9.79	10.16	10.76
17	10.22	10.08	10.84	10.62	10.49	10.48	11.36	---	11.41	9.83	10.28	10.89
18	10.41	10.26	11.22	10.67	11.64	10.72	11.10	---	11.09	9.72	10.40	11.57
19	10.37	10.48	11.42	10.75	10.88	11.28	12.52	---	10.44	9.74	10.58	11.34
20	9.91	10.12	11.30	11.04	11.84	11.11	11.47	---	10.04	9.68	10.45	11.25
21	10.38	10.11	10.89	10.00	11.81	11.48	10.81	---	10.00	9.42	10.54	11.22
22	10.66	10.43	11.29	10.04	10.78	11.02	10.25	---	9.68	9.36	10.60	11.16
23	11.43	9.88	11.54	10.21	10.23	10.53	10.79	---	9.39	9.70	10.92	11.09
24	12.05	11.16	11.30	10.16	9.01	10.28	10.12	---	9.86	10.01	10.92	11.78
25	11.89	10.94	10.90	10.16	8.96	9.98	9.81	---	10.15	10.45	11.04	11.72
26	12.33	10.78	10.21	9.45	10.25	9.88	9.55	---	10.47	10.97	10.97	11.65
27	12.36	10.58	10.02	9.18	10.21	10.48	9.81	---	10.68	11.94	11.15	11.44
28	12.70	10.42	9.56	9.52	10.08	10.66	10.13	---	10.59	12.29	11.46	11.59
29	12.66	10.22	9.64	9.68	---	10.40	10.42	---	10.56	12.16	11.44	11.85
30	12.35	10.98	9.68	9.60	---	10.32	10.36	---	10.32	11.72	11.28	11.58
31	11.65	---	10.01	9.68	---	10.24	---	---	---	11.12	11.52	---
MEAN	11.35	10.55	10.35	9.91	10.30	10.72	10.67	---	10.56	10.48	---	11.19
MAX	12.70	11.99	11.54	11.04	11.84	11.92	12.52	---	11.41	12.29	---	11.85
MIN	9.91	9.50	9.45	9.08	8.96	9.88	9.55	---	9.39	9.36	---	10.29

CAL YR 1989 MEAN 10.60 MAX 13.76 MIN 8.72

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: February 1987 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 34.0°C, July 10, Aug. 10, 1987; minimum, 3.1°C, Dec. 23, 1989.

WATER TEMPERATURE: Maximum, 31.8°C, Aug. 21,28; minimum, 3.1°C, Dec. 23.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37000	45700	54100	44400	47200	46300	49700	46200	54800	52700	---	43300
2	34400	47100	53800	49000	46600	45500	48600	47000	54500	52200	---	45700
3	33300	46200	52800	48200	45700	45000	48300	46900	54500	52300	---	45900
4	33500	45800	52900	47000	45100	44000	48300	46200	54900	52700	---	47400
5	36600	45700	50300	45200	46000	48900	48300	46200	53700	52700	---	46800
6	35200	45000	49200	45600	48000	49300	47400	48200	54400	52900	---	48600
7	32300	46700	49600	48400	47600	49000	47400	48700	54000	52800	---	53600
8	33200	47100	52400	48500	47400	48200	48100	48900	53700	52900	---	53500
9	43000	48100	53300	48000	47100	48100	48400	47500	53600	52800	---	54000
10	42900	51400	53100	47600	46600	47700	48500	48300	53600	52800	---	54200
11	42000	54000	54600	48500	46400	47300	48700	49100	54000	53000	50000	54100
12	43100	56100	54700	47400	46600	47200	48600	48900	54500	52800	48000	53700
13	43300	56600	53200	48900	46200	47000	48900	48500	54800	53100	46200	53700
14	43000	56200	54800	48600	46000	46100	49200	48400	54700	52000	44000	53500
15	42900	55400	54600	47900	44900	45100	48900	48500	54700	52000	42700	54800
16	44600	53500	53500	47300	42600	44800	48600	48400	54300	51800	45000	55200
17	43700	54400	53200	46800	39900	42900	47800	47900	54300	53000	45100	55400
18	44300	52800	52700	46100	46500	40700	47700	48600	54800	52800	44900	56000
19	44100	52100	52500	44800	46400	42400	49000	48700	55100	---	45700	55700
20	43400	50400	50300	45200	45400	42400	48700	48700	54900	---	46400	54100
21	42400	46700	50700	43200	45800	45800	48500	49500	55000	---	46600	54500
22	42100	48400	50400	38300	46300	46200	48300	52100	54700	---	46200	54300
23	44300	47900	50200	42700	42400	46400	48000	52100	53500	---	45500	54600
24	45300	53500	50800	44000	42800	46600	48000	52100	54000	---	45100	55100
25	45600	53500	50400	45600	45300	48200	47900	52600	54200	---	44100	55000
26	45800	52700	49400	42600	46900	50200	48000	53200	53800	---	43500	55000
27	45800	53000	49500	45800	46300	49900	47600	53600	53500	---	43800	52900
28	43900	52700	45800	46500	46200	50000	47400	53100	53700	---	43700	52100
29	44000	52300	48400	46600	---	50100	47200	52800	53400	---	44700	51100
30	42900	54400	47900	46400	---	50700	46800	53200	52900	---	44000	51400
31	43200	---	47900	46000	---	49200	---	54100	---	---	42900	---
MAX	45800	56600	54800	49000	48000	50700	49700	54100	55100	---	---	56000
CAL YR 1989	MAX	57300										

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30100	39600	50800	35100	45100	42300	46900	39700	52900	47900	---	41100
2	26700	40700	49700	40500	43300	42500	45500	42100	53600	45500	---	40000
3	25000	39500	47700	41600	41400	35800	45800	41900	53100	45900	---	40800
4	25500	39900	46900	39100	38700	42000	44900	42300	52200	48500	---	41700
5	27300	41100	42700	35100	39000	41700	45200	42200	50400	48100	---	43200
6	27400	40600	41200	36300	44200	46900	44000	40500	51700	47500	---	43200
7	24700	39500	42900	37300	46000	46000	42400	44800	50700	47400	---	45000
8	23900	39900	44900	38700	45800	46400	44200	46300	50900	47600	---	47000
9	29400	39800	46500	38300	45800	46200	46600	45900	50300	48600	---	48600
10	36200	39500	48900	37500	44400	45500	46700	44900	49100	48200	---	48700
11	39100	42200	49800	37500	43400	45200	44500	45300	47400	48800	46300	51200
12	39500	43600	50300	38000	43800	43900	45400	45400	51100	48600	43100	49200
13	39300	45100	50300	39100	43200	42700	47000	44600	52400	46600	40700	51500
14	38500	47700	49700	42400	41600	41200	47400	45100	52900	45400	39400	49900
15	39600	48600	49000	43500	39900	40300	46700	44900	52500	43500	39300	47700
16	39300	45900	47700	43200	35200	39000	45400	44600	52200	43600	38600	49400
17	39800	45400	50100	42400	32800	34800	42300	44100	52100	45800	39600	50300
18	40300	44500	50900	40500	37100	33500	44600	44400	52200	47800	40000	52400
19	39500	44500	48800	38500	41400	35200	47300	44500	52500	---	42000	50600
20	35100	42900	49200	37700	40800	36900	47300	45400	52600	---	42200	52400
21	34200	36800	48500	30100	42000	40000	46900	45700	52500	---	41100	52300
22	35200	37400	47900	30200	41800	42300	46100	45100	51500	---	39200	52200
23	37600	39100	48100	30100	40200	42700	45900	49100	50500	---	41900	52200
24	38900	41900	48400	33400	37300	43400	45900	50100	49700	---	40500	53000
25	40200	47700	47000	35700	35100	43700	45900	50800	50500	---	41000	53600
26	40400	48400	43800	36500	38400	45400	44600	51200	51000	---	40000	51700
27	36800	47700	40300	36700	40600	47400	44000	51100	50600	---	40300	51100
28	39700	47500	35100	42000	42800	48000	42800	50600	49700	---	40900	47500
29	41500	46500	34300	43500	---	48400	41600	50800	49500	---	40700	49000
30	42200	48100	35000	43100	---	48100	40400	49700	48500	---	40500	48700
31	39000	---	35200	43500	---	47900	---	47700	---	---	40200	---
MIN	23900	36800	34300	30100	32800	33500	40400	39700	47400	---	---	40000
CAL YR 1989	MIN 23900											

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	22.8	16.8	14.0	16.9	18.1	23.3	26.7	27.4	30.2	---	31.2
2	29.1	23.5	17.0	12.7	18.4	17.9	23.2	26.5	28.1	29.9	---	31.2
3	29.0	22.9	16.3	13.3	19.5	16.2	22.6	26.8	28.0	28.8	---	31.1
4	29.3	22.2	14.6	14.2	19.7	18.8	21.3	26.6	29.1	29.0	---	31.2
5	29.2	22.1	13.8	14.7	19.1	18.9	20.6	26.5	28.2	30.1	---	30.5
6	29.4	22.7	14.6	15.0	16.2	19.2	21.5	25.5	28.7	30.4	---	30.1
7	28.6	22.7	15.9	14.8	17.2	18.9	21.3	24.9	29.6	30.9	---	30.9
8	28.5	22.7	17.4	16.5	17.6	18.5	21.0	24.7	29.7	31.2	---	31.3
9	27.6	22.7	16.9	15.1	18.3	19.4	20.0	23.3	29.2	30.8	---	31.3
10	24.6	22.0	14.6	17.0	18.4	20.1	21.9	25.2	29.8	30.8	---	31.1
11	24.6	21.5	14.5	15.0	18.2	21.0	23.2	25.3	29.8	30.8	30.4	31.0
12	24.8	22.1	15.4	15.6	17.7	22.0	21.2	25.7	29.1	31.0	31.0	30.8
13	25.3	22.1	15.4	12.9	18.0	22.3	20.7	26.9	28.3	30.1	31.0	30.4
14	25.9	22.3	14.5	12.7	18.9	23.1	21.8	27.1	28.6	29.6	30.9	30.3
15	26.0	22.9	14.6	13.4	19.3	22.9	22.3	28.2	28.5	28.7	29.8	30.1
16	27.4	22.5	14.5	14.6	20.5	23.0	23.5	28.9	28.5	29.1	30.1	30.1
17	28.1	20.0	13.6	15.7	20.0	22.1	25.0	28.4	28.1	29.8	30.5	29.7
18	27.6	18.0	12.5	16.6	19.6	21.6	24.2	28.0	28.6	29.8	30.2	28.7
19	27.5	17.7	12.3	17.1	18.8	21.7	20.8	27.2	29.4	---	30.7	29.0
20	23.7	17.4	11.8	17.6	18.3	21.0	21.9	28.1	30.1	---	31.1	29.5
21	21.0	17.9	11.6	17.9	17.0	19.5	22.8	28.4	30.6	---	31.8	30.1
22	20.5	18.8	11.4	18.0	18.8	19.2	24.7	28.6	29.8	---	31.3	30.7
23	21.1	18.9	9.1	16.9	18.6	20.4	23.9	26.6	28.7	---	30.9	30.0
24	21.9	17.9	6.1	17.1	18.3	21.3	24.0	26.6	28.6	---	31.1	28.9
25	21.3	17.8	5.9	17.9	16.6	21.6	24.9	27.2	29.4	---	30.8	26.9
26	20.9	19.1	7.8	17.0	15.6	21.9	25.3	27.4	29.3	---	31.4	27.3
27	21.9	19.6	9.6	15.3	16.4	20.6	25.0	28.6	29.5	---	31.6	27.8
28	21.1	20.5	11.2	16.2	16.9	20.5	23.0	28.3	30.0	---	31.8	27.7
29	21.0	19.8	11.8	17.5	---	22.2	24.6	27.8	30.2	---	31.6	26.9
30	21.1	17.7	12.6	17.2	---	22.5	25.9	27.5	30.4	---	31.3	26.7
31	22.0	---	13.5	16.4	---	22.7	---	27.2	---	---	30.8	---
MAX	29.4	23.5	17.4	18.0	20.5	23.1	25.9	28.9	30.6	---	---	31.3

CAL YR 1989 MAX 32.1

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MINIMUM VALUES

[illegible]

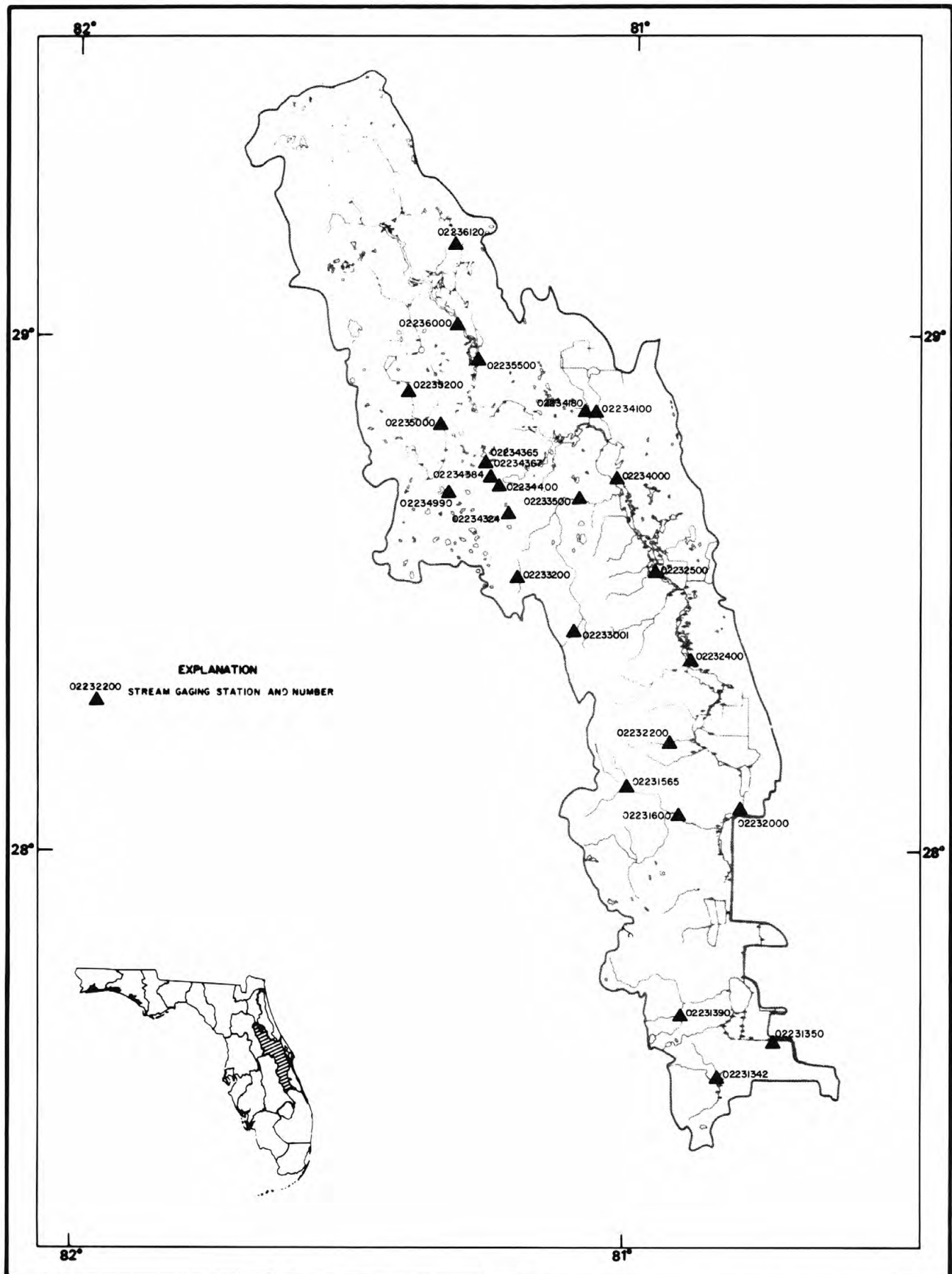


Figure 15.--Location of stream gaging stations in the St. Johns River basin above the Oklawaha River.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02231342 FORT DRUM CREEK AT SUNSHINE STATE PARKWAY, NEAR FORT DRUM, FL

LOCATION.--Lat 27°34'06", long 80°47'47", in NE¼ sec.35, T33 S., R.35 E., Okeechobee County, Hydrologic Unit 03080101, near center of downstream side of southbound bridge on Sunshine State Parkway (revised), 2.7 mi southeast of the Fort Drum Service Plaza, and 3.0 mi north of Fort Drum.

DRAINAGE AREA.--52.6 mi².

PERIOD OF RECORD.--July 1969 to July 1970 (discharge measurements only), June 1977 to current year.

REVISED RECORDS.--WDR FL-79-1: 1978 (M).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Brevard Engineering Co.).

REMARKS.--Estimated daily discharges: Dec. 10 to Jan. 30. Records fair except for periods of estimated record, which are poor.

AVERAGE DISCHARGE.--13 years, 40.8 ft³/s, 10.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s, Sept. 4, 1979; maximum gage height, 38.35 ft, Sept. 4, 5, 1979; no flow for several days each year; creek dry at gage for many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 911 ft³/s, Oct. 11, gage height, 37.83 ft; no flow many days; minimum gage height, 33.44 ft, May 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	57	18	61	8.6	50	1.3	.00	.34	79	37	47
2	81	52	17	55	8.2	37	1.4	.00	.27	179	32	66
3	70	46	16	48	7.7	30	1.2	.00	.14	157	30	72
4	59	41	15	43	7.3	25	1.1	.00	.00	108	34	59
5	48	38	14	39	6.9	19	.79	.00	.00	70	30	57
6	40	35	13	35	6.6	15	.52	.00	.00	46	33	61
7	61	32	12	33	6.3	12	.30	.00	.00	35	31	51
8	472	29	12	29	6.1	11	.18	.00	.00	26	27	42
9	499	27	14	27	6.0	10	.10	.00	.00	21	33	34
10	580	25	14	25	5.9	9.9	.07	.00	.27	18	90	28
11	883	22	16	23	9.6	9.2	.00	.00	1.4	18	102	22
12	724	19	15	21	12	7.8	.00	.00	5.6	19	135	19
13	517	16	15	20	12	6.6	.00	.00	8.9	55	198	16
14	384	14	14	18	11	5.9	.00	.00	5.7	118	232	13
15	302	13	14	17	9.4	5.4	.00	.00	3.1	129	185	11
16	269	13	13	16	8.3	4.9	.43	.00	1.7	126	157	9.2
17	229	12	13	15	7.2	4.2	.42	.00	1.2	151	132	8.0
18	193	11	13	14	6.4	3.1	.18	.00	1.0	158	113	7.3
19	178	10	12	13	5.7	2.3	.03	.00	.72	129	119	31
20	204	9.1	12	12	7.6	2.1	.00	.00	.47	110	108	98
21	239	8.1	16	11	20	1.8	.00	.00	.21	109	85	142
22	207	7.3	19	11	24	1.5	.00	.00	.61	91	67	153
23	171	7.7	50	10	66	1.2	.00	.00	11	72	53	124
24	138	8.5	170	9.6	176	.98	.00	.00	34	57	43	93
25	113	8.3	160	9.1	216	.82	.00	.00	108	46	38	73
26	97	9.1	142	8.5	167	.68	.00	.00	112	38	34	59
27	87	16	120	8.0	106	.56	.00	.00	152	31	32	47
28	80	17	100	7.6	71	.50	.00	.00	192	25	35	42
29	74	19	88	7.4	---	.41	.00	.05	152	23	43	43
30	68	20	80	8.3	---	.31	.00	.39	97	25	45	96
31	63	---	69	8.9	---	.60	---	.16	---	35	47	---
TOTAL	7227	642.1	1296	663.4	1004.8	279.76	8.02	0.60	889.63	2304	2380	1623.5
MEAN	233	21.4	41.8	21.4	35.9	9.02	.27	.019	29.7	74.3	76.8	54.1
MAX	883	57	170	61	216	50	1.4	.39	192	179	232	153
MIN	40	7.3	12	7.4	5.7	.31	.00	.00	.00	18	27	7.3
CFSM	4.43	.41	.79	.41	.68	.17	.01	.00	.56	1.41	1.46	1.03
IN.	5.11	.45	.92	.47	.71	.20	.01	.00	.63	1.63	1.68	1.15

CAL YR 1989 TOTAL 15728.22 MEAN 43.1 MAX 883 MIN .00 CFSM .82 IN. 11.12
WTR YR 1990 TOTAL 18318.81 MEAN 50.2 MAX 883 MIN .00 CFSM .95 IN. 12.96

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02231350 ST. JOHNS HEADWATERS NEAR VERO BEACH, FL

LOCATION.--Lat 27°38'26", long 80°40'43", in NW¼ sec.6, T.33 S., R.37 E., Indian River County, Hydrologic Unit 03080101, on upstream side of bridge on State Highway 60, 17.1 mi west of courthouse in Vero Beach, and 297 mi upstream from mouth.

DRAINAGE AREA.--297 mi².

PERIOD OF RECORD.--February 1942 to current year (gage heights only). Records of gage heights prior to October 1962 and revised records of gage heights for water years 1962-86 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is 18.56 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to May 21, 1974, at site 0.3 mi east at same datum.

REMARKS.--Stage affected by development of system of dikes and controls; not equivalent to earlier record of headwaters marsh.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 9.29 ft, Aug. 12, 1990; minimum, -0.30 ft, May 23, 1970.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.41	6.71	6.15	6.16	6.06	6.57	6.11	2.48	4.12	6.54	7.25	7.93
2	6.41	6.68	6.14	6.17	6.05	6.58	6.10	2.02	4.24	6.56	7.23	7.87
3	6.41	6.66	6.13	6.19	6.05	6.58	6.09	1.93	4.33	6.50	7.21	7.79
4	6.40	6.63	6.11	6.19	6.03	6.57	6.07	1.83	4.39	6.52	7.23	7.75
5	6.38	6.60	6.09	6.21	6.03	6.54	6.04	1.69	4.44	6.47	7.31	7.68
6	6.36	6.57	6.08	6.23	6.02	6.51	6.02	1.57	4.55	6.45	7.32	7.53
7	6.35	6.55	6.07	6.24	6.02	6.47	6.01	1.46	4.62	6.46	7.27	7.42
8	6.40	6.52	6.06	6.24	6.01	6.43	6.00	1.35	4.68	6.46	7.23	7.32
9	6.40	6.50	6.09	6.24	6.01	6.41	5.97	1.65	4.73	6.44	7.26	7.23
10	6.46	6.48	6.08	6.23	5.99	6.39	5.90	3.08	4.77	6.55	8.16	7.17
11	7.09	6.45	6.07	6.21	6.04	6.38	5.87	3.32	4.82	6.75	9.15	7.11
12	7.43	6.43	6.06	6.20	6.07	6.36	5.84	3.39	4.89	6.73	9.29	7.07
13	7.23	6.40	6.06	6.18	6.09	6.35	5.81	3.43	4.90	6.87	8.94	7.03
14	7.16	6.38	6.04	6.17	6.08	6.34	5.78	3.47	4.92	6.96	8.85	6.99
15	7.19	6.36	6.03	6.15	6.06	6.32	5.76	3.50	4.93	7.04	8.76	6.96
16	7.18	6.35	6.02	6.16	6.03	6.31	5.74	3.52	4.97	7.07	8.60	6.93
17	7.16	6.34	6.01	6.15	6.01	6.29	5.70	3.54	5.12	7.07	8.40	6.91
18	7.13	6.31	6.00	6.15	6.00	6.28	5.13	3.54	5.22	7.08	8.18	6.88
19	7.10	6.29	6.00	6.14	5.99	6.26	4.32	3.54	5.29	7.07	8.01	6.94
20	7.05	6.28	5.99	6.14	6.00	6.26	4.01	3.54	5.35	7.07	7.83	6.98
21	7.01	6.26	6.01	6.14	6.08	6.24	3.87	3.53	5.39	7.09	7.58	7.71
22	6.97	6.25	5.96	6.14	6.16	6.22	3.83	3.52	5.46	7.11	7.44	8.25
23	6.93	6.24	6.05	6.11	6.32	6.20	3.78	3.52	5.60	7.17	7.34	7.82
24	6.90	6.23	6.06	6.10	6.54	6.18	3.66	3.51	5.63	7.21	7.79	7.50
25	6.87	6.22	6.05	6.09	6.61	6.17	3.50	3.51	5.61	7.23	8.19	7.39
26	6.85	6.21	6.05	6.09	6.57	6.16	3.32	3.52	5.63	7.21	8.06	7.30
27	6.84	6.19	6.06	6.08	6.56	6.14	3.17	3.55	5.87	7.19	7.85	7.22
28	6.83	6.18	6.07	6.07	6.57	6.13	3.01	3.58	6.24	7.18	8.07	7.18
29	6.80	6.18	6.09	6.07	---	6.11	3.01	3.62	6.43	7.18	8.30	7.22
30	6.77	6.16	6.11	6.07	---	6.10	2.91	3.79	6.49	7.20	8.13	7.99
31	6.74	---	6.14	6.07	---	6.11	---	3.96	---	7.23	8.02	---
MEAN	6.81	6.39	6.06	6.15	6.14	6.32	4.94	3.01	5.12	6.89	7.94	7.37
MAX	7.43	6.71	6.15	6.24	6.61	6.58	6.11	3.96	6.49	7.23	9.29	8.25
MIN	6.35	6.16	5.96	6.07	5.99	6.10	2.91	1.35	4.12	6.44	7.21	6.88

WTR YR 1990 MEAN 6.10 MAX 9.29 MIN 1.35

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02231390 COW LOG BRANCH NEAR YEEHAW JUNCTION, FL

LOCATION.--Lat 27°41'19", long 80°52'52", in SW¼ sec.13, T.32 S., R.34 E., Osceola County, Hydrologic Unit 03080101, on upstream side of bridge on State Highway 60, 1.6 mi southwest of Yeehaw Junction.

DRAINAGE AREA.--20.5 mi².

PERIOD OF RECORD.--1956, 1965, 1967 (one discharge measurement each year), October 1982 to current year (discharge measurements only).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 74 ft³/s, July 24, 1984; no flow observed in 1956, 1967, 1989.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
OCT 05...	1400	40	MAR 20...	1245	3.6
DEC 04...	1525	5.7	MAY 03...	1035	e0.02
JAN 30...	0815	2.7	JUN 25...	1355	3.7
			SEP 06...	1756	10

02231565 CRABGRASS CREEK NEAR HOLOPAW, FL

LOCATION.--Lat 28°07'48", long 81°00'07", in SE¼ sec.15, T.27 S., R.33 E., Osceola County, Hydrologic Unit 03080101, on downstream side of bridge on U.S. Highway 192, 4.6 mi east of Holopaw.

DRAINAGE AREA.--30.2 mi².

PERIOD OF RECORD.--1965, 1967, 1969-70 (one to three discharge measurements each year), October 1970 to September 1983 (discharge measurements only), October 1983 to current year (annual peak discharge and periodic discharge measurements).

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 34.93 ft above National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,380 ft³/s, Mar. 14, 1988, gage height 8.40 ft; maximum discharge measured, 571 ft³/s, Mar. 14, 1988; no flow observed at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 473 ft³/s, Oct. 11, gage height, 7.00 ft.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
NOV 11...	1320	6.7	APR 12...	1130	.83
JAN 08...	1315	14	JUN 14...	1105	<.01
MAR 01...	1140	25	AUG 09...	1240	1.0

e Estimated

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02231600 JANE GREEN CREEK NEAR DEER PARK, FL

LOCATION.--Lat 28°04'27", long 80°53'18", in SE¼ sec.2, T.28 S., R.34 E., Osceola County, Hydrologic Unit 03080101, near right bank on upstream side of bridge on county road, 1.2 mi southeast of Deer Park, 2 mi downstream from confluence of Crabgrass and Bull Creeks, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--248 mi²

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 18.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--37 years, 224 ft³/s, 12.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s, Oct. 17, 1956, gage height, 10.95 ft, from rating curve extended above 11,000 ft³/s; no flow for many days in some years; creek dry at gage at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,520 ft³/s, Oct. 11, gage height, 6.45 ft; no flow May 14 to Aug. 16; minimum gage height, 0.61 ft, June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	599	141	9.4	317	17	585	7.3	3.7	.00	.00	.00	48
2	629	129	9.3	274	17	556	4.7	2.7	.00	.00	.00	48
3	603	115	9.1	236	16	512	4.0	1.9	.00	.00	.00	48
4	526	99	8.7	206	16	462	17	1.4	.00	.00	.00	46
5	440	85	8.4	182	15	413	30	1.1	.00	.00	.00	45
6	362	73	8.0	161	14	366	17	.86	.00	.00	.00	45
7	309	63	7.7	141	14	325	9.2	.65	.00	.00	.00	44
8	333	53	8.5	126	15	284	5.6	.43	.00	.00	.00	43
9	406	46	18	109	15	243	3.4	.27	.00	.00	.00	41
10	969	39	24	97	15	211	2.1	.18	.00	.00	.00	40
11	1460	32	36	88	16	182	1.4	.11	.00	.00	.00	39
12	1400	27	53	80	16	151	1.1	.05	.00	.00	.00	41
13	1170	23	73	72	15	63	.82	.01	.00	.00	.00	40
14	988	20	84	65	15	25	1.1	.00	.00	.00	.00	38
15	829	18	88	59	14	15	1.7	.00	.00	.00	.00	36
16	692	18	89	54	10	9.7	2.1	.00	.00	.00	.00	43
17	583	16	86	49	7.5	6.5	2.3	.00	.00	.00	.44	51
18	492	14	84	45	5.8	4.3	2.5	.00	.00	.00	4.4	42
19	416	13	81	41	4.5	3.0	1.9	.00	.00	.00	6.0	45
20	355	12	92	38	3.9	2.3	1.2	.00	.00	.00	6.5	40
21	311	11	108	35	7.4	1.9	.82	.00	.00	.00	12	35
22	270	11	120	32	18	2.4	.60	.00	.00	.00	22	33
23	232	10	199	29	44	35	.55	.00	.00	.00	29	32
24	201	10	309	27	86	76	.97	.00	.00	.00	33	32
25	186	9.7	485	25	145	84	5.3	.00	.00	.00	37	31
26	155	9.9	596	23	347	84	7.9	.00	.00	.00	38	32
27	145	9.8	600	21	536	79	7.9	.00	.00	.00	44	32
28	140	9.7	550	19	590	66	6.9	.00	.00	.00	48	32
29	144	9.7	480	18	---	30	6.0	.00	.00	.00	47	34
30	150	9.5	417	17	---	16	4.8	.00	.00	.00	46	46
31	149	---	361	17	---	11	---	.00	---	.00	47	---
TOTAL	15644	1136.3	5102.1	2703	2035.1	4904.1	158.16	13.36	0.00	0.00	420.34	1202
MEAN	505	37.9	165	87.2	72.7	158	5.27	.43	.000	.000	13.6	40.1
MAX	1460	141	600	317	590	585	30	3.7	.00	.00	48	51
MIN	140	9.5	7.7	17	3.9	1.9	.55	.00	.00	.00	.00	31
CFSM	2.03	.15	.66	.35	.29	.64	.02	.00	.00	.00	.05	.16
IN.	2.35	.17	.77	.41	.31	.74	.02	.00	.00	.00	.06	.18

CAL YR 1989 TOTAL 38145.79 MEAN 105 MAX 1460 MIN .00 CFSM .42 IN. 5.72
WTR YR 1990 TOTAL 33318.46 MEAN 91.3 MAX 1460 MIN .00 CFSM .37 IN. 5.00

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232000 ST. JOHNS RIVER NEAR MELBOURNE, FL

LOCATION.--Lat 28°05'04", long 80°45'08", in NW¼ sec.5, T.28 S., R.36 E., Brevard County, Hydrologic Unit 03080101, near center of span on upstream side of bridge on U.S. Highway 192, 1.1 mi downstream from Sawgrass Lake, 1.7 mi upstream from Lake Washington, 9.2 mi west of Melbourne, and 262 mi upstream from mouth.

DRAINAGE AREA.--968 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October 1939, published in WSP 1304.

GAGE.--Water-stage and deflection-meter recorder. Datum of gage is 11.22 ft above National Geodetic Vertical Datum of 1929. Prior to July 26, 1940, nonrecording gage, and July 26, 1940 to Jan. 11, 1973, water-stage recorder at site 200 ft upstream at same datum. Oct. 1, 1969, to Oct. 5, 1972, and Oct. 1, 1982, to Sept. 30, 1983, water-stage recorder for Lake Washington near Eau Gallie (station 02232100) used as auxiliary gage for this station.

REMARKS.--Estimated daily discharges: Jan. 18-24, July 15-19. Records poor.

AVERAGE DISCHARGE.--51 years, 657 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 18,000 ft³/s, Oct. 18, 1956; maximum gage height, 9.66 ft, Sept. 30, 1960; maximum daily reverse flow, 118 ft³/s, May 23, 1984, affected by wind; minimum gage height, -1.28 ft, May 27, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,250 ft³/s, Oct. 18, Aug. 28; maximum gage height, 4.75 ft, Oct. 18; minimum daily discharge, 21 ft³/s, May 18; minimum gage height, 0.79 ft, June 21, affected by wind.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	712	820	413	648	183	476	72	31	30	99	97	1180
2	714	813	435	684	178	555	67	26	29	96	98	1130
3	701	782	376	688	186	648	60	25	29	106	90	1070
4	681	755	386	654	186	601	46	28	26	101	144	1020
5	675	736	395	600	205	622	43	26	25	116	143	1000
6	636	723	360	589	187	595	38	27	31	108	143	967
7	612	705	355	595	182	600	31	37	26	106	124	931
8	638	703	361	528	181	561	47	33	26	102	119	906
9	610	692	306	500	164	572	48	42	24	111	131	919
10	943	665	252	482	183	503	63	60	28	102	134	884
11	1050	635	272	452	169	450	61	34	28	101	130	860
12	1110	591	308	454	200	408	54	36	23	105	167	877
13	1180	544	239	302	167	373	91	38	25	103	188	879
14	1220	539	227	380	166	340	88	37	25	118	223	821
15	1240	534	245	351	159	358	81	34	32	125	337	857
16	1230	540	238	316	174	323	70	29	43	120	705	852
17	1220	511	242	314	139	264	69	25	46	115	720	874
18	1250	486	231	295	158	142	68	21	47	110	770	914
19	1240	497	240	275	151	135	59	22	56	105	771	945
20	1220	508	218	255	152	115	66	32	57	101	874	947
21	1170	504	259	240	172	106	62	29	51	101	940	943
22	1120	500	255	220	180	103	57	28	45	109	1020	943
23	1070	497	328	210	234	95	45	27	88	98	1060	945
24	1030	473	411	195	257	87	43	24	91	108	1080	950
25	964	445	449	181	322	74	43	34	91	112	1080	958
26	944	444	503	145	366	66	39	32	92	103	1080	960
27	932	429	546	179	453	62	36	24	97	100	1090	962
28	870	439	629	179	504	65	38	37	96	128	1250	971
29	879	378	705	176	---	36	34	23	106	109	1210	991
30	872	376	762	176	---	52	28	22	103	111	1140	1020
31	836	---	830	169	---	64	---	29	---	103	1150	---
TOTAL	29569	17264	11776	11432	5958	9451	1647	952	1516	3332	18208	28476
MEAN	954	575	380	369	213	305	54.9	30.7	50.5	107	587	949
MAX	1250	820	830	688	504	648	91	60	106	128	1250	1180
MIN	610	376	218	145	139	36	28	21	23	96	90	821

CAL YR 1989 TOTAL 94701 MEAN 259 MAX 1250 MIN 26
WTR YR 1990 TOTAL 139581 MEAN 382 MAX 1250 MIN 21

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232000 ST. JOHNS RIVER NEAR MELBOURNE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.17	4.27	3.37	3.66	2.83	3.22	2.51	2.01	1.28	1.67	2.19	3.95
2	3.20	4.23	3.34	3.65	2.80	3.25	2.49	1.98	1.26	1.73	2.19	3.95
3	3.21	4.20	3.32	3.64	2.78	3.32	2.50	1.94	1.24	1.76	2.17	3.94
4	3.22	4.15	3.28	3.63	2.78	3.36	2.49	1.90	1.22	1.77	2.21	3.92
5	3.23	4.11	3.25	3.63	2.77	3.39	2.45	1.89	1.18	1.81	2.19	3.92
6	3.23	4.07	3.22	3.62	2.71	3.42	2.41	1.86	1.18	1.81	2.18	3.90
7	3.27	4.03	3.18	3.60	2.70	3.42	2.43	1.87	1.19	1.79	2.17	3.89
8	3.29	3.98	3.17	3.57	2.68	3.42	2.44	1.78	1.22	1.77	2.17	3.87
9	3.49	3.95	3.30	3.56	2.64	3.40	2.40	1.73	1.21	1.76	2.17	3.85
10	4.02	3.93	3.28	3.53	2.64	3.38	2.38	1.71	1.20	1.75	2.18	3.83
11	4.19	3.88	3.26	3.50	2.75	3.36	2.39	1.73	1.19	1.73	2.26	3.84
12	4.33	3.84	3.23	3.47	2.75	3.33	2.43	1.68	1.17	1.71	2.40	3.88
13	4.47	3.81	3.24	3.46	2.70	3.29	2.39	1.65	1.14	1.75	2.45	3.89
14	4.55	3.77	3.21	3.41	2.69	3.25	2.36	1.63	1.08	1.78	2.54	3.87
15	4.60	3.73	3.18	3.37	2.67	3.21	2.33	1.60	1.05	1.85	2.67	3.85
16	4.62	3.73	3.15	3.33	2.66	3.15	2.33	1.58	1.04	---	2.89	3.87
17	4.65	3.72	3.13	3.30	2.65	3.09	2.31	1.53	1.03	---	3.05	3.91
18	4.67	3.68	3.12	3.28	2.65	3.06	2.30	1.52	1.02	---	3.25	3.97
19	4.68	3.65	3.10	---	2.63	2.99	2.27	1.48	.99	2.00	3.45	4.01
20	4.65	3.63	3.13	---	2.65	2.95	2.25	1.42	.95	1.98	3.55	4.01
21	4.60	3.60	3.17	---	2.64	2.88	2.22	1.39	.94	2.03	3.66	4.01
22	4.54	3.56	3.22	---	2.67	2.79	2.20	1.38	1.05	2.06	3.72	4.01
23	4.48	3.54	3.37	---	2.90	2.74	2.18	1.37	1.31	2.12	3.77	4.01
24	4.46	3.52	3.40	---	3.04	2.67	2.16	1.35	1.35	2.14	3.79	4.02
25	4.43	3.48	3.42	2.99	3.13	2.64	2.12	1.32	1.33	2.16	3.81	4.03
26	4.41	3.47	3.44	3.02	3.17	2.59	2.10	1.28	1.37	2.18	3.81	4.03
27	4.40	3.46	3.47	2.95	3.18	2.57	2.06	1.30	1.61	2.21	3.85	4.04
28	4.42	3.43	3.54	2.93	3.19	2.52	2.03	1.36	1.65	2.17	3.92	4.05
29	4.38	3.42	3.58	2.89	---	2.49	2.05	1.36	1.65	2.21	3.92	4.09
30	4.36	3.40	3.62	2.87	---	2.49	2.02	1.34	1.65	2.21	3.93	4.14
31	4.32	---	3.64	2.87	---	2.49	---	1.31	---	2.21	3.94	---
MEAN	4.11	3.77	3.30	---	2.79	3.04	2.30	1.59	1.22	---	2.98	3.95
MAX	4.68	4.27	3.64	---	3.19	3.42	2.51	2.01	1.65	---	3.94	4.14
MIN	3.17	3.40	3.10	---	2.63	2.49	2.02	1.28	.94	---	2.17	3.83

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232200 WOLF CREEK NEAR DEER PARK, FL

LOCATION.--Lat 28°12'46", long 80°54'40", in NW¼ sec.22, T.26 S., R.34 E., Osceola County, Hydrologic Unit 03080101, near right bank on upstream side of bridge on State Highway 419, 2.9 mi upstream from mouth, and 8.5 mi north of Deer Park.

DRAINAGE AREA.--25.7 mi³.

PERIOD OF RECORD.--January 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.35 ft above National Geodetic Vertical Datum of 1929. Prior to July 13, 1967, at site 0.8 mi downstream at same datum.

REMARKS.--Records fair. Flow regulated to some extent since October 1970 by the construction of Jane Green Reservoir; levees were constructed and an interconnecting canal was dug joining the watershed areas of Taylor, Pennywash, Cox, and Wolf Creeks.

AVERAGE DISCHARGE.--34 years, 31.4 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,700 ft³/s, Oct. 16, 1956, gage height, 7.93 ft, from rating curve extended above 1,400 ft³/s; maximum gage height, 10.2 ft, estimated, Aug. 28, 1964, present site; no flow for many days in some years; minimum gage height, 1.01 ft, Aug. 14, 1972, caused by temporary earthen dam upstream and pumpage from gage pool; prior to Aug 14, 1972, minimum gage height observed, 2.23 ft, May 9, 1967, present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 ft³/s, Oct. 10, gage height, 8.39 ft; no flow May 6 to June 21; minimum gage height, 2.54 ft, May 25,26,27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	458	20	5.4	30	6.0	30	4.4	.08	.00	.53	.95	12
2	183	16	4.7	26	7.8	23	3.5	.06	.00	3.1	.58	7.6
3	93	14	4.0	23	7.3	23	2.7	.03	.00	2.3	.83	7.4
4	59	11	3.4	19	6.3	19	2.2	.02	.00	1.7	12	6.9
5	40	9.6	3.1	17	5.4	14	1.6	.01	.00	1.1	11	5.1
6	29	8.6	2.9	17	4.5	11	1.2	.00	.00	.65	4.8	3.5
7	22	7.7	2.7	16	4.1	9.0	.96	.00	.00	.39	2.5	2.7
8	61	6.8	5.0	15	3.8	7.7	.79	.00	.00	.24	1.6	2.3
9	113	6.2	58	14	3.6	6.2	.71	.00	.00	.24	1.2	1.9
10	775	6.0	61	12	3.4	5.3	.63	.00	.00	.38	.96	1.4
11	456	5.5	42	11	4.3	4.5	.60	.00	.00	.27	1.5	1.1
12	200	4.8	31	10	6.4	4.0	.69	.00	.00	.19	2.2	2.5
13	121	4.3	36	9.3	5.8	3.4	.58	.00	.00	.26	1.8	6.0
14	89	3.9	42	8.2	4.8	3.0	.45	.00	.00	.34	1.8	5.6
15	67	3.7	35	7.8	4.1	2.7	.34	.00	.00	.51	2.2	3.6
16	51	4.3	27	7.5	3.5	2.5	.26	.00	.00	.54	2.6	2.4
17	40	5.3	23	7.2	3.1	2.2	.18	.00	.00	.38	4.5	1.9
18	38	4.9	30	6.8	2.8	1.9	.14	.00	.00	.28	10	1.6
19	48	4.2	47	6.5	2.5	1.7	.26	.00	.00	.20	12	1.4
20	37	3.7	73	6.4	2.3	1.6	.30	.00	.00	.23	14	1.3
21	29	3.2	237	6.2	2.2	1.3	.21	.00	.00	1.7	24	1.3
22	22	3.0	186	6.2	2.5	1.2	.13	.00	.31	1.1	29	1.1
23	17	3.3	378	6.0	51	1.0	.25	.00	2.3	.60	25	.85
24	14	4.5	287	5.6	247	.91	.86	.00	1.4	.77	14	1.1
25	14	4.7	162	5.3	167	.79	.70	.00	.65	.61	9.2	.89
26	15	5.8	109	4.9	94	.73	.42	.00	.90	2.0	6.0	.68
27	18	9.3	81	4.4	59	.64	.25	.00	3.3	2.5	5.5	.51
28	25	8.9	64	4.2	40	.58	.15	.00	1.6	1.7	12	.43
29	27	7.6	51	4.3	---	.55	.15	.00	.68	2.4	51	.79
30	26	6.5	42	5.2	---	1.2	.12	.00	.38	2.9	42	5.0
31	23	---	35	5.2	---	3.8	---	.00	---	1.6	22	---
TOTAL	3210	207.3	2168.2	327.2	754.5	188.40	25.73	0.20	11.52	31.71	328.72	90.85
MEAN	104	6.91	69.9	10.6	26.9	6.08	.86	.006	.38	1.02	10.6	3.03
MAX	775	20	378	30	247	30	4.4	.08	3.3	3.1	51	12
MIN	14	3.0	2.7	4.2	2.2	.55	.12	.00	.00	.19	.58	.43

CAL YR 1989 TOTAL 12190.72 MEAN 33.4 MAX 857 MIN .11
WTR YR 1990 TOTAL 7344.33 MEAN 20.1 MAX 775 MIN .00

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232400 ST. JOHNS RIVER NEAR COCOA, FL

LOCATION.--Lat 28°22'10", long 80°52'22", in SE¼ sec.25, T.24 S., R.34 E., Brevard County, Hydrologic Unit 03080101, near right bank on downstream side of bridge on State Highway 520, 0.6 mi upstream from Taylor Creek, 0.7 mi downstream from outlet of Lake Poinsett, 8.8 mi west of Cocoa, and 232 mi upstream from mouth.

DRAINAGE AREA.--1,331 mi².

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1959, nonrecording gage at site 3.7 mi east on north shore of Lake Poinsett at datum 5.06 ft higher.

REMARKS.--Records fair. Records include inflow from Taylor Creek. Gage heights are published as elevations for Lake Poinsett (station 02232300) in the section of this report entitled LAKE ELEVATIONS.

AVERAGE DISCHARGE.--37 years, 955 ft³/s, 9.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 10,700 ft³/s, Oct. 11, 1953; maximum gage height observed, 16.96 ft, present site and datum, Oct. 11, 1953; minimum daily discharge, 5.6 ft³/s, July 17, 1981; minimum gage height, 7.77 ft, Mar. 6, 1962, affected by wind.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft³/s, Oct. 18, gage height, 14.46 ft; minimum daily discharge, 69 ft³/s, June 21; minimum gage height, 10.31 ft, June 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	1920	903	1180	668	579	340	156	89	121	116	357
2	310	1900	901	1160	662	590	328	157	87	130	114	370
3	322	1850	859	1150	649	578	305	159	83	145	111	388
4	336	1820	839	1130	628	576	290	157	81	152	114	407
5	354	1780	834	1110	574	573	294	141	81	154	113	421
6	362	1750	826	1090	591	561	288	133	87	156	110	435
7	379	1710	808	1080	576	566	272	126	86	163	109	455
8	407	1680	813	1060	566	578	260	136	89	166	108	470
9	431	1630	853	1030	557	555	270	136	89	162	108	487
10	709	1580	845	1020	534	549	256	120	88	160	108	497
11	948	1550	856	1000	529	544	238	116	83	158	112	508
12	1200	1510	860	971	506	543	220	121	84	155	115	524
13	1460	1490	826	926	511	538	217	117	84	151	116	538
14	1640	1460	834	930	511	532	218	111	79	151	122	554
15	1750	1430	827	926	507	534	217	112	76	151	128	564
16	1860	1370	814	920	489	525	213	110	74	150	141	574
17	1930	1310	797	903	472	504	209	106	71	148	145	595
18	1990	1270	810	888	463	471	202	100	72	146	151	645
19	1960	1230	834	874	448	466	216	102	73	140	159	658
20	1860	1190	859	868	430	448	200	101	70	139	169	666
21	1900	1160	910	843	431	436	187	92	69	137	184	685
22	1900	1140	946	823	432	437	181	87	76	130	193	694
23	1850	1110	986	804	472	424	177	86	83	129	206	701
24	1860	1080	1050	802	491	423	179	91	88	127	222	709
25	1860	1080	1180	790	515	410	179	91	88	126	241	714
26	1860	1030	1240	718	537	402	171	93	97	123	253	735
27	1900	1030	1290	718	556	380	170	89	114	117	266	751
28	1870	1010	1280	712	567	376	164	92	124	119	286	789
29	1850	973	1270	705	---	372	162	85	124	122	303	833
30	1920	919	1250	698	---	377	162	89	123	122	315	874
31	1930	---	1230	677	---	358	---	89	---	121	338	---
TOTAL	41212	41962	29430	28506	14872	15205	6785	3501	2612	4371	5276	17598
MEAN	1329	1399	949	920	531	490	226	113	87.1	141	170	587
MAX	1990	1920	1290	1180	668	590	340	159	124	166	338	874
MIN	304	919	797	677	430	358	162	85	69	117	108	357
CFSM	1.00	1.05	.71	.69	.40	.37	.17	.08	.07	.11	.13	.44
IN.	1.15	1.17	.82	.80	.42	.42	.19	.10	.07	.12	.15	.49

CAL YR 1989 TOTAL 164389 MEAN 450 MAX 1990 MIN 44 CFSM .34 IN. 4.59
WTR YR 1990 TOTAL 211330 MEAN 579 MAX 1990 MIN 69 CFSM .44 IN. 5.91

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232500 ST. JOHNS RIVER NEAR CHRISTMAS, FL

LOCATION.--Lat 28°32'34", long 80°56'37", in SW¼ sec.29, T.22 S., R.34 E., Orange County, Hydrologic Unit 03080101, on downstream side of bridge on State Highway 50, 0.3 mi upstream from Tootoosahatchee Creek, 2 mi upstream from Lake Cone, 4.5 mi east of Christmas, and 209 mi upstream from mouth.

DRAINAGE AREA.--1,539 mi², includes that of Tootoosahatchee Creek.

PERIOD OF RECORD.--October 1933 to current year. Prior to January 1934, monthly discharge only, published in WSP 1304.

GAGE.--Water-stage recorder. Datum of gage is 1.62 ft above National Geodetic Vertical Datum of 1929. Prior to July 23, 1934, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--57 years, 1,267 ft³/s, 11.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s, Oct. 12, 1953, gage height, 10.59 ft; maximum gage height, 10.81 ft, Sept. 28, 1960; no flow Mar. 22-27, Apr. 19, June 12,13, 1939; minimum gage height, 0.48 ft, June 19, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,750 ft³/s, Oct. 17, gage height, 7.11 ft; minimum, 62 ft³/s, June 17, gage height, 2.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	2370	1430	1820	815	926	345	140	67	88	145	281
2	327	2350	1390	1770	804	899	347	135	66	122	138	285
3	323	2320	1330	1730	778	862	358	130	67	216	132	291
4	319	2290	1290	1670	748	832	351	124	77	281	129	297
5	312	2270	1250	1620	707	812	344	118	77	286	125	304
6	306	2250	1210	1580	692	784	318	113	76	268	121	311
7	304	2220	1180	1540	656	767	305	110	84	248	117	320
8	321	2190	1170	1490	626	742	297	106	108	226	114	328
9	329	2160	1250	1450	601	708	287	101	101	205	111	337
10	399	2130	1260	1410	574	687	271	94	91	189	110	346
11	490	2090	1280	1370	595	667	276	93	88	176	115	356
12	687	2060	e1270	1320	599	638	274	91	92	161	132	367
13	1350	2030	e1260	1280	588	618	266	87	87	153	145	378
14	2110	1990	e1250	1250	562	606	256	85	80	149	183	388
15	2550	1950	e1240	1220	535	592	245	83	74	148	210	397
16	2690	1970	e1230	1190	506	570	235	80	69	150	234	411
17	2700	1940	e1220	1160	484	555	226	77	65	147	240	427
18	2710	1920	e1320	1130	465	512	217	75	67	144	256	445
19	2600	1870	1360	1100	441	480	223	74	71	142	283	461
20	2430	1820	1410	1080	419	460	218	72	72	138	303	484
21	2420	1770	1500	1050	406	457	209	69	71	137	309	507
22	2340	1730	1560	1020	395	446	201	69	71	133	318	528
23	2270	1700	1710	997	547	430	196	70	74	131	320	543
24	2210	1680	1840	975	708	420	191	69	76	140	316	559
25	2180	1640	2010	947	799	398	182	68	76	159	309	577
26	2180	1610	2050	901	884	370	173	67	77	175	300	607
27	2260	1580	2040	887	938	358	165	67	78	178	292	628
28	2280	1550	2000	859	941	345	156	70	78	176	287	670
29	2300	1510	1960	831	---	338	151	68	79	170	281	710
30	2380	1460	1920	809	---	339	145	68	81	163	275	748
31	2390	---	1870	807	---	343	---	67	---	154	278	---
TOTAL	48800	58420	46060	38263	17813	17961	7428	2740	2340	5353	6628	13291
MEAN	1574	1947	1486	1234	636	579	248	88.4	78.0	173	214	443
MAX	2710	2370	2050	1820	941	926	358	140	108	286	320	748
MIN	304	1460	1170	807	395	338	145	67	65	88	110	281
CFSM	1.02	1.27	.97	.80	.41	.38	.16	.06	.05	.11	.14	.29
IN.	1.18	1.41	1.11	.92	.43	.43	.18	.07	.06	.13	.16	.32

CAL YR 1989 TOTAL 233151 MEAN 639 MAX 2710 MIN 70 CFSM .42 IN. 5.64
WTR YR 1990 TOTAL 265097 MEAN 726 MAX 2710 MIN 65 CFSM .47 IN. 6.41

e Estimated

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232500 ST. JOHNS RIVER NEAR CHRISTMAS, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.23	6.86	6.12	6.50	5.41	5.56	4.41	3.24	2.56	2.87	3.48	4.27
2	4.20	6.85	6.08	6.46	5.39	5.53	4.41	3.20	2.55	3.17	3.43	4.29
3	4.18	6.83	6.02	6.42	5.35	5.48	4.45	3.16	2.56	3.82	3.39	4.32
4	4.16	6.82	5.97	6.38	5.30	5.44	4.43	3.12	2.67	4.18	3.37	4.35
5	4.12	6.80	5.94	6.33	5.24	5.40	4.40	3.06	2.68	4.20	3.35	4.38
6	4.09	6.78	5.90	6.29	5.21	5.36	4.29	3.03	2.67	4.12	3.32	4.41
7	4.08	6.77	5.86	6.25	5.15	5.33	4.23	3.00	2.75	4.02	3.30	4.45
8	4.17	6.75	5.85	6.21	5.10	5.30	4.19	2.97	2.99	3.90	3.27	4.48
9	4.21	6.72	5.94	6.17	5.05	5.24	4.14	2.92	2.93	3.78	3.24	4.52
10	4.51	6.70	5.95	6.13	5.00	5.20	4.06	2.87	2.83	3.68	3.23	4.55
11	4.78	6.68	5.97	6.09	5.04	5.17	4.09	2.86	2.80	3.60	3.27	4.59
12	5.17	6.65	---	6.04	5.05	5.12	4.08	2.83	2.84	3.51	3.41	4.63
13	6.02	6.63	---	5.99	5.02	5.08	4.04	2.79	2.79	3.45	3.50	4.66
14	6.68	6.60	---	5.97	4.98	5.06	3.98	2.76	2.72	3.43	3.75	4.70
15	6.99	6.57	---	5.93	4.92	5.03	3.92	2.74	2.65	3.43	3.91	4.73
16	7.07	6.59	---	5.90	4.86	4.99	3.87	2.71	2.60	3.45	4.04	4.77
17	7.08	6.56	---	5.86	4.82	4.96	3.82	2.68	2.55	3.43	4.08	4.81
18	7.08	6.55	---	5.82	4.78	4.88	3.76	2.65	2.58	3.41	4.16	4.85
19	7.02	6.51	6.07	5.79	4.72	4.81	3.80	2.64	2.63	3.39	4.29	4.88
20	6.90	6.47	6.12	5.77	4.67	4.77	3.77	2.61	2.64	3.38	4.37	4.93
21	6.90	6.43	6.21	5.73	4.63	4.76	3.71	2.58	2.63	3.37	4.40	4.98
22	6.85	6.39	6.26	5.70	4.59	4.73	3.66	2.58	2.64	3.34	4.44	5.02
23	6.79	6.37	6.40	5.66	4.94	4.70	3.63	2.60	2.68	3.34	4.45	5.05
24	6.75	6.35	6.51	5.63	5.24	4.67	3.59	2.58	2.71	3.40	4.43	5.08
25	6.73	6.32	6.65	5.59	5.38	4.60	3.54	2.56	2.72	3.54	4.40	5.11
26	6.73	6.29	6.68	5.53	5.51	4.50	3.47	2.55	2.72	3.65	4.36	5.16
27	6.79	6.27	6.68	5.51	5.58	4.46	3.42	2.55	2.74	3.67	4.33	5.19
28	6.81	6.23	6.65	5.47	5.59	4.40	3.36	2.59	2.75	3.67	4.30	5.26
29	6.82	6.20	6.62	5.43	---	4.37	3.32	2.57	2.76	3.63	4.28	5.33
30	6.87	6.15	6.59	5.40	---	4.38	3.28	2.57	2.79	3.59	4.25	5.38
31	6.88	---	6.55	5.39	---	4.40	---	2.56	---	3.53	4.26	---
MEAN	5.86	6.56	---	5.91	5.09	4.96	3.90	2.78	2.70	3.58	3.87	4.77
MAX	7.08	6.86	---	6.50	5.59	5.56	4.45	3.24	2.99	4.20	4.45	5.38
MIN	4.08	6.15	---	5.39	4.59	4.37	3.28	2.55	2.55	2.87	3.23	4.27

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02233001 ECONLOCKHATCHEE RIVER AT MAGNOLIA RANCH, NEAR BITHLO, FL

LOCATION.--Lat 28°25'27", long 81°07'10", in SE¼ sec.4, T.24 S., R.32 E., Orange County, Hydrologic Unit 03080101, near center of span on downstream side of bridge on Wewahootee Road, 250 ft downstream from Disston Canal, and 7 mi south of Bithlo.

DRAINAGE AREA.--32.9 mi².

PERIOD OF RECORD.--1960, 1964-67 (one discharge measurement each year), October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 1-12. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 24.2 ft³/s, 9.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 474 ft³/s, June 21,22, 1982, gage height, 62.58 ft; maximum gage height, 63.42 ft; Mar. 31, 1987; no flow for many days in most years; river dry at gage for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 91 ft³/s, Oct. 13,14, gage height, 61.24 ft; no flow for many days; river dry at gage for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	25	10	55	9.8	36	23	.32	.20	.45	.00	.00
2	34	23	9.4	50	9.5	34	17	.18	.00	1.8	.00	.00
3	31	21	8.6	45	8.8	33	13	.09	.04	1.3	.00	.00
4	28	20	7.8	42	8.4	31	9.6	.05	.01	.70	.00	.00
5	25	18	7.2	39	7.8	28	7.3	.00	.00	.36	.00	.00
6	23	17	6.7	37	7.2	26	5.6	.00	.01	.15	.00	.00
7	22	16	6.2	35	6.7	24	4.4	.00	.01	.05	.00	.00
8	28	15	7.0	33	6.3	22	3.4	.00	.90	.00	.00	.00
9	27	14	18	31	5.8	20	2.8	.00	.50	.00	.00	.00
10	23	13	23	29	5.6	18	2.3	.00	.35	.00	.00	.00
11	21	12	22	28	10	16	9.6	.00	.25	.00	.00	.00
12	27	11	20	26	14	15	11	.00	.17	.00	.00	.00
13	80	11	25	24	13	13	8.6	.00	.10	.00	.00	.00
14	88	9.7	26	22	13	12	6.2	.00	.01	.00	.00	.00
15	76	9.0	25	21	12	11	4.5	.00	.00	.08	.00	.00
16	66	12	23	20	11	9.8	3.4	.00	.00	.57	.00	.00
17	59	14	21	19	10	8.8	2.6	.00	.00	.33	.00	.00
18	54	14	26	18	9.1	7.8	2.0	.00	.00	.14	.00	.00
19	51	13	33	17	8.2	6.7	2.3	.00	.00	.05	.00	.00
20	46	12	40	16	7.6	5.8	2.2	.00	.00	.00	.00	.00
21	41	11	52	15	7.1	5.1	1.6	.00	.00	.00	.00	.00
22	36	10	56	14	6.9	4.4	1.1	.00	.00	.00	.00	.00
23	33	10	77	13	20	3.7	1.9	.00	.00	.00	.00	.00
24	29	11	86	13	42	3.2	3.2	.00	.00	.00	.00	.00
25	26	11	84	12	47	2.7	2.5	.00	.00	.00	.00	.00
26	25	11	81	11	43	2.2	1.8	.00	.00	.00	.00	.00
27	28	11	77	11	39	1.9	1.2	.00	.00	.00	.00	.00
28	30	12	74	10	37	1.6	.89	.00	.00	.00	.00	.00
29	29	11	70	9.7	---	1.8	.69	.00	.00	.00	.00	.00
30	28	11	65	9.4	---	12	.51	.00	.00	.00	.00	.00
31	26	---	60	9.6	---	23	---	.00	---	.00	.00	---
TOTAL	1176	408.7	1146.9	734.7	425.8	439.5	156.19	0.64	2.55	5.98	0.00	0.00
MEAN	37.9	13.6	37.0	23.7	15.2	14.2	5.21	.021	.085	.19	.000	.000
MAX	88	25	86	55	47	36	23	.32	.90	1.8	.00	.00
MIN	21	9.0	6.2	9.4	5.6	1.6	.51	.00	.00	.00	.00	.00
CFSM	1.15	.41	1.12	.72	.46	.43	.16	.00	.00	.01	.00	.00
IN.	1.33	.46	1.30	.83	.48	.50	.18	.00	.00	.01	.00	.00

CAL YR 1989 TOTAL 9583.52 MEAN 26.3 MAX 212 MIN .00 CFSM .80 IN. 10.84
WTR YR 1990 TOTAL 4496.96 MEAN 12.3 MAX 88 MIN .00 CFSM .37 IN. 5.08

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02233200 LITTLE ECONLOCKHATCHEE RIVER NEAR UNION PARK, FL

LOCATION.--Lat 28°31'29", long 81°14'39", in SW¼ sec.32, T.22 S., R.31 E., Orange County, Hydrologic Unit 03080101, near right bank at Berry-Deese Road, 3,300 ft upstream from a tributary, 3 mi south of Union Park, 8.5 mi east of Orlando, and 13 mi upstream from mouth.

DRAINAGE AREA.--27.1 mi².

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 56.19 ft above National Geodetic Vertical Datum of 1929. Prior to Jan 12, 1960, and Oct. 21, 1972 to Nov. 14, 1983, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--31 years, 25.6 ft³/s, 12.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft³/s, Mar. 17, 1960, gage height, 11.64 ft; minimum, 0.10 ft³/s, June 6,7, 1961; minimum gage height, 4.83 ft, May 14, 1967, May 6, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	2400	*123	*7.81				

Minimum discharge, 2.7 ft³/s, May 18,19, gage height, 5.07 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	11	8.0	29	13	29	29	7.2	7.0	9.2	12	12
2	24	11	7.7	28	14	26	18	6.5	11	8.6	11	10
3	22	11	7.6	26	14	24	14	6.4	7.7	8.8	12	10
4	20	10	6.8	25	13	22	12	5.6	20	11	12	9.4
5	19	9.8	6.7	25	12	21	10	6.7	15	10	10	8.8
6	18	9.4	6.7	26	12	20	10	6.1	17	9.7	9.0	8.1
7	19	9.4	7.3	27	12	19	10	4.9	73	9.0	8.4	7.6
8	53	9.1	8.3	27	12	19	10	4.9	35	9.2	7.6	7.5
9	44	9.0	33	27	12	19	10	4.8	26	7.9	7.6	7.2
10	39	9.0	30	26	12	17	10	4.7	21	7.7	11	6.4
11	35	8.8	31	25	24	16	18	4.7	19	6.9	54	6.2
12	32	8.4	30	25	24	14	21	4.2	21	5.9	35	6.1
13	32	8.3	35	24	18	13	15	3.8	16	27	22	6.0
14	29	8.2	32	24	17	12	12	3.7	12	22	25	5.9
15	24	7.9	27	23	16	12	11	4.1	11	28	24	5.7
16	21	12	23	23	15	11	10	3.3	9.3	65	20	5.8
17	19	13	22	22	16	11	9.4	3.0	9.6	34	36	7.4
18	18	9.8	32	22	16	11	8.9	2.7	23	26	26	6.7
19	16	8.9	36	22	14	10	10	2.7	15	22	22	6.2
20	15	8.6	32	20	13	9.9	10	8.4	11	19	23	5.6
21	14	8.1	54	19	13	9.1	8.8	6.7	9.9	17	19	5.1
22	13	8.1	42	19	13	8.7	8.1	4.7	8.6	14	19	4.9
23	12	9.0	77	17	56	8.2	15	6.7	10	13	42	4.7
24	12	11	70	16	96	7.8	24	5.2	14	12	32	4.4
25	11	9.9	60	16	57	7.6	16	4.3	12	12	23	3.9
26	11	9.9	52	15	47	7.6	11	3.7	21	27	20	3.8
27	13	10	46	14	38	7.4	11	3.5	31	28	17	3.8
28	13	10	41	13	33	6.9	9.6	6.1	17	21	15	3.8
29	13	10	37	13	---	7.4	8.7	5.5	12	16	13	8.4
30	12	8.7	33	13	---	21	7.7	4.9	10	16	12	24
31	12	---	31	13	---	36	---	4.7	---	18	13	---
TOTAL	660	287.3	965.1	664	652	463.6	378.2	154.4	525.1	540.9	612.6	215.4
MEAN	21.3	9.58	31.1	21.4	23.3	15.0	12.6	4.98	17.5	17.4	19.8	7.18
MAX	53	13	77	29	96	36	29	8.4	73	65	54	24
MIN	11	7.9	6.7	13	12	6.9	7.7	2.7	7.0	5.9	7.6	3.8
CFSM	.79	.35	1.15	.79	.86	.55	.47	.18	.65	.64	.73	.26
IN.	.91	.39	1.32	.91	.89	.64	.52	.21	.72	.74	.84	.30

CAL YR 1989 TOTAL 7759.7 MEAN 21.3 MAX 270 MIN 3.9 CFSM .78 IN. 10.65
WTR YR 1990 TOTAL 6118.6 MEAN 16.8 MAX 96 MIN 2.7 CFSM .62 IN. 8.40

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02233500 ECONLOCKHATCHEE RIVER NEAR CHULUOTA, FL

LOCATION.--Lat 28°40'40", long 81°06'51", in SW¼ sec.10, T.21 S., R.32 E., Seminole County, Hydrologic Unit 03080101, near right bank on downstream side of bridge on State Highway 13, 2.6 mi northeast of Chuluota, and 10 mi upstream from mouth.

DRAINAGE AREA.--241 mi².

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for October 1935, published in WSP 1304.

GAGE.--Water-stage recorder. Datum of gage is 2.14 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Nov. 6, 1935, to May 17, 1939, and June 17, 1969, to July 21, 1971, nonrecording gage at same site and datum. Since Sept. 3, 1943, water-stage recorder for St. Johns River above Lake Harney near Geneva (station 02234000) used as auxiliary gage for this station.

REMARKS.--Records fair. Records include some flow diverted from Lake Mary Jane in the Kissimmee River Basin through Disston Canal.

AVERAGE DISCHARGE.--55 years, 263 ft³/s, 14.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s, Mar. 18, 1960, gage height, 18.69 ft; minimum daily, 6.7 ft³/s, June 11-13, 15, 1945; minimum gage height, 0.08 ft, May 10, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 775 ft³/s, Dec. 26, gage height, 6.86 ft; minimum, 40 ft³/s, May 14, 15, 18, 28, 29, June 1; minimum gage height, 0.15 ft, May 18, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	132	72	331	91	310	115	60	41	100	104	96
2	180	131	72	293	101	264	147	56	42	86	96	88
3	173	122	71	270	111	229	159	52	42	86	86	82
4	156	115	70	248	108	202	146	51	48	106	86	82
5	144	110	70	230	101	182	125	50	62	124	89	80
6	135	106	68	216	96	164	105	49	76	133	82	72
7	127	100	67	206	90	151	91	47	89	125	77	68
8	130	96	69	196	87	142	81	46	162	104	86	63
9	159	93	83	190	86	130	75	44	225	88	117	61
10	169	90	134	188	83	121	71	44	253	80	124	59
11	164	90	155	184	89	113	71	44	219	81	206	56
12	156	84	162	174	113	104	78	44	182	75	258	55
13	153	77	161	160	135	97	95	42	172	72	234	55
14	166	69	159	150	129	92	112	41	136	85	185	54
15	171	66	162	144	121	88	115	40	115	124	e212	52
16	224	68	166	140	112	85	102	41	99	259	e200	51
17	274	70	165	134	104	82	87	41	90	327	e190	51
18	284	80	164	126	99	80	79	40	143	369	e230	49
19	271	87	196	125	97	77	73	43	140	368	e212	49
20	241	86	242	125	91	74	69	44	116	301	e190	48
21	206	81	297	123	89	70	68	43	97	226	e170	46
22	174	72	379	120	89	66	65	46	235	180	140	46
23	155	69	471	119	110	64	65	45	221	152	124	45
24	142	73	577	114	235	63	69	46	186	131	145	44
25	134	84	700	110	361	61	75	45	148	163	177	45
26	128	80	769	105	440	62	74	42	118	249	175	44
27	129	78	711	98	444	59	68	42	129	263	171	43
28	140	79	599	94	379	57	66	43	174	222	141	43
29	141	78	505	93	---	58	64	40	165	171	117	43
30	136	75	435	90	---	61	60	43	126	133	103	55
31	132	---	376	87	---	82	---	42	---	110	109	---
TOTAL	5279	2641	8327	4983	4191	3490	2670	1396	4051	5093	4636	1725
MEAN	170	88.0	269	161	150	113	89.0	45.0	135	164	150	57.5
MAX	284	132	769	331	444	310	159	60	253	369	258	96
MIN	127	66	67	87	83	57	60	40	41	72	77	43
CFSM	.71	.37	1.11	.67	.62	.47	.37	.19	.56	.68	.62	.24
IN.	.81	.41	1.29	.77	.65	.54	.41	.22	.63	.79	.72	.27

CAL YR 1989 TOTAL 66801 MEAN 183 MAX 1760 MIN 34 CFSM .76 IN. 10.31
WTR YR 1990 TOTAL 48482 MEAN 133 MAX 769 MIN 40 CFSM .55 IN. 7.48

e Estimated

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY, NEAR GENEVA, FL

LOCATION.--Lat 28°42'50", long 81°02'08", in NE¼ sec.32, T.20 S., R.33 E., Seminole County, Hydrologic Unit 03080101, near left bank on downstream side of bridge on State Highway 46, 0.9 mi downstream from Econlockhatchee River, 1 mi upstream from Lake Harney, 5.5 mi southeast of Geneva, and 190 mi upstream from mouth.

DRAINAGE AREA.--2,043 mi².

PERIOD OF RECORD.--July 1941 to September 1981 (gage heights and miscellaneous discharge measurements only). October 1981 to current year. Records of gage heights prior to October 1962 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WRD FL 1966: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Sept. 3, 1943, nonrecording gage, and Sept. 3, 1943 to Oct. 8, 1959, water-stage recorder at site 50 ft downstream at same datum.

REMARKS.--Records fair except those below 200 ft³/s, which are poor.

AVERAGE DISCHARGE.--9 years, 1,606 ft³/s, 10.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 13,800 ft³/s, Oct. 7, 1953, gage height, 10.05 ft; maximum gage height, 10.82 ft, Oct. 13, 1953; minimum discharge measured, 70 ft³/s, Nov. 6, 1980, gage height, 0.88 ft; minimum gage height, -0.42 ft, June 18, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1924 reached a stage of 10.1 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,030 ft³/s, Nov. 4; maximum gage height, 3.82 ft, Nov. 2,3,4; minimum discharge, 82 ft³/s, May 26; minimum gage height, 0.23 ft, May 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	2960	1760	2620	977	1270	561	231	123	218	416	369
2	1150	3000	1720	2570	957	1270	582	210	134	204	403	351
3	1160	3010	1680	2510	931	1260	657	178	146	188	375	348
4	1140	3010	1630	2450	903	1260	680	149	167	178	348	352
5	1100	3010	1590	2390	893	1250	676	135	174	193	323	360
6	1060	3000	1540	2340	853	1220	644	135	168	217	306	384
7	1020	2970	1500	2280	819	1190	616	134	160	235	293	407
8	1000	2930	1470	2210	800	1150	579	119	169	227	282	419
9	994	2880	1560	2150	772	1120	535	109	185	213	281	411
10	1020	2830	1550	2090	753	1110	489	109	198	201	283	391
11	1020	2780	1530	2020	812	1090	487	121	216	187	325	373
12	1040	2710	1510	1960	812	1070	502	107	209	177	369	355
13	1090	2660	1510	1880	805	1030	479	100	189	196	371	349
14	1160	2600	1500	1810	800	996	461	98	172	237	364	359
15	1250	2540	1480	1760	780	945	446	97	169	299	365	386
16	1370	2500	1470	1700	756	893	429	96	174	462	368	413
17	1560	2440	1460	1640	738	836	404	93	177	435	356	436
18	1790	2390	1490	1600	707	804	375	94	226	400	351	447
19	1980	2340	1530	1540	671	745	352	95	249	371	350	446
20	2110	2300	1610	1490	650	702	341	94	262	336	347	478
21	2270	2260	1710	1450	625	657	357	92	271	292	368	504
22	2350	2200	1810	1410	628	609	382	93	318	246	374	525
23	2390	2180	2040	1350	813	577	402	93	344	214	380	539
24	2410	2130	2210	1310	998	547	399	91	344	209	388	543
25	2510	2070	2400	1260	1100	525	377	90	320	202	406	542
26	2530	2030	2540	1210	1180	502	357	89	288	217	414	547
27	2650	1980	2630	1160	1230	489	331	100	282	247	404	542
28	2690	1920	2690	1110	1250	467	297	111	275	279	402	530
29	2750	1870	2710	1070	---	470	279	124	260	315	382	529
30	2860	1820	2700	1040	---	503	254	133	239	357	382	532
31	2920	---	2670	1010	---	535	---	125	---	400	408	---
TOTAL	53484	75320	57200	54390	24013	27092	13730	3645	6608	8152	11184	13167
MEAN	1725	2511	1845	1755	858	874	458	118	220	263	361	439
MAX	2920	3010	2710	2620	1250	1270	680	231	344	462	416	547
MIN	994	1820	1460	1010	625	467	254	89	123	177	281	348
CFSM	.84	1.23	.90	.86	.42	.43	.22	.06	.11	.13	.18	.21
IN.	.97	1.37	1.04	.99	.44	.49	.25	.07	.12	.15	.20	.24

CAL YR 1989 TOTAL 364490 MEAN 999 MAX 3010 MIN 128 CFSM .49 IN. 6.64
WTR YR 1990 TOTAL 347985 MEAN 953 MAX 3010 MIN 89 CFSM .47 IN. 6.34

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY, NEAR GENEVA, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.15	3.78	2.70	3.61	1.79	2.06	1.19	.65	.44	.79	1.22	1.06
2	2.16	3.81	2.66	3.57	1.75	2.06	1.23	.60	.48	.75	1.20	1.02
3	2.16	3.81	2.62	3.53	1.72	2.05	1.35	.51	.52	.70	1.14	1.01
4	2.13	3.81	2.57	3.48	1.68	2.04	1.40	.43	.59	.68	1.09	1.01
5	2.08	3.80	2.53	3.42	1.65	2.02	1.39	.38	.62	.72	1.03	1.02
6	2.02	3.78	2.48	3.36	1.60	1.99	1.35	.39	.60	.78	1.00	1.06
7	1.96	3.75	2.43	3.31	1.55	1.96	1.31	.39	.59	.83	.97	1.10
8	1.93	3.72	2.41	3.24	1.51	1.91	1.26	.34	.61	.81	.94	1.12
9	1.91	3.69	2.51	3.18	1.47	1.88	1.18	.31	.66	.78	.94	1.10
10	1.94	3.64	2.50	3.12	1.44	1.87	1.11	.31	.70	.74	.95	1.06
11	1.93	3.59	2.48	3.05	1.52	1.86	1.10	.35	.75	.70	1.04	1.02
12	1.95	3.55	2.47	2.98	1.52	1.83	1.14	.31	.74	.67	1.13	.98
13	2.01	3.50	2.47	2.90	1.51	1.79	1.10	.28	.69	.72	1.14	.96
14	2.09	3.45	2.45	2.83	1.49	1.74	1.07	.27	.64	.84	1.12	.98
15	2.19	3.40	2.44	2.77	1.46	1.68	1.05	.27	.64	.97	1.13	1.03
16	2.34	3.37	2.43	2.70	1.43	1.61	1.02	.26	.65	1.31	1.13	1.07
17	2.55	3.31	2.41	2.64	1.39	1.54	.98	.25	.66	1.26	1.10	1.11
18	2.78	3.27	2.46	2.58	1.35	1.50	.93	.26	.81	1.19	1.08	1.13
19	2.98	3.24	2.51	2.52	1.29	1.42	.89	.27	.87	1.14	1.07	1.12
20	3.10	3.20	2.59	2.47	1.25	1.36	.86	.27	.90	1.06	1.07	1.18
21	3.24	3.16	2.71	2.41	1.21	1.29	.90	.27	.92	.96	1.10	1.22
22	3.31	3.11	2.82	2.35	1.22	1.23	.96	.27	1.02	.86	1.11	1.25
23	3.33	3.09	3.05	2.29	1.48	1.18	.99	.27	1.08	.78	1.12	1.28
24	3.34	3.04	3.22	2.22	1.73	1.13	.99	.27	1.08	.76	1.13	1.28
25	3.43	2.99	3.40	2.16	1.86	1.09	.96	.27	1.03	.74	1.16	1.27
26	3.44	2.95	3.52	2.11	1.95	1.06	.92	.27	.96	.79	1.17	1.28
27	3.54	2.91	3.61	2.04	2.02	1.03	.87	.32	.94	.86	1.15	1.26
28	3.58	2.86	3.66	1.97	2.05	1.00	.80	.37	.93	.94	1.13	1.24
29	3.62	2.81	3.68	1.92	---	1.01	.75	.43	.89	1.02	1.10	1.23
30	3.71	2.76	3.68	1.87	---	1.08	.70	.47	.84	1.11	1.09	1.23
31	3.76	---	3.66	1.83	---	1.14	---	.44	---	1.19	1.14	---
MEAN	2.67	3.37	2.81	2.72	1.57	1.56	1.06	.35	.76	.89	1.09	1.12
MAX	3.76	3.81	3.68	3.61	2.05	2.06	1.40	.65	1.08	1.31	1.22	1.28
MIN	1.91	2.76	2.41	1.83	1.21	1.00	.70	.25	.44	.67	.94	.96

WTR YR 1990 MEAN 1.67 MAX 3.81 MIN .25

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234100 DEEP CREEK NEAR OSTEEN, FL

LOCATION.--Lat 28°50'45", long 81°04'46", in NW¼ sec.13, T.19 S., R.32 E., Volusia County, Hydrologic Unit 03080101, on right bank 50 ft downstream from bridge on Osteen-Maytown Road, 3.2 mi upstream from Cow Creek, 4.5 mi east of Osteen, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--About 140 mi², includes the total area drained by Deep Creek and Deep Creek diversion canal.

PERIOD OF RECORD.--October 1964 to September 1966, January 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. October 1964 to September 1966 at site 50 ft upstream at same datum.

REMARKS.--Estimated daily discharges: July 20 to Aug. 20. Records fair. Flow affected at times by backwater from St. Johns River. Some flow above station is diverted through Deep Creek diversion canal near Osteen (station 02234180) at high water and by interconnection of drainage canals. Discharge for water years 1965-66 and 1982-90 is a summation of flow of Deep Creek and Deep Creek diversion canal.

AVERAGE DISCHARGE.--Combined flow, 11 years (water years 1965-66, 1982-90), 102 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Combined flow, maximum daily discharge, 1,930 ft³/s, Sept. 21, 1985; maximum gage height, 9.99 ft, Sept. 21, 1985; no flow for many days in 1981 and 1985; creek dry at gage for many days in 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 14, 1964, reached a stage of 11.98 ft, from floodmarks, discharge, 2,630 ft³/s.

EXTREMES FOR CURRENT YEAR.--Combined flow, maximum daily discharge, 258 ft³/s, Dec. 23; maximum gage height, 4.65 ft, Oct. 27; minimum daily discharge, 0.14 ft³/s, Sept. 21; minimum gage height, 1.08 ft, Sept. 21, 22.

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF DEEP CREEK AND DEEP CREEK DIVERSION CANAL
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	85	16	76	17	65	13	5.1	4.5	1.9	7.3	1.8
2	39	78	15	69	16	55	11	4.5	4.3	1.7	6.3	1.5
3	34	74	14	66	15	50	41	4.4	4.4	1.7	9.4	1.2
4	29	69	13	62	15	42	48	5.0	3.3	1.4	41	1.0
5	25	65	13	62	14	36	40	4.9	3.5	3.5	19	1.9
6	21	62	12	67	13	32	29	5.9	7.0	3.5	13	2.3
7	19	60	11	69	12	28	22	5.7	9.2	2.1	13	3.3
8	20	58	13	67	11	26	16	4.8	4.3	1.5	12	3.8
9	19	55	24	64	11	23	13	5.6	13	2.2	14	3.9
10	39	52	24	59	13	24	11	4.7	9.5	2.0	14	4.1
11	48	50	24	56	35	21	11	3.9	8.7	3.1	11	4.2
12	42	46	22	53	32	19	10	4.9	4.3	3.6	12	4.5
13	38	44	20	48	28	18	8.8	5.0	1.9	9.4	10	4.4
14	37	42	18	46	24	17	8.0	4.9	1.4	15	11	4.2
15	35	40	17	43	21	16	7.9	4.8	1.1	33	10	3.9
16	34	40	16	41	18	15	7.4	4.5	.91	35	8.2	3.7
17	34	36	15	39	17	15	7.4	4.3	.83	21	8.0	6.0
18	41	33	21	37	15	15	7.3	3.7	.97	11	8.2	3.1
19	63	30	34	34	15	14	7.6	8.0	.89	7.9	8.4	.81
20	47	29	71	33	15	12	7.1	2.4	.81	6.2	7.4	.31
21	40	28	117	31	13	11	7.5	2.2	7.3	5.3	7.0	.14
22	39	27	106	29	14	12	8.0	2.5	11	4.4	6.8	.17
23	39	26	258	28	69	11	8.0	2.1	17	5.9	5.8	.49
24	39	26	236	25	155	11	5.8	3.3	16	35	6.0	.42
25	39	24	186	25	135	10	4.4	4.1	6.7	50	5.2	1.3
26	42	24	150	25	118	10	3.9	4.4	5.7	29	4.2	2.3
27	167	23	123	23	99	8.3	3.7	5.1	7.5	19	3.6	2.4
28	138	22	108	21	80	8.3	3.9	5.3	3.5	14	3.5	7.5
29	107	23	96	21	---	10	4.1	4.5	2.0	12	3.0	3.2
30	104	19	88	21	---	20	4.6	4.1	1.5	9.5	2.9	2.2
31	97	---	81	19	---	19	---	4.5	---	8.4	2.2	---
TOTAL	1562	1290	1962	1359	1040	673.6	380.4	139.1	163.01	359.2	293.4	80.04
MEAN	50.4	43.0	63.3	43.8	37.1	21.7	12.7	4.49	5.43	11.6	9.46	2.67
MAX	167	85	258	76	155	65	48	8.0	17	50	41	7.5
MIN	19	19	11	19	11	8.3	3.7	2.1	.81	1.4	2.2	.14

CAL YR 1989 TOTAL 14569.1 MEAN 39.9 MAX 631 MIN 1.2
WTR YR 1990 TOTAL 9301.75 MEAN 25.5 MAX 258 MIN .14

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234180 DEEP CREEK DIVERSION CANAL NEAR OSTEEN, FL

LOCATION.--Lat 28°50'44", long 81°06'06", in NW¼ sec.14, T.19 S., R.32 E., Volusia County, Hydrologic Unit 03080101, on left bank, 90 ft downstream from bridge on Osteen-Maytown Road, 1.6 mi upstream from mouth, and 3.7 mi east of Osteen.

DRAINAGE AREA.--70 mi², approximately.

PERIOD OF RECORD.--1935, 1956 (one discharge measurement each year); September 1964 to September 1966 (discharge measurements and gage heights); March to September 1981 (discharge measurements only); October 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. September 1964 to September 1966, nonrecording gage near present site at same datum.

REMARKS.--Canal diverts flow from Deep Creek to St. Johns River. Flow affected at times by backwater from St. Johns River.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 11.41 ft, Apr. 9, 1982, estimated; minimum gage height, 3.53 ft, all or part of each day, June 5-11, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 12, 1964, reached a stage of 13.17 ft, from floodmarks, discharge, 878 ft³/s; no flow observed June 24, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 6.92 ft, Dec. 23; minimum, 3.57 ft, Sept. 24.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.50	4.57	3.96	4.57	4.16	5.01	4.17	3.99	4.07	3.69	---	3.77
2	4.37	4.46	3.93	4.50	4.14	4.86	4.12	3.96	4.05	3.67	---	3.71
3	4.28	4.36	3.92	4.44	4.13	4.76	4.61	3.97	3.98	3.68	---	3.67
4	4.19	4.28	3.90	4.41	4.12	4.66	4.83	4.01	3.89	3.67	---	3.67
5	4.12	4.21	3.89	4.45	4.10	4.57	4.75	4.01	3.97	3.68	---	3.88
6	4.07	4.16	3.91	4.58	4.09	4.51	4.56	4.05	4.01	3.75	---	3.92
7	4.02	4.13	3.91	4.64	4.10	4.46	4.43	4.02	4.09	3.69	---	4.01
8	4.03	4.09	3.94	4.64	4.09	4.41	4.31	3.98	3.93	3.66	---	4.03
9	4.02	4.07	4.18	4.61	4.08	4.37	4.22	4.03	3.97	3.69	---	4.04
10	4.15	4.05	4.33	4.58	4.10	4.37	4.15	3.96	4.03	3.70	---	4.05
11	4.23	4.05	4.36	4.56	4.43	4.32	4.12	3.94	4.03	3.70	---	4.06
12	4.18	4.01	4.32	4.54	4.52	4.29	4.10	4.00	3.90	3.71	---	4.06
13	4.12	4.00	4.27	4.50	4.51	4.27	4.07	4.04	3.73	3.89	---	4.06
14	4.10	3.99	4.22	4.47	4.42	4.27	4.03	4.04	3.67	4.04	---	4.06
15	4.06	3.97	4.17	4.45	4.36	4.23	4.03	4.03	3.62	4.24	---	4.07
16	4.07	4.03	4.15	4.43	4.31	4.23	4.03	4.03	3.61	4.37	---	4.07
17	4.09	4.02	4.15	4.41	4.27	4.22	4.03	4.03	3.63	4.14	---	4.13
18	4.30	3.99	4.22	4.39	4.24	4.20	4.04	4.00	3.71	4.00	---	3.98
19	4.68	3.96	4.55	4.36	4.23	4.18	4.03	4.11	3.70	3.94	---	3.80
20	4.37	3.94	5.01	4.34	4.21	4.16	4.01	3.85	3.65	---	---	3.72
21	4.19	3.92	5.68	4.32	4.20	4.13	4.05	3.83	3.73	---	3.95	3.67
22	4.12	3.91	5.51	4.30	4.21	4.18	4.07	3.79	4.03	---	3.94	3.67
23	4.10	3.94	6.58	4.28	4.73	4.16	4.00	3.80	4.21	---	3.91	3.64
24	4.08	3.98	6.55	4.27	5.87	4.15	3.90	3.94	4.14	---	3.91	3.61
25	4.11	3.99	6.14	4.26	5.88	4.13	3.85	4.01	3.94	---	3.87	3.85
26	4.14	4.00	5.69	4.24	5.74	4.14	3.82	4.04	3.87	---	3.81	3.97
27	5.18	4.00	5.31	4.24	5.51	4.06	3.79	4.06	3.97	---	3.78	3.99
28	4.92	4.00	5.05	4.23	5.24	4.05	3.78	4.07	3.82	---	3.78	4.15
29	4.78	3.99	4.88	4.22	---	4.07	3.78	4.05	3.75	---	3.75	3.99
30	4.77	3.97	4.75	4.21	---	4.23	3.93	4.03	3.71	---	3.72	3.93
31	4.70	---	4.64	4.18	---	4.25	---	4.05	---	---	3.72	---
MEAN	4.29	4.07	4.65	4.41	4.50	4.32	4.12	3.99	3.88	---	---	3.91
MAX	5.18	4.57	6.58	4.64	5.88	5.01	4.83	4.11	4.21	---	---	4.15
MIN	4.02	3.91	3.89	4.18	4.08	4.05	3.78	3.79	3.61	---	---	3.61

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234324 HOWELL CREEK NEAR SLAVIA, FL

LOCATION.--Lat 28°38'51", long 81°15'53", in SE¼ sec.24, T.21 S., R.30 E., Seminole County, Hydrologic Unit 03080101, on right bank 15 ft upstream of box culvert on Red Bug Road, 0.2 mi east of Tuskawilla Road, 2.1 mi west of Slavia, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--29.2 mi².

PERIOD OF RECORD.--February 1972 to September 1979, October 1980 to January 1981 (discharge measurements only), February 1981 to current year.

GAGE.--Water-stage recorder and culvert control. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Oct. 1, 1980, at site 15 ft downstream at same datum.

REMARKS.--Records fair. Some regulation by retention ponds in urban areas upstream from station.

AVERAGE DISCHARGE.--16 years (water years 1973-79, 1982-90), 30.3 ft³/s, 14.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 412 ft³/s, June 28, 1974, gage height, 36.71 ft; minimum, 0.91 ft³/s, May 18,19, 1985; minimum gage height, 32.21 ft, several days in May and June 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft³/s, Oct. 7, gage height, 33.76 ft; minimum, 1.4 ft³/s, several days in May and June, gage height, 32.21 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	9.8	5.0	22	7.3	23	5.1	2.1	1.6	2.9	8.1	9.0
2	48	9.6	4.9	21	18	22	4.3	2.0	1.5	3.6	7.7	9.6
3	45	9.1	4.8	20	16	22	6.0	1.9	1.5	5.3	7.3	10
4	42	8.8	4.6	20	15	20	5.3	2.0	1.6	5.0	7.0	10
5	39	8.4	4.5	19	13	19	4.5	1.9	1.5	3.7	6.3	9.7
6	36	8.1	4.5	19	11	18	3.9	1.9	1.7	3.4	6.7	9.0
7	45	7.9	4.5	19	9.3	17	3.3	1.8	2.0	3.2	6.4	8.7
8	52	7.7	6.3	18	9.3	16	3.1	1.8	1.9	3.3	6.3	8.2
9	46	7.8	8.9	18	10	15	3.0	1.8	1.9	5.6	6.3	7.8
10	43	7.4	7.2	17	10	15	2.8	1.8	2.0	5.2	6.6	7.4
11	40	7.2	6.9	17	14	14	3.0	1.7	2.0	4.6	7.2	7.2
12	36	6.9	6.9	15	13	13	2.8	1.7	1.8	4.0	6.4	7.0
13	34	6.7	7.0	14	12	13	2.7	1.6	1.7	3.6	5.9	6.7
14	31	6.6	6.6	14	11	12	2.7	1.7	1.7	6.5	6.1	6.2
15	29	6.6	6.4	14	10	11	2.6	1.7	1.6	8.6	5.6	5.6
16	26	6.5	6.4	13	8.6	9.6	2.5	1.7	1.5	8.9	5.6	5.4
17	24	5.0	6.1	13	8.6	9.0	2.5	1.6	1.6	6.7	5.7	5.1
18	23	4.9	8.5	12	8.2	8.9	2.5	1.6	1.9	6.6	6.2	4.3
19	21	4.8	8.5	11	7.2	7.9	2.7	1.8	1.7	5.8	8.8	3.9
20	18	4.7	11	11	4.5	7.6	2.4	1.8	1.5	5.2	8.8	3.7
21	16	4.5	14	11	4.7	6.5	2.3	1.6	3.0	6.2	8.9	3.5
22	15	4.5	15	10	4.3	5.6	3.0	1.6	4.4	9.4	8.8	3.4
23	14	5.5	31	9.3	13	5.2	2.9	1.6	5.0	8.7	8.6	3.5
24	13	5.2	34	9.3	25	4.8	3.0	1.5	4.9	11	8.1	3.7
25	12	5.0	33	9.1	26	4.8	2.9	1.5	3.9	14	7.9	3.4
26	12	5.5	32	7.4	26	4.8	2.8	1.4	6.1	12	8.8	3.4
27	13	5.4	31	6.6	25	4.4	2.7	2.8	7.0	12	9.6	3.2
28	12	5.3	30	6.4	24	4.2	2.6	2.6	4.9	10	9.8	4.1
29	11	5.3	29	6.4	---	3.9	2.5	1.9	3.4	9.6	9.6	6.6
30	11	5.2	28	5.5	---	4.1	2.2	1.7	3.1	9.0	9.6	11
31	10	---	26	4.5	---	5.3	---	1.6	---	8.5	9.4	---
TOTAL	869	195.9	432.5	412.5	364.0	346.6	94.6	55.7	79.9	212.1	234.1	190.3
MEAN	28.0	6.53	14.0	13.3	13.0	11.2	3.15	1.80	2.66	6.84	7.55	6.34
MAX	52	9.8	34	22	26	23	6.0	2.8	7.0	14	9.8	11
MIN	10	4.5	4.5	4.5	4.3	3.9	2.2	1.4	1.5	2.9	5.6	3.2
CFSM	.96	.22	.48	.46	.45	.38	.11	.06	.09	.23	.26	.22
IN.	1.11	.25	.55	.53	.46	.44	.12	.07	.10	.27	.30	.24

CAL YR 1989 TOTAL 7097.0 MEAN 19.4 MAX 69 MIN 3.2 CFSM .67 IN. 9.04
WTR YR 1990 TOTAL 3487.2 MEAN 9.55 MAX 52 MIN 1.4 CFSM .33 IN. 4.44

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAHAHA RIVER

02234365 SOLDIER CREEK HEADWATERS AT LAKE MARY, FL

LOCATION.--Lat 28°44'57", long 81°20'09", in NE¼ sec.17, T.20 S., R.30 E., Seminole County, Hydrologic Unit 03080101, on left bank at upstream side of culverts on Longwood-Lake Mary Road at City of Lake Mary, 0.9 mi upstream from Seaboard Coast Line Railroad, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--7.86 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Seminole County bench mark). Prior to Nov. 3, 1987, nonrecording gage at same site and datum.

REMARKS.--Records fair except those below 1.0 ft³/s, which are poor. Some regulation at low flow by retention ponds in headwaters.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28 ft³/s, Sept. 8, 1988, gage height, 39.41 ft, release of backwater from obstructed culvert; maximum gage height, 39.68 ft, Sept. 8, 1988, backwater from obstructed culvert; no flow for many days in some years, creek dry at gage for many days in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Zero flow was observed Aug. 27, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.6 ft³/s, Oct. 1, gage height, 38.27 ft, occurred on recession following peak of Sept. 24, 1989; maximum independent peak discharge, 1.8 ft³/s, Dec. 23,24, gage height 38.17 ft; no flow for many days; creek dry at gage for many days.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	.36	.03	1.3	.38	1.1	.00	.00	.00	.00	.00	.00
2	3.1	.33	.02	1.2	.36	.96	.00	.00	.00	.00	.00	.00
3	2.9	.32	.02	1.1	.33	.84	.02	.00	.00	.00	.00	.00
4	2.7	.29	.01	1.0	.30	.73	.02	.00	.00	.00	.00	.00
5	2.4	.26	.00	1.2	.25	.63	.01	.00	.00	.00	.00	.00
6	2.1	.23	.00	1.3	.22	.57	.01	.00	.00	.00	.00	.00
7	1.9	.21	.00	1.3	.20	.49	.00	.00	.00	.00	.00	.00
8	1.9	.19	.02	1.2	.17	.43	.00	.00	.00	.00	.00	.00
9	1.7	.16	.13	1.2	.16	.37	.00	.00	.00	.00	.00	.00
10	1.6	.18	.15	1.1	.19	.32	.00	.00	.00	.00	.00	.00
11	1.5	.15	.17	1.0	.75	.28	.00	.00	.00	.00	.00	.00
12	1.3	.12	.19	.97	.85	.22	.00	.00	.00	.00	.00	.00
13	1.2	.10	.21	.86	.70	.19	.00	.00	.00	.00	.00	.00
14	1.1	.09	.19	.79	.63	.16	.00	.00	.00	.00	.00	.00
15	1.0	.09	.16	.75	.56	.14	.00	.00	.00	.00	.00	.00
16	.96	.11	.17	.73	.46	.10	.00	.00	.00	.00	.00	.00
17	.86	.10	.16	.67	.38	.07	.00	.00	.00	.00	.00	.00
18	.80	.07	.28	.63	.33	.09	.00	.00	.00	.00	.00	.00
19	.85	.06	.40	.58	.29	.04	.00	.00	.00	.00	.00	.00
20	.79	.04	.62	.52	.27	.02	.00	.00	.00	.00	.00	.00
21	.69	.04	.79	.49	.25	.01	.00	.00	.00	.00	.00	.00
22	.60	.03	.87	.46	.23	.00	.00	.00	.00	.00	.00	.00
23	.50	.05	1.7	.43	1.1	.00	.00	.00	.00	.00	.00	.00
24	.45	.04	1.8	.41	2.1	.00	.00	.00	.00	.00	.00	.00
25	.41	.03	1.6	.42	1.9	.00	.00	.00	.00	.00	.00	.00
26	.36	.03	1.6	.45	1.6	.00	.00	.00	.00	.00	.00	.00
27	.41	.03	1.6	.43	1.4	.00	.00	.00	.00	.00	.00	.00
28	.44	.03	1.6	.43	1.3	.00	.00	.00	.00	.00	.00	.00
29	.39	.03	1.5	.42	---	.00	.00	.00	.00	.00	.00	.00
30	.36	.03	1.4	.40	---	.00	.00	.00	.00	.00	.00	.00
31	.36	---	1.4	.40	---	.00	---	.00	---	.00	.01	---
TOTAL	39.03	3.80	18.79	24.14	17.66	7.76	0.06	0.00	0.00	0.00	0.01	0.00
MEAN	1.26	.13	.61	.78	.63	.25	.002	.000	.000	.000	.000	.000
MAX	3.4	.36	1.8	1.3	2.1	1.1	.02	.00	.00	.00	.01	.00
MIN	.36	.03	.00	.40	.16	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 354.32 MEAN .97 MAX 6.1 MIN .00
WTR YR 1990 TOTAL 111.25 MEAN .30 MAX 3.4 MIN .00

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234367 SOLDIER CREEK AT LAKE MARY, FL

LOCATION.--Lat 28°44'16", long 81°19'23", in NE¼ sec.21, T.20 S., R.30 E., Seminole County, Hydrologic Unit 03080101, on left bank at upstream side of culverts on private road, 0.2 mi west of Country Club Road at City of Lake Mary, 0.3 mi downstream from Seaboard Coast Line Railroad, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--9.16 mi².

PERIOD OF RECORD.--October 1987 to September 1990 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Seminole County bench mark). Prior to Nov. 4, 1987, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Sept. 4-30. Records fair except those below 1.0 ft³/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16 ft³/s, Sept. 8, 1988; maximum gage height, 33.31 ft, Sept. 9, 1988; no flow for many days in 1989, 1990; creek dry at gage for many days in 1989, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.4 ft³/s, Oct. 1, gage height 32.09 ft, occurred on recession following peak of Sept. 25, 1989; maximum independent peak discharge, 2.1 ft³/s, Dec. 23, gage height 31.81 ft; no flow for many days; creek dry at gage for many days.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	.77	.13	1.5	.46	1.1	.04	.00	.00	.01	.00	.00
2	3.2	.71	.11	1.4	.47	.99	.02	.00	.00	.01	.02	.00
3	3.0	.66	.09	1.3	.46	.89	.05	.00	.00	.01	.02	.00
4	2.9	.60	.08	1.2	.44	.82	.03	.00	.00	.00	.01	.00
5	2.7	.57	.08	1.4	.42	.74	.02	.00	.00	.00	.01	.00
6	2.4	.55	.06	1.5	.39	.70	.02	.00	.00	.00	.00	.00
7	2.2	.50	.05	1.5	.37	.65	.01	.00	.00	.00	.00	.00
8	2.2	.39	.23	1.4	.35	.56	.00	.00	.00	.00	.00	.00
9	2.1	.37	.53	1.3	.35	.50	.00	.00	.00	.00	.00	.00
10	2.0	.35	.38	1.2	.46	.47	.00	.00	.02	.00	.01	.00
11	1.9	.32	.35	1.2	1.1	.39	.01	.00	.03	.00	.01	.00
12	1.8	.28	.32	1.1	.99	.31	.00	.00	.01	.00	.01	.00
13	1.6	.26	.28	1.0	.89	.28	.00	.00	.00	.00	.00	.00
14	1.5	.17	.25	.99	.82	.25	.00	.00	.00	.04	.01	.00
15	1.4	.12	.24	.94	.74	.22	.00	.00	.00	.02	.02	.00
16	1.3	.20	.24	.89	.69	.18	.00	.00	.00	.03	.01	.00
17	1.3	.19	.24	.87	.69	.17	.00	.00	.01	.02	.00	.00
18	1.2	.15	.62	.82	.62	.14	.00	.00	.00	.05	.00	.00
19	1.3	.13	.63	.81	.56	.11	.00	.00	.00	.03	.00	.00
20	1.3	.11	.90	.77	.52	.08	.00	.00	.00	.02	.00	.00
21	1.2	.09	1.0	.73	.51	.06	.00	.00	.00	.01	.00	.00
22	1.0	.09	1.1	.68	.50	.05	.00	.00	.00	.01	.00	.00
23	.84	.17	2.0	.63	1.5	.03	.00	.00	.00	.00	.00	.00
24	.77	.20	2.0	.62	1.9	.03	.00	.00	.00	.00	.00	.00
25	.69	.17	2.0	.60	1.7	.02	.00	.00	.00	.00	.00	.00
26	.66	.18	1.9	.59	1.5	.02	.00	.00	.09	.01	.00	.00
27	.91	.18	1.8	.55	1.3	.02	.00	.00	.04	.00	.00	.00
28	.91	.16	1.7	.53	1.2	.01	.00	.00	.02	.00	.00	.00
29	.85	.17	1.7	.53	---	.01	.00	.00	.02	.00	.00	.00
30	.78	.15	1.6	.52	---	.03	.00	.00	.01	.00	.00	.00
31	.80	---	1.5	.49	---	.07	---	.00	---	.00	.00	---
TOTAL	50.01	8.96	24.11	29.56	21.90	9.90	0.20	0.00	0.25	0.27	0.13	0.00
MEAN	1.61	.30	.78	.95	.78	.32	.007	.000	.008	.009	.004	.000
MAX	3.3	.77	2.0	1.5	1.9	1.1	.05	.00	.09	.05	.02	.00
MIN	.66	.09	.05	.49	.35	.01	.00	.00	.00	.00	.00	.00
CFSM	.18	.03	.08	.10	.09	.03	.00	.00	.00	.00	.00	.00
IN.	.20	.04	.10	.12	.09	.04	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 498.73 MEAN 1.37 MAX 12 MIN .00 CFSM .15 IN. 2.03
WTR YR 1990 TOTAL 145.29 MEAN .40 MAX 3.3 MIN .00 CFSM .04 IN. .59

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234384 SOLDIER CREEK NEAR LONGWOOD, FL

LOCATION.--Lat 28°43'07", long 81°18'32", in SW¼ sec.27, T.20 S., R.30 E., Seminole County, Hydrologic Unit 03080101, on left downstream side of culvert on State Highway 419, 50 ft upstream from Seaboard Coast Line Railroad bridge, 2.5 mi northeast of Longwood, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--21.2 mi².

PERIOD OF RECORD.--February 1972 to September 1975, October 1975 to September 1977 (discharge measurements only), October 1977 to September 1979, October 1980 to September 1986 (discharge measurements only), October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Seminole County Engineer). Nov. 5, 1975 to July 26, 1977 and Oct. 1, 1980 to Sept. 30, 1986, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Mar. 15 to Apr. 17, May 8-18, May 25 to June 6. Records good except for periods of estimated daily record, which are poor. Since about 1980, some regulation by retention ponds in headwaters.

AVERAGE DISCHARGE.--9 years (water years 1973-75, 1978-79, 1987-90), 10.2 ft³/s, 6.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 429 ft³/s, July 19, 1978, gage height 14.23 ft; maximum gage height, 14.41 ft, Sept. 13, 1973; minimum discharge measured, 0.15 ft³/s, June 25, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 26	1800	*81	*9.33				

Minimum daily discharge, 0.16 ft³/s, June 4; minimum gage height observed, 6.13 ft, May 15.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	3.2	.83	5.5	2.1	6.2	2.4	.53	.23	1.8	1.8	1.8
2	15	3.0	.79	5.3	2.1	5.9	2.3	.50	.22	2.1	2.5	2.5
3	14	2.6	.76	5.1	2.0	5.6	3.4	.48	.20	2.4	3.0	2.3
4	13	2.4	.69	4.9	1.8	5.2	2.0	.49	.16	1.9	2.4	2.0
5	12	2.3	.67	6.0	1.6	4.9	2.0	.50	.30	1.6	2.1	1.9
6	11	2.1	.67	5.9	1.5	4.6	2.8	.47	1.5	1.4	2.0	1.9
7	12	1.7	.67	5.6	1.4	4.6	2.8	.47	2.2	1.3	2.5	2.0
8	12	1.5	4.4	5.6	1.3	4.6	2.4	.35	1.8	1.3	2.2	1.9
9	11	1.7	8.6	5.5	1.2	4.0	2.1	.30	1.0	1.2	4.6	1.6
10	10	1.5	5.1	5.6	5.0	3.8	2.1	.35	9.3	1.2	4.7	1.4
11	9.5	1.2	3.8	5.4	13	3.5	2.4	.30	7.5	1.1	5.8	1.2
12	8.7	1.1	3.2	5.2	7.0	3.1	1.8	.30	3.9	1.5	3.8	1.2
13	8.1	1.0	2.8	4.8	5.0	2.8	1.8	.26	2.1	3.6	2.9	1.2
14	7.4	1.0	2.3	4.7	4.3	2.7	1.1	.20	1.5	7.8	4.4	1.2
15	6.9	.95	2.2	4.5	3.8	2.5	.90	.20	1.6	5.8	4.0	1.2
16	6.4	1.6	2.0	4.4	3.4	2.4	.80	.30	1.3	5.3	3.0	1.3
17	6.0	1.2	2.0	4.4	3.1	2.3	.72	.30	2.6	3.4	2.5	1.2
18	5.7	1.0	5.9	4.2	2.8	2.3	.75	1.2	2.6	4.2	2.3	1.1
19	5.7	.95	5.2	4.1	2.5	2.2	1.0	4.5	1.6	2.7	2.2	1.1
20	5.1	.91	7.6	4.1	2.3	2.0	1.0	1.3	1.1	2.1	2.1	1.1
21	4.6	.90	7.7	3.9	2.4	1.9	.93	.71	1.4	2.0	3.3	.98
22	4.1	.83	7.7	3.6	2.4	1.8	.84	1.1	1.7	2.1	3.1	.96
23	3.8	1.6	17	3.3	22	1.7	3.5	.81	3.6	1.9	2.8	.84
24	3.4	1.4	9.6	3.1	15	1.5	2.2	.61	2.7	3.8	2.9	.80
25	3.1	1.1	8.0	3.0	9.8	1.5	1.4	.41	1.8	3.4	2.6	.71
26	2.9	1.2	7.0	3.4	7.8	3.3	1.0	.35	16	3.8	2.4	.63
27	5.9	1.2	6.5	2.9	7.0	4.0	.87	.27	11	4.2	2.9	.63
28	4.3	1.1	6.1	2.5	6.5	2.7	.75	.30	4.7	3.7	2.6	1.0
29	3.7	1.0	5.9	2.4	---	3.0	.67	.30	2.9	3.1	2.1	.95
30	3.5	.90	5.7	2.3	---	3.3	.57	.26	2.2	2.4	1.8	1.0
31	3.3	---	5.6	2.3	---	3.8	---	.26	---	2.0	1.9	---
TOTAL	237.1	44.14	146.98	133.5	140.1	103.7	49.30	18.68	90.71	86.1	89.2	39.60
MEAN	7.65	1.47	4.74	4.31	5.00	3.35	1.64	.60	3.02	2.78	2.88	1.32
MAX	15	3.2	17	6.0	22	6.2	3.5	4.5	16	7.8	5.8	2.5
MIN	2.9	.83	.67	2.3	1.2	1.5	.57	.20	.16	1.1	1.8	.63
CFSM	.36	.07	.22	.20	.24	.16	.08	.03	.14	.13	.14	.06
IN.	.42	.08	.26	.23	.25	.18	.09	.03	.16	.15	.16	.07

CAL YR 1989 TOTAL 2445.83 MEAN 6.70 MAX 100 MIN .67 CFSM .32 IN. 4.29
WTR YR 1990 TOTAL 1179.11 MEAN 3.23 MAX 22 MIN .16 CFSM .15 IN. 2.07

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAHAHA RIVER

02234400 GEE CREEK NEAR LONGWOOD, FL

LOCATION.--Lat 28°42'14", long 81°17'27", in SE¼ sec.38, T.20 S., R.30 E., Seminole County, Hydrologic Unit 03080101, on left bank at downstream side of box culvert on State Highway 419, 700 ft upstream from Seaboard Coast Line Railroad bridge, 1.0 mi upstream from mouth, and 3.5 mi east of Longwood.

DRAINAGE AREA.--12.8 mi².

PERIOD OF RECORD.--February 1972 to September 1979, October 1980 to July 1985 (discharge measurements only), August 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Seminole County Engineer). Apr. 11, 1978 to Sept. 30, 1979 at site 400 ft upstream at same datum, Oct. 1, 1980 to Aug. 11, 1985, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Apr. 13-15, May 26 to June 5. Records fair.

AVERAGE DISCHARGE.--12 years (water years 1973-79, 1986-90), 14.8 ft³/s, 15.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310 ft³/s, July 19, 1978, gage height, 14.31 ft; maximum gage height, 14.69 ft, June 30, 1974; minimum discharge, 0.75 ft³/s, June 6, 1990; minimum gage height, 5.56 ft, Dec. 5, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	1200	*55	*10.09				
Minimum discharge, 0.75 ft ³ /s, June 6; minimum gage height, 6.88 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	5.2	3.3	9.6	3.8	7.0	1.6	1.1	.90	2.6	2.5	2.5
2	19	5.1	3.2	8.9	3.7	5.8	1.5	1.1	.87	6.9	2.4	2.5
3	17	4.9	3.0	8.4	3.5	4.6	1.5	1.1	.81	6.2	2.2	2.8
4	14	4.8	2.9	8.2	3.3	4.4	1.4	1.1	.79	8.6	2.1	2.2
5	12	4.3	2.9	8.4	3.1	4.0	1.4	1.1	.78	8.0	1.9	2.0
6	10	4.0	2.8	8.1	2.9	3.7	1.4	1.1	5.4	5.4	1.8	1.8
7	15	3.9	2.8	7.9	2.8	3.4	2.2	1.1	2.4	4.0	2.2	1.7
8	16	3.8	8.1	7.7	2.8	3.1	1.5	1.0	1.7	3.1	2.1	1.6
9	14	3.9	12	7.3	2.7	2.9	1.3	1.0	1.6	2.6	1.8	1.5
10	13	3.8	10	7.0	6.3	2.6	1.3	1.1	4.3	2.3	6.7	1.5
11	11	3.5	8.1	6.8	12	2.5	1.3	1.0	3.6	2.1	8.3	1.4
12	9.3	3.4	6.7	6.6	8.5	2.3	1.3	1.0	2.2	2.8	4.6	1.4
13	8.5	3.2	6.1	6.4	6.4	2.2	1.3	1.0	1.6	4.7	3.7	1.4
14	8.3	3.1	5.7	6.2	5.2	2.1	1.2	1.0	1.5	12	4.3	1.3
15	7.7	3.0	5.2	6.0	4.5	1.9	1.2	1.0	1.4	12	3.8	1.3
16	7.4	4.4	4.9	5.8	4.1	1.8	1.2	1.0	1.3	12	3.1	1.7
17	6.8	3.6	4.7	5.7	3.8	1.8	1.2	.98	5.6	9.4	2.7	1.4
18	6.3	3.3	9.6	5.6	3.5	1.7	1.1	.98	3.0	8.2	2.4	1.3
19	6.0	3.0	8.6	5.6	3.3	1.6	1.1	4.5	2.0	6.7	2.2	1.3
20	5.6	3.0	13	5.5	3.2	1.6	1.2	1.5	3.0	5.4	2.6	1.2
21	5.0	2.9	13	5.5	3.2	1.6	1.1	1.2	3.6	4.5	4.0	1.2
22	4.6	2.8	14	5.3	3.0	1.5	1.2	1.2	10	3.7	3.2	1.1
23	4.3	4.2	29	5.0	29	1.5	3.8	1.2	16	3.2	2.4	1.1
24	4.0	3.8	23	4.7	27	1.4	1.8	1.1	12	5.6	2.3	1.1
25	3.9	3.6	18	4.5	18	1.4	1.4	1.1	8.3	4.8	2.1	1.1
26	3.9	4.5	15	4.8	12	1.9	1.4	1.1	8.8	5.7	4.3	1.1
27	9.0	4.2	13	4.3	9.2	2.8	1.3	1.1	9.1	4.2	5.4	1.1
28	6.8	4.0	12	4.2	7.8	1.8	1.3	1.0	7.4	4.4	3.3	1.7
29	6.0	3.8	11	4.1	---	1.6	1.3	.98	5.2	4.0	2.6	2.0
30	5.6	3.6	10	4.0	---	1.8	1.2	.95	3.5	3.1	2.3	2.2
31	5.3	---	9.7	3.9	---	1.6	---	.92	---	2.7	3.9	---
TOTAL	287.3	114.6	291.3	192.0	198.6	79.9	43.0	36.61	128.65	170.9	99.2	47.5
MEAN	9.27	3.82	9.40	6.19	7.09	2.58	1.43	1.18	4.29	5.51	3.20	1.58
MAX	22	5.2	29	9.6	29	7.0	3.8	4.5	16	12	8.3	2.8
MIN	3.9	2.8	2.8	3.9	2.7	1.4	1.1	.92	.78	2.1	1.8	1.1
CFSM	.72	.30	.73	.48	.55	.20	.11	.09	.34	.43	.25	.12
IN.	.83	.33	.85	.56	.58	.23	.12	.11	.37	.50	.29	.14

CAL YR 1989 TOTAL 3192.4 MEAN 8.75 MAX 101 MIN 1.5 CFSM .68 IN. 9.28
WTR YR 1990 TOTAL 1689.56 MEAN 4.63 MAX 29 MIN .78 CFSM .36 IN. 4.91

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234990 LITTLE WEKIVA RIVER NEAR ALTAMONTE SPRINGS, FL

LOCATION.--Lat 28°41'13", long 81°23'50", in SE¼ sec.3, T.21 S., R.29 E., Seminole County, Hydrologic Unit 03080101, on left bank 50 ft downstream from bridge on State Highway 434, 200 ft upstream from Sanlando Springs outlet, 2.9 mi northwest of Post Office in Altamonte Springs, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--90.7 mi².

PERIOD OF RECORD.--February 1972 to September 1979, February 1981 to September 1982 (gage heights and discharge measurements only), October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Seminole County Engineer). Feb. 11, 1981 to Nov. 28, 1985, at site 75 ft downstream at same datum.

REMARKS.--Records fair. Flow includes occasional pumpage from Cranes Roost basin.

AVERAGE DISCHARGE.--15 years (water years 1973-79, 1983-90), 33.9 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 592 ft³/s, July 22, 1984, gage height, 27.34 ft; maximum gage height 28.36 ft, Nov. 23, 1988; minimum discharge, 1.9 ft³/s, May 7, 1973; minimum gage height, 23.14 ft, Jan. 1, 1985, site then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 288 ft³/s, June 7, gage height, 27.70 ft; minimum, 3.0 ft³/s, May 5, gage height, 24.09 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	14	9.3	23	11	26	13	6.9	8.4	14	34	24
2	46	13	8.8	19	12	23	12	6.8	7.7	12	57	28
3	41	13	11	15	13	24	13	6.6	22	13	46	23
4	35	13	12	16	13	22	11	6.1	12	14	37	20
5	32	12	11	21	10	19	11	5.1	9.1	12	32	19
6	29	11	11	20	10	18	10	6.7	8.8	12	29	17
7	25	13	9.7	20	11	17	10	6.6	57	13	31	15
8	23	11	21	20	11	17	10	6.6	24	12	27	14
9	21	13	19	16	9.2	17	9.7	10	16	8.1	27	13
10	21	11	15	19	24	17	10	9.4	26	7.8	46	12
11	22	13	14	18	24	14	13	7.1	22	8.8	42	12
12	20	12	14	13	13	13	9.8	9.9	16	23	54	12
13	19	13	14	17	15	12	10	10	14	46	72	12
14	18	13	14	16	16	12	11	7.6	13	56	87	11
15	17	10	14	12	16	11	11	9.3	12	37	87	9.7
16	16	12	14	14	11	11	8.6	8.3	12	42	82	9.4
17	16	13	13	15	14	14	11	7.4	11	46	69	9.3
18	15	12	16	15	14	13	11	6.5	11	45	59	8.0
19	15	12	15	12	13	11	10	16	11	43	49	9.5
20	13	9.4	17	14	19	12	8.9	9.1	10	36	41	9.2
21	12	10	18	13	13	12	11	8.3	19	30	43	8.9
22	13	11	23	12	13	11	11	9.2	17	29	34	8.6
23	13	15	35	12	54	10	10	8.9	21	26	31	8.9
24	13	12	32	15	32	11	9.5	7.7	16	23	28	9.3
25	13	13	36	12	29	10	8.8	8.5	14	29	28	9.4
26	14	13	38	13	28	10	8.9	8.6	18	34	27	9.3
27	17	13	35	14	28	9.7	10	7.1	17	32	25	9.6
28	15	13	31	13	29	9.1	11	7.6	15	37	24	27
29	15	11	29	10	---	18	10	7.1	14	39	23	21
30	14	9.9	27	11	---	23	6.4	8.2	13	39	25	18
31	14	---	24	14	---	19	---	11	---	38	29	---
TOTAL	646	364.3	600.8	474	505.2	465.8	310.6	254.2	487.0	856.7	1325	417.1
MEAN	20.8	12.1	19.4	15.3	18.0	15.0	10.4	8.20	16.2	27.6	42.7	13.9
MAX	49	15	38	23	54	26	13	16	57	56	87	28
MIN	12	9.4	8.8	10	9.2	9.1	6.4	5.1	7.7	7.8	23	8.0

CAL YR 1989 TOTAL 8393.0 MEAN 23.0 MAX 136 MIN 8.8
WTR YR 1990 TOTAL 6706.7 MEAN 18.4 MAX 87 MIN 5.1

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02235000 WEKIVA RIVER NEAR SANFORD, FL

LOCATION.--Lat 28°48'54", long 81°25'10", in SE¼ sec.21, T.19 S., R.29 E., Seminole County, Hydrologic Unit 03080101, near right bank at downstream side of bridge on State Highway 46, 4.5 mi downstream from Little Wekiva River, 6.7 mi upstream from mouth, and 8.9 mi west of Sanford.

DRAINAGE AREA.--189 mi².

PERIOD OF RECORD.--October 1931 to September 1935 (discharge measurements only), October 1935 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4.96 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 19, 1960, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow includes large ground-water inflow.

AVERAGE DISCHARGE.--55 years, 285 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,060 ft³/s, Sept. 17, 1945; maximum gage height, 6.09 ft, Sept. 12, 1960; minimum discharge observed, 105 ft³/s, June 5-13, 1939; minimum gage height, 1.75 ft, Mar. 13-16, 18, 19, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 329 ft³/s, Feb. 24, gage height, 2.46 ft; minimum daily discharge, 180 ft³/s, June 21; minimum gage height, 1.90 ft, June 21, July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	234	219	237	223	240	225	201	195	190	236	269
2	264	233	218	235	221	234	218	199	190	188	235	266
3	263	231	217	233	220	230	221	197	188	187	242	272
4	259	231	217	230	220	227	215	196	197	190	244	265
5	256	231	219	244	218	225	212	194	194	190	242	257
6	254	230	217	251	216	222	212	193	188	189	238	256
7	253	228	217	246	215	221	211	194	186	189	236	255
8	252	228	225	245	216	219	209	193	204	188	237	255
9	248	225	254	243	216	218	208	192	202	187	234	253
10	245	227	250	240	219	217	208	196	209	186	237	250
11	245	226	237	238	259	217	210	195	223	182	256	246
12	245	227	231	237	260	215	211	191	216	184	262	246
13	246	226	227	233	239	214	206	192	199	204	258	246
14	246	224	226	232	232	212	208	193	192	227	264	244
15	243	225	225	232	229	210	208	189	189	241	270	241
16	242	229	224	229	224	210	208	191	187	232	273	239
17	240	228	224	230	221	208	207	190	184	224	273	238
18	240	226	234	231	221	210	208	188	186	219	273	236
19	237	225	244	232	219	210	204	193	184	220	273	232
20	235	224	247	231	217	208	205	199	183	211	270	231
21	233	220	257	231	220	207	203	192	180	214	269	233
22	234	221	253	230	219	207	206	189	186	212	274	232
23	234	224	285	226	255	207	212	194	193	216	278	231
24	234	228	292	226	321	206	208	194	199	214	272	227
25	234	223	271	226	305	205	205	192	198	214	267	226
26	234	224	259	225	273	205	204	192	199	226	262	226
27	238	222	253	224	256	205	204	191	207	234	268	225
28	238	221	248	225	246	203	202	190	202	232	271	226
29	234	220	246	224	---	205	205	188	193	239	266	233
30	234	219	243	222	---	220	205	186	189	237	268	238
31	232	---	240	221	---	227	---	185	---	234	264	---
TOTAL	7562	6780	7419	7209	6600	6664	6268	5969	5842	6500	8012	7294
MEAN	244	226	239	233	236	215	209	193	195	210	258	243
MAX	270	234	292	251	321	240	225	201	223	241	278	272
MIN	232	219	217	221	215	203	202	185	180	182	234	225

CAL YR 1989 TOTAL 85921 MEAN 235 MAX 427 MIN 199
WTR YR 1990 TOTAL 82119 MEAN 225 MAX 321 MIN 180

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02235200 BLACK WATER CREEK NEAR CASSIA, FL

LOCATION.--Lat 28°52'28", long 81°29'23", in SW¼ sec.35, T.18 S., R.28 E., Lake County, Hydrologic Unit 03080101, at bridge on State Highway 44, 1.5 mi southwest of Cassia, and 13 mi upstream from mouth.

DRAINAGE AREA.--126 mi².

PERIOD OF RECORD.--Annual maximum, water years 1962-67, 1970-80; August 1967 to September 1969, March 1981 to September 1985 (fragmentary), October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 18.55 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Sept. 20, 1962 to Aug. 7, 1967, and Oct. 1, 1969 to Mar. 23, 1981, crest-stage gage; Aug. 7, 1967 to Sept. 30, 1969 and Mar. 23, 1981 to June 10, 1983, water-stage recorder, and June 10, 1983 to June 10, 1985, nonrecording gage at site 1,000 ft upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--7 years (water years 1968-69, 1986-90), 58.4 ft³/s, 6.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 749 ft³/s, Sept. 1, 1968, gage height, 9.93 ft; minimum, 2.3 ft³/s, Sept. 28, 1990, gage height, 4.34 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft³/s, Feb. 26, 27, 28; maximum gage height, 6.28 ft, Feb. 27; minimum discharge, 2.3 ft³/s, Sept. 28, gage height, 4.34 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	14	13	29	27	55	25	20	8.1	9.0	5.1	4.6
2	25	14	13	28	26	53	25	19	7.9	8.6	5.0	5.5
3	24	14	12	28	26	52	31	18	7.9	8.6	5.1	5.4
4	23	14	12	27	26	51	32	17	8.1	8.5	5.5	4.7
5	22	13	12	42	25	50	31	17	7.9	8.2	5.5	4.2
6	21	13	12	45	24	49	30	16	7.7	7.9	5.2	3.9
7	20	13	12	44	24	48	30	16	8.2	7.5	4.9	3.6
8	19	13	14	43	23	46	29	16	7.9	7.2	4.8	3.4
9	19	13	20	41	23	44	28	15	8.0	6.9	5.0	3.2
10	18	13	18	40	23	42	28	16	9.1	6.6	5.2	3.0
11	18	13	16	38	32	40	29	15	9.5	6.2	5.5	2.9
12	17	13	15	37	31	38	30	15	8.8	6.2	5.6	3.1
13	17	13	15	36	30	36	29	14	8.4	7.9	5.1	3.4
14	17	13	15	35	29	33	28	14	7.9	9.7	5.4	3.3
15	17	13	15	34	28	33	28	13	7.7	10	6.7	3.0
16	16	13	14	34	27	33	27	13	7.5	9.5	7.6	2.9
17	16	13	14	33	27	33	26	12	7.3	9.5	7.2	2.8
18	16	13	19	33	27	32	26	12	7.1	9.3	6.3	3.0
19	15	13	21	33	27	31	25	12	6.8	8.8	5.6	3.5
20	15	13	26	33	27	29	25	12	6.5	8.4	5.2	3.3
21	14	12	28	33	27	28	24	11	6.3	8.0	4.7	3.0
22	14	12	28	32	28	27	24	11	6.5	7.6	4.4	2.9
23	13	13	40	31	44	26	26	11	8.5	7.2	4.2	2.8
24	13	14	42	31	52	25	26	10	9.2	6.6	4.1	2.7
25	13	14	40	31	53	24	25	10	11	6.4	4.1	2.6
26	14	14	38	30	56	23	24	9.6	11	6.3	3.9	2.5
27	15	14	36	29	56	23	23	9.3	12	6.3	3.7	2.4
28	15	14	33	29	56	22	21	9.2	12	6.3	4.3	2.4
29	15	13	32	28	---	21	21	8.9	11	6.3	4.4	2.5
30	14	13	31	28	---	23	21	8.5	9.8	6.1	3.9	2.9
31	14	---	30	27	---	25	---	8.2	---	5.6	3.8	---
TOTAL	535	397	686	1042	904	1095	797	408.7	255.6	237.2	157.0	99.4
MEAN	17.3	13.2	22.1	33.6	32.3	35.3	26.6	13.2	8.52	7.65	5.06	3.31
MAX	26	14	42	45	56	55	32	20	12	10	7.6	5.5
MIN	13	12	12	27	23	21	21	8.2	6.3	5.6	3.7	2.4
CFSM	.14	.11	.18	.27	.26	.28	.21	.10	.07	.06	.04	.03
IN.	.16	.12	.20	.31	.27	.32	.24	.12	.08	.07	.05	.03

CAL YR 1989 TOTAL 10078.2 MEAN 27.6 MAX 77 MIN 9.5 CFSM .22 IN. 2.98
WTR YR 1990 TOTAL 6613.9 MEAN 18.1 MAX 56 MIN 2.4 CFSM .14 IN. 1.95

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02235500 BLUE SPRINGS NEAR ORANGE CITY, FL

LOCATION.--Lat 28°56'38", long 81°20'24", in NE¼ sec. 8, T.18 S., R.30 E., Volusia County, Hydrologic Unit 03080101, on left bank of Blue Springs Run, 800 ft upstream from St. Johns River, 0.2 mi downstream from head of springs, and 2.5 mi west of Orange City.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1932 to current year (discharge measurements only).

REMARKS.--Discharge affected by backwater from St. Johns River.

AVERAGE DISCHARGE.--458 measurements, 159 ft³/s, 103 mgd.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 214 ft³/s, Nov. 1, 1960; minimum measured, 63 ft³/s, Nov. 6, 1935, but may be in error due to abnormal amount of backwater from St. Johns River causing adverse measuring conditions.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1964 to current year.

DISCHARGE MEASUREMENTS AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT					MAY				
06...	1540	124	1980	530	04...	1440	104	2050	520
NOV					JUL				
14...	1250	129	2060	520	09...	1210	143	1980	--
JAN					AUG				
11...	1600	145	2150	570	28...	1450	146	2160	580
MAR									
12...	1520	112	2360	600					

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02236000 ST. JOHNS RIVER NEAR DE LAND, FL
(National stream-quality accounting network station)

LOCATION.--Lat 29°00'29", long 81°22'58", in land grant 38, T.17 S., R.29 E., Lake County, Hydrologic Unit 03080101, near left bank on downstream side of Francis P. Whitehair Bridge on State Highway 44, 5 mi west of De Land, and 142 mi upstream from mouth.

DRAINAGE AREA.--3,066 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only prior to February 1934, published in WSP 1304.

REVISED RECORDS.--WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder and electromagnetic current meter recorder. Datum of gage is 0.09 ft below National Geodetic Vertical Datum of 1929. Prior to May 28, 1936, nonrecording gage at site of former Crows Bluff Bridge about 1,000 ft downstream and May 28, 1936 to July 21, 1970, water-stage recorder at site 0.4 mi downstream at datum 1.11 ft lower. Oct. 1, 1959 to Sept. 30, 1975, and Oct. 1, 1984 to Mar. 21, 1986, water-stage recorder for Lake Monroe near Sanford (station 02234499) used as auxiliary gage for this station.

REMARKS.--Records poor. Flow occasionally reversed as a result of tide and wind effect.

AVERAGE DISCHARGE.--57 years, 3,043 ft³/s, 13.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 17,100 ft³/s, Oct. 15, 1953; maximum gage height, 6.06 ft, present datum, Oct. 11, 12, 1953; maximum daily reverse flow, 3,030 ft³/s, Aug. 23, 1957; minimum gage height since at least May 28, 1936, -0.59 ft, present datum, Apr. 2, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,980 ft³/s, Nov. 7; maximum gage height, 2.27 ft, Oct. 31; maximum daily reverse flow, 214 ft³/s, July 28; minimum gage height, -0.02 ft, July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2110	2340	2090	2590	2070	1380	1400	1800	476	2020	1580	1190
2	2130	2700	2340	2700	2110	1520	1590	1870	336	1950	1830	543
3	2010	2650	1950	2890	2050	1330	836	1780	660	1680	1830	437
4	2300	2640	2230	3030	2250	1360	714	1520	959	1030	1190	487
5	2100	2850	2620	2560	1440	1210	1670	1270	1470	793	1200	496
6	2030	2930	2650	2220	1720	1020	1930	1130	1460	893	1280	204
7	2230	3980	2730	2320	1730	1000	1830	649	1140	1610	1330	519
8	2290	3370	2790	2510	1770	945	1660	473	1290	1730	1370	1150
9	1870	3250	2320	2350	1930	987	1730	650	1760	1410	1180	1500
10	1430	3180	1800	2350	1990	1430	1730	825	1900	1280	917	1570
11	755	3380	2130	2240	1850	1570	1610	825	2130	1400	1360	1210
12	889	3420	2320	2220	1530	1590	1130	942	1760	1350	1460	989
13	1080	3450	1840	1730	2070	1860	1530	1350	1100	1710	1580	569
14	1580	3310	2020	1800	2180	2170	1460	1290	415	2240	1610	344
15	1850	3550	2340	2270	2330	2230	1680	1350	889	2280	1500	586
16	1990	3520	2330	2500	2510	2220	1590	1230	986	2380	1630	1010
17	2160	3240	2150	2660	2340	2250	1820	1050	432	2280	1790	1250
18	2340	3310	1900	2730	2240	1850	1480	878	69	2050	1580	719
19	2140	3200	1950	2750	2070	2040	492	820	293	1730	1310	181
20	1600	3290	1650	2760	1120	1540	636	762	1040	1600	999	299
21	2370	3290	1910	2710	732	1470	769	878	1340	1460	972	708
22	2610	3580	1850	2680	1120	1530	1400	1050	1500	1500	311	1060
23	2460	3480	796	2720	1660	1460	1450	877	1590	1430	948	1200
24	2070	3190	891	2660	1360	1560	1520	412	2000	1370	1260	590
25	1620	3100	2240	2660	1910	1530	1570	59	1860	1220	1210	601
26	1550	3090	2750	1980	1800	1580	1730	.00	1820	1030	1480	1300
27	1370	3060	3000	2170	1330	1070	2030	119	1830	126	1430	1510
28	887	2970	3200	2260	1340	661	2160	237	1810	-214	1460	1440
29	483	2780	3290	2310	---	835	1830	297	1720	-180	1550	1370
30	1160	1920	3230	2300	---	1360	1620	483	1750	-25	1400	889
31	1790	---	2770	2020	---	1540	---	691	---	546	1320	---
TOTAL	55254	94020	70077	75650	50552	46098	44597	27567.00	37785	41679	41867	25921
MEAN	1782	3134	2261	2440	1805	1487	1487	889	1259	1344	1351	864
MAX	2610	3980	3290	3030	2510	2250	2160	1870	2130	2380	1830	1570
MIN	483	1920	796	1730	732	661	492	.00	69	-214	311	181
CFSM	.58	1.02	.74	.80	.59	.49	.48	.29	.41	.44	.44	.28
IN.	.67	1.14	.85	.92	.61	.56	.54	.33	.46	.51	.51	.31

CAL YR 1989 TOTAL 658478 MEAN 1804 MAX 4220 MIN -786 CFSM .59 IN. 7.99
WTR YR 1990 TOTAL 611067.00 MEAN 1674 MAX 3980 MIN -214 CFSM .55 IN. 7.41

NOTE.--Negative figures indicate reverse flow.

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02236000 ST. JOHNS RIVER NEAR DE LAND, FL--Continued
(National stream-quality accounting network station)

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

[illegible]

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAHAHA RIVER

02236000 ST. JOHNS RIVER NEAR DE LAND, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-49, 1954, 1962, 1966 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1985 to current year.

WATER TEMPERATURE: November 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1985. Digital recorder set for 60-minute interval.

REMARKS.--Interruption of data due to recorder and sensor malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 1,510 microsiemens, Sept. 7, 1989; minimum daily mean, 407 microsiemens, June 7, 1986.

WATER TEMPERATURE: Maximum daily mean, (water years 1986, 1988-89), 31.5°C, July 17, 1986; minimum daily mean (water years 1986-87, 1990), 10.7°C, Dec. 27, 1989.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum daily mean, 30.7°C, Aug. 1; minimum daily mean, 10.7°C, Dec. 27.

TEMPERATURE, (DEG C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	22.6	19.7	15.0	20.4	18.6	23.8	26.7	28.4	28.9	30.7	29.9
2	28.0	---	19.6	14.8	21.4	18.9	24.3	27.3	28.6	28.7	30.0	29.9
3	27.9	---	18.8	14.7	21.8	19.6	24.1	27.3	28.8	28.7	29.9	29.9
4	28.1	---	17.5	15.0	22.5	19.9	23.6	27.4	28.9	28.9	29.8	29.8
5	28.1	---	17.0	16.2	22.3	20.5	23.0	27.3	29.0	29.1	29.9	29.6
6	27.9	---	16.3	17.4	21.1	20.5	22.9	27.1	28.4	29.4	30.2	29.7
7	27.9	---	16.2	18.4	21.2	20.6	22.8	26.9	28.0	29.5	30.1	29.6
8	27.9	---	17.4	18.9	21.0	20.8	22.7	26.5	28.0	29.3	29.8	30.0
9	27.6	---	18.5	18.6	21.0	21.0	22.6	26.0	28.0	29.7	29.5	29.4
10	27.1	---	17.7	17.9	21.0	21.3	22.7	25.7	27.9	30.4	29.2	29.3
11	26.9	---	17.3	17.5	21.2	21.8	23.0	26.1	28.2	30.4	28.7	29.1
12	26.8	---	16.8	17.5	21.1	22.2	23.1	26.2	28.5	30.1	28.4	29.1
13	26.8	---	16.6	16.7	20.7	22.5	22.9	26.1	28.4	29.2	28.9	29.2
14	26.7	---	16.1	16.1	20.6	22.9	22.9	26.7	28.5	28.4	28.8	29.4
15	26.6	---	15.8	15.9	20.7	23.5	23.1	27.5	28.5	27.8	28.6	29.4
16	26.7	---	15.6	16.1	21.0	23.7	23.6	27.7	28.6	27.6	28.7	29.2
17	27.0	---	15.2	16.7	21.8	24.0	24.4	28.3	28.7	27.6	29.0	29.0
18	27.2	---	15.1	17.6	22.4	23.9	25.1	28.5	29.3	27.7	29.5	28.4
19	27.0	---	15.3	18.2	23.0	23.6	24.8	28.5	29.7	28.2	29.6	28.5
20	25.2	---	15.5	19.3	23.1	23.2	24.7	28.6	29.9	28.4	30.0	28.6
21	23.0	---	15.4	20.1	22.7	22.6	24.6	28.5	30.2	28.7	30.0	28.8
22	22.0	---	15.3	20.7	22.7	21.9	24.7	28.0	29.6	29.0	29.9	29.0
23	20.9	---	14.1	20.2	22.2	21.9	24.7	27.7	28.6	29.3	29.3	28.5
24	21.0	---	12.7	19.8	21.3	21.8	24.5	27.7	28.3	29.5	28.6	27.8
25	21.5	---	11.2	20.1	20.3	22.0	24.4	27.7	28.9	29.3	28.4	27.5
26	21.8	---	10.8	20.1	19.1	22.6	24.4	27.9	28.9	29.2	28.7	27.3
27	22.1	---	10.7	19.3	18.9	22.7	24.8	28.0	28.5	29.3	29.3	26.9
28	22.3	---	10.9	18.9	18.6	22.8	24.9	28.4	28.6	29.3	29.8	26.7
29	21.9	---	11.4	18.7	---	23.1	25.3	28.6	28.9	29.4	30.1	26.6
30	21.7	---	12.3	19.2	---	23.3	26.4	28.6	28.9	29.8	30.0	26.7
31	22.2	---	13.6	20.1	---	23.5	---	28.3	---	30.0	29.8	---
MEAN	25.3	---	15.4	17.9	21.3	22.0	24.0	27.5	28.7	29.1	29.5	28.8
MAX	28.1	---	19.7	20.7	23.1	24.0	26.4	28.6	30.2	30.4	30.7	30.0
MIN	20.9	---	10.7	14.7	18.6	18.6	22.6	25.7	27.9	27.6	28.4	26.6

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02236000 ST. JOHNS RIVER NEAR DE LAND, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, IN CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 30...	1230	1.09	1490	1220	7.5	20.5	1.4	6.0	--	--
JAN 22...	1128	0.63	2640	1080	7.6	20.5	1.6	6.3	10	26
MAR 12...	0900	1.18	1490	1140	7.4	22.0	2.4	5.6	K150	K160
MAY 29...	1115	0.36	119	1380	--	28.5	3.0	6.7	--	--
JUL 09...	1145	0.43	1310	1170	8.4	30.0	4.0	9.0	K100	100
AUG 27...	1135	0.67	1860	1340	7.6	29.5	3.5	4.8	K130	K80

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NOV 30...	46	20	150	6.7	64	77	280	0.10	7.8	698
JAN 22...	46	18	140	6.3	61	65	250	0.10	3.7	659
MAR 12...	55	20	140	6.0	81	77	250	0.10	4.1	678
MAY 29...	58	23	170	6.2	99	73	320	0.10	4.0	728
JUL 09...	55	21	140	5.1	--	--	--	<0.10	6.4	662
AUG 27...	55	23	170	6.8	80	86	300	0.20	5.6	770

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 30...	0.010	0.250	0.130	0.120	1.2	1.3	0.090	0.050	0.050	--
JAN 22...	<0.010	0.160	0.100	0.090	1.2	1.3	0.090	0.050	0.040	20
MAR 12...	0.010	0.200	0.030	0.040	1.2	1.2	0.120	0.080	0.050	--
MAY 29...	<0.010	<0.100	0.020	0.020	0.98	1.0	0.120	0.050	0.050	10
JUL 09...	<0.010	<0.100	0.010	0.010	0.89	0.90	0.090	<0.010	0.040	20
AUG 27...	<0.010	<0.100	<0.010	0.040	--	1.4	0.120	0.010	<0.010	20

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02236000 ST. JOHNS RIVER NEAR DE LAND, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	ARSENIC	BARIUM,	BERYL-	CADMIUM	CHRO-	COBALT,	COPPER,	IRON,	LEAD,	LITHIUM
	DIS-	DIS-	LIUM,	DIS-	MIUM,	DIS-	DIS-	DIS-	DIS-	DIS-
	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED
	(UG/L AS AS) (01000)	(UG/L AS BA) (01005)	(UG/L AS BE) (01010)	(UG/L AS CD) (01025)	(UG/L AS CR) (01030)	(UG/L AS CO) (01035)	(UG/L AS CU) (01040)	(UG/L AS FE) (01046)	(UG L AS PB) (01049)	(UG/L AS LI) (01130)
JAN 22...	<1	23	<0.5	1.0	<1	<3	<10	120	<10	6
MAY 29...	<1	24	<0.5	<1.0	<1	<3	<1	10	<1	6
JUL 09...	<1	20	<0.5	<1.0	<1	<3	2	9	1	8
AUG 27...	<1	20	<0.5	<1.0	<1	<3	2	13	<1	8
DATE	MANGA-	MERCURY	MOLYB-	NICKEL,	SELE-	SILVER,	STRON-	VANA-	ZINC,	
	NESE,	DIS-	DENUM,	DIS-	NIUM,	DIS-	TIUM,	DIUM,	DIS-	
	DIS-	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	
	(UG/L AS MN) (01056)	(UG/L AS HG) (71890)	(UG/L AS MO) (01060)	(UG/L AS NI) (01065)	(UG/L AS SE) (01145)	(UG/L AS AG) (01075)	(UG/L AS SR) (01080)	(UG/L AS V) (01085)	(UG/L AS ZN) (01090)	
JAN 22...	4	0.1	<10	<10	<1	<1.0	1100	<6	5	
MAY 29...	<1	0.2	<10	<1	<1	<1.0	1200	<6	10	
JUL 09...	<1	0.1	<10	<1	<1	<1.0	1000	<6	11	
AUG 27...	2	0.1	<10	<1	<1	<1.0	1200	<6	7	

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02236120 DEEP CREEK NEAR BARBERVILLE, FL

LOCATION.--Lat 29°09'47", long 81°23'27", in SW¼ sec.27, T.15 S., R.29 E., Volusia County, Hydrologic Unit 03080101, on downstream side of bridge on U.S. Highway 17, 2.1 mi upstream from mouth, and 2.5 mi southeast of Barberville.

DRAINAGE AREA.--35.4 mi.

PERIOD OF RECORD.--October 1964 to September 1971 (annual peak discharge and periodic discharge measurements only), October 1971 to September 1982 (annual peak discharge only), October 1982 to September 1989 (annual peak discharge and periodic discharge measurements only). October 1989 to September 1990 (periodic discharge measurements only).

REVISED RECORDS.--WDR FL-88-1: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 2.49 ft below National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s Aug. 29, 1968, gage height 11.23 ft; maximum discharge measured, 837 ft³/s, Oct. 19, 1968; no flow observed in 1967, 1968, 1970, 1989, 1990.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
NOV 14...	1440	.37	MAY 03...	1200	.25
JAN 24...	1050	11	JUL 02...	1210	.00
MAR 09...	1320	17	AUG 23...	1200	55

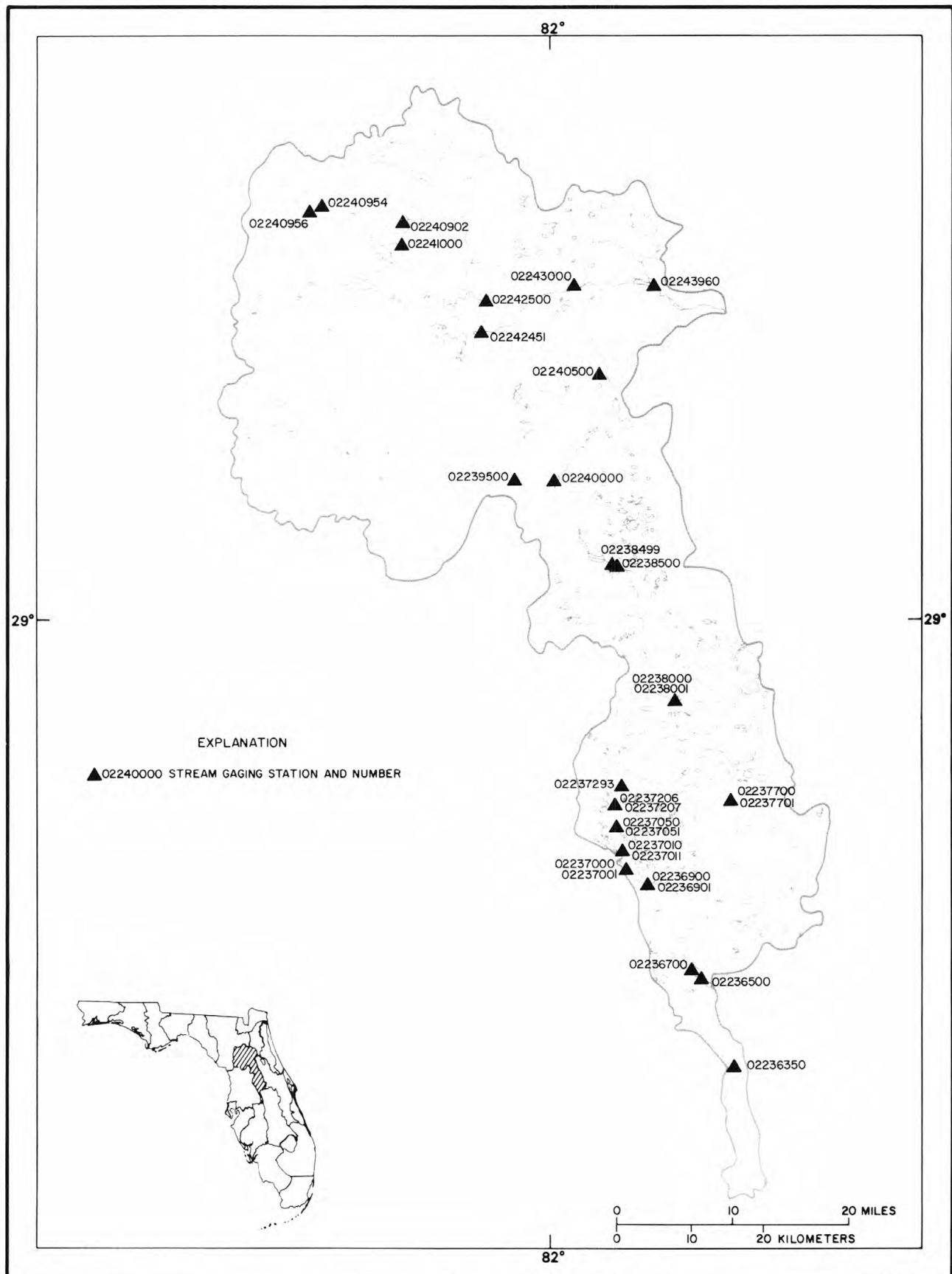


Figure 16.--Location of stream gaging stations in the Oklawaha River basin.

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236350 GREEN SWAMP RUN NEAR EVA, FL

LOCATION.--Lat 28°18'39", long 81°41'08", in NW¼ sec.14, T.25 S., R.26 E., Polk County, Hydrologic Unit 03080102, on left bank, 20 ft downstream from culverts on Sand Mine Road, 1.1 mi west of U.S. Highway 27, 9.1 mi east of Eva, and 12.8 mi upstream from mouth.

DRAINAGE AREA.--43 mi², approximately.

PERIOD OF RECORD.--July 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 116.16 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--11 years, 9.30 ft³/s, 2.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 109 ft³/s, Mar. 31, Apr. 1, 1987, gage height, 5.41 ft; maximum gage height, 5.78 ft, Apr. 9, 1984; no flow for many days most years; creek dry at gage for many days during 1981, 1989, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft³/s, Aug. 23,27,28; maximum gage height, 4.06 ft, Aug. 28; no flow for many days; creek dry at gage for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	5.5
2	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.01	4.5
3	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.01	3.9
4	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.01	3.3
5	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	2.7
6	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	2.2
7	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	1.9
8	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	1.7
9	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	1.4
10	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	1.1
11	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.01	1.1
12	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.01	1.1
13	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.02	.93
14	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.04	.76
15	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.05	.59
16	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.13	.55
17	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	1.7	.62
18	.00	.00	.00	.00	.01	.01	.01	.00	.00	.00	2.4	.50
19	.00	.00	.00	.00	.01	.01	.01	.00	.00	.00	3.8	.39
20	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	7.0	.30
21	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	9.0	.24
22	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	9.3	.21
23	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	10	.15
24	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	9.7	.12
25	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	9.4	.09
26	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	9.0	.07
27	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	8.5	.05
28	.00	.00	.00	.00	.01	.01	.00	.00	.00	.01	10	.05
29	.00	.00	.00	.00	---	.01	.00	.00	.00	.01	8.9	.22
30	.00	.00	.00	.00	---	.01	.00	.00	.00	.01	7.6	.56
31	.00	---	.00	.00	---	.01	---	.00	---	.01	6.6	---
TOTAL	0.00	0.00	0.00	0.00	0.08	0.31	0.29	0.00	0.00	0.07	113.26	36.80
MEAN	.000	.000	.000	.000	.003	.010	.010	.000	.000	.002	3.65	1.23
MAX	.00	.00	.00	.00	.01	.01	.02	.00	.00	.01	10	5.5
MIN	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.01	.05
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.03
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.03
CAL YR 1989	TOTAL 111.49	MEAN .31	MAX 2.5	MIN .00	CFSM .01	IN. .10						
WTR YR 1990	TOTAL 150.81	MEAN .41	MAX 10	MIN .00	CFSM .01	IN. .13						

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236500 BIG CREEK NEAR CLERMONT, FL

LOCATION.--Lat 28°26'51", long 81°44'25", in NE¼ sec.31, T.23 S., R.26 E., Lake County, Hydrologic Unit 03080102, near left bank 40 ft downstream from log bridge, 1 mi upstream from mouth at Lake Louisa, and 7.5 mi southeast of Clermont.

DRAINAGE AREA.--68 mi², approximately.

PERIOD OF RECORD.--July 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 98.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some interconnection at high stages with Little Creek and Withlacoochee River basin.

AVERAGE DISCHARGE.--32 years (water years 1959-90), 24.8 ft³/s, 4.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 691 ft³/s, Sept. 13, 1960, gage height, 6.23 ft; no flow for many days in some years; creek dry at gage for many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft³/s, Aug. 14,15,16; maximum gage height, 3.62 ft, Aug. 15,16; no flow May 4 to June 2; minimum gage height, 0.11 ft, June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	.84	1.6	13	2.6	12	1.6	.03	.00	4.0	8.0	14
2	11	.76	1.4	12	2.5	11	1.3	.02	.00	3.2	7.6	12
3	11	.68	1.3	11	2.4	9.8	1.2	.01	.09	3.3	6.9	11
4	10	.61	1.1	11	2.3	8.8	1.0	.00	.38	4.1	6.4	9.8
5	9.2	.55	.97	12	2.2	8.0	.81	.00	.18	3.9	5.5	8.9
6	8.4	.51	.89	12	1.9	7.3	.67	.00	.09	3.3	4.7	8.1
7	7.7	.46	.82	11	1.8	6.6	.58	.00	.09	2.6	4.0	7.2
8	7.5	.40	1.2	11	1.7	6.0	.51	.00	.23	2.0	5.1	6.4
9	7.1	.41	4.8	10	1.6	5.4	.43	.00	.80	1.7	5.2	5.7
10	6.7	.43	5.2	9.8	1.6	4.8	.37	.00	.47	1.4	8.5	5.0
11	6.3	.33	5.2	9.3	3.4	4.2	.48	.00	.59	1.2	20	5.1
12	5.8	.30	5.1	8.8	3.6	3.8	.60	.00	2.2	2.3	22	6.0
13	5.3	.28	5.5	8.2	3.4	3.3	.43	.00	1.0	9.0	24	5.4
14	4.8	.25	5.2	7.5	3.2	2.9	.33	.00	.70	14	35	4.8
15	4.4	.24	4.8	7.0	3.0	2.5	.26	.00	.56	22	36	4.2
16	3.9	.85	4.8	6.6	2.7	2.2	.20	.00	.48	26	35	4.0
17	3.5	1.3	4.8	6.3	2.5	1.9	.15	.00	.41	25	33	3.9
18	3.2	1.2	6.1	5.9	2.3	1.7	.11	.00	.71	27	31	3.4
19	2.9	1.1	6.9	5.6	2.1	1.4	.10	.00	3.6	28	31	3.2
20	2.6	1.1	8.5	5.3	1.9	1.2	.11	.00	5.3	26	29	2.9
21	2.3	.94	12	4.9	2.2	1.0	.09	.00	5.5	25	27	2.5
22	2.0	.87	13	4.7	3.1	.85	.08	.00	4.7	28	28	2.2
23	1.8	1.0	17	4.3	8.9	.71	.08	.00	5.0	28	30	1.9
24	1.7	1.1	18	4.1	16	.59	.08	.00	5.5	26	31	1.6
25	1.5	.98	18	3.9	17	.50	.07	.00	4.7	22	29	1.3
26	1.3	1.3	17	3.6	16	.42	.06	.00	4.5	19	27	1.2
27	1.3	2.3	16	3.3	15	.35	.05	.00	8.3	16	24	1.0
28	1.2	2.2	15	3.1	13	.29	.04	.00	7.7	14	21	1.5
29	1.1	2.1	15	3.0	---	.31	.05	.00	6.3	13	19	4.5
30	1.0	1.8	14	2.9	---	.81	.04	.00	5.0	11	17	14
31	.93	---	13	2.8	---	1.5	---	.00	---	9.2	15	---
TOTAL	149.43	27.19	244.18	223.9	139.9	112.13	11.88	0.06	75.08	421.2	625.9	162.7
MEAN	4.82	.91	7.88	7.22	5.00	3.62	.40	.002	2.50	13.6	20.2	5.42
MAX	12	2.3	18	13	17	12	1.6	.03	8.3	28	36	14
MIN	.93	.24	.82	2.8	1.6	.29	.04	.00	.00	1.2	4.0	1.0
CFSM	.07	.01	.12	.11	.07	.05	.01	.00	.04	.20	.30	.08
IN.	.08	.01	.13	.12	.08	.06	.01	.00	.04	.23	.34	.09

CAL YR 1989 TOTAL 3041.71 MEAN 8.33 MAX 48 MIN .01 CFSM .12 IN. 1.66
WTR YR 1990 TOTAL 2193.55 MEAN 6.01 MAX 36 MIN .00 CFSM .09 IN. 1.20

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236700 LITTLE CREEK NEAR CLERMONT, FL

LOCATION.--Lat 28°27'39", long 81°45'26", in NE¼ sec.25, T.23 S., R.25 E., Lake County, Hydrologic Unit 03080102, at downstream side of culverts on Lake Nellie Road, 0.6 mi upstream from Lake Louisa, 2.3 mi east of State Highway 561, and 6.1 mi south of Clermont.

DRAINAGE AREA.--14.7 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1945-47, 1952-56, 1966, 1967; periodic discharge measurements and gage heights, water years 1958-60. July 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 90.08 ft above National Geodetic Vertical Datum of 1929. July 18, 1958 to July 5, 1960, nonrecording gage at same site at different datum.

REMARKS.--Records poor. Some interconnection at high stages with Big Creek is possible.

AVERAGE DISCHARGE.--11 years, 14.4 ft³/s, 13.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 850 ft³/s, Mar. 18, 1960, gage height, 10.85 ft, from flood mark; no flow for many days in most years; creek dry at gage for many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft³/s, Aug. 11, gage height, 7.88 ft; no flow for many days; minimum gage height, 5.23 ft, June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	.28	1.3	17	6.4	20	3.0	.00	.00	.34	6.3	9.0
2	.89	.26	1.2	16	6.1	18	2.1	.00	.00	.30	6.1	9.4
3	.93	.23	1.1	15	5.8	17	1.6	.00	.00	.29	5.5	9.2
4	.89	.20	1.0	15	5.5	16	1.2	.00	.00	.30	6.5	8.6
5	.86	.18	.98	16	5.0	15	.87	.00	.00	.25	4.9	8.1
6	.79	.16	.94	17	4.5	13	.67	.00	.00	.17	3.8	7.4
7	.75	.14	.92	17	4.3	12	.51	.00	.00	.08	3.3	6.9
8	.78	.12	1.4	16	4.0	11	.41	.00	.00	.01	3.2	6.3
9	.79	.14	6.9	16	3.7	10	.33	.00	.00	.00	4.5	5.7
10	.84	.18	6.6	16	3.7	9.5	.27	.00	.00	.00	9.0	5.0
11	.93	.16	5.8	15	9.0	8.6	.25	.00	.01	.00	21	4.6
12	1.0	.15	5.5	15	9.3	7.9	.23	.00	.20	.52	21	4.6
13	1.0	.13	5.5	14	8.3	7.0	.17	.00	.20	4.4	18	4.0
14	1.1	.12	4.9	14	7.9	6.2	.12	.00	.13	7.1	18	3.9
15	1.0	.12	4.6	14	7.1	5.5	.09	.00	.07	9.2	17	4.1
16	.96	.34	5.1	13	6.4	4.8	.07	.00	.01	8.1	16	4.8
17	.90	.56	6.0	13	5.7	4.2	.03	.00	.00	7.1	15	5.7
18	.84	.57	8.2	12	5.1	4.3	.00	.00	.00	6.0	14	5.0
19	.78	.51	9.3	12	4.7	3.8	.00	.00	.00	4.9	14	4.8
20	.71	.48	11	11	4.4	3.2	.00	.00	.00	4.7	12	4.6
21	.62	.46	15	11	4.9	2.7	.00	.00	.00	6.8	11	3.8
22	.55	.44	15	10	6.3	2.3	.00	.00	.00	19	11	3.2
23	.49	.71	20	9.7	14	1.9	.00	.00	.01	21	10	2.7
24	.46	1.1	20	9.3	20	1.5	.00	.00	.13	19	11	2.4
25	.42	1.0	20	8.9	20	1.2	.00	.00	.15	16	11	1.9
26	.39	1.2	20	8.5	20	1.0	.00	.00	.38	13	10	1.6
27	.38	1.5	20	7.9	21	.83	.00	.00	.88	13	9.3	1.4
28	.37	1.5	19	7.6	21	.70	.00	.00	.71	12	8.9	2.1
29	.33	1.4	18	7.3	---	.64	.00	.00	.50	10	8.9	7.3
30	.32	1.4	18	7.0	---	1.3	.00	.00	.39	8.3	9.0	19
31	.30	---	17	6.7	---	2.9	---	.00	---	7.0	8.9	---
TOTAL	22.22	15.74	290.24	387.9	244.1	213.97	11.92	0.00	3.77	198.86	328.1	167.1
MEAN	.72	.52	9.36	12.5	8.72	6.90	.40	.000	.13	6.41	10.6	5.57
MAX	1.1	1.5	20	17	21	20	3.0	.00	.88	21	21	19
MIN	.30	.12	.92	6.7	3.7	.64	.00	.00	.00	.00	3.2	1.4
CFSM	.05	.04	.64	.85	.59	.47	.03	.00	.01	.44	.72	.38
IN.	.06	.04	.73	.98	.62	.54	.03	.00	.01	.50	.83	.42

CAL YR 1989 TOTAL 2231.68 MEAN 6.11 MAX 70 MIN .00 CFSM .42 IN. 5.65
WTR YR 1990 TOTAL 1883.92 MEAN 5.16 MAX 21 MIN .00 CFSM .35 IN. 4.77

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236900 PALATLAKAHA RIVER AT CHERRY LAKE OUTLET, NEAR GROVELAND, FL

LOCATION.--Lat 28°35'33", long 81°49'21", in NE¼ sec.8, T.22 S., R.25 E., Lake County, Hydrologic Unit 03080102, near left bank 21 ft upstream from spillway at outlet of Cherry Lake, and 3 mi northeast of Groveland.

DRAINAGE AREA.--165 mi².

PERIOD OF RECORD.--September 1956 to February 1957 (gage heights and discharge measurements only), March 1957 to current year.

REVISED RECORDS.--WDR FL-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Gee and Jenson, Inc. bench mark). Auxiliary gage at downstream side of spillway structure.

REMARKS.--Records poor. Since 1956, flow regulated by earthen dam and concrete spillway with radial lift gates at outlet. Discharge computed from relation between discharge, head, and gate openings. An undetermined amount of water is diverted at times through a gated culvert in dam for irrigation of citrus groves. Gage heights are published as elevations for Cherry Lake (station 02236880) in the section of this report entitled LAKE ELEVATIONS.

COOPERATION.--Gate-opening record provided by Oklawaha Basin Recreation and Water Conservation and Control Authority.

AVERAGE DISCHARGE.--33 years (water years 1958-90), 35.7 ft³/s, 2.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 584 ft³/s, Apr. 5, 1960; maximum gage height, 98.15 ft, Apr. 22, 1959; maximum daily reverse flow, 5.1 ft³/s, July 14, 1971; no flow for many days in most years; minimum gage height, 92.58 ft, Jan. 23, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 21 ft³/s, Dec. 24; maximum gage height, 96.20 ft, Oct. 7, 8; no flow for many days; minimum gage height, 94.45 ft, June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	.00	.00	.00	2.5	2.6	2.1	.57	.00	.12	1.1	1.6
2	3.4	.00	.00	1.2	2.5	2.6	2.1	.52	.00	.09	1.1	1.6
3	3.4	.00	.00	2.6	2.5	2.6	2.0	.52	.00	.07	1.1	1.6
4	3.4	.00	.00	2.6	2.5	2.6	1.8	.47	.00	.07	1.1	1.5
5	3.4	.00	.00	2.8	2.4	2.6	1.7	.40	.00	.07	1.1	1.5
6	3.4	.00	.00	2.8	2.3	2.6	1.7	.33	.00	.06	1.0	1.4
7	3.4	.00	.00	2.7	2.3	2.5	1.7	.25	.00	.03	.97	1.3
8	3.4	.00	.00	2.8	2.3	2.6	1.6	.21	.00	.03	.97	1.3
9	3.3	.00	.00	2.7	2.3	2.5	1.5	.19	.00	.02	.94	1.2
10	3.3	.00	.00	2.7	2.3	2.5	1.5	.17	.00	.02	.94	1.2
11	3.3	.00	.00	2.7	2.5	2.5	1.5	.16	.00	.00	1.1	1.1
12	3.2	.00	.00	2.7	2.4	2.4	1.4	.12	.00	.09	1.2	1.1
13	3.2	.00	.00	2.6	2.4	2.4	1.3	.11	.00	.52	1.2	1.0
14	3.2	.00	.00	2.6	2.4	2.4	1.2	.08	.00	.68	1.3	.97
15	3.2	.00	.00	2.6	2.4	2.4	1.2	.07	.00	.85	1.5	.91
16	3.2	.00	.00	2.6	2.4	2.4	1.2	.06	.00	1.0	1.4	.88
17	3.2	.00	.00	2.6	2.4	2.3	1.1	.03	.00	1.1	1.4	.88
18	3.2	.00	.00	2.6	2.4	2.3	1.1	.02	.00	1.2	1.3	.85
19	3.1	.00	.00	2.6	2.3	2.2	1.0	.00	.00	1.1	1.5	.82
20	3.0	.00	.00	2.6	2.3	2.2	1.1	.00	.00	1.1	1.5	.76
21	2.9	.00	.00	2.6	2.4	2.1	.97	.00	.00	1.1	1.5	.73
22	2.9	.00	.00	2.6	2.5	2.0	.88	.00	.00	1.1	1.6	.70
23	2.9	.00	2.1	2.6	2.7	2.0	.85	.00	.00	1.2	1.7	.65
24	2.8	.00	2.1	2.6	2.7	2.0	.85	.00	.00	1.2	1.7	.59
25	2.8	.00	4.8	2.6	2.7	1.9	.82	.00	.00	1.3	1.7	.49
26	2.8	.00	.00	2.6	2.6	1.9	.76	.00	.07	1.3	1.7	.44
27	2.8	.00	.00	2.5	2.6	1.8	.70	.00	.79	1.3	1.8	.42
28	2.8	.00	.00	2.5	2.6	1.7	.70	.00	.52	1.2	1.8	.50
29	2.7	.00	.00	2.5	---	1.7	.73	.00	.33	1.2	1.7	.76
30	1.9	.00	.00	2.5	---	1.9	.65	.00	.19	1.2	1.6	1.1
31	.00	---	.00	2.5	---	2.2	---	.00	---	1.2	1.6	---
TOTAL	92.90	0.00	27.90	77.20	68.6	70.4	37.71	4.28	1.90	21.52	42.12	29.85
MEAN	3.00	.0000	.90	2.49	2.45	2.27	1.26	.14	.063	.69	1.36	.99
MAX	3.4	.00	21	2.8	2.7	2.6	2.1	.57	.79	1.3	1.8	1.6
MIN	.00	.00	.00	.00	2.3	1.7	.65	.00	.00	.00	.94	.42
CFSM	.02	.00	.01	.02	.01	.01	.01	.00	.00	.00	.01	.01
IN.	.02	.00	.01	.02	.02	.02	.01	.00	.00	.00	.01	.01

CAL YR 1989 TOTAL 4398.80 MEAN 12.1 MAX 214 MIN .00 CFSM .07 IN. .99
WTR YR 1990 TOTAL 474.38 MEAN 1.30 MAX 21 MIN .00 CFSM .01 IN. .11

CAL YR 1989	MEAN 94.32	MAX 95.31	MIN 93.70
WTR YR 1990	MEAN 94.05	MAX 94.50	MIN 93.34

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237000 PALATLAKAHA RIVER NEAR MASCOTTE, FL

LOCATION.--Lat 28°36'56", long 81°51'53", in SW¼ sec.36, T.21 S., R.24 E., Lake County, Hydrologic Unit 03080102, on left bank 260 ft upstream from spillway, 0.4 mi downstream from bridge on State Highway 565, 0.7 mi downstream from Lake Emma, and 3.2 mi northeast of Mascotte.

DRAINAGE AREA.--182 mi².

PERIOD OF RECORD.--May 1945 to March 1956, April 1964 to September 1965, October 1965 to current year (gage heights and discharge measurements only).

REVISED RECORDS.--WDR FL-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 21, 1946, nonrecording gage and May 21, 1946, to Mar. 20, 1956, water-stage recorder, at site 0.5 mi upstream at datum 89.54 ft higher. Apr. 6, 1964 to Sept. 30, 1965, auxiliary water-stage recorder on left bank 260 ft downstream from spillway.

REMARKS.--Since Dec. 4, 1963, flow regulated at station by manipulation of gates in spillway. From March 1956 to December 1963, flow was regulated through two box culverts with radial lift gates.

AVERAGE DISCHARGE.--10 years (water years 1946-55), 104 ft³/s, 7.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 458 ft³/s, Oct. 4,5, 1945; maximum gage height, 96.66 ft, former site, present datum, Oct. 11,12, 1953; gates closed and no flow or leakage only for many days in 1972-83; minimum gage height, 90.60 ft, July 19, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 94.42 ft, Oct. 2; minimum, 93.26 ft, June 1,2.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.40	93.97	93.71	94.12	94.15	94.33	94.32	93.94	93.28	94.02	94.01	94.10
2	94.40	93.96	93.70	94.10	94.16	94.33	94.31	93.92	93.32	94.01	93.98	94.10
3	94.40	93.94	93.67	94.10	94.15	94.32	94.29	93.90	93.57	94.00	93.97	94.11
4	94.39	93.93	93.65	94.11	94.15	94.31	94.27	93.88	93.57	93.99	93.95	94.09
5	94.35	93.93	93.64	94.21	94.11	94.30	94.26	93.85	93.56	93.97	93.93	94.07
6	94.26	93.92	93.64	94.23	94.10	94.29	94.25	93.82	93.55	93.95	93.91	94.05
7	94.21	93.90	93.63	94.24	94.10	94.28	94.23	93.79	93.54	93.94	93.89	94.03
8	94.22	93.89	93.67	94.27	94.09	94.28	94.21	93.77	93.55	93.92	93.90	94.01
9	94.18	93.90	93.77	94.27	94.09	94.27	94.20	93.75	93.54	93.90	93.91	94.01
10	94.14	93.90	93.76	94.26	94.10	94.26	94.19	93.75	93.54	93.88	93.90	93.99
11	94.10	93.89	93.76	94.27	94.16	94.24	94.19	93.72	93.57	93.85	93.90	93.99
12	94.13	93.87	93.76	94.26	94.14	94.23	94.17	93.71	93.57	93.88	93.90	94.00
13	94.13	93.86	93.74	94.23	94.14	94.22	94.16	93.69	93.54	94.09	93.89	93.98
14	94.13	93.85	93.72	94.23	94.13	94.21	94.14	93.66	93.52	94.15	93.92	93.95
15	94.13	93.84	93.71	94.23	94.13	94.20	94.13	93.65	93.49	94.19	93.98	93.93
16	94.13	93.85	93.71	94.23	94.12	94.19	94.11	93.63	93.46	94.20	93.98	93.93
17	94.12	93.82	93.70	94.23	94.11	94.18	94.10	93.60	93.45	94.21	93.97	93.94
18	94.11	93.80	93.78	94.23	94.11	94.16	94.08	93.58	93.50	94.24	93.99	93.92
19	94.09	93.78	93.81	94.23	94.10	94.15	94.07	93.56	93.50	94.22	94.06	93.90
20	94.04	93.77	93.84	94.23	94.08	94.12	94.08	93.53	93.48	94.20	94.06	93.88
21	94.02	93.76	93.88	94.22	94.10	94.10	94.05	93.51	93.46	94.19	94.05	93.86
22	94.01	93.76	93.89	94.21	94.16	94.08	94.03	93.49	93.46	94.20	94.05	93.84
23	94.00	93.77	93.95	94.20	94.31	94.07	94.03	93.47	93.61	94.19	94.08	93.83
24	93.99	93.76	93.98	94.20	94.35	94.05	94.03	93.45	93.68	94.17	94.09	93.80
25	93.99	93.76	94.07	94.20	94.34	94.04	94.01	93.43	93.72	94.16	94.08	93.78
26	93.98	93.77	94.11	94.18	94.34	94.03	93.99	93.41	93.76	94.13	94.06	93.76
27	93.98	93.76	94.12	94.17	94.34	94.01	93.96	93.39	93.94	94.10	94.09	93.75
28	93.99	93.76	94.12	94.17	94.33	93.99	93.96	93.38	94.02	94.08	94.16	93.76
29	93.97	93.75	94.12	94.16	---	93.99	93.98	93.36	94.04	94.07	94.12	93.90
30	93.98	93.72	94.12	94.16	---	94.10	93.96	93.33	94.03	94.05	94.10	94.02
31	93.98	---	94.13	94.15	---	94.36	---	93.31	---	94.03	94.11	---
MEAN	94.13	93.84	93.83	94.20	94.17	94.18	94.13	93.62	93.59	94.07	94.00	93.94
MAX	94.40	93.97	94.13	94.27	94.35	94.36	94.32	93.94	94.04	94.24	94.16	94.11
MIN	93.97	93.72	93.63	94.10	94.08	93.99	93.96	93.31	93.28	93.85	93.89	93.75

CAL YR 1989 MEAN 94.20 MAX 94.69 MIN 93.63
WTR YR 1990 MEAN 93.98 MAX 94.40 MIN 93.28

LOCATION.--Lat 28°36'57", long 81°51'58", in SW¼ sec.36, T.21 S., R.24 E., Lake County, Hydrologic Unit 03080102, on left bank 260 ft downstream from spillway, 0.4 mi downstream from bridge on State Highway 565, 0.7 mi downstream from Lake Emma, and 3.2 mi northeast of Mascotte.

PERIOD OF RECORD.--April 1964 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 93.00 ft, Oct. 1, 1979; minimum, 86.79 ft, May 27, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 91.53 ft, Apr. 1; minimum, 90.43 ft, Dec. 8.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90.93	90.96	90.54	90.67	90.95	91.16	91.52	91.38	90.66	91.14	91.12	91.09
2	90.98	90.94	90.52	90.66	90.95	91.15	91.52	91.36	90.68	91.12	91.10	91.08
3	90.98	90.92	90.51	90.67	90.95	91.15	91.51	91.34	90.81	91.11	91.08	91.10
4	90.97	90.89	90.49	90.69	90.95	91.14	91.50	91.32	90.79	91.09	91.08	91.09
5	90.98	90.86	90.47	90.82	90.94	91.13	91.48	91.30	90.76	91.07	91.09	91.07
6	91.05	90.84	90.46	90.84	90.92	91.13	91.46	91.28	90.74	91.05	91.06	91.05
7	91.09	90.81	90.45	90.85	90.92	91.12	91.46	91.26	90.73	91.02	91.04	91.02
8	91.15	90.79	90.48	90.89	90.91	91.11	91.44	91.23	90.71	91.00	91.04	91.00
9	91.19	90.79	90.59	90.90	90.90	91.09	91.43	91.21	90.69	90.97	91.06	90.98
10	91.22	90.79	90.58	90.91	90.92	91.08	91.41	91.23	90.70	90.94	91.05	90.96
11	91.25	90.77	90.56	90.91	91.02	91.07	91.46	91.21	90.75	90.91	91.04	90.99
12	91.23	90.74	90.54	90.91	91.01	91.06	91.47	91.18	90.73	90.93	91.02	91.05
13	91.22	90.72	90.54	90.92	90.99	91.05	91.45	91.16	90.70	91.11	91.00	91.04
14	91.21	90.70	90.53	90.91	90.98	91.04	91.44	91.15	90.67	91.17	91.02	91.01
15	91.21	90.68	90.51	90.91	90.97	91.03	91.42	91.12	90.64	91.24	91.06	91.00
16	91.20	90.70	90.50	90.92	90.97	91.01	91.41	91.10	90.61	91.25	91.05	91.02
17	91.19	90.68	90.50	90.92	90.97	91.00	91.39	91.07	90.60	91.25	91.03	91.03
18	91.18	90.66	90.58	90.92	90.96	91.00	91.38	91.04	90.68	91.25	91.04	91.01
19	91.18	90.64	90.60	90.92	90.95	90.98	91.36	91.01	90.66	91.25	91.09	91.01
20	91.16	90.62	90.63	90.93	90.95	90.98	91.36	90.98	90.64	91.24	91.07	90.99
21	91.14	90.60	90.66	90.93	90.97	90.96	91.34	90.95	90.62	91.24	91.06	90.96
22	91.12	90.58	90.67	90.94	91.01	90.94	91.32	90.93	90.65	91.26	91.04	90.95
23	91.11	90.61	90.76	90.94	91.14	90.93	91.32	90.91	90.86	91.27	91.06	90.93
24	91.10	90.61	90.75	90.94	91.20	90.91	91.33	90.88	90.92	91.27	91.07	90.90
25	91.07	90.59	90.74	90.94	91.19	90.90	91.31	90.85	90.95	91.25	91.06	90.88
26	91.06	90.60	90.73	90.95	91.18	90.88	91.29	90.82	91.02	91.24	91.04	90.85
27	91.06	90.59	90.72	90.95	91.17	90.88	91.26	90.80	91.18	91.22	91.06	90.81
28	91.05	90.57	90.71	90.94	91.16	90.86	91.28	90.78	91.18	91.21	91.15	90.83
29	91.04	90.57	90.69	90.95	---	90.85	91.40	90.76	91.17	91.19	91.12	90.95
30	91.01	90.56	90.68	90.95	---	91.02	91.39	90.72	91.15	91.17	91.11	91.07
31	90.99	---	90.67	90.95	---	91.51	---	90.69	---	91.15	91.11	

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237010 PALATLAKAHA RIVER AT STRUCTURE M-6, NEAR MASCOTTE, FL

LOCATION.--Lat 28°38'35", long 81°52'21", in SE¼ sec.23, T.21 S., R.24 E., Lake County, Hydrologic Unit 03080102, on right bank 50 ft upstream from control structure M-6, 1.5 mi west of State Highway 565, and 4.6 mi north of Mascotte.

DRAINAGE AREA.--186 mi².

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated at station by manipulation of gates in spillway.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 92.97 ft, Aug. 11, 1983; minimum unknown, below lowest recordable stage.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 91.74 ft, Mar. 31; minimum, 90.67 ft, Dec. 7,8.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91.16	91.18	90.75	90.88	91.16	91.37	91.73	91.59	90.87	91.34	91.32	91.29
2	91.20	91.15	90.74	90.88	91.16	91.36	91.73	91.57	90.89	91.33	91.30	91.28
3	91.20	91.13	90.72	90.89	91.16	91.36	91.72	91.55	91.01	91.31	91.28	91.30
4	91.19	91.10	90.70	90.90	91.16	91.35	91.70	91.53	91.00	91.30	91.28	91.29
5	91.18	91.08	90.69	91.03	91.14	91.34	91.69	91.51	90.97	91.28	91.29	91.26
6	91.22	91.06	90.68	91.06	91.13	91.33	91.68	91.49	90.94	91.25	91.26	91.24
7	91.28	91.03	90.68	91.07	91.13	91.32	91.66	91.47	90.93	91.23	91.24	91.22
8	91.33	91.01	90.70	91.10	91.12	91.31	91.65	91.44	90.92	91.20	91.24	91.20
9	91.37	91.01	90.80	91.11	91.12	91.30	91.64	91.43	90.91	91.18	91.26	91.19
10	91.41	91.00	90.78	91.12	91.13	91.30	91.63	91.44	90.91	91.15	91.24	91.15
11	91.44	90.98	90.77	91.12	91.22	91.28	91.67	91.42	90.95	91.11	91.24	91.20
12	91.45	90.96	90.77	91.12	91.21	91.27	91.67	91.39	90.93	91.14	91.22	91.24
13	91.43	90.94	90.75	91.12	91.21	91.26	91.66	91.37	90.91	91.31	91.21	91.24
14	91.43	90.92	90.74	91.12	91.20	91.25	91.65	91.35	90.88	91.37	91.22	91.21
15	91.42	90.91	90.73	91.12	91.19	91.24	91.64	91.33	90.85	91.44	91.26	91.21
16	91.42	90.92	90.72	91.13	91.19	91.23	91.62	91.31	90.82	91.45	91.25	91.23
17	91.41	90.90	90.71	91.13	91.18	91.22	91.61	91.28	90.80	91.45	91.23	91.22
18	91.40	90.88	90.80	91.13	91.17	91.20	91.58	91.25	90.88	91.45	91.20	91.21
19	91.39	90.86	90.82	91.14	91.17	91.20	91.57	91.22	90.88	91.45	---	91.20
20	91.37	90.84	90.84	91.14	91.15	91.18	91.57	91.19	90.85	91.44	---	91.19
21	91.35	90.82	90.86	91.14	91.17	91.16	91.55	91.16	90.84	91.44	---	91.16
22	91.34	90.81	90.87	91.14	91.23	91.15	91.53	91.14	90.86	91.46	---	91.15
23	91.32	90.83	90.95	91.14	91.34	91.13	91.53	91.12	91.07	91.48	---	91.13
24	91.30	90.82	90.95	91.15	91.40	91.12	91.54	91.09	91.13	91.47	---	91.10
25	91.29	90.81	90.95	91.15	91.39	91.11	91.52	91.06	91.15	91.45	---	91.07
26	91.27	90.81	90.94	91.15	91.38	91.10	91.50	91.03	91.22	91.44	---	91.05
27	91.26	90.81	90.93	91.15	91.37	91.08	91.48	91.01	91.38	91.41	---	91.02
28	91.25	90.79	90.92	91.15	91.37	91.07	91.50	90.99	91.39	91.40	---	91.05
29	91.23	90.78	90.91	91.16	---	91.06	91.61	90.97	91.38	91.40	---	91.18
30	91.22	90.76	90.90	91.16	---	91.22	91.60	90.93	91.36	91.37	---	91.25
31	91.20	---	90.90	91.16	---	91.72	---	90.90	---	91.35	91.31	---
MEAN	91.31	90.93	90.81	91.10	91.21	91.24	91.61	91.28	91.00	91.35	---	91.19
MAX	91.45	91.18	90.95	91.16	91.40	91.72	91.73	91.59	91.39	91.48	---	91.30
MIN	91.16	90.76	90.68	90.88	91.12	91.06	91.48	90.90	90.80	91.11	---	91.02

CAL YR 1989 MEAN 91.22 MAX 92.06 MIN 90.68

02237011 PALATLAHA RIVER BELOW STRUCTURE M-6, NEAR MASCOTTE, FL

DRAINAGE AREA.--186 mi².

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 91.90 ft, Mar. 30, 1987; minimum, 85.85 ft, May 31, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 88.77 ft, Mar. 30,31; minimum, 88.14 ft, Dec. 8.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88.44	88.46	88.23	88.20	88.21	88.35	88.62	88.40	88.22	88.51	88.48	88.53
2	88.47	88.44	88.22	88.19	88.22	88.34	88.57	88.39	88.23	88.51	88.48	88.52
3	88.46	88.43	88.21	88.19	88.22	88.34	88.54	88.38	88.26	88.50	88.48	88.54
4	88.45	88.42	88.19	88.18	88.25	88.34	88.52	88.37	88.26	88.50	88.49	88.51
5	88.61	88.41	88.18	88.25	88.27	88.33	88.50	88.36	88.25	88.49	88.50	88.50
6	88.75	88.40	88.17	88.24	88.27	88.34	88.49	88.36	88.25	88.48	88.49	88.51
7	88.75	88.39	88.16	88.25	88.27	88.34	88.48	88.35	88.25	88.47	88.48	88.51
8	88.75	88.38	88.17	88.30	88.27	88.33	88.47	88.34	88.24	88.46	88.49	88.50
9	88.76	88.38	88.23	88.30	88.27	88.33	88.46	88.33	88.24	88.46	88.50	88.49
10	88.75	88.38	88.22	88.30	88.28	88.33	88.45	88.33	88.25	88.44	88.50	88.48
11	88.76	88.36	88.22	88.29	88.30	88.32	88.49	88.31	88.27	88.42	88.49	88.48
12	88.76	88.35	88.21	88.28	88.30	88.32	88.48	88.31	88.25	88.42	88.49	88.46
13	88.76	88.34	88.20	88.27	88.29	88.31	88.45	88.30	88.24	88.59	88.48	88.44
14	88.76	88.32	88.19	88.27	88.29	88.31	88.43	88.29	88.22	88.62	88.50	88.42
15	88.76	88.31	88.18	88.27	88.28	88.31	88.42	88.28	88.21	88.67	88.51	88.41
16	88.73	88.33	88.18	88.27	88.29	88.31	88.42	88.28	88.20	88.68	88.50	88.42
17	88.68	88.32	88.17	88.26	88.29	88.31	88.45	88.33	88.19	88.64	88.49	88.42
18	88.65	88.31	88.20	88.24	88.29	88.31	88.45	88.32	88.23	88.61	88.49	88.41
19	88.63	88.32	88.20	88.23	88.29	88.31	88.45	88.32	88.23	88.58	88.50	88.40
20	88.60	88.31	88.21	88.23	88.29	88.30	88.45	88.31	88.23	88.56	88.50	88.40
21	88.56	88.29	88.21	88.22	88.29	88.29	88.44	88.30	88.23	88.54	88.49	88.39
22	88.52	88.28	88.22	88.22	88.30	88.29	88.44	88.29	88.26	88.54	88.48	88.38
23	88.51	88.30	88.26	88.22	88.38	88.28	88.44	88.30	88.43	88.54	88.49	88.38
24	88.53	88.30	88.26	88.22	88.38	88.28	88.43	88.29	88.42	88.51	88.50	88.44
25	88.53	88.28	88.26	88.21	88.37	88.29	88.43	88.28	88.40	88.50	88.49	88.44
26	88.52	88.29	88.25	88.21	88.36	88.29	88.42	88.27	88.48	88.48	88.49	88.44
27	88.51	88.28	88.25	88.21	88.35	88.29	88.41	88.27	88.66	88.47	88.51	88.44
28	88.51	88.26	88.25	88.21	88.35	88.29	88.43	88.26	88.58	88.45	88.57	88.45
29	88.49	88.25	88.24	88.21	---	88.29	88.46	88.25	88.54	88.45	88.55	88.51
30	88.48	88.24	88.23	88.21	---	88.41	88.43	88.24	88.52	88.48	88.53	88.55
31	88.47	---	88.22	88.21	---	88.73	---	88.22	---	88.48	88.54	

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237050 PALATLAKAHA RIVER AT STRUCTURE M-5, NEAR OKAHUMPKA, FL

LOCATION.--Lat 28°40'43", long 81°53'05", in NW¼ sec.11, T.21 S., R.24 E., Lake County, Hydrologic Unit 03080102, on right bank 50 ft upstream from control structure M-5, 325 ft upstream from Bridges Road, 1.9 mi west of U.S. Highway 27, and 4.8 mi south of Okahumpka.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated at station by manipulation of gates in spillway.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 90.59 ft, Aug. 14, 1983; minimum, 82.96 ft, May 31, 1981, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 88.94 ft, Oct. 12; minimum, 87.40 ft, June 1.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88.10	88.19	87.81	87.90	87.75	88.09	88.40	88.13	87.42	88.19	88.03	88.11
2	88.11	88.17	87.79	87.90	87.74	88.08	88.40	88.10	87.56	88.18	88.01	88.10
3	88.12	88.15	87.76	87.88	87.73	88.06	88.37	88.07	87.73	88.16	87.99	88.08
4	88.10	88.13	87.74	87.87	87.72	88.05	88.34	88.03	87.73	88.14	87.98	88.06
5	88.09	88.11	87.72	87.95	87.70	88.03	88.31	88.00	87.71	88.12	87.97	88.04
6	88.12	88.09	87.70	87.96	87.68	88.02	88.29	87.98	87.69	88.10	87.96	88.01
7	88.29	88.07	87.69	87.96	87.68	88.01	88.27	87.94	87.71	88.07	87.94	88.00
8	88.52	88.05	87.70	87.99	87.68	87.99	88.25	87.91	87.70	88.05	87.94	87.97
9	88.67	88.06	87.78	87.99	87.67	87.98	88.23	87.89	87.68	88.02	87.95	87.94
10	88.80	88.06	87.77	87.98	87.71	87.96	88.21	87.89	87.69	88.00	87.94	87.90
11	88.89	88.04	87.76	87.98	87.87	87.95	88.24	87.87	87.74	87.98	87.95	87.90
12	88.93	88.02	87.75	87.97	87.88	87.93	88.24	87.84	87.74	88.02	87.98	87.89
13	88.87	88.01	87.74	87.95	87.88	87.92	88.22	87.82	87.71	88.23	87.97	87.87
14	88.79	87.99	87.73	87.94	87.88	87.91	88.19	87.79	87.68	88.29	87.98	87.84
15	88.72	87.97	87.71	87.93	87.88	87.90	88.17	87.77	87.65	88.39	88.00	87.81
16	88.67	87.97	87.70	87.93	87.87	87.88	88.15	87.74	87.62	88.45	88.00	87.83
17	88.61	87.95	87.69	87.92	87.86	87.87	88.13	87.71	87.59	88.42	87.98	87.85
18	88.58	87.93	87.75	87.91	87.85	87.86	88.11	87.69	87.62	88.39	87.98	87.82
19	88.57	87.91	87.77	87.90	87.85	87.85	88.10	87.67	87.60	88.38	88.01	87.80
20	88.51	87.89	87.81	87.90	87.84	87.83	88.09	87.64	87.57	88.34	87.99	87.78
21	88.47	87.87	87.84	87.88	87.85	87.81	88.08	87.63	87.56	88.31	87.98	87.76
22	88.43	87.86	87.85	87.87	87.92	87.79	88.06	87.61	87.61	88.30	87.96	87.73
23	88.38	87.89	87.92	87.85	88.06	87.78	88.06	87.60	87.89	88.27	87.97	87.70
24	88.35	87.89	87.92	87.84	88.13	87.77	88.06	87.58	88.01	88.25	87.99	87.68
25	88.32	87.88	87.94	87.83	88.13	87.75	88.04	87.55	88.06	88.22	87.99	87.66
26	88.30	87.89	87.94	87.81	88.11	87.74	88.01	87.53	88.09	88.19	87.98	87.63
27	88.28	87.89	87.94	87.80	88.11	87.73	87.99	87.52	88.22	88.16	88.01	87.60
28	88.26	87.88	87.93	87.79	88.10	87.72	88.02	87.51	88.25	88.13	88.10	87.62
29	88.23	87.86	87.93	87.78	---	87.71	88.16	87.49	88.24	88.11	88.11	87.70
30	88.22	87.83	87.92	87.77	---	87.83	88.15	87.46	88.21	88.08	88.11	87.80
31	88.21	---	87.92	87.76	---	88.31	---	87.43	---	88.05	88.13	---
MEAN	88.44	87.98	87.80	87.89	87.86	87.91	88.18	87.75	87.78	88.19	88.00	87.85
MAX	88.93	88.19	87.94	87.99	88.13	88.31	88.40	88.13	88.25	88.45	88.13	88.11
MIN	88.09	87.83	87.69	87.76	87.67	87.71	87.99	87.43	87.42	87.98	87.94	87.60
CAL YR 1989	MEAN 88.11	MAX 88.94	MIN 86.94									
WTR YR 1990	MEAN 87.97	MAX 88.93	MIN 87.42									

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237051 PALATLAKAHA RIVER BELOW STRUCTURE M-5, NEAR OKAHUMPKA, FL

LOCATION.--Lat 28°40'45", long 81°53'05", in NW¼ sec.11, T.21 S., R.24 E., Lake County, Hydrologic Unit 03080102, on right bank 150 ft downstream from control structure M-5, 125 ft upstream from Bridges Road, 1.9 mi west of U.S. Highway 27, and 4.8 mi south of Okahumpka.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 87.50 ft, Feb. 23, 1983; minimum, 81.18 ft, May 31, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 84.53 ft, July 15; minimum, 83.88 ft, June 1.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84.26	84.27	84.17	84.18	84.13	84.23	84.31	84.27	83.91	84.30	84.30	84.23
2	84.27	84.26	84.16	84.18	84.12	84.22	84.29	84.26	84.15	84.31	84.30	84.26
3	84.26	84.26	84.15	84.18	84.12	84.22	84.28	84.25	84.23	84.32	84.27	84.28
4	84.26	84.25	84.14	84.18	84.11	84.21	84.27	84.24	84.17	84.31	84.28	84.28
5	84.25	84.25	84.13	84.23	84.10	84.21	84.26	84.24	84.14	84.30	84.27	84.29
6	84.24	84.24	84.12	84.21	84.09	84.21	84.26	84.23	84.14	84.29	84.27	84.29
7	84.26	84.22	84.11	84.19	84.09	84.21	84.26	84.21	84.17	84.28	84.26	84.28
8	84.28	84.20	84.14	84.21	84.09	84.21	84.26	84.21	84.14	84.27	84.27	84.28
9	84.30	84.24	84.19	84.20	84.05	84.19	84.26	84.19	84.13	84.27	84.28	84.28
10	84.31	84.25	84.16	84.19	84.08	84.19	84.26	84.21	84.12	84.26	84.27	84.26
11	84.32	84.24	84.15	84.19	84.23	84.20	84.29	84.21	84.15	84.26	84.27	84.24
12	84.32	84.23	84.15	84.18	84.19	84.18	84.28	84.20	84.15	84.31	84.24	84.25
13	84.32	84.23	84.14	84.18	84.17	84.18	84.27	84.19	84.13	84.43	84.21	84.25
14	84.32	84.22	84.13	84.18	84.17	84.19	84.26	84.18	84.12	84.41	84.21	84.22
15	84.32	84.22	84.12	84.18	84.17	84.19	84.26	84.17	84.10	84.46	84.22	84.23
16	84.32	84.23	84.12	84.18	84.17	84.18	84.26	84.15	84.08	84.45	84.21	84.25
17	84.30	84.22	84.11	84.17	84.16	84.19	84.25	84.11	84.07	84.40	84.19	84.25
18	84.29	84.21	84.18	84.17	84.16	84.20	84.25	84.09	84.11	84.39	84.19	84.25
19	84.31	84.20	84.18	84.17	84.16	84.18	84.25	84.08	84.09	84.39	84.20	84.24
20	84.30	84.20	84.20	84.16	84.16	84.17	84.26	84.08	84.07	84.37	84.18	84.21
21	84.30	84.19	84.21	84.16	84.18	84.16	84.25	84.06	84.06	84.37	84.17	84.21
22	84.29	84.18	84.19	84.16	84.21	84.16	84.24	84.07	84.11	84.38	84.17	84.19
23	84.29	84.22	84.25	84.15	84.31	84.15	84.25	84.08	84.35	84.36	84.19	84.18
24	84.29	84.22	84.21	84.15	84.28	84.15	84.25	84.07	84.32	84.35	84.19	84.15
25	84.28	84.20	84.20	84.15	84.25	84.14	84.24	84.04	84.31	84.34	84.17	84.10
26	84.28	84.21	84.20	84.15	84.24	84.14	84.23	84.02	84.32	84.34	84.16	84.05
27	84.28	84.20	84.19	84.14	84.23	84.11	84.22	84.01	84.35	84.34	84.20	84.04
28	84.28	84.20	84.19	84.14	84.23	84.09	84.27	84.01	84.32	84.33	84.25	84.06
29	84.27	84.19	84.19	84.13	---	84.10	84.34	83.99	84.31	84.33	84.21	84.16
30	84.27	84.18	84.19	84.13	---	84.22	84.29	83.96	84.30	84.31	84.20	84.26
31	84.27	---	84.18	84.13	---	84.38	---	83.93	---	84.31	84.20	---
MEAN	84.29	84.22	84.17	84.17	84.17	84.19	84.26	84.13	84.17	84.34	84.23	84.22
MAX	84.32	84.27	84.25	84.23	84.31	84.38	84.34	84.27	84.35	84.46	84.30	84.29
MIN	84.24	84.18	84.11	84.13	84.05	84.09	84.22	83.93	83.91	84.26	84.16	84.04
CAL YR 1989	MEAN 84.38											
WTR YR 1990	MEAN 84.21											
			MAX 86.72	MIN 83.12								
			MAX 84.46	MIN 83.91								

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237206 PALATLAKAHA RIVER AT STRUCTURE M-4, NEAR OKAHUMPKA, FL

LOCATION.--Lat 28°42'53", long 81°53'04", in SW¼ sec.26, T.20 S., R.24 E., Lake County, Hydrologic Unit 03080102, on right bank 50 ft upstream from control structure M-4, 1.4 mi west of U.S. Highway 27, and 2.3 mi south of Okahumpka.

DRAINAGE AREA.--208 mi².

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated at station by manipulation of gates in spillway.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 86.81 ft, Feb. 23, 1983; minimum unknown, below lowest recordable stage May 28 to June 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 83.97 ft, July 21; minimum, 82.64 ft, June 22.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83.88	83.35	83.12	83.30	83.13	83.45	83.46	83.35	82.68	83.25	83.76	83.44
2	83.87	83.33	83.11	83.29	83.12	83.45	83.47	83.33	82.74	83.24	83.74	83.41
3	83.85	83.32	83.09	83.28	83.11	83.44	83.47	83.31	82.80	83.24	83.72	83.39
4	83.82	83.30	83.07	83.27	83.10	83.43	83.46	83.29	82.83	83.23	83.72	83.37
5	83.79	83.28	83.05	83.33	83.07	83.42	83.45	83.27	82.84	83.21	83.70	83.37
6	83.77	83.26	83.04	83.35	83.06	83.41	83.45	83.25	82.85	83.20	83.67	83.34
7	83.74	83.25	83.03	83.35	83.05	83.40	83.44	83.22	82.89	83.20	83.64	83.31
8	83.72	83.23	83.04	83.37	83.04	83.39	83.42	83.20	82.89	83.17	83.63	83.29
9	83.70	83.24	83.11	83.37	83.03	83.38	83.41	83.18	82.90	83.15	83.63	83.26
10	83.68	83.24	83.10	83.35	83.05	83.36	83.41	83.20	82.88	83.12	83.61	83.24
11	83.66	83.23	83.10	83.35	83.20	83.34	83.43	83.18	82.87	83.09	83.59	83.22
12	83.64	83.21	83.10	83.34	83.20	83.33	83.44	83.15	82.88	83.14	83.59	83.22
13	83.63	83.20	83.09	83.32	83.21	83.32	83.42	83.13	82.85	83.38	83.57	83.19
14	83.61	83.18	83.08	83.31	83.21	83.30	83.42	83.11	82.82	83.46	83.56	83.17
15	83.60	83.17	83.07	83.30	83.21	83.29	83.40	83.08	82.79	83.62	83.57	83.15
16	83.58	83.20	83.06	83.29	83.20	83.28	83.39	83.06	82.76	83.77	83.56	83.14
17	83.56	83.19	83.05	83.28	83.19	83.27	83.37	83.03	82.74	83.79	83.53	83.13
18	83.56	83.17	83.10	83.27	83.18	83.26	83.35	83.00	82.75	83.80	83.51	83.12
19	83.57	83.15	83.13	83.26	83.17	83.25	83.34	82.98	82.74	83.82	83.51	83.09
20	83.54	83.14	83.17	83.26	83.16	83.23	83.35	82.95	82.71	83.81	83.48	83.07
21	83.52	83.12	83.20	83.25	83.17	83.20	83.33	82.93	82.68	83.83	83.46	83.05
22	83.50	83.11	83.22	83.23	83.23	83.19	83.31	82.91	82.68	83.94	83.44	83.03
23	83.48	83.14	83.29	83.22	83.37	83.17	83.30	82.91	82.91	83.93	83.44	83.01
24	83.46	83.16	83.31	83.21	83.44	83.16	83.29	82.88	83.01	83.91	83.45	82.98
25	83.44	83.16	83.33	83.20	83.45	83.14	83.27	82.86	83.09	83.89	83.42	82.95
26	83.42	83.17	83.33	83.18	83.45	83.12	83.25	82.83	83.19	83.87	83.40	82.93
27	83.41	83.17	83.33	83.17	83.45	83.10	83.23	82.81	83.26	83.86	83.42	82.91
28	83.39	83.17	83.32	83.17	83.45	83.09	83.24	82.80	83.28	83.84	83.52	82.89
29	83.37	83.16	83.32	83.16	---	83.07	83.34	82.77	83.28	83.83	83.51	82.92
30	83.36	83.13	83.31	83.15	---	83.13	83.35	82.74	83.27	83.81	83.48	82.98
31	83.36	---	83.31	83.14	---	83.40	---	82.71	---	83.78	83.47	---
MEAN	83.60	83.20	83.16	83.27	83.20	83.28	83.38	83.05	82.90	83.55	83.56	83.15
MAX	83.88	83.35	83.33	83.37	83.45	83.45	83.47	83.35	83.28	83.94	83.76	83.44
MIN	83.36	83.11	83.03	83.14	83.03	83.07	83.23	82.71	82.68	83.09	83.40	82.89
CAL YR 1989	MEAN	83.72	MAX	84.76	MIN	82.48						
WTR YR 1990	MEAN	83.28	MAX	83.94	MIN	82.68						

02237207 PALATLAHAHA RIVER BELOW STRUCTURE M-4, NEAR OKAHUMPKA, FL

DRAINAGE AREA.--208 mi².

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 80.26 ft, July 15; minimum, 79.43 ft, June 1.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80.17	80.06	79.96	80.05	79.88	79.96	79.95	79.94	79.44	79.90	80.14	80.11
2	80.17	80.05	79.95	80.04	79.88	79.96	79.96	79.95	79.53	79.90	80.14	80.14
3	80.17	80.04	79.93	80.05	79.86	79.95	79.96	79.93	79.54	79.90	80.14	80.17
4	80.17	80.04	79.91	80.05	79.83	79.95	79.95	79.90	79.54	79.90	80.15	80.16
5	80.17	80.03	79.90	80.08	79.81	79.95	79.95	79.89	79.54	79.92	80.15	80.15
6	80.16	80.02	79.89	80.07	79.80	79.95	79.95	79.88	79.53	79.92	80.15	80.11
7	80.16	80.01	79.88	80.07	79.79	79.95	79.94	79.87	79.60	79.93	80.14	80.11
8	80.15	80.01	79.90	80.07	79.79	79.94	79.93	79.86	79.63	79.92	80.15	80.10
9	80.14	80.02	79.94	80.07	79.78	79.94	79.92	79.85	79.62	79.91	80.15	80.09
10	80.14	80.02	79.94	80.07	79.78	79.93	79.92	79.86	79.59	79.89	80.15	80.06
11	80.14	80.01	79.94	80.07	79.88	79.93	79.94	79.84	79.55	79.87	80.15	80.06
12	80.13	80.00	79.94	80.06	79.88	79.93	79.94	79.83	79.56	79.91	80.13	80.03
13	80.12	80.00	79.93	80.05	79.89	79.92	79.93	79.82	79.55	80.03	80.13	80.01
14	80.12	79.99	79.93	80.05	79.89	79.90	79.93	79.81	79.52	80.05	80.15	80.00
15	80.12	79.98	79.92	80.05	79.88	79.87	79.95	79.80	79.50	80.10	80.15	79.96
16	80.12	80.01	79.91	80.05	79.87	79.89	79.95	79.76	79.47	80.11	80.15	79.95
17	80.12	80.00	79.90	80.03	79.84	79.89	79.95	79.69	79.46	80.12	80.15	79.96
18	80.12	79.99	79.95	80.02	79.82	79.87	79.95	79.67	79.51	80.13	80.15	79.94
19	80.13	79.98	79.97	80.00	79.82	79.86	79.95	79.65	79.50	80.14	80.15	79.90
20	80.12	79.97	80.00	79.99	79.80	79.84	79.95	79.63	79.48	80.14	80.15	79.88
21	80.12	79.96	80.02	79.98	79.80	79.83	79.94	79.61	79.46	80.16	80.14	79.85
22	80.11	79.95	80.03	79.97	79.82	79.83	79.93	79.59	79.48	80.16	80.14	79.84
23	80.11	79.99	80.06	79.96	79.90	79.82	79.94	79.60	79.64	80.15	80.15	79.81
24	80.10	80.00	80.06	79.95	79.95	79.80	79.92	79.58	79.68	80.15	80.15	79.79
25	80.10	79.99	80.07	79.94	79.94	79.79	79.90	79.55	79.77	80.15	80.14	79.77
26	80.09	80.01	80.08	79.92	79.95	79.78	79.88	79.52	79.84	80.15	80.12	79.76
27	80.09	80.01	80.07	79.91	79.95	79.76	79.86	79.51	79.89	80.15	80.13	79.73
28	80.08	80.00	80.07	79.91	79.95	79.76	79.86	79.51	79.91	80.14	80.16	79.70
29	80.07	79.98	80.07	79.90	---	79.75	79.90	79.48	79.91	80.15	80.15	79.72
30	80.07	79.96	80.06	79.89	---	79.80	79.95	79.47	79.91	80.15	80.14	79.80
31	80.07	---	80.06	79.88	---	79.92	---	79.45	---	80.14	80.13	

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237293 PALATLAKA RIVER AT STRUCTURE M-1, NEAR OKAHUMPKA, FL

LOCATION.--Lat 28°44'39", Long 81°52'22", in SE¼ sec.14, T.20 S., R.24 E., Lake County, Hydrologic Unit 03080102, on left bank 150 ft upstream from structure M-1, 270 ft downstream from Seaboard Coast Line Railroad bridge, 0.3 mi upstream from bridge on State Highway 48, and 1.4 mi east of Okahumpka.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--January 1970 to July 1976, October 1976 to current year.

REVISED RECORDS.--WDR FL-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 21-26, Jan. 28-31, June 21 to July 2. Records fair. Flow regulated by manipulation of gates in spillway. Discharge computed from relation between discharge and gate openings.

COOPERATION.--Gate-opening record provided by the Oklawaha Basin Recreation and Water Conservation and Control Authority.

AVERAGE DISCHARGE.--19 years (water years 1971-75, 1977-90), 18.7 ft³/s, 1.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 486 ft³/s, Mar. 12, 1970; maximum gage height, 74.18 ft, Apr. 3, 1970; no flow for many days in most years; minimum gage height, 66.26 ft, June 24,25, 1985, gates opened for structure repairs.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4.3 ft³/s, July 16; maximum gage height, 71.23 ft, July 16; no flow May 22 to June 24; minimum gage height, 69.50 ft, June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.5	1.2	1.8	.84	1.7	2.1	1.1	.00	1.3	2.7	2.4
2	2.1	1.4	1.2	1.8	.84	1.7	1.8	1.1	.00	1.2	2.5	2.1
3	2.2	1.3	1.1	1.7	.84	1.7	1.7	.84	.00	1.2	2.5	2.0
4	2.0	1.2	1.0	1.7	.84	1.6	1.5	.74	.00	1.1	2.6	1.8
5	2.0	1.2	.94	2.2	.87	1.5	1.3	.74	.00	1.1	2.5	1.7
6	1.8	1.1	.91	2.3	.80	1.5	1.2	.84	.00	.98	2.3	1.5
7	1.8	1.1	.87	2.1	.77	1.5	1.2	.70	.00	.94	2.2	1.3
8	1.8	1.1	.94	2.1	.77	1.4	1.1	.45	.00	.87	2.1	1.2
9	1.8	1.2	1.4	2.1	.77	1.4	1.1	.39	.00	.77	2.2	1.1
10	1.7	1.3	1.5	2.0	.87	1.4	.98	.60	.00	.70	2.2	.98
11	1.7	1.2	1.5	2.0	1.7	1.3	1.1	.94	.00	.67	2.2	1.0
12	1.7	1.1	1.5	2.0	1.5	1.3	1.1	.98	.00	.98	2.1	1.1
13	1.6	1.1	1.5	1.9	1.3	1.3	1.1	.98	.00	3.3	2.0	1.1
14	1.5	1.0	1.4	1.9	1.2	1.3	.98	.87	.00	3.2	2.0	1.0
15	1.5	1.0	1.2	1.8	1.1	1.2	.98	.77	.00	3.4	2.1	.91
16	1.5	1.2	1.1	1.8	1.1	1.2	.98	.60	.00	4.3	2.1	.94
17	1.5	1.3	.98	1.8	1.1	1.2	.98	.33	.00	3.7	2.0	1.0
18	1.6	1.2	1.2	1.8	1.0	1.2	.91	.20	.00	3.4	1.9	.91
19	1.9	1.1	1.4	1.7	.98	1.2	.87	.18	.00	3.2	2.0	.84
20	1.7	1.1	1.6	1.8	.91	1.2	1.1	.16	.00	3.1	1.9	.74
21	1.6	.94	1.7	1.8	.94	1.2	1.2	.05	.00	3.1	1.9	.67
22	1.5	.91	1.8	1.7	1.1	1.1	1.2	.00	.00	3.7	1.8	.57
23	1.5	1.2	2.3	.87	1.8	1.1	1.1	.00	.00	3.9	2.0	.51
24	1.4	1.4	2.3	.98	2.2	1.1	1.1	.00	.00	3.7	2.2	.39
25	1.4	1.3	2.1	.98	2.0	1.1	1.0	.00	.02	3.5	2.1	.30
26	1.4	1.5	2.1	.98	1.9	1.1	.77	.00	1.2	3.4	1.9	.28
27	1.5	1.5	2.0	.91	1.8	.98	.70	.00	1.5	3.3	2.0	.24
28	1.5	1.5	2.0	.87	1.7	.94	.77	.00	1.6	3.1	2.9	.22
29	1.4	1.4	1.9	.87	---	.87	1.1	.00	1.5	3.1	2.9	.26
30	1.4	1.3	1.9	.87	---	1.1	1.1	.00	1.4	2.9	2.8	.45
31	1.5	---	1.9	.87	---	2.2	---	.00	---	2.8	2.5	---
TOTAL	51.6	36.65	46.44	50.00	33.54	40.59	34.12	13.56	7.22	75.91	69.1	29.51
MEAN	1.66	1.22	1.50	1.61	1.20	1.31	1.14	.44	.24	2.45	2.23	.98
MAX	2.2	1.5	2.3	2.3	2.2	2.2	2.1	1.1	1.6	4.3	2.9	2.4
MIN	1.4	.91	.87	.87	.77	.87	.70	.00	.00	.67	1.8	.22
CFSM	.01	.01	.01	.01	.01	.01	.01	.00	.00	.01	.01	.00
IN.	.01	.01	.01	.01	.01	.01	.01	.00	.00	.01	.01	.00

CAL YR 1989 TOTAL 3845.52 MEAN 10.5 MAX 207 MIN .00 CFSM .05 IN. .65
WTR YR 1990 TOTAL 488.24 MEAN 1.34 MAX 4.3 MIN .00 CFSM .01 IN. .08

02237293 PALATLAKAHA RIVER AT STRUCTURE M-1, NEAR OKAHUMPKA, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.67	70.54	70.47	70.61	70.37	70.59	70.67	70.43	69.66	70.49	70.78	70.73
2	70.68	70.52	70.46	70.60	70.37	70.58	70.61	70.43	69.71	70.48	70.75	70.68
3	70.69	70.49	70.43	70.59	70.37	70.58	70.58	70.37	69.73	70.46	70.75	70.66
4	70.66	70.48	70.42	70.59	70.37	70.57	70.54	70.34	69.71	70.45	70.77	70.61
5	70.64	70.46	70.40	70.70	70.38	70.55	70.50	70.34	69.68	70.44	70.75	70.58
6	70.61	70.45	70.39	70.71	70.36	70.54	70.48	70.37	69.66	70.41	70.72	70.53
7	70.60	70.44	70.38	70.68	70.35	70.53	70.46	70.33	69.67	70.40	70.70	70.49
8	70.61	70.43	70.40	70.68	70.35	70.52	70.44	70.25	69.68	70.38	70.68	70.47
9	70.60	70.47	70.52	70.68	70.35	70.51	70.43	70.23	69.71	70.35	70.69	70.44
10	70.58	70.50	70.55	70.66	70.38	70.51	70.41	70.30	69.70	70.33	70.70	70.41
11	70.58	70.47	70.53	70.65	70.58	70.50	70.43	70.40	69.71	70.32	70.70	70.42
12	70.58	70.45	70.53	70.64	70.55	70.50	70.44	70.41	69.74	70.41	70.68	70.45
13	70.56	70.43	70.53	70.63	70.49	70.50	70.43	70.41	69.71	70.96	70.65	70.44
14	70.55	70.42	70.51	70.62	70.46	70.50	70.41	70.38	69.67	70.93	70.65	70.42
15	70.55	70.42	70.46	70.61	70.45	70.48	70.41	70.35	69.63	70.99	70.68	70.39
16	70.55	70.47	70.43	70.61	70.44	70.48	70.41	70.30	69.60	71.20	70.68	70.40
17	70.55	70.49	70.41	70.61	70.43	70.47	70.41	70.21	69.58	71.13	70.66	70.42
18	70.56	70.47	70.48	70.60	70.42	70.48	70.39	70.15	69.60	71.02	70.63	70.39
19	70.62	70.44	70.52	70.59	70.41	70.48	70.38	70.14	69.59	70.94	70.64	70.37
20	70.59	70.43	70.56	70.60	70.39	70.47	70.45	70.13	69.57	70.90	70.63	70.34
21	70.57	70.40	70.59	70.61	70.40	70.46	70.47	70.08	69.53	70.91	70.63	70.32
22	70.55	70.39	70.61	70.46	70.43	70.45	70.46	69.98	69.51	71.13	70.61	70.29
23	70.53	70.47	70.72	70.38	70.60	70.44	70.45	69.88	69.74	71.17	70.66	70.27
24	70.52	70.51	70.71	70.41	70.69	70.43	70.44	69.79	69.92	71.10	70.70	70.23
25	70.51	70.50	70.68	70.41	70.65	70.43	70.42	69.76	70.11	71.04	70.67	70.20
26	70.52	70.55	70.67	70.41	70.62	70.43	70.35	69.76	70.46	70.99	70.63	70.19
27	70.53	70.54	70.66	70.39	70.60	70.41	70.33	69.76	70.54	70.96	70.65	70.17
28	70.53	70.53	70.64	70.38	70.59	70.40	70.35	69.76	70.56	70.91	70.85	70.16
29	70.51	70.52	70.63	70.38	---	70.38	70.44	69.71	70.53	70.91	70.85	70.18
30	70.51	70.50	70.62	70.38	---	70.43	70.45	69.69	70.51	70.85	70.80	70.25
31	70.54	---	70.62	70.38	---	70.69	---	69.68	---	70.81	70.75	

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237700 APOPKA-BEAUCLAIR CANAL NEAR ASTATULA, FL

LOCATION.--Lat 28°43'20", long 81°41'06", in NW¼ sec.26, T.20 S., R.26 E., Lake County, Hydrologic Unit 03080102, near left bank 80 ft upstream from lock and dam, 500 ft upstream from bridge on county road 48, and 3.0 mi (revised) east of Astatula.

DRAINAGE AREA.--184 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1942 to June 1948, discharge measurements only at site 1.5 mi downstream, July 1958 to current year.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to June 1948, nonrecording gage at site 1.5 mi downstream at datum 60.68 ft higher. March to June 1958, nonrecording gage at present site and datum. Since July 1958, auxiliary water-stage recorder at downstream side of lock and dam at same datum.

REMARKS.--Records fair. Since May 1956, flow regulated at station by manipulation of gates in spillway. Discharge computed from relation between discharge, head, and gate openings.

COOPERATION.--Gate-opening record provided by St. Johns River Water Management District.

AVERAGE DISCHARGE.--32 years (water years 1959-90), 76.4 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 754 ft³/s, Mar. 19, 1960; maximum gage height, 68.48 ft, Oct. 6, 1960; no flow for many days in 1964-66, 1968-69, 1971-72, 1974; minimum gage height, 63.70 ft, May 13, 1971, affected by wind.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 37 ft³/s, Mar. 10; maximum gage height, 67.13 ft, Feb. 23, affected by wind; minimum daily discharge, 30 ft³/s, May 22,23,27-31, June 1-3; minimum gage height, 65.32 ft, June 2, affected by wind.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	34	33	35	35	36	35	33	30	32	33	34
2	35	34	33	35	35	36	35	33	30	31	33	34
3	35	34	32	35	35	36	34	33	30	31	34	34
4	35	34	33	35	35	36	34	33	31	31	33	34
5	35	34	33	36	34	36	34	32	31	31	34	34
6	35	34	33	35	35	36	34	32	31	31	33	33
7	35	34	33	35	34	36	34	32	31	31	33	33
8	35	34	33	35	34	36	34	32	31	31	34	34
9	35	34	33	35	35	36	34	32	31	31	34	33
10	35	34	33	35	35	37	34	32	31	31	34	33
11	35	34	34	35	35	36	34	31	31	31	34	33
12	35	34	34	35	35	35	33	32	32	31	34	33
13	35	34	33	35	35	35	34	32	32	33	34	33
14	35	34	33	35	35	35	34	31	31	33	34	33
15	35	34	34	35	35	36	34	31	31	33	34	33
16	35	33	33	35	35	36	33	31	31	33	34	33
17	35	33	33	35	35	36	33	31	31	33	34	33
18	35	33	34	35	36	35	33	31	31	33	34	33
19	34	33	34	35	35	35	33	31	31	33	34	32
20	33	33	34	35	35	34	33	31	31	33	34	32
21	34	33	34	35	35	34	33	31	31	33	34	32
22	34	33	34	35	35	35	33	30	31	33	34	32
23	34	33	34	35	36	35	33	30	31	33	34	32
24	34	33	34	35	35	35	33	31	31	33	34	32
25	34	34	35	35	36	34	33	31	31	33	34	32
26	34	33	35	34	36	34	33	31	32	33	34	32
27	34	33	35	35	36	34	33	30	32	33	34	32
28	33	33	35	35	36	34	33	30	32	33	34	32
29	33	33	35	35	---	34	33	30	32	33	34	32
30	34	33	35	35	---	35	33	30	32	33	34	34
31	34	---	35	35	---	35	---	30	---	33	34	---
TOTAL	1069	1006	1046	1085	983	1093	1006	970	934	1000	1049	986
MEAN	34.5	33.5	33.7	35.0	35.1	35.3	33.5	31.3	31.1	32.3	33.8	32.9
MAX	35	34	35	36	36	37	35	33	32	33	34	34
MIN	33	33	32	34	34	34	33	30	30	31	33	32

CAL YR 1989 TOTAL 15076 MEAN 41.3 MAX 160 MIN 32
WTR YR 1990 TOTAL 12227 MEAN 33.5 MAX 37 MIN 30

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN
02237700 APOFKA-BEAUCLAIR CANAL NEAR ASTATULA, FL--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-73, 1975-83, 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT									
11...	1330	66.70	--	--	--	--	0.010	0.010	0.030
30...	1055	66.52	379	--	21.0	6.9	0.010	<0.010	0.020
NOV									
15...	0925	66.44	403	--	23.0	7.4	0.010	<0.010	<0.020
30...	1030	66.26	426	8.4	19.5	6.8	<0.010	<0.010	<0.020
DEC									
12...	1045	66.50	418	8.0	15.0	7.7	0.010	0.010	0.060
JAN									
04...	1115	66.70	414	7.9	16.0	7.7	0.050	0.050	0.800
16...	1145	66.64	450	7.8	15.0	9.4	0.050	0.050	0.410
16...	1150	66.64	450	7.8	15.0	9.4	0.050	0.050	0.410
FEB									
02...	1015	66.81	440	8.4	22.0	6.3	0.010	<0.010	0.020
14...	0935	66.80	451	7.7	19.5	5.2	0.010	0.010	0.050
27...	1155	67.04	461	--	17.0	--	0.040	0.030	0.660
MAR									
15...	1000	66.91	450	8.3	25.5	5.2	0.010	<0.010	<0.020
28...	1100	66.60	456	8.7	23.5	6.9	0.010	<0.010	0.020
APR									
12...	1200	66.50	501	8.0	22.0	5.3	0.010	0.010	<0.020
24...	1205	66.40	467	8.0	25.5	6.2	0.010	<0.010	<0.020
MAY									
07...	1415	66.12	407	--	27.5	10.4	0.010	<0.010	<0.020
23...	1045	65.90	406	9.0	27.5	6.6	0.010	0.010	<0.020
JUN									
12...	1130	66.10	409	8.3	29.0	7.7	0.010	<0.010	<0.020
27...	1020	66.20	545	7.5	28.0	4.0	0.140	0.140	1.30
JUL									
13...	1015	66.32	419	--	29.0	3.3	<0.010	<0.010	<0.020
31...	1100	66.40	459	--	30.0	3.9	0.030	0.020	0.130
AUG									
14...	1045	66.52	421	7.7	30.0	4.4	0.010	<0.010	<0.020
29...	1300	--	431	8.1	31.0	5.4	<0.010	<0.010	<0.020
SEP									
06...	1045	66.44	424	8.4	29.0	5.5	0.010	<0.010	<0.020
20...	0915	66.20	414	--	27.5	5.8	<0.010	<0.010	<0.020

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

2237700 APOPKA-BEAUCLAIR CANAL NEAR ASTATULA, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	
OCT											
11...		0.040	0.020	0.040	3.4	2.0	0.220	0.060	0.080	0.050	
30...		0.020	0.010	0.010	4.6	1.7	0.200	0.020	0.060	<0.010	
NOV											
15...		<0.020	0.010	0.010	3.0	1.9	0.120	<0.020	0.020	<0.010	
30...		<0.020	0.020	0.020	3.8	1.7	0.160	<0.020	0.070	0.020	
DEC											
12...		0.080	0.020	0.020	3.7	1.9	0.180	0.020	0.050	0.010	
JAN											
04...		0.810	0.260	0.270	3.1	1.9	0.160	<0.020	0.060	0.010	
16...		0.410	0.160	0.150	3.4	2.1	0.730	0.470	0.540	0.480	
16...		0.410	0.160	0.150	3.4	1.9	0.750	0.470	0.570	0.460	
FEB											
02...		0.030	0.010	0.030	3.6	1.9	0.240	<0.020	0.080	0.010	
14...		0.040	0.030	0.020	3.8	1.8	0.420	0.150	0.200	0.140	
27...		0.660	0.170	0.170	4.1	2.2	0.360	0.170	0.210	0.170	
MAR											
15...		<0.020	<0.010	<0.010	5.0	1.8	0.260	0.030	0.090	0.010	
28...		0.050	<0.010	0.030	5.4	2.3	0.200	<0.020	0.060	0.010	
APR											
12...		0.020	0.010	0.020	3.7	2.3	0.250	0.030	0.090	0.010	
24...		<0.020	0.010	0.010	4.1	2.0	0.200	0.020	0.070	0.010	
MAY											
07...		<0.020	0.010	0.010	4.2	2.1	0.150	<0.020	0.070	0.010	
23...		<0.020	<0.010	<0.010	4.4	2.0	0.270	0.060	0.060	<0.010	
JUN											
12...		<0.020	<0.010	<0.010	5.8	2.0	0.290	<0.020	0.080	0.010	
27...		1.30	0.160	0.150	3.6	2.4	0.690	0.490	0.540	0.480	
JUL											
13...		<0.020	<0.010	0.010	4.0	2.0	0.290	0.010	0.100	<0.010	
31...		0.100	0.100	0.060	3.9	2.2	0.390	0.090	0.210	0.100	
AUG											
14...		<0.020	0.020	0.020	3.8	1.8	0.200	0.020	0.050	<0.010	
29...		0.020	0.020	0.030	3.7	2.0	0.300	0.180	0.150	0.100	
SEP											
06...		<0.020	0.010	0.010	3.2	1.7	0.140	0.030	0.050	0.010	
20...		<0.020	0.020	0.030	3.5	2.1	0.110	0.030	0.040	<0.010	
DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT											
30...	1055	60	12	34	17	16	11	137	23	35	25
NOV											
30...	1030	60	19	37	19	17	12	128	24	40	24
DEC											
12...	1045	50	11	37	18	15	10	130	23	35	15
JAN											
16...	1145	70	6.5	44	17	13	18	130	28	39	21
16...	1150	80	7.1	44	16	13	18	129	28	38	22
FEB											
14...	0935	60	9.4	43	18	16	13	142	25	39	38
MAR											
28...	1100	30	20	43	20	17	11	146	26	39	24
APR											
24...	1205	50	0.65	43	19	17	12	146	25	39	15
MAY											
23...	1045	50	10	28	20	19	13	111	26	43	22
JUN											
27...	1020	120	7.7	58	19	16	18	131	59	52	26
JUL											
31...	1100	120	15	49	19	13	10	133	47	35	1.7
AUG											
29...	1300	200	9.1	42	17	15	12	127	26	37	26
SEP											
06...	1045	55	6.9	37	18	16	12	120	25	38	18

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

2237700 APOPKA-BEAUCLAIR CANAL NEAR ASTATULA, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
AUG 29...	1300	6.0	170	3100	42	5.8

02237701 APOPKA-BEAUCLAIR CANAL BELOW DAM, NEAR ASTATULA, FL

DRAINAGE AREA.--184 mi².

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 14, 1958, nonrecording gage at same site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 63.12 ft, Feb. 24; minimum, 62.11 ft, Sept. 28.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.68	62.54	62.53	62.77	62.81	62.94	62.78	62.68	62.28	62.73	62.66	62.57
2	62.70	62.54	62.51	62.77	62.81	62.92	62.79	62.66	62.32	62.76	62.64	62.55
3	62.71	62.56	62.52	62.75	62.81	62.94	62.86	62.64	62.45	62.82	62.64	62.53
4	62.69	62.54	62.49	62.75	62.81	62.95	62.83	62.61	62.50	62.79	62.63	62.50
5	62.68	62.53	62.46	62.85	62.87	62.94	62.79	62.61	62.48	62.76	62.61	62.48
6	62.65	62.52	62.45	62.87	62.81	62.93	62.77	62.61	62.45	62.73	62.59	62.46
7	62.69	62.52	62.44	62.86	62.79	62.91	62.77	62.62	62.44	62.70	62.57	62.43
8	62.78	62.52	62.47	62.90	62.79	62.88	62.75	62.55	62.45	62.67	62.62	62.41
9	62.77	62.54	62.58	62.91	62.78	62.86	62.71	62.51	62.47	62.65	62.61	62.39
10	62.73	62.57	62.59	62.90	62.79	62.86	62.68	62.53	62.46	62.63	62.61	62.38
11	62.71	62.56	62.55	62.89	62.94	62.86	62.72	62.56	62.49	62.61	62.61	62.37
12	62.69	62.54	62.53	62.90	62.94	62.85	62.76	62.51	62.58	62.65	62.59	62.36
13	62.67	62.53	62.58	62.92	62.89	62.84	62.72	62.49	62.53	62.81	62.61	62.33
14	62.65	62.51	62.57	62.87	62.88	62.82	62.69	62.50	62.49	62.83	62.77	62.31
15	62.64	62.51	62.54	62.86	62.86	62.81	62.67	62.48	62.47	62.86	62.81	62.31
16	62.64	62.55	62.55	62.85	62.85	62.79	62.68	62.46	62.47	62.88	62.78	62.31
17	62.63	62.55	62.54	62.84	62.88	62.77	62.67	62.45	62.47	62.88	62.81	62.31
18	62.63	62.52	62.61	62.85	62.87	62.81	62.68	62.46	62.53	62.88	62.76	62.31
19	62.66	62.50	62.62	62.85	62.86	62.79	62.66	62.44	62.52	62.88	62.73	62.27
20	62.65	62.48	62.67	62.85	62.89	62.79	62.66	62.44	62.50	62.85	62.69	62.25
21	62.59	62.48	62.69	62.86	62.86	62.77	62.64	62.45	62.48	62.86	62.68	62.23
22	62.56	62.47	62.72	62.88	62.84	62.73	62.64	62.46	62.55	62.88	62.65	62.23
23	62.54	62.54	62.81	62.86	62.98	62.71	62.65	62.46	62.68	62.87	62.67	62.24
24	62.56	62.55	62.79	62.85	63.05	62.69	62.65	62.43	62.70	62.85	62.67	62.24
25	62.56	62.52	62.76	62.84	63.04	62.69	62.62	62.38	62.67	62.84	62.65	62.20
26	62.55	62.53	62.75	62.89	63.01	62.68	62.60	62.34	62.69	62.83	62.63	62.16
27	62.55	62.54	62.75	62.85	62.98	62.70	62.57	62.34	62.78	62.81	62.61	62.15
28	62.58	62.54	62.75	62.83	62.95	62.66	62.58	62.34	62.77	62.77	62.60	62.15
29	62.57	62.57	62.74	62.81	---	62.65	62.69	62.36	62.75	62.75	62.58	62.18
30	62.53	62.57	62.74	62.82	---	62.66	62.69	62.35	62.74	62.71	62.58	62.23
31	62.55	---	62.73	62.84	---	62.73	---	62.32	---	62.68	62.58	

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02238000 HAINES CREEK AT LISBON, FL

LOCATION.--Lat 28°52'14", long 81°47'02", in NW¼ sec.2, T.19 S., R.25 E., Lake County, Hydrologic Unit 03080102, on left bank at upstream side of Burrell lock and dam, 900 ft upstream from bridge on State Highway 44, 0.2 mi south of Lisbon, and 7 mi northeast of Leesburg.

DRAINAGE AREA.--648 mi².

PERIOD OF RECORD.--July 1942 to September 1978, October 1978 to September 1985 (gage heights only), October 1985 to current year.

REVISED RECORDS.--WDR FL-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 22, 1956, nonrecording gage at site 1,000 ft downstream at datum 58.93 ft higher and Aug. 22, 1956, to Mar. 5, 1957, at present datum. Mar. 6 to Oct. 8, 1957, nonrecording gage at present site and datum. Mar. 6 to Oct. 8, 1957, auxiliary nonrecording gage and since Oct. 9, 1957, auxiliary water-stage recorder at downstream side of lock and dam at present datum.

REMARKS.--Records poor. Since Dec. 23, 1956, flow regulated at station by manipulation of gates in spillway. Discharge computed from relation between discharge, head, gate openings, and lockages.

COOPERATION.--Gate-opening record provided by St. Johns River Water Management District.

AVERAGE DISCHARGE.--14 years (water years 1943-56), 292 ft³/s, 6.20 in/yr; 27 years (water years 1957-78, 1986-90), 231 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,490 ft³/s, Mar. 30, 1987; maximum gage height, 64.50 ft, Apr. 5, 7, 8, 1960; no flow Sept. 21 to Dec. 22, 1956, result of temporary coffer dam upstream; minimum gage height, 56.84 ft, Jan. 20, 1957, former site and present datum; minimum discharge prior to closure of coffer dam, 66 ft³/s, Sept. 18, 1956, gage height, 58.54 ft, former site and present datum. Minimum daily discharge after closure of lock and dam, gates closed and no flow for many days in 1975, Oct. 18-22, 1986; minimum gage height, 60.30 ft, Mar. 12, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1926 reached a stage of about 65.3 ft, former site and present datum, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 319 ft³/s, July 21; maximum gage height, 62.97 ft, Feb. 23; minimum daily discharge, 1.2 ft³/s, May 30; minimum gage height, 62.00 ft, Sept. 28, affected by wind.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	27	15	49	62	90	65	34	1.8	250	195	155
2	64	26	19	45	64	95	59	34	5.0	260	170	150
3	61	23	12	51	67	95	57	33	5.8	260	168	143
4	60	25	9.4	52	68	91	48	30	2.4	259	169	131
5	57	25	10	67	50	83	50	30	1.5	249	167	127
6	59	22	11	74	52	80	52	29	1.4	238	160	121
7	61	24	10	75	54	77	48	15	6.5	239	157	118
8	60	24	14	78	55	79	43	18	7.2	236	158	121
9	49	25	21	78	56	77	42	15	9.3	233	159	120
10	49	27	17	78	67	77	41	17	11	141	157	107
11	46	28	18	80	85	74	42	13	7.6	93	161	102
12	44	27	21	81	77	73	38	17	10	121	157	98
13	45	23	18	65	79	68	37	16	8.4	200	151	98
14	50	23	16	67	79	68	39	11	7.0	214	161	96
15	51	22	18	67	80	66	39	9.1	6.0	221	170	99
16	43	22	20	66	80	67	34	8.3	8.9	257	170	97
17	42	15	16	70	75	70	35	8.5	7.0	311	169	91
18	43	14	20	71	75	59	31	7.7	5.7	316	168	63
19	39	15	29	71	76	52	29	9.9	7.4	309	167	26
20	25	14	31	75	61	45	32	14	6.3	306	159	24
21	28	15	36	73	63	38	35	10	6.5	319	161	26
22	26	13	35	72	76	41	35	7.9	7.8	313	159	28
23	21	16	39	69	96	41	29	7.2	22	302	163	27
24	17	17	41	71	100	40	31	4.3	27	295	169	15
25	17	18	44	73	96	41	27	2.3	27	291	171	12
26	18	25	47	63	87	37	27	7.0	32	226	166	13
27	20	24	50	62	86	32	27	7.0	169	251	159	14
28	19	23	51	64	89	32	29	6.8	263	250	161	13
29	17	21	52	64	---	35	40	1.3	257	253	161	18
30	21	14	56	65	---	39	35	1.2	257	240	161	23
31	26	---	55	60	---	62	---	1.7	---	235	156	---
TOTAL	1250	637	851.4	2096	2055	1924	1176	426.2	1194.5	7688	5080	2276
MEAN	40.3	21.2	27.5	67.6	73.4	62.1	39.2	13.7	39.8	248	164	75.9
MAX	72	28	56	81	100	95	65	34	263	319	195	155
MIN	17	13	9.4	45	50	32	27	1.2	1.4	93	151	12

CAL YR 1989 TOTAL 36784.4 MEAN 101 MAX 702 MIN 9.4
WTR YR 1990 TOTAL 26654.1 MEAN 73.0 MAX 319 MIN 1.2

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.68	62.47	62.41	62.66	62.73	62.87	62.73	62.58	62.16	62.57	62.53	62.46
2	62.67	62.47	62.42	62.64	62.74	62.88	62.72	62.58	62.17	62.61	62.53	62.43
3	62.65	62.45	62.38	62.66	62.74	62.88	62.72	62.58	62.22	62.61	62.52	62.41
4	62.64	62.44	62.37	62.67	62.75	62.86	62.67	62.56	62.29	62.59	62.51	62.39
5	62.63	62.43	62.37	62.75	62.68	62.83	62.67	62.54	62.29	62.57	62.50	62.37
6	62.63	62.44	62.37	62.77	62.68	62.82	62.67	62.52	62.28	62.54	62.49	62.34
7	62.62	62.45	62.37	62.78	62.69	62.81	62.65	62.46	62.34	62.53	62.48	62.33
8	62.62	62.45	62.41	62.81	62.69	62.82	62.61	62.47	62.34	62.52	62.48	62.33
9	62.59	62.47	62.45	62.80	62.70	62.80	62.63	62.46	62.34	62.52	62.49	62.32
10	62.59	62.47	62.42	62.80	62.74	62.79	62.62	62.47	62.34	62.52	62.48	62.29
11	62.57	62.46	62.44	62.81	62.83	62.78	62.64	62.43	62.37	62.53	62.48	62.27
12	62.56	62.45	62.46	62.81	62.80	62.78	62.61	62.43	62.39	62.57	62.47	62.25
13	62.56	62.44	62.45	62.74	62.81	62.76	62.59	62.42	62.37	62.73	62.46	62.25
14	62.57	62.44	62.43	62.74	62.81	62.76	62.59	62.40	62.35	62.77	62.50	62.24
15	62.57	62.45	62.44	62.75	62.82	62.75	62.59	62.39	62.34	62.79	62.53	62.23
16	62.56	62.46	62.44	62.76	62.82	62.76	62.58	62.38	62.32	62.78	62.53	62.23
17	62.56	62.41	62.42	62.77	62.79	62.77	62.58	62.37	62.30	62.77	62.52	62.22
18	62.57	62.39	62.48	62.77	62.78	62.70	62.56	62.36	62.34	62.78	62.51	62.17
19	62.55	62.38	62.53	62.77	62.79	62.68	62.56	62.35	62.35	62.76	62.50	62.18
20	62.46	62.38	62.55	62.78	62.74	62.65	62.57	62.38	62.35	62.75	62.49	62.17
21	62.46	62.38	62.58	62.78	62.74	62.61	62.56	62.39	62.34	62.77	62.50	62.17
22	62.44	62.39	62.58	62.78	62.81	62.62	62.56	62.37	62.35	62.76	62.49	62.16
23	62.43	62.42	62.60	62.77	62.91	62.61	62.56	62.35	62.50	62.74	62.51	62.15
24	62.40	62.40	62.61	62.77	62.91	62.61	62.56	62.33	62.53	62.72	62.53	62.10
25	62.40	62.43	62.63	62.79	62.89	62.60	62.54	62.30	62.53	62.71	62.52	62.07
26	62.40	62.45	62.64	62.75	62.86	62.59	62.53	62.26	62.58	62.66	62.50	62.08
27	62.41	62.47	62.65	62.72	62.85	62.57	62.53	62.24	62.65	62.58	62.49	62.08
28	62.39	62.47	62.65	62.73	62.86	62.56	62.54	62.24	62.62	62.57	62.50	62.08
29	62.38	62.45	62.65	62.74	---	62.58	62.59	62.23	62.60	62.57	62.50	62.11
30	62.43	62.40	62.66	62.74	---	62.61	62.59	62.19	62.59	62.55	62.50	62.15
31	62.47	---	62.67	62.73	---	62.73	---	62.17	---	62.53	62.48	---
MEAN	62.53	62.44	62.50	62.75	62.78	62.72	62.60	62.39	62.38	62.64	62.50	62.23
MAX	62.68	62.47	62.67	62.81	62.91	62.88	62.73	62.58	62.65	62.79	62.53	62.46
MIN	62.38	62.38	62.37	62.64	62.68	62.56	62.53	62.17	62.16	62.52	62.46	62.07
CAL YR 1989	MEAN	62.67	MAX	63.14	MIN	62.37						
WTR YR 1990	MEAN	62.54	MAX	62.91	MIN	62.07						

LOCATION.--Lat 28°52'16", long 81°47'04", in NW¼ sec.2, T.19 S., R.25 E., Lake County, Hydrologic Unit 03080102, on left bank at downstream side of Burrell lock and dam, 750 ft upstream from bridge on State Highway 44, 0.2 mi south of Lisbon, and 7 mi northeast of Leesburg.

PERIOD OF RECORD.--March 1957 to current year (gage heights only). Records of gage heights prior to October 1962 are unpublished and available in files of the Orlando subdistrict office. Prior to October 1967, published as Haines Creek at Lisbon (auxiliary).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 61.48 ft, Oct. 9, 1960; minimum observed, 52.90 ft, June 26, 1984, result of drawdown of Lake Griffin.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.81	58.57	58.40	58.58	58.92	59.19	59.06	58.92	58.42	58.86	58.83	58.59
2	58.82	58.57	58.38	58.57	58.93	59.20	59.06	58.90	58.41	58.86	58.74	58.59
3	58.81	58.55	58.38	58.57	58.93	59.22	59.15	58.88	58.47	58.85	58.69	58.59
4	58.80	58.53	58.36	58.59	58.95	59.20	59.11	58.87	58.59	58.84	58.64	58.57
5	58.78	58.52	58.35	58.68	58.94	59.19	59.06	58.87	58.58	58.83	58.58	58.56
6	58.77	58.52	58.33	58.72	58.92	59.18	59.03	58.86	58.55	58.79	58.54	58.57
7	58.77	58.52	58.32	58.73	58.92	59.18	59.01	58.81	58.55	58.76	58.51	58.57
8	58.77	58.51	58.35	58.82	58.92	59.17	58.97	58.78	58.58	58.73	58.50	58.56
9	58.76	58.54	58.44	58.82	58.93	59.17	58.93	58.77	58.59	58.70	58.48	58.54
10	58.75	58.54	58.40	58.83	58.95	59.17	58.92	58.82	58.58	58.64	58.45	58.53
11	58.74	58.52	58.39	58.83	59.07	59.17	58.95	58.78	58.58	58.60	58.41	58.53
12	58.73	58.51	58.39	58.86	59.07	59.16	58.93	58.76	58.58	58.62	58.39	58.53
13	58.72	58.49	58.42	58.84	59.06	59.15	58.88	58.76	58.56	58.75	58.36	58.53
14	58.72	58.49	58.38	58.84	59.06	59.15	58.90	58.73	58.55	58.83	58.38	58.53
15	58.71	58.49	58.37	58.85	59.06	59.14	58.84	58.72	58.53	58.88	58.40	58.53
16	58.70	58.53	58.36	58.85	59.07	59.13	58.84	58.70	58.50	58.92	58.37	58.54
17	58.69	58.49	58.35	58.87	59.07	59.14	58.80	58.69	58.49	58.96	58.36	58.57
18	58.69	58.46	58.40	58.88	59.07	59.12	58.84	58.66	58.50	58.95	58.35	58.59
19	58.71	58.44	58.42	58.90	59.07	59.11	58.82	58.66	58.49	58.94	58.32	58.59
20	58.66	58.44	58.47	58.91	59.06	59.09	58.84	58.69	58.48	58.93	58.29	58.57
21	58.62	58.44	58.49	58.92	59.05	59.04	58.84	58.68	58.46	58.92	58.29	58.55
22	58.59	58.43	58.49	58.93	59.07	59.02	58.84	58.67	58.48	58.91	58.30	58.54
23	58.57	58.45	58.57	58.93	59.17	59.01	58.82	58.63	58.58	58.89	58.36	58.52
24	58.56	58.43	58.59	58.93	59.24	59.00	58.90	58.59	58.64	58.87	58.38	58.47
25	58.55	58.43	58.57	58.95	59.20	58.99	58.90	58.57	58.67	58.88	58.38	58.44
26	58.53	58.46	58.56	58.95	59.18	58.98	58.90	58.56	58.71	58.90	58.40	58.44
27	58.55	58.46	58.56	58.92	59.18	58.97	58.80	58.55	58.86	58.93	58.45	58.42
28	58.54	58.46	58.56	58.92	59.18	58.96	58.81	58.54	58.91	58.95	58.55	58.42
29	58.54	58.45	58.57	58.92	---	58.96	58.92	58.53	58.87	58.99	58.55	58.44
30	58.56	58.42	58.57	58.92	---	58.97	58.93	58.48	58.85	58.97	58.58	58.48
31	58.57	---	58.57	58.92	---	59.04	---	58.45	---	58.93	58.58	---
MEAN	58.68	58.49	58.44	58.83	59.04	59.10	58.92	58.71	58.59	58.85	58.46	58.53
MAX	58.82	58.57	58.59	58.95	59.24	59.22	59.15	58.92	58.91	58.99	58.83	58.59
MIN	58.53	58.42	58.32	58.57	58.92	58.96	58.80	58.45	58.41	58.60	58.29	58.42
CAL YR 1989	MEAN 58.79		MAX 59.31	MIN 58.32								
WTR YR 1990	MEAN 58.72		MAX 59.24	MIN 58.29								

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238499 OKLAWAHA RIVER ABOVE MOSS BLUFF DAM, AT MOSS BLUFF, FL

LOCATION.--Lat 29°04'52", long 81°52'51", in SW¼ sec.23, T.16 S., R.24 E., Marion County, Hydrologic Unit 03080102, at upstream side of spillway structure of Moss Bluff Dam, 0.3 mi upstream from bridge on State Highway 464, 0.4 mi southwest of Moss Bluff, 3.9 mi northeast of Oklawaha, and 64.3 mi upstream from mouth.

DRAINAGE AREA.--879 mi².

PERIOD OF RECORD.--October 1965 to June 1967 and October 1969 to current year (gage heights only).

REVISED RECORDS.--WDR FL-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Oct. 20, 1965, to June 8, 1967, at datum 0.12 ft lower and Oct. 1, 1969, to Mar. 5, 1971, at datum 0.30 ft higher. This is the auxiliary gage for station 02238500 located at downstream side of spillway structure.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 60.10 ft, present datum, Dec. 10, 1969; minimum, 45.45 ft, Mar. 6, 1973, result of dike failure.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 59.49 ft, Mar. 17; minimum, 57.74 ft, Aug. 17.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.78	58.52	58.32	58.49	58.88	59.12	58.98	58.85	58.35	58.67	58.65	58.51
2	58.76	58.52	58.34	58.47	58.90	59.16	59.00	58.84	58.33	58.68	58.59	58.49
3	58.73	58.47	58.24	58.51	58.91	59.16	59.00	58.84	58.38	58.68	58.52	58.49
4	58.73	58.48	58.28	58.53	58.95	59.12	58.97	58.82	58.50	58.67	58.47	58.49
5	58.73	58.47	58.30	58.63	58.79	59.09	58.98	58.82	58.48	58.64	58.42	58.47
6	58.73	58.48	58.29	58.68	58.85	59.09	58.97	58.78	58.47	58.60	58.40	58.47
7	58.72	58.48	58.29	58.72	58.87	59.08	58.91	58.70	58.48	58.60	58.41	58.49
8	58.71	58.48	58.35	58.76	58.87	59.10	58.86	58.73	58.49	58.57	58.38	58.51
9	58.65	58.52	58.34	58.75	58.89	59.12	58.88	58.75	58.52	58.54	58.37	58.51
10	58.66	58.47	58.30	58.76	58.95	59.11	58.87	58.79	58.51	58.53	58.34	58.49
11	58.63	58.46	58.33	58.78	58.99	59.10	58.89	58.69	58.50	58.51	58.29	58.47
12	58.63	58.45	58.40	58.80	58.96	59.10	58.79	58.71	58.49	58.51	58.26	58.48
13	58.63	58.44	58.32	58.70	59.01	59.09	58.79	58.71	58.47	58.69	58.26	58.48
14	58.64	58.45	58.30	58.74	59.02	59.10	58.81	58.67	58.47	58.79	58.25	58.50
15	58.64	58.46	58.33	58.77	59.05	59.10	58.82	58.67	58.46	58.81	58.29	58.50
16	58.63	58.46	58.29	58.79	59.06	59.14	58.79	58.66	58.42	58.77	58.28	58.52
17	58.64	58.39	58.27	58.81	58.99	59.18	58.79	58.63	58.40	58.75	58.22	58.54
18	58.66	58.38	58.31	58.83	59.00	59.04	58.72	58.59	58.41	58.77	58.21	58.52
19	58.59	58.35	58.36	58.83	59.03	59.04	58.75	58.60	58.42	58.75	58.17	58.52
20	58.48	58.33	58.38	58.86	58.93	58.97	58.79	58.64	58.41	58.75	58.17	58.51
21	58.53	58.39	58.42	58.88	58.96	58.95	58.78	58.63	58.39	58.75	58.19	58.51
22	58.52	58.39	58.36	58.85	59.07	58.97	58.78	58.61	58.38	58.72	58.22	58.51
23	58.48	58.35	58.35	58.85	59.13	58.96	58.82	58.56	58.52	58.70	58.28	58.45
24	58.41	58.34	58.45	58.87	59.11	58.96	58.84	58.54	58.57	58.70	58.32	58.39
25	58.43	58.39	58.51	58.94	59.07	58.94	58.83	58.50	58.58	58.71	58.34	58.38
26	58.42	58.45	58.52	58.80	59.04	58.94	58.83	58.52	58.64	58.65	58.34	58.40
27	58.43	58.43	58.51	58.83	59.06	58.88	58.84	58.48	58.70	58.57	58.36	58.38
28	58.37	58.40	58.51	58.85	59.11	58.90	58.88	58.48	58.70	58.62	58.46	58.38
29	58.34	58.34	58.52	58.89	---	58.93	58.88	58.46	58.66	58.68	58.48	58.40
30	58.47	58.27	58.52	58.88	---	58.96	58.87	58.39	58.67	58.68	58.48	58.43
31	58.52	---	58.55	58.84	---	59.02	---	58.36	---	58.68	58.51	---
MEAN	58.59	58.43	58.37	58.76	58.98	59.05	58.86	58.65	58.49	58.67	58.35	58.47
MAX	58.78	58.52	58.55	58.94	59.13	59.18	59.00	58.85	58.70	58.81	58.65	58.54
MIN	58.34	58.27	58.24	58.47	58.79	58.88	58.72	58.36	58.33	58.51	58.17	58.38

CAL YR 1989 MEAN 58.69 MAX 59.19 MIN 58.24

WTR YR 1990 MEAN 58.64 MAX 59.18 MIN 58.17

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02238500 OKLAWAHA RIVER AT MOSS BLUFF, FL

LOCATION.--Lat 29°04'52", long 81°52'51", in SW¼ sec.23, T.16 S., R.24 E., Marion County, Hydrologic Unit 03080102, at downstream side of spillway structure of Moss Bluff Dam, 0.3 mi upstream from bridge on State Highway 464, 0.4 mi southwest of Moss Bluff, 3.9 mi northeast of Oklawaha, and 64.3 mi upstream from mouth.

DRAINAGE AREA.--879 mi².

PERIOD OF RECORD.--February to September 1943 (discharge measurements only), October 1943 to September 1955, April 1956 and March 1958 to July 1967 (discharge measurements only), August 1967 to current year.

REVISED RECORDS.--WDR FL-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1943, nonrecording gage and Aug. 12, 1943, to Sept. 30, 1955, water-stage recorder at site 0.3 mi downstream at present datum 0.12 ft lower; Nov. 1, 1963, to Aug. 10, 1967, nonrecording gage at site 0.3 mi downstream at present datum; Aug. 11, 1967, to Sept. 30, 1969, water-stage recorder at site 0.3 mi downstream at present datum. Auxiliary gage at upstream side of spillway structure.

REMARKS.--Records fair. Flow regulated by manipulation of gates in spillway. Discharge computed from relation between discharge, gate openings, and lockages.

COOPERATION.--Gate-opening record provided by St. Johns River Water Management District.

AVERAGE DISCHARGE.--35 years (water years 1944-55, 1968-90), 271 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,340 ft³/s, Feb. 20, 1983; maximum gage height, 50.71 ft, present datum, Sept. 12, 1960, from U.S. Army Corps of Engineers records; gates closed and no flow for many days in 1973-74; minimum gage height, 34.04 ft, Dec. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 441 ft³/s, July 29, Aug. 5; maximum daily gage height, 38.49 ft, July 29; minimum daily discharge, 24 ft³/s, many days; minimum daily gage height, 34.35 ft, May 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	32	25	29	33	27	42	25	32	318	426	40
2	24	25	34	27	31	33	28	28	42	301	428	50
3	28	24	24	27	41	36	33	35	44	304	427	59
4	27	37	24	27	40	43	131	37	33	317	439	29
5	29	38	27	27	27	32	131	43	27	308	441	27
6	29	30	27	30	29	33	134	43	35	304	423	31
7	37	27	29	35	33	35	139	32	24	321	251	29
8	39	30	25	24	32	27	141	29	28	318	258	36
9	30	24	24	26	33	29	130	29	46	309	251	46
10	27	30	25	29	39	44	126	31	53	307	248	24
11	24	38	24	25	44	57	126	25	27	130	257	25
12	25	45	27	33	24	35	138	46	28	130	268	27
13	29	27	24	28	31	32	139	40	24	130	248	28
14	34	29	24	37	31	37	50	24	36	129	248	31
15	39	24	24	32	28	32	53	27	27	141	247	39
16	33	28	24	28	31	35	33	28	42	126	251	47
17	27	24	24	30	42	35	31	33	44	303	252	32
18	29	30	24	28	45	49	31	33	31	304	264	32
19	24	39	25	37	35	32	31	45	28	302	265	24
20	28	24	24	41	31	47	29	44	29	298	248	32
21	28	30	24	42	27	29	44	35	25	317	250	31
22	37	24	24	27	27	39	49	29	33	320	27	44
23	25	25	24	29	24	35	24	29	31	304	27	41
24	24	29	24	36	32	57	29	27	40	305	33	28
25	27	41	24	29	32	58	35	29	28	308	38	27
26	27	36	24	24	34	31	28	46	25	308	42	28
27	25	28	24	37	28	28	32	50	29	426	34	27
28	32	24	33	41	31	33	37	57	302	439	24	32
29	29	24	30	27	---	35	48	27	303	441	27	29
30	27	27	33	31	---	27	31	27	316	421	24	29
31	24	---	39	29	---	36	---	24	---	423	29	---
TOTAL	909	893	811	952	915	1138	2053	1057	1812	9112	6695	1004
MEAN	29.3	29.8	26.2	30.7	32.7	36.7	68.4	34.1	60.4	294	216	33.5
MAX	42	45	39	42	45	58	141	57	316	441	441	59
MIN	24	24	24	24	24	27	24	24	24	126	24	24

CAL YR 1989 TOTAL 31605.6 MEAN 86.6 MAX 945 MIN 8.6
WTR YR 1990 TOTAL 27351 MEAN 74.9 MAX 441 MIN 24

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02239500 SILVER SPRINGS NEAR OCALA, FL

LOCATION.--Lat 29°12'44", long 82°03'15", in SE¼ sec.1, T.15 S., R.23 E., Marion County, Hydrologic Unit 03080102, in canal at glass bottom boat docking shed, 1,400 ft downstream from head of springs, and 5.3 mi northeast of Ocala.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1906 to December 1907 (gage heights only), October 1932 to September 1947 (monthly discharge only, prior to January 1933, published in WSP 1304), October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 38.96 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 20, 1947, nonrecording gage at same site and datum. Feb. 20, 1947, to May 23, 1974, at site 800 ft north at same datum.

REMARKS.--Records fair. Discharge measurements made 4 to 5 mi downstream from head of springs; surface inflow between head of springs and measuring site is subtracted when measureable. Prior to Nov. 20, 1959, measurements made at site 0.7 mi downstream from head of springs. Discharge computed from relation between artesian pressure at Sharpes Ferry Well and discharge at measuring site. Artesian pressures are published as water levels for Sharpes Ferry Well (291115081592501) in Volume 1B: Northeast Florida, Ground Water.

AVERAGE DISCHARGE.--58 years (water years 1933-90), 808 ft³/s, 522 mgd.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,290 ft³/s, Oct. 7, 13-17, 20, 1960; maximum gage height observed, 5.50 ft, Sept. 6, 1933; minimum daily discharge, 539 ft³/s, May 7, 1957; minimum gage height, -0.99 ft, June 22.23, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 717 ft³/s, Oct. 8; maximum gage height, 0.71 ft, part of each day Oct. 1-3; minimum daily discharge, 600 ft³/s, Sept. 28; minimum gage height, -0.27 ft, part of each day June 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	713	699	675	667	677	680	668	649	615	626	637	627
2	714	700	677	657	677	685	669	647	616	630	636	626
3	712	698	676	661	679	688	673	643	619	629	637	627
4	713	695	673	668	682	679	668	644	622	626	639	626
5	711	695	675	673	675	676	663	649	621	627	638	626
6	711	696	674	674	673	674	663	651	618	632	638	628
7	714	699	672	676	676	671	661	643	616	632	639	626
8	717	699	678	677	674	670	656	640	617	628	638	624
9	713	699	679	671	677	671	656	645	618	629	637	623
10	714	693	668	672	684	673	661	651	619	630	638	620
11	712	689	668	676	683	674	666	643	620	630	636	620
12	711	688	676	679	671	674	659	641	617	631	636	620
13	711	689	669	669	669	675	655	642	613	634	635	619
14	714	693	662	669	673	677	659	642	614	637	636	618
15	714	696	668	672	677	675	664	640	616	634	637	619
16	713	695	669	675	677	675	661	638	615	632	637	618
17	712	683	665	679	673	675	657	638	611	634	636	612
18	711	679	667	680	672	669	652	637	611	636	636	609
19	700	679	670	681	676	668	646	638	613	638	636	610
20	693	686	670	683	673	667	647	639	610	638	635	611
21	692	691	668	684	673	662	652	637	605	638	633	610
22	694	689	664	682	677	663	657	638	605	639	635	611
23	696	686	665	681	682	665	657	636	612	641	636	610
24	697	677	665	683	672	666	654	632	613	641	635	603
25	697	678	666	684	667	665	652	629	611	641	632	603
26	696	683	667	674	666	666	654	631	614	641	630	605
27	702	681	665	673	670	665	656	634	617	643	631	602
28	707	680	666	679	677	665	658	633	617	644	633	600
29	709	679	667	686	---	667	654	628	617	643	633	601
30	709	676	669	683	---	669	649	621	621	641	632	601
31	704	---	672	678	---	670	---	617	---	640	630	---
TOTAL MEAN MAX MIN	21926 707 717 692	20670 689 700 676	20765 670 679 662	20946 676 686 657	18902 675 684 666	20819 672 688 662	19747 658 673 646	19796 639 651 617	18453 615 622 605	19685 635 644 626	19697 635 639 630	18455 615 628 600
CAL YR 1989 WTR YR 1990	TOTAL 266702 TOTAL 239861	MEAN 731 MEAN 657	MAX 868 MAX 717	MIN 662 MIN 600								

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02239500 SILVER SPRINGS NEAR OCALA, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	.51	.28	.20	.18	.19	.11	-.05	-.22	.17	.36	.03
2	.70	.50	.27	.19	.17	.18	.11	-.07	-.19	.20	.35	.04
3	.70	.49	.27	.18	.17	.17	.13	-.07	-.16	.23	.36	.03
4	.69	.48	.26	.19	.16	.17	.14	-.07	-.17	.21	.36	.02
5	.67	.47	.25	.25	.16	.16	.15	-.07	-.19	.22	.37	.00
6	.67	.46	.25	.29	.15	.15	.15	-.06	-.20	.23	.36	-.01
7	.66	.45	.24	.29	.14	.14	.15	-.07	-.20	.19	.30	-.01
8	.66	.44	.26	.39	.14	.15	.15	-.09	-.20	.20	.26	-.02
9	.66	.45	.26	.41	.13	.14	.14	-.09	-.20	.22	.24	-.02
10	.66	.43	.24	.38	.15	.15	.14	-.06	-.20	.20	.26	-.03
11	.65	.42	.23	.34	.18	.14	.12	-.07	-.20	.13	.28	-.05
12	.65	.42	.23	.32	.17	.14	.10	-.08	-.22	.09	.27	-.05
13	.64	.41	.22	.29	.16	.13	.11	-.09	-.23	.09	.25	-.06
14	.64	.40	.21	.28	.15	.13	.08	-.10	-.24	.09	.24	-.07
15	.64	.39	.21	.27	.15	.12	.06	-.11	-.24	.11	.25	-.08
16	.63	.38	.20	.28	.14	.11	.04	-.11	-.25	.11	.25	-.08
17	.62	.37	.19	.27	.14	.12	.02	-.12	-.24	.17	.23	-.09
18	.62	.36	.20	.27	.14	.11	.01	-.12	-.24	.22	.23	-.10
19	.60	.36	.24	.27	.13	.11	.00	-.13	-.25	.23	.23	-.12
20	.58	.35	.31	.27	.16	.11	.00	-.13	-.26	.24	.23	-.12
21	.58	.34	.30	.27	.16	.10	.00	-.13	-.26	.26	.22	-.13
22	.58	.33	.28	.25	.15	.09	.00	-.14	-.24	.27	.15	-.13
23	.57	.34	.29	.23	.22	.10	.02	-.15	-.16	.27	.10	-.14
24	.56	.32	.27	.22	.32	.09	.03	-.15	-.15	.22	.08	-.15
25	.55	.32	.25	.22	.30	.09	.02	-.16	-.14	.20	.07	-.16
26	.55	.33	.24	.21	.26	.09	.00	-.17	-.09	.23	.06	-.17
27	.55	.31	.24	.20	.23	.08	-.03	-.17	-.03	.30	.06	-.18
28	.54	.31	.23	.20	.21	.07	-.04	-.17	.05	.34	.05	-.18
29	.54	.30	.23	.20	---	.10	-.03	-.18	.11	.37	.03	-.17
30	.53	.29	.22	.19	---	.11	-.04	-.20	.15	.37	.03	-.17
31	.52	---	.21	.18	---	.11	---	-.22	---	.37	.04	---
MEAN	.62	.39	.24	.26	.18	.12	.06	-.12	-.17	.22	.21	-.08
MAX	.70	.51	.31	.41	.32	.19	.15	-.05	.15	.37	.37	.04
MIN	.52	.29	.19	.18	.13	.07	-.04	-.22	-.26	.09	.03	-.18
CAL YR 1989	MEAN	.63	MAX	1.27	MIN	.19						
WTR YR 1990	MEAN	.16	MAX	.70	MIN	-.26						

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240000 OKLAWAHA RIVER NEAR CONNER, FL
(National stream-quality accounting network station)

LOCATION.--Lat 29°12'52", long 81°59'10", in SW¼ sec. 2, T.15 S., R.23 E., Marion County, Hydrologic Unit 03080102, on right bank 75 ft upstream from bridge on State Highway 40, 0.2 mi downstream from Silver River, 1.5 mi southwest of Conner, 8 mi east of Ocala, and 51.0 mi upstream from mouth.

DRAINAGE AREA.--1,196 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1930 to September 1946, March 1963 to September 1977 (gage heights only), October 1977 to current year.

REVISED RECORDS.--WDR FL-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 31.79 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 18 to Mar. 12. Records good. Some effect from Moss Bluff Dam 13.3 mi upstream.

AVERAGE DISCHARGE.--29 years (water years 1931-46, 1978-90), 1,130 ft³/s, 12.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,430 ft³/s, Apr. 9, 1982; maximum gage height, 9.14 ft, Sept. 6, 1933; minimum discharge, 622 ft³/s, Jan. 11, 1982; minimum gage height, 2.26 ft, Nov. 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s, July 29,30, gage height, 4.90 ft; minimum, 628 ft³/s, May 31, gage height, 2.52 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	814	762	738	758	744	770	739	698	646	933	1010	697
2	809	758	737	752	743	765	735	692	665	936	1010	702
3	804	751	735	751	742	760	749	694	680	940	1020	703
4	798	750	732	751	746	760	780	696	676	927	1010	695
5	792	751	732	813	744	760	794	696	667	938	1020	684
6	786	751	738	842	737	758	798	700	664	934	1010	679
7	784	746	734	840	736	756	798	696	663	902	926	676
8	790	744	740	915	735	754	798	686	666	921	899	677
9	792	748	743	925	731	750	795	683	670	936	885	684
10	790	747	738	890	734	745	790	697	674	912	882	680
11	790	747	735	851	759	740	774	697	671	828	886	670
12	785	749	740	833	761	735	759	694	662	793	891	666
13	785	746	738	818	756	730	775	693	656	789	880	663
14	786	740	733	807	757	727	736	685	655	792	866	661
15	785	739	730	806	755	723	719	678	654	799	882	661
16	784	737	726	806	751	719	708	674	655	803	881	669
17	778	736	724	802	747	719	699	673	663	865	874	667
18	774	735	732	798	743	721	693	673	662	903	875	657
19	769	737	744	796	738	722	693	676	656	905	870	653
20	765	735	794	799	760	721	694	683	655	909	867	659
21	766	730	794	792	785	718	698	680	657	926	845	663
22	767	729	784	780	800	715	705	673	671	931	769	664
23	764	731	793	769	860	715	714	669	710	923	727	666
24	758	731	790	765	880	716	716	665	717	867	714	659
25	758	734	779	761	865	720	712	663	719	857	707	650
26	760	741	775	755	825	718	707	667	724	900	703	645
27	762	743	780	752	800	710	702	673	779	966	704	641
28	764	743	773	754	785	709	704	676	866	999	699	642
29	764	745	769	752	---	723	712	670	912	1020	689	646
30	764	740	764	749	---	729	708	656	925	1030	685	646
31	763	---	761	746	---	735	---	634	---	1020	690	---
TOTAL	24150	22276	23325	24728	21519	22743	22104	21090	20940	28104	26376	20025
MEAN	779	743	752	798	769	734	737	680	698	907	851	667
MAX	814	762	794	925	880	770	798	700	925	1030	1020	703
MIN	758	729	724	746	731	709	693	634	646	789	685	641
CFSM	.65	.62	.63	.67	.64	.61	.62	.57	.58	.76	.71	.56
IN.	.75	.69	.73	.77	.67	.71	.69	.66	.65	.87	.82	.62

CAL YR 1989 TOTAL 299889 MEAN 822 MAX 1470 MIN 701 CFSM .69 IN. 9.33
WTR YR 1990 TOTAL 277380 MEAN 760 MAX 1030 MIN 634 CFSM .64 IN. 8.63

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240000 OKLAWAHA RIVER NEAR CONNER, FL--Continued
(National stream-quality accounting network station)

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.85	3.48	3.31	3.45	3.35	---	3.31	3.02	2.65	4.52	4.83	3.01
2	3.82	3.45	3.30	3.40	3.34	---	3.29	2.98	2.78	4.53	4.84	3.05
3	3.78	3.40	3.29	3.40	3.34	---	3.38	2.99	2.89	4.55	4.85	3.06
4	3.74	3.39	3.26	3.40	3.36	---	3.61	3.00	2.86	4.49	4.84	3.00
5	3.69	3.40	3.26	3.84	3.35	---	3.71	3.00	2.80	4.54	4.86	2.92
6	3.65	3.40	3.30	4.05	3.30	---	3.74	3.03	2.78	4.52	4.82	2.88
7	3.64	3.36	3.28	4.04	3.29	---	3.73	3.01	2.77	4.36	4.48	2.86
8	3.68	3.35	3.32	4.43	3.28	---	3.73	2.93	2.79	4.45	4.35	2.87
9	3.70	3.38	3.34	4.48	3.26	---	3.71	2.91	2.82	4.53	4.28	2.92
10	3.68	3.37	3.31	4.30	3.27	---	3.68	3.01	2.85	4.41	4.26	2.89
11	3.68	3.37	3.29	4.10	3.46	---	3.56	3.01	2.83	3.95	4.28	2.82
12	3.65	3.39	3.32	3.99	3.47	---	3.46	2.99	2.76	3.70	4.30	2.79
13	3.65	3.36	3.31	3.88	3.43	3.25	3.57	2.99	2.72	3.67	4.25	2.77
14	3.65	3.32	3.27	3.80	3.44	3.23	3.29	2.93	2.71	3.69	4.18	2.76
15	3.64	3.31	3.25	3.79	3.43	3.20	3.17	2.88	2.71	3.74	4.26	2.76
16	3.63	3.30	3.22	3.79	3.40	3.17	3.09	2.85	2.72	3.77	4.25	2.81
17	3.59	3.29	3.20	3.76	3.37	3.17	3.03	2.84	2.77	4.17	4.22	2.80
18	3.56	3.28	3.26	3.73	---	3.19	2.98	2.84	2.76	4.37	4.22	2.73
19	3.53	3.30	3.35	3.72	---	3.19	2.98	2.86	2.72	4.37	4.20	2.70
20	3.50	3.28	3.71	3.74	---	3.19	2.99	2.91	2.72	4.40	4.19	2.74
21	3.51	3.25	3.71	3.69	---	3.17	3.02	2.89	2.73	4.48	4.06	2.77
22	3.51	3.24	3.63	3.61	---	3.14	3.07	2.84	2.83	4.51	3.53	2.78
23	3.49	3.26	3.70	3.53	---	3.14	3.13	2.81	3.11	4.47	3.23	2.79
24	3.45	3.26	3.68	3.50	---	3.15	3.15	2.79	3.16	4.18	3.14	2.74
25	3.45	3.28	3.60	3.47	---	3.18	3.12	2.77	3.17	4.13	3.08	2.68
26	3.46	3.33	3.57	3.43	---	3.16	3.08	2.80	3.21	4.35	3.06	2.64
27	3.48	3.34	3.60	3.41	---	3.11	3.05	2.84	3.60	4.66	3.06	2.61
28	3.49	3.34	3.55	3.42	---	3.10	3.07	2.86	4.18	4.79	3.03	2.62
29	3.49	3.36	3.53	3.41	---	3.20	3.12	2.82	4.41	4.88	2.96	2.65
30	3.50	3.32	3.49	3.39	---	3.24	3.09	2.72	4.48	4.89	2.93	2.65
31	3.48	---	3.47	3.36	---	3.28	---	2.56	---	4.87	2.96	---
MEAN	3.60	3.34	3.41	3.72	---	---	3.30	2.89	3.01	4.35	3.99	2.80
MAX	3.85	3.48	3.71	4.48	---	---	3.74	3.03	4.48	4.89	4.86	3.06
MIN	3.45	3.24	3.20	3.36	---	---	2.98	2.56	2.65	3.67	2.93	2.61

CAL YR 1989 MEAN 3.82 MAX 5.89 MIN 3.04

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02240000 OKLAWAHA RIVER NEAR CONNER, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-77, 1982 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1972 to September 1973, October 1983 to current year.

WATER TEMPERATURE: January 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1983. Digital recorder set for 60-minute interval.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 444 microsiemens, Nov. 23, 1987, Dec. 30, 1989; minimum daily mean, 227 microsiemens, Sept. 8, 1988.

WATER TEMPERATURE: Maximum daily mean, 27.5°C, Aug. 21-24, 1983; minimum daily mean, 11.0°C, Jan. 1, 1984.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean (more than 20 percent missing record), 444 microsiemens, Dec. 30; minimum daily mean, 395 microsiemens, July 21,22,29.

WATER TEMPERATURE: Maximum daily mean (more than 20 percent missing record), 26.9°C, July 30, Aug. 5; minimum daily mean, 18.9°C, Dec. 24.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	---	419	431	415	417	425	427	431	415	402	---
2	405	---	419	427	417	432	429	429	428	414	403	---
3	403	---	422	431	419	431	422	430	425	419	403	---
4	402	---	423	427	418	424	420	429	429	420	402	---
5	403	---	420	420	417	421	419	429	431	413	400	---
6	406	---	419	425	418	420	416	428	432	412	405	---
7	407	---	419	438	417	418	417	429	432	413	412	---
8	404	---	418	432	419	416	416	430	431	409	411	---
9	403	---	418	416	424	416	415	430	431	408	410	---
10	403	---	420	425	423	416	416	425	431	411	407	---
11	---	---	420	417	420	421	420	428	432	419	405	---
12	---	---	419	430	421	436	425	427	432	423	403	---
13	---	---	421	416	419	429	419	428	432	423	409	---
14	---	---	420	417	418	426	426	430	432	423	410	---
15	---	---	420	415	421	424	427	433	432	425	409	---
16	---	---	424	405	425	424	428	434	431	422	405	---
17	---	---	425	405	422	423	429	432	431	410	412	---
18	---	---	421	415	418	422	428	432	432	404	419	---
19	---	---	419	413	415	422	429	431	432	405	414	---
20	---	---	415	405	410	421	429	431	432	402	410	---
21	---	---	419	407	412	422	428	431	432	395	414	---
22	---	---	425	416	419	423	426	431	429	395	431	---
23	---	---	433	417	422	423	423	431	426	401	432	---
24	---	---	437	411	407	423	423	431	430	408	432	---
25	---	---	435	413	409	423	425	431	432	410	432	---
26	---	---	430	417	418	423	425	430	431	405	433	---
27	---	---	420	416	413	424	427	430	431	399	432	---
28	---	414	416	417	416	424	429	429	436	397	432	---
29	---	419	435	416	---	420	426	430	417	395	434	---
30	---	419	444	417	---	418	426	431	418	397	436	---
31	---	---	436	416	---	419	---	434	---	400	---	---
MEAN	---	---	424	418	418	423	424	430	430	409	---	---
MAX	---	---	444	438	425	436	429	434	436	425	---	---
MIN	---	---	415	405	407	416	415	425	417	395	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240000 OKLAWAHA RIVER NEAR CONNER, FL--Continued
(National stream-quality accounting network station)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.4	---	21.9	21.5	22.5	22.1	23.5	24.1	---	26.4	26.8	---
2	24.2	---	22.1	21.0	23.0	22.3	23.5	24.1	---	26.1	26.8	---
3	24.1	---	21.8	21.4	23.0	22.6	23.4	24.1	---	25.5	26.8	---
4	24.1	---	21.1	21.7	23.0	22.3	22.7	24.2	---	25.8	26.7	---
5	24.0	---	21.4	21.3	22.3	22.4	22.7	24.1	---	26.3	26.9	---
6	24.0	---	21.6	21.4	22.2	22.6	22.8	23.7	---	26.5	26.8	---
7	23.9	---	21.9	21.7	22.7	22.6	22.8	23.6	---	26.5	26.3	---
8	24.0	---	22.4	21.7	22.7	22.6	22.7	23.3	---	26.6	26.0	---
9	23.7	---	22.0	21.2	22.9	22.7	22.9	23.3	---	26.7	25.8	---
10	23.6	---	21.2	21.1	22.8	22.9	23.2	24.0	---	26.7	25.8	---
11	---	---	21.3	21.2	22.6	22.9	23.4	23.8	---	26.1	25.6	---
12	---	---	21.6	21.1	22.1	23.0	22.9	23.7	---	25.6	26.0	---
13	---	---	21.7	20.5	22.1	23.0	22.8	24.2	---	25.2	26.1	---
14	---	---	21.0	20.5	22.3	23.2	23.1	24.2	---	24.8	25.8	---
15	---	---	21.2	20.8	22.6	23.4	23.1	24.2	---	24.6	25.5	---
16	---	---	21.6	21.0	22.8	23.5	23.2	24.1	---	24.9	25.8	---
17	---	---	21.2	21.3	23.0	23.4	23.4	24.2	---	25.5	26.0	---
18	---	---	21.2	21.7	23.1	23.0	23.4	24.1	---	25.9	26.2	---
19	---	---	21.5	21.7	23.2	22.9	23.3	24.0	---	25.9	26.2	---
20	---	---	20.7	22.2	22.7	22.7	23.3	24.3	---	25.9	26.1	---
21	---	---	20.7	22.4	22.6	22.3	23.1	24.1	---	26.0	25.7	---
22	---	---	20.2	22.4	23.0	22.5	23.4	24.0	24.7	26.0	24.9	---
23	---	---	19.3	21.7	22.3	22.7	23.4	23.5	24.2	26.2	24.3	---
24	---	---	18.9	22.2	21.5	22.8	23.3	---	24.4	26.1	24.4	---
25	---	---	19.2	22.5	21.4	22.9	23.4	---	24.7	25.8	24.5	---
26	---	---	19.6	21.8	21.3	22.9	23.5	---	24.5	26.0	24.6	---
27	---	---	19.7	21.4	21.6	22.9	23.5	---	24.4	26.5	24.6	---
28	---	23.1	20.1	21.9	21.8	23.0	23.5	---	25.4	26.6	24.6	---
29	---	22.6	20.3	22.2	---	23.4	23.9	---	25.9	26.8	24.6	---
30	---	21.9	20.7	22.6	---	23.3	24.0	---	26.1	26.9	24.3	---
31	---	---	21.2	22.5	---	23.3	---	---	---	26.8	---	---
MEAN	---	---	21.0	21.6	22.5	22.8	23.2	---	---	26.0	---	---
MAX	---	---	22.4	22.6	23.2	23.5	24.0	---	---	26.9	---	---
MIN	---	---	18.9	20.5	21.3	22.1	22.7	---	---	24.6	---	---

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02240000 OKLAWAHA RIVER NEAR CONNER, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, IN CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS. / 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. / 100 ML) (31673)
NOV 16...	0942	3.24	729	422	7.8	23.0	0.50	4.1	30	74
JAN 23...	0836	3.45	758	428	7.8	20.5	0.40	4.4	36	>200
MAR 13...	1008	3.19	722	435	7.8	22.5	1.1	4.2	41	94
JUN 05...	0958	2.80	667	439	7.6	23.5	0.80	3.5	<5	<5
JUL 10...	1221	4.47	924	420	7.9	26.0	2.0	4.6	K730	K280
AUG 28...	0858	3.04	700	434	7.7	24.0	1.0	3.3	--	--
DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NOV 16...	67	9.4	6.4	0.90	151	49	9.6	0.20	9.9	244
JAN 23...	68	9.4	6.5	1.5	142	53	11	0.20	9.6	278
MAR 13...	69	10	7.1	1.0	151	53	11	0.20	9.4	273
JUN 05...	67	<6.7	10	1.1	155	51	11	0.40	0.18	273
JUL 10...	57	10	9.0	2.8	140	26	18	0.20	7.7	241
AUG 28...	68	10	7.1	1.2	153	48	11	0.20	9.6	269
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 16...	<0.010	0.880	0.020	0.020	0.78	0.80	0.040	0.020	0.020	--
JAN 23...	<0.010	0.850	0.040	0.030	0.46	0.50	0.050	0.060	0.050	30
MAR 13...	0.010	0.820	<0.010	<0.010	--	0.28	0.060	0.060	0.030	--
JUN 05...	<0.010	0.800	0.020	<0.010	0.18	0.20	0.040	0.040	0.040	<10
JUL 10...	<0.010	0.500	0.010	<0.010	0.89	0.90	0.030	<0.010	<0.010	10
AUG 28...	<0.010	0.800	0.020	0.040	0.38	0.40	0.040	0.020	0.010	<10

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240000 OKLAWAHA RIVER NEAR CONNER, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
JAN 23...	<1	8	<0.5	<1.0	<1	<3	<10	50	<10	6
JUN 05...	<1	<2	<0.5	<1.0	<1	<3	2	<3	<1	13
JUL 10...	1	4	<0.5	<1.0	1	<3	2	12	3	6
AUG 28...	1	5	<0.5	<1.0	1	<3	1	13	1	7

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
JAN 23...	4	<0.1	<10	10	<1	<1.0	570	<6	<3
JUN 05...	<1	0.5	<10	<1	<1	<1.0	--	<6	<3
JUL 10...	<1	0.1	<10	<1	<1	<1.0	440	<6	22
AUG 28...	5	5.9	<10	<1	<1	<1.0	600	<6	4

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02240500 OKLAWAHA RIVER AT EUREKA, FL

LOCATION.--Lat 29°22'18", long 81°54'07", in SW¼ sec.9, T.13 S., R.24 E., Marion County, Hydrologic Unit 03080102, near right bank on upstream end of pier of bridge on county road 316 in Eureka, 3.1 mi downstream from Eaton Creek, and 33.1 mi upstream from mouth.

DRAINAGE AREA.--1,367 mi².

PERIOD OF RECORD.--February 1930 to June 1934, September 1943 to December 1952, January 1981 to current year.

REVISED RECORDS.--WDR FL-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Feb. 13, 1930, to June 30, 1934, nonrecording gage, and Sept. 16, 1943, to Dec. 31, 1952, water-stage recorder near present site at datum 15.44 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--22 years (water years 1931-34, 1944-52, 1982-90), 1,305 ft³/s, 12.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,230 ft³/s, Sept. 7, 1933; maximum gage height, 26.52 ft, Apr. 11, 1982; minimum discharge, 602 ft³/s, Sept. 28, 29, 1990, minimum gage height, 18.08 ft, Feb. 2, 1933, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s, Jan. 10; maximum gage height, 20.41 ft, Aug. 6; minimum discharge, 602 ft³/s, Sept. 28, 29; minimum gage height, 19.24 ft, June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	972	758	726	802	785	888	734	714	642	847	906	671
2	932	754	719	790	774	852	740	705	646	854	905	667
3	903	749	714	776	767	823	800	701	658	901	908	665
4	877	742	707	774	757	801	792	702	665	939	914	658
5	852	736	703	842	754	790	786	702	660	948	914	651
6	832	733	705	896	751	780	785	704	671	932	925	648
7	815	729	710	927	747	776	783	708	690	914	960	637
8	807	726	722	972	748	780	778	695	681	894	937	630
9	804	739	758	1000	746	776	774	685	670	880	925	629
10	804	749	749	1030	758	766	768	701	668	877	910	631
11	803	745	741	1030	848	758	767	702	673	871	904	628
12	802	739	738	1000	858	754	755	697	666	848	930	624
13	793	735	742	963	838	747	748	691	657	845	917	622
14	789	730	740	926	821	739	746	683	647	856	946	619
15	786	724	737	900	810	732	724	682	640	859	916	616
16	782	720	736	885	798	723	708	677	632	840	894	626
17	777	714	736	878	795	712	693	671	629	828	875	654
18	769	711	750	869	794	715	686	672	631	851	869	642
19	765	709	774	861	781	719	684	683	627	882	860	633
20	755	708	904	854	798	724	683	694	619	900	844	627
21	748	702	928	848	838	726	680	684	614	917	825	628
22	744	699	906	837	833	728	679	681	619	911	806	629
23	742	710	936	818	896	728	728	679	685	905	751	630
24	744	719	932	803	981	723	793	678	710	891	702	628
25	747	719	902	796	1010	720	741	674	714	887	669	618
26	752	736	875	806	998	717	727	669	728	929	649	611
27	766	740	857	799	967	714	717	669	771	920	672	606
28	776	737	847	801	925	709	711	671	769	912	686	603
29	776	736	834	803	---	707	716	667	802	915	654	605
30	772	734	821	797	---	717	720	660	835	912	642	609
31	765	---	805	793	---	734	---	651	---	907	665	---
TOTAL	24751	21882	24454	26876	23176	23279	22146	21252	20319	27572	25880	18945
MEAN	798	729	789	867	828	751	738	686	677	889	835	631
MAX	972	758	936	1030	1010	888	800	714	835	948	960	671
MIN	742	699	703	774	746	707	679	651	614	828	642	603
CFSM	.58	.53	.58	.63	.61	.55	.54	.50	.50	.65	.61	.46
IN.	.67	.60	.67	.73	.63	.63	.60	.58	.55	.75	.70	.52

CAL YR 1989 TOTAL 323467 MEAN 886 MAX 1450 MIN 699 CFSM .65 IN. 8.80
WTR YR 1990 TOTAL 280532 MEAN 769 MAX 1030 MIN 603 CFSM .56 IN. 7.63

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02240902 PRAIRIE CREEK NEAR GAINESVILLE, FL

LOCATION.--Lat 29°36'41", long 82°14'56", in NW¼ sec.19, T.10 S., R.21 E., Alachua County, Hydrologic Unit 03080102, on upstream side of bridge on State Highway 20, 50 ft downstream from control at outlet of Newmans Lake, 7 mi southeast of Gainesville, and 8.4 mi upstream from mouth (at Orange Lake).

DRAINAGE AREA.--114 mi².

PERIOD OF RECORD.--1947-48, 1956, 1965-67 (miscellaneous discharge measurements and gage heights only), August 1978 to current year.

REVISED RECORDS.--WDR FL-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 61.79 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Aug. 24, 1978, nonrecording gage at same site at datum 0.50 ft higher.

REMARKS.--Records good. Some regulation by stoplogs in control 50 ft upstream.

AVERAGE DISCHARGE.--12 years, 64.2 ft³/s, 7.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 812 ft³/s, Mar. 15, 1948; maximum gage height observed, 8.02 ft, present datum, Mar. 15, 1948; minimum discharge, 0.25 ft³/s, Jan. 17, 1988; minimum gage height, 1.65 ft, present datum, Apr. 23, 1956, June 15, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft³/s, July 24, Aug. 4, 8; maximum gage height, 2.68 ft, Aug. 4; minimum discharge, 2.1 ft³/s, Jan. 7, gage height, 2.07 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.6	3.3	3.2	7.0	12	11	11	8.6	8.6	13	12
2	11	8.6	3.2	3.1	7.0	13	12	11	8.5	8.8	14	13
3	11	8.5	3.3	2.6	7.0	13	13	11	8.4	9.0	15	12
4	11	8.2	3.2	2.4	6.9	14	12	11	8.4	9.0	16	12
5	11	7.8	3.2	2.4	7.1	14	12	11	8.4	8.9	15	12
6	11	7.7	3.1	2.3	7.0	14	12	11	8.5	8.9	14	12
7	10	7.6	3.1	2.2	7.0	14	12	11	8.5	8.8	15	12
8	10	7.3	3.2	2.2	7.0	13	12	11	8.5	8.8	15	12
9	11	7.6	3.3	2.7	6.7	13	13	11	8.4	8.7	14	12
10	10	7.7	3.3	3.1	6.8	13	14	11	8.4	8.6	14	12
11	10	7.4	3.2	3.2	7.1	13	12	11	8.2	8.6	14	12
12	10	7.0	2.8	5.6	7.1	13	12	11	8.3	8.7	14	12
13	9.9	7.0	2.6	8.8	7.1	13	12	10	8.1	8.8	13	12
14	9.8	7.0	3.0	8.3	7.1	13	12	10	8.0	8.9	13	11
15	9.8	6.8	3.3	8.1	7.1	13	11	10	7.9	9.0	13	11
16	9.7	6.9	3.4	7.8	7.1	13	11	10	7.8	9.1	12	11
17	9.6	4.0	3.3	7.7	8.0	13	11	10	7.8	9.3	12	11
18	9.3	3.8	3.3	7.7	8.7	13	11	10	7.8	9.1	12	11
19	9.2	3.7	3.3	7.6	8.4	13	11	10	7.6	9.0	12	11
20	8.7	3.8	3.3	7.4	9.1	12	11	9.6	7.5	9.0	12	11
21	8.7	3.9	3.3	7.2	9.3	11	11	9.5	7.5	11	11	10
22	8.8	3.9	3.3	7.2	9.1	11	11	9.4	7.6	15	11	10
23	8.6	4.3	3.5	7.1	10	11	11	9.5	8.5	15	11	10
24	8.8	3.9	3.2	7.1	12	11	11	9.4	8.7	16	11	10
25	8.8	3.7	3.2	7.1	12	11	11	9.1	8.8	15	11	9.8
26	8.6	3.6	3.3	7.5	12	11	11	9.0	8.7	15	11	9.8
27	8.6	3.5	3.2	7.4	12	11	11	9.0	8.8	15	12	9.6
28	8.8	3.3	3.2	7.2	13	11	11	8.8	8.8	15	12	9.7
29	8.9	3.5	3.2	7.1	---	11	11	8.7	8.7	15	11	9.8
30	8.3	3.6	3.3	7.1	---	11	11	8.8	8.8	14	11	9.8
31	8.6	---	3.3	7.3	---	11	---	8.7	---	14	11	---
TOTAL	298.5	174.2	99.7	177.7	235.7	383	347	311.5	248.5	337.6	395	332.5
MEAN	9.63	5.81	3.22	5.73	8.42	12.4	11.6	10.0	8.28	10.9	12.7	11.1
MAX	11	8.6	3.5	8.8	13	14	14	11	8.8	16	16	13
MIN	8.3	3.3	2.6	2.2	6.7	11	11	8.7	7.5	8.6	11	9.6
CFSM	.08	.05	.03	.05	.07	.11	.10	.09	.07	.10	.11	.10
IN.	.10	.06	.03	.06	.08	.12	.11	.10	.08	.11	.13	.11

CAL YR 1989 TOTAL 5863.5 MEAN 16.1 MAX 57 MIN 2.6 CFSM .14 IN. 1.91
WTR YR 1990 TOTAL 3340.9 MEAN 9.15 MAX 16 MIN 2.2 CFSM .08 IN. 1.09

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240902 PRAIRIE CREEK NEAR GAINESVILLE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.46	2.39	2.20	2.19	2.35	2.51	2.43	2.44	2.36	2.36	2.53	2.46
2	2.45	2.39	2.19	2.18	2.35	2.52	2.46	2.45	2.36	2.37	2.56	2.50
3	2.45	2.39	2.20	2.13	2.35	2.54	2.51	2.44	2.35	2.38	2.62	2.49
4	2.44	2.38	2.19	2.11	2.35	2.56	2.50	2.44	2.35	2.38	2.64	2.48
5	2.44	2.37	2.19	2.10	2.36	2.56	2.49	2.45	2.35	2.38	2.61	2.48
6	2.44	2.37	2.18	2.09	2.35	2.56	2.48	2.44	2.36	2.37	2.58	2.48
7	2.44	2.36	2.18	2.08	2.35	2.57	2.50	2.44	2.36	2.37	2.59	2.46
8	2.44	2.36	2.19	2.08	2.35	2.55	2.50	2.44	2.35	2.37	2.59	2.45
9	2.46	2.37	2.20	2.13	2.34	2.54	2.51	2.43	2.35	2.36	2.57	2.45
10	2.44	2.37	2.20	2.16	2.34	2.54	2.57	2.43	2.35	2.36	2.56	2.48
11	2.44	2.36	2.19	2.17	2.36	2.54	2.46	2.43	2.35	2.36	2.56	2.48
12	2.43	2.35	2.15	2.27	2.36	2.54	2.46	2.43	2.35	2.36	2.55	2.48
13	2.43	2.35	2.12	2.41	2.36	2.53	2.48	2.42	2.34	2.37	2.53	2.46
14	2.42	2.35	2.17	2.39	2.36	2.52	2.50	2.42	2.34	2.38	2.51	2.44
15	2.42	2.34	2.20	2.39	2.36	2.51	2.45	2.42	2.34	2.38	2.50	2.44
16	2.42	2.35	2.21	2.38	2.36	2.53	2.45	2.42	2.33	2.38	2.49	2.43
17	2.42	2.21	2.20	2.38	2.38	2.53	2.45	2.41	2.33	2.39	2.48	2.40
18	2.41	2.21	2.20	2.38	2.41	2.53	2.46	2.41	2.33	2.38	2.49	2.42
19	2.41	2.20	2.20	2.37	2.39	2.53	2.46	2.41	2.32	2.38	2.48	2.41
20	2.39	2.21	2.20	2.37	2.42	2.48	2.45	2.40	2.32	2.38	2.46	2.40
21	2.39	2.22	2.20	2.36	2.42	2.43	2.45	2.39	2.32	2.45	2.44	2.39
22	2.39	2.22	2.20	2.36	2.41	2.43	2.45	2.39	2.32	2.60	2.43	2.38
23	2.39	2.24	2.21	2.36	2.45	2.42	2.45	2.40	2.36	2.61	2.43	2.37
24	2.39	2.23	2.19	2.36	2.50	2.43	2.45	2.39	2.36	2.62	2.44	2.38
25	2.39	2.21	2.19	2.35	2.51	2.44	2.46	2.38	2.37	2.61	2.44	2.36
26	2.39	2.21	2.20	2.37	2.51	2.43	2.45	2.38	2.37	2.62	2.43	2.36
27	2.39	2.20	2.19	2.37	2.51	2.43	2.44	2.38	2.37	2.61	2.45	2.35
28	2.40	2.20	2.19	2.36	2.52	2.43	2.44	2.37	2.37	2.59	2.45	2.36
29	2.40	2.21	2.19	2.35	---	2.43	2.44	2.37	2.37	2.59	2.43	2.36
30	2.38	2.22	2.20	2.35	---	2.42	2.45	2.37	2.37	2.56	2.43	2.36
31	2.39	---	2.20	2.36	---	2.43	---	2.36	---	2.54	2.43	---
MEAN	2.42	2.29	2.19	2.28	2.40	2.50	2.47	2.41	2.35	2.45	2.51	2.43
MAX	2.46	2.39	2.21	2.41	2.52	2.57	2.57	2.45	2.37	2.62	2.64	2.50
MIN	2.38	2.20	2.12	2.08	2.34	2.42	2.43	2.36	2.32	2.36	2.43	2.35
CAL YR 1989	MEAN 2.62	MAX 3.83	MIN 2.12									
WTR YR 1990	MEAN 2.39	MAX 2.64	MIN 2.08									

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02240954 HOGTOWN CREEK NEAR ARREDONDO, FL

LOCATION.--Lat 29°38'17", long 82°23'33", in NE¼ sec.10, T.10 S., R.19 E., Alachua County, Hydrologic Unit 03080102, near right bank at downstream side of bridge on county road 30, 2.5 mi northeast of Arredondo, and 4.2 mi west of Gainesville.

DRAINAGE AREA.--41.2 mi².

PERIOD OF RECORD.--December 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow affected at times by backwater from Haile Sink.

AVERAGE DISCHARGE.--18 years (water years 1973-90), 19.6 ft³/s, 6.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s, Sept. 7, 1988, gage height, 60.53 ft; minimum 0.15 ft³/s, July 8,9,10, 1988; minimum gage height, 55.95 ft, June 14,15, July 28, 1977, May 23,24, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 359 ft³/s, June 24; gage height, 58.45 ft; minimum, 1.3 ft³/s, May 27, June 1,2; minimum gage height, 56.01 ft, June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	2.7	3.5	10	11	11	30	3.7	1.5	16	13	21
2	71	2.5	3.4	17	7.4	9.3	21	3.0	1.4	17	10	15
3	63	2.5	3.5	13	5.9	12	126	2.7	13	101	9.1	20
4	35	2.4	3.3	9.6	5.4	16	100	2.5	24	68	9.4	15
5	18	2.3	3.5	8.4	4.9	12	50	2.4	22	42	7.5	11
6	12	2.3	3.6	8.7	4.5	8.6	24	2.4	28	27	6.5	26
7	8.8	2.6	3.5	13	4.5	7.5	15	2.3	55	17	6.0	19
8	7.4	2.7	5.1	15	4.4	7.2	11	2.0	40	12	12	13
9	6.4	5.3	23	15	4.2	6.9	8.4	2.1	25	9.4	48	9.4
10	5.8	14	20	12	6.1	6.4	7.2	5.2	13	7.5	26	7.9
11	5.4	9.6	11	9.2	26	5.9	9.4	4.6	8.6	7.3	15	7.2
12	5.3	5.7	8.0	8.1	20	5.5	13	2.6	6.1	16	10	6.5
13	6.4	4.3	9.5	7.3	11	5.1	8.1	2.1	4.4	20	8.3	5.2
14	5.3	3.8	11	6.8	8.1	5.2	6.2	1.9	3.5	127	11	5.7
15	4.4	3.7	8.2	6.6	7.0	5.3	5.4	4.7	3.0	269	9.8	6.5
16	4.1	3.8	7.6	6.4	6.3	4.8	5.0	5.6	2.6	163	7.7	11
17	3.8	4.1	8.9	6.2	8.9	4.9	4.4	3.2	2.8	82	6.4	26
18	3.7	3.6	7.9	6.1	15	7.0	4.0	2.2	5.2	47	8.5	19
19	4.4	3.3	8.6	5.8	13	5.6	3.7	1.8	4.3	39	8.2	13
20	4.0	3.1	12	5.6	16	4.5	4.1	1.7	2.7	35	6.0	8.6
21	3.6	3.0	18	5.5	24	3.9	3.6	1.6	2.2	72	7.2	6.4
22	3.2	2.9	13	5.3	16	3.7	3.5	4.1	3.9	70	6.9	5.3
23	3.0	6.9	13	5.0	29	3.5	4.7	3.5	161	60	7.6	5.0
24	3.3	14	18	4.9	62	3.3	26	2.1	308	39	8.4	4.5
25	2.9	8.7	13	5.0	40	3.2	18	1.7	147	25	6.0	3.8
26	2.8	5.9	11	6.2	23	3.0	8.4	1.4	76	18	4.8	2.9
27	2.9	5.3	9.4	6.6	16	2.9	5.3	1.6	163	14	6.8	3.6
28	2.6	4.6	8.5	5.5	12	2.9	4.5	6.6	98	14	166	5.0
29	2.4	4.2	7.8	5.1	---	2.9	6.1	4.4	49	36	102	10
30	2.4	3.7	7.3	5.0	---	3.1	5.1	2.2	26	28	45	15
31	2.7	---	7.0	9.0	---	21	---	1.7	---	17	26	---
TOTAL	351.0	143.5	291.1	252.9	411.6	204.1	541.1	89.6	1300.2	1515.2	625.1	327.5
MEAN	11.3	4.78	9.39	8.16	14.7	6.58	18.0	2.89	43.3	48.9	20.2	10.9
MAX	71	14	23	17	62	21	126	6.6	308	269	166	26
MIN	2.4	2.3	3.3	4.9	4.2	2.9	3.5	1.4	1.4	7.3	4.8	2.9
CFSM	.27	.12	.23	.20	.36	.16	.44	.07	1.05	1.19	.49	.26
IN.	.32	.13	.26	.23	.37	.18	.49	.08	1.17	1.37	.56	.30

CAL YR 1989 TOTAL 3433.8 MEAN 9.41 MAX 71 MIN 1.2 CFSM .23 IN. 3.10
WTR YR 1990 TOTAL 6052.9 MEAN 16.6 MAX 308 MIN 1.4 CFSM .40 IN. 5.47

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240956 HAILE SINK NEAR ARREDONDO, FL

LOCATION.--Lat 29°37'41", long 82°24'40", in NE¼ sec.16, T.10 S., R.19 E., Alachua County, Hydrologic Unit 03080102, on northwest rim of sink, 1.6 mi north of Arredondo, and 5.2 mi west of Gainesville.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1971 to September 1977 and February 1978 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Sink has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 60.15 ft, Sept. 10,11, 1988; minimum, unknown; water level below lowest recordable gage height for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 52.68 ft, July 16; minimum, unknown; water level below lowest recordable gage height.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.27	43.80	43.30	43.26	43.23	43.28	43.73	---	---	44.83	44.95	45.23
2	47.33	43.78	43.26	43.55	43.20	43.18	43.74	---	---	44.30	44.68	44.80
3	47.98	43.76	43.22	43.56	---	43.25	46.03	---	---	45.73	44.53	44.68
4	47.29	43.72	43.17	43.35	---	43.41	48.09	---	---	47.28	44.47	44.57
5	46.30	43.69	---	43.26	---	43.31	46.57	---	---	46.45	44.31	44.23
6	45.65	43.66	---	43.28	---	---	44.95	---	---	45.59	44.18	44.41
7	45.31	43.65	---	43.43	---	---	43.99	---	43.74	44.79	44.11	44.61
8	45.13	43.65	---	43.70	---	---	43.47	---	44.19	44.22	44.34	44.24
9	44.95	43.72	43.53	43.67	---	---	43.23	---	43.95	44.09	45.53	44.08
10	44.81	44.06	44.10	43.50	---	---	---	---	43.41	44.09	45.64	44.07
11	44.71	44.13	43.75	43.31	43.51	---	---	---	---	44.08	44.97	44.06
12	44.64	43.82	43.48	43.20	43.88	---	43.27	---	---	44.05	44.47	44.06
13	44.66	43.66	43.41	---	43.37	---	---	---	---	44.03	44.22	44.05
14	44.61	43.60	43.45	---	---	---	---	---	---	46.03	44.22	44.05
15	44.54	43.58	43.34	---	---	---	---	---	---	51.62	44.19	44.04
16	44.49	43.57	43.26	---	---	---	---	---	---	52.57	44.12	44.03
17	44.45	43.54	43.26	---	---	---	---	---	---	51.70	44.10	44.15
18	44.42	43.48	43.25	---	43.31	---	---	---	---	49.35	44.09	44.27
19	44.40	43.42	43.23	---	43.38	---	---	---	---	47.46	44.09	44.03
20	44.29	43.39	43.39	---	43.43	---	---	---	---	46.79	44.08	43.95
21	44.15	43.37	43.68	---	43.77	---	---	---	---	47.23	44.08	43.95
22	44.05	43.36	43.65	---	43.68	42.34	---	---	---	48.37	44.08	43.95
23	43.99	43.48	43.53	---	43.97	---	42.34	---	44.81	48.26	44.07	43.91
24	43.97	43.80	43.67	42.84	45.02	---	---	42.01	51.28	47.60	44.07	43.80
25	43.95	43.79	43.64	---	45.05	---	43.50	---	52.17	46.68	44.04	---
26	43.91	43.57	43.45	---	44.29	---	---	---	49.92	45.90	43.99	---
27	43.89	43.49	43.34	---	43.75	---	---	---	49.20	45.37	43.98	---
28	43.87	43.45	43.25	---	43.46	---	---	---	50.06	45.11	46.36	---
29	43.84	43.41	43.20	---	---	---	---	---	47.64	45.49	50.24	---
30	43.82	43.36	---	---	---	---	---	---	45.90	45.91	48.01	---
31	43.81	---	---	---	---	---	---	---	---	45.41	45.85	---
MEAN	44.82	43.63	---	---	---	---	---	---	---	46.46	44.78	---
MAX	47.98	44.13	---	---	---	---	---	---	---	52.57	50.24	---
MIN	43.81	43.36	---	---	---	---	---	---	---	44.03	43.98	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02241000 CAMPS CANAL NEAR ROCHELLE, FL

LOCATION.--Lat 29°34'33", long 82°15'00", in SW¼ sec.31, Moses Levy Land Grant, Alachua County, Hydrologic Unit 03080102, near left bank on downstream side of bridge on county road 234, 2.2 mi southwest of Rochelle, and 5.0 mi upstream from Orange Lake.

DRAINAGE AREA.--775 mi², includes Paynes Prairie, a diked sinkhole area of 650 mi², approximately, which is noncontributing except by pumpage.

PERIOD OF RECORD.--March 1948 to November 1952 (discharge measurements only), August 1957 to September 1960, March 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 53.44 ft above National Geodetic Vertical Datum of 1929. Mar. 16, 1948 to Nov. 14, 1952, reference point at datum 15.27 ft higher. Aug. 8, 1957, to Oct. 28, 1960, water-stage recorder at datum 5.00 ft higher.

REMARKS.--Records poor. Seasonal diversion out of or into canal above station by drainage and/or pumpage for irrigation of pastures in Paynes Prairie.

AVERAGE DISCHARGE.--15 years (water years 1958-60, 1979-90), 75.2 ft³/s, 1.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s, Mar. 24, 1959, gage height, 13.21 ft, present datum; no flow June 8-13, July 11,12, 1985; minimum gage height, 6.15 ft, June 12, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft³/s, Aug. 8, gage height, 7.49; minimum, 4.0 ft³/s, Jan. 5,6, 9,10, gage height, 6.91 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.5	5.1	5.3	7.6	8.9	8.6	7.7	6.5	7.1	9.1	8.7
2	10	8.4	5.0	5.0	7.5	8.9	9.5	7.7	6.3	7.2	8.9	10
3	9.8	8.5	4.9	4.8	7.5	10	12	7.6	6.6	7.5	10	10
4	9.5	8.4	4.7	4.4	7.5	10	10	7.6	6.5	7.4	11	9.8
5	9.4	8.3	4.7	4.2	7.4	9.7	9.1	7.6	6.5	7.3	11	10
6	9.5	8.2	4.7	4.3	7.4	9.5	9.0	7.6	6.5	7.2	11	10
7	9.5	8.2	4.6	4.7	7.4	9.6	9.0	7.5	6.4	7.1	12	10
8	9.4	8.2	5.0	4.5	7.3	9.7	9.0	7.5	6.3	6.9	12	9.4
9	9.1	9.2	5.6	4.1	7.2	9.3	8.8	7.5	6.2	6.9	12	9.1
10	9.4	8.8	5.1	4.3	7.6	9.3	9.7	7.8	6.2	7.0	11	9.5
11	9.3	8.4	5.0	4.6	8.0	9.3	9.1	7.5	6.1	6.8	11	9.4
12	9.1	8.2	5.0	4.7	7.6	9.2	8.5	7.4	6.0	6.9	10	9.7
13	9.1	8.0	5.1	6.7	7.5	9.2	8.4	7.3	5.8	7.4	9.9	9.4
14	9.0	7.9	4.4	7.6	7.4	9.1	8.5	7.3	5.8	8.3	9.6	9.1
15	9.0	8.0	4.5	7.7	7.4	9.0	8.5	8.4	5.7	8.0	9.4	8.9
16	8.9	8.2	5.0	7.7	7.3	8.9	8.3	7.7	5.6	7.7	8.9	9.5
17	8.9	7.7	5.0	7.7	8.4	9.2	8.2	7.5	6.0	7.5	9.0	9.9
18	8.9	6.3	5.1	7.7	8.6	9.4	8.1	7.3	6.8	7.5	9.1	8.7
19	8.9	5.8	5.1	7.7	8.1	9.1	8.1	7.2	6.0	7.6	9.0	8.7
20	8.7	5.3	5.5	7.7	8.4	9.0	8.2	7.1	5.7	7.7	9.0	8.5
21	8.6	5.2	5.4	7.7	8.2	8.4	8.0	7.0	5.5	8.4	8.7	8.3
22	8.5	5.2	5.2	7.6	8.3	8.1	7.9	7.0	5.8	9.9	8.6	8.2
23	8.4	6.1	5.6	7.5	10	8.1	8.2	7.0	9.8	11	8.8	8.1
24	8.4	6.0	5.4	7.5	9.4	8.0	8.5	6.9	8.1	11	8.6	8.0
25	8.4	5.7	5.2	7.6	9.0	8.2	8.2	6.8	7.1	11	8.4	8.1
26	8.4	5.7	5.1	7.6	8.9	8.1	8.0	6.8	7.0	11	8.4	8.2
27	8.5	5.5	5.0	7.6	8.9	8.1	7.9	6.9	7.3	11	8.6	8.2
28	8.5	5.4	5.0	7.6	9.0	8.1	7.8	7.3	7.0	10	8.8	8.3
29	8.5	5.3	4.9	7.6	---	8.3	7.8	6.9	7.1	10	8.4	8.6
30	8.5	5.2	4.9	7.6	---	8.2	7.8	6.6	7.6	9.9	8.3	8.6
31	8.5	---	5.0	7.6	---	9.9	---	6.5	---	9.3	8.6	---
TOTAL	279.6	213.8	155.8	198.9	224.8	277.8	258.7	226.5	195.8	259.5	297.1	271.1
MEAN	9.02	7.13	5.03	6.42	8.03	8.96	8.62	7.31	6.53	8.37	9.58	9.04
MAX	11	9.2	5.6	7.7	10	10	12	8.4	9.8	11	12	10
MIN	8.4	5.2	4.4	4.1	7.2	8.0	7.8	6.5	5.5	6.8	8.3	8.0
CFSM	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
IN.	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01

CAL YR 1989 TOTAL 4806.2 MEAN 13.2 MAX 35 MIN 4.4 CFSM .02 IN. .23
WTR YR 1990 TOTAL 2859.4 MEAN 7.83 MAX 12 MIN 4.1 CFSM .01 IN. .14

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.27	7.21	6.99	7.00	7.18	7.29	7.26	7.19	7.10	7.14	7.30	7.26
2	7.26	7.21	6.98	6.98	7.18	7.29	7.28	7.19	7.09	7.15	7.28	7.32
3	7.24	7.21	6.98	6.97	7.17	7.33	7.38	7.18	7.11	7.17	7.32	7.32
4	7.23	7.20	6.96	6.94	7.17	7.33	7.33	7.18	7.10	7.16	7.35	7.32
5	7.23	7.20	6.96	6.92	7.16	7.32	7.30	7.18	7.10	7.16	7.35	7.34
6	7.23	7.20	6.96	6.93	7.16	7.31	7.29	7.18	7.10	7.15	7.35	7.34
7	7.23	7.20	6.95	6.96	7.16	7.32	7.29	7.18	7.09	7.14	7.38	7.33
8	7.23	7.20	6.98	6.94	7.15	7.32	7.29	7.17	7.09	7.13	7.39	7.31
9	7.23	7.26	7.03	6.91	7.15	7.30	7.28	7.17	7.08	7.13	7.38	7.30
10	7.24	7.24	6.99	6.93	7.18	7.31	7.31	7.20	7.07	7.13	7.36	7.31
11	7.24	7.22	6.98	6.96	7.22	7.31	7.29	7.18	7.07	7.12	7.34	7.31
12	7.23	7.20	6.98	6.96	7.18	7.30	7.25	7.16	7.06	7.13	7.33	7.32
13	7.23	7.19	6.99	7.11	7.17	7.30	7.24	7.16	7.05	7.16	7.32	7.31
14	7.22	7.19	6.94	7.18	7.16	7.30	7.25	7.16	7.05	7.24	7.31	7.30
15	7.22	7.20	6.94	7.19	7.16	7.29	7.25	7.24	7.04	7.22	7.31	7.29
16	7.22	7.21	6.98	7.19	7.16	7.29	7.24	7.19	7.03	7.19	7.28	7.31
17	7.23	7.17	6.98	7.19	7.24	7.30	7.23	7.17	7.06	7.17	7.29	7.32
18	7.23	7.07	6.99	7.19	7.26	7.31	7.22	7.16	7.12	7.17	7.29	7.27
19	7.22	7.02	6.99	7.19	7.22	7.30	7.22	7.15	7.06	7.18	7.29	7.26
20	7.21	7.00	7.02	7.19	7.24	7.29	7.23	7.14	7.04	7.19	7.29	7.25
21	7.19	6.99	7.01	7.19	7.23	7.24	7.22	7.13	7.02	7.24	7.26	7.24
22	7.19	6.99	7.00	7.18	7.23	7.22	7.21	7.13	7.05	7.32	7.26	7.23
23	7.19	7.06	7.03	7.17	7.33	7.22	7.23	7.13	7.29	7.34	7.27	7.22
24	7.19	7.05	7.01	7.17	7.31	7.21	7.25	7.13	7.22	7.34	7.26	7.22
25	7.20	7.03	6.99	7.18	7.29	7.23	7.23	7.12	7.14	7.34	7.25	7.22
26	7.20	7.03	6.99	7.18	7.29	7.22	7.22	7.12	7.13	7.35	7.24	7.23
27	7.20	7.02	6.98	7.18	7.28	7.22	7.20	7.13	7.15	7.35	7.26	7.23
28	7.20	7.01	6.98	7.18	7.29	7.22	7.20	7.16	7.14	7.34	7.28	7.24
29	7.20	7.01	6.98	7.18	---	7.23	7.20	7.13	7.14	7.34	7.25	7.26
30	7.21	7.00	6.97	7.18	---	7.23	7.20	7.11	7.18	7.32	7.24	7.27
31	7.21	---	6.98	7.18	---	7.32	---	7.10	---	7.31	7.26	---
MEAN	7.22	7.13	6.98	7.09	7.21	7.28	7.25	7.16	7.10	7.22	7.30	7.28
MAX	7.27	7.26	7.03	7.19	7.33	7.33	7.38	7.24	7.29	7.35	7.39	7.34
MIN	7.19	6.99	6.94	6.91	7.15	7.21	7.20	7.10	7.02	7.12	7.24	7.22
CAL YR 1989	MEAN 7.30		MAX 7.76		MIN 6.94							
WTR YR 1990	MEAN 7.19		MAX 7.39		MIN 6.91							

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02242451 ORANGE LAKE OUTLET NEAR CITRA, FL

LOCATION.--Lat 29°26'30", long 82°06'33", in SE¼ sec.16, T.12 S., R.22 E., Alachua County, Hydrologic Unit 03080102, near left bank on upstream side of northbound bridge on U.S. Highway 301, 0.8 mi south of Island Grove, and 1.8 mi north of Citra.

DRAINAGE AREA.--1,012 mi².

PERIOD OF RECORD.--1941, 1957, 1960 (miscellaneous discharge measurements only); January 1947 to September 1955; April 1982 to current year.

GAGE.--Water-stage recorder and concrete weir with notch. Datum of gage is 53.41 ft above National Geodetic Vertical Datum of 1929. Prior to September 1955, near present site at same datum.

REMARKS.--Estimated daily discharges: Oct. 4 to Dec. 13, Apr. 17 to May 8. Records poor. Orange and Lochloosa Lakes are connected by Cross Creek through which there is a natural diversion from one lake to the other.

AVERAGE DISCHARGE.--17 years (water years 1947-55, 1983-90), 97.2 ft³/s, 1.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s, Apr. 4, 1987; maximum gage height, 7.81 ft, Mar. 17, 1948; no flow for many days in some years; outlet dry at gage for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.63 ft³/s, Oct. 2, gage height, 2.11 ft; no flow for many days; minimum gage height, -0.51 ft, Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.04	.03	.07	.00	.05	.00	.00	.00	.00	.00	.00
2	.59	.04	.03	.06	.00	.04	.00	.00	.00	.00	.00	.00
3	.57	.04	.03	.06	.00	.04	.02	.00	.00	.00	.00	.00
4	.52	.04	.03	.05	.00	.03	.02	.00	.00	.00	.00	.00
5	.43	.04	.03	.05	.00	.02	.01	.00	.00	.00	.00	.00
6	.35	.04	.03	.05	.00	.02	.00	.00	.00	.00	.00	.00
7	.30	.04	.03	.06	.00	.02	.00	.00	.00	.00	.00	.00
8	.26	.04	.03	.09	.00	.02	.00	.00	.00	.00	.00	.00
9	.23	.03	.03	.07	.00	.02	.00	.00	.00	.00	.00	.00
10	.21	.03	.03	.06	.01	.02	.00	.00	.00	.00	.00	.00
11	.18	.03	.03	.05	.05	.01	.00	.00	.00	.00	.00	.00
12	.16	.03	.03	.05	.04	.00	.00	.00	.00	.00	.00	.00
13	.15	.03	.04	.04	.03	.00	.00	.00	.00	.00	.00	.00
14	.14	.03	.04	.04	.02	.00	.00	.00	.00	.00	.00	.00
15	.13	.03	.03	.04	.02	.00	.00	.00	.00	.00	.00	.00
16	.12	.03	.02	.04	.02	.00	.00	.00	.00	.00	.00	.00
17	.11	.03	.02	.03	.02	.00	.00	.00	.00	.00	.00	.00
18	.10	.03	.04	.02	.02	.00	.00	.00	.00	.00	.00	.00
19	.09	.03	.06	.02	.02	.00	.00	.00	.00	.00	.00	.00
20	.09	.03	.15	.02	.03	.00	.00	.00	.00	.00	.00	.00
21	.08	.03	.13	.02	.03	.00	.00	.00	.00	.00	.00	.00
22	.08	.03	.11	.02	.02	.00	.00	.00	.00	.00	.00	.00
23	.07	.03	.18	.01	.17	.00	.00	.00	.00	.00	.00	.00
24	.07	.03	.15	.01	.17	.00	.00	.00	.00	.00	.00	.00
25	.06	.03	.13	.01	.12	.00	.00	.00	.00	.00	.00	.00
26	.06	.03	.13	.02	.08	.00	.00	.00	.00	.00	.00	.00
27	.06	.03	.11	.01	.07	.00	.00	.00	.00	.00	.00	.00
28	.05	.03	.10	.01	.06	.00	.00	.00	.00	.00	.00	.00
29	.05	.03	.08	.01	---	.00	.00	.00	.00	.00	.00	.00
30	.05	.03	.07	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.05	---	.07	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	5.95	0.98	2.02	1.09	1.00	0.29	0.05	0.00	0.00	0.00	0.00	0.00
MEAN	.19	.033	.065	.035	.036	.009	.002	.000	.000	.000	.000	.000
MAX	.59	.04	.18	.09	.17	.05	.02	.00	.00	.00	.00	.00
MIN	.05	.03	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 3313.98 MEAN 9.08 MAX 55 MIN .02 CFSM .01 IN. .12
WTR YR 1990 TOTAL 11.38 MEAN .031 MAX .59 MIN .00 CFSM .00 IN. .00

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02242500 LOCHLOOSA SLOUGH NEAR LOCHLOOSA, FL

LOCATION.--Lat 29°29'17", long 82°06'07", in SW¼ sec.34, T.11 S., R.22 E., Alachua County, Hydrologic Unit 03080102, near left bank at upstream side of culverts on U.S. Highway 301, 1.2 mi south of Lochloosa, and 2.4 mi north of Island Grove.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1947 to September 1955; April 1982 to current year. Prior to April 1982, published as Lochloosa Lake Outlet near Lochloosa.

GAGE.--Water-stage recorder. Datum of gage is 53.41 ft above National Geodetic Vertical Datum of 1929. Prior to September 1955, near present site at datum 2.00 ft higher.

REMARKS.--Records poor. Station does not represent the entire outflow of Lochloosa Lake as there is a natural diversion through Cross Creek into Orange Lake.

AVERAGE DISCHARGE.--17 years (water years 1947-55, 1983-90), 19.2 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 341 ft³/s, Mar. 12,13, 1948, gage height, 6.04 ft, site and datum then in use; no flow for many days in most years; slough dry at times in 1955, 1985, 1986, 1989, 1990.

EXTREMES FOR CURRENT YEAR.--No flow for the entire year. Channel dry for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 69.81 MEAN .19 MAX 2.6 MIN .00
WTR YR 1990 TOTAL 0.00 MEAN .000 MAX .00 MIN .00

e Estimated

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02243000 ORANGE CREEK AT ORANGE SPRINGS, FL

LOCATION.--Lat 29°30'34", long 81°56'47", in NE¼ sec.25, T.11 S., R.23 E., Marion County, Hydrologic Unit 03080102, near right bank at downstream side of bridge on State Highway 21, 0.2 mi northwest of Orange Springs, and 1.2 mi upstream from Little Orange Creek.

DRAINAGE AREA.--1,119 mi², includes Paynes prairie, a diked sinkhole area of 650 mi², approximately, which is noncontributing except by pumpage.

PERIOD OF RECORD.--November 1941 to June 1942 (discharge measurements only), July 1942 to December 1952, October 1955 to September 1971, October 1971 to April 1975 (discharge measurements only), May 1975 to current year.

REVISED RECORDS.--WDR FL-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 19.81 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 18, 1955, and Oct. 13, 1971, to May 6, 1975, nonrecording gage at same site and datum. Feb. 4, 1980, to May 7, 1981, temporary gage 125 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 1-9, Feb. 21 to Mar. 20. Records good except for periods of estimated daily record, which are poor. Records include some flow diverted, during periods of high stages, from Santa Fe Lake in Suwannee River basin through Lochloosa Creek. Since April 1963, concrete dam at outlet of Orange Lake, 11 mi upstream from station.

AVERAGE DISCHARGE.--41 years (water years 1943-52, 1956-71, 1976-90), 153 ft³/s, 1.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft³/s, Sept. 13, 1964, gage height, 9.86 ft; minimum daily, 2.0 ft³/s, May 31, June 1, 3-5, 9-14, 1956, June 1, 1990; minimum gage height, 0.54 ft, part or all of each day Sept. 13-15, 21-28, 1990.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1941 reached a stage of 10.6 ft, from information by local resident, discharge, 2,400 ft³/s, from rating curve extended above 1,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 24	----	unknown	unknown				

Minimum discharge, 2.0 ft³/s, part or all of each day May 31, June 1,3; minimum gage height, 0.54 ft, part or all of each day Sept. 13-15, 21-28.

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02243000 ORANGE CREEK AT ORANGE SPRINGS, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.8	8.1	9.7	6.9	20	4.3	3.1	2.0	3.5	3.9	3.4
2	12	5.6	7.4	9.0	6.6	18	5.0	3.0	2.1	3.3	3.7	3.3
3	11	5.6	6.8	8.8	6.4	16	21	2.9	2.2	3.5	3.7	3.3
4	10	5.5	6.5	9.5	6.1	15	12	2.8	2.2	3.6	3.9	3.1
5	9.4	5.4	6.6	10	6.0	14	9.1	2.8	2.1	3.4	3.6	3.0
6	8.8	5.3	6.7	9.8	5.9	13	7.3	2.9	2.6	3.2	4.2	2.9
7	8.0	5.3	6.7	11	5.9	12	6.4	2.9	3.8	3.0	4.2	2.8
8	7.6	5.4	7.0	13	5.8	11	5.9	2.7	2.9	2.9	4.7	2.7
9	7.4	7.5	8.0	13	5.7	10	5.5	2.7	2.9	2.8	5.3	2.6
10	7.2	8.1	7.8	12	7.2	9.6	5.3	3.4	3.2	2.7	4.8	2.5
11	7.2	7.6	7.3	12	22	9.3	5.1	3.4	2.9	2.8	4.4	2.5
12	7.2	6.9	7.3	11	15	9.0	4.7	3.0	2.7	3.5	4.1	2.5
13	7.4	6.5	8.3	9.5	12	8.3	4.5	2.8	2.5	4.0	3.8	2.4
14	6.9	6.2	7.9	8.7	11	7.8	4.3	2.6	2.4	5.0	3.7	2.3
15	6.6	6.1	7.4	8.2	9.8	7.2	4.3	2.5	2.4	7.5	4.3	2.3
16	6.4	6.2	7.2	8.0	8.7	6.8	4.2	2.7	2.4	5.6	4.1	2.6
17	6.1	6.2	7.2	7.7	9.5	6.4	3.9	2.5	2.4	4.8	3.7	2.9
18	6.4	6.1	8.2	7.6	11	6.0	3.6	2.5	2.4	5.1	4.5	2.8
19	7.3	6.0	9.8	7.3	10	5.7	3.6	2.4	2.3	5.6	4.4	2.5
20	6.8	5.8	14	7.0	10	5.5	3.7	2.4	2.3	5.0	3.8	2.4
21	6.5	5.7	13	7.0	10	5.2	3.6	2.4	2.2	10	3.5	2.3
22	6.2	5.6	11	7.0	11	5.1	3.5	2.3	2.4	8.1	3.6	2.3
23	6.0	8.4	13	6.6	12	4.9	3.8	2.3	4.4	6.1	4.0	2.2
24	5.8	9.7	12	6.5	60	4.8	5.4	2.3	7.0	5.1	3.8	2.1
25	5.7	8.1	11	6.4	41	4.6	4.9	2.2	4.7	4.8	3.5	2.2
26	5.7	8.2	11	6.9	31	4.5	4.3	2.1	3.9	10	3.4	2.2
27	5.7	8.1	12	6.8	26	4.4	3.8	2.1	5.4	8.6	3.4	2.2
28	5.9	8.3	14	6.6	23	4.4	3.5	2.2	4.6	6.3	3.4	2.2
29	5.8	9.2	13	6.6	---	4.2	3.6	2.1	3.8	5.4	3.2	2.5
30	5.7	8.7	11	7.1	---	4.2	3.3	2.1	3.8	4.9	3.2	2.7
31	5.9	---	10	7.6	---	4.4	---	2.1	---	4.3	3.6	---
TOTAL	226.6	203.1	287.2	267.9	395.5	261.3	163.4	80.2	92.9	154.4	121.4	77.7
MEAN	7.31	6.77	9.26	8.64	14.1	8.43	5.45	2.59	3.10	4.98	3.92	2.59
MAX	12	9.7	14	13	60	20	21	3.4	7.0	10	5.3	3.4
MIN	5.7	5.3	6.5	6.4	5.7	4.2	3.3	2.1	2.0	2.7	3.2	2.1
CFSM	.01	.01	.01	.01	.01	.01	.01	.00	.00	.00	.00	.00
IN.	.01	.01	.01	.01	.01	.01	.01	.00	.00	.01	.00	.00
CAL YR 1989	TOTAL 6901.0	MEAN 18.9	MAX 69	MIN 3.2	CFSM .02	IN. .24						
WTR YR 1990	TOTAL 2331.6	MEAN 6.39	MAX 60	MIN 2.0	CFSM .01	IN. .08						

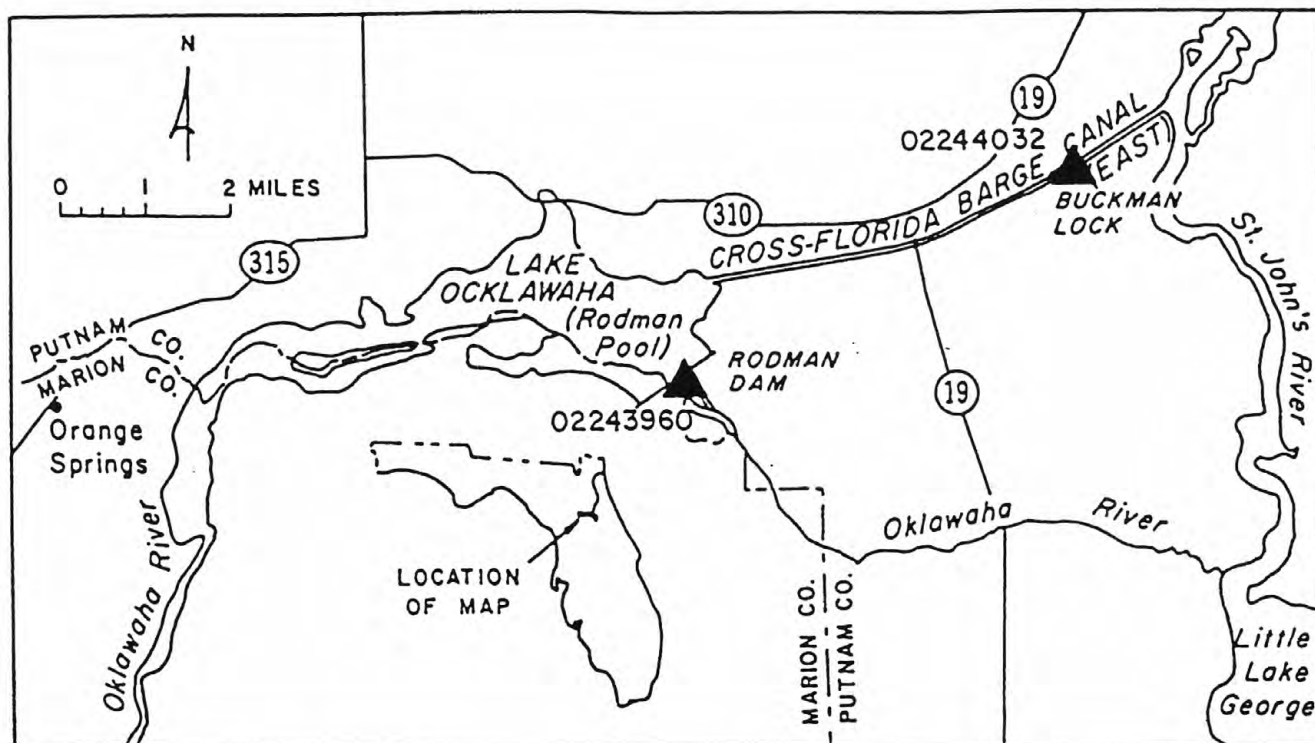


Figure 17.--Location of stream gaging stations in the lower Oklawaha River basin.

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02243960 OKLAWAHA RIVER AT RODMAN DAM, NEAR ORANGE SPRINGS, FL

LOCATION.--Lat 29°30'30", long 81°48'15", in NW¼ sec.28, T.11 S., R.25 E., Putnam County, Hydrologic Unit 03080102, at downstream side of control structure of Rodman Dam, 8.4 mi east of Orange Springs, and 11.6 mi upstream from mouth.

DRAINAGE AREA.--2,747 mi², includes Paynes Prairie, a diked sinkhole area of 650 mi², approximately, which is noncontributing except for pumpage.

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR FL-77-1: Drainage area.

GAGE.--Dual water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Auxiliary gage at upstream side of control structure at same datum.

REMARKS.--Records fair. Flow regulated by manipulation of gates in spillway; dam completed and flow through spillway began on Sept. 30, 1968. Discharge computed from relation between discharge, head, and gate openings. Since November 1969, diversion above station from Lake Ocklawaha for boat lockages, through Cross-Florida Barge Canal (see station 02244032) to St. Johns River. Records of gage height for auxiliary station are published as elevations for Lake Ocklawaha (station 02243958) in the section of this report entitled LAKE ELEVATIONS.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--22 years, 1,427 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 9,560 ft³/s, Feb. 5, 1970; maximum gage height, 9.64 ft, Apr. 12, 1982; gates closed and flow consists of unknown leakage Mar. 9, 1969; minimum gage height, 0.80 ft, June 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,430 ft³/s, Apr. 4; maximum gage height, 5.44 ft, Oct. 1; minimum daily discharge, 426 ft³/s, Apr. 21; minimum gage height, 2.41 ft, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	817	855	1140	860	1150	716	574	571	718	709	712
2	991	860	854	974	859	1150	718	573	571	720	709	712
3	1140	859	854	713	857	1150	1200	573	572	892	710	711
4	966	858	869	714	858	885	1430	573	572	1000	710	626
5	853	855	570	714	678	714	1080	660	572	1010	711	570
6	853	664	570	716	572	714	856	716	572	1000	712	570
7	853	572	570	896	573	715	853	713	573	1000	771	570
8	853	573	572	1270	572	715	695	620	574	998	950	570
9	853	761	740	1260	573	809	568	570	574	996	1000	571
10	853	860	859	1280	575	857	569	573	574	748	1180	571
11	853	858	859	1050	764	855	570	571	667	572	1280	571
12	854	857	860	858	864	855	569	570	715	574	1090	571
13	853	856	862	856	863	762	569	571	714	778	997	571
14	854	856	860	856	862	711	569	571	714	1010	999	571
15	854	855	860	856	861	711	570	571	714	1010	1000	571
16	854	856	860	856	860	711	570	572	712	1000	1000	571
17	854	855	860	855	860	527	570	573	711	1000	1000	572
18	854	853	861	856	859	428	568	572	711	1000	1090	572
19	855	852	941	855	859	515	567	571	710	1000	1140	573
20	855	675	1100	855	858	573	482	573	710	1000	1140	573
21	761	570	1150	855	857	573	426	573	710	1120	1140	574
22	711	570	1150	855	858	652	427	574	711	1290	1140	574
23	527	572	1150	854	1040	716	428	573	715	1000	1140	637
24	429	572	1150	762	1150	715	428	571	718	859	1130	714
25	430	572	1150	715	1150	715	429	571	718	860	1130	613
26	517	745	1150	717	1150	714	430	571	718	1030	1120	570
27	661	859	1150	717	1150	713	430	571	718	1140	745	569
28	718	858	1140	719	1140	713	430	573	718	1140	565	569
29	718	858	1140	812	---	714	431	574	718	1130	567	505
30	719	856	1140	861	---	714	517	572	718	1130	569	429
31	718	---	1130	860	---	716	---	571	---	877	628	---
TOTAL	24954	23084	28636	27157	23982	23162	18665	18154	19965	29602	28772	17653
MEAN	805	769	924	876	856	747	622	586	665	955	928	588
MAX	1290	860	1150	1280	1150	1150	1430	716	718	1290	1280	714
MIN	429	570	570	713	572	428	426	570	571	572	565	429
IN.	.34	.31	.39	.37	.32	.31	.25	.25	.27	.40	.39	.24

CAL YR 1989 TOTAL 351991 MEAN 964 MAX 2090 MIN 335 IN. 4.77
WTR YR 1990 TOTAL 283786 MEAN 777 MAX 1430 MIN 426 IN. 3.84

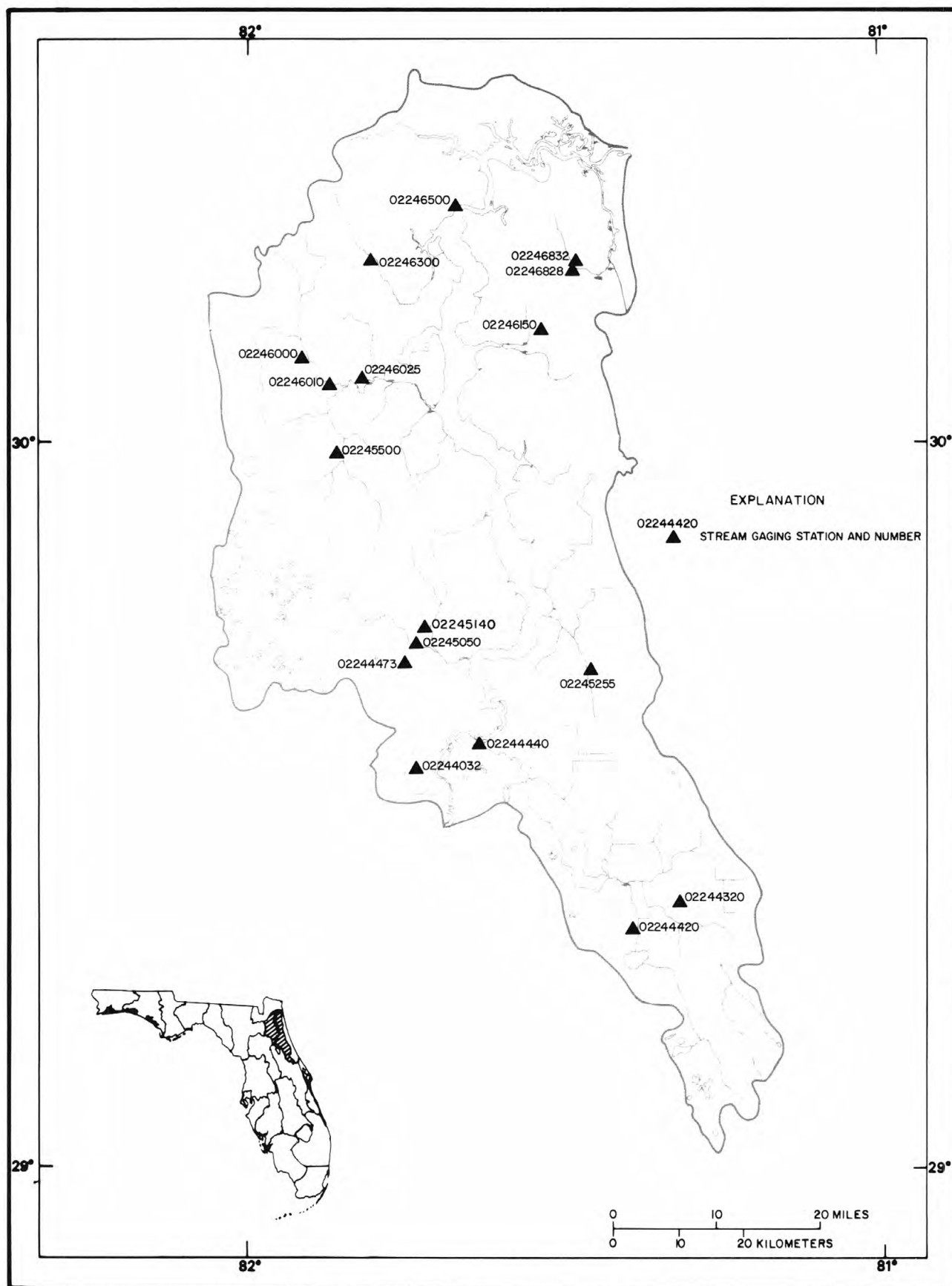
WATER RESOURCES DATA - FLORIDA, 1990
Volume 1A: Northeast Florida

Figure 18.--Location of stream gaging stations in the St. Johns River basin below the Oklawaha River basin.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244032 CROSS-FLORIDA BARGE CANAL AT BUCKMAN LOCK, NEAR PALATKA, FL

LOCATION.--Lat 29°32'45", long 81°43'35", in land grant 37, T.11 S., R.26 E., Putnam County, Hydrologic Unit 03080103, at downstream side of Buckman Lock, 1.7 mi upstream from mouth, and 9.0 mi southwest of Palatka.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1969 to current year. Prior to October 1974, published as "at St. Johns Lock".

GAGE.--Nonrecording gage.

REMARKS.--Discharge at station is a diversion of flow, for boat lockages, from Lake Ocklawaha and Oklawaha River into St. Johns River and is computed using daily volume of water used for lockage.

COOPERATION.--Lockage record provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 199 ft³/s, May 27, 1978; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 181 ft³/s, June 30; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	10	22	.00	34	55	89	114	76	126	33	150
2	11	10	74	.00	102	11	11	58	119	23	37	53
3	32	42	11	11	144	60	34	23	135	29	52	68
4	11	76	23	46	92	99	22	45	67	68	58	22
5	34	81	21	11	.00	.00	22	80	22	.00	24	.00
6	42	11	34	46	11	11	89	69	23	22	.00	.00
7	81	21	23	56	23	21	70	34	22	92	31	43
8	78	31	.00	.00	95	32	66	22	78	124	11	142
9	.00	11	23	23	79	43	22	22	146	23	22	40
10	.00	22	.00	23	127	111	33	33	34	23	22	55
11	21	65	.00	23	34	122	24	46	98	23	11	21
12	21	55	.00	24	23	28	13	86	.00	.00	98	44
13	10	11	.00	34	23	45	66	48	68	23	22	11
14	32	.00	23	57	46	79	89	.00	33	57	.00	66
15	52	22	.00	34	17	67	35	79	57	80	22	100
16	11	22	.00	23	69	105	66	34	141	.00	45	49
17	31	11	22	56	35	136	33	23	33	35	104	22
18	.00	56	.00	.00	68	69	22	50	97	12	68	.00
19	.00	33	.00	67	.00	.00	.00	147	75	35	56	43
20	10	22	.00	91	.00	23	32	116	88	23	22	22
21	11	.00	.00	68	23	22	99	23	55	80	21	21
22	76	56	21	68	67	110	43	41	33	85	22	54
23	21	.00	.00	56	23	144	31	56	50	23	11	98
24	.00	66	.00	56	57	137	31	52	102	65	55	33
25	.00	68	.00	21	82	126	22	33	34	34	134	22
26	.00	46	.00	23	22	107	55	121	87	46	11	33
27	.00	33	.00	47	11	57	78	123	86	29	.00	54
28	44	77	34	35	11	54	79	11	.00	85	.00	21
29	52	.00	23	88	---	55	44	33	26	94	.00	140
30	11	11	.00	34	---	64	73	33	181	42	22	.00
31	41	---	45	46	---	56	---	27	---	32	11	---
TOTAL	754.00	969.00	399.00	1167.00	1318.00	2049.00	1393.00	1682.00	2066.00	1433.00	1025.00	1427.00
MEAN	24.3	32.3	12.9	37.6	47.1	66.1	46.4	54.3	68.9	46.2	33.1	47.6
MAX	81	81	74	91	144	144	99	147	181	126	134	150
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 7875.20 MEAN 21.6 MAX 110 MIN .00
WTR YR 1990 TOTAL 15682.00 MEAN 43.0 MAX 181 MIN .00

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244320 MIDDLE HAW CREEK NEAR KORONA, FL

LOCATION.--Lat 29°21'35", long 81°18'42", in NW¼ sec.19, T.13 S., R.30 E., Flagler County, Hydrologic Unit 03080103, near center of span on downstream side of bridge on State Highway 11, 1.2 mi north of Codys Corner and 7.7 mi southwest of Korona.

DRAINAGE AREA.--78.3 mi².

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR FL-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 15 to Mar. 9. Records fair except for periods of estimated daily record, which are poor.

AVERAGE DISCHARGE.--15 years, 70.3 ft³/s, 12.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s, Sept. 30, 1979, gage height, 12.72 ft; no flow for many days in most years; minimum gage height, 4.12 ft, July 3, 1981, but may have been lower during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 358 ft³/s, Oct. 13, gage height, 9.54 ft; no flow for many days; minimum gage height, 4.34 ft, June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	214	16	144	42	128	5.1	.16	.00	.00	.00	30
2	6.5	198	15	136	40	122	4.8	.09	.00	.04	.01	28
3	16	202	14	128	38	110	8.9	.04	.00	.04	.00	25
4	19	201	13	120	36	96	7.8	.01	.00	.04	.01	22
5	18	187	12	156	35	84	6.5	.00	.00	.05	.00	20
6	15	171	11	208	33	76	5.8	.03	.00	.01	.00	17
7	14	156	10	233	31	66	5.3	.04	.00	.00	.02	15
8	21	141	10	227	27	58	4.8	.00	.00	.00	.23	13
9	22	125	13	215	24	55	4.1	.00	.00	.00	.27	11
10	81	110	12	199	22	49	3.3	.11	.00	.00	.23	9.3
11	220	95	10	180	44	42	3.0	.06	.00	.00	1.2	8.0
12	337	81	9.4	163	40	36	2.7	.02	.00	.05	1.9	7.1
13	353	69	9.3	147	37	32	2.4	.00	.00	.30	.81	6.1
14	330	59	8.7	134	33	28	2.2	.00	.00	.55	2.3	5.2
15	296	52	8.5	123	31	24	2.0	.00	.00	.45	12	4.5
16	264	49	8.7	118	28	21	1.8	.00	.00	.43	15	4.3
17	240	43	8.7	108	30	18	1.6	.00	.00	.31	10	4.7
18	225	38	17	99	39	16	1.3	.00	.00	.24	7.9	4.1
19	212	34	34	95	37	14	1.3	.01	.00	.21	6.3	3.3
20	200	30	135	93	35	13	1.3	.06	.00	.20	6.8	2.7
21	191	28	170	91	34	11	1.1	.00	.00	.17	11	2.2
22	179	26	172	88	40	10	.95	.00	.00	.15	18	1.8
23	166	25	211	84	140	9.0	1.1	.00	.03	.10	24	1.5
24	156	24	243	77	163	7.8	1.2	.00	.03	.08	32	1.2
25	147	22	242	71	186	6.8	.97	.00	.00	.09	46	1.0
26	145	21	222	66	180	5.9	.70	.00	.08	.11	45	.85
27	222	21	203	63	152	5.1	.51	.00	.05	.15	47	.70
28	262	20	186	58	138	4.3	.38	.00	.01	.12	44	.59
29	258	19	171	52	---	3.6	.33	.00	.00	.06	40	.61
30	245	18	160	48	---	3.4	.23	.00	.00	.02	36	.58
31	231	---	150	45	---	4.5	---	.00	---	.00	33	---
TOTAL	5093.2	2479	2505.3	3769	1715	1159.4	83.47	0.63	0.20	3.97	440.98	251.33
MEAN	164	82.6	80.8	122	61.2	37.4	2.78	.020	.007	.13	14.2	8.38
MAX	353	214	243	233	186	128	8.9	.16	.08	.55	47	30
MIN	1.7	18	8.5	45	22	3.4	.23	.00	.00	.00	.00	.58
CFSM	2.10	1.06	1.03	1.55	.78	.48	.04	.00	.00	.00	.18	.11
IN.	2.42	1.18	1.19	1.79	.81	.55	.04	.00	.00	.00	.21	.12

CAL YR 1989 TOTAL 13134.25 MEAN 36.0 MAX 353 MIN .00 CFSM .46 IN. 6.24
WTR YR 1990 TOTAL 17501.48 MEAN 47.9 MAX 353 MIN .00 CFSM .61 IN. 8.31

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244420 LITTLE HAW CREEK NEAR SEVILLE, FL

LOCATION.--Lat 29°19'20", long 81°23'10", in SE¼ sec.32, T.13 S., R.29 E., Flagler County, Hydrologic Unit 03080103, on right bank 600 ft downstream from bridge on State Highway 305, 1.4 mi downstream from Lake Disston, and 6.4 mi east of Seville.

DRAINAGE AREA.--93.0 mi².

PERIOD OF RECORD.--January 1951 to current year.

REVISED RECORDS.--WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5.74 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 5, 1953, at site 600 ft upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--39 years (water years 1952-90), 81.9 ft³/s, 11.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft³/s, Oct. 19, 20, 1968, gage height, 9.18 ft; no flow for many days in some years; minimum gage height, 0.14 ft³/s, July 7, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 164 ft³/s, Jan. 6,7, gage height, 5.26 ft; minimum, 0.07 ft³/s, part of each day July 4,5,9-12, minimum gage height, 0.79 ft, June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	9.5	79	37	109	20	5.9	.98	.26	.58	70
2	9.9	11	9.1	78	35	109	17	5.4	.91	.51	.73	68
3	9.6	10	8.8	76	34	108	25	4.9	.88	.76	.67	63
4	8.1	10	8.1	76	32	103	22	4.6	.85	.51	.94	57
5	7.0	11	7.7	121	31	95	18	5.0	.85	.69	.83	52
6	6.2	11	7.4	162	28	89	15	5.6	.83	.51	.67	47
7	5.8	11	7.3	159	25	84	13	5.8	1.1	.37	.66	42
8	6.9	11	7.3	150	24	82	12	4.5	.94	.29	1.3	38
9	5.7	12	10	141	22	79	11	3.8	.84	.22	5.6	34
10	7.0	13	9.5	129	22	73	9.9	6.7	.84	.17	6.9	30
11	11	12	8.6	121	38	68	9.8	6.7	.83	.11	10	27
12	7.9	12	8.2	114	34	63	9.9	4.8	.69	.12	11	29
13	6.0	12	8.5	105	30	58	8.9	4.1	.61	.58	7.8	24
14	5.2	12	8.1	95	28	53	8.0	3.6	.54	.73	10	20
15	4.8	12	7.6	90	26	48	7.5	3.2	.45	.69	23	18
16	4.6	13	7.3	87	25	45	7.1	3.0	.40	.71	15	18
17	4.6	14	7.3	85	26	41	6.7	2.8	.38	.69	12	22
18	5.3	12	14	83	36	37	6.2	2.5	.31	.99	9.7	17
19	5.3	11	19	80	33	33	8.6	2.4	.24	2.6	7.7	14
20	4.3	11	46	77	31	30	12	2.5	.20	2.5	6.3	12
21	3.7	10	45	75	31	26	8.9	2.3	.14	2.2	5.1	11
22	3.2	9.8	42	72	37	23	7.6	2.1	.36	1.6	4.5	10
23	2.9	11	71	66	102	20	7.9	2.0	.78	1.2	4.7	9.3
24	2.7	11	80	62	148	19	9.8	1.8	.82	.99	6.3	9.3
25	2.8	10	79	59	131	17	9.2	1.7	.64	.90	9.4	8.4
26	3.5	11	79	56	118	16	8.3	1.6	.55	.88	16	7.7
27	17	12	79	50	111	15	7.5	1.5	.56	.82	28	7.0
28	24	11	78	46	108	13	7.0	1.4	.47	.76	44	7.1
29	17	11	78	43	---	12	7.4	1.3	.40	.69	58	9.3
30	14	10	78	41	---	12	6.6	1.1	.37	.65	68	9.0
31	12	---	78	39	---	20	---	1.0	---	.60	69	---
TOTAL	239.0	338.8	1006.3	2717	1383	1600	327.8	105.6	18.76	25.30	444.38	790.1
MEAN	7.71	11.3	32.5	87.6	49.4	51.6	10.9	3.41	.63	.82	14.3	26.3
MAX	24	14	80	162	148	109	25	6.7	1.1	2.6	69	70
MIN	2.7	9.8	7.3	39	22	12	6.2	1.0	.14	.11	.58	7.0
CFSM	.08	.12	.35	.94	.53	.55	.12	.04	.01	.01	.15	.28
IN.	.10	.14	.40	1.09	.55	.64	.13	.04	.01	.01	.18	.32

CAL YR 1989 TOTAL 6473.81 MEAN 17.7 MAX 108 MIN .71 CFSM .19 IN. 2.59
WTR YR 1990 TOTAL 8996.04 MEAN 24.6 MAX 162 MIN .11 CFSM .27 IN. 3.60

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244473 RICE CREEK NEAR SPRINGSIDE, FL

LOCATION.--Lat 29°41'17", long 81°44'32", in land grant 40, T.9 S., R.26 E., Putnam County, Hydrologic Unit 03080103, near left bank on downstream side of bridge on State Highway 100, 1.8 mi northwest of Springside, 5.9 mi northwest of Palatka, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--43.2 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1.04 ft above National Geodetic Vertical Datum of 1929 (levels by Wardlin Engineering Associates).

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 41.9 ft³/s, 13.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft³/s, Aug. 1, 1978, gage height, 9.80 ft, from rating curve extended above 820 ft³/s; minimum daily discharge, 2.2 ft³/s, June 18,19, 1981, July 8-10, 1988; minimum gage height, 2.11 ft, July 10, 1988, June 4, 1989.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 24	0300	*165	*5.99				

Minimum daily discharge, 2.3 ft³/s, May 30,31, June 1,2; minimum gage height, 2.12 ft, May 31, June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	9.8	10	26	11	61	22	7.5	2.3	16	4.7	4.8
2	33	8.7	9.2	24	10	55	15	5.6	2.3	10	3.9	4.3
3	41	8.1	8.5	22	10	44	50	4.6	2.4	8.9	4.0	4.0
4	30	7.6	7.8	21	9.8	34	67	4.1	3.1	18	5.1	3.5
5	23	7.1	7.6	21	9.1	26	48	3.8	4.7	16	4.4	3.5
6	18	6.8	7.6	22	8.5	21	27	3.6	3.8	9.7	3.7	3.8
7	14	6.5	7.6	34	8.4	18	18	3.6	6.7	6.8	5.1	3.9
8	12	6.4	8.0	51	8.2	18	14	3.4	24	5.2	7.7	3.5
9	11	8.3	16	60	7.8	16	11	3.4	40	4.4	7.0	3.2
10	10	13	18	52	13	14	9.5	5.7	34	3.9	7.2	3.1
11	10	12	15	44	46	12	8.3	5.7	28	3.6	8.9	3.0
12	15	9.2	14	37	50	11	7.3	4.5	17	3.4	10	3.0
13	16	8.0	16	30	33	9.6	6.5	3.9	8.8	4.2	7.5	2.9
14	13	7.4	16	26	24	8.8	6.0	3.4	5.9	4.5	12	2.8
15	11	7.2	14	23	20	8.1	5.6	3.2	4.6	5.0	20	3.4
16	9.9	7.5	14	21	17	7.6	5.3	3.1	3.8	4.9	20	4.9
17	8.8	7.5	16	20	17	7.5	4.8	3.0	4.0	4.4	15	4.3
18	8.5	7.1	18	18	38	9.9	4.5	2.9	4.0	4.3	45	3.7
19	15	6.8	24	17	42	9.5	4.3	2.8	3.5	4.9	38	3.4
20	17	6.6	39	16	36	8.2	4.5	3.0	3.2	4.0	17	3.1
21	13	6.3	59	16	37	7.2	4.3	2.9	3.0	4.2	10	2.9
22	10	6.1	52	15	38	6.7	4.0	3.1	5.3	4.6	8.6	2.8
23	8.6	11	52	13	86	6.4	5.2	3.0	11	6.0	13	2.8
24	8.0	16	61	13	157	6.0	6.5	2.8	25	4.8	11	2.7
25	7.9	14	54	13	131	5.6	5.6	2.7	29	8.7	8.4	2.7
26	7.5	15	48	14	105	5.4	4.8	2.6	26	12	6.6	2.7
27	8.7	16	44	13	88	5.1	4.2	2.6	110	9.7	5.4	2.7
28	12	15	40	13	73	5.1	4.7	2.5	139	8.2	6.4	2.7
29	13	13	35	12	---	5.2	12	2.5	65	12	6.5	3.2
30	12	11	31	12	---	6.9	11	2.3	27	8.7	5.4	3.3
31	11	---	28	11	---	18	---	2.3	---	6.1	5.2	---
TOTAL	459.9	285.0	790.3	730	1133.8	476.8	400.9	110.1	646.4	227.1	332.7	100.6
MEAN	14.8	9.50	25.5	23.5	40.5	15.4	13.4	3.55	21.5	7.33	10.7	3.35
MAX	41	16	61	60	157	61	67	7.5	139	18	45	4.9
MIN	7.5	6.1	7.6	11	7.8	5.1	4.0	2.3	2.3	3.4	3.7	2.7
CFSM	.34	.22	.59	.55	.94	.36	.31	.08	.50	.17	.25	.08
IN.	.40	.25	.68	.63	.98	.41	.35	.09	.56	.20	.29	.09

CAL YR 1989 TOTAL 7761.6 MEAN 21.3 MAX 198 MIN 2.5 CFSM .49 IN. 6.68
WTR YR 1990 TOTAL 5693.6 MEAN 15.6 MAX 157 MIN 2.3 CFSM .36 IN. 4.90

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02245050 ETONIA CREEK AT BARDIN, FL

LOCATION.--Lat 29°43'00", long 81°43'31", in NW¼ sec.17, T.9 S., R.26 E., Putnam County, Hydrologic Unit 03080103, near left bank on downstream side of bridge on Bardin Road, 0.2 mi north of Bardin, 4.6 mi upstream from mouth, and 6.2 mi northwest of Palatka.

DRAINAGE AREA.--219 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7.60 ft above National Geodetic Vertical Datum of 1929 (levels by Wardlin Engineering Associates).

REMARKS.--Records poor. Records include an appreciable amount of ground-water flow from Hudson Pulp and Paper Corporation production wells.

AVERAGE DISCHARGE.--17 years, 95.8 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,210 ft³/s, May 12, 1979, gage height, 7.74 ft; minimum daily discharge, 35 ft³/s, Apr. 7, 1982, estimated; minimum gage height, 0.70 ft, Apr. 7, 1982, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 112 ft³/s, Oct. 1, gage height, 2.96 ft, occurred on recession following peak of Sept. 29, 1989; maximum independent peak discharge, 106 ft³/s, Feb. 25, gage height, 2.83 ft; minimum, 41 ft³/s, May 25-30, minimum gage height, 0.75 ft, May 26,27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	58	56	62	55	67	64	55	43	55	52	46
2	88	57	56	62	56	64	60	51	42	52	50	45
3	77	57	56	62	56	67	81	49	43	53	50	45
4	71	57	57	61	55	73	81	48	47	55	61	44
5	66	56	57	61	55	68	70	47	46	53	57	46
6	53	55	57	61	54	64	62	46	45	51	52	50
7	46	55	56	63	54	61	58	45	49	49	51	49
8	43	55	56	66	54	59	56	44	79	49	52	49
9	56	57	62	63	53	59	54	45	68	49	51	48
10	61	59	65	62	55	58	53	48	59	48	53	49
11	62	58	62	60	59	57	53	47	53	48	56	49
12	65	56	59	59	57	56	52	45	50	47	80	49
13	63	55	61	58	56	55	51	45	47	48	59	49
14	62	56	61	57	55	55	51	44	45	48	57	48
15	61	56	60	58	54	54	50	44	45	49	58	49
16	60	56	59	57	54	53	51	43	47	49	57	51
17	59	56	61	56	54	54	52	43	49	48	55	50
18	59	55	61	55	55	57	51	43	49	48	74	49
19	61	55	61	55	56	57	51	43	49	47	64	49
20	59	54	67	56	57	55	52	43	47	47	56	48
21	58	53	72	56	62	53	51	42	45	48	53	48
22	57	53	72	55	64	53	51	42	46	50	52	48
23	57	56	71	56	75	52	53	43	53	48	52	47
24	57	59	72	56	99	52	51	42	73	48	52	47
25	57	57	71	56	103	51	48	42	94	51	51	47
26	56	58	70	57	87	51	48	42	76	59	50	47
27	58	61	68	56	75	51	47	41	76	75	48	47
28	60	60	65	56	70	50	48	42	76	71	47	47
29	60	58	63	55	---	51	62	42	72	66	46	49
30	59	57	62	55	---	53	62	43	61	60	45	49
31	58	---	61	55	---	64	---	43	---	56	46	---
TOTAL	1912	1695	1937	1807	1739	1774	1674	1382	1674	1625	1687	1438
MEAN	61.7	56.5	62.5	58.3	62.1	57.2	55.8	44.6	55.8	52.4	54.4	47.9
MAX	103	61	72	66	103	73	81	55	94	75	80	51
MIN	43	53	56	55	53	50	47	41	42	47	45	44

CAL YR 1989 TOTAL 25670 MEAN 70.3 MAX 212 MIN 43
WTR YR 1990 TOTAL 20344 MEAN 55.7 MAX 103 MIN 41

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02245140 SIMMS CREEK NEAR BARDIN, FL

LOCATION.--Lat 29°44'07", long 81°42'36", in NE¼ sec.9, T.9 S., R.26 E., Putnam County, Hydrologic Unit 03080103, on right bank 0.4 mi downstream from bridge on Simms Creek Road, 1.7 mi northeast of Bardin, 2.7 mi upstream from Etonia Creek, and 6.7 mi northwest of Palatka.

DRAINAGE AREA.--47.3 mi².

PERIOD OF RECORD.--October 1973 to September 1975, March 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Wardlin Engineering Associates). Prior to Feb. 26, 1976, at bridge 0.4 mi upstream at datum 7.26 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--16 years (water years 1974-75, 1977-90), 43.9 ft³/s, 12.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft³/s, Dec. 7, 1979, gage height, 13.78 ft; minimum, 4.0 ft³/s, July 10, 1988; minimum gage height, 6.85 ft, June 2, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 177 ft³/s, Oct. 1, gage height, 11.31 ft, occurred on recession following peak of Sept. 30, 1989; maximum independent peak discharges, 72 ft³/s, Feb. 24, Aug. 19; minimum discharge, 4.9 ft³/s, June 2, gage height, 6.85 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	14	13	24	13	30	17	21	5.1	9.4	9.8	8.4
2	110	12	12	24	13	26	15	14	5.0	8.6	8.3	7.9
3	74	12	12	23	13	30	37	11	5.6	8.7	8.0	7.5
4	51	11	11	22	13	41	36	10	8.7	9.0	49	7.0
5	37	11	11	21	13	31	23	9.5	11	8.5	34	7.0
6	29	10	11	21	13	25	17	9.0	16	7.5	17	8.6
7	23	9.7	11	24	12	22	14	8.9	18	6.7	12	7.8
8	20	9.6	11	29	12	21	13	8.4	45	6.3	13	6.9
9	18	11	16	28	12	20	12	8.1	37	6.0	36	6.3
10	16	13	21	25	13	19	11	9.3	18	5.6	60	5.9
11	17	12	21	23	18	17	11	9.2	14	5.3	37	5.7
12	21	11	18	22	19	16	10	8.3	11	5.1	28	5.6
13	20	10	19	20	16	15	9.7	7.9	9.8	5.5	22	5.4
14	18	9.7	20	19	15	14	9.5	7.4	8.8	6.0	17	5.2
15	16	9.4	19	18	14	13	9.3	7.1	7.9	6.6	16	5.5
16	15	9.9	18	18	13	13	9.4	7.0	7.3	6.4	17	6.7
17	14	9.8	18	17	13	13	9.0	6.9	7.3	6.1	15	6.7
18	13	9.3	18	17	13	16	8.7	6.5	7.7	5.8	39	6.6
19	14	9.3	20	16	14	17	8.7	6.4	9.5	6.8	69	6.3
20	13	9.2	29	16	13	15	9.2	6.4	8.9	6.5	51	5.6
21	12	8.9	39	16	17	13	8.7	6.3	7.2	6.6	28	5.7
22	11	8.9	36	15	22	12	8.6	6.3	6.5	9.2	20	6.1
23	10	11	37	15	45	12	11	6.1	9.3	10	18	6.0
24	10	15	39	14	71	12	12	6.0	26	9.0	18	5.9
25	10	14	37	14	67	11	10	5.8	38	11	15	5.9
26	10	14	35	14	56	11	9.3	5.7	29	24	13	5.9
27	12	17	33	15	45	10	8.7	5.6	20	26	13	6.0
28	17	16	31	15	36	10	9.0	5.6	15	20	12	6.0
29	19	15	28	14	---	10	39	5.4	12	21	10	8.1
30	16	14	26	14	---	11	33	5.2	11	16	9.3	11
31	15	---	24	14	---	16	---	5.1	---	12	8.8	---
TOTAL	834	346.7	694	587	634	542	438.8	245.4	435.6	301.2	723.2	199.2
MEAN	26.9	11.6	22.4	18.9	22.6	17.5	14.6	7.92	14.5	9.72	23.3	6.64
MAX	153	17	39	29	71	41	39	21	45	26	69	11
MIN	10	8.9	11	14	12	10	8.6	5.1	5.0	5.1	8.0	5.2
CFSM	.57	.24	.47	.40	.48	.37	.31	.17	.31	.21	.49	.14
IN.	.66	.27	.55	.46	.50	.43	.35	.19	.34	.24	.57	.16

CAL YR 1989 TOTAL 8022.6 MEAN 22.0 MAX 194 MIN 5.1 CFSM .46 IN. 6.31
WTR YR 1990 TOTAL 5981.1 MEAN 16.4 MAX 153 MIN 5.0 CFSM .35 IN. 4.70

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02245255 DEEP CREEK NEAR HASTINGS, FL

LOCATION.--Lat 29°40'52", long 81°26'56", in NW¼ sec.35, T.9 S., R.28 E., St. Johns County, Hydrologic Unit 03080103, near right bank at downstream side of bridge on county road, 1.3 mi upstream from Sixteenmile Creek, and 4.2 mi southeast of Hastings.

DRAINAGE AREA.--20.7 mi².

PERIOD OF RECORD.--June 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6.99 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 14-21, July 1-23, July 28-Aug.6, Aug 29-Sept. 28. Records poor.

AVERAGE DISCHARGE.--15 years, 7.90 ft³/s, 5.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 308 ft³/s, Sept. 28, 1984, gage height, 7.78 ft; maximum gage height, 8.03 ft, June 18, 1982; no flow for many days in most years; minimum gage height, 2.89 ft, Aug. 9, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 175 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 23	1100	*100	*6.47				

Minimum daily discharge, 0.06 ft³/s, Sept. 22-24, 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	5.7	1.6	8.0	1.6	5.7	5.0	1.1	.30	.18	.11	.14
2	5.2	4.3	1.4	6.8	1.5	4.4	9.2	.74	.24	.10	.10	.13
3	3.8	3.5	1.3	5.9	1.5	3.7	35	.57	.30	.11	.12	.12
4	2.7	2.8	1.1	5.3	1.5	3.3	3.7	.77	.34	.12	.13	.11
5	2.3	2.4	1.1	5.5	1.4	2.7	1.9	.95	.45	.11	.13	.10
6	2.0	2.0	1.0	9.0	2.3	2.5	1.4	.44	.54	.10	.13	.11
7	1.7	1.8	1.1	21	2.4	3.1	1.4	.34	.28	.09	.30	.10
8	1.6	1.6	2.0	28	2.9	3.7	2.9	.68	.27	.09	.54	.09
9	1.5	1.8	14	18	3.3	3.9	3.2	.73	.27	.08	1.2	.08
10	16	1.9	8.3	13	8.4	5.6	2.7	.74	.36	.08	1.2	.07
11	33	1.5	5.0	9.8	21	6.0	1.2	.36	.92	.07	1.0	.07
12	36	1.3	3.9	7.7	9.9	6.0	1.7	.32	.36	.07	.80	.07
13	17	1.1	4.7	5.8	5.6	6.3	2.4	.33	.27	.08	.47	.07
14	9.9	1.0	3.6	4.5	4.2	6.2	2.5	.31	.21	.08	.35	.07
15	6.5	1.0	2.8	3.9	3.5	5.7	2.5	.31	.17	.09	.51	.07
16	4.9	1.4	3.0	3.6	2.9	5.4	.90	.31	.12	.09	.94	.08
17	3.8	1.4	3.7	3.2	2.6	4.8	1.6	.30	.08	.09	.62	.09
18	3.2	1.2	7.4	3.0	2.6	3.2	1.8	.30	.09	.08	.62	.08
19	3.8	1.0	14	2.8	2.3	3.2	5.8	.36	.08	.08	.44	.08
20	3.0	.97	64	2.6	2.1	2.5	3.5	.32	.07	.08	.33	.07
21	2.3	.89	38	2.4	3.5	3.2	.64	.28	.16	.09	.26	.07
22	2.0	.85	23	2.4	14	4.1	.50	.25	.41	.10	.24	.06
23	1.7	1.4	73	2.2	52	4.1	1.5	.33	3.0	.17	.24	.06
24	2.5	1.7	46	2.1	43	3.8	1.1	.38	1.6	.25	.31	.06
25	5.2	1.4	30	2.0	21	3.6	.46	.41	.77	.34	.39	.07
26	8.2	4.9	23	2.1	13	4.4	.37	.67	.43	.31	.36	.06
27	21	5.3	18	2.0	9.2	4.3	.51	.79	.41	.23	.26	.06
28	14	3.1	14	1.8	7.3	4.2	8.5	.82	.33	.18	.23	.06
29	10	2.5	11	1.8	---	6.0	34	.34	.27	.16	.18	.26
30	12	2.0	9.5	1.7	---	10	2.7	.34	.25	.14	.17	.15
31	8.1	---	8.4	1.6	---	22	---	.38	---	.12	.15	---
TOTAL	252.5	63.71	438.9	189.5	246.5	157.6	140.58	15.27	13.35	3.96	12.83	2.71
MEAN	8.15	2.12	14.2	6.11	8.80	5.08	4.69	.49	.44	.13	.41	.090
MAX	36	5.7	73	28	52	22	35	1.1	3.0	.34	1.2	.26
MIN	1.5	.85	1.0	1.6	1.4	2.5	.37	.25	.07	.07	.10	.06
CFSM	.39	.10	.68	.30	.43	.25	.23	.02	.02	.01	.02	.00
IN.	.45	.11	.79	.34	.44	.28	.25	.03	.02	.01	.02	.00

CAL YR 1989 TOTAL 1761.68 MEAN 4.83 MAX 97 MIN .05 CFSM .23 IN. 3.17
WTR YR 1990 TOTAL 1537.41 MEAN 4.21 MAX 73 MIN .06 CFSM .20 IN. 2.76

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02245500 SOUTH FORK BLACK CREEK NEAR PENNEY FARMS, FL

LOCATION.--Lat 29°58'45", long 81°51'08", in NE¼ sec.13, T.6 S., R.24 E., Clay County, Hydrologic Unit 03080103, on right bank at upstream side of bridge on State Highway 16, 0.7 mi downstream from Greens Creek, 2.5 mi west of Penney Farms, 9.5 mi west of Green Cove Springs, and 24 mi upstream from mouth of Black Creek.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1304.

REVISED RECORDS.--WSP 1234: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9.82 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to July 18, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--51 years, 153 ft³/s, 15.51 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,900 ft³/s, Oct. 19, 1944, gage height, 26.33 ft, from floodmarks, from rating curve extended above 11,000 ft³/s; minimum, about 9.4 ft³/s, June 24, 1955; minimum gage height, 0.18 ft, June 4, 17, 18, 1989.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 24	1300	*401	*5.51				
Minimum discharge, 10 ft ³ /s, Sept. 28, gage height, 0.19 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	49	44	80	92	93	66	57	13	25	16	22
2	202	46	42	89	68	81	51	35	13	22	15	19
3	148	44	40	80	60	76	140	28	13	58	14	18
4	114	42	37	72	57	74	121	24	13	55	14	17
5	96	41	37	68	55	70	71	23	14	36	13	16
6	84	40	38	68	48	64	53	22	19	26	15	18
7	76	39	37	91	45	60	43	21	24	22	41	17
8	174	39	39	95	43	65	37	20	38	19	245	15
9	139	52	80	88	41	62	33	20	36	18	332	14
10	99	68	76	78	49	60	31	21	24	16	253	14
11	89	55	63	70	128	52	30	22	32	15	98	13
12	83	47	56	65	95	47	29	20	22	17	61	13
13	79	42	72	60	69	43	26	19	17	28	43	12
14	74	40	67	56	58	41	26	18	15	25	32	12
15	70	39	59	54	52	38	25	17	14	28	29	12
16	67	41	55	52	48	37	24	18	13	29	38	15
17	64	42	53	50	46	38	23	19	40	29	80	17
18	61	39	54	49	49	55	23	17	74	22	72	15
19	65	38	80	47	52	51	23	17	31	30	73	13
20	61	37	121	46	57	43	27	30	19	24	42	12
21	57	36	125	44	73	37	26	30	15	34	29	12
22	53	35	99	43	106	35	24	23	23	33	26	12
23	51	45	106	40	224	33	33	20	137	23	37	11
24	49	64	113	39	383	32	35	18	249	21	51	11
25	47	58	99	38	288	30	28	16	124	19	41	11
26	46	58	99	44	192	29	24	15	64	43	41	11
27	49	64	95	43	140	29	22	15	86	39	30	11
28	61	59	86	41	111	29	24	15	84	24	26	11
29	56	55	79	40	---	29	136	14	50	23	23	12
30	50	48	74	41	---	29	128	13	32	21	21	13
31	50	---	70	102	---	70	---	13	---	18	23	---
TOTAL	2707	1402	2195	1873	2729	1532	1382	660	1348	842	1874	419
MEAN	87.3	46.7	70.8	60.4	97.5	49.4	46.1	21.3	44.9	27.2	60.5	14.0
MAX	293	68	125	102	383	93	140	57	249	58	332	22
MIN	46	35	37	38	41	29	22	13	13	15	13	11
CFSM	.65	.35	.53	.45	.73	.37	.34	.16	.34	.20	.45	.10
IN.	.75	.39	.61	.52	.76	.43	.38	.18	.37	.23	.52	.12

CAL YR 1989 TOTAL 34010 MEAN 93.2 MAX 1190 MIN 12 CFSM .70 IN. 9.44
WTR YR 1990 TOTAL 18963 MEAN 52.0 MAX 383 MIN 11 CFSM .39 IN. 5.26

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246000 NORTH FORK BLACK CREEK NEAR MIDDLEBURG, FL

LOCATION.--Lat 30°06'47", long 81°54'24", in NE¼ sec.33, T.4 S., R.24 E., Clay County, Hydrologic Unit 03080103, on left bank 0.3 mi upstream from Big Branch, 4 mi northwest of Middleburg, and 7.5 mi upstream from confluence with South Fork.

DRAINAGE AREA.--177 mi².

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 852: 1933 (m). WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.62 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Mar. 31, 1933, nonrecording gage at site 0.4 mi downstream at different datum. Mar. 31, 1933 to Apr. 28, 1955, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 30 to Dec. 13, May 6-15, May 18 to June 15, June 30, July 1. Records poor. Stage-discharge relation affected by tide on most days.

AVERAGE DISCHARGE.--59 years, 190 ft³/s, 14.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s, May 3, 1964, gage height, 23.91 ft; minimum observed, 3.6 ft³/s, June 8, 1935, gage height, 0.26 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1919 reached a stage of 25.3 ft, from information by local resident, discharge, 15,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft³/s, Oct. 1, gage height, 14.17 ft, occurred on recession following peak of Sept. 29, 1989; maximum independent peak discharge, 612 ft³/s, Feb. 24, gage height, 6.77 ft; minimum discharge, 5.9 ft³/s, Aug. 5, 6, 7, gage height, 0.43 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	60	50	77	104	122	141	68	8.0	11	8.8	25
2	1190	55	46	74	98	106	97	49	8.0	10	7.5	23
3	857	53	44	72	89	94	117	39	7.7	10	7.2	20
4	506	52	42	71	77	89	114	34	7.6	11	7.2	18
5	330	51	42	69	76	80	93	31	8.0	13	6.2	20
6	234	50	43	69	69	73	75	27	9.5	11	5.9	21
7	174	48	44	72	64	67	58	24	12	10	6.5	18
8	141	47	62	101	59	73	48	22	15	9.6	17	16
9	136	51	120	120	55	72	43	20	12	8.9	53	13
10	148	65	110	122	57	66	39	21	13	8.9	58	13
11	176	62	92	122	157	58	45	20	12	11	48	17
12	159	58	76	105	168	55	60	19	11	17	40	17
13	132	54	95	86	132	51	49	18	9.5	14	38	16
14	115	51	89	74	99	48	42	17	8.8	15	37	15
15	104	50	78	66	79	45	36	20	8.2	18	35	21
16	96	63	72	62	69	43	34	29	7.5	21	40	22
17	86	73	68	58	63	44	32	26	9.6	18	37	18
18	80	58	66	58	63	56	30	20	9.3	18	39	16
19	78	58	99	58	64	56	30	18	10	25	39	14
20	73	58	179	57	107	53	30	16	8.6	22	36	12
21	66	51	166	55	219	47	28	19	7.5	17	31	11
22	63	49	138	54	249	41	30	17	7.5	16	30	10
23	59	65	142	53	454	38	46	16	13	18	34	9.6
24	57	83	143	51	595	35	92	15	19	24	33	8.2
25	54	74	127	51	501	35	57	14	18	22	26	8.2
26	52	69	114	57	330	35	41	14	14	17	22	8.2
27	56	65	108	65	234	33	34	14	13	14	21	7.8
28	70	58	99	60	160	32	34	13	13	12	21	8.6
29	80	56	93	57	---	33	207	11	12	12	23	11
30	81	54	84	55	---	34	122	10	11	12	22	14
31	70	---	81	84	---	87	---	8.6	---	11	27	---
TOTAL	7023	1741	2812	2235	4491	1801	1904	689.6	323.3	457.4	856.3	451.6
MEAN	227	58.0	90.7	72.1	160	58.1	63.5	22.2	10.8	14.8	27.6	15.1
MAX	1500	83	179	122	595	122	207	68	19	25	58	25
MIN	52	47	42	51	55	32	28	8.6	7.5	8.9	5.9	7.8
CFSM	1.28	.33	.51	.41	.91	.33	.36	.13	.06	.08	.16	.09
IN.	1.48	.37	.59	.47	.94	.38	.40	.14	.07	.10	.18	.09

CAL YR 1989 TOTAL 47529 MEAN 130 MAX 3190 MIN 10 CFSM .74 IN. 9.99
WTR YR 1990 TOTAL 24785.2 MEAN 67.9 MAX 1500 MIN 5.9 CFSM .38 IN. 5.21

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246010 NORTH FORK BLACK CREEK AT MIDDLEBURG, FL

LOCATION.--Lat 30°04'31", long 81°51'51", in SW¼ sec.12, T.5 S., R.24 E., Clay County, Hydrologic Unit 03080103, at downstream side of upstream bridge on State Highway 21, 0.5 mi north of Middleburg, 1.5 mi upstream from confluence with South Fork, and 14 mi upstream from mouth of Black Creek.

DRAINAGE AREA.--197 mi².

PERIOD OF RECORD.--October 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 9.80 ft below National Geodetic Vertical Datum of 1929. Prior to Feb. 28, 1986, at site 50 ft downstream at present datum.

REMARKS.--Stage affected by tide.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 16.10 ft, Sept. 8, 1988; minimum, 9.34 ft, Dec. 23, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.94 ft, Oct. 30; minimum, 10.37 ft, Feb. 5.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.33	12.66	11.90	11.33	11.48	12.05	11.91	11.36	12.09	11.33	11.72	12.05
2	12.84	12.42	11.81	11.42	11.46	12.19	11.91	11.56	12.05	11.28	11.81	12.14
3	12.54	12.55	11.40	11.49	11.33	12.03	11.87	11.69	11.76	11.69	12.00	12.24
4	12.42	12.49	11.42	11.41	11.21	11.97	11.88	11.67	11.51	11.94	12.07	12.15
5	12.55	12.53	11.25	11.30	11.21	12.17	11.82	11.41	11.45	11.72	12.07	12.31
6	12.41	12.53	11.25	11.30	11.68	12.35	11.62	11.31	11.84	11.46	11.95	12.38
7	11.96	12.28	11.35	11.51	11.63	12.45	11.49	11.67	11.80	11.52	11.91	12.31
8	11.80	12.13	11.58	11.66	11.58	12.92	11.73	11.74	11.58	11.68	11.99	12.09
9	12.37	12.04	12.02	11.48	11.60	12.58	12.02	11.61	11.50	11.73	12.04	11.94
10	12.89	11.95	12.01	11.34	11.54	12.15	11.87	11.38	11.43	11.70	12.08	12.02
11	12.81	11.93	11.97	11.35	11.63	11.97	11.48	11.42	11.35	11.55	12.03	12.09
12	12.82	11.91	11.91	11.19	11.69	11.91	11.52	11.45	11.77	11.45	11.97	12.26
13	12.70	11.89	11.72	11.26	11.60	11.80	11.74	11.41	12.06	11.36	11.92	12.36
14	12.61	11.98	11.63	11.61	11.45	11.75	11.87	11.32	12.02	11.25	11.79	12.37
15	12.59	12.01	11.62	11.70	11.39	11.79	11.79	11.45	11.81	11.02	11.66	12.28
16	12.52	11.81	11.55	11.65	11.17	11.72	11.67	11.63	11.87	11.10	11.61	12.11
17	12.42	11.58	11.77	11.57	10.98	11.47	11.60	11.50	12.23	11.29	11.65	12.18
18	12.27	11.54	11.98	11.52	11.39	11.25	11.75	11.40	12.41	11.35	11.85	12.52
19	12.00	11.51	12.13	11.41	11.62	11.44	12.44	11.54	12.22	11.40	12.04	12.62
20	11.48	11.51	12.07	11.47	11.76	11.53	12.27	11.50	11.99	11.46	12.14	12.51
21	11.50	11.13	12.05	11.33	12.39	11.82	11.92	11.32	11.92	11.41	12.10	12.37
22	11.59	11.30	11.95	10.97	12.17	11.79	11.68	11.24	11.78	11.34	12.07	12.19
23	11.92	11.28	12.32	11.06	11.80	11.67	11.95	11.60	11.66	11.35	12.11	12.03
24	12.37	11.54	12.21	11.27	11.28	11.56	12.02	12.00	11.68	11.55	11.98	12.25
25	12.50	11.81	12.12	11.35	11.20	11.60	11.86	12.04	11.80	11.74	11.92	12.23
26	12.74	11.77	11.73	11.04	11.75	11.60	11.73	11.96	11.87	12.03	11.76	12.07
27	13.00	11.75	11.56	11.04	12.06	11.94	11.65	11.89	11.91	12.42	11.74	11.90
28	13.25	11.74	11.37	11.19	12.03	12.31	11.65	11.88	11.88	12.70	11.80	11.98
29	13.32	11.58	11.39	11.28	---	12.30	11.66	11.88	11.72	12.74	11.83	12.16
30	13.48	11.81	11.43	11.28	---	12.18	11.53	11.90	11.54	12.49	11.71	12.23
31	13.12	---	11.49	11.35	---	11.99	---	11.99	---	12.04	11.91	---
MEAN	12.52	11.90	11.74	11.36	11.57	11.94	11.80	11.60	11.82	11.65	11.91	12.21
MAX	13.48	12.66	12.32	11.70	12.39	12.92	12.44	12.04	12.41	12.74	12.14	12.62
MIN	11.48	11.13	11.25	10.97	10.98	11.25	11.48	11.24	11.35	11.02	11.61	11.90
CAL YR 1989	MEAN	11.88	MAX	14.68	MIN	10.89						
WTR YR 1990	MEAN	11.84	MAX	13.48	MIN	10.97						

02246025 BLACK CREEK NEAR DOCTORS INLET, FL

DRAINAGE AREA.--403 mi².

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929.

EXTREMES FOR CURRENT PERIOD.--Maximum gage height, 12.86 ft, Oct. 30; minimum, 9.36 ft, Feb. 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.85	11.58	10.84	10.25	10.40	10.96	10.83	10.30	11.02	10.30	10.68	11.01
2	11.49	11.36	10.75	10.34	10.39	11.12	10.84	10.51	10.98	10.25	10.78	11.10
3	11.31	11.48	10.34	10.42	10.26	10.96	10.79	10.63	10.70	10.66	10.95	11.20
4	11.29	11.42	10.36	10.34	10.14	10.89	10.81	10.61	10.45	10.90	11.03	11.11
5	11.45	11.46	10.19	10.22	10.13	11.09	10.76	10.35	10.39	10.68	11.02	11.27
6	11.33	11.47	10.19	10.22	10.60	11.27	10.56	10.25	10.77	10.43	10.91	11.35
7	10.88	11.21	10.25	10.44	10.56	11.37	10.43	10.61	10.74	10.49	10.86	11.26
8	10.73	11.07	10.51	10.58	10.51	11.83	10.66	10.67	10.55	10.63	10.93	11.05
9	11.30	10.97	10.95	10.40	10.53	11.50	10.96	10.54	10.46	10.68	10.98	10.91
10	11.81	10.88	10.93	10.27	10.47	11.08	10.80	10.32	10.38	10.65	11.03	10.99
11	11.73	10.86	10.90	10.27	10.54	10.90	10.42	10.35	10.32	10.51	10.99	11.07
12	11.74	10.86	10.84	10.11	10.61	10.84	10.45	10.38	10.72	10.41	10.93	11.24
13	11.62	10.83	10.65	10.19	10.51	10.73	10.67	10.34	11.01	10.33	10.88	11.33
14	11.53	10.91	10.55	10.54	10.37	10.68	10.80	10.26	10.98	10.21	10.75	11.34
15	11.52	10.95	10.54	10.63	10.31	10.72	10.73	10.39	10.77	9.99	10.62	11.24
16	11.44	10.75	10.48	10.58	10.11	10.65	10.61	10.56	10.83	10.07	10.57	11.07
17	11.34	10.52	10.70	10.50	9.91	10.40	10.54	10.44	11.20	10.25	10.61	11.15
18	11.20	10.48	10.91	10.46	10.31	10.18	10.68	10.34	11.36	10.31	10.81	11.49
19	10.93	10.45	11.06	10.34	10.55	10.37	11.37	10.46	11.18	10.36	11.00	11.57
20	10.42	10.46	10.98	10.40	10.68	10.47	11.20	10.43	10.95	10.42	11.10	11.46
21	10.44	10.08	10.97	10.26	11.29	10.75	10.86	10.26	10.88	10.38	11.06	11.32
22	10.54	10.24	10.87	9.90	11.07	10.73	10.63	10.18	10.74	10.30	11.02	11.15
23	10.86	10.21	11.24	9.98	10.64	10.61	10.88	10.54	10.61	10.32	11.07	11.00
24	11.31	10.48	11.13	10.21	10.08	10.50	10.95	10.93	10.63	10.52	10.95	11.22
25	11.44	10.75	11.04	10.28	10.04	10.54	10.78	10.96	10.75	10.90	10.88	11.19
26	11.68	10.71	10.65	9.97	10.64	10.54	10.64	10.89	10.83	11.22	10.72	11.03
27	11.93	10.69	10.49	9.97	10.97	10.88	10.57	10.82	10.87	11.38	10.70	10.87
28	12.19	10.68	10.30	10.12	10.94	11.24	10.58	10.82	10.84	11.66	10.77	10.95
29	12.26	10.52	10.31	10.22	---	11.23	10.57	10.82	10.68	11.70	10.80	11.12
30	12.41	10.74	10.35	10.21	---	11.10	10.46	10.84	10.51	11.45	10.67	11.20
31	12.04	---	10.41	10.27	---	10.91	---	10.92	---	11.00	10.87	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246150 BIG DAVIS CREEK AT BAYARD, FL

LOCATION.--Lat 30°09'05", long 81°31'35", in land grant 37, T.4 S., R.28 E., Duval County, Hydrologic Unit 03080103, at downstream end of culvert on U. S. Highway 1, 0.8 mi northwest of Bayard, 2.0 mi upstream from mouth, and 14.8 mi southeast of Union Station in Jacksonville.

DRAINAGE AREA.--13.6 mi².

PERIOD OF RECORD.--Annual maximum, water years 1964-66, 1970-74; August 1966 to September 1969 and June 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Feb. 18, 1965 to Aug. 21, 1966, crest-stage gage at same site and datum.

REMARKS.--Estimated daily discharges: May 3-23. Records fair except for periods of estimated daily record, which are poor.

AVERAGE DISCHARGE.--19 years (water years 1967-69, 1975-90), 10.2 ft³/s, 10.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s, Aug. 29, 1968, gage height, 10.47 ft; minimum, 0.05 ft³/s, July 25, 1977, June 19, 1981, gage height, 3.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft³/s, Oct. 1, gage height, 6.36 ft, stage falling, peak occurred Sept. 25, 1989; maximum independent peak discharge, 39 ft³/s, Feb. 10, gage height, 6.29 ft; minimum discharge, 0.22 ft³/s, Aug. 29, gage height, 3.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	12	4.1	6.6	8.0	14	5.1	6.0	.64	.85	.57	.89
2	38	9.8	3.7	6.4	7.2	13	4.7	4.5	.62	1.0	.54	1.3
3	16	9.9	3.2	6.1	6.6	13	5.8	3.8	.73	1.4	.59	1.2
4	12	8.7	2.7	6.0	6.2	11	4.5	3.0	1.0	1.5	.54	.83
5	11	7.3	3.4	6.0	6.4	9.6	3.7	2.3	1.7	1.2	.45	6.9
6	9.6	7.0	3.7	6.7	5.7	9.1	3.2	1.8	2.0	.97	.38	5.7
7	8.4	6.5	3.2	6.7	5.3	8.9	2.8	1.5	1.5	.83	.35	2.6
8	7.7	6.0	3.4	7.1	4.9	12	2.5	1.5	1.3	.73	.57	1.9
9	6.8	6.0	5.8	6.6	4.7	11	3.6	1.7	1.2	.68	.66	1.6
10	7.8	6.0	5.8	6.2	14	8.8	4.0	1.9	1.1	.64	.60	1.4
11	14	5.7	5.0	5.7	35	7.4	3.7	1.7	1.1	.62	.57	1.2
12	16	5.7	4.5	5.4	22	6.5	3.2	1.7	.86	.67	.55	1.1
13	12	5.6	5.4	4.9	16	5.8	2.7	1.5	.73	.69	.49	1.0
14	10	5.5	5.0	4.6	13	5.2	2.5	1.5	.69	.69	.48	.97
15	8.8	5.4	5.0	4.7	11	5.2	2.5	1.5	.65	.73	.58	1.2
16	7.9	5.3	5.8	5.0	11	5.3	2.4	1.5	.64	.68	.64	1.7
17	6.9	4.9	5.8	5.5	9.4	5.4	2.2	1.4	.69	.65	.58	1.6
18	6.1	4.6	6.0	5.2	8.6	8.3	2.0	1.4	.68	.65	.82	1.1
19	5.5	4.3	7.9	5.1	8.0	6.7	2.1	1.4	.65	.63	.61	.95
20	4.7	4.1	9.4	4.9	11	5.3	2.2	1.4	.61	.70	.54	.90
21	4.0	4.0	8.7	5.0	18	4.2	2.1	1.3	.58	.78	.48	.83
22	3.5	3.6	7.8	4.8	24	3.7	3.0	1.3	.69	.66	.53	.77
23	3.0	5.7	8.7	4.6	37	3.5	7.7	1.2	2.7	.60	.62	.71
24	2.7	6.3	8.6	4.5	36	3.2	4.4	.90	2.2	.82	.51	.62
25	2.6	5.4	8.2	4.6	28	3.0	3.3	.87	1.5	1.1	.45	.60
26	3.9	5.7	8.0	6.0	22	2.8	2.9	.85	1.4	.97	.44	.62
27	6.4	5.7	7.6	5.9	18	2.3	2.6	.85	1.5	.85	.40	.62
28	22	5.4	7.2	5.6	16	2.3	4.7	.87	1.3	.84	.33	.89
29	27	4.9	6.8	5.3	---	2.0	13	1.1	1.2	.82	.29	1.6
30	20	4.5	6.5	5.1	---	3.4	8.5	.81	.95	.71	.55	2.3
31	15	---	6.3	7.7	---	5.9	---	.67	---	.63	1.5	---
TOTAL	358.3	181.5	183.2	174.5	413.0	207.8	117.6	53.72	33.11	25.29	17.21	45.60
MEAN	11.6	6.05	5.91	5.63	14.7	6.70	3.92	1.73	1.10	.82	.56	1.52
MAX	39	12	9.4	7.7	37	14	13	6.0	2.7	1.5	1.5	6.9
MIN	2.6	3.6	2.7	4.5	4.7	2.0	2.0	.67	.58	.60	.29	.60
CFSM	.85	.44	.43	.41	1.08	.49	.29	.13	.08	.06	.04	.11
IN.	.98	.50	.50	.48	1.13	.57	.32	.15	.09	.07	.05	.12

CAL YR 1989 TOTAL 2212.28 MEAN 6.06 MAX 74 MIN .31 CFSM .45 IN. 6.05
WTR YR 1990 TOTAL 1810.83 MEAN 4.96 MAX 39 MIN .29 CFSM .36 IN. 4.95

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246300 ORTEGA RIVER AT JACKSONVILLE, FL

LOCATION.--Lat 30°14'50", long 81°47'49", in NW¼ sec.15, T.3 S., R.25 E., Duval County, Hydrologic Unit 03080103, near center of span on downstream side of bridge on 103rd Street in Jacksonville, 15 mi upstream from mouth.

DRAINAGE AREA.--30.9 mi².

PERIOD OF RECORD.--Water years 1928, 1956, 1958-60, occasional low-flow measurements; January 1965 to July 1983, July 1984 to current year. Prior to October 1971, published as "near Jacksonville".

REVISED RECORDS.--WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.02 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 21, 1965, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--24 years (water years 1966-83, 1985-90), 35.0 ft³/s, 15.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft³/s, Aug. 30, 1968, gage height, 39.32 ft; no flow June 8-11, 1985; minimum gage height, 28.83 ft, June 5, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 566 ft³/s, Oct. 1, gage height, 36.42 ft, stage falling, peak occurred Sept. 29, 1989; maximum independent peak discharge, 146 ft³/s, Feb. 23, gage height, 33.89 ft; minimum discharge, 0.38 ft³/s, Sept. 27,28; minimum gage height, 29.93 ft, Aug. 2,5,6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	478	11	4.5	24	16	37	29	3.6	.69	1.2	.76	1.7
2	357	12	4.0	23	13	32	20	2.4	.65	7.6	.70	1.4
3	267	14	3.4	21	11	29	16	2.0	.62	24	.75	1.2
4	197	10	3.0	19	10	25	14	1.8	.62	25	.70	1.1
5	149	8.6	3.2	18	13	21	9.6	1.7	2.3	15	.62	4.6
6	117	7.2	3.4	18	11	18	6.6	1.6	2.3	6.9	.63	2.7
7	91	6.6	3.4	19	8.3	17	4.8	1.5	2.9	3.7	12	1.4
8	71	6.4	12	26	6.9	21	3.5	1.4	9.1	2.5	25	1.2
9	55	11	30	31	6.0	18	3.3	1.4	2.9	2.0	18	1.1
10	44	10	25	27	17	16	3.6	1.7	2.1	1.7	9.7	1.0
11	40	7.3	18	21	48	13	11	1.5	1.5	1.5	7.3	.96
12	36	5.3	16	18	51	11	5.9	1.3	1.2	1.6	6.4	1.4
13	33	4.3	21	15	33	9.7	3.7	1.2	.97	1.4	8.7	1.1
14	31	4.7	21	13	21	8.0	2.8	1.2	.86	2.5	5.9	.92
15	28	4.5	18	12	17	7.0	2.5	1.2	.74	2.2	2.8	1.4
16	27	15	15	11	14	5.9	2.2	1.1	.70	1.7	2.3	1.7
17	25	11	14	12	13	7.9	2.0	1.1	.75	1.6	6.9	1.1
18	22	7.7	16	9.8	12	14	1.9	1.0	.71	2.1	6.4	.87
19	20	5.9	35	8.8	11	10	2.0	1.0	.63	4.6	2.7	.77
20	17	5.0	62	8.8	32	7.3	2.2	1.2	1.3	2.2	2.2	.73
21	15	4.4	75	9.1	67	5.5	2.0	1.2	2.2	1.9	1.8	.68
22	13	4.2	57	11	96	4.5	2.4	1.2	2.0	1.8	2.0	.63
23	12	8.8	50	9.4	134	3.7	8.0	1.1	9.4	1.5	2.1	.55
24	11	11	47	8.3	132	3.0	3.7	1.1	5.6	1.4	1.5	.49
25	9.4	9.5	42	8.4	110	2.6	2.3	1.1	2.6	1.4	1.3	.53
26	8.8	8.6	40	12	87	2.3	2.0	1.0	2.1	1.3	1.2	.59
27	9.7	8.2	38	11	63	2.3	1.7	1.0	2.2	1.3	3.4	.50
28	15	8.2	35	11	46	2.3	6.4	1.0	1.8	1.3	3.6	.53
29	14	7.3	31	8.4	---	2.3	15	1.0	1.6	1.1	1.7	1.6
30	12	5.5	28	8.1	---	2.9	7.0	.90	1.4	.95	1.8	2.1
31	12	---	25	19	---	17	---	.71	---	.87	2.7	---
TOTAL	2236.9	243.2	795.9	471.1	1099.2	376.2	197.1	42.21	64.44	125.82	143.56	36.55
MEAN	72.2	8.11	25.7	15.2	39.3	12.1	6.57	1.36	2.15	4.06	4.63	1.22
MAX	478	15	75	31	134	37	29	3.6	9.4	25	25	4.6
MIN	8.8	4.2	3.0	8.1	6.0	2.3	1.7	.71	.62	.87	.62	.49
CFSM	2.34	.26	.83	.49	1.27	.39	.21	.04	.07	.13	.15	.04
IN.	2.69	.29	.96	.57	1.32	.45	.24	.05	.08	.15	.17	.04

CAL YR 1989 TOTAL 14266.65 MEAN 39.1 MAX 1430 MIN .71 CFSM 1.26 IN. 17.18
WTR YR 1990 TOTAL 5832.18 MEAN 16.0 MAX 478 MIN .49 CFSM .52 IN. 7.02

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL

LOCATION.--Lat 30°19'13", long 81°39'32", in land grant 44, T.2 S., R.26 E., Duval County, Hydrologic Unit 03080103, near right bank at downstream side of Main Street Bridge at Jacksonville, 2.3 mi upstream from Arlington River, and 22.7 mi upstream from mouth.

DRAINAGE AREA.--8,754 mi², includes Paynes Prairie, a diked sinkhole area of about 650 mi², which is noncontributing except for pumpage.

PERIOD OF RECORD.--February 1954 to September 1970 (volume of flow), October 1970 to September 1971 (gage heights only), October 1971 to September 1974, October 1974 to September 1980 (gage heights only), October 1980 to September 1981, October 1981 to June 1987 (gage heights only), July 1987 to current year.

REVISED RECORDS.--WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Apr. 13, 1966 to Sept. 30, 1971, at site 0.3 mi downstream at same datum. October 1971 to September 1986, water-stage and deflection meter recorder at site 0.3 mi upstream at same datum. Since July 24, 1984, auxiliary water-stage recorder about 5.1 mi downstream from base gage. Datum of gage is 9.99 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Discharge computed by one-dimensional streamflow model and daily figures represent net of much larger upstream and downstream discharges. The stage record published is the maximum and minimum tide event for each calendar day.

AVERAGE DISCHARGE.--22 years (water years 1955-74, 1981, 1988), 5,687 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.20 ft, Sept. 10, 1964; minimum, 7.90 ft, Feb. 29, 1984. Water years 1954-70: Maximum volume of flow downstream, 5,280 mft³, Sept. 10, 1964; maximum volume of flow upstream, 4,410 mft³, Sept. 9, 1964.

Water years 1971-74, 1981: Maximum daily discharge, 64,000 ft³/s, June 20, 1972; maximum daily reverse flow, 62,700 ft³/s, Oct. 20, 1972, 1988-90.

EXTREMES FOR CURRENT PERIOD.--

Water year 1987: Maximum daily discharge, 28,600 ft³/s, Aug. 16, but may have been greater during period Oct. through June, maximum gage height, 12.58 ft, Dec. 23; maximum daily reverse flow, 11,400 ft³/s, July 7, but may have been greater during period Oct. through June, minimum gage height, 8.85 ft, Jan. 31.

Water year 1988: Maximum daily discharge, 40,600 ft³/s, Sept. 9; maximum gage height, 12.67 ft, Sept. 8; maximum daily reverse flow, 45,400 ft³/s, May 26; minimum gage height, 8.64 ft, Dec. 17.

Water year 1989: Maximum daily discharge, 35,100 ft³/s, Sept. 30; maximum gage height, 13.01 ft, Sept. 28, 29; maximum daily reverse flow, 32,000 ft³/s, Feb. 17; minimum gage height, 8.49 ft, Apr. 7.

Water year 1990: Maximum daily discharge, 42,500 ft³/s, Nov. 1; maximum gage height, 12.81 ft, Oct. 30; maximum daily reverse flow, 39,500 ft³/s, Oct. 9; minimum gage height, 8.62 ft, Feb. 25.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, PERIOD JULY TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	9530	24400	-2450
2	---	---	---	---	---	---	---	---	---	10600	20700	2300
3	---	---	---	---	---	---	---	---	---	10800	14600	-2090
4	---	---	---	---	---	---	---	---	---	-5640	22600	-3740
5	---	---	---	---	---	---	---	---	---	-4940	22500	5600
6	---	---	---	---	---	---	---	---	---	-8390	19000	14600
7	---	---	---	---	---	---	---	---	---	-11400	15000	16400
8	---	---	---	---	---	---	---	---	---	-6850	13300	25200
9	---	---	---	---	---	---	---	---	---	290	18600	26200
10	---	---	---	---	---	---	---	---	---	4710	25400	21100
11	---	---	---	---	---	---	---	---	---	8370	18500	19700
12	---	---	---	---	---	---	---	---	---	9090	13800	18100
13	---	---	---	---	---	---	---	---	---	6980	10400	12500
14	---	---	---	---	---	---	---	---	---	15600	15100	1790
15	---	---	---	---	---	---	---	---	---	15800	26700	-2230
16	---	---	---	---	---	---	---	---	---	2060	28600	-2580
17	---	---	---	---	---	---	---	---	---	-9520	12800	9710
18	---	---	---	---	---	---	---	---	---	-9720	7040	13600
19	---	---	---	---	---	---	---	---	---	5660	2450	9770
20	---	---	---	---	---	---	---	---	---	11600	2660	-2930
21	---	---	---	---	---	---	---	---	---	9880	935	-3330
22	---	---	---	---	---	---	---	---	---	1780	8340	9340
23	---	---	---	---	---	---	---	---	---	-4610	20700	10200
24	---	---	---	---	---	---	---	---	---	-4880	16300	10200
25	---	---	---	---	---	---	---	---	---	12600	3410	22900
26	---	---	---	---	---	---	---	---	---	17100	13500	21900
27	---	---	---	---	---	---	---	---	---	24700	20400	19200
28	---	---	---	---	---	---	---	---	---	20400	22500	11000
29	---	---	---	---	---	---	---	---	---	14000	17400	15500
30	---	---	---	---	---	---	---	---	---	16500	2500	16300
31	---	---	---	---	---	---	---	---	---	25700	-1640	---
TOTAL	---	---	---	---	---	---	---	---	---	187800	458495	313760
MEAN	---	---	---	---	---	---	---	---	---	6058	14790	10460
MAX	---	---	---	---	---	---	---	---	---	25700	28600	26200
MIN	---	---	---	---	---	---	---	---	---	-11400	-1640	-3740

Note.--Negative figures indicate reverse flow.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.22	12.17	12.40	12.50	11.52	12.44	11.87	11.50	11.28	11.18	11.30	11.53
2	11.17	12.10	12.48	12.08	11.70	12.10	11.87	11.30	11.17	11.13	11.15	11.37
3	11.17	12.21	12.02	11.84	11.27	11.88	11.69	11.31	11.20	11.04	11.32	11.54
4	11.13	12.39	11.81	12.09	11.31	11.82	10.96	11.24	11.24	11.00	11.08	11.76
5	11.07	12.39	11.75	12.31	11.70	11.75	10.48	11.46	11.49	11.22	11.05	11.97
6	11.14	12.14	11.96	12.56	12.27	11.78	10.68	11.40	11.72	11.04	11.12	11.93
7	11.40	11.89	11.99	12.39	12.24	12.21	10.83	11.51	11.57	11.25	11.23	12.11
8	11.47	11.88	11.83	11.81	12.28	12.34	10.85	11.32	11.45	11.37	11.38	12.05
9	11.34	11.76	11.69	11.76	11.29	11.65	10.84	11.64	11.31	11.35	11.53	11.94
10	11.22	11.65	11.56	11.82	11.49	11.26	11.16	11.59	11.56	11.44	11.53	11.77
11	11.46	12.00	11.59	10.97	11.53	11.86	11.35	11.62	11.65	11.56	11.42	11.61
12	11.68	11.89	11.55	10.86	11.30	12.02	11.16	11.78	11.37	11.59	11.62	11.53
13	11.75	11.75	11.53	11.19	11.38	11.90	11.00	11.78	11.37	11.65	11.88	11.41
14	11.63	12.08	11.97	11.41	11.56	12.03	11.06	11.78	11.18	11.74	12.15	11.27
15	11.79	12.18	12.04	11.39	11.64	12.04	11.35	11.78	11.17	11.61	11.92	11.36
16	11.86	12.02	11.97	11.43	12.10	11.88	11.27	11.77	11.13	11.48	11.68	11.46
17	11.89	11.83	11.88	11.81	12.12	12.22	11.35	11.64	11.24	11.51	11.35	11.34
18	11.96	11.74	11.93	12.05	12.00	12.29	11.45	11.62	11.33	11.68	11.25	11.22
19	12.06	11.84	11.80	11.89	11.80	12.31	11.55	11.41	11.32	11.69	11.30	11.19
20	12.07	12.17	11.86	11.23	11.73	12.13	11.65	11.24	11.09	11.59	11.50	11.42
21	11.97	11.86	12.00	11.38	12.00	12.22	11.60	11.44	11.13	11.50	11.55	11.63
22	11.95	11.79	12.24	11.78	12.27	11.93	11.60	11.60	11.16	11.46	11.57	11.68
23	11.80	11.89	12.58	11.34	12.11	12.10	11.69	11.65	11.17	11.57	11.46	11.70
24	11.65	11.74	12.41	11.03	11.81	12.17	11.67	11.49	11.30	11.72	11.41	11.78
25	11.61	11.62	11.84	11.33	11.95	12.22	11.70	11.39	11.36	11.78	11.59	11.78
26	11.57	11.68	11.58	11.18	12.18	12.15	11.80	11.42	11.42	11.75	11.58	11.68
27	11.70	11.47	11.76	11.44	12.39	12.21	11.84	11.68	11.40	11.61	11.51	11.61
28	11.63	11.65	12.09	11.52	12.51	12.21	11.95	11.73	11.24	11.31	11.37	11.65
29	11.66	12.06	12.18	11.66	---	12.31	11.88	11.71	11.30	11.11	11.18	11.63
30	11.88	12.30	12.16	11.66	---	12.35	11.90	11.59	11.37	11.30	11.04	11.53
31	12.24	---	12.49	11.29	---	12.20	---	11.49	---	11.36	11.23	---
MEAN	11.62	11.94	11.97	11.65	11.84	12.06	11.40	11.54	11.32	11.44	11.43	11.61
MAX	12.24	12.39	12.58	12.56	12.51	12.44	11.95	11.78	11.72	11.78	12.15	12.11
MIN	11.07	11.47	11.53	10.86	11.27	11.26	10.48	11.24	11.09	11.00	11.04	11.19
CAL YR 1986	MEAN	11.37	MAX	12.58	MIN	10.41						
WTR YR 1987	MEAN	11.65	MAX	12.58	MIN	10.48						

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-7790	3280	10500	12600	285	1270	5510	-5930	15600	8630	12000	4540
2	14300	2650	11000	-6470	2800	4740	7170	16100	20800	9980	9860	4170
3	12700	16900	7740	-7040	7350	14400	8260	31400	11700	14800	-4050	10700
4	259	26500	6320	31100	3690	20000	12400	39000	-16700	7530	-5950	20500
5	13000	26100	-4070	21400	-13900	14800	8360	18000	17600	-5470	-647	27100
6	17400	9520	7460	14700	8940	-8860	15500	2960	24300	-3590	7930	15500
7	29300	28400	3190	6810	14800	16300	6580	-1720	15400	9530	5150	-28600
8	17600	28400	1570	33400	24600	16500	-8620	3070	10100	24500	2220	18800
9	10400	16700	23100	27600	18900	16500	2710	-1860	17900	22200	2010	40600
10	9500	11500	17200	8170	6610	14000	6360	2040	1170	17000	7370	34000
11	11700	-871	8540	9350	15300	-22400	-71	2690	-16700	14600	14700	16400
12	9310	-20500	9000	22100	37400	25000	11000	-1460	9640	18800	2620	9980
13	-13900	-4960	-12400	23100	5680	23400	-4340	9480	14300	10900	-125	15500
14	3430	-6360	-521	-13300	-8610	-1660	-2300	11600	20800	5250	18700	15000
15	6750	493	17800	-99	5110	-5530	11500	13000	19100	5550	21800	9190
16	16600	10800	5270	11600	10600	-2110	11300	17200	15300	4980	19100	-4490
17	18900	13700	-12600	22800	5140	5270	19000	14300	15800	4540	8770	13500
18	36200	8400	-5250	12800	4210	13000	24600	10800	19100	2820	8060	12800
19	33700	4560	5300	9580	14900	23300	33100	14700	9040	-1260	10600	-4200
20	29600	6540	13700	22600	16700	25800	736	11400	159	3720	2200	-2430
21	32100	6420	12600	15100	25800	26000	13200	4040	323	6240	-57	6280
22	11300	7990	4860	18000	19200	2730	10500	4820	6160	6630	-10600	-4660
23	28000	10500	10700	13300	12800	12100	-5980	6520	5080	3500	-17700	1920
24	26400	5980	17500	8950	4990	29600	6800	4430	3920	459	2740	12500
25	27500	3380	21700	3200	-16100	7210	-14100	-2350	-6890	-8820	7530	17100
26	14000	-3510	19500	22300	-9500	-1650	-15800	-45400	3310	-7350	15800	3090
27	25800	-5410	9060	-2950	15000	-4470	7260	1960	12000	2450	12400	-2850
28	20100	-11800	-2200	-7870	-26000	-9570	13400	25100	-2060	5600	12100	8850
29	14000	2950	-378	-1820	6530	-897	8110	18200	24700	6240	22200	4600
30	15300	9010	-9350	3210	---	2840	8880	9480	28300	6040	13800	11500
31	5870	---	14600	-2010	---	2810	---	14000	---	8440	5640	---
TOTAL	489329	207262	211441	332211	213225	260423	201025	247570	299252	204439	206171	286890
MEAN	15780	6909	6821	10720	7353	8401	6701	7986	9975	6595	6651	9563
MAX	36200	28400	23100	33400	37400	29600	33100	39000	28300	24500	22200	40600
MIN	-13900	-20500	-12600	-13300	-26000	-22400	-15800	-45400	-16700	-8820	-17700	-28600

WTR YR 1988 TOTAL 3159238 MEAN 8632 MAX 40600 MIN -45400

Note.--Negative figures indicate reverse flow.

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.57	11.81	11.83	11.46	11.16	11.63	11.36	11.82	11.62	11.55	11.37	11.76
2	11.54	12.16	11.61	11.37	11.18	11.76	11.35	11.80	11.62	11.80	11.34	11.79
3	11.48	12.35	11.50	11.88	11.20	11.67	11.40	11.66	11.57	11.82	11.39	11.71
4	11.60	12.46	11.17	11.83	11.23	11.63	11.32	11.44	11.74	11.73	11.53	11.57
5	11.66	12.44	11.33	11.39	11.31	11.36	11.15	11.42	12.05	11.72	11.45	11.37
6	11.73	12.32	11.42	11.42	11.42	11.81	11.38	11.22	11.92	11.87	11.38	11.66
7	11.56	12.32	11.53	11.69	11.57	11.80	11.02	11.28	11.65	11.87	11.24	12.21
8	11.42	12.16	11.79	11.76	11.63	11.70	11.27	11.45	11.72	11.68	11.26	12.67
9	11.48	11.93	11.56	11.52	11.62	11.57	11.52	11.52	11.50	11.44	11.34	12.47
10	11.63	11.84	11.45	11.49	11.62	11.53	11.71	11.50	11.14	11.32	11.29	12.27
11	11.68	11.24	11.22	11.76	11.79	11.45	12.00	11.51	11.66	11.32	11.27	12.20
12	11.70	11.61	11.08	11.72	11.83	11.72	11.73	11.49	11.64	11.19	11.36	12.20
13	12.18	11.79	11.13	11.61	10.73	11.60	11.73	11.46	11.58	11.08	11.21	12.23
14	12.25	11.91	11.38	11.30	11.20	11.22	12.02	11.51	11.46	11.02	11.59	12.03
15	12.42	11.93	11.34	11.76	11.47	11.25	11.98	11.61	11.41	11.81	11.27	12.04
16	12.43	12.05	10.79	11.90	11.17	11.50	11.96	11.55	11.26	10.96	11.20	12.20
17	12.50	12.00	11.01	11.97	11.31	11.65	11.92	11.48	11.46	10.97	11.15	12.24
18	12.34	11.90	11.20	11.70	11.56	11.84	11.80	11.24	11.49	10.95	11.15	11.94
19	12.27	11.99	11.46	11.76	11.82	11.56	11.39	11.46	11.29	10.92	11.10	11.97
20	12.27	12.02	11.46	11.85	11.88	11.34	11.36	11.30	11.29	10.97	10.99	12.04
21	12.15	11.87	11.38	11.71	11.91	11.07	11.50	11.26	11.37	10.92	11.09	11.99
22	12.25	11.97	11.50	11.66	11.74	11.12	11.34	11.31	11.47	10.76	11.28	12.17
23	12.19	12.08	11.61	11.47	11.68	11.39	11.23	11.15	11.42	10.76	11.63	12.31
24	12.31	11.94	11.71	11.45	11.50	11.43	11.25	11.02	11.39	10.85	11.60	12.22
25	12.21	11.95	11.56	11.51	11.24	11.15	11.02	10.79	11.56	11.02	11.64	12.07
26	12.30	11.86	11.41	11.32	11.33	11.03	11.50	11.46	11.80	11.31	11.66	12.20
27	12.36	11.81	11.21	10.78	11.54	10.86	11.60	11.82	11.68	11.39	11.61	12.40
28	12.14	12.05	11.42	11.03	11.59	11.04	11.25	11.69	11.99	11.33	11.74	12.34
29	11.97	12.10	11.07	11.01	11.75	11.23	11.35	11.44	11.87	11.37	11.54	12.41
30	11.81	11.98	11.37	11.06	---	11.24	11.35	11.53	11.83	11.39	11.51	12.42
31	11.70	---	11.53	11.06	---	11.29	---	11.59	---	11.42	11.	

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.82	10.19	10.11	9.65	9.20	9.98	9.54	9.81	9.80	9.74	9.45	9.92
2	9.96	10.30	9.78	9.53	9.26	10.09	9.53	10.09	9.64	9.96	9.45	10.05
3	9.64	10.66	9.57	10.01	9.26	9.99	9.41	9.92	9.66	10.02	9.56	10.05
4	9.64	10.71	9.04	10.19	9.30	9.78	9.39	9.59	10.14	10.07	9.79	10.00
5	9.84	10.63	9.20	9.72	9.22	9.46	9.38	9.19	10.32	10.15	9.81	9.61
6	9.91	10.24	9.42	9.69	9.72	9.70	9.55	9.33	10.14	10.37	9.71	9.63
7	9.64	10.60	9.57	10.04	10.09	9.94	9.07	9.65	9.94	10.37	9.46	9.97
8	9.41	10.48	9.90	10.23	10.08	9.84	9.82	9.84	9.79	10.02	9.54	10.83
9	9.57	10.30	9.92	10.04	10.23	9.70	10.13	9.97	9.53	9.65	9.66	10.85
10	9.88	10.20	9.83	10.06	10.34	9.23	10.24	9.83	9.13	9.38	9.61	10.63
11	10.09	9.71	9.58	10.43	10.43	9.75	10.32	9.59	9.65	9.35	9.56	10.56
12	10.26	10.09	9.47	10.18	9.19	9.82	10.11	9.59	9.77	9.23	9.71	10.56
13	10.81	10.27	9.56	9.68	9.13	9.87	9.77	9.41	9.76	9.08	9.72	10.48
14	11.24	10.48	9.79	10.01	9.09	9.34	9.97	9.46	9.64	9.10	9.97	10.40
15	11.33	10.57	9.29	10.31	9.28	9.04	9.98	9.54	9.58	9.24	9.77	10.35
16	11.26	10.59	9.18	10.19	8.91	9.16	9.94	9.54	9.75	9.23	9.62	10.52
17	11.24	10.58	8.64	10.10	9.01	9.37	9.98	9.58	9.81	9.20	9.54	10.69
18	11.01	10.34	9.14	9.67	9.11	9.58	9.76	9.55	9.75	9.23	9.56	10.31
19	10.89	10.10	9.42	9.59	9.71	9.36	9.35	9.58	9.79	9.30	9.42	10.33
20	10.83	10.20	9.41	9.64	9.81	9.24	9.62	9.54	9.88	9.32	9.37	10.34
21	10.54	9.72	9.23	9.52	9.83	9.07	9.71	9.65	9.93	9.27	9.29	10.13
22	10.23	9.95	9.28	9.47	9.89	9.19	9.59	9.61	10.05	9.10	9.40	10.20
23	10.62	10.12	9.49	9.39	9.79	9.69	9.67	9.50	9.90	9.04	9.93	10.35
24	10.62	10.04	9.75	9.48	9.52	9.51	9.44	9.33	9.82	8.88	9.86	10.20
25	10.52	10.06	9.69	9.69	9.74	9.45	9.48	9.16	9.93	9.03	9.76	10.01
26	10.56	10.04	9.45	9.06	9.99	9.36	10.15	9.35	10.13	9.20	9.52	10.06
27	10.82	10.04	9.40	9.14	9.88	9.31	10.15	10.33	9.90	9.25	9.45	10.38
28	10.26	10.37	9.57	9.42	9.47	9.27	9.71	10.06	10.17	9.25	9.84	10.51
29	10.40	10.50	8.96	9.16	10.22	9.56	9.54	9.63	10.05	9.28	9.55	10.64
30	10.21	10.38	9.24	9.17	---	9.57	9.40	9.69	9.64	9.44	9.49	10.73
31	10.09	---	9.69	9.17	---	9.46	---	9.79	---	9.49	9.64	---
MEAN	10.36	10.28	9.47	9.73	9.61	9.54	9.72	9.64	9.83	9.46	9.61	10.31
MAX	11.33	10.71	10.11	10.43	10.43	10.09	10.32	10.33	10.32	10.37	9.97	10.85
MIN	9.41	9.71	8.64	9.06	8.91	9.04	9.07	9.16	9.13	8.88	9.29	9.61
CAL YR 1987	MEAN 9.89		MAX 11.33	MIN 8.64								
WTR YR 1988	MEAN 9.80		MAX 11.33	MIN 8.64								

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9260	---	---	4660	548	-24200	-9600	9800	17000	-11600	17500	11800
2	10000	---	---	-6120	6290	-16900	413	3480	23300	8960	11300	19500
3	5990	---	---	6560	114	-7170	244	-82	18400	21300	-1010	18200
4	1670	---	---	-7320	-3400	7050	15	710	11900	23100	3640	-4340
5	-15700	---	---	-3660	-12000	7040	9950	9920	20200	18100	12400	12300
6	-14200	---	---	15000	1530	8190	14600	19500	14600	29900	8060	3040
7	-18700	---	9660	3760	16300	2220	21400	8060	6960	28800	-4350	-4900
8	-10000	---	9430	3490	11500	-22500	13200	4490	12300	20200	-5210	-13400
9	7910	---	10900	5480	3310	-19200	8370	13200	17200	3540	-19200	8140
10	15700	---	-2780	-8380	12100	-19400	-1060	22200	3920	-3810	-14800	7560
11	29000	---	1700	1980	17900	-4260	-21400	-7680	-11100	2770	-856	12500
12	28000	---	-20400	12900	14200	13400	-23000	-5460	-10500	2710	5870	9460
13	-2320	---	24100	30400	5700	889	-9180	-142	3090	7410	7290	5980
14	16100	---	28600	-3150	11400	2430	3560	-1490	11000	10500	12100	4750
15	19400	---	24400	17500	4240	8220	18800	-1520	8520	464	14500	22100
16	16700	---	2060	15100	1100	7310	2560	4110	3010	4470	18600	22700
17	10700	---	4660	-8390	-32000	1480	10300	3310	6170	14300	18300	17700
18	5050	---	4550	4590	-19800	10300	9220	5790	3270	9350	14200	7420
19	6290	---	14800	9900	-6840	2710	12000	4590	628	6530	13300	1220
20	-26800	---	7110	5660	3800	1650	287	4420	5910	7950	6200	10200
21	2760	---	7440	-29700	13400	11500	-14400	13200	12000	4490	5820	-4790
22	6380	---	4410	-30500	12800	560	4320	10900	11500	14100	11600	28200
23	7000	---	1890	-9830	16800	-4150	26500	16100	9020	11000	15700	15300
24	16400	---	13500	15600	1180	11600	15200	12600	9560	7020	11100	-21600
25	12200	---	17300	30800	-5390	16200	18100	3110	3160	3550	1180	-2660
26	18700	---	-2460	30000	5790	12300	15100	-436	-6890	-2090	-6800	32900
27	17300	---	9600	26100	4670	9430	1600	1140	3100	5180	2600	427
28	20300	---	26000	-326	-952	7620	-7140	-22300	3150	16300	14900	-4000
29	18300	---	11500	14100	---	2230	-6140	-28100	1270	10000	13000	29100
30	---	---	-2970	19700	---	296	1520	1470	-11300	5690	14100	35100
31	---	---	3490	4200	---	-3000	---	12000	---	13000	13700	---
TOTAL	---	---	---	170104	84290	23845	115339	116890	200348	293184	214734	279907
MEAN	---	---	---	5487	3010	769	3845	3771	6678	9458	6927	9330
MAX	---	---	---	30800	17900	16200	26500	22200	23300	29900	18600	35100
MIN	---	---	---	-30500	-32000	-24200	-23000	-28100	-11300	-11600	-19200	-21600

Note.--Negative figures indicate reverse flow.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAHAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.35	---	---	11.40	11.09	10.89	11.00	11.55	11.48	12.02	11.13	11.78
2	12.13	---	---	11.32	11.07	11.51	11.21	11.23	11.37	11.92	11.33	11.78
3	12.12	---	---	11.47	11.00	11.82	11.32	11.45	11.33	11.81	11.52	11.70
4	11.94	---	---	11.24	11.03	11.61	11.30	11.70	11.26	11.74	11.55	11.80
5	12.22	---	---	11.46	11.46	11.56	11.28	11.61	11.27	11.61	11.52	11.96
6	12.33	---	---	11.58	11.59	11.61	11.16	11.56	11.12	11.58	11.29	11.84
7	12.62	---	11.59	11.31	11.60	11.61	11.17	11.48	11.15	11.32	11.22	12.09
8	12.71	---	11.52	11.38	11.42	11.89	11.01	11.39	11.15	11.06	11.28	12.22
9	12.66	---	11.53	11.45	11.48	12.18	11.01	11.51	11.09	10.88	11.58	12.17
10	12.64	---	11.66	11.70	11.51	12.52	11.05	11.26	10.64	11.02	11.72	12.10
11	12.52	---	11.71	11.80	11.44	12.58	11.18	10.93	10.66	10.99	11.61	12.02
12	12.28	---	12.11	11.81	11.22	12.47	11.47	11.10	11.02	10.94	11.57	12.06
13	12.10	---	12.25	11.67	11.22	12.03	11.59	11.12	10.89	10.94	11.61	12.24
14	12.26	---	11.93	11.54	11.12	11.83	11.46	11.13	10.82	10.80	11.71	12.23
15	12.17	---	11.69	11.59	10.90	11.57	11.55	11.21	10.83	11.09	11.80	12.13
16	12.06	---	11.56	11.26	10.89	11.20	11.39	11.18	10.70	11.15	11.72	12.07
17	11.93	---	11.68	11.13	11.23	11.32	11.33	11.27	10.87	11.07	11.72	11.93
18	11.96	---	11.61	11.32	11.85	11.44	11.33	11.27	10.92	11.30	11.71	11.93
19	11.87	---	11.62	11.19	11.90	11.35	11.30	11.33	11.11	11.31	11.70	12.09
20	12.35	---	11.50	11.13	11.95	11.75	11.34	11.48	11.18	11.32	11.79	12.04
21	12.48	---	11.50	11.52	11.96	11.62	11.79	11.42	11.18	11.36	11.75	11.96
22	12.27	---	11.45	11.89	11.62	11.54	11.79	11.41	11.14	11.51	11.68	11.94
23	12.30	---	11.63	12.42	11.17	12.17	11.79	11.33	11.12	11.58	11.53	11.59
24	12.33	---	11.64	12.39	10.90	12.03	11.38	11.13	11.19	11.37	11.27	12.15
25	12.15	---	11.49	12.12	11.19	11.80	11.32	11.07	11.16	11.29	11.40	12.62
26	12.15	---	11.57	11.79	11.24	11.54	11.14	11.15	11.30	11.42	11.69	12.43
27	12.16	---	11.68	11.54	11.00	11.45	11.04	11.10	11.30	11.42	11.84	12.50
28	12.08	---	11.57	11.49	10.93	11.32	11.15	11.10	11.50	11.15	11.79	13.01
29	11.90	---	11.13	11.57	---	11.23	11.34	11.84	11.36	11.15	11.77	13.01
30	---	---	11.39	11.45	---	11.19	11.57	11.76	11.70	11.43	11.76	12.66
31	---	---	11.42	10.99	---	10.95	---	11.58	---	11.32	11.70	---
MEAN	---	---	---	11.55	11.32	11.66	11.33	11.34	11.13	11.32	11.59	12.13
MAX	---	---	---	12.42	11.96	12.58	11.79	11.84	11.70	12.02	11.84	13.01
MIN	---	---	---	10.99	10.89	10.89	11.00	10.93	10.64	10.80	11.13	11.59

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.79	---	---	9.69	9.37	9.70	8.95	9.77	9.47	10.10	9.14	10.08
2	10.63	---	---	9.86	9.23	10.26	9.25	9.17	9.17	10.14	9.26	10.12
3	10.67	---	---	9.42	9.09	10.08	9.37	9.21	9.03	9.92	9.56	9.99
4	10.47	---	---	9.29	8.96	9.95	9.16	9.48	9.15	9.77	9.95	10.18
5	10.73	---	---	9.46	9.14	9.83	9.00	9.51	9.09	9.84	9.84	10.46
6	10.87	---	---	9.74	9.44	9.65	8.77	9.31	9.07	9.71	9.58	10.37
7	11.18	---	9.81	9.35	9.52	9.42	8.49	9.22	9.20	9.48	9.64	10.61
8	11.19	---	9.69	9.28	9.35	9.62	8.81	9.62	9.29	9.24	9.73	10.94
9	11.26	---	9.56	9.36	9.18	10.08	8.90	9.56	8.96	9.19	10.13	10.83
10	11.19	---	9.55	9.64	9.55	10.66	9.38	9.36	8.90	9.36	10.41	10.67
11	10.95	---	9.87	9.97	9.49	10.76	9.71	9.45	9.01	9.33	10.29	10.51
12	10.58	---	10.19	10.08	9.38	10.36	10.24	9.64	9.30	9.30	10.15	10.40
13	10.37	---	10.60	9.53	9.38	10.28	10.21	9.61	9.40	9.25	10.11	10.41
14	10.65	---	10.22	9.89	9.18	10.01	10.10	9.64	9.06	9.06	9.94	10.42
15	10.54	---	9.87	9.57	9.07	9.68	10.08	9.68	9.04	9.23	9.99	10.24
16	10.53	---	9.89	9.24	9.05	9.50	9.83	9.58	9.07	9.21	9.81	10.08
17	10.42	---	9.75	9.24	9.06	9.52	9.75	9.59	9.02	9.14	9.71	9.90
18	10.36	---	9.79	9.47	10.16	9.75	9.63	9.56	9.07	9.11	9.81	9.86
19	10.28	---	9.71	9.33	10.31	9.62	9.51	9.67	9.19	9.34	9.78	10.18
20	10.38	---	9.56	9.15	10.34	10.01	9.33	9.71	9.38	9.36	9.86	10.32
21	10.82	---	9.46	9.02	10.18	9.76	10.02	9.57	9.36	9.52	9.95	10.32
22	10.49	---	9.38	10.01	9.83	9.62	10.17	9.58	9.37	9.75	9.84	10.24
23	10.40	---	9.48	10.81	9.11	10.46	9.73	9.34	9.42	9.64	9.62	9.92
24	10.41	---	9.67	10.72	8.96	10.25	9.64	9.33	9.48	9.55	9.38	10.13
25	10.00	---	9.61	10.31	9.38	9.99	9.49	9.39	9.44	9.47	9.49	11.13
26	10.19	---	9.59	10.05	9.47	9.85	9.34	9.45	9.59	9.63	9.87	10.71
27	10.20	---	10.04	9.78	9.36	9.76	9.45	9.36	9.58	9.65	10.05	10.58
28	10.30	---	9.68	9.94	9.16	9.62	9.61	9.39	9.49	9.31	10.04	11.49
29	10.17	---	9.58	9.94	---	9.66	9.82	10.23	9.43	9.20	10.02	11.36
30	---	---	9.93	9.65	---	9.30	9.71	10.10	9.70	9.27	10.05	11.00
31	---	---	9.92	9.54	---	8.79	---	9.73	---	9.31	9.96	---
MEAN	---	---	---	9.69	9.42	9.86	9.51	9.54	9.26	9.46	9.84	10.45
MAX	---	---	---	10.81	10.34	10.76	10.24	10.23	9.70	10.14	10.41	11.49
MIN	---	---	---	9.02	8.96	8.79	8.49	9.17	8.90	9.06	9.14	9.86

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30700	42500	16500	---	4480	11400	9180	-5610	-8440	9950	1340	-9150
2	23000	18500	16600	---	16900	9250	3190	-9430	18400	6580	-1710	-5630
3	11400	9760	18800	---	10200	17800	-1750	-5190	26800	-9240	5080	3020
4	2350	13000	4380	---	11000	996	-11400	-48	26700	12700	8490	6450
5	6900	266	17500	---	-19800	-13000	8250	11000	20300	23000	14500	-3430
6	26500	10500	6970	---	-5990	-8160	12200	-6790	9520	24900	17400	6290
7	23800	16200	1670	---	4320	-21700	238	-14400	35800	27900	14500	15600
8	118	5230	-8240	---	2750	-3520	-5250	10100	39400	16300	13700	20300
9	-39500	11800	-20100	---	8360	21200	2210	14300	33000	18200	12700	12500
10	-5340	764	-1540	---	16100	26600	20100	16400	40700	25200	12000	1960
11	-4650	5240	7280	---	2560	13700	24000	231	23000	26000	13200	-3820
12	7560	11400	9710	---	11800	14800	-5630	9870	21100	23800	10700	-9800
13	13300	11300	17000	---	17100	16500	2460	11600	22600	21900	8280	-5770
14	15800	9910	16000	---	19000	10200	6350	2640	35500	26200	11600	-2710
15	18000	15600	16600	---	14500	6630	15000	-3790	32800	9660	10700	11900
16	23800	23100	15000	---	22100	14800	12700	-4820	15600	620	5890	12600
17	25900	8600	-17	---	7820	22100	2770	2650	824	-2170	2380	-1000
18	26400	6490	7460	---	-23900	-6080	-28700	-9770	18200	7260	2430	-8010
19	30500	3600	---	---	11500	-3520	-19400	-7980	31400	5350	3430	4430
20	23200	2930	---	---	-22900	-7390	14300	-2520	20700	10600	8490	12800
21	513	13200	---	---	-15200	-12200	8940	3870	3020	18300	15200	16300
22	-2840	-8110	---	---	22800	2160	4360	-2530	21900	21400	12900	21500
23	-18200	3800	---	---	29100	2590	-7630	-21300	25300	11600	11900	9620
24	-16000	-17600	---	---	22300	184	9650	-10100	12100	6910	16200	-5890
25	-11300	7640	---	1360	-2260	1600	15600	8440	10700	2090	17900	11700
26	-14900	10500	---	15000	-14200	1210	18200	18500	10400	-9290	14500	11900
27	-15600	5900	---	6620	3220	-15200	12800	21400	12900	-24000	2400	10500
28	-9840	12000	---	8970	42100	-5570	15500	8110	15000	-23200	-1270	-4150
29	-19100	13200	---	11300	---	12200	14900	11000	16800	-9110	4430	-1760
30	7860	-6710	---	12300	---	17800	10700	3490	15400	12500	4070	-867
31	37500	---	---	10400	---	25400	---	4050	---	28600	-9510	---
TOTAL	197831	260510	---	---	195760	152780	163838	53373	607424	320510	263820	127383
MEAN	6382	8684	---	---	6991	4928	5461	1722	20250	10340	8510	4246
MAX	37500	42500	---	---	42100	26600	24000	21400	40700	28600	17900	21500
MIN	-39500	-17600	---	---	-23900	-21700	-28700	-21300	-8440	-24000	-9510	-9800

Note.--Negative figures indicate reverse flow.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246500 ST. JOHNS RIVER AT JACKSONVILLE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.46	12.30	11.47	11.18	11.09	11.67	11.48	11.06	11.59	11.12	11.30	11.61
2	12.21	11.96	11.41	11.07	11.15	11.76	11.56	11.22	11.61	11.14	11.57	11.74
3	11.88	12.00	11.11	11.14	10.97	11.78	11.52	11.37	11.38	11.48	11.64	11.78
4	11.88	11.98	11.13	11.07	10.94	11.52	11.49	11.36	11.14	11.53	11.67	11.73
5	12.09	12.04	10.94	10.95	10.89	11.66	11.47	11.15	11.33	11.27	11.62	11.94
6	11.96	12.04	10.96	10.98	11.26	11.81	11.30	11.17	11.61	11.21	11.56	11.92
7	11.54	11.83	10.98	11.22	11.35	11.87	11.27	11.46	11.48	11.32	11.57	11.90
8	11.31	11.73	11.27	11.59	11.27	12.39	11.45	11.38	11.37	11.42	11.58	11.81
9	12.02	11.91	11.69	11.26	11.35	12.15	11.69	11.40	11.23	11.41	11.61	11.57
10	12.34	11.62	11.64	11.15	11.40	11.77	11.49	11.35	11.23	11.40	11.65	11.63
11	12.29	11.63	11.67	11.20	11.37	11.61	11.35	11.16	11.22	11.29	11.66	11.66
12	12.32	11.71	11.70	10.98	11.35	11.56	11.34	11.17	11.38	11.10	11.51	11.82
13	12.21	11.69	11.35	11.21	11.29	11.43	11.35	11.25	11.58	11.10	11.47	11.87
14	12.23	11.78	11.37	11.29	11.21	11.44	11.44	11.00	11.64	11.20	11.46	11.97
15	12.26	11.81	11.39	11.32	11.14	11.47	11.49	11.08	11.53	10.88	11.32	11.83
16	12.18	11.67	11.24	11.25	10.97	11.49	11.31	11.25	11.56	10.88	11.39	11.78
17	12.10	11.29	11.38	11.19	10.54	11.37	11.18	11.23	11.85	11.02	11.49	11.88
18	12.01	11.19	11.45	11.11	10.94	10.83	11.15	11.00	11.94	11.09	11.67	12.06
19	11.72	11.12	11.62	10.99	11.19	10.99	11.91	11.18	11.90	11.14	11.78	12.09
20	11.04	11.16	11.45	11.03	11.11	11.09	11.76	11.25	11.64	11.23	11.77	12.03
21	11.18	10.71	11.44	11.04	11.82	11.35	11.50	11.23	11.84	11.15	11.72	11.96
22	11.25	11.08	11.29	10.49	11.73	11.36	11.55	11.17	11.60	11.11	11.72	11.84
23	11.50	10.96	11.56	10.72	11.57	11.29	11.79	11.75	11.53	11.19	11.79	11.57
24	11.88	11.17	11.64	11.03	10.82	11.39	11.74	11.82	11.49	11.27	11.73	11.64
25	11.90	11.42	11.74	11.19	11.05	11.43	11.64	11.80	11.54	11.34	11.50	11.59
26	12.21	11.43	11.38	10.66	11.56	11.60	11.56	11.71	11.51	11.49	11.34	11.45
27	12.53	11.41	11.27	10.84	11.70	11.88	11.56	11.72	11.55	11.72	11.24	11.34
28	12.69	11.43	11.02	10.99	11.70	11.98	11.60	11.58	11.50	11.97	11.32	11.49
29	12.63	11.18	11.10	11.12	---	12.00	11.51	11.69	11.33	12.11	11.38	11.78
30	12.81	11.40	11.15	11.00	---	11.95	11.36	11.43	11.12	11.95	11.40	11.71
31	12.69	---	11.26	11.05	---	11.70	---	11.52	---	11.54	11.49	---
MEAN	12.04	11.55	11.36	11.07	11.24	11.60	11.49	11.35	11.51	11.32	11.55	11.77
MAX	12.81	12.30	11.74	11.59	11.82	12.39	11.91	11.82	11.94	12.11	11.79	12.09
MIN	11.04	10.71	10.94	10.49	10.54	10.83	11.15	11.00	11.12	10.88	11.24	11.34
CAL YR 1989	MEAN 11.53		MAX 13.01		MIN 10.64							
WTR YR 1990	MEAN 11.49		MAX 12.81		MIN 10.49							

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL LOW VALUES

CAL	YR	1989	MEAN	9.72	MAX	11.49	MIN	8.49
WTR	YR	1990	MEAN	9.69	MAX	11.43	MIN	8.62

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246828 PABLO CREEK AT JACKSONVILLE, FL

LOCATION.--Lat 30°14'07", long 81°28'42", in land grant 39, T.3 S., R.28 E., Duval County, Hydrologic Unit 03080103, near right bank on upstream side of culvert pipes on private road, 0.5 mi upstream from Cedar Swamp Creek, 4.8 mi upstream from mouth, and 12.5 mi southeast of Main Street Bridge in Jacksonville.

DRAINAGE AREA.--25.8 mi².

PERIOD OF RECORD.--March 1974 to current year.

REVISED RECORDS.--WDR FL-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 0.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--16 years, 30.8 ft³/s, 16.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s, Sept. 25, 1989, gage height, 8.26 ft; minimum, 1.6 ft³/s, July 15, 1981; minimum gage height, 2.80 ft, June 15, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 197 ft³/s, Oct. 1, stage falling, peak occurred Sept. 25, 1989; maximum independent peak discharge, 113 ft³/s, Oct. 28, gage height, 5.76 ft; no peak above base of 350 ft³/s; minimum discharge, 6.4 ft³/s, May 30, 31, June 1; minimum gage height, 3.05 ft, part of each day Sept. 24-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	56	23	28	24	34	18	16	6.5	9.9	15	9.3
2	110	49	22	25	23	31	16	13	6.8	9.6	20	9.2
3	86	50	20	24	21	29	18	12	7.7	14	19	9.0
4	73	46	18	23	20	27	16	11	10	21	16	8.5
5	63	42	18	23	20	25	13	10	10	23	14	9.9
6	56	37	17	23	19	24	12	9.8	11	19	12	11
7	50	35	17	23	18	23	12	9.7	9.9	15	12	11
8	46	33	19	32	17	35	12	9.4	9.5	13	12	9.8
9	42	33	26	30	17	37	13	9.3	8.9	12	12	9.4
10	44	33	26	28	21	31	14	9.2	8.9	11	13	9.1
11	48	31	24	26	37	26	15	8.8	9.1	10	14	8.6
12	46	28	23	24	39	24	14	8.7	8.4	9.9	13	8.4
13	42	26	26	22	32	22	13	8.6	7.9	10	12	8.2
14	38	25	23	20	27	20	12	8.4	7.5	11	12	8.1
15	36	25	21	19	24	19	12	8.2	7.2	11	11	8.4
16	35	26	20	20	22	19	12	8.1	7.1	11	11	9.4
17	38	26	19	23	21	19	11	7.8	7.4	10	11	8.8
18	52	25	20	24	20	21	11	7.5	7.4	10	12	8.1
19	46	23	29	26	19	21	11	7.4	7.0	9.8	11	7.6
20	35	22	38	24	24	19	11	7.7	7.0	17	10	7.3
21	32	21	39	22	35	17	10	7.7	13	37	9.7	7.2
22	29	21	34	22	45	15	10	7.9	15	26	9.5	7.0
23	27	26	35	21	70	14	12	7.6	20	19	9.9	6.8
24	33	29	35	19	85	13	11	7.4	19	17	9.2	6.6
25	34	28	34	19	73	12	11	7.1	17	16	9.0	6.6
26	35	27	33	25	56	12	10	7.0	14	17	8.8	6.7
27	39	27	31	26	46	12	9.7	6.9	13	25	8.5	6.7
28	84	26	30	24	38	12	13	7.2	12	32	8.2	9.7
29	102	25	29	22	---	12	27	7.2	12	25	8.1	10
30	80	23	28	21	---	13	20	6.6	11	20	8.7	11
31	64	---	29	26	---	17	---	6.5	---	16	9.6	---
TOTAL	1705	924	806	734	913	655	399.7	269.7	311.2	507.2	361.2	257.4
MEAN	55.0	30.8	26.0	23.7	32.6	21.1	13.3	8.70	10.4	16.4	11.7	8.58
MAX	160	56	39	32	85	37	27	16	20	37	20	11
MIN	27	21	17	19	17	12	9.7	6.5	6.5	9.6	8.1	6.6
CFSM	2.13	1.19	1.01	.92	1.26	.82	.52	.34	.40	.63	.45	.33
IN.	2.46	1.33	1.16	1.06	1.32	.94	.58	.39	.45	.73	.52	.37

CAL YR 1989 TOTAL 9789.3 MEAN 26.8 MAX 452 MIN 4.2 CFSM 1.04 IN. 14.11
WTR YR 1990 TOTAL 7843.4 MEAN 21.5 MAX 160 MIN 6.5 CFSM .83 IN. 11.31

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02246832 CEDAR SWAMP CREEK AT JACKSONVILLE, FL

LOCATION.--Lat 30°14'38", long 81°28'26", in NE¼ sec.15, T.3 S., R.28 E., Duval County, Hydrologic Unit 03080103, on left bank 10 ft upstream from culverts on private road, 0.4 mi upstream from mouth, and 12.4 mi southeast of Main Street Bridge in Jacksonville.

DRAINAGE AREA.--3.40 mi².

PERIOD OF RECORD.--March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2.36 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--16 years, 7.59 ft³/s, 30.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 437 ft³/s, Sept. 24, 1989, gage height, 6.73 ft; minimum, 0.14 ft³/s, Sept. 14,15,16, 1981; minimum gage height, 0.68 ft, part of each day, July 21-25, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft³/s, Oct. 1, stage falling, peak occurred Sept. 24, 1989; maximum independent peak discharge, 42 ft³/s, Feb. 23, gage height, 3.23 ft; no peak above base of 150 ft³/s; minimum discharge, 0.37 ft³/s, Sept. 24, 25, gage height, 1.28 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	9.3	4.8	5.3	4.8	6.6	4.2	3.3	.72	.76	5.8	1.4
2	52	8.1	4.6	5.1	4.4	6.0	4.0	2.8	.75	.68	4.3	.87
3	34	14	4.4	4.9	4.3	6.0	4.1	2.8	1.2	3.0	2.7	.67
4	23	9.6	4.6	4.8	4.1	5.9	3.6	2.6	3.0	9.3	2.1	.55
5	19	7.7	4.9	4.8	4.0	5.4	3.3	2.5	2.9	3.0	1.7	1.6
6	15	7.0	4.9	4.7	3.8	5.2	3.1	2.4	2.4	2.1	1.5	3.2
7	12	6.6	4.5	4.6	3.7	5.6	3.1	2.3	1.8	1.7	1.4	1.8
8	11	6.2	4.8	6.7	3.6	11	3.1	2.2	1.6	1.4	1.4	1.2
9	10	6.4	6.4	5.8	3.5	7.8	3.2	2.0	1.5	1.3	1.6	.92
10	16	6.5	5.8	4.9	4.7	5.6	3.4	2.1	1.3	1.1	3.1	.79
11	21	5.9	5.8	4.6	13	5.5	3.3	2.3	1.3	1.1	2.7	.80
12	15	5.5	5.4	4.5	7.2	5.1	3.2	1.9	1.2	1.2	1.9	.70
13	12	5.3	5.4	4.2	5.4	4.8	2.8	1.8	1.2	1.1	1.5	.66
14	9.6	5.3	4.8	4.1	5.0	4.7	2.7	1.7	.94	1.8	1.4	.63
15	8.7	5.2	4.5	4.1	4.7	4.4	2.8	1.6	.95	1.7	1.3	.61
16	8.3	5.5	4.4	4.1	4.4	5.0	2.9	1.6	.87	1.3	1.3	.71
17	7.6	5.5	4.3	4.0	4.2	4.8	3.0	1.5	1.1	1.2	1.2	.69
18	7.5	5.2	4.4	4.0	3.9	6.0	2.8	1.3	1.0	1.1	1.3	.58
19	8.5	5.1	8.0	4.0	4.0	5.0	2.6	1.2	.83	1.0	1.3	.48
20	6.7	4.9	11	4.0	5.5	4.5	2.5	1.2	1.1	1.0	1.1	.45
21	6.1	4.7	8.5	4.0	8.6	4.2	2.3	1.2	3.1	4.3	1.0	.44
22	5.7	4.6	6.9	4.1	11	4.0	2.3	.99	1.9	1.7	1.0	.47
23	5.5	5.9	6.6	3.8	33	3.9	3.7	.96	4.1	1.3	1.0	.43
24	7.1	6.3	6.9	3.7	28	3.6	3.1	.99	3.0	1.9	1.2	.38
25	5.8	5.4	7.0	3.7	13	3.7	2.7	.95	1.8	1.7	.98	.40
26	6.0	5.4	6.9	6.1	9.2	3.7	2.4	1.0	1.5	2.4	.71	.39
27	7.3	5.6	6.5	5.1	7.8	3.6	2.1	1.1	1.3	11	.59	.38
28	29	6.1	6.1	4.4	7.0	3.7	4.4	.95	1.2	3.2	.54	.41
29	29	5.6	5.7	4.2	---	3.7	6.3	1.0	1.1	2.3	.71	.72
30	14	4.9	5.5	4.1	---	3.8	3.8	.79	.94	1.9	1.7	1.3
31	11	---	5.3	5.0	---	4.7	---	.72	---	1.6	2.1	---
TOTAL	510.4	189.3	179.6	141.4	215.8	157.5	96.8	51.75	47.60	70.14	52.13	24.63
MEAN	16.5	6.31	5.79	4.56	7.71	5.08	3.23	1.67	1.59	2.26	1.68	.82
MAX	87	14	11	6.7	33	11	6.3	3.3	4.1	11	5.8	3.2
MIN	5.5	4.6	4.3	3.7	3.5	3.6	2.1	.72	.72	.68	.54	.38
CFSM	4.84	1.86	1.70	1.34	2.27	1.49	.95	.49	.47	.67	.49	.24
IN.	5.58	2.07	1.97	1.55	2.36	1.72	1.06	.57	.52	.77	.57	.27

CAL YR 1989 TOTAL 4084.09 MEAN 11.2 MAX 293 MIN .48 CFSM 3.29 IN. 44.68
WTR YR 1990 TOTAL 1737.05 MEAN 4.76 MAX 87 MIN .38 CFSM 1.40 IN. 19.01

WATER RESOURCES DATA - FLORIDA, 1990
Volume 1A: Northeast Florida

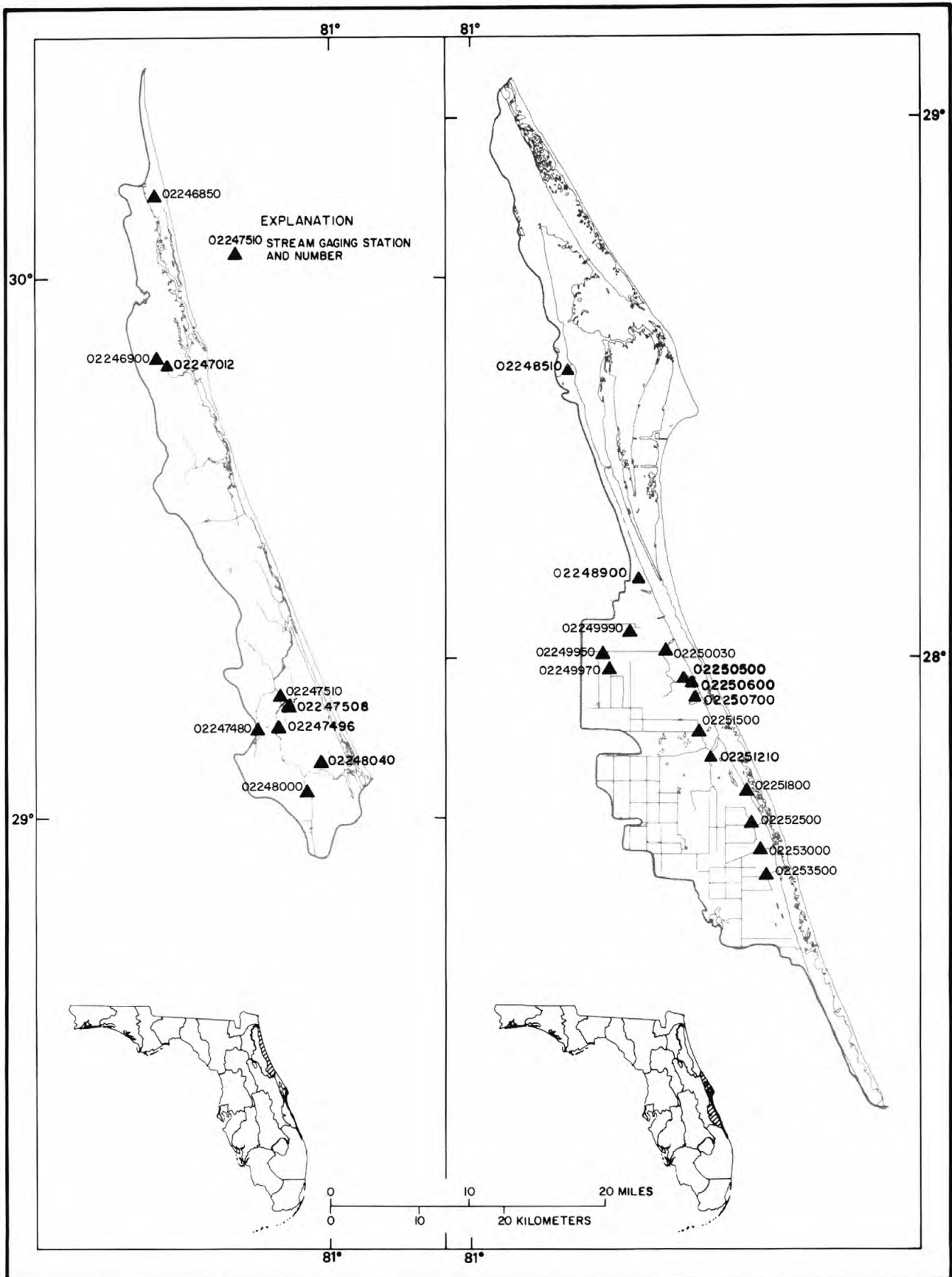


Figure 19.--Location of stream gaging stations in the coastal area between the St. Johns and St. Lucie Rivers.

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02246850 DIEGO PLAINS SWAMP DRAIN AT MICKLER LANDING, FL

LOCATION.--Lat 30°09'39", long 81°21'37", in NW¼ sec.14, T.4 S., R.29 E., St. Johns County, Hydrologic Unit 03080201, on right bank 10 ft upstream from box culverts, at intersection of State Highway 203 and Mickler Landing Road, 0.2 mi west of Mickler Landing, 2.0 mi southeast of Palm Valley, and 4.5 mi south of Ponte Vedra Beach.

DRAINAGE AREA.--4.95 mi².

PERIOD OF RECORD.--August 1984 to September 1990 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 2.00 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Negative flow observed May 30, June 1, 4, 26, 1990.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 149 ft³/s, Sept. 20, 1984, gage height, 6.55 ft; maximum gage height, 6.67 ft, Sept. 2, 1985; maximum reverse flow measured, 1.5 ft³/s, June 1, 1990; minimum gage height, 3.48 ft, Aug. 13, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 48 ft³/s, Oct. 1, stage falling, peak occurred Sept. 29, 1989; maximum independent daily discharge, 24 ft³/s, Oct. 12; maximum gage height, 6.05 ft, Oct. 1; maximum reverse flow measured, 1.5 ft³/s, June 1; minimum gage height, 4.26 ft, May 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	20	6.8	8.0	3.4	6.0	2.5	.35	-1.5	---	---	---
2	42	19	6.6	7.8	3.4	5.7	2.5	.69	---	---	---	---
3	38	20	6.4	7.6	3.4	5.7	2.6	.80	---	---	---	---
4	32	19	5.9	7.4	3.4	5.5	2.4	.79	---	---	---	---
5	27	17	6.0	7.5	3.3	5.2	2.2	.73	---	---	---	---
6	24	16	6.1	7.5	3.2	4.8	2.0	.61	*.00	---	---	---
7	21	15	6.4	7.4	3.3	4.5	1.8	.37	---	---	---	---
8	19	14	6.8	7.4	3.3	4.9	1.6	.10	---	---	---	---
9	16	13	7.7	7.3	3.3	4.8	1.4	.00	---	---	---	---
10	18	12	7.1	7.1	3.7	4.7	1.3	.09	---	---	---	*.00
11	23	11	6.8	6.8	4.9	4.5	1.2	.05	---	---	---	---
12	24	10	6.9	6.6	5.0	4.2	.95	.00	---	---	---	---
13	22	9.8	7.2	6.1	5.1	4.0	.69	.00	---	---	---	---
14	20	9.6	6.8	5.6	5.4	3.8	.52	.00	---	---	---	---
15	19	9.9	6.7	5.4	5.9	3.7	.47	.00	---	---	---	---
16	17	10	6.7	5.1	6.3	3.6	.41	.00	---	---	---	---
17	16	9.5	6.6	4.9	6.3	3.6	.27	.00	---	---	---	---
18	16	8.9	6.6	4.7	6.0	3.7	.14	.00	---	---	---	---
19	16	8.5	6.8	4.4	5.7	3.7	.14	.00	---	---	---	---
20	15	8.3	6.8	4.3	5.6	3.7	.15	.00	---	---	---	---
21	14	8.3	6.8	4.2	5.7	3.5	.04	.00	---	---	---	---
22	13	7.9	6.9	4.0	6.0	3.3	.00	.00	---	---	---	---
23	12	9.0	7.2	3.8	7.3	3.1	.00	.00	---	*.00	---	---
24	11	8.5	7.2	3.7	7.5	3.0	.00	.00	---	---	---	---
25	11	8.1	7.3	3.6	7.1	2.8	.00	.00	---	---	---	---
26	10	8.9	7.6	4.0	6.5	2.7	.00	.00	---	---	---	*.00
27	11	8.7	7.6	3.8	6.3	2.5	.00	.00	---	---	---	---
28	16	8.6	7.6	3.6	6.2	2.3	.00	.00	---	---	---	---
29	20	8.4	7.8	3.6	---	2.3	.00	---	---	---	---	---
30	19	7.4	7.7	3.5	---	2.3	.00	---	---	---	---	---
31	20	---	7.8	3.5	---	2.5	---	---	---	---	---	---
TOTAL	630	344.3	215.2	170.2	142.5	120.6	25.28	---	---	---	---	---
MEAN	20.3	11.5	6.94	5.49	5.09	3.89	.84	---	---	---	---	---
MAX	48	20	7.8	8.0	7.5	6.0	2.6	---	---	---	---	---
MIN	10	7.4	5.9	3.5	3.2	2.3	.00	---	---	---	---	---

CAL YR 1989 TOTAL 3373.13 MEAN 9.24 MAX 69 MIN .00

Note.--Negative figure on June 1 is a measured discharge.
Figures with asterisk are observations.

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02246900 MOULTRIE CREEK AT STATE HIGHWAY 207, NEAR ST. AUGUSTINE, FL

LOCATION.--Lat 29°50'50", long 81°21'39", in SE¼ sec.34, T.7 S., R.29 E., St. Johns County, Hydrologic Unit 03080201, at center on downstream side of box culverts on State Highway 207, 2.0 mi upstream from Fort Peyton Branch, 4.2 mi southwest of St. Augustine, and 6.3 mi upstream from mouth.

DRAINAGE AREA.--19.8 mi².

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WDR FL-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.24 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--29 years, 16.9 ft³/s, 11.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 860 ft³/s, Sept. 21, 1969, gage height, 9.16 ft; no flow for many days in some years; minimum gage height, 1.84 ft, July 15, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	1800	*154	*6.85				

Minimum daily discharge, 0.01 ft³/s, Sept. 27.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	26	3.9	7.6	3.1	9.1	1.4	9.5	.04	.05	.04	.05
2	2.4	19	3.5	6.8	2.8	7.8	1.2	8.3	.04	.05	.04	.05
3	2.0	16	2.2	6.2	2.7	8.4	3.4	6.7	.05	.06	.04	.05
4	1.3	12	1.7	5.8	2.5	9.0	2.5	4.8	.08	.07	.04	.04
5	.95	9.6	1.7	5.9	2.2	8.2	1.7	3.2	.14	.06	.04	.04
6	.74	8.1	2.5	6.2	2.0	7.5	1.1	2.1	.33	.06	.04	.05
7	.58	7.1	2.5	8.2	1.9	6.9	.78	1.4	.34	.05	.04	.41
8	.49	6.1	2.4	10	1.8	6.6	.58	.91	.19	.05	.04	.82
9	.45	5.8	5.6	9.1	1.7	5.7	.42	.61	.11	.04	.04	1.0
10	73	5.4	5.6	7.9	2.5	4.8	.35	.61	.08	.04	.05	.44
11	79	4.2	4.6	7.2	7.4	4.1	.28	.48	.07	.04	.05	.19
12	59	3.4	3.9	6.7	7.2	3.6	.18	.27	.07	.04	.05	.09
13	50	2.9	4.2	6.0	6.2	3.1	.14	.14	.06	.04	.04	1.5
14	40	2.5	3.7	5.3	5.5	2.7	.12	.09	.07	.04	.04	.92
15	31	2.3	4.0	4.9	5.1	2.6	.11	.07	.07	.05	.05	.40
16	23	2.2	3.9	4.9	4.6	2.6	.11	.07	.07	.07	.06	.38
17	16	2.2	3.6	4.9	4.2	2.3	.10	.06	.06	.06	.06	.25
18	14	2.1	4.1	4.7	5.1	3.0	.09	.06	.05	.05	.07	.18
19	14	1.9	5.5	4.5	4.7	2.6	.11	.06	.05	.05	.06	.20
20	11	1.7	11	4.3	4.6	2.0	.13	.06	.04	.04	.05	.10
21	7.7	1.6	11	4.2	6.9	1.5	.11	.06	.04	.05	.05	.04
22	5.9	1.6	10	3.8	12	1.3	.11	.05	.04	.06	.05	.03
23	4.5	2.8	18	3.4	24	1.1	.15	.05	.09	.07	.06	.03
24	4.7	3.8	17	3.3	29	.88	.15	.05	.12	.07	.06	.02
25	4.8	3.3	14	3.2	22	.72	.12	.05	.14	.07	.05	.02
26	4.7	4.7	13	3.8	16	.55	.11	.05	.11	.06	.05	.02
27	16	5.1	12	3.6	13	.46	.09	.05	.09	.05	.05	.01
28	29	5.4	10	3.3	11	.40	.79	.05	.07	.05	.05	.37
29	30	5.9	9.2	3.3	---	.36	12	.05	.06	.04	.05	.54
30	33	4.9	8.3	3.2	---	.49	11	.05	.06	.04	.04	.28
31	31	---	7.8	3.2	---	1.6	---	.04	---	.04	.05	---
TOTAL	593.31	179.6	210.4	165.4	211.7	111.96	39.43	40.04	2.83	1.61	1.50	8.52
MEAN	19.1	5.99	6.79	5.34	7.56	3.61	1.31	1.29	.094	.052	.048	.28
MAX	79	26	18	10	29	9.1	12	9.5	.34	.07	.07	1.5
MIN	.45	1.6	1.7	3.2	1.7	.36	.09	.04	.04	.04	.04	.01
CFSM	.97	.30	.34	.27	.38	.18	.07	.07	.00	.00	.00	.01
IN.	1.11	.34	.40	.31	.40	.21	.07	.08	.01	.00	.00	.02

CAL YR 1989 TOTAL 2057.58 MEAN 5.64 MAX 89 MIN .03 CFSM .28 IN. 3.87
WTR YR 1990 TOTAL 1566.30 MEAN 4.29 MAX 79 MIN .01 CFSM .22 IN. 2.94

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02247012 MOULTRIE CREEK TRIBUTARY NEAR ST. AUGUSTINE, FL

LOCATION.--Lat 29°51'44", long 81°21'43", in land grant 48, T.7 S., R.29 E., St. Johns County, Hydrologic Unit 03080201, at center on upstream side of box culverts on State Highway 207, 3.2 mi northeast of intersection of Interstate Route 95 and State Highway 207, 2.9 mi southwest of St. Augustine, and 3.1 mi upstream from mouth.

DRAINAGE AREA.--1.7 mi².

PERIOD OF RECORD.--March 1988 to September 1990 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 0.50 ft below National Geodetic Vertical Datum of 1929 (revised).

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64.0 ft³/s, Nov. 23, 1988, gage height, 32.24 ft; maximum gage height, 33.87 ft, Oct. 10, 1989, (backwater from drainage ditches); no flow for many days each year; creek dry at gage for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 20 ft³/s, Oct. 10; maximum gage height, 33.87 ft, Oct. 10, (backwater from drainage ditches); no flow for many days; creek dry at gage for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	3.9	2.5	4.2	4.1	2.5	1.6	.93	.78	.00	.00	.00
2	.25	1.2	2.7	3.8	4.2	2.3	2.6	.99	.68	.01	.00	.00
3	.23	.13	2.9	5.1	3.7	3.1	3.7	1.7	.97	1.1	.00	.00
4	.16	.00	3.0	6.6	3.5	4.1	1.3	.69	.65	.55	.00	.00
5	.06	.00	2.9	5.1	3.1	4.9	.51	.69	1.2	1.2	.00	.00
6	.00	.00	2.9	4.1	1.4	2.6	1.5	.77	.69	.41	.00	.00
7	.00	.00	3.0	4.5	1.1	3.0	.58	1.5	.31	.76	.00	.00
8	.00	.16	3.1	5.5	.55	3.0	.53	1.7	.04	.01	.00	.00
9	.00	.50	4.0	6.5	1.1	2.4	1.2	1.9	.00	.14	.00	.00
10	e20	.38	3.5	7.4	2.7	2.3	.61	1.8	.00	.00	.00	.00
11	e19	.32	3.1	8.0	2.9	1.8	.77	1.3	.00	.00	.00	.00
12	e18	.33	2.9	8.0	3.1	2.1	.44	1.1	.00	.00	.00	.00
13	e16	.26	5.1	5.3	2.6	2.3	.77	1.2	.00	.00	.00	.00
14	e13	.28	5.7	2.9	3.6	1.6	.01	1.3	.00	.00	.00	.00
15	e11	.39	7.4	2.6	3.1	2.3	.00	1.3	.00	.00	.00	.00
16	10	.42	6.4	2.7	3.0	2.0	.35	1.2	.00	.00	.00	.00
17	8.4	.50	5.8	3.5	2.4	1.4	.80	.97	.00	.00	.00	.00
18	5.9	.71	6.5	3.3	2.2	1.9	2.8	.16	.05	.00	.00	.00
19	4.1	.75	6.9	2.0	2.1	2.5	3.2	.00	.26	.00	.00	.00
20	2.0	.71	9.1	1.6	2.8	.93	2.2	.00	.13	.00	.00	.00
21	.60	.77	8.1	1.5	3.3	.08	.87	.00	.09	.00	.00	.00
22	.40	.90	6.9	1.5	4.4	.74	1.4	.00	.52	.00	.00	.00
23	.65	1.7	7.4	3.0	5.7	1.3	2.6	.00	.54	.00	.00	.00
24	1.2	1.9	5.2	3.2	5.2	1.0	2.2	.00	.91	.00	.00	.00
25	.60	1.8	3.6	3.2	4.2	1.8	3.0	.00	.73	.00	.00	.00
26	.90	2.6	3.2	3.0	4.0	.92	1.2	.00	.78	.00	.00	.00
27	6.0	2.5	3.4	2.1	3.7	2.2	.28	.00	.82	.00	.00	.00
28	8.0	2.4	5.2	1.7	3.5	1.8	.78	.00	.44	.00	.00	.00
29	7.1	2.4	4.8	1.9	---	1.6	.85	.25	.29	.00	.00	.00
30	6.8	2.5	4.3	3.3	---	2.6	1.2	1.3	.11	.00	.00	.00
31	5.7	---	6.1	3.3	---	2.5	---	2.0	---	.00	.00	---
TOTAL	166.31	30.41	147.6	120.4	87.25	65.57	39.85	24.75	10.99	4.18	0.00	0.00
MEAN	5.36	1.01	4.76	3.88	3.12	2.12	1.33	.80	.37	.13	.000	.000
MAX	20	3.9	9.1	8.0	5.7	4.9	3.7	2.0	1.2	1.2	.00	.00
MIN	.00	.00	2.5	1.5	.55	.08	.00	.00	.00	.00	.00	.00
CFSM	3.14	.59	2.78	2.27	1.82	1.24	.78	.47	.21	.08	.00	.00
IN.	3.62	.66	3.21	2.62	1.90	1.43	.87	.54	.24	.09	.00	.00

CAL YR 1989 TOTAL 574.08 MEAN 1.57 MAX 20 MIN .00 CFSM .92 IN. 12.49
WTR YR 1990 TOTAL 697.31 MEAN 1.91 MAX 20 MIN .00 CFSM 1.12 IN. 15.17

e Estimated

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02247480 TIGER BAY CANAL NEAR DAYTONA BEACH, FL

LOCATION.--Lat 29°09'58", long 81°09'18", in SW¼ sec.25, T.15 S., R.31 E., Volusia County, Hydrologic Unit 03080201, at center of downstream side of bridge on Indian Lake Road, 2.4 mi north of its intersection with U.S. Highway 92, and 8 mi west of Daytona Beach.

DRAINAGE AREA.--29 mi², approximately.

PERIOD OF RECORD.--January 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Since 1988 some ground-water diversion out of the basin for municipal water supply.

AVERAGE DISCHARGE.--12 years, 17.8 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 263 ft³/s, Mar. 7, 1979, gage height, 32.94 ft; no flow for many days in several years; minimum gage height, 26.00 ft, July 16, 1981, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s, Oct. 14,15, gage height, 31.80 ft; no flow for many days; creek dry at gage many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	28	1.8	31	2.7	24	1.7	.00	.00	.00	.00	2.0
2	.00	24	1.6	27	2.4	22	1.9	.00	.00	.00	.00	1.5
3	1.9	23	1.4	24	2.1	20	3.2	.00	.00	.00	.00	1.1
4	4.5	21	1.2	22	1.9	18	3.8	.00	.00	.00	.00	.74
5	4.1	18	.96	30	1.6	15	4.5	.00	.00	.00	.00	.50
6	3.2	16	.83	33	1.5	14	4.1	.00	.00	.00	.00	.35
7	3.0	14	.72	36	1.3	12	3.5	.00	.00	.00	.00	.21
8	4.2	13	1.2	37	1.2	11	3.0	.00	.00	.00	.00	.11
9	6.1	12	3.0	35	.97	8.7	2.4	.00	.00	.00	.00	.02
10	19	10	3.6	33	1.1	7.4	1.8	.00	.00	.00	.00	.00
11	41	8.9	4.3	30	2.5	6.2	2.0	.00	.00	.00	.00	.00
12	51	7.9	4.7	28	2.8	5.4	1.7	.00	.00	.00	.00	.00
13	53	6.7	5.0	25	3.3	4.3	1.2	.00	.00	.00	.00	.00
14	62	5.9	4.6	22	3.3	3.7	.96	.00	.00	.00	.00	.00
15	65	4.9	4.5	20	3.2	3.2	.76	.00	.00	.00	.00	.00
16	61	5.0	4.2	18	3.2	2.8	.58	.00	.00	.00	.00	.00
17	54	4.3	3.8	16	3.1	2.2	.43	.00	.00	.00	4.0	.00
18	47	3.9	6.1	14	3.0	1.9	.29	.00	.00	.00	20	.00
19	42	3.3	7.2	12	2.9	1.5	.24	.00	.00	.00	19	.00
20	37	3.1	11	11	2.6	1.2	.17	.00	.00	.00	13	.00
21	33	2.7	13	10	2.6	.98	.09	.00	.00	.00	8.8	.00
22	30	2.4	17	8.9	3.8	.80	.04	.00	.00	.00	5.6	.00
23	26	2.3	28	7.5	11	.61	.11	.00	.00	.00	3.8	.00
24	26	2.2	36	6.5	23	.49	.06	.00	.00	.00	2.8	.00
25	26	2.1	39	5.7	31	.36	.00	.00	.00	.00	2.1	.00
26	26	2.4	40	4.8	31	.26	.00	.00	.00	.00	1.6	.00
27	28	2.3	37	4.3	29	.16	.00	.00	.00	.00	1.9	.00
28	30	2.3	35	3.8	27	.10	.00	.00	.00	.00	3.1	.00
29	32	2.2	33	3.4	---	.21	.00	.00	.00	.00	3.7	.00
30	32	2.0	32	3.1	---	1.1	.00	.00	.00	.00	3.4	.00
31	31	---	32	2.9	---	1.6	---	.00	---	.00	2.8	---
TOTAL	879.00	255.8	413.71	564.9	205.07	191.17	38.53	0.00	0.00	0.00	95.60	6.53
MEAN	28.4	8.53	13.3	18.2	7.32	6.17	1.28	.000	.000	.000	3.08	.22
MAX	65	28	40	37	31	24	4.5	.00	.00	.00	20	2.0
MIN	.00	2.0	.72	2.9	.97	.10	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 2146.31 MEAN 5.88 MAX 65 MIN .00

WTR YR 1990 TOTAL 2650.31 MEAN 7.26 MAX 65 MIN .00

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02247496 THAYER CANAL NEAR DAYTONA BEACH, FL

LOCATION.--Lat 29°10'43", long 81°07'14", in NW¼ sec.29, T.15 S., R.31 E., Volusia County, Hydrologic Unit 03080201, on left bank 50 ft upstream from box culverts on 11th Street extension, 1.5 mi above mouth, and 2.2 mi northwest of the intersection of Interstate Highway 95 and U.S. Highway 92 near Daytona Beach.

DRAINAGE AREA.--33 mi², approximately.

PERIOD OF RECORD.--December 1982 to September 1988 (gage heights and discharge measurements only). October 1988 to current year. Records prior to October 1988 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. (Savage Engineering Co. bench mark).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 72 ft³/s, Dec. 21, 1983, gage height, 25.21 ft; maximum gage height, 25.59 ft, Mar. 30,31, 1984; no flow for many days most years; creek dry at gage for some days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft³/s, Oct. 17,18,19; maximum gage height, 24.30 ft, Oct. 18; no flow for many days; creek dry at gage for some days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	21	3.7	17	5.2	14	1.9	.10	.00	.00	.00	.00
2	.17	21	3.3	16	4.8	14	1.5	.09	.00	.00	.00	.00
3	.15	20	3.0	16	4.5	13	2.0	.08	.00	.00	.00	.00
4	.13	19	2.7	15	4.1	12	1.6	.07	.00	.00	.00	.00
5	.12	18	2.4	18	3.8	12	1.2	.07	.00	.00	.00	.00
6	.11	17	2.2	19	3.4	11	.93	.06	.00	.00	.00	.00
7	.13	17	2.0	19	3.1	10	.77	.06	.00	.00	.00	.00
8	.15	16	2.3	19	2.8	9.2	.68	.05	.00	.00	.00	.00
9	.13	15	5.3	19	2.5	8.1	.61	.04	.00	.00	.00	.00
10	5.8	14	6.3	19	2.4	7.1	.55	.06	.00	.00	.00	.00
11	6.3	13	6.1	18	4.7	6.3	.66	.05	.00	.00	.00	.00
12	2.0	12	5.5	17	5.1	5.6	.75	.04	.00	.00	.00	.00
13	2.9	11	5.4	17	4.7	4.9	.70	.03	.00	.00	.00	.00
14	3.1	10	5.0	16	4.1	4.2	.65	.01	.00	.00	.01	.00
15	17	9.5	4.8	15	3.7	3.7	.56	.00	.00	.00	.01	.00
16	24	9.3	4.8	15	3.4	3.2	.49	.00	.00	.00	.00	.00
17	25	9.0	4.8	14	3.2	2.7	.41	.00	.00	.00	.00	.00
18	26	8.3	6.7	14	3.1	2.4	.35	.00	.00	.00	.00	.00
19	25	7.5	8.4	13	2.9	2.0	.34	.00	.00	.00	.00	.00
20	24	6.8	10	12	2.8	1.7	.33	.00	.00	.00	.00	.00
21	23	6.1	11	11	2.8	1.4	.27	.00	.00	.00	.00	.00
22	22	5.6	11	11	3.4	1.1	.23	.00	.00	.00	.00	.00
23	21	5.4	16	10	8.1	.94	.27	.00	.00	.00	.00	.00
24	22	5.2	17	9.4	12	.79	.25	.00	.00	.00	.00	.00
25	21	4.9	17	8.8	12	.66	.21	.00	.00	.00	.00	.00
26	21	4.9	18	8.2	13	.56	.18	.00	.00	.00	.00	.00
27	22	4.8	18	7.4	15	.48	.15	.00	.00	.00	.00	.00
28	22	4.6	18	6.9	15	.43	.14	.00	.00	.00	.00	.00
29	22	4.3	18	6.4	---	.48	.13	.00	.00	.00	.00	.00
30	23	4.0	18	6.0	---	1.2	.12	.00	.00	.00	.00	.00
31	22	---	17	5.6	---	2.0	---	.00	---	.00	.00	---
TOTAL	403.41	324.2	273.7	418.7	155.6	157.14	18.93	0.81	0.00	0.00	0.02	0.00
MEAN	13.0	10.8	8.83	13.5	5.56	5.07	.63	.026	.000	.000	.001	.000
MAX	26	21	18	19	15	14	2.0	.10	.00	.00	.01	.00
MIN	.11	4.0	2.0	5.6	2.4	.43	.12	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 1245.04 MEAN 3.41 MAX 26 MIN .00

WTR YR 1990 TOTAL 1752.51 MEAN 4.80 MAX 26 MIN .00

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02247508 ELEVENTH STREET CANAL NEAR HOLLY HILL, FL

LOCATION.--Lat 29°13'04", long 81°06'32", in NW¼ sec.9, T.15 S., R.32 E., Volusia County, Hydrologic Unit 03080201, 700 ft upstream from mouth, 0.2 mi downstream from culvert at Interstate Highway 95 and 11th Street, and 4.3 mi west of intersection of U.S. Highway 1 and 11th Street, Holly Hill.

DRAINAGE AREA.--3.5 mi², approximately.

PERIOD OF RECORD.--December 1982 to September 1988 (gage heights and discharge measurements only), October 1988 to September 1989. Records prior to October 1988 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Estimated daily discharges: Mar. 20-29, Apr. 7-10, Apr. 14 to July 25. Records fair except for periods of estimated daily discharges, which are poor. The basin is interconnected with surrounding basins by canals.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 93 ft³/s, Oct. 10, 1989, gage height, 13.81 ft; minimum discharge measured, 0.11 ft³/s, July 27, 1987; minimum gage height, 8.99 ft, Aug. 8, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 93 ft³/s, Oct. 10, gage height, 13.81 ft; minimum, 0.20 ft³/s, Aug. 8, gage height 8.99 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	16	4.3	8.3	3.8	7.4	2.8	1.3	.70	.31	.41	3.7
2	3.1	14	4.2	7.8	3.7	6.7	2.5	1.3	.70	.31	.41	4.0
3	3.0	12	4.1	7.5	3.6	6.2	3.5	1.2	.70	.34	.39	3.6
4	2.8	11	3.9	7.2	3.4	5.6	2.9	1.2	.70	.34	.37	2.9
5	2.7	9.9	3.9	12	3.3	5.2	2.5	1.2	.75	.34	.31	2.7
6	2.5	9.1	3.9	12	3.2	4.9	2.3	1.1	.70	.37	.27	3.4
7	2.6	8.4	3.9	11	3.3	4.7	2.2	1.1	.66	.34	.25	2.7
8	3.5	7.9	7.0	10	3.2	4.4	2.0	1.0	.62	.34	.32	2.4
9	2.7	7.5	11	9.8	3.1	4.0	1.9	1.0	.62	.31	.42	2.2
10	35	7.1	7.4	8.9	3.8	3.8	1.7	1.4	.62	.28	.56	1.9
11	47	6.6	6.5	8.2	7.9	3.6	2.5	1.9	.70	.28	.67	1.8
12	26	6.3	6.2	7.6	4.9	3.5	2.6	1.6	.62	.28	.82	2.1
13	24	6.0	6.4	6.9	4.3	3.3	2.2	1.4	.62	.25	.63	1.9
14	21	5.8	5.6	6.6	4.0	3.1	2.1	1.2	.59	.37	1.4	1.8
15	16	5.6	5.4	6.3	3.8	2.8	2.0	1.1	.55	.59	1.6	1.7
16	14	6.5	5.2	6.1	3.6	2.7	1.9	1.1	.55	.88	1.1	2.0
17	13	5.8	4.9	5.8	3.7	2.7	1.7	1.0	.51	.79	.93	2.2
18	15	5.4	9.3	5.5	4.4	2.8	1.6	1.0	.48	.41	.81	1.5
19	15	5.0	10	5.2	3.8	2.5	1.7	1.0	.44	.30	.72	1.4
20	12	4.9	19	5.1	3.5	2.3	1.8	1.0	.41	.35	.72	1.4
21	10	4.7	17	5.0	3.6	2.0	1.7	.92	.37	1.1	.69	1.2
22	8.8	4.6	15	4.8	4.8	1.9	1.5	.92	.37	1.7	.75	.97
23	8.2	5.2	29	4.6	19	1.7	1.7	.88	.34	.75	.85	1.3
24	12	4.8	22	4.5	19	1.6	1.9	.83	.37	.41	5.4	1.4
25	10	4.8	18	4.4	14	1.4	1.8	.79	.62	.34	6.9	1.1
26	10	5.1	15	4.3	11	1.2	1.6	.79	.83	.40	3.7	1.3
27	16	4.8	13	4.1	9.0	1.1	1.5	.75	.79	.40	3.2	1.0
28	15	4.6	11	4.0	8.1	1.0	1.4	.75	.59	.65	3.0	.98
29	20	4.5	10	3.9	---	2.3	1.4	.70	.34	.74	2.8	1.1
30	21	4.4	9.8	3.8	---	4.6	1.3	.70	.28	.56	3.8	1.1
31	18	---	9.1	3.8	---	3.3	---	.70	---	.47	6.5	---
TOTAL	413.4	208.3	301.0	205.0	166.8	104.3	60.2	32.83	17.14	15.30	50.70	58.75
MEAN	13.3	6.94	9.71	6.61	5.96	3.36	2.01	1.06	.57	.49	1.64	1.96
MAX	47	16	29	12	19	7.4	3.5	1.9	.83	1.7	6.9	4.0
MIN	2.5	4.4	3.9	3.8	3.1	1.0	1.3	.70	.28	.25	.25	.97

CAL YR 1989 TOTAL 1637.22 MEAN 4.49 MAX 47 MIN .64
WTR YR 1990 TOTAL 1633.72 MEAN 4.48 MAX 47 MIN .25

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02247510 TOMOKA RIVER NEAR HOLLY HILL, FL

LOCATION.--Lat 29°13'02", long 81°06'32", in NW¼ sec.9, T.15 S., R.32 E., Volusia County, Hydrologic Unit 03080201, near center of span on downstream side of bridge on 11th Street extension, 0.3 mi southwest of Interstate Highway 95, 2 mi upstream from Priest Branch, 4.5 mi southwest of Holly Hill, and 12 mi upstream from mouth.

DRAINAGE AREA.--76.8 mi².

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--26 years, 51.5 ft³/s, 9.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s, Oct. 19, 1968, gage height, 12.92 ft; no flow for part or all of Feb. 16, 20-26, Feb. 28 to Mar. 1, 1968 (creek dry at gage), caused by temporary earthen dam just upstream, and June 26 to July 8, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 11, 1964, reached a stage of 12.65 ft, from floodmarks, discharge, 2,170 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	0200	*518	*10.15	No other peak greater than base discharge.			
Minimum discharge, 0.24 ft ³ /s, July 12, gage height, 6.00 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	96	9.0	54	16	50	17	2.2	.57	.32	.72	15
2	6.6	83	8.4	52	15	45	13	2.0	.56	.32	.55	9.9
3	5.6	75	7.7	50	14	43	19	1.9	.56	.33	.55	11
4	4.8	68	7.0	47	13	41	21	1.8	.56	.37	.88	8.1
5	4.2	63	6.6	65	12	34	15	1.7	.73	.30	.88	5.8
6	3.6	57	6.4	82	11	31	11	1.6	.67	.36	.60	6.2
7	3.6	52	6.1	85	11	28	9.4	1.6	.58	.31	.48	7.1
8	6.5	48	11	78	10	25	8.1	1.5	.56	.36	.55	5.3
9	6.1	44	36	73	9.8	22	7.0	1.4	.57	.29	1.6	4.0
10	114	39	27	67	11	20	5.9	2.0	.64	.27	6.1	3.2
11	390	35	20	60	30	18	7.6	3.6	.65	.26	7.6	2.8
12	180	31	18	56	28	16	11	2.7	.54	.25	6.6	2.8
13	122	27	18	52	22	15	7.6	1.9	.50	.28	5.1	2.6
14	192	24	16	49	19	13	6.0	1.5	.48	1.0	5.5	2.4
15	166	22	14	46	17	12	5.3	1.3	.44	1.8	23	2.2
16	139	23	12	43	15	11	4.9	1.1	.41	2.2	17	2.6
17	117	22	12	40	14	11	4.4	1.0	.41	2.1	9.4	4.0
18	107	19	26	37	15	11	3.9	.93	.41	1.1	5.3	3.1
19	113	16	41	35	13	9.3	4.0	.90	.40	.63	3.5	2.6
20	105	15	58	33	12	8.2	5.1	.90	.38	.76	3.0	2.2
21	88	13	61	31	12	7.3	4.2	.88	.36	5.4	3.3	1.8
22	74	12	69	29	15	6.5	3.4	.84	.35	6.2	3.6	1.6
23	63	12	128	26	77	5.9	3.9	.79	.35	2.8	2.8	1.8
24	73	12	126	26	144	5.4	5.1	.79	.34	1.9	8.8	2.7
25	70	12	98	27	109	4.9	4.5	.76	.81	1.6	72	2.5
26	66	12	83	28	82	4.5	3.4	.74	1.3	1.2	55	3.0
27	79	12	72	26	65	4.3	2.9	.72	1.1	.82	33	2.6
28	92	12	64	25	57	4.0	2.7	.69	.67	1.2	16	2.2
29	101	11	60	21	---	4.6	2.6	.66	.39	2.7	9.3	2.3
30	122	9.8	57	18	---	19	2.5	.64	.33	2.0	7.9	2.3
31	113	---	55	17	---	21	---	.63	---	1.1	20	---
TOTAL	2735.2	976.8	1233.2	1378	868.8	550.9	221.4	41.67	16.62	40.53	330.61	125.7
MEAN	88.2	32.6	39.8	44.5	31.0	17.8	7.38	1.34	.55	1.31	10.7	4.19
MAX	390	96	128	85	144	50	21	3.6	1.3	6.2	72	15
MIN	3.6	9.8	6.1	17	9.8	4.0	2.5	.63	.33	.25	.48	1.6
CFSM	1.15	.42	.52	.58	.40	.23	.10	.02	.01	.02	.14	.05
IN.	1.32	.47	.60	.67	.42	.27	.11	.02	.01	.02	.16	.06
CAL YR 1989	TOTAL 8277.04	MEAN 22.7	MAX 491	MIN .33	CFSM .30	IN. 4.01						
WTR YR 1990	TOTAL 8519.43	MEAN 23.3	MAX 390	MIN .25	CFSM .30	IN. 4.13						

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248000 SPRUCE CREEK NEAR SAMSULA, FL
(National stream-quality accounting network station)

LOCATION.--Lat 29°03'01", long 81°02'49", in SE¼ sec.1, T.17 S., R.32 E., Volusia County, Hydrologic Unit 03080201, on left bank 50 ft downstream from bridge on State Highway 40A, 1.8 mi north of Samsula, 8 mi west of New Smyrna Beach, 10 mi upstream from Turnbull Bay, and 13 mi upstream from mouth.

DRAINAGE AREA.--33.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1624: 1958. WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6.25 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 13, 1971, at sites within 100 ft at same datum.

REMARKS.--Records fair. Some diversions for irrigation above station.

AVERAGE DISCHARGE.--39 years, 31.1 ft³/s, 12.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft³/s, Sept. 10, 1964; maximum gage height, 15.49 ft, Oct. 8, 1953; no flow Apr. 23-26, May 17, 1962; minimum gage height, 0.37 ft, May 22, 23, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	1749	*447	*9.22	No other peak greater than base discharge.			
Minimum discharge, 0.25 ft ³ /s, June 21, gage height, 1.02 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	44	6.1	26	2.7	14	3.6	.99	.46	2.2	1.2	5.1
2	13	43	5.7	23	2.6	12	3.4	.86	.42	1.1	1.1	4.0
3	10	53	5.3	20	2.5	10	12	.78	.39	1.2	2.0	3.5
4	8.4	37	5.0	18	2.4	8.8	9.9	.78	.50	1.5	3.7	4.0
5	6.8	28	4.7	22	2.2	7.5	7.9	.78	1.1	2.4	1.6	3.6
6	5.7	23	4.5	25	2.1	6.5	6.2	.79	.85	1.5	1.3	2.7
7	17	20	4.4	23	2.0	6.0	5.1	1.0	.46	1.7	1.2	2.3
8	30	17	6.6	21	2.0	5.5	4.3	.78	.44	1.3	1.2	2.1
9	35	15	16	18	1.9	4.9	3.7	.82	.41	2.0	1.8	1.9
10	217	13	12	16	2.5	4.4	3.3	1.6	.47	1.7	1.5	2.7
11	201	11	10	14	11	4.0	3.5	1.1	.47	1.8	3.5	1.8
12	95	10	9.5	13	8.1	3.7	3.3	.78	.46	2.4	6.7	1.7
13	64	9.3	9.9	11	6.3	3.4	2.9	.77	.40	4.7	3.5	1.6
14	54	8.5	8.9	9.7	5.3	3.2	2.6	.68	.39	6.2	2.6	1.6
15	43	7.9	8.0	8.7	4.5	3.0	2.4	.68	.36	5.9	2.8	1.5
16	33	8.1	7.3	7.9	3.8	2.9	2.0	.59	.36	6.5	2.2	1.5
17	38	8.5	6.9	7.3	3.3	2.7	1.8	.57	.34	3.1	2.1	1.5
18	42	7.7	23	6.7	2.9	2.9	1.6	.50	.36	2.6	2.0	1.6
19	34	6.9	27	6.2	2.6	2.6	1.5	.53	.31	2.3	2.2	1.4
20	27	6.5	101	5.7	2.4	2.4	1.4	.49	.29	2.2	1.9	1.4
21	22	6.2	90	5.4	2.3	2.2	1.4	.45	.30	1.9	2.5	2.2
22	18	5.8	73	5.0	2.8	2.0	1.3	.45	.81	1.6	2.2	1.6
23	15	7.4	197	4.5	53	1.8	1.7	.46	.54	1.5	1.9	1.3
24	13	8.0	142	4.2	57	1.7	1.5	.94	1.0	2.1	3.4	1.2
25	13	7.6	102	4.0	36	1.6	1.3	.79	.48	1.9	15	1.1
26	42	7.8	77	3.8	27	1.6	1.2	.58	3.2	1.6	11	1.2
27	130	7.9	59	3.5	21	1.5	1.2	.96	2.1	1.4	7.5	1.1
28	99	7.5	48	3.4	17	1.5	1.1	.78	.88	2.1	6.9	1.6
29	84	7.0	40	3.3	---	1.7	1.1	.71	.63	1.6	5.2	2.4
30	76	6.6	33	3.1	---	4.0	1.0	.51	.91	1.3	4.8	1.6
31	57	---	30	2.9	---	3.8	---	.45	---	1.2	5.9	---
TOTAL	1558.9	449.2	1172.8	345.3	289.2	133.8	95.2	22.95	20.09	72.5	112.4	62.8
MEAN	50.3	15.0	37.8	11.1	10.3	4.32	3.17	.74	.67	2.34	3.63	2.09
MAX	217	53	197	26	57	14	12	1.6	3.2	6.5	15	5.1
MIN	5.7	5.8	4.4	2.9	1.9	1.5	1.0	.45	.29	1.1	1.1	1.1
CFSM	1.51	.45	1.13	.33	.31	.13	.10	.02	.02	.07	.11	.06
IN.	1.74	.50	1.31	.38	.32	.15	.11	.03	.02	.08	.13	.07

CAL YR 1989 TOTAL 6412.90 MEAN 17.6 MAX 552 MIN .60 CFSM .53 IN. 7.14
WTR YR 1990 TOTAL 4335.14 MEAN 11.9 MAX 217 MIN .29 CFSM .36 IN. 4.83

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248000 SPRUCE CREEK NEAR SAMSULA, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-71, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1975 to April 1981; October 1983 to current year

WATER TEMPERATURE: March 1975 to April 1981; October 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since March 1975. Digital recorder--60-minute interval.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 987 microsiemens, Apr. 3, 1976; minimum daily mean, 21 microsiemens, Sept. 16, 1976.

WATER TEMPERATURE: Maximum daily mean, 29.0°C, July 12, 1976; minimum daily mean, 6.0°C, Dec. 25, 1989.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum observed, 31.0°C, Aug. 17, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 715 microsiemens, May 31; minimum daily mean, 135 microsiemens, Oct. 18.

WATER TEMPERATURE: Maximum daily mean (more than 20 percent missing record), 26.9°C, Aug. 28; minimum daily mean, 5.9°C, Dec. 26.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	558	176	380	231	382	362	501	541	---	578	329	271
2	556	180	386	241	392	329	492	544	---	540	329	280
3	555	178	398	241	402	321	461	549	---	542	334	290
4	554	186	409	254	434	321	466	555	---	537	341	296
5	556	201	---	248	408	320	478	562	---	520	332	295
6	557	211	---	252	408	308	491	566	---	526	322	304
7	556	210	---	262	424	344	495	577	---	529	316	307
8	555	217	---	263	423	307	482	576	---	526	314	310
9	559	234	---	274	437	319	463	579	---	535	329	312
10	519	246	---	264	429	344	463	605	---	539	335	323
11	233	254	---	283	429	352	470	617	---	518	334	322
12	187	262	---	272	449	371	465	610	---	526	330	320
13	200	272	323	266	457	394	460	612	---	511	329	323
14	220	284	313	308	454	410	458	618	---	498	325	329
15	201	296	320	271	433	435	454	621	---	491	321	334
16	157	316	306	289	438	439	464	624	---	488	319	341
17	159	322	338	267	437	446	453	627	---	477	322	349
18	135	327	356	291	432	445	453	630	---	453	323	355
19	146	332	334	289	446	457	457	629	---	444	328	361
20	155	340	280	330	413	461	464	633	---	432	327	369
21	165	344	258	319	411	469	475	629	---	423	333	388
22	178	355	252	274	417	476	480	629	---	398	334	394
23	193	376	244	299	409	480	501	634	711	378	332	402
24	210	380	255	345	409	486	504	657	705	366	337	406
25	225	378	246	362	401	490	505	659	699	345	356	409
26	205	381	270	330	383	494	509	658	681	329	360	415
27	295	382	279	381	357	499	512	666	597	318	281	426
28	306	384	306	350	339	501	517	658	547	333	231	---
29	232	383	282	343	---	511	531	667	545	338	248	---
30	167	377	298	352	---	504	535	---	565	337	264	---
31	164	---	295	359	---	503	---	715	---	329	266	---
MEAN	312	293	---	294	416	416	482	---	---	455	319	---
MAX	559	384	---	381	457	511	535	---	---	578	360	---
MIN	135	176	---	231	339	307	453	---	---	318	231	---

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248000 SPRUCE CREEK NEAR SAMSULA, FL--Continued
(National stream-quality accounting network station)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.6	21.3	16.8	13.8	19.8	16.2	21.0	23.4	23.0	24.6	---	26.4
2	26.6	21.7	17.5	12.5	21.0	17.1	21.0	23.4	23.8	23.7	---	26.3
3	---	21.2	16.7	14.8	21.2	18.1	21.1	23.6	23.8	23.3	---	---
4	---	20.0	14.0	14.3	21.7	16.6	18.7	23.4	23.5	23.6	---	---
5	---	20.4	14.4	13.8	19.1	16.8	18.1	23.3	23.9	23.8	---	---
6	---	20.7	15.4	18.1	18.7	17.0	18.3	22.7	23.9	24.4	---	---
7	---	21.0	16.6	19.2	19.4	17.9	19.2	21.4	23.5	24.9	---	---
8	24.5	21.0	19.0	19.3	19.4	18.6	18.9	20.9	23.3	24.4	---	---
9	23.7	21.6	19.0	15.4	20.0	17.9	19.3	21.9	23.6	24.7	---	---
10	23.5	20.4	15.3	14.9	20.6	17.7	20.2	23.3	23.6	23.6	---	---
11	23.6	18.5	14.2	---	19.9	18.0	21.1	22.1	23.7	23.1	---	---
12	24.2	18.9	15.2	---	17.4	19.4	19.8	21.6	23.5	24.1	---	---
13	24.6	19.3	16.2	---	16.4	18.2	18.7	23.5	---	24.1	---	---
14	24.5	19.7	13.3	---	17.4	19.3	19.1	23.4	---	23.7	---	---
15	24.3	20.4	13.3	---	18.8	20.3	20.2	23.6	---	23.9	---	---
16	24.2	20.9	15.1	---	19.9	21.4	20.5	23.7	---	23.5	---	---
17	24.8	---	14.5	15.1	20.8	21.3	21.2	23.5	23.8	24.5	---	---
18	---	---	15.4	---	21.0	18.8	21.8	23.2	23.2	24.5	---	---
19	---	---	16.9	---	21.2	16.9	22.0	23.4	23.2	24.4	---	---
20	20.3	---	16.2	17.8	20.5	17.0	21.1	23.9	23.7	24.2	---	---
21	17.3	---	15.6	19.2	20.1	15.0	20.8	23.9	23.5	24.7	---	---
22	16.8	---	14.0	18.7	20.6	15.9	20.3	23.9	23.9	24.2	26.0	---
23	17.8	---	10.9	17.1	18.5	16.7	20.9	23.1	23.4	24.1	25.4	---
24	19.9	---	7.3	17.7	16.1	17.0	20.8	22.6	23.7	23.9	25.2	---
25	20.7	---	6.3	19.7	14.8	17.8	20.6	22.8	23.6	23.7	---	---
26	20.6	17.4	5.9	17.9	14.3	18.4	20.8	23.5	23.3	23.8	---	---
27	21.1	19.0	6.4	15.3	15.5	18.7	20.8	23.6	23.4	23.7	26.7	---
28	21.3	19.4	9.1	16.3	16.1	19.2	21.7	23.9	23.4	24.0	26.9	---
29	21.1	19.3	8.0	18.5	---	20.1	23.0	24.0	23.2	23.9	---	---
30	21.8	17.2	9.4	19.8	---	20.6	23.5	22.8	23.9	---	---	---
31	21.9	---	11.6	20.1	---	21.2	---	22.4	---	---	25.8	---
MEAN	---	---	13.5	---	18.9	18.2	20.5	23.1	---	---	---	---
MAX	---	---	19.0	---	21.7	21.4	23.5	24.0	---	---	---	---
MIN	---	---	5.9	---	14.3	15.0	18.1	20.9	---	---	---	---

ST. JOHNS RIVER
COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248000 SPRUCE CREEK NEAR SAMSULA, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, IN CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 30...	0950	1.64	6.7	359	7.5	17.0	3.0	6.0	--	--
JAN 22...	0859	1.64	5.4	300	7.5	19.0	2.5	8.4	>120	>200
MAR 12...	0835	1.47	3.8	370	7.1	18.0	3.1	6.3	>120	>200
MAY 29...	0858	1.20	0.66	671	--	23.0	3.3	4.1	--	--
JUL 09...	0907	1.29	1.3	538	7.1	24.0	3.7	4.3	>120	K870
AUG 27...	0903	1.66	6.3	281	7.3	25.0	120	5.0	K300	780

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NOV 30...	45	4.7	24	1.6	106	10	40	0.10	11	262
JAN 22...	37	4.0	22	1.0	84	11	37	0.10	8.7	257
MAR 12...	50	4.7	26	1.0	122	10	39	0.10	10	280
MAY 29...	90	6.5	39	2.1	241	4.7	60	0.20	15	307
JUL 09...	72	5.7	32	2.0	194	3.4	70	<0.10	14	689
AUG 27...	33	3.7	17	6.8	77	11	27	0.20	9.4	217

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 30...	0.010	0.110	0.070	0.060	0.93	1.0	0.060	0.060	0.050	--
JAN 22...	<0.010	<0.100	0.080	0.060	1.0	1.1	0.060	0.040	0.050	340
MAR 12...	0.010	0.040	0.050	0.050	1.2	1.3	0.090	0.080	0.060	--
MAY 29...	<0.010	<0.100	0.130	0.120	0.37	0.50	0.120	0.030	0.020	<10
JUL 09...	<0.010	<0.100	0.100	0.070	1.0	1.1	0.510	0.040	0.030	160
AUG 27...	0.040	0.200	0.380	0.410	1.5	1.9	0.890	0.160	0.110	550

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248000 SPRUCE CREEK NEAR SAMSULA, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
JAN 22...	<1	23	<0.5	2.0	2	3	<10	1000	<10	<4
MAY 29...	1	27	1	<1.0	<1	<3	<1	190	<1	11
JUL 09...	1	24	<0.5	1.0	<1	<3	3	220	<1	11
AUG 27...	2	15	<0.5	<1.0	2	<3	2	470	5	5

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
JAN 22...	16	<0.1	<10	<10	<1	1.0	220	<6	19
MAY 29...	34	<0.1	<10	<1	<1	<1.0	480	<6	5
JUL 09...	25	<0.1	<10	<1	<1	<1.0	370	<6	13
AUG 27...	14	<0.1	<10	1	<1	<1.0	160	<6	7

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248040 B-19 CANAL AT PORT ORANGE, FL

LOCATION.--Lat 29°06'48", long 81°01'31", in NW¼ sec.17, T.16 S., R.33 E., Volusia County, Hydrologic Unit 03080201, 85 ft upstream from culvert on State Highway 415, 1.75 mi above mouth, at Port Orange.

DRAINAGE AREA.--7.6 mi², approximately.

PERIOD OF RECORD.--November 1982 to September 1988 (gage heights and discharge measurements only), October 1988 to September 1989. Records prior to October 1988 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 267 ft³/s, Oct. 10, 1989; maximum gage height, 18.95 ft, Sept. 21, 1985; minimum discharge, 0.45 ft³/s, Aug. 24, 1990; minimum gage height, 15.06 ft, Aug. 10, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 267 ft³/s, Oct. 10, gage height, 18.86 ft; minimum, 0.45 ft³/s, Aug. 24, minimum gage height, 15.38 ft, Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	4.7	12	5.9	14	7.3	4.3	3.4	3.3	4.3	7.6
2	11	18	5.0	11	5.8	13	6.9	4.0	3.3	5.7	4.1	7.7
3	8.8	18	6.8	11	5.6	12	17	3.8	2.6	4.2	3.9	6.9
4	7.6	16	5.8	10	5.5	11	12	3.7	3.7	2.9	4.9	4.3
5	6.5	15	5.0	13	5.3	10	8.3	3.6	8.7	2.7	3.6	2.9
6	6.1	15	4.4	18	4.9	9.5	6.6	3.6	6.8	3.5	3.2	2.9
7	7.8	13	4.3	16	4.8	9.0	5.7	3.6	6.6	4.6	3.1	2.5
8	9.8	12	8.0	15	4.7	8.3	4.9	3.7	5.2	3.1	3.0	2.9
9	9.4	12	13	13	4.7	7.7	4.3	3.7	3.5	3.0	4.2	2.7
10	91	11	8.1	12	6.4	7.1	3.9	5.5	3.0	4.5	19	2.7
11	119	10	7.1	11	18	6.6	5.6	4.8	3.3	4.4	16	3.1
12	71	9.3	7.3	10	15	6.1	5.7	5.5	3.5	5.2	12	1.7
13	102	8.8	8.6	9.5	11	5.7	4.4	5.4	3.3	6.0	9.1	2.2
14	129	8.5	7.6	8.9	9.2	5.5	4.0	5.4	3.5	8.0	7.0	1.7
15	97	8.1	6.5	8.6	8.6	5.3	3.7	6.8	3.0	7.0	8.8	1.5
16	61	8.2	6.1	8.5	8.1	5.1	3.7	7.0	3.0	8.9	7.9	1.6
17	42	7.6	5.7	8.2	7.7	5.1	3.3	7.7	2.4	7.7	6.1	6.8
18	35	7.0	10	8.0	8.0	4.8	4.7	8.0	2.3	7.0	5.0	11
19	31	6.4	10	7.7	7.6	4.4	4.9	7.5	2.4	6.3	4.2	6.1
20	26	6.0	13	7.6	7.3	4.3	4.9	6.0	3.0	6.6	3.5	3.3
21	22	5.8	13	7.4	7.2	4.0	4.6	6.2	3.1	9.5	2.9	3.3
22	20	5.6	14	7.2	10	3.9	4.8	7.9	3.1	9.3	1.5	2.2
23	18	7.1	31	6.7	44	3.8	5.2	7.6	3.8	11	1.1	2.7
24	18	6.3	28	6.6	46	3.7	5.0	7.6	3.1	8.6	7.5	3.3
25	18	5.7	22	6.9	33	3.6	4.4	6.5	3.5	7.1	26	3.1
26	19	6.4	19	7.3	24	3.6	3.9	3.9	3.6	6.5	15	3.9
27	22	6.2	17	6.3	18	3.5	4.0	3.8	2.6	5.8	11	2.2
28	21	5.6	15	6.0	16	3.5	4.0	3.9	2.6	5.2	9.5	1.8
29	23	5.5	15	6.0	---	4.6	3.9	5.9	2.2	6.1	6.2	1.7
30	25	5.1	14	6.0	---	7.2	4.2	6.0	3.1	5.1	6.0	1.8
31	22	---	13	5.8	---	7.8	---	4.5	---	4.6	8.4	---
TOTAL	1112.0	288.2	348.0	291.2	352.3	203.7	165.8	167.4	107.2	183.4	228.0	108.1
MEAN	35.9	9.61	11.2	9.39	12.6	6.57	5.53	5.40	3.57	5.92	7.35	3.60
MAX	129	19	31	18	46	14	17	8.0	8.7	11	26	11
MIN	6.1	5.1	4.3	5.8	4.7	3.5	3.3	3.6	2.2	2.7	1.1	1.5

CAL YR 1989 TOTAL 3549.6 MEAN 9.72 MAX 164 MIN 1.1
WTR YR 1990 TOTAL 3555.3 MEAN 9.74 MAX 129 MIN 1.1

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248510 ADDISON CREEK NEAR TITUSVILLE, FL

LOCATION.--Lat 28°32'20", long 80°47'36", in Delespine Land Grant, T.22 S., R.35 E., Brevard County, Hydrologic Unit 03080202, at center of upstream culvert headwall at U.S. Highway 1, 0.6 mi upstream from mouth, and 1.1 mi south of Titusville.

DRAINAGE AREA.--4.1 mi², approximately..

PERIOD OF RECORD.--April 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--

April to September 1989: Maximum discharge, 16 ft³/s, July 19, gage height, 4.57 ft; minimum, 0.15 ft³/s, June 5, gage height, 3.02 ft.

Water year 1990: Maximum discharge, 15 ft³/s, Dec. 23, gage height, 4.55 ft; no flow June 20,21; minimum gage height, 2.63 ft, June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.89	.23	.40	.82	.56
2	---	---	---	---	---	---	---	1.9	.22	.36	.81	.55
3	---	---	---	---	---	---	---	.93	.21	.33	3.5	.54
4	---	---	---	---	---	---	---	.71	.20	.30	8.8	.63
5	---	---	---	---	---	---	---	.59	.19	.30	5.1	.94
6	---	---	---	---	---	---	---	.52	.23	.27	2.7	1.2
7	---	---	---	---	---	---	---	.46	.33	.27	1.7	.86
8	---	---	---	---	---	---	---	.39	.43	.25	1.7	.77
9	---	---	---	---	---	---	---	.37	.45	.23	3.0	1.0
10	---	---	---	---	---	---	---	.36	.32	.22	1.9	1.0
11	---	---	---	---	---	---	---	.38	.28	.22	2.1	.92
12	---	---	---	---	---	---	---	.35	.29	.23	1.6	.80
13	---	---	---	---	---	---	---	.33	.29	1.7	2.7	.76
14	---	---	---	---	---	---	---	.61	.27	.71	2.6	.74
15	---	---	---	---	---	---	---	.56	.26	.83	2.0	.72
16	---	---	---	---	---	---	---	.45	.24	.59	1.6	.77
17	---	---	---	---	---	---	---	.38	.23	.57	1.2	1.0
18	---	---	---	---	---	---	---	.35	.25	.70	1.2	1.8
19	---	---	---	---	---	---	---	.36	.24	5.1	2.1	1.6
20	---	---	---	---	---	---	---	.34	.23	14	2.1	1.1
21	---	---	---	---	---	---	---	.33	.23	10	2.4	.94
22	---	---	---	---	---	---	---	.40	.29	5.9	1.8	.86
23	---	---	---	---	---	---	---	.61	.29	3.8	1.3	1.1
24	---	---	---	---	---	---	---	.37	1.0	2.4	1.1	1.1
25	---	---	---	---	---	---	---	.32	.77	1.7	.93	1.2
26	---	---	---	---	---	---	---	.29	.48	1.3	.89	1.4
27	---	---	---	---	---	---	---	.27	.39	1.0	.81	1.3
28	---	---	---	---	---	---	---	.27	.41	.91	.72	1.3
29	---	---	---	---	---	---	---	.40	.26	1.2	.66	.97
30	---	---	---	---	---	---	---	.50	.26	1.4	.62	.84
31	---	---	---	---	---	---	---	.23	---	.96	.59	---
TOTAL	---	---	---	---	---	---	---	14.84	10.21	58.15	61.05	29.27
MEAN	---	---	---	---	---	---	---	.48	.34	1.88	1.97	.98
MAX	---	---	---	---	---	---	---	1.9	1.0	14	8.8	1.8
MIN	---	---	---	---	---	---	---	.23	.19	.22	.59	.54
CFSM	---	---	---	---	---	---	---	.12	.08	.46	.48	.24
IN.	---	---	---	---	---	---	---	.13	.09	.53	.55	.27

ST. JOHNS RIVER

COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET

02248510 ADDISON CREEK NEAR TITUSVILLE, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.74	5.0	.90	4.4	1.4	3.5	.48	.24	.04	.06	1.1	1.2
2	.71	3.8	.81	3.7	1.2	3.1	.44	.23	.03	3.1	.85	1.1
3	.67	3.0	.70	3.1	1.1	2.8	.44	.20	.04	6.1	5.2	1.0
4	.62	2.5	.59	3.0	1.0	2.4	.42	.17	.07	3.3	14	.92
5	.56	2.0	.55	2.9	.87	2.1	.41	.16	.03	1.5	8.8	.81
6	.47	1.8	.52	2.8	.81	1.9	.39	.16	.05	1.9	4.9	.74
7	.69	1.5	.51	2.7	.79	1.8	.38	.14	.05	4.2	3.1	.66
8	2.0	1.4	1.5	2.6	.75	1.6	.37	.14	.06	2.4	2.2	.61
9	.86	1.4	8.3	2.4	.75	1.5	.37	.14	.05	1.9	2.0	.55
10	4.5	1.3	6.5	2.2	.77	1.3	.36	.17	.04	1.2	1.8	.53
11	5.5	1.2	4.5	2.1	3.8	1.2	.41	.14	.05	.84	2.6	.50
12	3.9	1.0	3.0	2.1	3.3	1.1	.40	.13	.05	.65	4.3	.50
13	5.2	.86	6.7	1.9	2.2	1.0	.36	.10	.02	.63	2.8	.53
14	3.8	.78	5.5	1.8	1.7	.93	.36	.10	.02	.83	2.9	.50
15	2.6	.70	4.0	1.8	1.4	1.0	.35	.09	.01	.80	2.5	.52
16	1.9	3.5	2.8	1.8	1.2	.99	.36	.08	.01	.70	2.1	.81
17	2.4	3.3	2.4	1.7	1.1	.93	.35	.07	.01	.69	3.3	.73
18	3.8	2.1	6.9	1.5	.97	.82	.33	.06	.01	.57	7.0	.80
19	3.2	1.6	8.1	1.5	.84	.74	.37	.09	.01	.50	6.7	.60
20	2.1	1.3	8.8	1.6	.74	.70	.36	.07	.00	.52	4.7	.53
21	1.5	1.1	12	1.5	.83	.63	.33	.05	.00	.51	3.5	.47
22	1.2	.96	10	1.5	1.1	.61	.31	.07	.01	1.9	3.3	.43
23	1.0	1.7	15	1.4	10	.54	.34	.08	.04	6.8	5.1	.40
24	1.2	1.9	14	1.3	15	.53	.30	.08	.06	4.7	3.7	.40
25	4.7	1.3	11	1.3	11	.51	.27	.07	.04	5.5	2.8	.72
26	4.4	1.4	8.9	1.1	7.1	.50	.26	.06	.08	4.5	2.4	.80
27	8.3	1.3	7.4	1.0	5.1	.49	.26	.06	.13	4.3	2.2	.64
28	10	1.1	6.6	.96	4.2	.48	.26	.08	.07	2.8	1.9	.56
29	9.0	1.1	5.9	.97	---	.48	.27	.07	.04	2.2	1.7	.60
30	7.6	1.1	5.5	.98	---	.64	.27	.04	.02	1.6	1.6	1.1
31	6.0	---	5.0	1.4	---	.54	---	.04	---	1.3	1.5	---
TOTAL	101.12	53.00	174.88	61.01	81.02	37.37	10.58	3.38	1.14	68.50	112.55	20.26
MEAN	3.26	1.77	5.64	1.97	2.89	1.21	.35	.11	.038	2.21	3.63	.68
MAX	10	5.0	15	4.4	15	3.5	.48	.24	.13	6.8	14	1.2
MIN	.47	.70	.51	.96	.74	.48	.26	.04	.00	.06	.85	.40
CFSM	.80	.43	1.38	.48	.71	.29	.09	.03	.01	.54	.89	.16
IN.	.92	.48	1.59	.55	.74	.34	.10	.03	.01	.62	1.02	.18

WTR YR 1990 TOTAL 724.81 MEAN 1.99 MAX 15 MIN .00 CFSM .48 IN. 6.58

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02248900 HORSE CREEK NEAR MELBOURNE, FL

LOCATION.--Lat 28°09'40", long 80°39'20", in SW¼ sec.5, T.27 S., R.37 E., Brevard County, Hydrologic Unit 03080202, near center of downstream culvert headwall on Croton Road, 0.8 mi upstream from mouth, and 1.7 mi northwest of Melbourne.

DRAINAGE AREA.--1.2 mi².

PERIOD OF RECORD.--April 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--

April to September 1989: Maximum discharge, 46 ft³/s, Aug. 12, gage height, 12.38 ft; minimum discharge, 0.43 ft³/s, June 6, gage height, 9.96 ft.

Water year 1990: Maximum discharge, 94 ft³/s, Oct. 10, gage height, 13.22 ft; minimum, 0.44 ft³/s, June 20, 21, gage height, 9.95 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	4.5	.69	.77	2.0	2.3
2	---	---	---	---	---	---	---	4.9	.58	.79	1.9	2.3
3	---	---	---	---	---	---	---	3.3	.56	.75	2.4	2.2
4	---	---	---	---	---	---	---	2.9	.54	.68	2.6	2.2
5	---	---	---	---	---	---	---	2.2	.51	.64	1.9	2.1
6	---	---	---	---	---	---	---	2.1	.58	.58	1.7	2.3
7	---	---	---	---	---	---	---	1.9	1.4	.60	1.5	2.2
8	---	---	---	---	---	---	---	1.7	2.5	.72	1.5	2.1
9	---	---	---	---	---	---	---	1.5	2.1	.67	8.2	2.2
10	---	---	---	---	---	---	---	1.4	2.2	.64	9.1	2.0
11	---	---	---	---	---	---	---	1.4	2.0	.59	7.6	1.8
12	---	---	---	---	---	---	---	1.4	1.9	.64	11	1.9
13	---	---	---	---	---	---	---	1.3	1.7	4.8	19	1.8
14	---	---	---	---	---	---	---	1.4	1.6	3.7	9.9	1.7
15	---	---	---	---	---	---	---	1.5	1.6	1.5	7.2	1.6
16	---	---	---	---	---	---	---	1.3	1.4	4.9	5.5	1.6
17	---	---	---	---	---	---	---	1.3	1.1	12	4.5	3.6
18	---	---	---	---	---	---	---	1.3	1.0	10	3.9	3.4
19	---	---	---	---	---	---	---	1.2	.98	7.3	4.6	2.5
20	---	---	---	---	---	---	---	1.2	.92	8.6	10	2.2
21	---	---	---	---	---	---	---	1.2	.89	5.5	9.9	1.9
22	---	---	---	---	---	---	---	1.5	.83	5.4	6.8	1.8
23	---	---	---	---	---	---	---	1.6	.89	4.3	5.1	2.1
24	---	---	---	---	---	---	---	1.4	1.3	3.5	4.2	2.6
25	---	---	---	---	---	---	---	1.3	1.3	3.1	3.7	2.5
26	---	---	---	---	---	---	---	1.2	1.0	2.9	3.3	2.7
27	---	---	---	---	---	---	---	1.1	.98	2.7	3.0	2.3
28	---	---	---	---	---	---	---	1.1	.95	2.4	2.8	2.1
29	---	---	---	---	---	---	---	2.5	1.0	.93	2.6	2.0
30	---	---	---	---	---	---	---	3.3	.96	.85	2.2	1.9
31	---	---	---	---	---	---	---	.82	---	2.1	2.4	---
TOTAL	---	---	---	---	---	---	---	52.88	35.78	97.07	162.3	65.9
MEAN	---	---	---	---	---	---	---	1.71	1.19	3.13	5.24	2.20
MAX	---	---	---	---	---	---	---	4.9	2.5	12	19	3.6
MIN	---	---	---	---	---	---	---	.82	.51	.58	1.5	1.6
CFSM	---	---	---	---	---	---	---	1.42	.99	2.61	4.36	1.83
IN.	---	---	---	---	---	---	---	1.64	1.11	3.01	5.03	2.04

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02248900 HORSE CREEK NEAR MELBOURNE, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	4.8	2.7	5.1	3.4	4.2	1.6	.73	.67	2.6	2.0	3.4
2	1.7	4.4	2.4	5.1	3.1	4.2	1.6	.71	.64	6.8	1.9	3.0
3	1.7	4.0	2.4	4.5	3.0	4.1	1.7	.70	.62	8.0	2.0	2.9
4	1.6	4.1	2.4	4.1	2.9	3.5	1.4	.70	.62	4.3	2.7	2.7
5	1.5	3.7	2.3	6.8	2.6	3.3	1.2	.70	.61	3.2	2.2	2.5
6	1.5	3.4	2.3	6.8	2.4	3.1	1.2	.77	.61	2.8	1.9	2.3
7	1.5	3.2	2.2	5.8	2.3	2.9	1.1	.74	.61	2.6	1.8	2.3
8	2.0	3.2	3.5	5.4	2.3	2.6	1.1	.72	.60	2.4	1.9	2.3
9	17	3.0	10	4.6	2.5	2.5	1.1	.72	.57	2.1	2.8	2.3
10	67	2.9	5.9	4.2	2.5	2.4	1.1	.73	.56	2.1	3.3	2.1
11	34	2.8	5.0	3.8	5.3	2.4	1.1	.68	.56	2.0	4.9	2.2
12	23	2.7	4.5	3.5	4.1	2.4	1.1	.66	.54	1.8	5.2	5.1
13	16	2.7	4.6	3.3	3.4	2.2	1.1	.67	.51	1.9	3.3	3.4
14	9.4	2.6	4.0	3.3	2.8	2.9	1.0	.69	.51	4.9	4.9	2.9
15	7.2	2.7	3.8	3.2	3.3	2.9	1.1	.70	.51	8.5	4.7	2.6
16	5.6	3.7	3.5	3.2	3.6	2.5	1.0	.69	.50	5.5	3.9	2.7
17	4.8	3.2	3.3	3.2	3.2	2.2	1.0	.66	.51	4.0	5.5	3.2
18	5.3	3.0	4.0	2.9	2.6	1.9	.99	.65	.52	3.4	9.9	3.2
19	13	2.9	4.1	2.8	2.4	1.9	.95	.65	.49	3.0	10	3.0
20	7.1	3.0	5.9	2.9	2.8	1.9	.91	.64	.47	3.0	6.8	2.8
21	4.6	3.0	7.6	2.9	3.0	1.7	.84	.64	1.4	2.9	6.3	2.5
22	3.9	2.9	6.9	2.7	3.6	1.6	.83	.65	4.9	8.4	4.8	2.3
23	5.1	2.9	19	2.6	16	1.6	.87	.63	5.4	10	4.4	2.1
24	4.3	2.9	12	2.7	13	1.6	.86	.65	2.4	5.6	3.9	2.1
25	3.7	2.8	9.1	2.8	8.0	1.6	.80	.63	2.0	4.2	3.6	1.9
26	4.2	3.1	7.8	3.0	6.4	1.5	.78	.63	11	3.4	3.5	1.7
27	9.2	3.1	7.0	2.7	5.4	1.4	.77	1.1	12	3.1	3.4	1.6
28	8.4	2.9	6.5	2.6	4.6	1.4	.79	1.2	4.4	2.9	3.1	2.8
29	8.8	2.8	6.1	3.5	---	1.4	.78	.84	3.3	2.6	2.9	5.1
30	7.0	3.0	5.6	4.6	---	1.6	.75	.77	2.7	2.3	3.5	8.5
31	5.5	---	5.2	3.8	---	1.6	---	.71	---	2.2	4.4	---
TOTAL	287.3	95.4	171.6	118.4	120.5	73.0	31.42	22.36	60.73	122.5	125.4	87.5
MEAN	9.27	3.18	5.54	3.82	4.30	2.35	1.05	.72	2.02	3.95	4.05	2.92
MAX	67	4.8	19	6.8	16	4.2	1.7	1.2	12	10	10	8.5
MIN	1.5	2.6	2.2	2.6	2.3	1.4	.75	.63	.47	1.8	1.8	1.6
CFSM	7.72	2.65	4.61	3.18	3.59	1.96	.87	.60	1.69	3.29	3.37	2.43
IN.	8.91	2.96	5.32	3.67	3.74	2.26	.97	.69	1.88	3.80	3.89	2.71

WTR YR 1990 TOTAL 1316.11 MEAN 3.61 MAX 67 MIN .47 CFSM 3.00 IN. 40.80

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02249950 C-1 CANAL NEAR RED BUD CIRCLE, AT PALM BAY, FL

LOCATION.--Lat 28°00'47", long 80°43'30", in NE¼ sec.33, T.28 S., R.36 E., Brevard County, Hydrologic Unit 03080202, on right bank 3.2 mi upstream from bridge on Minton Road, 7.3 mi upstream from control structure, and 8 mi southwest of Palm Bay.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (General Development Corp. bench mark.)

REMARKS.--Estimated daily discharges: Nov. 16 to Dec. 5. Records poor. Flow affected at times by operation of control structure 7.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 948 ft³/s, Oct. 10, 1989, gage height, 17.97 ft; minimum, 2.3 ft³/s, May 16,17, 1988; minimum gage height, 7.86 ft, June 2,3,4, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 948 ft³/s, Oct. 10, gage height, 17.97 ft; minimum, 4.4 ft³/s, June 1,2; minimum gage height, 7.86 ft, June 2,3,4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	170	21	39	18	18	35	7.5	4.7	13	44	73
2	49	158	21	37	15	14	40	9.7	4.7	45	37	65
3	41	146	20	37	13	11	44	15	4.8	51	42	57
4	35	134	19	34	11	8.8	40	21	5.6	33	108	49
5	30	113	19	33	8.8	8.1	35	26	8.3	24	95	48
6	24	98	27	32	7.5	13	30	30	13	20	71	50
7	19	100	27	30	7.5	23	28	35	25	17	52	43
8	31	91	25	27	7.9	30	26	38	39	15	41	38
9	48	85	71	27	8.4	18	24	41	50	16	40	33
10	800	77	56	31	9.7	11	22	44	74	16	110	29
11	778	63	37	31	30	8.1	20	48	60	14	176	27
12	553	53	39	29	60	7.1	18	48	51	13	314	28
13	389	46	41	27	22	8.7	16	48	46	19	222	25
14	302	35	42	24	15	13	15	47	39	51	187	22
15	263	30	37	22	14	19	14	41	34	72	197	20
16	241	35	33	21	14	25	13	37	30	72	303	21
17	234	60	29	19	12	29	12	33	29	38	227	20
18	251	50	26	18	11	35	11	29	38	31	275	44
19	268	44	26	16	9.5	37	16	27	42	26	289	215
20	239	39	54	17	14	36	23	25	47	23	231	210
21	206	35	46	17	23	30	29	22	48	26	264	155
22	197	32	39	19	31	23	37	21	54	91	202	115
23	187	30	169	18	40	19	43	21	67	294	171	88
24	176	40	133	19	77	18	34	21	63	187	150	67
25	169	37	106	19	51	17	22	21	46	166	132	54
26	166	32	98	21	32	17	15	20	30	133	112	45
27	205	27	74	20	28	16	11	23	26	102	102	40
28	211	25	59	19	24	17	8.8	12	21	78	133	37
29	215	23	53	19	---	18	7.3	8.1	16	70	115	41
30	194	22	48	22	---	21	7.5	5.5	14	63	96	72
31	183	---	43	21	---	28	---	5.2	---	52	85	---
TOTAL	6762	1930	1538	765	614.3	596.8	696.6	830.0	1030.1	1871	4623	1831
MEAN	218	64.3	49.6	24.7	21.9	19.3	23.2	26.8	34.3	60.4	149	61.0
MAX	800	170	169	39	77	37	44	48	74	294	314	215
MIN	19	22	19	16	7.5	7.1	7.3	5.2	4.7	13	37	20

CAL YR 1989 TOTAL 21714.2 MEAN 59.5 MAX 800 MIN 2.8
WTR YR 1990 TOTAL 23087.8 MEAN 63.3 MAX 800 MIN 4.7

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02249970 C-10 CANAL AT MALABAR ROAD, AT PALM BAY, FL

LOCATION.--Lat 27°59'56", long 80°42'47", in SE¼ sec.34, T.28 S., R.36 E., Brevard County, Hydrologic Unit 03080202, near center of channel on downstream side of bridge on Malabar Road, 1 mi upstream from mouth, 5.5 mi west of Interstate Highway 95, and 8 mi southwest of Palm Bay City Hall.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (General Development Corporation bench mark).

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 806 ft³/s, Oct. 10, 1989, gage height, 17.60 ft; minimum, 8.3 ft³/s, May 24, 1988; minimum gage height, 7.29 ft, June 5, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 806 ft³/s, Oct. 10, gage height, 17.60 ft; minimum, 9.3 ft³/s, June 2,4,5,6; minimum gage height, 7.29 ft, June 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	45	16	13	27	19	22	11	9.5	14	42	19
2	45	42	15	13	26	18	23	11	9.5	25	39	18
3	42	40	14	13	26	17	23	11	9.4	22	43	17
4	40	37	14	13	27	17	22	12	9.5	19	72	16
5	38	35	14	13	24	17	21	12	9.4	16	64	18
6	33	33	13	13	23	16	20	13	9.6	15	56	20
7	30	32	14	14	22	16	18	14	11	14	50	19
8	35	30	15	14	21	19	17	14	14	14	45	19
9	40	29	17	14	22	20	17	15	17	14	42	18
10	705	28	15	15	24	20	17	15	23	14	70	18
11	653	26	14	15	25	20	16	16	19	13	83	18
12	467	25	15	16	24	20	15	16	17	13	135	18
13	344	25	14	15	22	20	15	16	15	15	93	18
14	255	24	12	16	21	20	15	16	14	22	71	18
15	199	24	11	16	20	20	15	14	13	23	61	19
16	160	25	11	16	19	20	15	14	13	22	80	19
17	145	25	10	17	18	21	14	13	12	16	58	19
18	160	24	10	17	17	20	13	12	14	15	67	21
19	159	23	11	18	17	21	13	12	15	14	74	106
20	126	22	10	22	16	22	14	11	16	14	60	86
21	95	21	11	23	17	21	14	11	16	14	81	63
22	77	20	12	23	17	20	16	11	17	56	51	53
23	64	19	27	24	21	20	17	11	23	148	40	47
24	56	19	22	25	32	22	15	11	27	103	34	43
25	50	18	21	26	28	21	13	11	21	91	30	40
26	46	18	22	31	25	20	12	11	18	77	26	38
27	59	18	19	30	24	20	11	11	17	67	23	37
28	64	17	17	29	20	21	11	12	15	58	28	36
29	67	17	16	30	---	19	11	11	14	53	25	39
30	59	16	15	34	---	19	11	10	14	50	22	60
31	50	---	14	29	---	21	---	9.7	---	46	20	---
TOTAL	4411	777	461	607	625	607	476	387.7	451.9	1097	1685	980
MEAN	142	25.9	14.9	19.6	22.3	19.6	15.9	12.5	15.1	35.4	54.4	32.7
MAX	705	45	27	34	32	22	23	16	27	148	135	106
MIN	30	16	10	13	16	16	11	9.7	9.4	13	20	16

CAL YR 1989 TOTAL 16231 MEAN 44.5 MAX 705 MIN 10
WTR YR 1990 TOTAL 12565.6 MEAN 34.4 MAX 705 MIN 9.4

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02249990 C-69 CANAL AT PALM BAY ROAD, AT PALM BAY, FL

LOCATION.--Lat 28°02'06", long 80°40'17", in SW¼ sec.19, T.28 S., R.37 E., Brevard County, Hydrologic Unit 03080202, near right bank on downstream side of culvert, 1.5 mi upstream from mouth, 3 mi south of U.S. Highway 192, and 5 mi west of Palm Bay City Hall.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 184 ft³/s, Oct. 10, 1989; maximum gage height, 23.54 ft, revised, Aug. 13, 1989; no flow for some days in most years; minimum gage height, 19.81 ft, revised, July 8, 9, 13, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 184 ft³/s, Oct. 10, gage height, 23.34 ft; no flow for several days; minimum gage height, 19.91 ft, May 18-24, June 14-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	5.8	3.0	3.6	2.1	3.2	1.4	.15	.05	.22	e1.3	2.7
2	.00	5.3	2.9	3.3	2.0	3.0	1.3	.16	.04	.74	e1.3	2.5
3	.00	5.0	2.9	3.2	2.0	2.9	1.4	.29	.04	.86	e1.6	2.3
4	.00	4.6	2.7	3.1	1.9	2.7	1.3	.25	.04	.58	e3.5	2.1
5	.00	4.3	2.7	3.1	1.8	2.5	1.2	.13	.03	.42	e2.0	1.8
6	.00	4.2	2.7	3.1	1.7	2.3	1.1	.10	.02	.35	e1.2	1.7
7	.00	4.1	2.6	3.0	1.6	2.2	1.0	.08	.03	.32	.95	1.5
8	.00	3.9	3.3	3.0	1.6	2.2	.95	.08	.03	.28	.89	1.5
9	2.7	3.9	6.8	2.8	1.6	2.0	.90	.08	.03	.24	1.3	1.4
10	126	3.8	4.3	2.7	1.6	1.9	.90	.07	.03	.21	3.2	1.3
11	54	3.5	3.8	2.7	6.2	1.8	.86	.07	.01	.18	3.1	1.3
12	19	3.5	3.6	2.6	4.4	1.7	.80	.05	.00	.16	5.6	1.4
13	12	3.4	3.5	2.4	2.9	1.7	.72	.04	.00	.40	3.5	1.4
14	9.2	3.3	3.3	2.3	2.4	1.7	.67	.03	.00	.91	4.7	1.2
15	7.8	3.3	3.2	2.3	2.2	1.8	.63	.04	.00	1.9	6.7	1.2
16	7.0	4.8	3.1	2.6	2.1	1.8	.60	.03	.00	2.2	4.3	1.3
17	6.4	4.0	3.0	2.3	2.0	1.8	.59	.02	.00	1.3	4.5	1.6
18	6.1	3.5	3.0	2.2	1.8	1.8	.76	.02	.00	1.0	12	5.1
19	6.4	3.4	3.0	2.2	1.8	1.6	1.0	.01	.00	.95	11	7.7
20	6.0	3.3	5.2	2.2	1.8	1.5	.78	.01	.00	.93	6.6	4.6
21	5.5	3.2	6.9	2.3	2.0	1.4	.46	.01	.02	1.4	5.3	3.4
22	5.1	3.1	5.6	3.2	2.0	1.4	.37	.00	.16	2.4	4.4	2.9
23	4.9	3.3	19	2.7	9.2	1.2	.31	.00	.32	2.4	3.8	2.5
24	4.7	3.3	8.0	2.4	11	1.2	.31	.01	.22	2.0	3.4	2.2
25	4.7	3.2	6.0	2.3	5.5	1.1	.26	.01	.25	1.7	3.2	1.9
26	4.8	3.3	5.0	2.2	4.3	1.1	.23	.00	.21	1.6	2.9	1.8
27	7.8	3.2	4.4	2.0	3.8	1.1	.21	.16	.19	1.5	2.6	1.7
28	7.1	3.1	4.2	2.0	3.6	1.0	.19	.40	.15	1.4	2.5	1.9
29	8.0	3.1	4.0	2.3	---	1.1	.19	.20	.15	1.8	2.5	3.0
30	6.7	3.1	3.7	2.3	---	1.4	.18	.11	.11	1.6	2.5	8.1
31	6.0	---	3.7	2.1	---	1.5	---	.06	---	1.4	3.2	---
TOTAL	327.90	112.8	139.1	80.5	86.9	55.6	21.57	2.67	2.13	33.35	115.54	75.0
MEAN	10.6	3.76	4.49	2.60	3.10	1.79	.72	.086	.071	1.08	3.73	2.50
MAX	126	5.8	19	3.6	11	3.2	1.4	.40	.32	2.4	12	8.1
MIN	.00	3.1	2.6	2.0	1.6	1.0	.18	.00	.00	.16	.89	1.2

CAL YR 1989 TOTAL 2347.70 MEAN 6.43 MAX 165 MIN .00
WTR YR 1990 TOTAL 1053.06 MEAN 2.89 MAX 126 MIN .00

e Estimated

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250030 TURKEY CREEK AT PALM BAY, FL

LOCATION.--Lat 28°01'00", long 80°35'46", in SE¼ sec.26, T.28 S., R.37 E., Brevard County, Hydrologic Unit 03080202, near right bank on downstream side of bridge on Port Malabar Boulevard, 1.6 mi southwest of the intersection of U.S. Highway 1 and State Highway 516 in Palm Bay, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--105 mi², approximately.

PERIOD OF RECORD.--February 1981 to September 1983. October 1983 to December 1986 (gage heights only), January 1987 to September 1988 (fragmentary), October 1988 to current year.

GAGE.--Water-stage recorder and electromagnetic current meter recorder. Datum of gage is 5.00 ft below National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1986 at datum 5.00 ft higher.

REMARKS.--No record Nov. 5 to Jan. 9, damaged velocity probe. Records fair above 400 ft³/s and poor below. Stage and discharge are affected by tides in the Indian River.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge recorded, 1,970 ft³/s, Oct. 10, 1989; maximum gage height, 10.10 ft, Oct. 10, 1989; minimum daily discharge recorded, 1.1 ft³/s, July 17, 1988; minimum gage height, 4.62 ft, present datum, Apr. 5, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,970 ft³/s, Oct. 10; maximum gage height, 10.10 ft, Oct. 10; minimum daily discharge, 27 ft³/s, Apr. 21,22; minimum gage height, 4.61 ft, Feb. 4,15,19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	417	---	---	72	67	41	28	68	76	127	183
2	136	377	---	---	66	59	47	30	56	77	132	168
3	102	390	---	---	69	55	44	32	30	109	121	155
4	103	360	---	---	67	62	55	30	32	114	174	158
5	107	---	---	---	72	40	47	37	34	103	187	155
6	109	---	---	---	65	32	43	36	35	83	177	164
7	107	---	---	---	57	38	39	44	41	83	154	152
8	102	---	---	---	59	55	44	38	50	78	136	132
9	120	---	---	---	60	60	40	37	48	77	166	123
10	1970	---	---	80	66	57	37	36	72	70	286	106
11	1950	---	---	72	71	62	40	36	75	66	308	103
12	1320	---	---	69	102	39	40	32	62	68	514	107
13	996	---	---	80	104	32	43	36	58	68	466	114
14	785	---	---	76	69	35	42	39	54	73	399	107
15	672	---	---	76	64	34	48	31	49	76	402	100
16	578	---	---	81	65	32	41	35	47	207	447	99
17	546	---	---	78	67	42	43	35	45	95	431	100
18	564	---	---	77	67	40	33	30	43	73	482	128
19	592	---	---	77	60	44	29	38	47	75	647	379
20	558	---	---	73	54	51	37	39	44	72	517	516
21	450	---	---	67	62	50	27	40	48	67	585	429
22	395	---	---	72	50	47	27	42	46	86	477	356
23	355	---	---	68	91	39	36	40	92	501	411	290
24	348	---	---	65	159	40	52	34	98	386	360	251
25	357	---	---	64	118	36	47	33	98	317	311	218
26	355	---	---	73	96	38	46	39	99	259	271	191
27	423	---	---	75	76	39	45	51	96	223	234	155
28	493	---	---	68	73	39	42	106	87	194	269	148
29	506	---	---	63	---	37	42	63	89	175	263	180
30	457	---	---	69	---	36	34	30	78	167	226	338
31	440	---	---	73	---	39	---	39	---	147	209	---
TOTAL	16152	---	---	---	2101	1376	1231	1216	1821	4265	9889	5805
MEAN	521	---	---	---	75.0	44.4	41.0	39.2	60.7	138	319	193
MAX	1970	---	---	---	159	67	55	106	99	501	647	516
MIN	102	---	---	---	50	32	27	28	30	66	121	99

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250030 TURKEY CREEK AT PALM BAY, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.16	6.66	5.56	5.27	5.10	5.46	5.58	5.38	5.71	5.51	5.69	5.85
2	6.13	6.51	5.40	5.31	4.98	5.36	5.50	5.33	5.67	5.50	5.67	5.92
3	6.12	6.56	5.49	5.22	5.01	5.39	5.60	5.20	5.62	5.64	5.68	5.95
4	6.03	6.44	5.42	5.20	4.92	5.57	5.72	5.13	5.60	5.64	5.93	5.98
5	5.89	6.34	5.26	5.18	5.29	5.55	5.52	5.16	5.55	5.63	5.96	5.97
6	5.86	6.12	5.21	5.13	5.12	5.61	5.31	5.32	5.58	5.56	5.91	6.03
7	5.78	6.22	5.27	5.14	5.07	5.69	5.43	5.58	5.58	5.45	5.81	6.03
8	5.73	6.05	5.22	5.08	5.14	5.74	5.62	5.26	5.52	5.34	5.79	5.95
9	6.00	6.06	5.44	5.15	5.09	5.72	5.38	5.06	5.44	5.39	5.90	5.90
10	9.25	6.12	5.68	5.13	5.01	5.75	5.26	5.07	5.43	5.40	6.20	5.85
11	9.42	6.03	5.56	5.13	5.35	5.73	5.29	5.43	5.51	5.36	6.30	5.92
12	8.63	5.93	5.42	5.08	5.63	5.61	5.67	5.25	5.55	5.30	6.80	5.97
13	8.10	5.83	5.54	5.39	5.33	5.55	5.53	5.07	5.58	5.31	6.65	5.96
14	7.68	5.78	5.61	5.20	5.14	5.47	5.37	5.21	5.57	5.21	6.49	5.98
15	7.41	5.78	5.41	5.19	5.03	5.32	5.20	5.18	5.48	5.30	6.52	5.96
16	7.17	5.81	5.37	5.21	5.00	5.17	5.28	5.08	5.49	5.77	6.62	6.01
17	7.08	6.00	5.38	5.19	5.00	5.10	5.25	5.04	5.55	5.32	6.54	6.05
18	7.13	5.79	5.46	5.18	5.05	5.52	5.26	5.22	5.76	5.24	6.70	6.31
19	7.21	5.67	5.38	5.16	4.93	5.45	5.29	5.21	5.72	5.30	7.00	6.82
20	7.11	5.51	5.62	5.06	5.16	5.48	5.47	5.02	5.67	5.16	6.67	6.88
21	6.77	5.42	5.87	5.04	5.24	5.54	5.43	5.09	5.65	5.15	6.82	6.68
22	6.58	5.34	5.67	5.12	5.01	5.33	5.40	5.13	5.68	5.31	6.59	6.47
23	6.42	5.32	6.43	5.09	5.51	5.38	5.47	5.28	5.82	6.68	6.43	6.40
24	6.39	5.44	6.29	4.93	5.74	5.28	5.50	5.34	5.80	6.30	6.30	6.36
25	6.43	5.31	5.81	4.88	5.64	5.29	5.40	5.39	5.78	6.04	6.19	6.21
26	6.42	5.38	5.75	5.18	5.66	5.24	5.36	5.35	5.82	5.96	6.09	6.11
27	6.67	5.40	5.66	5.09	5.50	5.41	5.26	5.46	5.89	6.02	5.96	5.96
28	6.91	5.37	5.52	5.05	5.41	5.39	5.17	5.66	5.80	5.96	6.05	5.86
29	6.95	5.49	5.44	4.96	---	5.36	5.35	5.65	5.71	5.87	6.02	5.99
30	6.80	5.72	5.36	5.00	---	5.37	5.31	5.73	5.60	5.88	5.93	6.38
31	6.74	---	5.28	5.09	---	5.33	---	5.73	---	5.81	5.90	---
MEAN	6.87	5.85	5.54	5.13	5.22	5.46	5.41	5.29	5.64	5.59	6.23	6.12
MAX	9.42	6.66	6.43	5.39	5.74	5.75	5.72	5.73	5.89	6.68	7.00	6.88
IN	5.73	5.31	5.21	4.88	4.92	5.10	5.17	5.02	5.43	5.15	5.67	5.85

WTR YR 1990 MEAN 5.70 MAX 9.42 MIN 4.88

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250500 GOAT CREEK NEAR VALKARIA, FL

LOCATION.--Lat 27°58'01", long 80°33'57", in NW¼ sec.18, T.29 S., R.38 E., Brevard County, Hydrologic Unit 03080202, at left bank on upstream side of bridge on Henderson Road, 0.1 mi north of Valkaria Road, 1.3 mi west of Valkaria, and 2.2 mi upstream from mouth.

DRAINAGE AREA.--11.9 mi².

PERIOD OF RECORD.--April 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--

April to September 1989: Maximum discharge, 13 ft³/s, Aug. 9, gage height, 7.51 ft; minimum, 0.51 ft³/s, Aug. 8; minimum gage height, 6.70 ft, part of each day June 25-28.

Water year 1990: Maximum discharge, 74 ft³/s, Sept. 19, gage height, 10.50 ft; minimum, 0.41 ft³/s, June 2, gage height, 6.34 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	4.3	2.6	1.7	2.0	2.5
2	---	---	---	---	---	---	---	6.1	2.6	1.7	1.4	2.4
3	---	---	---	---	---	---	---	4.1	2.5	1.6	1.3	2.3
4	---	---	---	---	---	---	---	3.3	2.3	1.6	1.3	2.3
5	---	---	---	---	---	---	---	3.0	2.2	1.5	1.2	2.5
6	---	---	---	---	---	---	---	3.0	2.3	1.4	1.2	2.3
7	---	---	---	---	---	---	---	2.9	2.9	1.5	.89	2.1
8	---	---	---	---	---	---	---	2.8	2.8	1.4	.68	2.1
9	---	---	---	---	---	---	---	2.8	2.3	1.4	3.8	1.9
10	---	---	---	---	---	---	---	2.8	2.4	1.3	5.4	1.7
11	---	---	---	---	---	---	---	2.8	2.2	1.4	3.4	1.7
12	---	---	---	---	---	---	---	2.7	2.1	1.3	2.2	1.5
13	---	---	---	---	---	---	---	2.7	2.1	1.3	2.9	1.4
14	---	---	---	---	---	---	---	3.0	2.1	1.9	3.5	1.3
15	---	---	---	---	---	---	---	4.5	2.0	2.5	2.9	1.2
16	---	---	---	---	---	---	---	3.8	1.9	1.9	2.2	1.2
17	---	---	---	---	---	---	---	3.5	1.8	2.1	1.8	1.5
18	---	---	---	---	---	---	---	3.4	1.8	4.2	1.8	1.3
19	---	---	---	---	---	---	---	3.2	1.7	3.0	1.7	1.2
20	---	---	---	---	---	---	---	3.4	1.7	4.6	2.8	1.1
21	---	---	---	---	---	---	---	3.4	1.9	3.5	6.1	1.0
22	---	---	---	---	---	---	---	3.7	1.9	3.0	5.4	1.2
23	---	---	---	---	---	---	---	3.5	1.7	2.7	4.1	2.7
24	---	---	---	---	---	---	---	3.4	1.9	2.6	3.7	3.2
25	---	---	---	---	---	---	---	3.2	1.5	2.5	3.8	2.2
26	---	---	---	---	---	---	---	3.3	1.4	2.5	3.4	1.8
27	---	---	---	---	---	---	---	3.5	1.3	2.6	3.2	1.5
28	---	---	---	---	---	---	2.6	3.4	1.3	2.7	2.9	1.4
29	---	---	---	---	---	---	2.5	3.1	1.6	2.8	2.9	1.4
30	---	---	---	---	---	---	2.6	3.1	1.6	2.8	2.9	1.4
31	---	---	---	---	---	---	2.9	2.9	1.9	2.7	2.9	1.4
							---	2.7	---	2.3	2.8	---
TOTAL	---	---	---	---	---	---	---	104.2	60.7	69.2	85.57	53.3
MEAN	---	---	---	---	---	---	---	3.36	2.02	2.23	2.76	1.78
MAX	---	---	---	---	---	---	---	6.1	2.9	4.6	6.1	3.2
MIN	---	---	---	---	---	---	---	2.7	1.3	1.3	.68	1.0
CFSM	---	---	---	---	---	---	---	.28	.17	.19	.23	.15
IN.	---	---	---	---	---	---	---	.32	.19	.21	.27	.17

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250500 GOAT CREEK NEAR VALKARIA, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	7.0	3.2	4.6	2.9	3.9	2.6	1.0	.69	7.3	e5.7	9.1
2	1.2	6.5	3.1	4.3	2.8	3.9	2.3	1.0	.65	17	e5.5	8.5
3	1.2	6.1	3.0	4.1	2.7	4.1	2.7	1.0	.68	15	e10	8.2
4	1.2	5.7	2.8	4.0	2.6	3.6	2.5	.93	1.2	8.2	e30	7.7
5	1.2	5.3	2.7	4.0	2.5	3.3	2.1	.93	1.1	5.9	e20	8.4
6	1.1	4.9	2.7	3.9	2.3	3.1	1.9	.96	.88	4.8	e13	9.1
7	.93	4.7	2.7	3.8	2.3	3.0	1.9	.88	.97	4.3	e7.1	8.5
8	1.3	4.4	3.0	3.8	2.3	2.9	1.8	.79	1.0	4.1	7.4	7.8
9	2.7	4.3	4.5	3.7	2.3	2.7	1.8	.82	1.0	3.9	15	7.3
10	19	3.9	4.1	3.4	2.3	2.6	1.7	.93	1.2	4.0	31	6.9
11	20	3.6	3.9	3.3	3.4	2.5	1.6	.88	1.1	4.1	23	6.6
12	17	3.4	3.7	3.2	3.3	2.4	1.5	.80	1.2	4.1	23	6.4
13	15	3.3	3.6	3.1	2.9	2.4	1.5	.80	1.3	4.2	18	6.2
14	12	3.3	3.4	2.9	2.8	2.3	1.4	.83	1.3	4.7	34	5.9
15	10	3.3	3.3	2.9	2.7	2.3	1.4	.87	1.2	5.2	43	5.7
16	8.9	4.0	3.3	3.0	2.6	2.2	1.7	.83	1.4	5.4	27	6.0
17	7.9	4.0	3.3	3.0	2.6	2.3	1.6	.79	1.6	4.9	25	6.0
18	7.2	3.7	3.3	2.9	2.5	2.4	1.4	.74	1.9	4.8	34	10
19	7.3	3.6	3.3	2.9	2.5	2.3	1.8	.76	2.1	4.7	48	55
20	7.6	3.5	3.5	2.9	2.5	2.3	1.7	.75	1.9	4.8	30	29
21	6.5	3.4	4.2	2.8	3.0	2.3	1.4	.74	1.9	6.1	23	21
22	6.0	3.6	4.3	2.8	2.8	2.1	1.3	.84	2.1	9.5	19	17
23	5.6	3.7	12	2.7	6.9	2.1	1.3	.75	3.3	14	16	14
24	5.4	3.8	9.3	2.7	10	2.1	1.3	.78	3.2	12	14	12
25	7.2	3.7	7.7	2.7	7.1	2.1	1.2	.78	2.9	9.4	14	11
26	7.5	3.7	6.9	2.8	5.7	2.1	1.1	.65	4.5	7.9	12	9.6
27	8.7	3.7	6.1	2.6	4.8	2.0	1.1	1.1	5.8	7.0	11	8.9
28	9.3	3.7	5.6	2.6	4.4	2.0	1.1	1.2	4.4	6.6	12	8.5
29	9.1	3.6	5.3	3.4	---	2.3	1.1	1.0	4.0	6.5	12	9.6
30	8.5	3.4	5.1	3.1	---	2.9	1.1	.73	3.8	e6.3	11	20
31	7.7	---	4.8	3.0	---	2.7	---	.69	---	e6.0	9.8	---
TOTAL	225.63	124.8	137.7	100.9	97.5	81.2	48.9	26.55	60.27	212.7	603.5	349.9
MEAN	7.28	4.16	4.44	3.25	3.48	2.62	1.63	.86	2.01	6.86	19.5	11.7
MAX	20	7.0	12	4.6	10	4.1	2.7	1.2	5.8	17	48	55
MIN	.93	3.3	2.7	2.6	2.3	2.0	1.1	.65	.65	3.9	5.5	5.7
CFSM	.61	.35	.37	.27	.29	.22	.14	.07	.17	.57	1.62	.97
IN.	.70	.39	.43	.31	.30	.25	.15	.08	.19	.66	1.87	1.08

WTR YR 1990 TOTAL 2069.55 MEAN 5.67 MAX 55 MIN .65 CFSM .47 IN. 6.42

e Estimated

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250600 KID CREEK AT VALKARIA, FL

LOCATION.--Lat 27°57'35", long 80°32'33", in SE¼ sec, 17, T.29 S., R.38 E., Brevard County, Hydrologic Unit 03080202, on center of upstream culvert headwall at Old Dixie Highway, 0.1 mi west of U.S. Highway 1, 0.3 mi south of Valkaria, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--1.69 mi².

PERIOD OF RECORD.--April 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

EXTREMES FOR CURRENT PERIOD.--

April to September 1989: Maximum discharge, 1.7 ft³/s, May 1, gage height, 1.89 ft; minimum, 0.10 ft³/s, Sept. 22, gage height, 1.27 ft.

Water year 1990: Maximum discharge, 1.6 ft³/s, Sept. 18, gage height, 1.87 ft; maximum gage height, 2.12 ft, Oct. 29; minimum discharge, 0.05 ft³/s, part of each day June 12-22; minimum gage height, 1.19 ft, June 15, 16, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.56	.24	.20	.16	.15
2	---	---	---	---	---	---	---	.77	.23	.18	.16	.15
3	---	---	---	---	---	---	---	.48	.23	.16	.16	.14
4	---	---	---	---	---	---	---	.41	.22	.15	.16	.14
5	---	---	---	---	---	---	---	.38	.20	.15	.15	.15
6	---	---	---	---	---	---	---	.37	.19	.15	.15	.14
7	---	---	---	---	---	---	---	.35	.30	.15	.14	.16
8	---	---	---	---	---	---	---	.31	.31	.14	.14	.15
9	---	---	---	---	---	---	---	.31	.38	.14	.30	.15
10	---	---	---	---	---	---	---	.31	.40	.13	.27	.15
11	---	---	---	---	---	---	---	.30	.23	.12	.24	.15
12	---	---	---	---	---	---	---	.29	.20	.13	.19	.16
13	---	---	---	---	---	---	---	.29	.19	.18	.19	.15
14	---	---	---	---	---	---	---	.34	.18	.23	.18	.15
15	---	---	---	---	---	---	---	.39	.16	.21	.17	.13
16	---	---	---	---	---	---	---	.36	.15	.17	.16	.11
17	---	---	---	---	---	---	---	.30	.15	.17	.15	.11
18	---	---	---	---	---	---	---	.28	.16	.19	.15	.13
19	---	---	---	---	---	---	---	.27	.15	.19	.17	.14
20	---	---	---	---	---	---	---	.26	.15	.21	.26	.19
21	---	---	---	---	---	---	---	.28	.19	.19	.36	.25
22	---	---	---	---	---	---	---	.30	.18	.19	.27	.20
23	---	---	---	---	---	---	---	.28	.17	.19	.23	.15
24	---	---	---	---	---	---	---	.29	.19	.18	.21	.13
25	---	---	---	---	---	---	---	.30	.18	.18	.21	.12
26	---	---	---	---	---	---	---	.31	.17	.17	.21	.12
27	---	---	---	---	---	---	.25	.30	.16	.17	.20	.11
28	---	---	---	---	---	---	.23	.29	.17	.17	.19	.11
29	---	---	---	---	---	---	.27	.29	.34	.17	.17	.11
30	---	---	---	---	---	---	.31	.26	.30	.17	.16	.14
31	---	---	---	---	---	---	---	.25	---	.17	.16	---
TOTAL	---	---	---	---	---	---	---	10.48	6.47	5.30	6.02	4.34
MEAN	---	---	---	---	---	---	---	.34	.22	.17	.19	.14
MAX	---	---	---	---	---	---	---	.77	.40	.23	.36	.25
MIN	---	---	---	---	---	---	---	.25	.15	.12	.14	.11
CFSM	---	---	---	---	---	---	---	.20	.13	.10	.11	.09
IN.	---	---	---	---	---	---	---	.23	.14	.12	.13	.10

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250600 KID CREEK NEAR VALKARIA, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.44	.15	.17	.12	.20	.16	.10	.08	.29	.14	.16
2	.22	.44	.15	.16	.11	.19	.14	.09	.08	.33	.13	.17
3	.19	.44	.15	.16	.11	.20	.16	.09	.08	.40	.25	.17
4	.10	.41	.15	.15	.11	.20	.14	.09	.15	.27	.31	.16
5	.09	.40	.15	.16	.10	.20	.14	.09	.14	.20	.21	.16
6	.09	.40	.15	.16	.10	.20	.13	.09	.09	.18	.17	.16
7	.10	.38	.15	.15	.10	.20	.13	.09	.09	.17	.16	.16
8	.11	.36	.18	.15	.10	.21	.13	.09	.09	.15	.18	.15
9	.22	.35	.21	.15	.10	.21	.13	.09	.08	.15	.25	.15
10	.45	.24	.16	.15	.10	.21	.13	.10	.07	.14	.29	.15
11	.59	.18	.15	.15	.16	.21	.13	.09	.07	.14	.30	.15
12	.61	.17	.15	.14	.12	.20	.11	.09	.07	.14	.29	.17
13	.52	.17	.15	.13	.11	.19	.11	.09	.06	.14	.25	.15
14	.47	.17	.13	.14	.10	.19	.12	.09	.06	.14	.35	.14
15	.33	.17	.13	.14	.11	.19	.12	.09	.05	.15	.30	.15
16	.26	.20	.13	.14	.11	.18	.14	.08	.05	.14	.25	.16
17	.21	.18	.13	.13	.11	.18	.12	.08	.05	.12	.36	.17
18	.18	.17	.14	.13	.11	.18	.12	.08	.06	.12	.46	.45
19	.20	.16	.14	.12	.11	.18	.14	.08	.06	.13	.40	.58
20	.26	.17	.15	.12	.11	.18	.12	.08	.06	.13	.36	.33
21	.19	.16	.16	.12	.11	.17	.11	.08	.05	.16	.34	.26
22	.16	.15	.18	.12	.12	.16	.11	.08	.08	.25	.32	.21
23	.15	.18	.41	.12	.40	.16	.11	.08	.13	.23	.28	.20
24	.16	.16	.26	.12	.33	.16	.11	.09	.11	.17	.28	.22
25	.30	.16	.21	.12	.23	.16	.10	.08	.10	.16	.28	.16
26	.25	.17	.20	.12	.20	.16	.10	.08	.10	.15	.24	.16
27	.30	.17	.19	.11	.19	.16	.09	.12	.12	.14	.25	.15
28	.40	.17	.18	.12	.20	.15	.10	.12	.09	.15	.23	.16
29	.65	.16	.18	.15	---	.16	.10	.09	.08	.15	.19	.24
30	.46	.16	.18	.13	---	.17	.10	.09	.08	.14	.19	.32
31	.45	---	.17	.12	---	.18	---	.08	---	.14	.18	---
TOTAL	8.85	7.24	5.32	4.25	3.98	5.69	3.65	2.76	2.48	5.47	8.19	6.12
MEAN	.29	.24	.17	.14	.14	.18	.12	.089	.083	.18	.26	.20
MAX	.65	.44	.41	.17	.40	.21	.16	.12	.15	.40	.46	.58
MIN	.09	.15	.13	.11	.10	.15	.09	.08	.05	.12	.13	.14
CFSM	.17	.14	.10	.08	.08	.11	.07	.05	.05	.10	.16	.12
IN.	.19	.16	.12	.09	.09	.13	.08	.06	.05	.12	.18	.13
WTR YR 1990	TOTAL 64.00	MEAN .18	MAX .65	MIN .05	CFSM .10	IN. 1.41						

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250700 TROUT CREEK AT GRANT, FL

LOCATION.--Lat 27°56'13", long 80°32'07" in NW¼ sec.28, T.29 S., R.38 E., Brevard County, Hydrologic Unit 03080202, on left bank 3 ft downstream from golf cart bridge at the Summit View Golf Club, 0.2 mi west of Old Dixie Highway, 0.4 mi upstream from mouth, and 0.7 mi northwest of Grant.

DRAINAGE AREA.--4.4 mi².

PERIOD OF RECORD.--April 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

EXTREMES FOR CURRENT PERIOD.--

April to September 1989: Maximum discharge, 4.7 ft³/s, Sept. 21, gage height, 1.52 ft; minimum, 0.76 ft³/s, June 22, gage height, 0.34 ft.

Water year 1990: Maximum discharge, 19 ft³/s, Sept. 19, gage height, 2.46 ft; minimum, 0.10 ft³/s, May 21,22, gage height, 0.33 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD APRIL TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	2.1	1.4	2.0	1.5	1.2
2	---	---	---	---	---	---	---	3.4	1.5	2.1	1.5	1.3
3	---	---	---	---	---	---	---	2.8	1.5	2.2	1.5	1.2
4	---	---	---	---	---	---	---	2.2	1.4	2.2	1.7	1.3
5	---	---	---	---	---	---	---	1.8	1.3	2.0	1.7	1.4
6	---	---	---	---	---	---	---	1.7	1.6	1.5	1.6	1.4
7	---	---	---	---	---	---	---	2.1	1.6	1.7	1.5	1.4
8	---	---	---	---	---	---	---	2.4	1.9	1.4	1.5	1.5
9	---	---	---	---	---	---	---	2.2	2.1	1.2	1.7	1.4
10	---	---	---	---	---	---	---	1.9	1.8	1.4	1.3	1.5
11	---	---	---	---	---	---	---	1.9	1.3	1.2	1.4	1.6
12	---	---	---	---	---	---	---	1.8	1.4	1.3	1.4	1.8
13	---	---	---	---	---	---	---	1.8	1.4	1.5	1.5	1.8
14	---	---	---	---	---	---	---	1.6	1.1	1.6	1.4	1.6
15	---	---	---	---	---	---	---	1.7	1.3	1.5	1.4	1.5
16	---	---	---	---	---	---	---	1.8	1.2	1.4	1.3	1.6
17	---	---	---	---	---	---	---	1.8	1.0	1.1	1.3	1.9
18	---	---	---	---	---	---	---	1.8	1.1	1.7	1.2	2.8
19	---	---	---	---	---	---	---	1.6	1.1	2.0	1.3	3.2
20	---	---	---	---	---	---	---	1.6	1.1	1.6	1.4	3.3
21	---	---	---	---	---	---	---	1.7	1.0	2.1	2.3	4.0
22	---	---	---	---	---	---	---	1.8	.87	2.0	1.8	1.7
23	---	---	---	---	---	---	---	1.7	1.3	1.7	1.5	1.9
24	---	---	---	---	---	---	---	1.7	1.6	1.8	1.5	2.3
25	---	---	---	---	---	---	---	1.7	1.1	1.9	1.5	1.8
26	---	---	---	---	---	---	1.7	1.6	1.0	1.9	1.5	1.7
27	---	---	---	---	---	---	1.7	1.6	1.3	1.8	1.4	2.5
28	---	---	---	---	---	---	1.8	1.5	1.2	1.7	1.3	2.4
29	---	---	---	---	---	---	1.7	1.5	1.8	1.6	1.4	2.3
30	---	---	---	---	---	---	1.8	1.5	2.2	1.6	1.5	2.2
31	---	---	---	---	---	---	---	1.5	---	1.6	1.4	---
TOTAL	---	---	---	---	---	---	---	57.8	41.47	52.3	46.2	57.5
MEAN	---	---	---	---	---	---	---	1.86	1.38	1.69	1.49	1.92
MAX	---	---	---	---	---	---	---	3.4	2.2	2.2	2.3	4.0
MIN	---	---	---	---	---	---	---	1.5	.87	1.1	1.2	1.2
CFSM	---	---	---	---	---	---	---	.42	.31	.38	.34	.44
IN.	---	---	---	---	---	---	---	.49	.35	.44	.39	.49

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02250700 TROUT CREEK AT GRANT, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	4.7	1.9	2.6	2.3	3.2	2.5	1.5	1.5	5.0	2.4	3.6
2	1.8	3.9	1.6	2.5	2.3	2.9	2.4	1.4	1.4	5.8	2.3	3.7
3	2.2	4.2	1.8	3.3	2.1	2.9	2.6	.97	1.5	7.9	2.7	3.7
4	2.0	4.2	1.8	2.9	2.2	2.9	3.4	1.1	1.6	7.9	5.1	3.7
5	1.5	3.7	1.5	2.4	2.1	2.8	2.4	.88	.79	7.0	4.4	4.0
6	1.5	2.8	1.5	2.4	1.5	2.9	1.5	.85	.84	6.7	3.4	4.1
7	1.4	2.2	1.5	2.3	1.4	3.1	2.1	1.8	.95	6.9	2.9	4.0
8	1.4	1.9	1.7	2.3	1.3	3.1	2.7	1.0	.87	6.9	3.3	3.5
9	2.0	1.7	1.9	2.9	2.0	2.9	1.7	1.2	.63	6.7	4.5	3.2
10	4.6	2.3	2.2	3.4	2.4	3.1	1.6	.91	.60	6.5	11	3.1
11	7.2	2.0	2.0	3.4	3.2	3.1	1.7	.98	.64	6.5	10	3.4
12	8.7	1.7	1.9	2.9	3.5	2.8	2.8	.65	.80	6.6	8.3	3.6
13	6.8	1.6	2.1	3.0	2.7	2.6	2.4	.62	1.2	6.7	6.2	3.4
14	5.8	1.5	2.4	3.3	2.3	2.4	2.1	.61	1.3	6.8	7.1	3.5
15	4.5	1.5	2.0	3.3	1.8	2.1	1.6	.71	.96	6.9	13	3.4
16	4.0	1.6	1.8	3.3	2.2	1.9	1.6	.53	1.0	6.9	8.6	3.6
17	3.3	2.2	1.8	3.3	1.9	1.8	1.6	.28	1.1	6.9	6.9	3.8
18	2.6	1.9	1.9	3.2	1.5	2.2	1.3	.47	1.8	6.8	10	5.5
19	2.7	1.6	1.8	3.2	1.3	2.3	1.3	.58	1.4	6.7	15	16
20	3.7	1.6	2.3	3.1	1.6	2.3	2.1	.21	1.5	6.7	14	16
21	2.4	1.5	2.7	3.0	1.7	2.6	2.0	.15	1.5	7.0	11	12
22	1.8	1.5	2.9	3.0	2.2	1.8	1.7	.14	1.8	8.0	8.0	8.1
23	1.6	1.5	5.7	2.9	4.1	1.9	1.8	.26	1.6	7.4	6.2	6.8
24	1.7	1.5	5.3	2.9	6.7	1.8	2.3	.34	1.6	4.6	5.7	6.2
25	3.1	1.4	3.7	2.9	5.1	1.7	2.0	.66	1.5	3.4	7.3	5.0
26	3.7	1.5	3.3	2.9	4.1	1.7	1.7	.59	2.2	2.9	6.3	4.5
27	5.0	1.5	3.0	2.7	3.9	2.0	1.5	.77	4.4	3.4	5.3	4.0
28	8.5	1.5	2.9	2.7	3.5	2.1	1.4	1.2	4.1	3.2	5.0	3.5
29	9.1	1.6	2.9	2.9	---	1.8	1.4	1.2	4.3	2.8	4.8	4.1
30	5.3	2.3	3.4	2.1	---	1.7	1.3	1.6	4.6	2.8	4.3	9.4
31	4.9	---	2.9	2.2	---	1.6	---	1.7	---	2.6	3.9	---
TOTAL	116.9	64.6	76.1	89.2	72.9	74.0	58.5	25.86	49.98	182.9	208.9	162.4
MEAN	3.77	2.15	2.45	2.88	2.60	2.39	1.95	.83	1.67	5.90	6.74	5.41
MAX	9.1	4.7	5.7	3.4	6.7	3.2	3.4	1.8	4.6	8.0	15	16
MIN	1.4	1.4	1.5	2.1	1.3	1.6	1.3	.14	.60	2.6	2.3	3.1
CFSM	.86	.49	.56	.65	.59	.54	.44	.19	.38	1.34	1.53	1.23
IN.	.99	.55	.64	.75	.62	.63	.49	.22	.42	1.55	1.77	1.37

WTR YR 1990 TOTAL 1182.24 MEAN 3.24 MAX 16 MIN .14 CFSM .74 IN. 10.00

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER.

02251210 SOUTH PRONG SEBASTIAN CREEK AT ROSELAND, FL

LOCATION.--Lat 27°49'56", long 80°30'01", in Fleming Land Grant, T.30 S., R.38 E., Indian River County, Hydrologic Unit 03080203, on right bank 1.7 mi upstream from U.S. Highway 1, and 0.3 mi west of Roseland.

DRAINAGE AREA.--63.7 mi²

PERIOD OF RECORD.--July 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929.
Auxiliary water-stage recorder at site 1.1 mi upstream.

REMARKS.--Records poor. Stage and discharge affected by tides in the Indian River. Discharge computed by one-dimensional streamflow model and daily figures represent net of larger upstream and downstream discharges.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 772 ft³/s, Oct. 13, 1987; maximum gage height, 12.37 ft, Oct. 13, 1987; maximum daily reverse flow recorded, 230 ft³/s, May 29, 1990; minimum gage height, 9.18 ft, June 16, 1989.

EXTREMES FOR CURRENT PERIOD.--

July to September 1987: Maximum daily discharge recorded, 319 ft³/s, Sept. 5; maximum gage height recorded, 10.95 ft, Mar. 5; minimum daily discharge recorded, 139 ft³/s, July 19; minimum gage height recorded, 9.62 ft, July 12.

Water year 1988: Maximum daily discharge, 772 ft³/s, Oct. 13; maximum gage height, 12.37 ft, Oct. 13; maximum daily reverse flow recorded, 29 ft³/s, Sept. 5; minimum gage height, 9.47 ft, Apr. 3.

Water year 1989: Maximum daily discharge, 568 ft³/s, Oct. 6; maximum gage height, 12.20 ft, Mar. 10; maximum daily reverse flow, 96 ft³/s, Nov. 5; minimum gage height, 9.18 ft, June 16.

Water year 1990: Maximum daily discharge, 450 ft³/s, Oct. 11; maximum gage height, 12.24 ft, Oct. 28; maximum daily reverse flow, 230 ft³/s, May 29; minimum gage height, 9.24 ft, Feb. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD JULY TO SEPTEMBER 1987
MEAN VALUES

[illegible]

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02251210 SOUTH PRONG SEBASTIAN CREEK AT ROSELAND, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	324	515	306	---	---	---	---	---	237	222	101	88
2	310	620	329	---	---	---	---	377	215	330	91	96
3	242	580	275	---	---	---	---	---	161	337	103	60
4	411	566	147	331	---	---	---	189	164	366	126	23
5	374	487	271	406	---	---	---	86	244	460	119	-29
6	300	568	289	375	394	385	---	196	187	485	82	-28
7	280	577	---	---	475	365	---	297	201	476	133	5.0
8	392	396	---	---	318	---	---	288	38	335	184	85
9	392	340	269	---	366	---	---	222	24	201	126	103
10	456	275	256	345	365	---	---	212	89	168	207	132
11	395	306	224	378	---	323	---	203	293	209	250	157
12	647	372	---	353	---	---	---	202	324	174	183	185
13	772	349	---	---	---	---	---	224	323	136	161	155
14	634	303	---	---	---	---	213	263	265	223	102	89
15	490	341	---	342	---	330	207	304	266	229	127	22
16	467	289	---	---	---	287	194	273	232	180	106	102
17	402	246	---	---	---	---	215	178	205	155	142	70
18	437	333	---	---	---	---	---	173	200	115	187	83
19	404	299	---	---	---	---	---	221	205	93	124	96
20	391	420	---	---	---	---	215	211	197	53	36	119
21	388	452	---	---	335	---	---	228	215	57	56	122
22	463	409	---	294	---	---	---	106	224	98	59	106
23	451	333	---	317	---	---	---	143	238	113	79	99
24	362	325	---	323	---	---	---	97	228	175	81	107
25	339	330	---	---	---	---	---	88	230	263	9.1	127
26	373	321	---	---	---	---	---	151	210	231	137	146
27	330	335	---	---	---	---	---	249	177	212	240	235
28	353	336	---	---	---	---	---	288	193	192	144	227
29	443	322	---	---	---	---	226	270	255	166	129	214
30	397	308	---	---	---	---	---	255	203	197	124	190
31	449	---	---	---	---	---	---	264	---	136	72	---
TOTAL	12868	11653	---	---	---	---	---	---	6243	6787	3820.1	3186.0
MEAN	415	388	---	---	---	---	---	---	208	219	123	106
MAX	772	620	---	---	---	---	---	---	324	485	250	235
MIN	242	246	---	---	---	---	---	---	24	53	9.1	-29

NOTE.--Negative figures indicate reverse flow.

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02251210 SOUTH PRONG SEBASTIAN CREEK AT ROSELAND, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	299	245	132	154	159	24	61	151	90	82	---
2	211	327	273	180	140	89	225	130	125	116	37	---
3	38	242	213	113	130	154	118	168	97	86	45	---
4	240	123	156	217	99	205	117	156	60	81	224	---
5	351	-96	179	203	125	143	-.06	114	51	80	224	---
6	568	196	171	99	86	27	203	57	-25	106	164	174
7	464	219	143	188	45	-32	10	150	5.6	109	67	111
8	441	194	162	174	7.4	61	81	248	-18	106	87	151
9	273	222	141	165	190	94	126	159	39	104	21	83
10	294	170	176	187	264	231	52	-16	74	83	169	45
11	237	166	98	241	208	520	247	182	95	47	175	99
12	216	176	220	171	128	227	286	224	81	54	199	79
13	308	160	321	185	201	137	239	197	27	52	184	95
14	433	219	225	175	165	216	208	111	39	86	98	79
15	372	173	206	141	105	138	29	149	34	161	105	84
16	288	147	160	169	113	139	211	195	-24	55	164	113
17	348	166	217	211	133	135	235	160	6.1	62	176	121
18	270	194	195	223	-31	111	226	224	60	121	177	181
19	235	132	207	208	84	33	178	155	92	101	199	235
20	259	144	178	150	132	169	128	153	73	42	---	237
21	166	170	164	398	54	83	202	76	90	82	---	239
22	277	209	183	191	-23	13	233	43	121	83	---	109
23	292	-37	136	193	44	-34	190	116	93	115	---	83
24	256	254	142	299	203	-51	138	75	97	142	---	180
25	296	266	167	228	199	125	139	134	145	115	---	71
26	263	154	191	108	161	239	180	171	151	98	---	142
27	244	82	177	143	107	170	118	141	131	73	---	257
28	231	107	57	172	74	207	142	124	52	83	---	219
29	258	266	192	173	---	227	91	170	9.7	54	---	211
30	249	192	202	104	---	68	87	194	77	82	---	191
31	258	---	181	170	---	37	---	183	---	89	---	---
TOTAL	8882	5236	5678	5711	3297.4	4040	4462.94	4404	2009.4	2758	---	---
MEAN	287	175	183	184	118	130	149	142	67.0	89.0	---	---
MAX	568	327	321	398	264	520	286	248	151	161	---	---
MIN	38	-96	57	99	-31	-51	-.06	-16	-25	42	---	---

NOTE.--Negative figures indicate reverse flow.

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02251210 SOUTH PRONG SEBASTIAN CREEK AT ROSELAND, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	167	217	128	149	-13	-5.0	-10	-59	128	161	101
2	116	101	131	214	109	-117	-112	10	-50	146	186	149
3	265	182	57	130	117	-185	-124	27	-109	205	187	90
4	272	193	153	99	-29	-59	-117	27	-118	227	208	128
5	184	189	125	66	222	-95	12	-51	-161	222	204	72
6	162	111	149	35	232	-95	-5.7	-137	-166	217	214	5.8
7	139	81	136	41	80	-26	85	67	-136	231	191	-1.4
8	58	55	54	-20	129	34	199	57	-94	220	190	61
9	195	-48	-26	130	72	-115	159	43	-90	223	158	119
10	195	158	99	155	-83	-188	80	-130	-69	219	289	55
11	450	144	124	119	-153	-94	-97	60	-137	206	321	115
12	338	119	91	15	-134	-120	123	79	-1.5	181	222	109
13	188	143	-38	192	-121	-140	209	38	43	163	182	45
14	162	80	135	204	-49	-58	44	-1.7	-60	129	183	88
15	157	90	179	156	34	-14	-94	68	-121	203	265	38
16	143	-30	90	194	21	-25	22	35	-136	241	239	9.6
17	99	178	177	163	37	-105	-8.8	1.2	-166	205	157	92
18	79	232	174	153	49	119	30	-51	-173	200	122	177
19	68	195	74	142	-37	21	132	29	-169	205	180	252
20	181	195	113	132	71	92	187	-42	-177	162	96	160
21	144	81	157	46	87	139	41	-137	-148	179	95	22
22	132	96	122	139	-52	92	-55	-146	-97	139	81	-35
23	162	87	111	180	-1.9	93	-48	-36	-212	202	-49	-41
24	99	162	282	102	-49	66	-3.8	-20	-169	193	101	51
25	161	136	138	33	91	61	-5.0	-3.3	-94	199	206	-94
26	190	72	119	184	185	33	-24	-2.9	162	240	166	-55
27	264	94	132	228	119	36	-24	-43	197	262	114	---
28	362	96	116	187	27	-52	-47	-82	224	214	85	---
29	211	82	103	66	---	-71	-34	-230	177	167	129	---
30	75	133	106	140	---	-27	-11	-53	182	177	61	---
31	161	---	40	117	---	-91	---	.48	---	162	106	---
TOTAL	5503	3574	3640	3870	1150.81	-904	507.7	-634.22	-1927.5	6067	5050	---
MEAN	178	119	117	125	41.1	-29.2	16.9	-20.5	-64.2	196	163	---
MAX	450	232	282	228	232	139	209	79	224	262	321	---
MIN	58	-48	-38	-20	-153	-188	-124	-230	-212	128	-49	---

NOTE.--Negative figures indicate reverse flow.

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02251500 NORTH PRONG SEBASTIAN CREEK NEAR MICCO, FL

LOCATION.--Lat 27°51'21", long 80°31'28", in Fleming Land Grant, T.30 S., R.38 E., Brevard County, Hydrologic Unit 03080203, on right bank 15 ft downstream from bridge on Wildon Road, 1.9 mi upstream from mouth, and 2.2 mi southwest of Micco.

DRAINAGE AREA.--56.0 mi².

PERIOD OF RECORD.--October 1954 to October 1958 (discharge measurements only), January 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft³/s, Mar. 14, 1988, gage height, 8.38 ft, revised; minimum discharge, 6.2 ft³/s, June 20,21, 1989; minimum gage height, 3.12 ft, May 26,27, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 173 ft³/s, Sept. 20, gage height, 7.22 ft; minimum, 6.4 ft³/s, May 20,21,26,27, minimum gage height, 3.12 ft, May 26,27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	28	13	20	15	24	17	8.8	7.3	19	22	37
2	13	26	13	19	14	23	18	8.1	7.0	18	20	34
3	12	24	12	19	14	24	18	7.7	6.8	20	20	31
4	12	22	9.9	19	14	22	20	7.7	8.0	20	33	30
5	11	21	12	19	13	20	19	7.5	11	19	32	28
6	11	20	16	19	12	19	17	8.5	8.2	18	32	27
7	11	19	17	18	12	18	15	8.1	7.5	16	29	25
8	11	18	16	18	12	17	14	7.3	7.2	15	36	23
9	12	18	16	17	12	16	14	6.7	7.1	13	44	22
10	24	17	16	17	12	16	14	6.9	7.2	13	43	21
11	38	16	18	16	15	15	13	6.8	7.5	12	67	20
12	52	16	15	16	16	15	13	6.8	7.2	11	69	20
13	58	15	13	16	15	15	12	6.9	6.8	11	62	19
14	52	15	12	15	14	14	11	6.6	6.9	11	61	19
15	44	14	12	15	13	14	11	6.8	6.9	12	65	19
16	36	15	16	16	13	14	11	6.8	6.7	13	56	18
17	30	16	13	15	12	14	10	7.0	6.7	13	51	18
18	30	17	15	15	12	14	9.9	6.7	6.6	13	62	22
19	36	15	14	15	12	13	9.7	6.5	6.8	14	64	127
20	34	14	13	16	12	12	9.6	6.5	7.0	14	58	161
21	30	14	13	16	13	12	9.5	6.5	7.1	14	53	122
22	27	14	14	15	14	12	9.3	6.7	11	22	52	92
23	25	15	27	15	27	12	9.1	6.5	36	52	48	67
24	23	15	38	15	44	12	9.0	6.5	21	60	45	55
25	22	15	38	14	39	11	8.9	6.5	19	54	49	48
26	24	14	35	14	33	11	8.6	6.5	23	45	53	43
27	27	15	34	14	30	12	8.5	6.6	41	37	52	39
28	31	14	32	13	26	12	9.2	7.4	31	32	49	37
29	34	14	34	20	---	13	8.4	7.6	23	28	47	47
30	33	14	25	17	---	13	8.4	7.4	21	26	43	140
31	30	---	21	15	---	14	---	7.4	---	24	40	---
TOTAL	846	510	592.9	508	490	473	365.1	220.3	379.5	689	1457	1411
MEAN	27.3	17.0	19.1	16.4	17.5	15.3	12.2	7.11	12.6	22.2	47.0	47.0
MAX	58	28	38	20	44	24	20	8.8	41	60	69	161
MIN	11	14	9.9	13	12	11	8.4	6.5	6.6	11	20	18
CFSM	.49	.30	.34	.29	.31	.27	.22	.13	.23	.40	.84	.84
IN.	.56	.34	.39	.34	.33	.31	.24	.15	.25	.46	.97	.94

CAL YR 1989 TOTAL 6333.5 MEAN 17.4 MAX 82 MIN 6.3 CFSM .31 IN. 4.21
WTR YR 1990 TOTAL 7941.8 MEAN 21.8 MAX 161 MIN 6.5 CFSM .39 IN. 5.28

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02251800 INDIAN RIVER AT WABASSO, FL

LOCATION.--Lat 27°45'15", long 80°25'40;; in SW¼ sec.27, T.31 S., R.39 E., Indian River County, Hydrologic Unit 03080203, on north side near the southwest end of bridge on State Highway 510 at Wabasso.

PERIOD OF RECORD.--November 1940 to current year (gage heights only). Records of gage heights prior to October 1962 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to June 26, 1970, at site 0.9 mi northeast at same datum.

REMARKS.--Stage affected by tide. The stage record published is the maximum and minimum tide event for each calendar day.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 4.76 ft, Sept. 22, 1948; minimum, -1.36 ft, Jan. 20, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 2.50 ft, Oct. 28; minimum recorded, -0.37 ft, Jan. 30.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.02	1.63	.93	.46	.40	.59	.00	.40	.85	.41	.71	.71
2	1.07	1.35	.73	.63	-.03	.58	.80	.48	.81	.63	.66	1.08
3	1.29	1.70	1.06	.24	-.02	.44	.93	.28	.68	.66	.90	1.10
4	1.19	1.58	1.05	.27	-.07	.70	1.15	.17	.77	.63	.99	1.06
5	.94	1.40	.54	.21	.76	.84	.84	.25	.65	.66	.90	1.06
6	.91	1.17	.39	.10	.50	.87	.41	.64	.73	.62	.83	1.19
7	.72	1.05	.40	.25	.30	.99	.69	.87	.72	.48	.84	1.25
8	.87	1.09	.33	.19	.47	.87	.88	.45	.54	.28	.75	1.14
9	1.35	.94	.68	.42	.30	.83	.43	.03	.53	.37	.87	1.03
10	1.80	1.22	1.13	.38	.08	.91	.23	-.01	.42	.43	1.03	1.00
11	1.76	1.19	.90	.39	.58	.87	.22	.48	.48	.39	1.04	1.09
12	1.83	1.00	.70	.32	1.03	.64	.85	.62	.68	.30	1.05	1.09
13	1.68	.88	.84	.94	.77	.53	1.13	.16	.79	.40	.87	1.08
14	1.70	.80	1.05	.55	.15	.51	.65	.23	.82	.17	.85	1.08
15	1.65	.89	.72	.40	---	.31	.43	.32	.74	.22	.67	1.02
16	1.53	.88	.51	.28	---	---	.36	.25	.59	.34	.67	1.14
17	1.35	1.33	.68	.25	---	---	.41	.09	.80	.20	.79	1.31
18	1.12	.98	.76	.21	---	.56	.28	.27	1.13	.20	.97	1.76
19	1.14	.69	.56	.22	---	.67	.39	.34	.94	.43	1.06	1.56
20	1.51	.68	.99	.14	.41	.64	.61	.13	.80	.13	.88	1.56
21	1.14	.60	.92	---	.57	.95	.61	.31	.80	.14	.87	1.45
22	.91	.45	.85	---	.07	.61	.63	.48	.75	.18	.92	1.25
23	.89	.54	1.50	.21	.79	.57	.83	.74	.90	.33	.96	1.31
24	1.08	.75	1.48	---	.81	.51	.71	.57	.94	.41	1.03	1.55
25	1.42	.32	.86	---	1.01	.50	.43	.68	.88	.45	.79	1.21
26	1.43	.55	.69	.54	.85	.46	.48	.62	.77	.70	.74	1.22
27	1.64	.58	.55	.37	.83	.74	.42	.58	.94	1.19	.75	.98
28	2.50	.50	.37	.26	.58	1.07	.13	.76	.86	1.40	.77	.82
29	2.12	.95	.42	.31	---	.62	.43	.84	.70	1.01	.72	1.04
30	1.71	1.12	.37	.15	---	.61	.33	.93	.56	.92	.69	1.17
31	1.62	---	.21	.24	---	.29	---	.88	---	.81	.69	---
MEAN	1.38	.96	.75	---	---	---	.56	.45	.75	.50	.85	1.18
MAX	2.50	1.70	1.50	---	---	---	1.15	.93	1.13	1.40	1.06	1.76
MIN	.72	.32	.21	---	---	---	.00	-.01	.42	.13	.66	.71

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02251800 INDIAN RIVER AT WABASSO, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	1.01	.42	---	-.33	.16	.26	.01	.33	.06	.30	.24
2	.58	.80	.14	.09	-.31	.16	.18	.10	.31	-.04	.27	.36
3	.73	.99	.24	.00	-.34	.15	.41	-.23	.23	.08	.27	.55
4	.69	1.05	.26	---	-.31	.34	.74	-.29	.19	.06	.48	.60
5	.52	.88	.11	---	-.31	.34	.36	-.30	.18	.27	.44	.53
6	.44	.73	.10	---	-.01	.31	-.16	-.14	.27	.20	.38	.59
7	.33	.68	-.04	---	-.04	.49	-.16	.41	.20	-.11	.27	.64
8	.25	.58	-.06	---	-.01	.37	.45	-.17	.00	-.17	.21	.48
9	.54	.33	-.01	-.04	-.01	.37	-.04	-.32	-.09	-.07	.40	.36
10	.77	.62	.30	.00	.00	.46	-.28	-.32	-.13	-.02	.51	.36
11	1.21	.69	.31	-.01	.01	.45	-.10	.06	.15	-.13	.52	.50
12	1.18	.41	.00	-.05	.42	.21	.56	-.22	.28	-.14	.47	.51
13	1.22	.27	.00	.10	.01	.07	.25	-.32	.37	-.11	.37	.46
14	1.12	.20	.37	.07	---	.10	.02	-.15	.35	-.32	.31	.60
15	1.04	.20	.11	.09	---	---	-.11	-.20	.17	-.25	.27	.56
16	.96	.12	.09	.08	---	---	.01	-.31	.25	-.08	.28	.56
17	.64	.72	.19	.00	---	---	-.12	-.18	.17	-.22	.20	.63
18	.40	.45	.00	.08	---	.26	-.01	-.32	.46	-.28	.34	.82
19	.60	.31	.11	---	---	.20	-.03	-.02	.42	-.16	.46	1.00
20	.93	.33	.38	---	---	.38	.12	-.30	.31	-.34	.20	1.01
21	.69	.15	.49	---	.04	.36	.18	-.32	.17	-.31	.28	.85
22	.61	.07	.53	---	.05	.16	.19	-.25	.10	-.18	.27	.57
23	.41	-.03	.78	---	.00	.14	.21	.00	.40	-.20	.48	.73
24	.43	.10	.57	---	.13	.15	.17	.03	.23	-.06	.41	.95
25	.68	.05	.40	---	.10	.13	-.07	-.02	.26	-.05	.22	.68
26	.87	.00	.09	---	.42	.12	-.07	-.08	.34	.12	.23	.71
27	.95	.11	.09	-.03	.19	.14	-.09	.01	.47	.45	.31	.65
28	1.28	.10	---	-.01	.19	.01	-.09	.12	.28	.64	.35	.18
29	1.56	.11	---	-.32	---	-.06	-.11	.42	.33	.48	.37	.25
30	1.13	.45	---	-.37	---	-.28	-.05	.47	.25	.49	.26	.68
31	1.15	---	---	-.32	---	-.06	---	.45	---	.40	.30	---
MEAN	.79	.42	---	---	---	---	.09	-.08	.24	.00	.34	.59
MAX	1.56	1.05	---	---	---	---	.74	.47	.47	.64	.52	1.01
MIN	.25	-.03	---	---	---	---	-.28	-.32	-.13	-.34	.20	.18

02252500 NORTH CANAL NEAR VERO BEACH, FL

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1950 to current year.

REMARKS.--Records good. Considerable pumping into canal for drainage above station. Since Sept. 7, 1954, low flow regulated by control structure 2 mi upstream.

AVERAGE DISCHARGE.--39 years (water years 1952-90), 31.0 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s, Sept. 23, 1960; maximum gage height, 11.78 ft, June 18, 1959; no flow part of each day Mar. 7,8, 1969; minimum gage height observed, 0.92 ft, June 22, 1956, site then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 778 ft³/s, Sept. 30, gage height, 8.73 ft; minimum, 3.8 ft³/s, Oct. 1; minimum gage height, 1.35 ft, Apr. 27, 28, May 10.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	13	15	26	22	21	13	6.6	5.9	7.1	6.6	37
2	18	12	14	24	21	20	13	7.5	7.3	7.6	6.6	39
3	26	13	15	23	20	20	11	7.5	6.3	21	6.7	37
4	23	17	16	22	19	19	12	7.1	7.1	64	7.9	32
5	19	19	15	17	18	17	11	8.1	11	19	9.2	30
6	15	19	16	14	16	17	9.2	8.9	7.2	11	9.3	28
7	18	19	18	11	16	17	8.8	8.1	6.7	9.6	8.5	24
8	21	18	17	13	14	16	8.4	7.1	6.5	8.0	7.8	21
9	46	17	20	17	15	16	10	5.9	6.4	7.5	12	19
10	341	17	22	14	15	16	11	5.8	6.5	7.4	175	16
11	254	18	21	12	18	15	9.1	9.0	6.3	6.6	16	15
12	95	18	19	16	22	15	9.5	9.3	6.1	6.3	11	14
13	55	18	18	16	21	13	9.0	8.9	5.9	6.7	14	16
14	20	15	17	17	20	10	9.2	8.6	6.2	6.9	187	16
15	18	14	17	18	19	12	12	7.5	6.3	8.3	122	12
16	24	16	16	18	18	11	14	5.6	6.8	10	40	10
17	31	17	22	17	17	15	13	5.2	7.3	7.8	8.7	10
18	36	18	21	18	16	18	12	5.2	7.9	7.1	8.2	9.2
19	37	17	19	18	16	18	9.7	5.2	8.4	6.8	11	45
20	40	17	19	18	15	18	8.5	4.9	8.4	6.6	11	95
21	37	14	17	18	14	18	8.8	6.6	7.9	6.5	8.9	53
22	31	13	9.7	18	16	17	9.0	6.0	8.2	6.4	7.6	8.3
23	27	16	15	18	28	13	9.6	5.7	17	6.4	67	8.0
24	25	17	13	17	35	11	8.7	5.9	29	6.4	343	9.3
25	25	18	59	20	22	12	7.0	6.0	19	6.5	335	15
26	25	19	116	20	23	12	7.5	5.9	23	6.6	73	20
27	93	18	134	20	24	9.7	6.9	6.8	204	6.6	75	21
28	44	17	27	19	23	10	5.7	7.0	11	6.9	20	23
29	27	17	34	28	---	9.5	8.1	7.4	8.3	6.6	22	49
30	16	15	32	28	---	11	8.3	6.1	7.0	6.8	25	519
31	14	---	30	25	---	14	---	5.7	---	6.5	28	---
TOTAL	1508.3	496	843.7	580	543	461.2	293.0	211.1	474.9	307.5	1683.0	1250.8
MEAN	48.7	16.5	27.2	18.7	19.4	14.9	9.77	6.81	15.8	9.92	54.3	41.7
MAX	341	19	134	28	35	21	14	9.3	204	64	343	519
MIN	7.3	12	9.7	11	14	9.5	5.7	4.9	5.9	6.3	6.6	8.0

CAL YR 1989	TOTAL 7452.2	MEAN 20.4	MAX 341	MIN 2.1
WTR YR 1990	TOTAL 8652.5	MEAN 23.7	MAX 519	MIN 4.9

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02253000 MAIN CANAL AT VERO BEACH, FL
(National stream-quality accounting network station)

LOCATION.--Lat 27°38'54", long 80°24'10", in SE¼ sec.35, T.32 S., R.39 E., Indian River County, Hydrologic Unit 03080203, on right bank 8 ft upstream from dam, 700 ft upstream from U.S. Highway 1, and 0.6 mi northwest of Vero Beach.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1949 to current year. Monthly discharge only for some periods, published in WSP 1724.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Mar. 20, 1952, at datum 0.74 ft lower. Mar. 20, 1952, to Sept. 30, 1956, at datum 0.02 ft lower.

REMARKS.--Records good. Considerable pumping into canal for drainage upstream from station. Since Aug. 6, 1954, low flow regulated by control structure 1.5 mi upstream.

AVERAGE DISCHARGE.--41 years (water years 1950-90), 76.2 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s, Sept. 23, 1960, gage height, 14.21 ft; maximum gage height, 14.38 ft, Sept. 24, 1963; no flow at times in some years; minimum gage height, 7.87 ft, July 9, 10, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft³/s, Sept. 30, gage height, 12.74 ft; minimum daily discharge, 0.64 ft³/s, Jan. 3; minimum gage height, 7.96 ft, Dec. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	3.2	29	3.0	38	27	24	14	75	106	35	72
2	32	3.3	25	.78	35	26	24	11	53	76	33	66
3	38	8.8	26	.64	34	26	23	10	38	204	38	57
4	35	21	26	1.8	33	25	22	3.5	48	245	119	52
5	31	27	24	5.6	28	24	22	2.8	409	41	92	50
6	29	29	27	2.0	25	24	17	5.7	65	131	89	46
7	30	30	32	e1.6	30	23	13	9.4	5.4	224	65	42
8	36	28	29	e1.0	25	20	16	6.6	22	19	53	38
9	327	24	35	e1.7	24	20	19	5.1	28	42	68	36
10	805	29	39	e3.0	22	21	20	12	29	46	515	34
11	602	30	35	12	30	19	15	13	28	43	176	28
12	318	29	32	18	43	20	8.8	13	36	42	61	31
13	202	29	29	21	43	16	9.0	9.2	34	49	85	40
14	68	25	35	24	44	9.4	16	15	30	61	403	149
15	6.4	22	8.5	27	39	12	25	14	28	88	274	16
16	32	26	3.1	26	36	16	26	11	25	97	63	11
17	49	31	3.1	28	33	23	26	6.4	23	79	4.6	141
18	63	32	1.6	30	31	26	20	2.9	23	66	28	3.7
19	66	32	2.3	28	30	26	13	2.4	30	58	56	332
20	80	30	4.4	29	28	33	10	3.4	30	52	65	403
21	63	23	3.6	28	32	29	13	5.1	35	50	62	447
22	53	17	127	28	37	24	15	9.4	73	48	58	289
23	46	24	232	32	285	17	15	11	82	52	193	71
24	43	33	30	32	162	17	12	9.1	82	49	542	12
25	43	36	16	33	23	19	14	14	72	45	618	36
26	43	37	15	35	32	20	15	17	97	39	142	42
27	242	36	15	35	32	12	13	38	526	35	244	42
28	126	31	14	33	30	12	6.7	37	316	32	310	148
29	82	29	11	50	---	9.9	4.6	36	190	33	83	90
30	72	24	11	48	---	20	12	39	132	32	19	777
31	31	---	9.5	42	---	26	---	38	---	32	43	---
TOTAL	3714.4	779.3	930.1	660.12	1284	642.3	489.1	424.0	2664.4	2216	4636.6	3601.7
MEAN	120	26.0	30.0	21.3	45.9	20.7	16.3	13.7	88.8	71.5	150	120
MAX	805	37	232	50	285	33	26	39	526	245	618	777
MIN	6.4	3.2	1.6	.64	22	9.4	4.6	2.4	5.4	19	4.6	3.7

CAL YR 1989 TOTAL 20627.37 MEAN 56.5 MAX 805 MIN .07
WTR YR 1990 TOTAL 22042.02 MEAN 60.4 MAX 805 MIN .64

e Estimated

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02253000 MAIN CANAL AT VERO BEACH, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1975 to October 1981.

WATER TEMPERATURE: March 1975 to October 1981.

INSTRUMENTATION.--Water-quality monitor March 1975 to October 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean (more than 20 percent missing record), 2,370 micromhos/cm, July 17, 1981; minimum daily mean, 284 micromhos/cm, Sept. 4, 1979.

WATER TEMPERATURES: Maximum daily mean, 36.0°C, July 21, 1979; minimum daily mean, 12.5°C, Dec. 28, 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, IN CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 15...	1210	8.48	22	1340	7.6	23.5	0.80	6.5	20	100
JAN 10...	1300	8.17	3.2	1680	--	22.0	--	7.9	170	15
MAR 06...	1530	8.53	24	1550	7.7	22.0	1.0	7.8	--	2
MAY 24...	1520	8.30	7.2	2210	7.8	28.0	1.3	7.9	120	18
JUL 23...	1130	8.78	54	1540	7.5	28.0	3.0	7.3	--	--
AUG 22...	1321	8.81	58	1190	7.6	30.0	2.0	4.9	72	E10

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NOV 15...	110	23	120	5.6	194	87	270	0.40	9.5	752
MAR 06...	110	29	140	9.3	173	98	320	0.40	4.6	961
MAY 24...	120	49	240	9.3	182	100	530	0.50	--	--
JUL 23...	110	30	150	9.8	159	100	310	0.40	14	992
AUG 22...	100	26	120	10	173	110	280	0.50	15	854

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 15...	0.010	0.170	0.030	0.030	0.57	0.60	0.080	0.080	0.070	--
JAN 10...	0.010	0.360	0.080	0.100	0.72	0.80	0.130	0.070	0.090	--
MAR 06...	0.050	0.770	0.030	0.040	0.77	0.80	0.100	0.090	0.100	--
MAY 24...	<0.010	<0.100	<0.010	0.010	--	0.70	0.230	0.200	0.190	<10
JUL 23...	0.021	0.100	0.100	0.120	1.7	1.8	0.220	0.171	0.140	10
AUG 22...	0.080	0.400	0.120	0.090	1.2	1.3	0.270	0.200	0.170	30

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02253000 MAIN CANAL AT VERO BEACH, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
MAY 24...	1	<100	<10	<1.0	<1	<1	3	30	<1	<10
JUL 23...	1	47	<0.5	1.0	<1	<3	8	77	2	11
AUG 22...	1	41	<0.5	<1.0	<1	<3	9	300	1	12

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
MAY 24...	<10	<0.1	1	<1	<1	<1.0	7500	20	<10
JUL 23...	32	0.1	<10	2	<1	<1.0	4400	<6	23
AUG 22...	39	<0.1	<10	1	<1	<1.0	3800	<6	8

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02253500 SOUTH CANAL NEAR VERO BEACH, FL

LOCATION.--Lat 27°36'11", long 80°23'24", in SW¼ sec.13, T.33 S., R.39 E., Indian River County, Hydrologic Unit 03080203, on right bank 1,000 ft upstream from bridge on State Highway 605, and 2.5 mi south of Vero Beach.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 28, 1952, at downstream side of bridge 1,000 ft downstream at datum 1.26 ft lower. Feb. 28, 1952, to Nov. 6, 1957, 20 ft upstream from bridge at datum 0.46 ft lower.

REMARKS.--Estimated daily discharges: July 8 to Sept. 7. Records fair. Considerable pumping into canal for drainage above station. Since Jan. 6, 1956, low flow regulated by control structure upstream.

AVERAGE DISCHARGE.--40 years, 39.2 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,930 ft³/s, Sept. 24, 1963, gage height, 10.97 ft, from floodmarks; maximum gage height, 10.98 ft, Aug. 27, 1964; minimum discharge, 0.43 ft³/s, May 24, 1978; minimum gage height, 0.56 ft, Sept. 1, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 854 ft³/s, June 5, gage height, 8.74 ft; minimum, 3.2 ft³/s, Apr. 28, 29, May 3; minimum gage height, 0.48 ft, Mar. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	29	17	23	15	17	13	9.0	92	7.4	24	30
2	16	22	13	22	13	15	14	5.4	55	17	22	28
3	21	26	12	20	13	14	12	4.7	41	60	25	27
4	22	32	16	77	12	12	16	3.9	59	41	55	25
5	17	31	11	107	11	12	12	4.6	482	31	45	23
6	16	29	12	92	11	13	6.1	5.3	99	36	42	22
7	13	26	14	31	11	16	4.8	8.2	9.6	28	34	21
8	15	23	12	8.4	9.6	17	7.6	8.1	15	17	26	20
9	53	18	15	62	8.7	14	8.6	6.1	17	21	32	16
10	461	23	23	65	7.5	13	7.8	10	17	35	150	14
11	226	21	20	8.0	13	12	4.6	13	16	30	90	14
12	91	17	16	30	19	10	4.9	12	24	29	45	17
13	60	16	14	11	17	7.6	7.9	7.5	21	35	56	19
14	32	14	15	12	16	5.0	11	15	19	40	120	17
15	29	13	13	9.6	14	5.1	13	13	16	48	90	12
16	30	14	12	9.6	13	5.2	15	9.6	13	50	15	13
17	32	19	19	9.9	12	9.3	15	5.9	11	45	9.0	13
18	33	17	25	9.7	11	11	10	5.7	14	41	11	19
19	33	15	21	8.5	11	12	7.1	6.2	18	39	21	42
20	38	14	17	9.2	10	14	6.8	6.4	17	37	28	170
21	32	11	17	8.7	13	15	9.9	6.7	16	35	26	133
22	27	8.2	10	8.7	15	11	9.8	7.0	33	32	24	17
23	24	10	21	9.6	20	7.5	9.1	7.8	38	34	40	14
24	24	15	19	9.5	9.8	7.0	8.6	11	39	31	170	19
25	29	15	56	9.6	14	6.7	9.1	15	35	30	190	24
26	33	16	97	11	21	6.4	9.6	21	42	27	90	22
27	141	15	156	11	21	6.2	7.2	30	249	24	130	21
28	82	13	31	9.5	18	9.1	4.2	42	12	22	170	15
29	65	12	32	21	---	9.3	3.8	41	7.9	23	50	32
30	84	14	29	21	---	11	6.2	45	6.5	22	18	462
31	44	---	27	18	---	11	---	46	---	22	22	---
TOTAL	1838	548.2	812	762.5	379.6	334.4	274.7	432.1	1534.0	989.4	1870.0	1321
MEAN	59.3	18.3	26.2	24.6	13.6	10.8	9.16	13.9	51.1	31.9	60.3	44.0
MAX	461	32	156	107	21	17	16	46	482	60	190	462
MIN	13	8.2	10	8.0	7.5	5.0	3.8	3.9	6.5	7.4	9.0	12

CAL YR 1989 TOTAL 9319.8 MEAN 25.5 MAX 461 MIN 2.4
WTR YR 1990 TOTAL 11095.9 MEAN 30.4 MAX 482 MIN 3.8

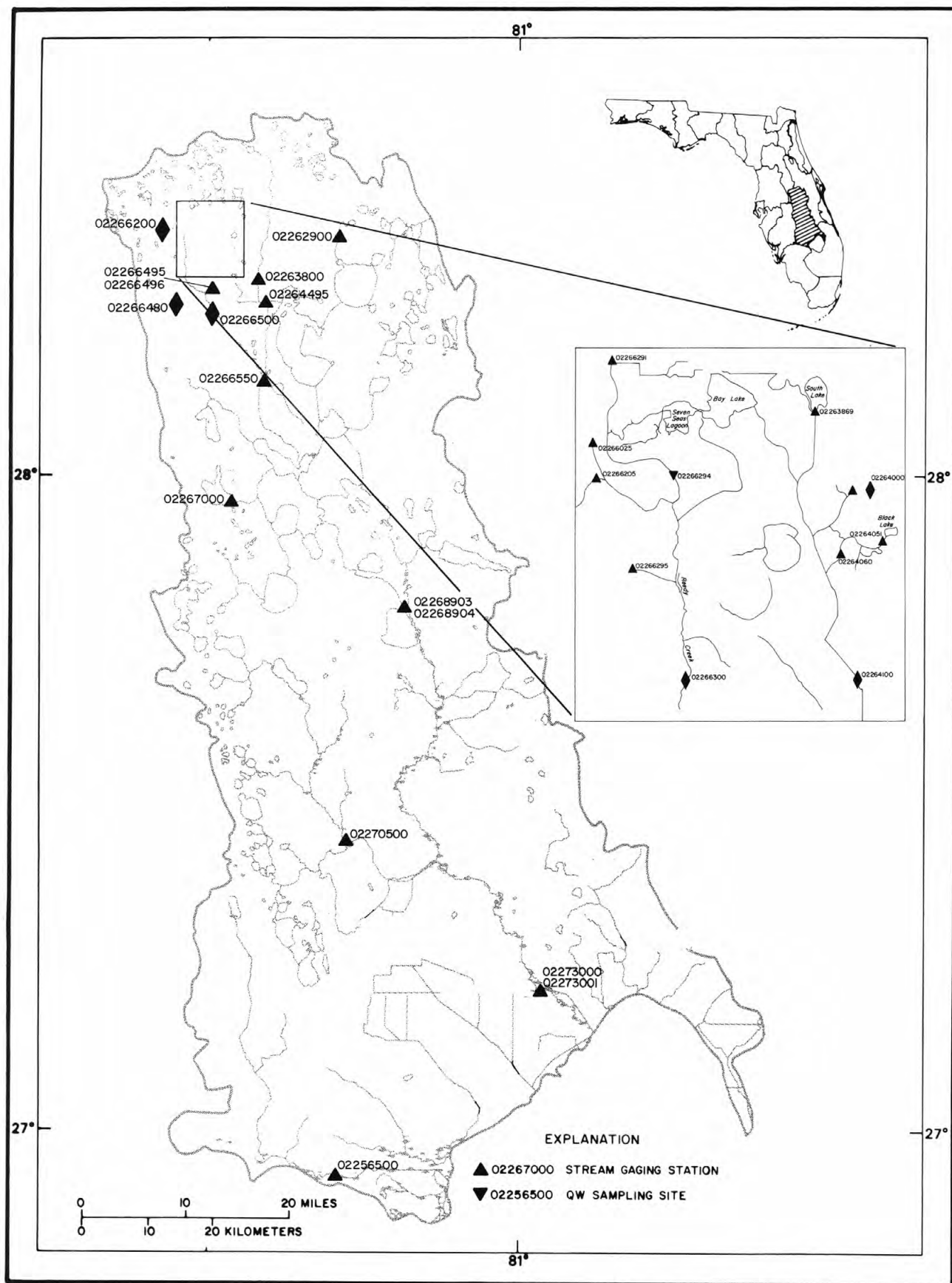


Figure 20.--Location of stream gaging stations in the Kissimmee River basin, the Taylor Creek basin and inflow to Lake Okeechobee from the north, and Fisheating Creek basin and inflow to Lake Okeechobee from the northwest.

SOUTH FLORIDA

FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST

02256500 FISHEATING CREEK AT PALMDALE, FL
(National stream-quality accounting network station)

LOCATION.--Lat 26°55'56", long 81°18'54" in SW¼ sec.3, T.41 S., R.30 E., Glades County, Hydrologic Unit 03090103, near right bank on downstream side of southbound bridge on U.S. Highway 27, 1.0 mi south of Palmdale, and 16 mi upstream from Lake Okeechobee.

DRAINAGE AREA.--311 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 27.19 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 16, 1949, nonrecording gage and Mar. 16, 1949, to Jan. 23, 1956, water-stage recorder, at site 450 ft upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--59 years, 250 ft³/s, 10.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,400 ft³/s, Oct. 3, 1951, gage height, 12.44 ft, from rating curve extended above 21,000 ft³/s; no flow at times in most years; minimum gage height observed, -0.61 ft, June 13, 1950.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 9	1739	1,520	6.30	Aug. 18	2055	*1,950	*6.61

No flow for many days; minimum gage height, -.12 ft, May 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444	194	14	80	17	36	.05	.00	.00	161	893	579
2	526	165	14	76	14	41	.01	.00	.00	196	860	617
3	608	143	13	70	12	41	.00	.00	2.5	339	771	613
4	832	124	12	64	10	38	.00	.00	18	479	683	599
5	998	108	12	60	8.9	32	.23	.00	50	512	605	554
6	960	95	11	58	8.0	27	1.2	.00	90	589	607	502
7	845	85	10	55	7.4	22	2.9	.00	229	605	654	461
8	731	77	9.9	52	7.0	18	4.4	.00	464	588	1060	422
9	632	70	10	49	6.7	14	4.7	.00	506	568	1430	382
10	565	64	11	46	6.3	11	4.3	.00	469	527	1340	344
11	547	58	11	43	7.0	8.4	3.3	.00	403	469	1050	307
12	526	52	11	43	11	6.4	2.2	.00	342	436	1090	273
13	522	47	11	43	12	4.8	1.3	.00	279	701	1100	236
14	514	43	11	42	9.9	3.5	.74	.00	219	804	1280	205
15	464	39	11	41	9.0	2.5	.40	.00	161	989	1660	177
16	537	36	11	39	8.4	1.8	.21	.00	114	1060	1760	164
17	676	33	12	37	7.5	1.1	.10	.00	81	1140	1880	173
18	703	30	12	34	6.5	.72	.01	.00	61	1180	1900	188
19	684	27	12	32	5.6	.45	.00	.00	56	1070	1870	203
20	651	25	14	29	5.0	.30	.00	.00	71	1010	1730	183
21	623	23	19	27	4.5	.17	.00	.00	67	927	1530	155
22	589	22	23	25	4.2	.10	.00	.00	68	817	1280	141
23	546	21	32	23	5.2	.05	.00	.00	102	697	1070	128
24	503	20	45	21	10	.00	.00	.00	79	632	915	120
25	462	19	49	19	14	.00	.00	.00	62	813	808	100
26	423	19	52	17	17	.00	.00	.00	53	865	713	84
27	387	18	57	15	24	.00	.00	.00	96	829	694	72
28	352	17	62	14	30	.00	.00	.00	151	701	701	62
29	308	16	70	13	---	.00	.00	.00	159	568	657	71
30	264	15	76	13	---	.00	.00	.00	161	645	604	130
31	227	---	80	16	---	.02	---	.00	---	875	575	---
TOTAL	17649	1705	797.9	1196	288.1	310.31	26.05	0.00	4613.50	21792	33770	8245
MEAN	569	56.8	25.7	38.6	10.3	10.0	.87	.000	154	703	1089	275
MAX	998	194	80	80	30	41	4.7	.00	506	1180	1900	617
MIN	227	15	9.9	13	4.2	.00	.00	.00	.00	161	575	62
CFSM	1.83	.18	.08	.12	.03	.03	.00	.00	.49	2.26	3.50	.88
IN.	2.11	.20	.10	.14	.03	.04	.00	.00	.55	2.61	4.04	.99

CAL YR 1989 TOTAL 42891.05 MEAN 118 MAX 1070 MIN .00 CFSM .38 IN. 5.13
WTR YR 1990 TOTAL 90392.86 MEAN 248 MAX 1900 MIN .00 CFSM .80 IN. 10.81

SOUTH FLORIDA

FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST

02256500 FISHEATING CREEK AT PALMDALE, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1964 to September 1975, January 1978 to current year.

WATER TEMPERATURE: July 1964 to September 1975, January 1978 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980. Digital recorder set for 60-minute interval.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed (more than 20 percent missing record), 1,590 microsiemens, June 5, 1975; minimum observed, 38 microsiemens, Mar. 21, 1970.

WATER TEMPERATURE: Maximum observed, 33.0°C, June 21, 1973, June 16,17,23,24, 1987; minimum observed, 8.0°C, Jan. 8, 1970.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 419 microsiemens, May 21; minimum daily mean, 57 microsiemens, July 15.

WATER TEMPERATURE: Maximum daily mean (more than 20 percent missing record), 30.4°C, May 18; minimum daily mean, 10.1°C, Dec. 26.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	138	208	307	351	356	368	375	365	139	97	---
2	134	140	209	307	342	374	365	374	364	131	89	---
3	136	150	206	317	348	365	346	380	350	119	85	---
4	133	146	202	323	354	375	382	396	348	100	85	---
5	130	154	182	335	353	382	381	387	306	97	87	---
6	119	157	203	345	370	377	382	402	273	92	87	---
7	117	155	---	347	363	371	357	401	204	83	89	---
8	119	177	210	356	364	356	355	406	176	90	90	---
9	122	191	212	358	364	362	362	400	159	92	94	---
10	125	207	215	365	368	365	366	406	160	90	96	---
11	123	198	216	354	364	364	356	395	168	88	92	---
12	138	216	216	361	364	353	362	409	173	86	89	---
13	128	216	219	358	361	347	371	402	176	62	89	110
14	122	201	221	362	355	348	373	403	173	58	---	114
15	127	190	222	364	345	354	338	395	169	57	---	130
16	127	190	221	366	341	366	341	406	169	58	---	128
17	131	201	222	362	346	360	380	400	169	64	---	140
18	124	204	222	353	353	361	375	403	171	74	---	131
19	122	197	222	344	357	358	388	413	171	88	---	130
20	114	201	222	335	358	378	381	417	158	99	---	130
21	114	188	229	330	362	376	386	419	152	100	---	134
22	129	176	236	327	357	339	356	417	158	98	---	134
23	122	184	240	326	347	381	360	394	137	99	---	137
24	127	193	259	327	345	371	368	394	144	---	---	144
25	132	185	267	329	336	347	347	390	156	83	---	151
26	126	176	308	331	331	375	350	390	162	79	---	160
27	128	186	311	332	328	380	353	383	145	70	---	161
28	123	187	309	335	349	386	354	380	120	71	---	173
29	132	207	311	339	---	385	347	382	139	76	---	172
30	134	214	316	356	---	358	372	385	144	89	---	167
31	139	---	310	351	---	369	---	381	---	105	---	---
MEAN	127	184	---	342	353	366	364	396	195	---	---	---
MAX	139	216	---	366	370	386	388	419	365	---	---	---
MIN	114	138	---	307	328	339	338	374	120	---	---	---

SOUTH FLORIDA

FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST

02256500 FISHEATING CREEK AT PALMDALE, FL--Continued
(National stream-quality accounting network station)

TEMPERATURE, WATER (DEG C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.4	---	---	17.6	22.3	19.5	24.2	29.4	28.5	27.4	29.0	---
2	26.4	---	---	17.5	22.6	19.6	25.6	29.1	28.9	26.3	28.9	---
3	26.8	---	---	17.3	23.2	20.5	25.2	28.5	29.5	26.0	29.0	---
4	25.8	---	---	17.8	23.2	20.6	22.8	28.0	29.2	25.6	28.6	---
5	25.8	---	---	18.8	22.2	20.4	22.4	27.9	28.6	25.6	28.2	---
6	---	---	---	20.3	20.6	20.6	23.0	28.2	27.8	25.8	28.0	26.9
7	---	---	---	21.2	20.6	21.2	23.6	27.2	25.9	26.1	28.2	27.4
8	---	---	18.7	21.6	21.2	21.5	23.5	26.0	25.3	26.7	28.5	27.6
9	---	---	19.2	21.1	21.8	21.5	23.1	26.0	25.4	27.2	27.9	27.7
10	---	---	18.1	20.1	22.3	21.9	23.7	26.6	26.1	27.1	27.4	27.8
11	---	---	17.1	18.9	22.5	22.3	24.9	27.3	27.1	26.5	27.4	27.6
12	---	---	17.4	18.5	21.1	22.6	25.0	27.1	27.1	26.1	27.0	27.7
13	---	---	18.0	17.1	20.0	22.8	23.5	28.3	26.6	25.0	27.5	28.9
14	---	---	16.6	15.9	20.4	23.0	24.2	28.9	25.8	25.3	---	28.9
15	---	---	16.0	16.0	20.7	23.1	25.1	29.5	25.6	24.6	---	29.3
16	---	---	16.0	16.9	21.4	23.8	26.1	29.3	26.2	24.8	---	29.2
17	---	---	17.1	18.0	22.8	24.0	27.2	29.7	26.9	25.3	---	28.5
18	---	---	17.8	18.8	23.3	22.9	27.1	30.4	27.6	25.4	---	29.1
19	---	---	18.4	19.5	23.0	22.4	26.5	30.0	27.9	25.9	---	28.4
20	---	---	19.1	20.3	22.7	22.6	24.9	29.5	27.4	26.5	---	28.1
21	---	---	19.0	20.9	22.7	21.0	24.4	28.0	28.1	26.7	---	29.2
22	---	---	18.2	21.6	22.8	20.9	25.5	26.9	27.9	26.6	---	29.5
23	---	---	16.2	21.4	22.3	21.6	26.1	26.9	26.9	26.7	---	29.8
24	---	---	12.6	21.7	20.8	22.6	25.4	26.5	27.3	27.8	---	29.7
25	---	---	10.4	22.0	19.7	23.5	25.0	26.0	27.4	27.3	---	28.7
26	---	---	10.1	21.0	18.5	24.0	25.0	26.1	27.2	28.0	---	27.9
27	---	---	10.8	18.8	18.5	24.8	25.2	26.5	25.5	28.2	---	28.0
28	---	---	12.1	19.3	19.1	24.4	25.0	27.6	24.5	28.4	---	28.3
29	---	---	13.3	20.5	---	24.2	26.4	28.5	26.5	28.7	---	28.1
30	---	---	14.6	21.2	---	24.6	28.4	28.5	27.3	28.7	---	27.5
31	---	---	16.0	21.9	---	23.9	---	28.8	---	28.9	---	---
MEAN	---	---	---	19.5	21.5	22.3	24.9	28.0	27.1	26.6	---	---
MAX	---	---	---	22.0	23.3	24.8	28.4	30.4	29.5	28.9	---	---
MIN	---	---	---	15.9	18.5	19.5	22.4	26.0	24.5	24.6	---	---

SOUTH FLORIDA

FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST

02256500 FISHEATING CREEK AT PALMDALE, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, IN CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 14...	1510	2.35	44	166	6.3	23.5	0.90	5.1	40	60
JAN 09...	1320	2.50	49	352	6.3	21.5	1.0	4.5	55	42
MAR 05...	1415	2.01	32	393	6.6	20.5	0.50	7.7	320	40
JUL 24...	1138	5.29	606	105	6.1	27.0	1.0	2.8	--	--
AUG 21...	1200	6.31	1530	89	6.1	27.5	1.5	3.2	50	60
DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NOV 14...	8.3	3.7	15	2.2	15	2.0	32	0.10	2.4	136
JAN 09...	14	7.6	33	6.7	15	25	73	0.10	2.9	237
MAR 05...	16	9.1	35	7.1	17	29	81	<0.10	3.0	276
JUL 24...	6.3	2.6	10	1.5	12	4.2	20	0.10	5.7	128
AUG 21...	5.5	2.3	7.7	2.0	9.8	2.7	20	<0.10	5.3	112
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 14...	0.020	<0.100	0.070	0.070	0.93	1.0	0.160	0.120	0.120	--
JAN 09...	<0.010	<0.100	0.040	0.050	1.2	1.2	0.150	0.130	0.140	80
MAR 05...	0.050	<0.100	0.040	0.040	1.3	1.3	0.070	0.130	0.120	--
JUL 24...	0.010	<0.100	0.090	0.090	1.9	2.0	0.290	0.170	0.130	230
AUG 21...	0.010	<0.100	0.060	0.050	1.4	1.5	0.260	0.250	0.200	180
DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
JAN 09...	<1	25	<0.5	2.0	<1	<3	<10	210	<10	<4
JUL 24...	<1	15	<0.5	<1.0	<1	<3	2	940	4	<4
AUG 21...	<1	12	<0.5	1.0	<1	<3	6	770	7	<4

SOUTH FLORIDA

FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST

02256500 FISHEATING CREEK AT PALMDALE, FL--Continued
 (National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
JAN 09...	12	<0.1	<10	<10	<1	<1.0	1100	<6	11
JUL 24...	24	<0.1	<10	2	<1	<1.0	310	<6	17
AUG 21...	14	<0.1	<10	<1	<1	<1.0	260	<6	16

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02262900 BOGGY CREEK NEAR TAFT, FL

LOCATION.--Lat 28°22'16", long 81°18'39", in NE¼ sec.28, T.24 S., R.30 E., Orange County, Hydrologic Unit 03090101, on left bank 450 ft downstream from Boggy Creek Swamp, 2.0 mi upstream from bridge on State Highway 530, 3.5 mi upstream from mouth, and 5.5 mi southeast of Taft.

DRAINAGE AREA.--83.6 mi².

PERIOD OF RECORD.--September 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 56.08 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Auxiliary water-stage recorder on the south side of East Lake Tohopekaliga since Oct.1, 1973, and prior to July 19, 1968. From July 19, 1968, to Sept. 30, 1973, auxiliary water-stage recorder at St. Cloud Canal above S-59.

REMARKS.--Records good. Some diversion to ground water through drainage wells in lakes upstream from station.

AVERAGE DISCHARGE.--31 years, 47.8 ft³/s, 7.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,680 ft³/s, Mar. 18, 1960, gage height, 13.64 ft, from floodmarks; no flow May 19, 1981, May 18-21, June 9, 1985; minimum gage height, 1.66 ft, May 18,19,20, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 422 ft³/s, July 15, gage height, 8.00 ft; minimum, 0.58 ft³/s, May 19,20,21, gage height, 1.79 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	26	23	64	33	71	34	8.4	3.7	31	69	46
2	90	25	22	61	41	77	34	7.4	4.5	26	60	42
3	81	24	20	59	36	67	31	6.7	9.0	23	122	38
4	74	22	18	56	32	55	29	6.4	30	20	371	33
5	68	22	17	54	28	48	26	6.0	25	16	352	30
6	59	21	17	51	26	43	23	5.6	30	13	229	27
7	68	20	17	59	24	44	20	5.2	38	14	161	25
8	170	19	24	64	23	39	18	5.0	56	14	124	23
9	168	19	46	59	23	35	17	4.9	67	21	101	21
10	146	18	42	54	22	32	16	6.1	49	17	90	19
11	125	17	45	50	46	33	33	6.1	39	26	98	19
12	113	17	42	58	44	32	27	4.5	37	38	99	19
13	102	16	56	57	44	29	26	3.9	36	66	98	17
14	87	16	48	51	40	27	23	3.7	27	85	105	16
15	78	16	44	47	36	25	21	3.4	20	170	97	14
16	71	36	40	46	32	24	19	2.9	15	311	88	14
17	65	32	37	40	29	28	16	2.5	14	234	79	14
18	58	31	51	37	27	29	15	1.9	19	178	69	19
19	48	29	49	e37	25	25	20	1.5	16	146	67	17
20	39	26	77	e36	24	22	17	1.0	15	131	76	16
21	35	24	84	e36	23	20	15	1.4	13	108	65	15
22	33	22	81	e35	27	19	14	2.1	12	86	63	14
23	33	27	125	e34	83	17	15	3.6	13	73	62	12
24	32	28	112	e33	120	16	16	3.3	16	64	62	11
25	30	26	103	32	128	15	14	2.8	22	65	64	9.8
26	30	35	95	30	111	15	13	2.5	36	81	58	9.6
27	35	34	89	29	93	14	12	5.4	79	86	56	9.4
28	32	29	82	28	80	13	11	8.2	58	112	63	13
29	31	27	79	27	---	17	11	7.1	45	125	60	30
30	30	24	75	26	---	27	9.7	4.3	36	95	56	54
31	29	---	69	24	---	34	---	3.4	---	80	51	---
TOTAL	2162	728	1729	1374	1300	992	595.7	137.2	880.2	2555	3215	646.8
MEAN	69.7	24.3	55.8	44.3	46.4	32.0	19.9	4.43	29.3	82.4	104	21.6
MAX	170	36	125	64	128	77	34	8.4	79	311	371	54
MIN	29	16	17	24	22	13	9.7	1.0	3.7	13	51	9.4
CFSM	.83	.29	.67	.53	.56	.38	.24	.05	.35	.99	1.24	.26
IN.	.96	.32	.77	.61	.58	.44	.27	.06	.39	1.14	1.43	.29

CAL YR 1989 TOTAL 16241.7 MEAN 44.5 MAX 282 MIN 1.3 CFSM .53 IN. 7.23
WTR YR 1990 TOTAL 16314.9 MEAN 44.7 MAX 371 MIN 1.0 CFSM .53 IN. 7.26

e Estimated

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02263800 SHINGLE CREEK AT AIRPORT, NEAR KISSIMMEE, FL

LOCATION.--Lat 28°18'14", long 81°27'04", in NW¼ sec.19, T.25 S., R.29 E., Osceola County, Hydrologic Unit 03090101, near center of span on downstream side of bridge on U.S. Highway 192, 1.0 mi northwest of Kissimmee Airport, 3 mi west of Kissimmee, and 5.6 mi upstream from mouth.

DRAINAGE AREA.--89.2 mi².

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 60.66 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--32 years, 71.1 ft³/s, 10.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft³/s, Mar. 18, 1960, gage height, 11.00 ft; no flow for many days in some years; minimum gage height, 2.21 ft, June 9, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 370 ft³/s, Aug. 16, gage height, 6.98 ft; no flow May 13-26; minimum gage height, 3.65 ft, part of each day May 21-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	19	17	68	25	143	25	8.5	4.0	59	64	170
2	258	18	16	57	27	114	25	7.4	3.6	49	53	182
3	222	17	15	50	26	90	26	6.1	3.3	40	55	180
4	187	16	14	46	25	69	23	5.8	13	33	70	164
5	151	15	13	43	22	54	19	5.5	27	27	101	139
6	119	14	12	41	20	46	17	5.1	51	22	127	120
7	99	13	11	39	18	41	14	3.7	73	18	164	102
8	121	12	14	37	17	35	11	1.7	64	16	201	82
9	117	11	40	35	16	31	9.0	.96	67	15	208	68
10	100	9.8	47	33	16	28	7.5	3.8	60	15	200	56
11	82	8.5	54	31	39	25	14	4.1	51	14	195	48
12	64	7.6	58	30	45	23	14	.90	45	28	184	44
13	52	6.9	69	28	50	21	18	.00	36	92	198	39
14	45	6.4	63	27	52	19	21	.00	28	135	287	34
15	38	6.4	55	27	48	17	21	.00	23	169	355	31
16	34	20	50	26	44	15	19	.00	18	198	369	28
17	30	21	44	25	41	13	16	.00	15	233	366	27
18	27	22	49	24	35	12	13	.00	12	260	350	25
19	25	23	51	23	31	11	14	.00	9.9	263	321	23
20	22	22	72	22	27	11	14	.00	8.2	247	286	22
21	19	20	99	21	39	9.6	11	.00	6.4	220	245	21
22	18	18	100	20	48	8.3	9.4	.00	5.8	184	209	19
23	17	19	135	20	97	7.4	8.3	.00	6.5	141	180	18
24	17	20	138	19	151	6.6	10	.00	9.5	99	152	17
25	17	19	140	19	158	5.9	9.8	.00	14	72	133	15
26	15	22	142	19	166	5.7	11	.00	28	57	112	14
27	18	23	135	18	173	5.3	11	.03	50	50	100	13
28	19	22	120	18	165	4.2	9.9	1.0	56	54	90	14
29	18	22	104	17	---	7.2	9.7	.70	65	69	98	43
30	18	20	90	18	---	20	8.9	.01	67	75	116	141
31	19	---	79	23	---	22	---	1.5	---	73	145	---
TOTAL	2284	493.6	2046	924	1621	920.2	439.5	56.80	920.2	3027	5734	1899
MEAN	73.7	16.5	66.0	29.8	57.9	29.7	14.6	1.83	30.7	97.6	185	63.3
MAX	296	23	142	68	173	143	26	8.5	73	263	369	182
MIN	15	6.4	11	17	16	4.2	7.5	.00	3.3	14	53	13
CFSM	.83	.18	.74	.33	.65	.33	.16	.02	.34	1.09	2.07	.71
IN.	.95	.21	.85	.39	.68	.38	.18	.02	.38	1.26	2.39	.79

CAL YR 1989 TOTAL 15303.86 MEAN 41.9 MAX 325 MIN .00 CFSM .47 IN. 6.38
WTR YR 1990 TOTAL 20365.30 MEAN 55.8 MAX 369 MIN .00 CFSM .63 IN. 8.49

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02263869 SOUTH LAKE OUTLET AT S-15 NEAR VINELAND, FL

LOCATION.--Lat 28°24'45", long 81°32'17", in SW¼ sec.8, T.24 S., R.28 E., Orange County, Hydrologic Unit 03090101, on right bank at upstream wingwall of control structure 15, 300 ft south of natural lake shoreline, 1,600 ft west of State Highway 535, and 2.4 mi northwest of Vineland.

DRAINAGE AREA.--4.0 mi², approximately.

PERIOD OF RECORD.--June 1972 to September 1982, October 1986 to current year.

GAGE.--Water-stage and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark). Auxiliary water-stage recorder at downstream side of control structure since May 1970.

REMARKS.--Estimated daily discharges: Aug 21 to Sept. 9, Sept. 30. Records fair except those below 1.0 ft³/s, which are poor. Flow from South Lake into South Lake outlet regulated by automatic gates in control structure 15. Discharge computed from relation between discharge and gate openings. Gage heights are published as elevations for South Lake (station 02263868) in the section of this report entitled LAKE ELEVATIONS.

AVERAGE DISCHARGE.--14 years, 0.37 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 48 ft³/s, Sept. 10, 1974; maximum gage height, 94.85 ft, Apr. 6, 1987; no flow for many days each year; minimum gage height, 90.22 ft, May 27, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.01 ft³/s, Aug. 21 to Sept. 9, Sept. 30; maximum gage height, 92.52 ft, Sept. 3; no flow for many days; minimum gage height, 90.22 ft, May 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.01	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.01	.01
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.01	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.10
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004	.003
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 86.97 MEAN .24 MAX 2.7 MIN .00
WTR YR 1990 TOTAL 0.21 MEAN .001 MAX .01 MIN .00

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02264000 CYPRESS CREEK AT VINELAND, FL

LOCATION.--Lat 28°23'25", long 81°31'11", in NW¼ sec.21, T.24 S., R.28 E., Orange County, Hydrologic Unit 03090101, at upstream side of culverts on State Highway 535, 1.0 mi west of Vineland.

DRAINAGE AREA.--30.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WDR FL-79-1: 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 96.20 ft above National Geodetic Vertical Datum of 1929. Prior to June 13, 1946, nonrecording gage at same site and datum.

REMARKS.--Records fair. Some diversions by pumping above station for irrigation.

AVERAGE DISCHARGE.--45 years, 5.56 ft³/s, 2.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 309 ft³/s, Sept. 11, 1960, gage height, 4.66 ft; no flow for many days in most years; creek dry at gage for many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 13	2300	*11	*2.57				

No flow for many days; creek dry at gage for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.83	1.2
2	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	1.0	1.0
3	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	1.3	.96
4	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	3.2	.78
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.7	.61
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.8	.47
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.8	.39
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.4	.32
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.2	.26
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.7	.20
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6	.25
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.8	.37
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.8	.28
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	10	.21
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.34	8.4	.17
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.45	6.3	.15
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.42	5.3	.14
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.47	4.4	.12
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65	3.9	.10
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.76	4.7	.09
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.77	3.8	.09
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.70	3.3	.08
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65	3.4	.07
24	.00	.00	.02	.00	.04	.00	.00	.00	.00	.57	3.0	.06
25	.00	.00	.03	.00	.04	.00	.00	.00	.00	.49	2.7	.05
26	.00	.00	.03	.00	.03	.00	.00	.00	.00	.53	2.3	.05
27	.00	.00	.03	.00	.03	.00	.00	.00	.00	.66	2.0	.03
28	.00	.00	.02	.00	.03	.00	.00	.00	.00	.76	1.8	.03
29	.00	.00	.02	.00	---	.00	.00	.00	.00	.91	1.7	.47
30	.00	.00	.01	.00	---	.00	.00	.00	.00	.75	1.5	2.2
31	.00	---	.01	.00	---	.00	---	.00	---	.63	1.3	---
TOTAL	0.00	0.00	0.17	0.00	0.17	0.08	0.00	0.00	0.00	10.77	116.93	11.20
MEAN	.000	.000	.005	.000	.006	.003	.000	.000	.000	.35	3.77	.37
MAX	.00	.00	.03	.00	.04	.03	.00	.00	.00	.91	10	2.2
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.83	.03
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.12	.01
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.14	.01

CAL YR 1989 TOTAL 913.13 MEAN 2.50 MAX 33 MIN .00 CFSM .08 IN. 1.12
WTR YR 1990 TOTAL 139.32 MEAN .38 MAX 10 MIN .00 CFSM .01 IN. .17

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02264000 CYPRESS CREEK AT VINELAND, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1966, 1969-74, 1976-80, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)
AUG 29...	1300	145	3.8	25.0	800	0.85	2.3	2.1	2.7	10	2.0
DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)
AUG 29...	<0.1	0.20	11	0.030	<0.020	0.850	3.8	0.060	0.060	540	<1
DATE	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
AUG 29...	<10	<1	<1	3	1200	<1	20	<1	<1	10	96

ST. JOHNS RIVER

KISSIMMEE RIVER BASIN

02264051 BLACK LAKE OUTLET AT S-101A, AT BUENA VISTA, FL

LOCATION.--Lat 28°22'28", long 81°31'01", in NE¼ sec.28, T.24 S., R.28 E., Orange County, Hydrologic Unit 03090101, on right upstream wingwall of drop culvert at Buena Vista Drive at Buena Vista, and 1.7 mi upstream from Bonnet Creek.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder, sharp-crested weir, and sluice gate. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark).

REMARKS.--Estimated daily discharges: Jan. 13-19, Mar. 9-11, 13-19, Apr. 18 to May 29. Records good except for those below 5.0 ft³/s, and periods of estimated daily record, which are poor. Flow can be regulated by manipulation of sluice gate.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 127 ft³/s, Nov. 23, 1988, gage height 95.84 ft; no flow part of each day Apr. 10, 11, May 4, 5, 7-9, Sept. 22, 1989; minimum gage height 93.30 ft, May 1, 1990, regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 61 ft³/s, Sept. 29, gage height 95.18 ft; minimum, 0.08 ft³/s, part of each day, Mar. 20, May 28, 30; minimum gage height 93.30 ft, May 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	.50	.39	.79	.75	.95	1.4	1.9	5.3	.99	4.8	1.8
2	1.0	.50	.38	.65	.66	.82	.73	.12	3.1	.94	4.5	1.6
3	.90	.47	.39	.63	.63	.79	.64	.12	3.5	1.2	5.2	1.2
4	.83	.34	.37	.66	.60	.78	.53	.12	7.3	.92	17	1.0
5	.82	.37	.47	.80	.52	.69	.50	.12	3.1	.81	16	1.0
6	.81	.38	.50	.80	.47	.65	.49	.12	2.1	.72	6.0	1.0
7	1.0	.38	.49	.80	.50	.70	.52	.11	3.7	.90	3.8	1.0
8	1.2	.40	2.9	.80	.52	.65	.48	.11	1.8	.93	3.7	1.0
9	.90	.46	5.9	.69	.56	3.2	.50	.11	1.3	.74	3.1	.93
10	.93	.48	1.2	.69	.76	.10	.50	.10	1.1	.86	5.7	.90
11	.79	.41	.77	.69	7.3	.12	7.0	.10	1.2	1.3	11	1.6
12	.77	.39	.79	.61	1.7	.37	1.8	.10	1.3	10	4.2	1.7
13	.99	.40	2.3	5.4	.92	3.2	.82	.10	.89	18	7.8	1.1
14	.56	.39	.82	.15	.81	4.0	.71	.10	.70	17	12	1.0
15	.50	.38	.64	5.2	.84	.15	.65	.10	1.2	12	5.8	1.0
16	.50	1.1	.61	.15	.69	.15	.63	.10	.68	10	3.8	1.0
17	.50	.51	.51	.15	.56	.15	.63	.10	.64	8.1	3.3	1.0
18	.50	.38	1.6	.15	.51	.15	3.8	.10	.71	8.2	2.2	.98
19	.50	.35	.97	.16	.51	.15	3.8	.10	.70	7.8	4.7	.81
20	.42	.37	2.6	.32	.58	.22	3.8	.10	.63	4.6	4.9	.70
21	.38	.36	2.2	.48	.93	.36	.15	e.10	.58	3.0	2.1	.55
22	.46	.37	1.5	.51	1.5	.46	.15	.10	.55	2.5	2.9	.51
23	.52	.89	5.5	.50	14	.54	1.8	4.4	3.3	2.0	3.5	.56
24	.52	.60	1.5	.49	5.4	.52	4.6	.10	2.0	1.4	3.3	.59
25	.47	.49	1.2	.48	2.2	.50	3.6	3.7	1.1	1.2	2.3	.52
26	.48	1.0	1.1	.50	1.5	.55	2.4	.10	4.4	1.8	1.6	.55
27	.55	.94	.96	.46	1.1	.61	2.0	8.3	8.7	2.2	1.4	.60
28	.51	.61	.81	.51	1.1	.60	.14	10	2.1	2.4	1.8	1.5
29	.46	.55	.81	.50	---	.94	.13	.10	1.4	2.2	2.0	12
30	.50	.45	.81	.84	---	4.2	2.0	.50	1.0	1.5	1.6	21
31	.50	---	.80	1.4	---	4.3	---	.66	---	1.2	1.4	---
TOTAL	20.75	15.22	41.79	26.96	48.12	31.57	46.90	31.99	66.08	127.41	153.4	60.70
MEAN	.67	.51	1.35	.87	1.72	1.02	1.56	1.03	2.20	4.11	4.95	2.02
MAX	1.2	1.1	5.9	5.4	14	4.3	7.0	10	8.7	18	17	21
MIN	.38	.34	.37	.15	.47	.10	.13	.10	.55	.72	1.4	.51

CAL YR 1989 TOTAL 307.62 MEAN .84 MAX 17 MIN .10
WTR YR 1990 TOTAL 670.89 MEAN 1.84 MAX 21 MIN .10

ST. JOHNS RIVER
KISSIMMEE RIVER BASIN

02264060 LATERAL 101 AT S-101, NEAR BUENA VISTA, FL

LOCATION.--Lat 28°22'15", long 81°31'45", in NE¼ sec.29, T.24 S., R.28 E., Orange County, Hydrologic Unit 03090101, on right bank at upstream side of control structure 101, 0.1 mi north of Buena Vista Drive, 0.5 mi upstream from mouth, and 0.9 mi west of Buena Vista.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark). Auxiliary gage at downstream side of control structure 101.

REMARKS.--Records fair. Flow regulated by operation of structure 101. Discharge computed from relation between discharge and gate openings.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 290 ft³/s, Nov. 23, 1988; maximum gage height, 90.59 ft, Nov. 23, 1988; no flow for many days most years; minimum gage height, 88.18 ft, Feb. 18, 1990.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.80	1.2	3.0	.00	3.0	3.7	.45	1.5	2.4	4.6	5.1
2	2.1	.80	.00	2.4	.00	3.0	3.0	.00	.15	3.0	11	5.4
3	2.6	.30	.00	1.5	.00	3.0	1.5	.00	.45	3.0	6.4	3.7
4	1.5	.00	.00	4.6	.00	3.0	1.5	.00	6.4	2.6	51	3.0
5	1.5	.00	.00	14	.75	3.0	1.2	.00	11	1.8	25	3.0
6	1.5	.00	.00	8.2	1.2	2.6	.75	.00	2.7	1.5	10	3.9
7	1.5	.00	2.6	1.5	1.0	2.0	.15	.00	1.6	1.8	8.2	3.2
8	1.5	.00	.15	1.5	1.5	1.5	.30	.00	3.2	2.8	13	2.2
9	1.5	.00	5.9	1.0	1.2	1.5	.00	.00	4.1	3.0	13	3.0
10	1.5	.00	5.1	6.7	1.4	1.5	.00	.00	3.9	3.0	26	3.0
11	1.5	.00	2.6	1.4	8.8	1.5	10	.00	3.0	3.4	22	3.0
12	1.5	.00	3.2	.75	5.6	1.5	4.1	.00	3.0	45	13	3.0
13	1.5	.00	5.6	1.0	3.0	1.5	3.0	.00	3.0	25	43	3.0
14	1.5	.00	4.1	.15	3.0	1.5	2.7	.00	2.4	37	32	3.0
15	1.5	.00	3.0	.00	3.0	1.5	1.6	.00	1.5	21	19	3.0
16	1.5	.60	3.0	.00	3.0	1.5	.90	.00	1.5	21	8.4	2.2
17	1.5	1.5	3.0	.00	2.8	1.5	5.9	.00	1.5	19	13	1.5
18	1.5	1.5	4.3	.00	59	2.6	4.8	.00	1.5	14	6.7	1.5
19	1.5	1.5	4.3	.00	.00	3.0	1.8	.00	1.5	14	12	1.5
20	1.5	1.5	15	.00	.00	3.0	2.7	.00	1.5	13	9.2	1.5
21	1.4	1.5	8.2	.00	.00	3.0	.00	.00	1.5	9.6	6.6	1.5
22	.80	1.5	22	.00	.00	3.0	.00	.00	.75	4.4	4.3	1.5
23	.00	1.5	3.2	.00	1.5	3.0	.00	.00	.00	2.4	9.0	1.5
24	.00	1.5	4.8	.00	6.1	2.7	3.0	.00	.75	7.7	13	1.5
25	.30	1.5	4.8	.00	3.7	2.1	5.6	.00	1.5	7.2	7.0	1.5
26	1.2	1.5	4.8	.00	3.0	2.2	4.1	.00	8.4	2.8	4.8	1.5
27	.90	1.8	4.8	.00	3.0	2.0	.00	6.7	22	3.0	4.8	1.5
28	1.0	2.2	4.8	.00	3.0	1.5	.00	17	3.9	3.0	11	2.0
29	1.2	2.2	14	.00	---	1.5	.00	8.6	1.6	4.4	5.1	68
30	1.0	2.6	3.0	.00	---	8.2	.45	5.1	1.5	4.8	4.8	36
31	.30	---	3.0	.00	---	10	---	4.1	---	4.8	4.6	---
TOTAL	40.10	26.30	140.45	47.70	115.55	82.4	62.75	41.95	97.30	291.4	421.5	175.2
MEAN	1.29	.88	4.53	1.54	4.13	2.66	2.09	1.35	3.24	9.40	13.6	5.84
MAX	2.6	2.6	22	14	59	10	10	17	22	45	51	68
MIN	.00	.00	.00	.00	.00	1.5	.00	.00	.00	1.5	4.3	1.5

CAL YR 1989 TOTAL 1053.73 MEAN 2.89 MAX 67 MIN .00
WTR YR 1990 TOTAL 1542.60 MEAN 4.23 MAX 68 MIN .00

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02264100 BONNET CREEK NEAR VINELAND, FL

LOCATION.--Lat 28°19'58", long 81°31'20", in NW¼ sec.9, T.25 S., R.28 E., Osceola County, Hydrologic Unit 03090101, on downstream side of bridge on U.S. Highway 192, about 1 mi upstream from Reedy Creek Swamp, and 4.5 mi south of Vineland.

DRAINAGE AREA.--56.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1943, 1960, 1961, 1966 (miscellaneous discharge measurements), May 1966 to current year. Results of miscellaneous discharge measurements for some periods prior to May 1966 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder and steel sheet-pile weir with sluice gate. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Oct. 1, 1968, at datum 37.96 ft higher.

REMARKS.-- Records fair, except for those periods of flow through sluice gate, which are poor. Since October 1968, flow regulated by automatic gates upstream and since December 1970, by control structure S-11-temporary 0.5 mi downstream. Natural flow of stream affected by canals and control structures above station which divert an undetermined amount of water into the Reedy Creek basin. From Oct. 13, 1983 to Feb. 1, 1985 structure S-11-temporary did not regulate the stream because of a washout of the bank around the structure.

AVERAGE DISCHARGE.--24 years, 22.3 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, Nov. 23, 1988, gage height, 76.42 ft; maximum gage height, 78.58 ft, Nov. 1, 1969; no flow for many days in most years; minimum gage height, 68.18 ft, Oct. 18, 23, 25, 1985, estimated, result of washout around structure.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 11, 1960, reached a stage of 42.5 ft, datum then in use, from floodmarks, discharge, 1,200 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 752 ft³/s, Sept. 29, gage height, 75.41 ft; no flow part of each day, May 28, 29, July 9, 10; minimum gage height, 69.33 ft, May 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	4.3	6.8	5.1	3.1	9.5	11	7.6	6.8	11	9.4	13
2	10	4.3	6.2	17	3.3	9.2	9.2	7.1	5.8	7.0	15	14
3	10	4.5	6.0	5.9	3.3	12	8.2	6.8	6.9	3.1	12	11
4	10	4.5	6.1	5.3	3.4	9.0	7.7	6.4	7.6	2.3	53	11
5	11	4.7	6.2	7.3	2.8	7.9	6.2	6.1	17	1.9	43	11
6	11	4.9	6.2	17	2.9	7.4	4.7	5.8	24	2.1	22	12
7	13	4.8	6.3	5.8	9.2	7.0	4.7	5.7	22	4.1	18	11
8	12	4.4	31	5.5	4.6	12	4.8	5.7	18	6.7	23	8.7
9	11	4.2	12	5.2	4.1	6.8	5.0	6.4	13	5.3	20	9.1
10	11	3.9	8.5	5.2	3.0	6.4	5.2	5.9	10	4.0	41	8.9
11	11	4.1	70	5.6	5.1	6.4	9.9	5.7	14	10	44	11
12	11	4.1	22	5.0	16	12	12	5.7	19	62	24	9.7
13	8.7	4.3	20	4.5	4.3	7.3	8.2	6.1	20	70	53	8.0
14	5.9	4.3	13	4.6	3.8	7.1	7.7	5.9	18	91	64	8.0
15	5.7	4.4	4.9	4.4	4.0	7.2	7.4	6.0	14	67	36	7.8
16	6.1	4.6	3.8	4.2	8.7	6.8	7.8	5.8	8.7	54	26	7.6
17	5.3	3.9	3.5	4.0	4.3	6.8	7.7	5.7	8.0	39	51	7.7
18	3.7	4.3	9.3	14	33	6.1	13	5.5	9.0	28	33	6.8
19	3.1	4.5	5.9	4.9	7.3	6.7	8.6	5.4	8.3	31	34	5.2
20	2.8	4.9	7.7	18	5.8	7.1	7.6	5.4	7.3	31	33	4.4
21	3.1	4.9	7.8	4.3	5.6	7.1	7.5	4.1	6.9	30	28	3.9
22	3.2	4.9	32	3.6	6.5	7.1	7.6	23	6.5	34	19	4.3
23	3.3	5.4	11	3.0	15	7.2	8.5	7.8	6.5	24	24	5.1
24	3.5	4.5	6.5	2.7	20	7.2	7.6	3.0	6.1	6.4	23	5.0
25	3.6	4.5	5.3	4.6	15	7.2	7.4	2.1	5.1	8.9	17	5.3
26	3.9	4.9	4.9	3.8	13	7.1	11	1.8	8.4	14	13	5.6
27	4.1	5.0	5.0	3.5	12	7.0	7.8	4.2	21	12	12	6.1
28	4.0	7.0	7.1	3.4	11	6.7	7.3	7.8	22	9.8	17	6.7
29	4.1	14	17	7.4	---	7.6	7.7	4.8	23	9.8	13	130
30	4.2	11	5.6	10	---	8.0	7.7	9.7	16	10	11	180
31	4.0	---	5.4	3.7	---	17	---	8.0	---	10	11	---
TOTAL	213.2	154.0	363.0	198.5	230.1	249.9	236.7	197.0	378.9	699.4	842.4	537.9
MEAN	6.88	5.13	11.7	6.40	8.22	8.06	7.89	6.35	12.6	22.6	27.2	17.9
MAX	13	14	70	18	33	17	13	23	24	91	64	180
MIN	2.8	3.9	3.5	2.7	2.8	6.1	4.7	1.8	5.1	1.9	9.4	3.9

CAL YR 1989 TOTAL 3128.4 MEAN 8.57 MAX 86 MIN 1.8
WTR YR 1990 TOTAL 4301.0 MEAN 11.8 MAX 180 MIN 1.8

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02264100 BONNET CREEK NEAR VINELAND, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971, 1973, 1976, 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)
NOV 07...	1030	182	7.2	20.5	50	1.2	1.8	19	3.7	10	2.4
MAY 29...	1000	197	7.7	25.5	30	0.47	5.8	20	3.4	11	3.0
AUG 29...	1215	154	6.6	28.0	400	1.9	1.9	15	3.7	10	2.9

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV 07...	56	11	18	<0.010	0.020	0.020	0.21	0.020	0.010	--	--
MAY 29...	45	16	19	0.010	0.040	0.050	0.65	0.160	0.060	110	<1
AUG 29...	18	5.4	20	0.010	0.090	0.060	2.8	0.070	0.040	650	1

DATE	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 29...	<10	<1	<10	2	110	<1	<10	1	<1	10	6.4
AUG 29...	<10	<1	<1	4	820	<1	30	2	<1	20	38

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02264495 SHINGLE CREEK AT CAMPBELL, FL

LOCATION.--Lat 28°16'01", long 81°26'53", in SE¼ sec.31, T.25 S., R.29 E., Osceola County, Hydrologic Unit 03090101, on right bank 200 ft downstream from bridge on county road, 300 ft downstream from Atlantic Coast Line Railroad bridge, 0.8 mi northeast of Campbell, and 2.5 mi upstream from Lake Tohopekaliga.

DRAINAGE AREA.--180 mi², approximately, includes part of watershed in Reedy Creek Swamp.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Water-stage recorder on Lake Tohopekaliga at Kissimmee used as auxiliary gage for this station.

REMARKS.--Records poor. Natural flow of stream affected by several canals, levees, and control structures which divert an undetermined amount of water into Shingle Creek above station or into the Reedy Creek basin.

AVERAGE DISCHARGE.--22 years, 136 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,070 ft³/s, Apr. 1, 1987, gage height, 60.78 ft; minimum daily discharge, 3.1 ft³/s, May 9,10, 1971; minimum gage height, 49.78 ft, May 10, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 519 ft³/s, Aug. 15, gage height, 55.43 ft; minimum daily discharge, 12 ft³/s, May 21,22,26, June 2,3; minimum gage height, 50.93 ft, June 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	473	76	78	132	56	218	89	29	14	54	103	207
2	413	72	72	118	54	189	71	27	12	51	98	228
3	363	75	75	106	51	156	72	26	12	46	93	237
4	297	72	71	97	44	128	70	24	15	43	111	214
5	233	72	65	92	55	108	57	23	24	38	211	176
6	176	67	66	85	44	98	50	23	50	32	241	138
7	136	67	67	80	41	93	51	27	109	28	241	115
8	165	64	70	76	39	91	52	22	103	27	299	88
9	173	62	114	79	36	84	46	19	91	26	305	69
10	151	68	107	74	31	76	42	19	77	31	310	57
11	122	67	102	69	108	70	64	27	64	27	363	52
12	114	66	101	63	96	63	72	23	59	47	376	51
13	112	65	142	71	86	59	57	20	48	157	355	47
14	104	61	116	57	83	53	50	20	38	192	438	41
15	98	61	101	56	81	45	48	19	31	231	510	38
16	93	83	98	56	77	39	48	17	26	244	511	35
17	91	86	92	54	72	35	43	16	24	250	484	34
18	85	78	102	50	64	50	43	17	25	274	458	34
19	85	78	102	49	55	42	46	16	28	293	442	32
20	84	72	172	46	59	45	52	13	21	283	432	29
21	79	67	263	46	76	44	42	12	18	264	401	26
22	78	66	232	47	118	39	38	12	17	236	369	24
23	77	75	397	45	262	40	39	14	17	205	337	22
24	80	83	324	41	359	38	43	15	21	170	287	22
25	82	76	274	36	304	38	38	14	20	129	248	e21
26	80	85	253	54	268	36	35	12	27	141	220	e19
27	85	87	237	47	254	40	31	14	52	160	205	e18
28	90	81	216	45	241	36	30	22	54	136	159	e18
29	83	82	187	41	---	44	32	16	55	134	160	e62
30	76	84	163	44	---	95	29	15	55	124	157	e244
31	75	---	141	62	---	91	---	15	---	112	172	---
TOTAL	4453	2198	4600	2018	3114	2283	1480	588	1207	4185	9096	2398
MEAN	144	73.3	148	65.1	111	73.6	49.3	19.0	40.2	135	293	79.9
MAX	473	87	397	132	359	218	89	29	109	293	511	244
MIN	75	61	65	36	31	35	29	12	12	26	93	18

CAL YR 1989 TOTAL 35368 MEAN 96.9 MAX 572 MIN 28
WTR YR 1990 TOTAL 37620 MEAN 103 MAX 511 MIN 12

e Estimated

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266025 REEDY CREEK AT S-46 NEAR VINELAND, FL

LOCATION.--Lat 28°24'18", long 81°36'42", in NE¼ sec.16, T.24 S., R.27 E., Orange County, Hydrologic Unit 03090101, on right upstream wingwall of control structure 46, 6.6 mi west of Vineland.

DRAINAGE AREA.--20 mi², approximately.

PERIOD OF RECORD.--June 1969 to September 1972 (gage heights only). October 1986 to current year. Records prior to October 1986 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark). Auxiliary gage at downstream side of control structure 46.

REMARKS.--Records poor. Flow regulated by operation of structure 46. Discharge computed from relation between discharge and gate openings. At high stages interconnection exists between Reedy Creek, Whittenhorse Creek, and Boggy Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge 72 ft³/s, Apr. 10, 1987; maximum gage height, 96.51 ft, Mar. 31, 1987; no flow for many days each year; creek dry at gage Apr. 10 to Aug. 9, 1990, due to coffer dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	2.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	5.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	5.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	5.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	5.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	4.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	3.8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	1.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	33.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	1.07	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	5.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 36.60 MEAN .10 MAX 5.2 MIN .00
WTR YR 1990 TOTAL 33.10 MEAN .091 MAX 5.2 MIN .00

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266200 WHITTENHORSE CREEK NEAR VINELAND, FL

LOCATION.--Lat 28°23'05", long 81°37'00", in NW¼ sec.21, T.24 S., R.27 E., Orange County, Hydrologic Unit 03090101, near center of channel, 12 ft downstream from culverts on Hartzog Road, 7 mi west of Vineland.

DRAINAGE AREA.--12.4 mi².

PERIOD OF RECORD.--May 1966 to current year.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Datum of gage is 7.23 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--24 years, 3.11 ft³/s, 3.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62 ft³/s, Mar. 31, Apr. 1,2, 1987, gage height, 94.82 ft; no flow for many days each year; creek dry at gage for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft³/s, part or all of each day Aug. 17-19, gage height, 94.30 ft; no flow for many days; creek dry at gage for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	.55	.00	2.8	.44	1.3	.20	.00	.00	.00	1.5	6.2
2	4.7	.44	.00	2.6	.42	1.2	.14	.00	.00	.00	1.3	5.6
3	4.5	.42	.00	2.5	.41	1.2	.08	.00	.00	.00	.94	5.2
4	4.1	.34	.00	2.4	.36	1.1	.01	.00	.00	.00	1.3	4.8
5	3.8	.29	.00	2.3	.32	1.0	.00	.00	.00	.00	2.1	4.3
6	3.5	.26	.00	2.3	.26	.92	.00	.00	.00	.00	1.4	4.0
7	3.4	.19	.00	2.2	.21	.84	.00	.00	.00	.00	1.2	3.6
8	4.2	.13	.05	2.1	.16	.78	.00	.00	.00	.00	4.6	3.3
9	4.1	.09	.37	2.0	.11	.71	.00	.00	.00	.00	5.2	3.0
10	3.9	.08	.32	1.8	.10	.65	.00	.00	.00	.00	6.3	2.6
11	3.7	.02	.29	1.8	.65	.59	.00	.00	.00	.00	6.9	3.0
12	3.5	.00	.29	1.7	.55	.52	.00	.00	.00	.00	6.6	3.5
13	3.2	.00	.52	1.5	.43	.44	.00	.00	.00	.00	6.8	3.1
14	2.9	.00	.44	1.4	.38	.38	.00	.00	.00	.00	8.2	2.8
15	2.7	.00	.37	1.4	.33	.30	.00	.00	.00	.00	8.1	2.6
16	2.5	.29	.34	1.3	.30	.26	.00	.00	.00	.02	9.0	2.4
17	2.2	.21	.32	1.3	.26	.22	.00	.00	.00	.25	17	2.3
18	2.0	.11	.70	1.2	.23	.12	.00	.00	.00	.56	17	2.1
19	1.8	.06	.77	1.1	.17	.04	.00	.00	.00	1.4	17	1.9
20	1.6	.02	1.2	1.1	.13	.01	.00	.00	.00	2.2	16	1.8
21	1.4	.00	1.6	1.0	.15	.00	.00	.00	.00	3.2	14	1.6
22	1.3	.00	1.8	.95	.19	.00	.00	.00	.00	3.6	13	1.5
23	1.1	.00	2.9	.84	1.2	.00	.00	.00	.00	3.8	12	1.3
24	.99	.00	3.0	.77	1.7	.00	.00	.00	.00	3.8	12	1.3
25	.86	.00	3.0	.74	1.6	.00	.00	.00	.00	3.7	12	1.1
26	.82	.03	3.0	.60	1.5	.00	.00	.00	.00	3.5	11	.98
27	.91	.02	3.0	.55	1.4	.00	.00	.00	.00	3.1	9.4	.81
28	.83	.00	3.0	.55	1.3	.00	.00	.00	.00	2.9	8.6	.96
29	.73	.00	3.0	.56	---	.00	.00	.00	.00	2.8	7.8	2.2
30	.66	.00	2.9	.54	---	.09	.00	.00	.00	2.4	7.1	6.9
31	.62	---	2.9	.52	---	.23	---	.00	---	1.8	6.5	---
TOTAL	77.32	3.55	36.08	44.42	15.26	12.90	0.43	0.00	0.00	39.03	251.84	86.75
MEAN	2.49	.12	1.16	1.43	.54	.42	.014	.000	.000	1.26	8.12	2.89
MAX	4.8	.55	3.0	2.8	1.7	1.3	.20	.00	.00	3.8	17	6.9
MIN	.62	.00	.00	.52	.10	.00	.00	.00	.00	.00	.94	.81
CFSM	.20	.01	.09	.12	.04	.03	.00	.00	.00	.10	.66	.23
IN.	.23	.01	.11	.13	.05	.04	.00	.00	.00	.12	.76	.26

CAL YR 1989 TOTAL 593.72 MEAN 1.63 MAX 15 MIN .00 CFSM .13 IN. 1.78
WTR YR 1990 TOTAL 567.58 MEAN 1.56 MAX 17 MIN .00 CFSM .13 IN. 1.70

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02266200 WHITTENHORSE CREEK NEAR VINELAND, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-72, 1974, 1976-80, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NOV 07...	1100	109	4.1	20.5	480	2.9	6.7	6.7	2.8	8.5	1.2
AUG 29...	0915	87	4.2	25.0	800	0.87	1.3	4.6	2.0	5.6	1.3
DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV 07...	<0.1	6.2	20	0.010	<0.020	0.020	0.20	0.020	0.010	--	--
AUG 29...	<0.1	0.20	17	0.020	<0.020	0.060	2.1	0.040	0.030	300	<1
DATE	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
AUG 29...	<10	<1	1	2	830	1	20	1	<1	20	61

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266205 WHITTENHORSE CREEK AT S-411, NEAR VINELAND, FL

LOCATION.--Lat 28°23'34", long 81°36'40", in SE¼ sec.16, T.24 S., R.27 E., Orange County, Hydrologic Unit 03090101, on upstream side of control structure 411, 0.2 mi upstream from mouth, and 6.6 mi west of Vineland.

DRAINAGE AREA.--13 mi², approximately.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark). Auxiliary water-stage recorder at downstream side of control structure.

REMARKS.--Estimated daily discharges: Oct. 1-10, Jan. 7 to Aug. 15, leakage through gates. Records fair except those below 3 ft³/s, and periods of estimated daily record, which are poor. Flow regulated by operation of structure 411. Discharge computed from relation between discharge and gate openings. At high stages interconnection exists between Reedy Creek, Whittenhorse Creek, and Boggy Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge 35 ft³/s, Mar. 19, 1988; maximum gage height, 97.07 ft, Nov. 24, 1988; no flow Oct. 11, 1989 to Jan. 6, 1990; minimum gage height, 92.86 ft, June 3, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.00	.00	.00	.07	.25	.23	.06	.01	.01	.01	.90
2	.30	.00	.00	.00	.07	.25	.23	.05	.01	.01	.01	.90
3	.30	.00	.00	.00	.07	.25	.22	.04	.01	.01	.01	.90
4	.30	.00	.00	.00	.08	.30	.22	.04	.01	.01	.01	.90
5	.30	.00	.00	.00	.08	.30	.21	.03	.01	.01	.01	.90
6	.30	.00	.00	.00	.08	.30	.21	.03	.01	.01	.01	.90
7	.30	.00	.00	.01	.08	.30	.20	.02	.01	.01	.01	.90
8	.30	.00	.00	.01	.09	.35	.19	.02	.01	.01	.01	.90
9	.30	.00	.00	.01	.09	.35	.19	.01	.01	.01	.01	.90
10	.15	.00	.00	.01	.09	.35	.18	.01	.01	.01	.01	.90
11	.00	.00	.00	.02	.09	.35	.18	.01	.01	.01	.01	.90
12	.00	.00	.00	.02	.10	.35	.17	.01	.01	.01	.01	.90
13	.00	.00	.00	.02	.10	.35	.17	.01	.01	.01	.01	.90
14	.00	.00	.00	.02	.10	.34	.16	.01	.01	.01	.01	.90
15	.00	.00	.00	.03	.10	.34	.15	.01	.01	.01	.01	.90
16	.00	.00	.00	.03	.10	.30	.15	.01	.01	.01	.90	.90
17	.00	.00	.00	.03	.10	.32	.14	.01	.01	.01	4.6	.90
18	.00	.00	.00	.03	.15	.32	.14	.01	.01	.01	3.6	.90
19	.00	.00	.00	.04	.15	.31	.13	.01	.01	.01	3.6	.90
20	.00	.00	.00	.04	.15	.31	.13	.01	.01	.01	2.7	.90
21	.00	.00	.00	.04	.15	.30	.12	.01	.01	.01	1.8	.90
22	.00	.00	.00	.04	.15	.29	.11	.01	.01	.01	.90	.90
23	.00	.00	.00	.05	.20	.29	.11	.01	.01	.01	.90	.90
24	.00	.00	.00	.05	.20	.28	.10	.01	.01	.01	.90	.90
25	.00	.00	.00	.05	.20	.28	.10	.01	.01	.01	.90	.90
26	.00	.00	.00	.05	.20	.27	.09	.01	.01	.01	.90	.90
27	.00	.00	.00	.06	.20	.26	.09	.01	.01	.01	.90	.90
28	.00	.00	.00	.06	.25	.26	.08	.01	.01	.01	.90	.90
29	.00	.00	.00	.06	---	.25	.07	.01	.01	.01	.90	.90
30	.00	.00	.00	.06	---	.25	.07	.01	.01	.01	.90	.90
31	.00	---	.00	.07	---	.24	---	.01	---	.01	.90	---
TOTAL	2.85	0.00	0.00	0.91	3.49	9.26	4.54	0.52	0.30	0.31	26.35	27.00
MEAN	.092	.000	.000	.029	.12	.30	.15	.017	.010	.010	.85	.90
MAX	.30	.00	.00	.07	.25	.35	.23	.06	.01	.01	4.6	.90
MIN	.00	.00	.00	.00	.07	.24	.07	.01	.01	.01	.01	.90

CAL YR 1989 TOTAL 148.65 MEAN .41 MAX 3.3 MIN .00
WTR YR 1990 TOTAL 75.53 MEAN .21 MAX 4.6 MIN .00

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02266291 LATERAL 405 AT S-405A, NEAR DOCTOR PHILLIPS, FL

LOCATION.--Lat 28°25'37", long 81°36'19" in SW¼ sec.3, T.24 S., R.27 E., Orange County, Hydrologic Unit 03090101, on right upstream wingwall of control structure 405A, 200 ft upstream from Lateral 407, and 6.4 mi west of Doctor Phillips.

DRAINAGE AREA.--10 mi², approximately.

PERIOD OF RECORD.--June 1969 to September 1972 (gage heights and periodic discharge measurements only), October 1986 to current year. Records prior to October 1986 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark). Auxiliary water-stage recorder at downstream side of control structure.

REMARKS.--Estimated daily discharges: Dec. 21 to Mar. 24, and Aug. 17 to Sept. 30, which are leakage through gates. Records fair except for periods of estimated record, which are poor. Flow regulated by operation of structure 405A. Discharge computed from relation between discharge and gate opening.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 57 ft³/s, Mar. 19, 1988; maximum gage height, 96.45 ft, Mar. 31, 1987; no flow for many days in 1989, 1990 water years; minimum gage height observed, 90.47 ft, May 30, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
2	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
3	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
4	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
5	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
6	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
7	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
8	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
9	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
10	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
11	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
12	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
13	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
14	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
15	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
16	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25
17	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.25	.25
18	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.25	.25
19	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.25	.25
20	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.25	.25
21	.00	.00	.05	.05	.05	.05	.00	.00	.00	.00	.25	.25
22	.00	.00	.05	.05	.05	.05	.00	.00	.00	.00	.25	.25
23	.00	.00	.05	.05	.05	.05	.00	.00	.00	.00	.25	.25
24	.00	.00	.05	.05	.05	.05	.00	.00	.00	.00	.25	.25
25	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25	.25
26	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25	.25
27	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25	.25
28	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.25	.25
29	.00	.00	.05	.05	---	.00	.00	.00	.00	.00	.25	.25
30	.00	.00	.05	.05	---	.00	.00	.00	.00	.00	.25	.25
31	.00	---	.05	.05	---	.00	---	.00	---	.00	.25	---
TOTAL	0.00	0.00	0.55	1.55	1.40	1.20	0.00	0.00	0.00	0.00	3.75	7.50
MEAN	.000	.000	.018	.050	.050	.039	.000	.000	.000	.000	.12	.25
MAX	.00	.00	.05	.05	.05	.05	.00	.00	.00	.00	.25	.25
MIN	.00	.00	.00	.05	.05	.00	.00	.00	.00	.00	.00	.25

CAL YR 1989 TOTAL 281.95 MEAN .77 MAX 12 MIN .00
WTR YR 1990 TOTAL 15.95 MEAN .044 MAX .25 MIN .00

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266294 LATERAL 405 BELOW S-405, NEAR VINELAND, FL

WATER-QUALITY RECORDS

LOCATION.--Lat 28°23'39", long 81°35'07", in SW¼ sec.14, T. 24S., R. 27E., Orange County, Hydrologic Unit 03090101, at downstream side of structure S-405 on Bear Island Road, 1.7 mi south of Walt Disney World's Magic Kingdom, and 6 mi southwest of Windermere.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--Water years 1971, 1972, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)
NOV 07...	0900	211	6.8	21.5	120	2.6	0.9	24	4.8	9.7	3.2
MAY 29...	1145	241	7.1	26.0	60	0.55	6.3	29	5.6	10	2.9
AUG 29...	1330	169	6.9	28.0	240	2.5	3.5	21	4.2	7.1	2.8

DATE	ALKA- LINITY LAB (MG/L) AS CACO3 (90410)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	NITRO- GEN, NITRITE TOTAL (MG/L) AS N (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L) AS P (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L) AS AL (01105)	ARSENIC TOTAL (UG/L) AS AS (01002)
NOV 07...	60	20	20	0.010	0.040	0.250	1.1	0.090	0.030	--	--
MAY 29...	67	17	21	<0.010	<0.020	0.010	1.6	0.100	0.020	60	3
AUG 29...	40	4.1	17	0.010	<0.020	0.230	1.6	0.110	0.070	220	7

DATE	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L) AS BE (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L) AS CD (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L) AS CU (01042)	IRON, TOTAL RECOV- ERABLE (UG/L) AS FE (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L) AS PB (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L) AS MN (01055)	NICKEL, TOTAL RECOV- ERABLE (UG/L) AS NI (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L) AS ZN (01092)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 29...	<10	<1	<10	3	110	<1	30	<1	<1	10	6.7
AUG 29...	<10	<1	<1	3	290	<1	20	1	<1	20	27

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266295 LATERAL 410 AT S-410, NEAR VINELAND, FL

LOCATION.--Lat 28°21'28", long 81°35'56" in SE¼ sec.27, T.24 S., R.27 E., Orange County, Hydrologic Unit 03090101, at upstream side of control structure 410, 0.5 mi west of sewage treatment plant road, 3.0 mi southwest of EPCOT Center, and 6.2 mi southwest of Vineland.

DRAINAGE AREA.--Indeterminate

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Auxilliary gage at downstream side of control structure 410.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 4, Feb. 14 to Aug. 8, Sept. 23-30, leakage through gates. Records poor. Flow regulated by operation of structure 410. Discharge computed from relation between discharge and gate openings. At high stages interconnection exists between Reedy Creek, Whittenhorse Creek, and Boggy Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 114 ft³/s, Apr. 1, 1987; maximum gage height, 96.71 ft, Mar. 29, 1987, no flow for many days in most years; minimum gage height, 92.55 ft, June 6, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	.01	.00	.75	.00	2.8	2.6	1.0	1.0	1.0	1.0	9.0
2	3.4	.01	.00	.92	.00	2.8	2.5	1.0	1.0	1.0	1.0	6.8
3	3.3	.01	.00	.78	.00	2.8	2.4	1.0	1.0	1.0	1.0	5.0
4	3.2	.01	.00	.47	.00	2.8	2.2	1.0	1.0	1.0	1.0	3.4
5	3.1	.01	.00	.00	.00	2.8	2.1	1.0	1.0	1.0	1.0	2.0
6	3.0	.01	.00	.00	.00	2.8	2.0	1.0	1.0	1.0	1.0	2.0
7	2.9	.01	.00	.01	.00	2.8	1.9	1.0	1.0	1.0	1.0	2.0
8	2.8	.01	.00	.00	.00	2.8	1.8	1.0	1.0	1.0	1.0	2.0
9	2.6	.01	.00	.20	.00	2.8	1.7	1.0	1.0	1.0	1.5	2.0
10	2.4	.01	.00	.26	.00	2.8	1.6	1.0	1.0	1.0	2.0	2.0
11	2.2	.01	.00	.26	.00	2.8	1.5	1.0	1.0	1.0	2.0	2.0
12	2.0	.01	.00	.29	.02	2.8	1.4	1.0	1.0	1.0	2.0	2.0
13	1.8	.01	.00	.49	.08	2.8	1.3	1.0	1.0	1.0	2.0	2.0
14	1.6	.01	.00	.39	.01	2.8	1.2	1.0	1.0	1.0	5.1	2.0
15	1.4	.01	.00	.18	.01	2.8	1.1	1.0	1.0	1.0	12	2.0
16	1.2	.01	.00	.05	.01	2.8	1.0	1.0	1.0	1.0	25	2.0
17	1.0	.01	.00	.02	.01	2.8	1.0	1.0	1.0	1.0	38	2.0
18	.90	.01	.31	.05	.01	2.8	1.0	1.0	1.0	1.0	10	1.5
19	.80	.01	.59	.02	.01	2.8	1.0	1.0	1.0	1.0	22	1.5
20	.70	.01	.38	.00	.01	2.8	1.0	1.0	1.0	1.0	21	1.8
21	.60	.01	.65	.01	.01	2.8	1.0	1.0	1.0	1.0	19	1.5
22	.50	.01	.79	.03	.01	2.8	1.0	1.0	1.0	1.0	18	1.7
23	.40	.01	.88	.09	.01	2.8	1.0	1.0	1.0	1.0	19	1.5
24	.30	.01	.89	.01	.01	2.8	1.0	1.0	1.0	1.0	19	1.0
25	.20	.01	1.0	.02	.01	2.8	1.0	1.0	1.0	1.0	17	1.0
26	.10	.01	.99	.03	.01	2.8	1.0	1.0	1.0	1.0	15	1.0
27	.09	.01	1.0	.11	.01	2.8	1.0	1.0	1.0	1.0	13	1.0
28	.08	.01	1.0	.01	.86	2.8	1.0	1.0	1.0	1.0	12	1.0
29	.06	.01	1.0	.00	---	2.8	1.0	1.0	1.0	1.0	10	1.0
30	.04	.01	.91	.00	---	2.8	1.0	1.0	1.0	1.0	8.1	1.7
31	.01	---	.79	.00	---	2.7	---	1.0	---	1.0	8.4	---
TOTAL	46.08	0.30	11.18	5.45	1.10	86.7	42.3	31.0	30.0	31.0	309.1	67.4
MEAN	1.49	.010	.36	.18	.039	2.80	1.41	1.00	1.00	1.00	9.97	2.25
MAX	3.4	.01	1.0	.92	.86	2.8	2.6	1.0	1.0	1.0	38	9.0
MIN	.01	.01	.00	.00	.00	2.7	1.0	1.0	1.0	1.0	1.0	1.0

CAL YR 1989 TOTAL 731.77 MEAN 2.00 MAX 19 MIN .00
WTR YR 1990 TOTAL 661.61 MEAN 1.81 MAX 38 MIN .00

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL

LOCATION.--Lat 28°19'57", long 81°34'48", in NE¼ sec.11, T.25 S., R.27 E., Osceola County, Hydrologic Unit 03090101, on downstream side of bridge on U.S. Highway 192, about 2.5 mi upstream from bridge on Interstate Highway 4, 6.5 mi southwest of Vineland, and 28 mi upstream from mouth.

DRAINAGE AREA.--75 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1960, 1962-66 (annual maximum), May 1966 to current year. Results of miscellaneous discharge measurements for some periods prior to May 1966 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is 66.37 ft above National Geodetic Vertical Datum of 1929. Sept. 26, 1962, to January 1966, crest-stage gage at site 100 ft upstream at same datum.

REMARKS.--Estimated daily discharges: July 13-17, Aug. 30 to Sept. 2, Sept. 5-14. Records good except for periods of estimated daily record, which are fair. Natural flow of stream affected by several canals, levees, and control structures.

AVERAGE DISCHARGE.--24 years, 33.9 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,910 ft³/s, Sept. 11, 1960, gage height, 14.9 ft, from floodmark; no flow for many days in some years; minimum gage height, 8.18 ft, May 12, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 337 ft³/s, Sept. 30, gage height, 11.51 ft; minimum, 10.0 ft³/s, May 8, gage height, 8.83 ft.

REVISIONS.--The maximum discharge for water year 1989 has been revised to 1,260 ft³/s, Nov. 23, 1988, gage height 13.84 ft; revised daily discharges in cubic feet per second, for periods in November, December 1988, and January 1989, are given below. These figures supersede those in the report for 1989.

Nov. 23....786	Nov. 25....328	Nov. 27....184	Nov. 29....165
24....698	26....213	28....160	30....160
Dec. 1....145	Dec. 9.... 60	Dec. 17.... 65	Dec. 25.... 56
2....110	10.... 57	18.... 63	26.... 55
3.... 85	11.... 64	19.... 99	27.... 54
4.... 75	12....144	20.... 77	28.... 54
5.... 74	13....154	21.... 56	29.... 53
6.... 82	14....113	22.... 55	30.... 54
7.... 71	15.... 76	23.... 56	31.... 53
8.... 89	16.... 68	24.... 57	
Jan. 1.... 52	Jan. 3.... 49	Jan. 5.... 52	Jan. 7.... 47
2.... 51	4.... 48	6.... 50	8.... 44

MONTH	TOTAL	MEAN	MAX	MIN
November 1988	3339	111	786	20
December 1988	2374	76.6	154	53
January 1989	2130	68.7	215	30
Cal Year 1988	21077	57.6	786	16
Wtr Year 1989	14707.4	40.3	786	7.0

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	12	19	35	22	41	33	15	15	26	30	55
2	29	11	17	33	17	37	27	14	14	22	35	68
3	28	12	14	31	17	33	24	12	14	24	40	93
4	25	12	13	30	16	30	20	13	20	26	41	81
5	23	12	11	29	17	28	21	13	19	22	95	61
6	21	12	12	29	19	27	20	13	19	20	75	42
7	24	12	12	27	19	26	17	12	26	21	61	39
8	34	12	16	27	16	26	16	11	26	26	174	35
9	26	12	41	26	15	29	17	14	23	24	158	33
10	25	13	42	25	15	31	16	18	19	26	147	31
11	24	12	36	25	35	33	21	18	20	25	137	31
12	24	11	31	24	32	27	22	15	25	34	94	39
13	21	11	39	24	24	26	18	14	18	169	79	35
14	18	11	34	25	22	25	16	13	15	125	119	33
15	17	12	28	25	20	21	14	13	15	160	142	29
16	16	16	24	24	18	18	14	12	15	150	128	27
17	16	15	21	23	21	18	18	12	15	140	162	26
18	15	13	26	22	20	17	18	12	14	130	152	25
19	13	12	34	24	18	17	16	13	13	117	116	24
20	12	12	62	25	17	17	15	13	14	79	108	24
21	12	12	88	23	20	16	15	12	12	58	97	22
22	12	12	61	22	27	16	14	12	12	57	87	19
23	12	14	86	20	106	15	16	12	18	52	83	16
24	12	15	82	19	188	15	21	12	27	46	89	16
25	12	13	62	20	101	15	19	12	24	42	91	15
26	14	16	51	21	70	15	17	12	25	40	78	14
27	15	16	45	21	55	16	15	14	71	40	67	14
28	14	15	41	20	47	15	14	18	69	39	62	19
29	13	15	37	20	---	16	14	16	49	39	57	42
30	13	14	36	21	---	24	14	15	36	38	56	259
31	13	---	36	26	---	33	---	14	---	33	55	---
TOTAL	582	387	1157	766	1014	723	542	419	702	1850	2915	1267
MEAN	18.8	12.9	37.3	24.7	36.2	23.3	18.1	13.5	23.4	59.7	94.0	42.2
MAX	34	16	88	35	188	41	33	18	71	169	174	259
MIN	12	11	11	19	15	15	14	11	12	20	30	14

CAL YR 1989 TOTAL 9984.4 MEAN 27.4 MAX 215 MIN 7.0
WTR YR 1990 TOTAL 12324 MEAN 33.8 MAX 259 MIN 11

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-63, 1965-66, 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1977 to current year.

pH: June 1977 to June 1986.

WATER TEMPERATURE: June 1977 to current year.

DISSOLVED OXYGEN: June 1977 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1977.

REMARKS.--Interruptions of record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 531 microsiemens, Aug 11, 1989; minimum daily mean, 50 microsiemens, Nov. 4, 1987.

pH: Maximum daily mean, 7.4 units, Jan. 5, 1980, June 8, 1986; minimum daily mean, 4.9 units, July 21, 1978.

WATER TEMPERATURE: Maximum daily mean, 28.8°C, Aug. 6, 1989; minimum daily mean, 5.5°C, Dec. 24,25, 1989.

DISSOLVED OXYGEN: Maximum daily mean, 9.8 mg/L, Mar. 3, 1980; minimum daily mean, 0.1 mg/L, Sept. 5, 1979.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 512 microsiemens, May 25; minimum daily mean, 121 microsiemens, Aug. 8.

WATER TEMPERATURE: Maximum daily mean, 27.4°C, Aug. 9; minimum daily mean, 5.5°C, Dec. 24,25.

DISSOLVED OXYGEN: Maximum daily mean, 8.1 mg/L, Dec. 25; minimum daily mean, 3.2 mg/L, Aug. 18, Sept. 3.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	311	---	267	296	269	257	406	354	---	348	236
2	305	307	---	278	298	273	251	393	370	---	323	225
3	305	348	---	280	335	276	269	356	386	---	298	197
4	305	353	---	302	345	290	301	414	362	---	282	192
5	305	358	---	310	349	291	327	425	348	---	196	212
6	323	374	---	300	305	299	326	431	---	---	193	237
7	330	396	366	268	310	292	323	440	---	---	217	259
8	281	390	349	276	314	299	344	392	---	---	121	274
9	303	---	257	279	339	265	360	472	---	---	161	282
10	315	---	231	285	346	258	356	483	---	---	170	278
11	321	---	219	293	275	260	355	453	---	---	167	268
12	326	---	219	296	272	278	360	439	---	---	188	257
13	336	---	222	294	284	296	365	447	---	---	204	253
14	355	---	227	298	301	300	398	446	---	---	189	267
15	360	---	227	304	309	315	399	455	---	---	180	271
16	365	---	239	305	315	315	415	473	---	---	186	279
17	366	---	263	302	305	331	373	471	---	172	174	280
18	357	---	260	290	304	328	377	489	---	174	165	280
19	364	---	233	275	319	341	379	496	---	181	173	281
20	383	---	208	269	324	348	382	496	---	197	175	268
21	380	---	197	288	319	344	414	480	---	219	178	232
22	386	---	205	300	293	355	422	496	---	219	182	233
23	412	---	197	295	195	347	370	504	---	235	188	241
24	405	---	204	306	156	353	334	489	---	253	185	245
25	391	---	223	303	169	363	333	512	---	268	191	243
26	391	---	246	299	213	347	367	500	---	287	193	244
27	356	---	262	302	237	356	368	488	---	296	198	248
28	357	---	271	322	251	358	381	467	---	302	202	229
29	377	---	270	326	---	363	356	394	---	305	209	198
30	369	---	265	316	---	331	370	384	---	304	225	126
31	340	---	270	284	---	284	---	342	---	318	245	---
MEAN	347	---	---	294	288	314	354	449	---	---	203	244
MAX	412	---	---	326	349	363	422	512	---	---	348	282
MIN	281	---	---	267	156	258	251	342	---	---	121	126

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

TEMPERATURE, WATER (DEG C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.2	20.8	---	16.3	20.3	15.3	21.2	22.2	25.2	---	25.9	26.7
2	25.0	21.4	---	13.8	20.5	15.7	21.2	22.3	25.6	---	25.7	26.4
3	24.0	20.7	---	14.8	20.4	17.1	21.2	22.5	25.7	---	25.5	26.2
4	23.8	19.6	---	16.1	21.2	16.3	18.0	22.6	25.0	---	24.7	26.1
5	23.7	20.0	---	18.0	19.1	16.7	16.9	22.2	25.2	---	24.0	26.2
6	23.5	20.8	---	19.1	17.0	17.6	17.7	21.8	---	---	24.7	26.6
7	23.7	21.2	14.1	19.5	17.5	18.4	19.5	20.9	---	---	24.9	26.8
8	23.9	21.2	16.8	19.4	17.6	18.7	19.1	19.9	---	---	26.5	26.6
9	23.3	---	17.7	17.0	19.1	18.3	18.9	20.5	---	---	27.4	26.7
10	23.1	---	14.0	15.9	20.3	18.6	20.3	21.6	---	---	26.6	26.7
11	23.0	---	12.7	16.1	20.4	19.1	22.5	21.6	---	---	26.2	25.9
12	23.2	---	14.4	16.0	---	19.6	21.3	20.9	---	---	26.1	25.6
13	23.4	---	15.7	13.8	---	20.1	20.5	22.3	---	---	26.6	26.1
14	23.9	---	12.2	13.0	20.3	20.7	20.7	22.7	---	---	26.4	26.4
15	24.0	---	12.5	14.5	21.2	21.2	21.6	23.0	---	---	26.8	26.2
16	23.9	---	14.2	16.7	20.1	21.9	21.8	23.6	---	---	27.0	26.0
17	23.9	---	13.7	18.4	19.6	22.0	23.7	23.6	---	24.3	26.9	26.1
18	24.1	---	14.4	18.8	18.4	19.7	24.7	23.0	---	24.8	27.0	26.1
19	23.0	---	16.1	18.8	19.3	18.4	24.0	23.0	---	24.8	26.7	25.9
20	17.9	---	16.5	20.2	18.1	18.4	22.9	23.2	---	25.5	26.6	25.3
21	15.0	---	15.0	20.5	17.6	16.9	21.6	23.1	---	24.9	26.6	25.5
22	15.0	---	12.8	20.5	18.1	16.9	21.9	22.4	---	24.7	26.9	26.2
23	15.9	---	9.3	18.7	17.4	17.2	22.2	21.7	---	24.8	26.0	26.4
24	18.4	---	5.5	19.7	16.5	17.5	21.8	22.5	---	25.7	25.7	25.3
25	19.6	---	5.5	21.9	11.7	18.2	21.9	24.6	---	25.5	25.9	24.4
26	19.6	---	7.8	21.9	11.3	19.1	22.0	24.9	---	25.2	26.4	24.9
27	19.9	---	9.6	16.4	12.4	19.5	22.2	24.7	---	25.4	26.6	25.2
28	20.2	---	10.7	18.3	14.4	19.9	22.2	24.5	---	25.5	26.4	24.9
29	19.8	---	11.6	20.3	---	20.3	22.4	25.0	---	25.4	26.5	23.8
30	20.5	---	12.9	20.6	---	20.8	22.3	24.6	---	25.8	27.1	23.4
31	21.1	---	14.8	20.4	---	21.0	---	24.7	---	25.9	26.7	---
MEAN	21.8	---	---	17.9	---	18.7	21.3	22.8	---	---	26.2	25.8
MAX	25.2	---	---	21.9	---	22.0	24.7	25.0	---	---	27.4	26.8
MIN	15.0	---	---	13.0	---	15.3	16.9	19.9	---	---	24.0	23.4

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	4.4	5.3	6.1	5.3	5.7	5.9	---	4.0	3.5
2	---	---	---	5.3	5.1	6.1	5.6	5.7	5.9	---	3.8	3.3
3	---	---	---	5.3	5.2	5.9	5.6	5.5	5.8	---	3.7	3.2
4	---	---	---	5.0	5.2	6.3	6.5	5.5	5.6	---	4.0	3.3
5	---	---	---	4.5	5.7	6.3	6.9	5.7	5.7	---	3.5	3.3
6	---	---	7.1	4.3	6.3	6.2	6.8	6.0	---	---	3.6	3.4
7	---	---	6.6	4.2	6.1	6.1	6.4	6.1	---	---	3.8	3.6
8	---	---	5.6	4.3	6.2	6.0	6.7	6.4	---	---	3.8	3.7
9	---	---	3.8	5.0	6.0	6.2	6.9	6.1	---	---	3.4	3.8
10	---	---	5.0	5.5	5.7	6.1	6.7	5.4	---	---	3.6	4.0
11	---	---	5.8	5.7	5.2	5.9	6.0	5.5	---	---	3.5	4.0
12	---	---	5.6	5.7	5.7	6.0	6.4	5.9	---	---	3.6	3.7
13	---	---	4.7	6.3	6.5	6.0	6.8	5.7	---	---	3.7	3.7
14	---	---	5.8	6.8	6.4	5.8	6.7	5.7	---	---	3.3	3.7
15	---	---	6.1	6.4	6.1	5.7	6.3	5.6	---	---	3.3	3.8
16	---	---	5.6	---	5.8	5.5	6.4	5.5	---	---	3.5	3.8
17	---	---	5.6	---	5.5	5.4	6.0	5.5	---	---	3.3	3.6
18	---	---	5.3	---	5.4	6.0	5.9	5.6	---	---	3.2	3.5
19	---	---	4.6	5.4	5.3	6.5	5.9	5.5	---	3.8	3.3	3.5
20	---	---	4.2	5.0	5.3	6.5	6.2	5.5	---	3.8	3.4	3.6
21	---	---	4.8	---	5.4	7.0	6.6	5.5	---	4.1	3.5	3.9
22	---	---	5.5	5.0	5.1	7.0	6.5	5.6	---	4.2	3.4	3.9
23	---	---	6.6	5.7	5.5	6.9	6.3	5.9	---	4.4	3.5	4.0
24	---	---	7.9	---	5.3	6.9	6.2	5.8	---	4.3	3.5	4.2
25	---	---	8.1	5.5	6.0	6.7	6.4	6.0	---	4.5	3.4	4.6
26	---	---	7.4	5.5	6.5	6.5	6.4	5.9	---	4.5	3.5	4.6
27	---	---	6.6	6.7	6.4	6.4	6.3	5.7	---	4.4	3.5	4.6
28	---	---	6.2	6.4	6.2	6.3	5.9	5.3	---	4.3	3.5	4.6
29	---	---	5.9	5.9	---	6.1	5.8	5.4	---	4.2	3.5	4.7
30	---	---	5.5	5.7	---	5.5	5.8	5.7	---	4.2	3.5	4.7
31	---	---	4.9	4.8	---	5.2	---	5.8	---	4.1	3.6	---
MEAN	---	---	---	---	5.7	6.2	6.3	5.7	---	---	3.5	3.9
MAX	---	---	---	---	6.5	7.0	6.9	6.4	---	---	4.0	4.7
MIN	---	---	---	---	5.1	5.2	5.3	5.3	---	---	3.2	3.2

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
		(US/CM) (90095)	(00403)	(00010)	(00080)	(00076)	(00300)	(00915)	(00925)	(00930)	(00935)	
NOV 07...	1230	387	8.8	21.0	120	1.4	5.3	22	5.4	43	9.1	
MAY 29...	1030	364	7.8	23.5	150	0.45	7.7	20	5.2	40	7.4	
JUL 31...	1300	--	--	25.5	--	--	4.2	--	--	--	--	
AUG 29...	1200	200	6.8	25.0	480	0.63	4.6	15	4.2	18	4.0	
DATE		ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (00665)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	
		(90410)	(00945)	(00940)	(00615)	(00630)	(00610)	(00625)	(00665)	(70507)	(01105)	(01002)
NOV 07...	57	42	53	0.010	0.610	0.010	0.50	0.200	0.190	--	--	
MAY 29...	45	21	66	0.020	1.20	0.010	0.88	0.230	0.140	120	<1	
JUL 31...	--	--	--	--	--	--	--	--	--	320	--	
AUG 29...	27	4.6	29	0.010	0.320	0.020	1.7	0.350	0.340	370	1	
DATE		BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
		(01012)	(01027)	(01034)	(01042)	(01045)	(01051)	(01055)	(01067)	(01147)	(01092)	(00680)
NOV 07...	--	--	--	--	--	--	--	--	--	--	--	
MAY 29...	<10	<1	<10	2	120	<1	20	1	<1	10	11	
JUL 31...	<10	<1	<1	15	270	1	<10	3	--	20	--	
AUG 29...	<10	<1	<1	1	460	1	20	2	<1	10	37	

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266480 DAVENPORT CREEK NEAR LOUGHMAN, FL

LOCATION.--Lat 28°16'15", long 81°35'28", in NW¼ sec.35, T.25 S., R.27 E., Osceola County, Hydrologic Unit 03090101, at downstream side of culverts on State Highway 545, 2.0 mi upstream from mouth, and 2.5 mi northwest of Loughman.

DRAINAGE AREA.--23 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 80.49 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--21 years, 10.5 ft³/s, 6.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 498 ft³/s, Sept. 22, 1969, gage height, 9.76 ft; minimum, 0.32 ft³/s, May 19, 1981; minimum gage height, 4.02 ft, May 7,8, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 24	1930	*63	*7.13				

Minimum discharge, 1.0 ft³/s, June 1; minimum gage height, 4.27 ft, part of each day May 5-8, June 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	3.0	4.1	13	13	16	13	1.9	1.3	3.6	5.6	5.8
2	10	2.8	3.8	12	12	14	11	1.7	1.3	3.2	4.8	5.2
3	9.4	2.7	3.5	12	11	12	9.6	1.6	2.4	3.0	5.0	5.1
4	8.2	2.6	3.2	11	9.7	11	8.3	1.5	3.1	3.2	4.5	4.6
5	7.1	2.5	3.0	11	8.4	10	6.5	1.4	3.8	2.7	4.4	4.0
6	6.2	2.5	2.9	11	7.5	9.7	5.3	1.4	3.6	2.3	4.0	3.6
7	5.6	2.4	2.8	11	6.8	9.0	4.6	1.4	9.6	2.2	3.6	3.3
8	6.3	2.3	4.4	11	6.3	8.2	4.2	1.4	9.7	2.8	5.2	2.9
9	5.9	2.4	15	10	5.9	7.5	3.8	1.5	9.1	2.6	4.5	2.7
10	6.4	2.6	16	9.9	5.7	6.9	3.6	4.7	6.8	2.8	4.5	2.5
11	6.3	2.4	14	9.5	13	6.4	9.1	3.8	5.7	2.6	11	3.1
12	6.1	2.3	12	9.1	17	6.0	9.8	3.7	8.9	5.1	13	6.1
13	6.7	2.2	14	8.7	16	5.6	7.7	3.2	8.6	8.8	12	6.2
14	6.0	2.2	13	8.2	13	5.3	6.0	2.5	6.5	11	13	5.1
15	5.3	2.2	12	7.8	11	4.9	4.8	2.1	4.3	16	13	4.2
16	4.7	3.6	10	7.7	10	4.5	4.1	1.8	3.2	17	12	3.5
17	4.2	3.9	9.3	7.5	8.8	4.3	3.6	1.6	2.7	14	12	3.7
18	4.0	3.4	12	7.3	7.8	4.1	3.3	1.4	2.4	12	11	3.3
19	3.8	3.0	13	7.3	6.9	3.8	3.4	2.5	2.4	11	12	2.9
20	3.7	2.8	17	7.1	6.7	3.7	3.7	2.5	2.2	9.5	16	2.7
21	3.5	2.6	24	6.9	8.6	3.4	3.3	2.2	1.9	8.1	15	2.5
22	3.3	2.5	26	6.8	9.3	3.3	3.0	2.0	1.8	6.6	13	2.6
23	3.1	3.3	33	6.5	28	3.2	2.7	1.9	2.6	6.0	12	2.4
24	2.9	4.0	35	6.4	59	3.0	2.8	1.8	3.8	5.3	14	2.2
25	2.8	3.6	30	6.3	58	2.9	2.5	1.8	4.0	5.6	21	2.0
26	2.7	6.2	24	6.5	43	2.8	2.2	1.6	5.4	11	21	1.9
27	2.8	7.0	20	6.2	28	2.7	2.1	1.8	11	12	17	1.8
28	2.9	6.1	17	6.0	20	2.6	2.1	2.5	9.0	10	13	2.0
29	2.8	5.3	16	5.8	---	3.5	2.3	2.2	6.2	10	10	3.7
30	2.9	4.7	14	6.7	---	9.0	2.1	1.7	4.3	8.5	8.4	7.3
31	3.0	---	14	12	---	13	---	1.4	---	6.7	7.0	---
TOTAL	160.6	99.1	438.0	268.2	450.4	202.3	150.5	64.5	147.6	225.2	322.5	108.9
MEAN	5.18	3.30	14.1	8.65	16.1	6.53	5.02	2.08	4.92	7.26	10.4	3.63
MAX	12	7.0	35	13	59	16	13	4.7	11	17	21	7.3
MIN	2.7	2.2	2.8	5.8	5.7	2.6	2.1	1.4	1.3	2.2	3.6	1.8
CFSM	.23	.14	.61	.38	.70	.28	.22	.09	.21	.32	.45	.16
IN.	.26	.16	.71	.43	.73	.33	.24	.10	.24	.36	.52	.18

CAL YR 1989 TOTAL 2550.6 MEAN 6.99 MAX 68 MIN 1.0 CFSM .30 IN. 4.13
WTR YR 1990 TOTAL 2637.8 MEAN 7.23 MAX 59 MIN 1.3 CFSM .31 IN. 4.27

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266480 DAVENPORT CREEK NEAR LOUGHMAN, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM, DIS-SOLVED (MG/L) AS CA (00915)	MAGNESIUM, DIS-SOLVED (MG/L) AS MG (00925)	SODIUM, DIS-SOLVED (MG/L) AS NA (00930)	POTASSIUM, DIS-SOLVED (MG/L) AS K (00935)
NOV 07...	1100	156	8.4	19.5	100	0.25	5.3	18	5.3	4.5	2.3
MAY 29...	0845	156	7.9	23.0	60	0.31	9.2	17	4.9	4.8	2.2
AUG 29...	1030	139	7.2	24.5	440	0.55	5.7	19	4.7	6.9	1.3

DATE	ALKALINITY LAB (MG/L) AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	CHLORIDE, DIS-SOLVED (MG/L) AS CL (00940)	NITROGEN, NITRITE TOTAL (MG/L) AS N (00615)	NITROGEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	NITROGEN, AMMONIA TOTAL (MG/L) AS N (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L) AS N (00625)	PHOSPHORUS TOTAL (MG/L) AS P (00665)	PHOSPHORUS ORTHO TOTAL (MG/L) AS P (70507)	ALUMINUM, TOTAL RECOVERABLE (UG/L) AS AL (01105)	ARSENIC TOTAL (UG/L) AS AS (01002)
NOV 07...	48	13	11	0.010	1.40	0.010	0.20	0.030	0.020	--	--
MAY 29...	42	11	11	0.010	1.10	<0.010	0.50	0.050	0.040	50	<1
AUG 29...	27	17	17	0.010	0.360	0.020	2.1	0.060	0.050	260	<1

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L) AS BE (01012)	CADMIUM TOTAL RECOVERABLE (UG/L) AS CD (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L) AS CR (01034)	COPPER, TOTAL RECOVERABLE (UG/L) AS CU (01042)	IRON, TOTAL RECOVERABLE (UG/L) AS FE (01045)	LEAD, TOTAL RECOVERABLE (UG/L) AS PB (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L) AS MN (01055)	NICKEL, TOTAL RECOVERABLE (UG/L) AS NI (01067)	SELENIUM, TOTAL RECOVERABLE (UG/L) AS SE (01147)	ZINC, TOTAL RECOVERABLE (UG/L) AS ZN (01092)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 29...	<10	<1	<10	<1	80	<1	20	<1	<1	10	5.5
AUG 29...	<10	<1	<1	1	500	<1	10	<1	<1	10	46

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266495 REEDY CREEK AT S-40, NEAR LOUGHMAN, FL

LOCATION.--Lat 28°16'32", long 81°32'39" in SE¼ sec.30, T.25 S., R.28 E., Osceola County, Hydrologic Unit 03090101, on right bank 15 ft upstream from spillway, 2.8 mi northeast of Loughman, and 22 mi upstream from mouth.

DRAINAGE AREA.--175 mi², approximately.

PERIOD OF RECORD.--October 1986 to current year (gage heights only). Records of gage heights prior to October 1987 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark).

REMARKS.--Flow regulated at station by manipulation of spillway gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 70.50 ft, Nov. 26, 1988; minimum daily, 66.76 ft, June 3, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 69.91 ft, Aug. 15; minimum daily, 66.76 ft, June 3.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68.69	67.98	67.82	68.25	67.35	68.32	67.90	67.48	66.81	---	69.12	68.37
2	68.67	67.94	67.82	68.22	67.33	68.26	67.92	67.45	66.78	---	69.11	68.27
3	68.66	67.90	67.80	68.18	67.29	68.18	67.93	67.38	66.76	---	69.15	68.20
4	68.64	67.87	67.76	68.14	67.24	68.10	67.90	67.34	66.86	---	69.16	68.13
5	68.62	67.85	67.73	68.09	67.20	68.01	67.86	67.30	67.03	---	69.29	68.07
6	68.59	67.82	67.72	68.06	67.16	67.91	67.82	67.27	67.18	---	69.30	68.00
7	68.57	67.78	67.70	68.02	67.18	67.80	67.78	67.25	67.51	---	69.29	67.88
8	68.59	67.76	67.59	67.97	67.17	67.70	67.75	67.21	67.46	---	69.34	67.72
9	68.58	67.74	67.74	67.82	67.14	67.59	67.72	67.20	67.36	---	69.38	67.58
10	68.58	67.73	67.74	67.66	67.12	67.49	67.68	67.40	67.26	---	69.44	67.45
11	68.56	67.71	67.80	67.59	67.44	67.42	67.88	67.48	67.16	---	69.74	67.40
12	68.56	67.68	67.82	67.53	67.58	67.40	67.97	67.42	67.65	---	69.81	67.48
13	68.56	67.66	67.90	67.47	67.59	67.35	67.94	67.37	67.69	---	69.80	67.46
14	68.54	67.63	67.90	67.42	67.53	67.28	67.89	67.32	---	---	69.89	67.41
15	68.51	67.61	67.88	67.40	67.45	67.23	67.85	67.27	---	---	69.91	67.34
16	68.48	67.74	67.84	67.38	67.40	67.17	67.81	67.23	---	---	69.87	67.29
17	68.45	67.79	67.77	67.36	67.33	67.13	67.78	67.19	---	---	69.80	67.25
18	68.42	67.75	67.81	67.37	67.34	67.11	67.76	67.15	---	---	69.65	67.22
19	68.39	67.70	67.83	67.36	67.35	67.07	67.82	67.16	---	---	69.56	67.19
20	68.35	67.66	67.91	67.38	67.27	67.15	67.82	67.17	---	---	69.47	67.17
21	68.31	67.63	68.06	67.34	67.28	67.38	67.78	67.15	---	---	69.36	67.14
22	68.27	67.60	68.17	67.31	67.32	67.43	67.73	67.18	---	---	69.26	67.11
23	68.23	67.66	68.35	67.28	67.77	67.45	67.71	67.28	---	---	69.18	67.06
24	68.20	67.72	68.39	67.24	68.12	67.45	67.75	67.21	---	---	69.11	67.02
25	68.17	67.70	68.42	67.22	68.33	67.44	67.73	67.17	---	---	69.06	66.98
26	68.13	67.80	68.43	67.23	68.43	67.43	67.69	67.13	---	---	68.99	66.95
27	68.12	67.86	68.41	67.21	68.41	67.43	67.65	67.17	---	---	68.90	66.93
28	68.10	67.85	68.39	67.19	68.37	67.42	67.60	67.40	---	---	68.80	67.03
29	68.06	67.85	68.36	67.20	---	67.44	67.57	67.41	---	---	68.71	67.46
30	68.03	67.85	68.34	67.25	---	67.65	67.52	67.18	---	---	68.60	68.05
31	68.01	---	68.29	67.33	---	67.81	---	66.87	---	69.15	68.49	---
MEAN	68.41	67.76	67.98	67.56	67.52	67.55	67.78	67.26	---	---	69.31	67.49
MAX	68.69	67.98	68.43	68.25	68.43	68.32	67.97	67.48	---	---	69.91	68.37
MIN	68.01	67.60	67.59	67.19	67.12	67.07	67.52	66.87	---	---	68.49	66.93

CAL YR 1989 MEAN 67.74 MAX 68.84 MIN 66.95

SOUTH FLORIDA

KISSTIMMEE RIVER BASIN

02266496 REEDY CREEK BELOW S-40, NEAR LOUGHMAN, FL

LOCATION.--Lat 28°16'32", long 81°32'39" in SE¼ sec.30, T.25 S., R.28 E., Osceola County, Hydrologic Unit 03090101, on left bank 30 ft downstream from spillway, 2.8 mi northeast of Loughman, and 22 mi upstream from mouth.

DRAINAGE AREA.--175 mi², approximately.

PERIOD OF RECORD.--October 1986 to current year (gage heights only). Records of gage heights prior to October 1987 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark).

REMARKS.--Flow regulated at station by manipulation of spillway gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 69.72 ft, Apr. 2, 1987; minimum daily, 65.17 ft, July 21, 1989.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.86	65.41	65.45	67.59	67.27	67.78	65.85	65.52	66.65	65.69	66.76	67.86
2	65.82	65.39	65.45	67.58	67.26	67.75	65.72	65.51	66.63	65.60	66.65	67.82
3	65.79	65.38	65.45	67.57	67.22	67.73	65.64	65.49	66.62	65.54	66.68	67.80
4	65.76	65.37	65.44	67.55	67.18	67.69	65.58	65.48	66.68	65.51	66.67	67.76
5	65.77	65.37	65.42	67.54	67.15	67.65	65.52	65.47	66.78	65.49	67.12	67.72
6	65.75	65.37	65.32	67.53	67.12	67.61	65.50	65.46	66.86	65.47	67.21	67.68
7	65.74	65.37	65.30	67.52	67.13	67.56	65.49	65.45	67.03	65.45	67.24	67.63
8	65.75	65.38	66.40	67.50	67.12	67.50	65.46	65.43	67.03	65.44	67.33	67.54
9	65.74	65.38	67.28	67.61	67.10	67.44	65.45	65.43	66.99	65.43	67.43	67.44
10	65.73	65.39	67.31	67.65	67.08	67.37	65.50	65.48	66.95	65.44	67.57	67.36
11	65.72	65.39	67.34	67.59	67.32	67.31	65.70	65.48	66.89	65.45	67.92	67.31
12	65.74	65.39	67.37	67.53	67.42	67.29	65.73	65.47	66.90	65.53	68.02	67.37
13	65.79	65.39	67.43	67.47	67.43	67.26	65.66	65.46	66.89	65.86	68.04	67.35
14	65.75	65.39	67.43	67.43	67.39	67.21	65.62	65.45	66.85	65.96	68.16	67.31
15	65.71	65.38	67.43	67.39	67.34	67.16	65.60	65.44	66.80	65.99	68.18	67.26
16	65.68	65.46	67.41	67.37	67.30	67.12	65.58	65.43	66.77	65.92	68.15	67.22
17	65.66	65.46	67.39	67.35	67.25	67.08	65.56	65.42	66.73	65.86	68.33	67.19
18	65.64	65.44	67.41	67.36	67.24	67.07	65.55	65.41	66.71	65.94	68.55	67.16
19	65.63	65.42	67.42	67.36	67.26	67.03	65.56	65.41	66.71	66.28	68.53	67.14
20	65.69	65.42	67.46	67.37	67.20	66.88	65.55	65.41	66.68	66.77	68.47	67.12
21	65.63	65.41	67.52	67.34	67.21	66.51	65.54	65.40	66.66	67.09	68.39	67.09
22	65.60	65.41	67.55	67.27	67.24	66.31	65.52	65.40	66.63	67.16	68.31	67.07
23	65.57	65.44	67.62	67.23	67.54	66.16	65.55	65.41	66.67	67.20	68.26	67.03
24	65.55	65.45	67.63	67.19	67.72	66.02	65.61	65.40	66.74	67.22	68.20	66.99
25	65.52	65.42	67.64	67.17	67.78	65.89	65.60	65.39	66.75	67.20	68.15	66.95
26	65.51	65.49	67.64	67.18	67.80	65.80	65.58	65.38	66.61	67.27	68.10	66.93
27	65.51	65.49	67.63	67.16	67.81	65.72	65.57	65.38	66.30	67.25	68.06	66.91
28	65.50	65.47	67.63	67.15	67.79	65.65	65.55	65.41	66.07	67.20	68.03	67.00
29	65.48	65.46	67.62	67.15	---	65.66	65.55	65.42	65.90	67.18	68.00	67.32
30	65.44	65.46	67.61	67.19	---	65.98	65.54	66.09	65.78	67.11	67.96	67.64
31	65.42	---	67.60	67.25	---	65.93	---	66.67	---	66.97	67.91	---
MEAN	65.66	65.41	66.99	67.39	67.35	66.87	65.58	65.50	66.68	66.24	67.82	67.33
MAX	65.86	65.49	67.64	67.65	67.81	67.78	65.85	66.67	67.03	67.27	68.55	67.86
MIN	65.42	65.37	65.30	67.15	67.08	65.65	65.45	65.38	65.78	65.43	66.65	66.91
CAL YR 1989	MEAN 66.12	MAX 67.85	MIN 65.17									
WTR YR 1990	MEAN 66.57	MAX 68.55	MIN 65.30									

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266500 REEDY CREEK NEAR LOUGHMAN, FL

LOCATION.--Lat 28°15'48", long 81°32'12", in SW¼ sec.32, T.25 S., R.28 E., Osceola County, Hydrologic Unit 03090101, on left bank 20 ft upstream from bridge on U.S. Highways 17 and 92, 1.0 mi downstream from Reedy Creek Improvement District Structure 40. 2.5 mi northeast of Loughman, 3 mi downstream from Davenport Creek, and 21 mi upstream from mouth.

DRAINAGE AREA.--110 mi², approximately, includes an indeterminate portion of the Reedy Creek Swamp watershed.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to September 1959, July 1968 to current year.

REVISED RECORDS.--WRD FL 1968: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 64.49 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 20, 1940, nonrecording gage at same site and datum.

REMARKS.--Records fair. Natural flow of stream affected by several canals, levees, and control structures which divert an undetermined amount of water into Reedy Creek above station or into the Shingle Creek basin. Since May 1970, flow regulated by Reedy Creek Improvement District Structure 40.

AVERAGE DISCHARGE.--42 years (water years 1940-59, 1969-90), 65.4 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 790 ft³/s, Sept. 24, 1969, gage height, 4.25 ft, from rating curve extended above 400 ft³/s; no flow for many days in some years; minimum gage height, -0.25 ft, June 1, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 176 ft³/s, Aug. 18,19,20, gage height, 2.95 ft; no flow part of each day Dec. 6,7; minimum gage height, 0.50 ft, Dec. 7, May 16,27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	.37	.67	59	37	78	3.6	1.6	9.6	5.2	30	87
2	2.9	.31	.60	59	37	77	2.5	1.7	10	4.2	26	84
3	2.6	.25	.59	58	36	74	1.9	1.7	10	3.6	27	84
4	2.3	.22	.54	58	35	71	1.5	1.8	11	3.3	25	79
5	2.3	.19	.44	57	33	68	1.6	1.8	12	3.0	33	74
6	2.1	.19	.14	56	31	64	1.6	1.8	14	2.8	38	70
7	2.1	.21	.01	56	30	60	1.6	1.9	16	2.6	40	66
8	2.1	.24	5.9	55	30	56	1.7	1.9	18	2.6	43	60
9	2.0	.26	22	57	29	52	1.7	1.9	18	2.5	46	53
10	2.0	.28	28	66	28	47	1.7	1.8	17	2.5	53	49
11	1.9	.28	32	66	37	44	2.2	1.8	17	2.5	72	45
12	2.1	.28	36	62	40	41	2.3	1.8	17	3.4	85	46
13	2.6	.28	42	57	42	40	1.8	1.8	17	7.3	93	45
14	2.2	.28	42	54	42	38	1.5	1.9	16	8.7	114	45
15	1.9	.28	43	52	40	35	1.4	1.9	16	9.3	124	42
16	1.7	.75	43	51	38	33	1.5	2.0	15	8.1	120	40
17	1.6	.70	42	49	36	32	1.5	2.0	15	7.1	123	39
18	1.5	.58	45	47	33	31	1.5	2.0	14	8.2	163	37
19	1.4	.48	45	47	34	29	1.5	2.0	14	13	176	36
20	1.6	.44	50	46	33	26	1.5	2.0	14	21	171	36
21	1.5	.44	53	46	32	15	1.5	2.0	13	31	161	35
22	1.3	.41	54	43	33	10	1.6	2.1	13	36	150	33
23	1.2	.62	61	40	53	7.6	1.6	2.0	14	39	145	32
24	1.1	.66	61	38	69	5.5	1.5	2.0	15	42	134	31
25	.97	.52	61	36	73	4.0	1.5	2.1	15	42	127	30
26	.85	.91	61	36	77	3.0	1.5	2.0	14	45	118	29
27	.92	.98	61	35	80	2.3	1.6	2.0	12	44	111	28
28	.89	.78	61	34	80	1.8	1.6	2.0	11	43	107	32
29	.73	.71	61	34	---	2.0	1.6	2.0	8.0	42	103	43
30	.53	.71	60	34	---	5.0	1.6	3.7	6.3	39	98	57
31	.44	---	60	36	---	4.5	---	8.5	---	36	93	---
TOTAL	52.63	13.61	1132.89	1524	1198	1056.7	51.7	67.5	411.9	559.9	2949	1467
MEAN	1.70	.45	36.5	49.2	42.8	34.1	1.72	2.18	13.7	18.1	95.1	48.9
MAX	3.3	.98	61	66	80	78	3.6	8.5	18	45	176	87
MIN	.44	.19	.01	34	28	1.8	1.4	1.6	6.3	2.5	25	28

CAL YR 1989 TOTAL 6436.91 MEAN 17.6 MAX 105 MIN .00
WTR YR 1990 TOTAL 10484.83 MEAN 28.7 MAX 176 MIN .01

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266500 REEDY CREEK NEAR LOUGHMAN, FL--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1965, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)	PH LAB (STANDARD) (00403)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT) (00080)	TURBIDITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNESIUM, DIS-SOLVED (MG/L) (00925)	SODIUM, DIS-SOLVED (MG/L) (00930)	POTASSIUM, DIS-SOLVED (MG/L) (00935)
NOV 07...	1130	293	7.5	19.5	160	0.37	1.9	21	5.6	26	6.5
MAY 29...	0930	389	7.9	23.5	60	0.13	5.7	23	6.1	40	8.3
JUL 31...	1400	--	--	25.0	--	--	1.1	--	--	--	--
AUG 29...	1100	166	6.7	25.0	520	0.36	5.2	17	4.1	13	3.1
DATE	ALKALINITY LAB (MG/L) AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	CHLORIDE, DIS-SOLVED (MG/L) AS CL (00940)	NITROGEN, NITRITE TOTAL (MG/L) AS N (00615)	NITROGEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	NITROGEN, AMMONIA TOTAL (MG/L) AS N (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L) AS N (00625)	PHOSPHORUS TOTAL (MG/L) AS P (00665)	PHOSPHORUS ORTHO TOTAL (MG/L) AS P (70507)	ALUMINUM, TOTAL RECOVERABLE (UG/L) AS AL (01105)	ARSENIC TOTAL (UG/L) AS AS (01002)
NOV 07...	64	29	37	0.010	0.200	0.060	0.68	0.160	0.150	--	--
MAY 29...	54	21	68	0.010	0.900	0.040	0.53	0.170	0.100	40	<1
JUL 31...	--	--	--	--	--	--	--	--	--	260	--
AUG 29...	32	19	21	0.010	0.020	0.050	2.1	0.250	0.240	240	<1
DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L) AS BE (01012)	CADMIUM TOTAL RECOVERABLE (UG/L) AS CD (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L) AS CR (01034)	COPPER, TOTAL RECOVERABLE (UG/L) AS CU (01042)	IRON, TOTAL RECOVERABLE (UG/L) AS FE (01045)	LEAD, TOTAL RECOVERABLE (UG/L) AS PB (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L) AS MN (01055)	NICKEL, TOTAL RECOVERABLE (UG/L) AS NI (01067)	SELENIUM, TOTAL (UG/L) AS SE (01147)	ZINC, TOTAL RECOVERABLE (UG/L) AS ZN (01092)	CARBON, ORGANIC TOTAL (MG/L) AS C (00680)
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 29...	<10	<1	<10	1	60	<1	20	1	<1	20	6.3
JUL 31...	<10	<1	<1	7	390	2	20	1	--	20	--
AUG 29...	<10	<1	<1	<1	640	1	20	<1	<1	20	41

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266550 REEDY CREEK AT STATE HIGHWAY 531 NEAR POINSIANNA, FL

LOCATION.--Lat 28°08'59", long 81°26'28", in SE¼ sec.7, T.27 S., R.29 E., Osceola County, Hydrologic Unit 03090101, at bridge on State Highway 531, 1.6 mi upstream from Lake Russell, and about 9 mi southeast of Poinsianna.

DRAINAGE AREA.--170 mi², approximately.

PERIOD OF RECORD.--October 1978 to current year (discharge measurements only).

EXTREMES FOR PERIOD OF RECORD.--Maximum measured, 956 ft³/s, Apr. 3, 1987; no flow observed at times most years.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
OCT			MAY		
17...	0933	33	29...	1105	.29
DEC			JUN		
19...	1005	19	22...	1320	.00
FEB			JUL		
05...	0851	58	23...	1440	.39
APR			SEP		
02...	0905	19	19...	0845	25

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02267000 CATFISH CREEK NEAR LAKE WALES, FL

LOCATION.--Lat 27°57'40", long 81°29'48", in sec.14, T.29 S., R.28 E., Polk County, Hydrologic Unit 03090101, on left bank, 0.2 mi downstream from Lake Pierce, 7 mi northeast of city of Lake Wales, and 9.3 mi upstream from mouth.

DRAINAGE AREA.--58.9 mi².

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 72.70 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Dec. 29 to Feb. 5. Records good except for periods of estimated daily record, which are poor.

AVERAGE DISCHARGE.--43 years, 42.3 ft³/s, 9.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 235 ft³/s, Sept. 17,18, 1960; maximum gage height, 6.02 ft, Sept. 15, 1960, affected by wind; no flow, June 3-10, 1985; minimum gage height, 2.26 ft, June 8, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft³/s, Aug. 20,21,22; maximum gage height, 3.39 ft, Aug. 21,22,23,30; minimum discharge, 0.81 ft³/s, May 26, June 2; minimum gage height, 2.63 ft, June 2,3,6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.9	7.9	16	14	15	7.0	5.0	1.2	5.7	13	17
2	11	8.0	7.9	15	13	15	6.4	4.8	1.1	6.1	14	16
3	11	7.8	8.1	16	13	15	8.2	4.2	1.1	5.8	15	16
4	11	7.5	7.5	16	14	14	8.0	3.9	1.3	5.8	15	15
5	10	7.5	7.3	15	13	14	7.4	3.8	1.2	6.1	14	15
6	9.6	7.3	7.0	16	12	14	6.9	3.7	1.2	5.9	14	14
7	10	7.1	7.0	15	12	13	6.9	3.4	2.0	5.5	13	13
8	13	6.9	7.5	15	12	12	6.7	2.8	2.1	5.2	14	13
9	12	7.0	11	15	12	12	6.0	2.5	2.4	5.1	15	12
10	12	6.9	10	14	12	12	6.0	2.8	2.5	5.2	15	12
11	12	6.7	10	14	13	11	7.6	2.8	3.1	5.1	16	11
12	12	6.4	10	14	13	11	7.9	2.4	3.3	5.3	15	11
13	12	6.2	12	14	12	11	7.2	2.4	3.0	6.5	16	10
14	12	6.6	11	13	12	10	6.9	2.4	2.9	7.5	18	9.9
15	12	6.5	10	13	11	9.6	6.7	2.1	2.8	8.6	18	9.5
16	11	7.8	10	14	11	9.3	6.4	1.9	2.6	9.7	18	9.5
17	11	7.4	10	13	12	9.3	6.6	1.8	2.4	9.4	18	9.2
18	11	6.9	11	13	11	9.2	6.6	1.8	2.6	9.4	19	8.7
19	11	6.6	11	14	11	8.5	6.1	1.7	2.8	9.3	20	8.6
20	11	6.6	12	13	12	8.6	5.8	1.4	2.9	9.4	21	8.4
21	9.4	6.6	13	14	12	7.7	5.9	1.3	2.9	9.4	22	8.0
22	9.0	6.5	14	14	11	7.2	5.6	1.3	3.1	9.8	22	7.9
23	8.9	6.7	17	14	16	6.8	5.5	1.2	3.5	10	21	7.9
24	8.9	6.7	17	13	18	6.4	5.8	1.1	4.0	9.7	20	7.3
25	8.7	6.4	15	14	17	6.4	5.3	1.2	4.6	9.5	19	6.9
26	8.7	7.5	15	13	16	6.1	5.2	.99	5.8	9.8	19	6.7
27	8.8	8.2	15	13	15	6.0	4.9	1.2	6.2	10	19	6.4
28	8.8	8.2	15	14	15	5.4	4.7	1.6	6.0	10	19	6.3
29	8.8	8.4	16	15	---	5.7	5.1	1.6	5.6	11	19	7.1
30	8.1	8.3	16	14	---	6.3	5.2	1.3	5.5	11	18	9.9
31	8.0	---	17	13	---	6.8	---	1.2	---	13	18	---
TOTAL	321.7	215.1	358.2	439	365	304.3	190.5	71.59	91.7	249.8	537	313.2
MEAN	10.4	7.17	11.6	14.2	13.0	9.82	6.35	2.31	3.06	8.06	17.3	10.4
MAX	13	8.4	17	16	18	15	8.2	5.0	6.2	13	22	17
MIN	8.0	6.2	7.0	13	11	5.4	4.7	.99	1.1	5.1	13	6.3
CFSM	.18	.12	.20	.24	.22	.17	.11	.04	.05	.14	.29	.18
IN.	.20	.14	.23	.28	.23	.19	.12	.05	.06	.16	.34	.20

CAL YR 1989 TOTAL 5108.2 MEAN 14.0 MAX 36 MIN 3.6 CFSM .24 IN. 3.23
WTR YR 1990 TOTAL 3457.09 MEAN 9.47 MAX 22 MIN .99 CFSM .16 IN. 2.18

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02268903 KISSIMMEE RIVER AT S-65, NEAR LAKE WALES, FL

LOCATION.--Lat 27°48'14", long 81°11'53", in NW¼ sec.11, T.31 S., R.31 E., Osceola County, Hydrologic Unit 03090101, on right bank at upstream side of lock and control structure 65, 0.1 mi downstream from bridge on State Highway 60, and 25 mi southeast of town of Lake Wales.

DRAINAGE AREA.--1,607 mi² at State Highway 60, includes areas drained by Lake Weohyakapka and Lake Marian.

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1969, published as Kissimmee River below Lake Kissimmee.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Mar. 21, 1934, nonrecording gage at bridge 0.1 mi upstream at datum 1.25 ft lower. Mar. 21, 1934, to Sept. 30, 1950, water-stage recorder 3.2 mi downstream at datum 1.52 ft lower. Mar. 21, 1934, to Sept. 21, 1966, nonrecording gage at bridge 0.1 mi upstream used as supplementary gage. Oct. 1, 1950 to Sept. 30, 1969, water-stage recorder 3.2 mi downstream at datum 43.48 ft higher. Aug. 17, 1962, to Sept. 30, 1969, auxiliary water-stage recorder 5.1 mi downstream and at downstream side of lock and control structure 65 subsequent to Sept. 30, 1969.

REMARKS.--Records good. Flow regulated by operation of control structure 65 since July 1964 and by storage releases at several structures in headwaters. Discharge computed from relation between discharge, head, and gate openings. Gage heights are published as elevations for Lake Kissimmee (station 02268900) in the section of this report entitled "Lake Elevations."

COOPERATION.--Gate-operation record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--57 years, 1,023 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft³/s, Feb. 23, 1988; maximum gage height, 13.16 ft, Oct. 9, 1953, from floodmark, site and datum then in use; maximum reverse flow measured, 1,190 ft³/s, Oct. 17, 1956; no flow for many days in most years; minimum gage height, 42.87 ft, May 25, 1977, present site and datum (result of drawdown of Lake Kissimmee).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,760 ft³/s, Mar. 1; maximum gage height, 52.86 ft, Jan. 13; no flow for many days; minimum gage height, 48.81 ft, June 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	2990	3690	409	527	.00	.00	.00	.00
2	.00	.00	.00	.00	3230	3660	594	525	.00	.00	.00	.00
3	.00	.00	.00	.00	3210	3260	1790	520	.00	.00	.00	.00
4	.00	.00	.00	.00	3200	3040	2380	516	.00	.00	.00	.00
5	.00	.00	.00	.00	3230	2640	1610	515	.00	.00	.00	.00
6	.00	.00	.00	.00	3170	2040	1170	514	.00	.00	.00	.00
7	.00	.00	.00	.00	3160	1420	1170	517	.00	.00	.00	.00
8	.00	.00	.00	.00	3140	574	1160	290	.00	.00	.00	.00
9	.00	.00	.00	543	3120	.00	1380	167	.00	.00	.00	.00
10	.00	.00	.00	1220	3100	.00	1390	107	.00	.00	.00	.00
11	.00	.00	.00	1410	3110	.00	1160	69	.00	.00	.00	.00
12	.00	.00	.00	1410	3460	.00	1140	69	.00	.00	.00	.00
13	.00	.00	.00	1430	2880	.00	1140	67	.00	.00	.00	.00
14	.00	.00	.00	1810	1190	.00	1130	67	.00	.00	.00	.00
15	.00	.00	.00	2100	.00	118	738	127	.00	.00	.00	.00
16	.00	.00	.00	2090	.00	183	561	269	.00	.00	.00	.00
17	.00	.00	.00	2500	.00	.00	556	330	.00	.00	.00	.00
18	.00	.00	.00	2760	.00	.00	547	423	.00	.00	.00	.00
19	.00	.00	.00	2760	.00	.00	548	495	.00	.00	.00	.00
20	.00	.00	.00	2740	127	.00	549	485	.00	.00	.00	.00
21	.00	.00	.00	2740	824	130	547	482	.00	.00	.00	.00
22	.00	.00	.00	2740	1240	198	548	384	.00	.00	.00	.00
23	.00	.00	.00	2740	2500	70	546	323	.00	.00	.00	.00
24	.00	.00	.00	2720	3670	.00	544	319	.00	.00	.00	.00
25	.00	.00	.00	2710	3690	.00	538	314	.00	.00	.00	.00
26	.00	.00	.00	2740	3710	.00	536	312	.00	.00	.00	.00
27	.00	.00	.00	2700	3700	.00	526	315	.00	.00	.00	.00
28	.00	.00	.00	2690	3710	.00	524	318	.00	.00	.00	.00
29	.00	.00	.00	2670	---	.00	528	756	.00	.00	.00	.00
30	.00	.00	.00	2660	---	.00	529	986	.00	.00	.00	.00
31	.00	---	.00	2650	---	.00	---	337	---	.00	.00	---
TOTAL	0.00	0.00	0.00	52533.00	65361.00	21023.00	26488	11445	0.00	0.00	0.00	0.00
MEAN	.0000	.0000	.0000	1695	2334	678	883	369	.0000	.0000	.0000	.0000
MAX	.00	.00	.00	2760	3710	3690	2380	986	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	409	67	.00	.00	.00	.00

CAL YR 1989 TOTAL 188414.00 MEAN 516 MAX 2930 MIN .00
WTR YR 1990 TOTAL 176850.00 MEAN 485 MAX 3710 MIN .00

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02268904 KISSIMMEE RIVER BELOW S-65, NEAR LAKE WALES, FL

LOCATION.--Lat 27°48'14", long 81°11'53" in NW¼ sec.11, T.31 S., R.31 E., Osceola County, Hydrologic Unit 03090101, on right bank at downstream side of lock and control structure 65, 0.1 mi downstream from bridge on State Highway 60, and 25 mi southeast of town of Lake Wales.

DRAINAGE AREA.--1,607 mi², at State Highway 60, includes areas drained by Lake Weohyakapka and Lake Marian.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). This is the auxiliary gage for station 02268903 located at upstream side of lock and control structure.

REMARKS.--Gage heights partially regulated by operation of structure 65 upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 51.44 ft, Oct. 10, 1969; minimum daily, 41.55 ft, Apr. 4, 1978 (result of drawdown of Lake Kissimmee).

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 47.01 ft, Sept. 30; minimum daily, 44.77 ft, Dec. 13.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.35	46.34	46.34	46.26	46.49	46.27	46.38	46.35	46.28	---	46.25	46.35
2	46.33	46.33	46.35	46.33	46.56	46.25	46.43	46.34	46.40	---	46.26	46.38
3	46.30	46.31	46.34	46.40	46.55	46.27	46.32	46.32	46.37	---	46.27	46.34
4	46.27	46.29	46.34	46.44	46.51	46.26	46.34	46.34	46.33	---	46.28	46.32
5	46.35	46.29	46.33	46.45	46.49	46.33	46.23	46.38	46.41	---	46.34	46.27
6	46.40	46.28	46.33	46.33	46.48	46.31	46.30	46.39	46.38	---	46.35	46.30
7	46.39	46.27	46.33	46.37	46.44	46.24	46.33	46.35	46.34	---	46.32	46.31
8	46.30	46.26	46.35	46.42	46.43	46.24	46.30	46.34	46.25	---	46.32	46.35
9	46.26	46.25	46.41	46.48	46.40	46.24	46.23	46.35	46.27	---	46.52	46.32
10	46.27	46.24	46.42	46.45	46.37	46.29	46.34	46.34	46.41	46.34	46.54	46.31
11	46.34	46.24	46.44	46.43	46.41	46.32	46.32	46.36	46.39	46.31	46.25	46.26
12	46.36	46.22	45.35	46.37	46.43	46.33	46.33	46.43	46.32	46.38	46.24	46.26
13	46.38	46.21	44.77	46.39	46.36	46.36	46.32	46.44	46.34	46.55	46.32	46.31
14	46.38	46.20	44.87	46.40	46.16	46.37	46.30	46.33	46.38	46.41	46.40	46.32
15	46.39	46.19	44.93	46.47	46.10	46.40	46.32	46.34	46.34	46.65	46.28	46.30
16	46.37	46.24	44.98	46.47	46.12	46.31	46.31	46.40	46.28	46.70	46.26	46.34
17	46.34	46.25	45.05	46.46	46.10	46.23	46.33	46.34	46.26	46.45	46.28	46.35
18	46.31	46.26	45.09	46.50	46.11	46.20	46.41	46.35	46.24	46.22	46.08	46.25
19	46.31	46.29	45.14	46.46	46.12	46.20	46.38	46.27	46.24	46.24	46.24	46.61
20	46.31	46.28	45.19	46.47	46.19	46.19	46.35	46.33	46.29	46.39	46.44	46.43
21	46.32	46.27	45.29	46.47	46.41	46.22	46.35	46.36	46.28	46.32	46.32	46.27
22	46.36	46.27	45.35	46.44	46.27	46.35	46.35	46.38	46.25	46.40	46.31	46.26
23	46.36	46.27	45.69	46.40	46.49	46.31	46.34	46.31	46.26	46.34	46.28	46.29
24	46.35	46.28	46.06	46.40	46.72	46.30	46.35	46.32	46.33	46.33	46.28	46.36
25	46.34	46.29	46.39	46.37	46.56	46.27	46.35	46.39	46.36	46.37	46.30	46.30
26	46.35	46.32	46.47	46.36	46.45	46.25	46.34	46.37	46.48	46.32	46.31	46.29
27	46.34	46.43	46.36	46.37	46.38	46.22	46.40	46.34	46.64	46.29	46.28	46.29
28	46.35	46.37	46.34	46.33	46.30	46.20	46.37	46.36	46.42	46.28	46.30	46.34
29	46.34	46.34	46.34	46.34	---	46.20	46.38	46.16	---	46.29	46.30	46.47
30	46.35	46.34	46.42	46.37	---	46.20	46.36	46.07	---	46.31	46.30	47.01
31	46.35	---	46.34	46.43	---	46.25	---	46.22	---	46.30	46.57	---
MEAN	46.34	46.28	45.88	46.41	46.37	46.27	46.34	46.33	---	---	46.32	46.35
MAX	46.40	46.43	46.47	46.50	46.72	46.40	46.43	46.44	---	---	46.57	47.01
MIN	46.26	46.19	44.77	46.26	46.10	46.19	46.23	46.07	---	---	46.08	46.25

CAL YR 1989 MEAN 46.27 MAX 46.92 MIN 44.77

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02270500 ARBUCKLE CREEK NEAR DE SOTO CITY, FL

LOCATION.--Lat 27°26'32", long 81°17'51", in SE¼ sec.11, T.35 S., R.30 E., Highlands County, Hydrologic Unit 03090101, on right bank 20 ft downstream from bridge on U.S. Highway 98, 1.3 mi upstream from mouth, and 7 mi east of De Soto City.

DRAINAGE AREA.--379 mi², excludes area drained by Lake Weohyakapka and includes area drained by Lake Sebring.

PERIOD OF RECORD.--June 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 35.51 ft above National Geodetic Vertical Datum of 1929. Since June 7, 1967 auxiliary water-stage recorder at site 1.3 mi upstream. See WDR FL-82-2 for history of changes prior to June 7, 1967.

REMARKS.--Records poor. Records include small diversions into Lake Arbuckle from Lake Weohyakapka through Blue Jordan Swamp.

AVERAGE DISCHARGE.--51 years, 313 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,380 ft³/s, Sept. 23, 1948, gage height, 8.71 ft, from rating curve extended above 5,300 ft³/s; no flow Nov. 23,30, Dec. 28, 1986; minimum gage height, 0.14 ft, May 11, 1962, estimated, result of channel work upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft³/s, Aug. 15, gage height, 5.65 ft; minimum, 4.8 ft³/s, May 27; minimum gage height, 2.45 ft, May 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	553	252	136	290	92	276	108	34	67	172	256	e392
2	527	231	130	255	94	238	93	36	62	193	273	e363
3	464	239	124	256	86	210	76	34	45	124	285	e332
4	410	199	113	209	93	171	65	46	57	105	319	e314
5	369	188	116	211	77	147	68	43	80	110	332	e304
6	314	180	102	235	77	144	60	43	115	103	372	270
7	287	171	100	216	76	122	56	50	139	107	337	264
8	390	165	99	223	87	106	50	53	117	108	423	232
9	417	164	122	223	75	96	50	58	125	108	558	222
10	557	151	102	182	74	89	59	51	94	91	738	207
11	1090	147	104	181	111	81	48	53	89	105	885	195
12	1080	142	105	192	90	72	41	55	85	152	918	181
13	1030	143	108	158	94	86	39	53	70	325	930	159
14	962	135	104	148	76	66	38	52	74	472	1130	152
15	951	137	101	138	70	63	38	49	66	591	1340	127
16	955	153	98	135	84	63	37	49	64	738	1330	118
17	911	140	109	130	68	61	36	51	57	702	1200	167
18	817	138	92	130	65	53	39	51	68	627	1080	163
19	768	135	90	132	64	52	36	52	85	540	1010	171
20	700	137	95	111	70	50	36	52	122	442	918	200
21	656	120	110	108	135	48	36	49	96	340	835	198
22	650	117	122	110	132	51	34	48	102	290	734	172
23	583	133	324	102	288	47	36	46	147	299	674	180
24	564	121	326	109	674	47	34	50	134	282	606	175
25	497	119	301	109	569	46	34	49	95	268	573	128
26	449	141	290	106	432	45	32	50	90	300	513	124
27	428	138	290	100	340	45	34	49	126	268	492	113
28	370	142	332	98	308	46	35	68	222	245	564	114
29	331	143	337	112	---	46	33	68	226	243	516	218
30	325	144	365	98	---	63	30	63	130	277	475	469
31	276	---	330	96	---	138	---	72	---	282	492	---
TOTAL	18681	4665	5277	4903	4501	2868	1411	1577	3049	9009	21108	6424
MEAN	603	155	170	158	161	92.5	47.0	50.9	102	291	681	214
MAX	1090	252	365	290	674	276	108	72	226	738	1340	469
MIN	276	117	90	96	64	45	30	34	45	91	256	113

CAL YR 1989 TOTAL 58092.3 MEAN 159 MAX 1090 MIN 6.1
WTR YR 1990 TOTAL 83473 MEAN 229 MAX 1340 MIN 30

e Estimated

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02273000 KISSIMMEE RIVER AT S-65E, NEAR OKEECHOBEE, FL
(National stream-quality accounting network station)

LOCATION.--Lat 27°13'32", long 80°57'46", in NE¼ sec.30, T.37 S., R.34 E., Okeechobee County, Hydrologic Unit 03090101, at upstream side of lock and control structure 65E, 1.8 mi downstream from State Highway 70, 8.2 mi upstream from mouth, and 8.5 mi west of Okeechobee.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to September 1962, October 1962 to September 1964 (elevations only), October 1964 to current year. Prior to October 1964, published as Kissimmee River near Okeechobee. Monthly discharges only for some periods, published in WSP 1304.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 28, 1949, nonrecording gage, and Apr. 28, 1949, to Sept. 30, 1964, water-stage recorder, 1.8 mi upstream at datum 1.37 ft lower. Auxiliary gage at downstream side of lock and control structure 65E.

REMARKS.--Records good. Flow regulated by operation of structure 65E beginning in October 1964. Discharge computed from relation between discharge, head, and gate openings. Records do not include diversions from Lake Istokpoga through control structure 68 on Canal 41A, which began July 1962.

COOPERATION.--Gate-opening record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--34 years (water years 1929-62), 2,188 ft³/s; 26 years (water years 1965-90), 1,285 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,900 ft³/s, Oct. 3, 1969; maximum gage height, 27.00 ft, present datum, Oct. 14, 1953; no flow for many days in most years since 1965; minimum gage height observed, 12.33 ft, present datum, June 3, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1928, resulting from hurricane, reached a stage of 28.9 ft, present datum, discharge, 20,000 ft³/s, from rating curve extended above 14,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,270 ft³/s, Feb. 24; maximum gage height, 21.80 ft, Feb. 22; no flow for many days; minimum gage height, 20.25 ft, Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	139	.00	253	2340	3950	.00	342	.00	709	314	968
2	1190	140	.00	242	2360	3760	309	337	8.0	1320	333	647
3	917	141	.00	191	2590	3610	901	238	25	889	307	337
4	883	157	.00	160	2860	3230	1780	278	108	493	597	428
5	641	58	.00	86	2770	2980	1530	306	49	449	802	369
6	383	72	22	11	2570	2470	912	308	86	440	724	192
7	383	127	.00	31	2720	1620	805	316	182	329	208	236
8	943	74	31	78	2820	1040	978	145	165	345	197	195
9	838	46	63	374	2750	137	893	22	31	207	534	120
10	801	17	31	858	2680	.00	1030	51	43	297	1190	173
11	2020	.00	.00	1140	2880	36	787	27	34	178	1150	83
12	1920	.00	740	1210	2930	59	764	33	113	233	1000	101
13	1520	30	116	1140	2820	48	727	24	34	905	717	35
14	1680	.00	.00	1280	2130	18	706	93	.00	1480	1520	39
15	1100	.00	.00	1630	569	14	559	40	.00	2030	1870	48
16	1470	65	.00	1610	136	128	457	47	.00	3040	1500	287
17	1080	90	.00	1870	20	75	281	91	.00	2800	1190	182
18	893	.00	.00	2020	36	52	278	215	.00	2440	1280	136
19	848	.00	.00	2090	39	23	264	311	.00	1960	1270	593
20	629	11	11	2220	14	37	388	136	.00	1480	1360	924
21	329	47	37	2290	359	.00	355	181	.00	1080	1150	873
22	545	22	13	2320	1330	31	357	385	43	849	803	601
23	506	26	256	2350	1980	15	352	217	498	884	672	307
24	379	61	192	2150	2980	.00	320	121	481	697	520	284
25	390	56	98	2440	3720	.00	270	117	384	732	594	313
26	282	.00	143	2370	4360	.00	320	207	132	494	581	175
27	130	30	138	2110	4010	.00	338	234	1080	434	370	233
28	381	31	128	2270	4030	.00	269	262	1160	368	584	184
29	416	13	273	2250	---	.00	305	554	989	302	523	1210
30	219	7.0	258	2320	---	.00	349	688	884	356	294	3010
31	201	---	237	2300	---	.00	---	315	---	355	883	---
TOTAL	25637	1460.00	2787.00	43664	60803	23333.00	17584.00	6641	6529.00	28575	25037	13283
MEAN	827	48.7	89.9	1409	2172	753	586	214	218	922	808	443
MAX	2020	157	740	2440	4360	3950	1780	688	1160	3040	1870	3010
MIN	130	.00	.00	11	14	.00	.00	22	.00	178	197	35

CAL YR 1989 TOTAL 211516.00 MEAN 579 MAX 2780 MIN .00
WTR YR 1990 TOTAL 255333.00 MEAN 700 MAX 4360 MIN .00

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02273000 KISSIMMEE RIVER AT S-65E, NEAR OKEECHOBEE, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1940, 1960-62, 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, IN CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JAN 10...	0900	21.00	E858	186	6.8	19.0	3.0	6.0	20	7
MAR 06...	1035	20.98	2470	168	6.7	19.5	2.8	6.5	--	5
MAY 24...	1022	21.10	144	189	7.0	27.5	2.9	6.9	8	12
JUL 23...	1550	21.07	884	163	7.1	32.0	0.80	4.7	--	--
AUG 22...	0834	21.14	803	142	6.9	29.0	1.0	0.8	E40	E2
DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
JAN 10...	18	3.6	13	2.8	38	14	23	0.10	6.8	155
MAR 06...	12	3.4	12	2.9	31	9.0	21	<0.10	0.94	123
MAY 24...	14	4.0	14	2.1	38	8.8	24	0.10	0.84	120
JUL 23...	14	3.7	13	2.2	32	14	27	<0.10	6.0	150
AUG 22...	13	2.8	9.2	2.1	30	7.3	21	<0.10	6.6	126
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
JAN 10...	<0.010	0.250	0.040	0.040	1.3	1.3	0.110	0.090	0.100	50
MAR 06...	0.010	<0.100	0.020	0.020	1.3	1.3	0.200	0.030	0.020	--
MAY 24...	<0.010	<0.100	0.010	0.020	0.89	0.90	0.060	0.020	<0.010	<10
JUL 23...	0.020	<0.100	0.190	0.180	2.3	2.5	0.130	0.120	0.090	100
AUG 22...	<0.010	<0.100	0.170	0.160	1.4	1.6	0.250	0.240	0.180	100

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02273000 KISSIMMEE RIVER AT S-65E, NEAR OKEECHOBEE, FL--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
JAN 10...	<1	14	<0.5	<1.0	<1	<3	<10	320	<10	4
MAY 24...	<1	12	0.7	<1.0	<1	<3	<1	19	<1	<4
JUL 23...	<1	15	<0.5	<1.0	<1	<3	3	380	3	<4
AUG 22...	<1	12	<0.5	1.0	<1	<3	2	650	4	<4
DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	
JAN 10...	4	<0.1	<10	<10	<1	<1.0	270	<6	9	
MAY 24...	<1	0.7	<10	<1	<1	<1.0	120	<6	5	
JUL 23...	24	<0.1	<10	1	<1	<1.0	300	<6	10	
AUG 22...	31	<0.1	<10	<1	<1	<1.0	240	<6	8	

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02273001 KISSIMMEE RIVER BELOW S-65E, NEAR OKEECHOBEE, FL

LOCATION.--Lat 27°13'32", long 80°57'46", in NE¼ sec.30, T.37 S., R.34 E., Okeechobee County, Hydrologic Unit 03090101, at downstream side of lock and control structure 65E, 1.8 mi downstream from State Highway 70, 8.2 mi upstream from mouth, and 8.5 mi west of Okeechobee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). This is the auxiliary gage for station 02273000 at upstream side of lock and control structure.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 18.18 ft, Feb. 28, 1983; minimum daily, 9.72 ft, July 28, 1981.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.08	12.53	12.00	12.00	12.22	12.14	11.48	10.90	10.52	10.49	11.24	12.30
2	12.06	12.55	12.11	12.04	12.26	12.22	11.48	10.90	10.48	10.65	11.24	12.20
3	11.93	12.43	11.88	12.11	12.27	12.21	11.28	10.95	10.50	10.60	11.19	12.20
4	11.96	12.42	11.85	12.12	12.29	12.10	11.15	10.91	10.48	10.65	11.33	12.21
5	12.05	12.52	12.03	12.16	11.88	12.16	11.36	10.87	10.47	10.73	11.31	12.22
6	12.05	12.56	12.08	12.15	12.19	12.11	11.42	10.77	10.43	10.72	11.30	12.22
7	12.08	12.55	12.09	12.18	12.17	12.10	11.36	10.56	10.41	10.71	11.32	12.30
8	12.20	12.62	12.15	12.16	12.16	12.18	11.25	10.74	10.54	10.76	11.30	12.31
9	12.14	12.49	12.04	12.10	12.23	12.11	11.34	10.82	10.57	10.74	11.35	12.27
10	12.34	12.41	11.93	12.09	12.29	12.09	11.36	10.82	10.60	10.75	11.41	12.24
11	12.33	12.38	12.06	12.08	12.17	12.06	11.20	10.60	10.45	10.77	11.35	12.16
12	12.43	12.43	12.16	12.05	11.91	12.05	10.90	10.73	10.42	10.73	11.45	12.19
13	12.50	12.46	11.87	11.63	12.24	12.02	11.01	10.74	10.40	10.91	11.52	12.21
14	12.57	12.47	11.81	12.02	12.28	12.04	11.12	10.72	10.42	11.06	11.70	12.19
15	12.62	12.48	12.00	12.06	12.31	12.09	11.17	10.72	10.48	10.99	11.77	12.20
16	12.60	12.28	12.05	12.12	12.31	12.14	11.13	10.75	10.48	11.07	11.81	12.16
17	12.65	12.04	11.96	12.12	12.21	12.11	11.15	10.74	10.44	11.12	11.80	12.19
18	12.69	12.15	12.03	12.11	12.22	11.56	11.08	10.72	10.39	11.16	11.79	12.12
19	12.55	12.23	12.05	12.13	12.20	11.75	11.05	10.70	10.38	11.12	11.90	12.12
20	12.06	12.23	12.01	12.13	12.11	11.58	10.91	10.70	10.40	11.21	11.98	12.14
21	12.35	12.22	12.00	12.12	12.19	11.44	10.99	10.61	10.37	11.22	11.97	12.20
22	12.31	12.31	11.79	12.11	12.43	11.64	10.90	10.45	10.33	11.20	11.99	12.24
23	12.42	12.20	11.47	12.10	12.28	11.59	10.90	10.45	10.32	11.16	12.02	12.19
24	12.46	12.07	11.40	12.18	11.85	11.64	10.96	10.54	10.42	11.22	12.08	12.03
25	12.37	12.24	11.92	12.25	11.91	11.61	10.95	10.52	10.42	11.25	12.11	12.12
26	12.43	12.22	12.10	11.75	11.91	11.58	10.88	10.57	10.49	11.20	12.10	12.16
27	12.27	12.23	12.10	12.00	12.13	11.53	10.95	10.52	10.46	11.07	12.09	12.15
28	12.21	12.22	12.08	12.03	12.15	11.54	11.07	10.52	10.51	11.14	12.14	12.23
29	12.35	12.12	12.09	12.14	---	11.63	10.94	10.44	10.52	11.20	12.21	12.28
30	12.57	11.89	12.12	12.14	---	11.69	11.03	10.44	10.55	11.29	12.21	12.31
31	12.56	---	12.15	12.15	---	11.56	---	10.54	---	11.27	12.27	---
MEAN	12.33	12.33	11.98	12.08	12.17	11.88	11.13	10.68	10.45	10.97	11.72	12.20
MAX	12.69	12.62	12.16	12.25	12.43	12.22	11.48	10.95	10.60	11.29	12.27	12.31
MIN	11.93	11.89	11.40	11.63	11.85	11.44	10.88	10.44	10.32	10.49	11.19	12.03

CAL YR 1989 MEAN 12.32 MAX 14.23 MIN 10.90
WTR YR 1990 MEAN 11.66 MAX 12.69 MIN 10.32

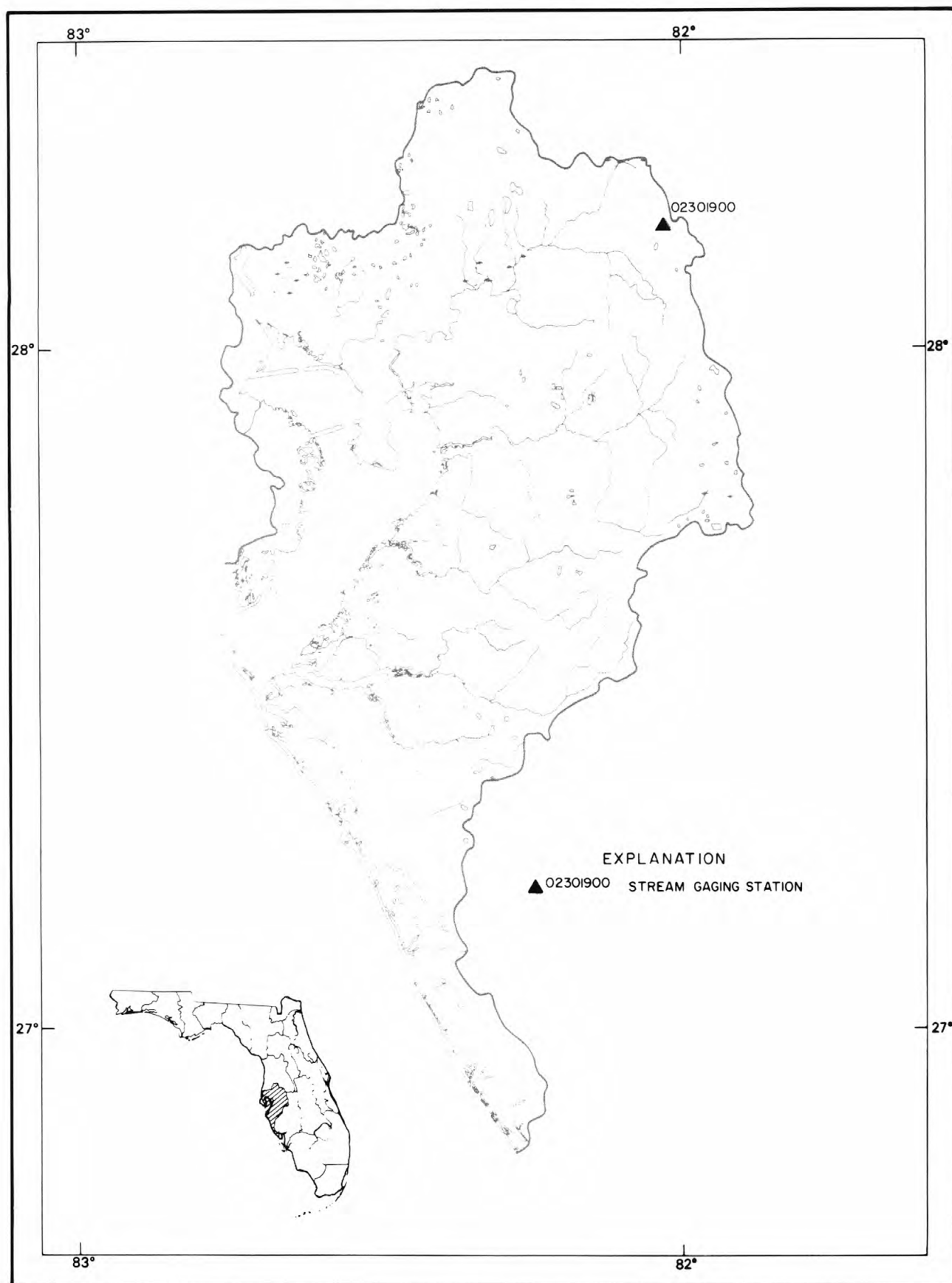


Figure 21.--Location of stream gaging stations in the Manatee, Little Manatee, Alafia, and Hillsborough River basins, and Tampa Bay and coastal areas.

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

HILLSBOROUGH RIVER BASIN

02301900 FOX BRANCH NEAR SOCRUM, FL

LOCATION.--Lat 28°10'55", long 82°00'45", in NE¼ sec.33, T.26 S., R.23 E., Polk County, Hydrologic Unit 03100205, near center of span on downstream side of bridge on Rock Ridge Road, 1.1 mi northeast of Socrum, 8.7 mi upstream from mouth, and 10 mi north of Lakeland.

DRAINAGE AREA.--9.5 mi², approximately.

PERIOD OF RECORD.--December 1963 to current year.

REVISED RECORDS.--WRD FL 1969: 1968 (M).

GAGE.--Water-stage recorder. Datum of gage is 110.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Some diversion at times by pumpage for irrigation.

AVERAGE DISCHARGE.--26 years (water years 1965-90), 8.24 ft³/s, 11.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 886 ft³/s, Sept. 7, 1988; maximum gage height, 8.22 ft, July 26, 1978; no flow at times in some years; channel dry at gage for many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 17	0215	*86	*5.41				

Minimum discharge, 0.49 ft³/s, May 14, gage height, 2.78 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	2.1	2.5	4.0	2.0	9.7	2.4	1.9	1.0	2.5	6.0	12
2	8.1	2.0	2.3	3.6	1.9	8.5	2.4	1.8	1.4	3.2	5.0	8.8
3	7.2	1.9	2.3	3.5	1.9	7.4	2.9	1.7	4.3	4.6	4.1	7.2
4	6.7	1.9	2.0	4.2	1.8	6.4	3.3	1.6	3.5	5.1	3.6	6.2
5	5.4	1.8	1.9	6.0	1.7	5.5	3.1	1.4	2.2	4.0	3.3	5.2
6	4.4	1.8	1.9	11	1.6	4.9	2.7	1.3	1.7	3.0	3.0	4.5
7	3.8	1.7	1.9	12	1.6	4.5	2.4	1.2	1.4	2.4	2.6	3.7
8	4.3	1.7	2.1	11	1.5	4.2	2.2	1.2	1.4	4.8	2.2	3.2
9	4.7	1.8	5.8	10	1.6	4.0	2.0	1.1	1.3	7.1	2.6	2.9
10	4.4	2.5	9.5	11	1.6	3.6	1.9	1.2	1.3	4.6	3.5	2.6
11	4.2	2.7	7.4	11	4.0	3.2	3.9	1.3	1.2	3.5	6.9	2.7
12	3.9	2.3	5.4	10	17	3.1	5.4	1.3	1.4	3.2	6.5	3.2
13	3.5	1.9	6.1	9.3	16	2.8	4.4	.83	1.3	5.7	8.5	3.2
14	3.3	1.8	8.7	7.9	11	2.4	3.4	.70	1.1	22	31	3.0
15	3.1	1.8	7.4	7.1	6.8	2.4	2.9	.81	1.0	37	63	2.7
16	2.8	2.2	5.9	6.7	4.5	2.4	2.6	.81	.96	65	36	2.5
17	2.6	3.1	5.3	6.4	3.2	2.4	2.4	.74	1.0	76	16	2.7
18	2.5	3.0	5.9	6.1	2.4	2.3	2.3	.73	3.4	39	10	3.0
19	2.4	2.5	8.8	5.7	2.0	2.3	2.3	.74	4.1	27	7.7	3.0
20	2.3	2.1	12	5.4	1.8	2.2	2.5	.72	3.0	20	6.4	2.7
21	2.2	1.9	29	5.1	1.5	2.2	2.5	.67	2.2	22	5.5	2.4
22	2.1	1.9	38	4.6	1.4	2.1	2.3	.76	1.8	48	5.1	2.2
23	2.0	2.0	34	3.3	5.8	2.1	2.1	.85	2.7	53	6.9	2.0
24	2.0	2.4	37	2.7	49	2.1	2.1	.83	4.6	40	15	1.8
25	2.0	2.5	28	2.5	72	2.1	2.0	.81	3.9	26	23	1.6
26	2.1	2.6	18	2.3	35	2.0	1.8	.77	3.2	20	23	1.5
27	2.4	3.2	13	2.2	17	1.8	1.6	.79	8.2	23	15	1.5
28	2.6	3.3	9.3	2.1	12	1.8	1.6	.88	8.2	19	11	1.5
29	2.5	3.0	7.1	2.0	---	1.8	2.0	.90	4.7	13	24	2.7
30	2.3	2.7	5.7	2.0	---	1.8	2.0	.85	2.8	10	28	13
31	2.2	---	4.7	2.0	---	2.2	---	.90	---	7.5	20	---
TOTAL	114.0	68.1	328.9	182.7	279.6	106.2	77.4	32.09	80.26	621.2	404.4	115.2
MEAN	3.68	2.27	10.6	5.89	9.99	3.43	2.58	1.04	2.68	20.0	13.0	3.84
MAX	10	3.3	38	12	72	9.7	5.4	1.9	8.2	76	63	13
MIN	2.0	1.7	1.9	2.0	1.4	1.8	1.6	.67	.96	2.4	2.2	1.5
CFSM	.39	.24	1.12	.62	1.05	.36	.27	.11	.28	2.11	1.37	.40
IN.	.45	.27	1.29	.72	1.09	.42	.30	.13	.31	2.43	1.58	.45

CAL YR 1989 TOTAL 1942.5 MEAN 5.32 MAX 48 MIN 1.3 CFSM .56 IN. 7.61
WTR YR 1990 TOTAL 2410.05 MEAN 6.60 MAX 76 MIN .67 CFSM .70 IN. 9.44

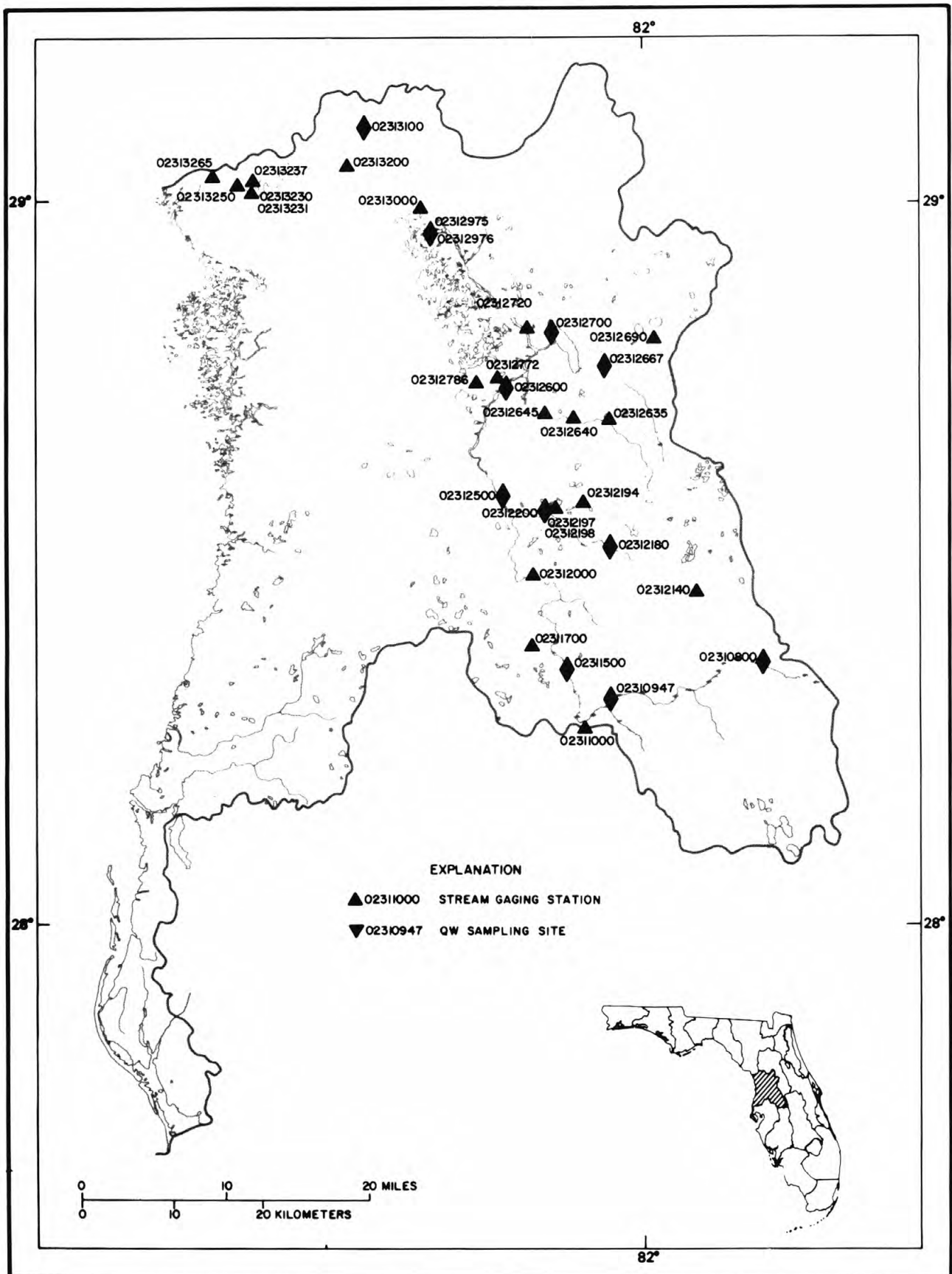


Figure 22.--Location of stream gaging stations in the Withlacoochee River basin and coastal areas.

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310800 WITHLACOCHEE RIVER NEAR EVA, FL

LOCATION.--Lat 28°21'38", long 81°49'08", in NW¼ sec.33, T.24 S., R.25 E., Polk County, Hydrologic Unit 03100208, near center of span on upstream side of bridge on State Highway 33, 2.5 mi north of Eva, 6.5 mi upstream from small tributary, and 138 mi upstream from mouth.

DRAINAGE AREA.--130 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 104.90 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--32 years (water years 1959-90), 45.1 ft³/s, 4.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,160 ft³/s, Mar. 17, 1960, gage height, 6.90 ft; no flow for many days in some years; minimum gage height, 1.18 ft, May 31, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28 ft³/s, Aug. 28, gage height, 4.40 ft; no flow for many days; minimum gage height, 1.90 ft, June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	.91	.75	11	1.8	9.3	.88	.00	.00	.94	4.5	22
2	11	.86	.70	10	1.6	8.4	.80	.00	.00	.88	3.5	23
3	11	.79	.65	9.7	1.5	7.7	.75	.00	.00	3.6	3.9	22
4	9.6	.73	.59	9.1	1.4	6.8	.68	.00	.00	4.0	6.5	21
5	8.4	.67	.55	11	1.3	6.2	.61	.00	.00	2.7	5.1	19
6	7.2	.63	.52	11	1.2	5.7	.53	.00	.00	1.7	4.1	18
7	6.8	.57	.49	11	1.2	5.2	.46	.00	.00	1.2	3.1	16
8	11	.52	.68	10	1.1	4.7	.41	.00	.00	.94	2.3	15
9	10	.53	3.5	9.7	1.0	4.2	.36	.00	.00	.82	4.4	13
10	9.8	.59	2.8	8.9	1.0	3.7	.32	.17	.00	.74	8.1	12
11	9.4	.50	2.2	8.3	2.8	3.4	.42	.27	.00	.65	7.0	12
12	8.7	.43	2.0	7.8	2.9	3.0	.52	.16	.00	.76	5.8	14
13	7.8	.39	2.7	7.0	2.5	2.7	.43	.07	.00	3.2	5.2	14
14	6.9	.36	2.4	6.4	2.2	2.4	.34	.01	.00	11	10	13
15	5.9	.34	2.1	5.9	2.0	2.1	.26	.00	.00	12	9.4	12
16	5.1	.98	2.0	5.5	1.8	1.9	.22	.00	.00	11	8.6	13
17	4.6	1.0	1.9	5.2	1.7	1.7	.14	.00	.00	9.4	7.6	17
18	4.6	.87	3.2	4.8	1.5	1.6	.08	.00	.00	8.8	7.4	16
19	3.9	.76	4.0	4.5	1.4	1.4	.04	.00	.00	8.7	8.8	15
20	3.3	.69	7.6	4.2	1.3	1.3	.10	.00	.00	7.8	9.8	14
21	2.7	.62	13	3.9	1.4	1.1	.06	.00	.00	8.2	12	12
22	2.2	.58	13	3.6	1.3	.97	.01	.00	.00	18	16	11
23	1.9	.66	19	3.2	8.4	.90	.00	.00	.00	20	21	9.1
24	1.6	.73	18	3.0	14	.82	.00	.00	.00	19	24	7.5
25	1.4	.64	18	2.8	13	.74	.00	.00	.00	16	26	6.1
26	1.3	.82	17	2.6	12	.66	.00	.00	.25	13	26	5.0
27	1.4	.96	15	2.4	11	.60	.00	.00	1.5	11	27	4.2
28	1.3	.92	14	2.2	10	.54	.00	.00	.83	9.5	27	3.8
29	1.1	.87	13	2.1	---	.51	.00	.00	.55	9.6	26	6.4
30	1.0	.82	13	2.0	---	.76	.00	.00	.48	7.5	25	21
31	.97	---	12	1.9	---	.86	---	.00	---	5.7	23	---
TOTAL	173.87	20.74	206.33	190.7	104.3	91.86	8.42	0.68	3.61	228.33	378.1	407.1
MEAN	5.61	.69	6.66	6.15	3.72	2.96	.28	.022	.12	7.37	12.2	13.6
MAX	12	1.0	19	11	14	9.3	.88	.27	1.5	20	27	23
MIN	.97	.34	.49	1.9	1.0	.51	.00	.00	.00	.65	2.3	3.8
CFSM	.04	.01	.05	.05	.03	.02	.00	.00	.00	.06	.09	.10
IN.	.05	.01	.06	.05	.03	.03	.00	.00	.00	.07	.11	.12
CAL YR 1989	TOTAL 4253.56	MEAN 11.7	MAX 84	MIN .00	CFSM .09	IN. 1.22						
WTR YR 1990	TOTAL 1814.04	MEAN 4.97	MAX 27	MIN .00	CFSM .04	IN. .52						

02310800 WITHLACOOCHEE RIVER NEAR EVA, FL--Continued

PERIOD OF RECORD.--Water years 1956, 1958-61, 1963 to current year.

SPECIFIC CONDUCTANCE: October 1964 to May 1987, June 1990 to current year.

WATER TEMPERATURE: October 1964 to May 1987, June 1990 to current year.

INSTRUMENTATION.--Water-quality monitor November 1976 to May 1987; CR10 data logger since June 1990.

REMARKS.--Interruptions of record were due to instrument malfunctions.

SPECIFIC CONDUCTANCE: Maximum observed, 415 microsiemens, Apr. 14, 1975; minimum observed, 35 microsiemens, June 11, 1977.

WATER TEMPERATURE: Maximum daily mean, 34.0°C, June 24, 28, 1977; minimum observed, 5.0°C, Jan. 31, Feb. 1, 1966.

[illegible]

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02310800 WITHLACOOCHEE RIVER NEAR EVA, FL--Continued

TEMPERATURE, WATER (DEG C), PERIOD JUNE TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	27.5	27.9	27.1
2	---	---	---	---	---	---	---	---	26.9	27.4	28.1	27.0
3	---	---	---	---	---	---	---	---	26.9	26.2	28.0	26.7
4	---	---	---	---	---	---	---	---	26.7	26.3	27.3	26.3
5	---	---	---	---	---	---	---	---	27.0	27.3	27.9	26.6
6	---	---	---	---	---	---	---	---	27.4	28.3	28.2	26.8
7	---	---	---	---	---	---	---	---	26.7	28.7	28.3	27.0
8	---	---	---	---	---	---	---	---	26.1	28.6	27.9	26.9
9	---	---	---	---	---	---	---	---	26.1	28.4	26.6	27.0
10	---	---	---	---	---	---	---	---	26.7	28.2	25.7	27.0
11	---	---	---	---	---	---	---	---	26.7	27.6	26.0	26.1
12	---	---	---	---	---	---	---	---	26.9	27.0	26.2	26.1
13	---	---	---	---	---	---	---	---	26.1	26.0	26.7	26.6
14	---	---	---	---	---	---	---	---	24.8	24.8	26.0	26.9
15	---	---	---	---	---	---	---	---	24.5	24.8	25.7	26.9
16	---	---	---	---	---	---	---	---	25.5	25.3	26.7	26.0
17	---	---	---	---	---	---	---	---	26.2	26.0	27.3	26.1
18	---	---	---	---	---	---	---	---	26.8	26.5	27.1	26.6
19	---	---	---	---	---	---	---	---	27.3	26.9	26.9	26.1
20	---	---	---	---	---	---	---	---	28.0	27.3	27.0	25.7
21	---	---	---	---	---	---	---	---	28.4	27.2	27.0	26.2
22	---	---	---	---	---	---	---	---	28.2	26.1	27.2	26.9
23	---	---	---	---	---	---	---	---	26.8	26.4	25.8	27.0
24	---	---	---	---	---	---	---	---	26.4	27.5	25.8	25.3
25	---	---	---	---	---	---	---	---	27.5	27.9	26.6	23.9
26	---	---	---	---	---	---	---	---	26.7	27.6	27.1	24.6
27	---	---	---	---	---	---	---	---	25.2	27.6	27.3	24.7
28	---	---	---	---	---	---	---	---	26.7	27.1	27.2	24.7
29	---	---	---	---	---	---	---	---	28.1	27.6	27.4	24.0
30	---	---	---	---	---	---	---	---	28.0	28.0	27.7	23.1
31	---	---	---	---	---	---	---	---	---	27.9	27.2	---
MEAN	---	---	---	---	---	---	---	---	---	27.1	27.0	26.1
MAX	---	---	---	---	---	---	---	---	---	28.7	28.3	27.1
MIN	---	---	---	---	---	---	---	---	---	24.8	25.7	23.1

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310800 WITHLACOCHEE RIVER NEAR EVA, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT							
02...	1440	3.99	11	75	--	25.0	8.3
26...	1115	3.22	1.3	75	4.6	19.5	3.5
NOV							
30...	1430	3.05	.80	72	6.0	17.0	2.6
DEC							
21...	1310	4.08	12	80	5.2	15.0	5.4
JAN							
31...	1140	3.35	1.9	78	5.3	19.0	3.5
FEB							
15...	1145	3.38	2.2	--	4.9	18.5	4.5
28...	1040	3.99	11	81	4.3	16.0	4.5
MAR							
28...	1305	2.98	.66	75	7.3	20.5	--
APR							
19...	1100	2.76	0.02	81	6.3	23.0	1.4
JUN							
28...	1200	3.15	1.0	105	7.2	26.0	--
AUG							
02...	1215	3.55	3.8	85	4.3	27.0	3.0
30...	1120	4.35	24	93	4.2	27.0	--

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
OCT						
02...	0.020	0.020	<0.010	1.6	0.030	0.020
26...	0.010	0.030	0.020	1.4	0.200	0.200
NOV						
30...	0.010	<0.020	<0.010	1.0	0.030	0.030
DEC						
21...	0.010	<0.020	0.010	1.2	0.060	0.040
JAN						
31...	0.010	<0.020	<0.010	1.1	0.020	0.020
FEB						
15...	0.010	<0.020	<0.010	1.1	0.030	0.020
28...	0.010	0.020	<0.010	1.2	0.070	0.070
MAR						
28...	0.010	0.020	<0.010	1.1	<0.020	0.020
APR						
19...	0.010	0.040	0.010	1.2	0.060	0.040
JUN						
28...	<0.100	<0.020	0.020	1.2	0.060	0.020
AUG						
02...	0.010	0.050	0.020	2.1	0.030	0.020
30...	0.010	0.020	0.020	2.3	0.130	0.030

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310800 WITHLACOCHEE RIVER NEAR EVA, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	COLOR	CALCIUM	MAGNE-	SODIUM,	POTAS-	ALKA-	SULFATE	CHLO-	
		(PLAT- INUM- COBALT UNITS) (00080)	DIS- SOLVED (MG/L AS CA) (00915)	SIUM, DIS- SOLVED (MG/L AS MG) (00925)	DIS- SOLVED (MG/L AS NA) (00930)	SIUM, DIS- SOLVED (MG/L AS K) (00935)	LINITY LAB (MG/L AS CAC03) (90410)	DIS- SOLVED (MG/L AS SO4) (00945)	RIDE, DIS- SOLVED (MG/L AS CL) (00940)	
APR										
19...	1100	280	6.3	1.5	8.6	2.0	8.4	1.2	15	
AUG										
02...	1215	640	5.5	1.8	7.4	1.6	<0.1	1.8	15	
DATE		FLUO-	SILICA,	SOLIDS,	ALUM-	ARSENIC	CADMIUM	COPPER,	IRON,	IRON,
		RIDE, DIS- SOLVED (MG/L AS F) (00950)	DIS- SOLVED (MG/L AS SIO2) (00955)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)		TOTAL RECOV- ERABLE (UG/L AS AS) (01002)		TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	DIS- SOLVED (UG/L AS CU) (01040)
APR										
19...	0.20	1.0	96	160	<1	<1	5	940	500	
AUG										
02...	<0.10	7.2	188	--	--	--	--	--	--	
DATE		LEAD,	LEAD,	MANGA-	MANGA-	MERCURY	NICKEL,	STRON-	ZINC,	CARBON,
		TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	DIS- SOLVED (UG/L AS PB) (01049)	NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	NESE, DIS- SOLVED (UG/L AS MN) (01056)	TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	TIUM, DIS- SOLVED (UG/L AS SR) (01080)	DIS- SOLVED (UG/L AS ZN) (01090)	ORGANIC TOTAL (MG/L AS C) (00680)
APR										
19...	1	13	10	<10	0.40	<1	60	50	10	
AUG										
02...	--	--	--	--	--	--	50	--	78	

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310947 WITHLACOCHEE RIVER NEAR CUMPRESCO, FL

LOCATION.--Lat 28°18'42", long 82°03'22", in NE¼ sec.13, T.25 S., R.22 E., Pasco County, Hydrologic Unit 03100208, near left bank on downstream side of bridge on State Highway 471, 0.6 mi upstream from Gator Creek, 3.4 mi south of Cumpresso, 5.8 mi east of Richland, and 120 mi upstream from mouth.

DRAINAGE AREA.--280 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 75.00 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Aug. 3, 1978, at datum 5.00 ft higher.

REMARKS.--Records fair. Records are for flow of main channel only, which normally includes all the flow. Some interconnection with Gator Creek and some diversions to the north probably exist during periods of extreme high water.

AVERAGE DISCHARGE.--23 years (water years 1968-90), 139 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,260 ft³/s, Apr. 1, 1987, gage height, 14.03 ft; no flow for many days in most years; river dry at gage for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 388 ft³/s, Aug. 26,27; gage height, 9.01 ft; no flow for many days; river dry at gage for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	4.3	2.3	110	16	122	3.9	1.3	.00	.00	87	262
2	40	4.0	2.2	101	15	132	4.3	.92	.00	.00	78	228
3	41	3.6	2.2	91	15	129	4.1	.54	.00	.00	75	197
4	41	3.3	2.0	83	15	120	3.4	.18	.00	.00	114	171
5	40	3.1	2.0	84	14	110	2.6	.06	.00	.00	136	151
6	39	2.9	2.0	86	12	99	2.0	.02	.00	.00	121	127
7	37	2.7	1.9	83	12	89	1.7	.00	.00	.11	100	106
8	36	2.5	2.7	78	11	78	1.5	.00	.00	.28	80	87
9	33	2.7	7.0	71	11	68	1.3	.00	.00	.17	69	72
10	31	2.5	5.8	64	10	60	1.2	.89	.00	.09	65	60
11	29	1.9	4.8	60	16	52	1.2	1.5	.00	.08	76	51
12	27	1.7	4.8	56	16	46	1.2	.45	.00	.11	154	44
13	25	1.8	6.6	53	17	40	.79	.10	.00	.92	191	36
14	24	1.9	7.8	49	17	35	.53	.03	.00	3.1	185	30
15	23	1.8	7.8	47	17	31	.41	.00	.00	8.1	261	25
16	21	4.5	8.9	44	16	27	.36	.00	.00	15	324	23
17	19	4.2	10	42	15	23	.31	.00	.00	17	327	21
18	17	3.4	14	40	14	21	.25	.00	.00	17	315	21
19	15	2.9	17	38	14	18	.20	.00	.00	16	293	22
20	14	2.3	23	35	15	16	.35	.00	.00	15	252	22
21	12	2.3	34	34	17	13	.36	.00	.00	22	209	21
22	10	2.2	39	31	18	12	.35	.00	.00	37	172	20
23	9.1	2.2	52	29	29	9.9	.36	.00	.00	81	182	19
24	8.1	2.5	59	27	41	8.2	.49	.00	.00	167	223	17
25	7.6	2.3	66	25	49	6.7	.70	.00	.00	182	314	15
26	6.8	2.9	76	24	59	5.7	1.1	.00	.00	154	373	13
27	6.3	3.1	91	22	73	5.2	1.9	.00	.00	130	382	12
28	6.2	2.9	108	20	97	9.5	2.0	.00	.00	110	346	10
29	5.6	2.6	119	19	---	5.8	2.7	.00	.00	106	324	10
30	5.1	2.4	121	18	---	2.7	1.6	.00	.00	102	295	18
31	4.7	---	116	17	---	3.1	---	.00	---	96	289	---
TOTAL	671.5	83.4	1015.8	1581	671	1397.8	43.16	5.99	0.00	1279.96	6412	1911
MEAN	21.7	2.78	32.8	51.0	24.0	45.1	1.44	.19	.000	41.3	207	63.7
MAX	41	4.5	121	110	97	132	4.3	1.5	.00	182	382	262
MIN	4.7	1.7	1.9	17	10	2.7	.20	.00	.00	.00	65	10

CAL YR 1989 TOTAL 20957.30 MEAN 57.4 MAX 744 MIN .00
WTR YR 1990 TOTAL 15072.61 MEAN 41.3 MAX 382 MIN .00

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310947 WITHLACOCHEE RIVER NEAR CUMPRESCO, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1965, 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT							
02...	1305	6.82	41	110	--	25.5	4.5
25...	0825	5.88	7.0	138	7.0	19.0	5.3
NOV							
30...	1256	5.50	2.3	230	6.8	17.0	4.6
DEC							
21...	0935	6.69	32	149	6.6	14.5	6.7
JAN							
31...	1305	6.31	18	143	5.9	19.5	6.6
FEB							
15...	0820	6.31	17	--	6.4	17.5	6.8
28...	1225	7.51	98	124	6.5	16.0	7.0
MAR							
28...	1145	6.06	11	394	6.0	21.0	--
APR							
19...	0820	5.08	0.19	323	7.4	22.5	5.0
AUG							
02...	0835	7.36	76	117	5.9	26.0	3.3
30...	0850	8.66	295	94	6.3	25.0	--

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
OCT						
02...	0.020	0.030	<0.010	1.6	0.030	0.030
25...	0.010	0.020	<0.010	1.4	0.030	0.020
NOV						
30...	<0.010	<0.020	<0.010	0.92	0.020	0.010
DEC						
21...	0.010	<0.020	0.010	0.96	0.040	0.040
JAN						
31...	0.010	<0.020	<0.010	1.0	0.020	0.010
FEB						
15...	0.010	<0.020	<0.010	1.0	0.040	0.030
28...	0.010	0.020	0.060	1.7	0.050	0.030
MAR						
28...	0.010	0.020	<0.010	0.70	0.020	0.010
APR						
19...	0.010	<0.020	0.020	0.85	0.040	0.020
AUG						
02...	0.010	0.040	0.020	2.3	0.050	0.030
30...	0.010	0.040	0.020	1.9	0.140	0.040

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
APR									
19...	0820	100	49	4.6	13	0.40	130	2.5	22
AUG									
02...	0835	560	16	2.5	8.6	1.4	19	5.1	17

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310947 WITHLACOCHEE RIVER NEAR CUMPRESSCO, FL--Continued

WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
APR 19...	0.30	1.9	216	80	<1	<1	1	200	160
AUG 02...	0.10	7.9	210	--	--	--	--	--	--

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
APR 19...	1	2	30	30	<0.10	<1	320	10	8.2
AUG 02...	--	--	--	--	--	--	80	--	67

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311000 WITHLACOCHEE-HILLSBOROUGH OVERFLOW NEAR RICHLAND, FL

LOCATION.--Lat 28°16'16", long 82°05'53", in NW¼ sec.34, T.25 S., R.22 E., Pasco County, Hydrologic Unit 03100208, near left bank, at downstream side of bridge on U.S. Highway 98, 0.6 mi south of channel of Withlacoochee River, 2.9 mi east of Richland, 8.5 mi southeast of Dade City, and 55 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1930 to September 1931; September 1950, July 1958 to March 1960 (discharge measurements only); April 1960 to current year. Published as supplement to Hillsborough River near Zephyrhills (station 02303000) July 1958 to September 1959.

GAGE.--Water-stage recorder. Datum of gage is 75.42 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to July 17, 1958, nonrecording gage at site about 1 mi downstream at different datum; July 17, 1958, to Apr. 24, 1960, nonrecording gage and crest-stage gage at present site and datum.

REMARKS.--Records fair. Flow is uncontrolled natural diversion from the Withlacoochee River basin to the Hillsborough River basin.

AVERAGE DISCHARGE.--31 years (water years 1931, 1961-90), 20.7 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,880 ft³/s, Mar. 19, 1960, gage height, 6.87 ft, from crest-stage gage; no flow for many days in most years; channel dry at gage for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft³/s, Aug. 27, gage height, 3.53 ft; no flow for many days; channel dry at gage for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	1.2	.00	.00	.00	.00	.00	.00	1.7	25
2	.00	.00	.00	1.1	.00	.00	.00	.00	.00	.00	.58	20
3	.00	.00	.00	.76	.00	.00	.00	.00	.00	.00	.00	15
4	.00	.00	.00	.45	.00	.00	.00	.00	.00	.00	.00	11
5	.00	.00	.00	.96	.00	.00	.00	.00	.00	.00	.00	7.1
6	.00	.00	.00	.50	.00	.00	.00	.00	.00	.00	.00	4.1
7	.00	.00	.00	.26	.00	.00	.00	.00	.00	.00	.00	1.8
8	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00	.38
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	17	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	40	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	35	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	28	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	19	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.7	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.7	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.1	25	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.1	38	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.3	44	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.3	40	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	5.8	31	.00
30	.00	.00	.43	.00	---	.00	.00	.00	.00	4.3	27	.00
31	.00	---	.95	.00	---	.00	---	.00	---	2.8	33	---
TOTAL	0.00	0.00	1.38	5.30	0.00	0.00	0.00	0.00	0.00	40.70	488.33	84.38
MEAN	.000	.000	.045	.17	.000	.000	.000	.000	.000	1.31	15.8	2.81
MAX	.00	.00	.95	1.2	.00	.00	.00	.00	.00	9.1	44	25
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 766.03 MEAN 2.10 MAX 90 MIN .00
WTR YR 1990 TOTAL 620.09 MEAN 1.70 MAX 44 MIN .00

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311000 WITHLACOCHEE-HILLSBOROUGH OVERFLOW NEAR RICHLAND, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.76	2.02	1.33	2.97	2.70	2.81	2.32	.86	---	---	2.99	3.37
2	2.77	1.97	1.28	2.96	2.70	2.85	2.29	.73	---	---	2.94	3.32
3	2.77	1.92	1.22	2.95	2.68	2.88	2.30	.61	---	---	2.90	3.26
4	2.75	1.87	1.16	2.94	2.67	2.89	2.28	.50	---	---	2.86	3.19
5	2.74	1.81	1.11	2.96	2.65	2.89	2.23	---	---	---	2.88	3.13
6	2.72	1.75	1.06	2.94	2.63	2.88	2.18	---	---	---	2.90	3.06
7	2.71	1.70	1.02	2.93	2.61	2.86	2.13	---	---	---	2.88	2.99
8	2.70	1.64	1.13	2.92	2.60	2.84	2.08	---	---	---	2.85	2.93
9	2.69	1.63	1.66	2.91	2.58	2.83	2.02	---	---	---	2.83	2.88
10	2.68	1.63	1.71	2.91	2.57	2.81	1.96	---	---	---	2.81	2.85
11	2.68	1.57	1.71	2.90	2.71	2.79	1.95	---	---	---	2.80	2.82
12	2.67	1.51	1.73	2.89	2.71	2.77	1.92	---	---	---	2.89	2.80
13	2.66	1.44	1.84	2.87	2.68	2.75	1.84	---	---	.50	3.20	2.78
14	2.64	1.38	1.85	2.85	2.66	2.73	1.77	---	---	.83	3.29	2.76
15	2.62	1.33	1.85	2.84	2.64	2.71	1.69	---	---	1.18	3.34	2.74
16	2.61	1.55	1.85	2.83	2.63	2.68	1.62	---	---	1.16	3.46	2.73
17	2.59	1.61	1.85	2.82	2.61	2.66	1.56	---	---	1.09	3.50	2.74
18	2.56	1.58	1.99	2.81	2.58	2.65	1.56	---	---	1.07	3.46	2.72
19	2.55	1.54	2.10	2.80	2.56	2.61	1.50	---	---	1.09	3.40	2.69
20	2.52	1.49	2.38	2.79	2.55	2.58	1.52	---	---	1.00	3.31	2.67
21	2.48	1.44	2.78	2.78	2.56	2.54	1.43	---	---	.99	3.22	2.64
22	2.44	1.39	2.78	2.78	2.54	2.50	1.33	---	---	.92	3.16	2.62
23	2.40	1.39	2.84	2.76	2.70	2.46	1.23	---	---	.92	3.14	2.60
24	2.36	1.38	2.83	2.75	2.78	2.42	1.18	---	---	.85	3.19	2.56
25	2.32	1.34	2.83	2.75	2.77	2.37	1.06	---	---	2.34	3.36	2.52
26	2.28	1.43	2.84	2.74	2.76	2.33	.93	---	---	3.17	3.48	2.49
27	2.24	1.46	2.85	2.73	2.77	2.28	.80	---	---	3.15	3.53	2.44
28	2.20	1.44	2.86	2.73	2.78	2.23	.80	---	---	3.14	3.49	2.41
29	2.16	1.43	2.89	2.72	---	2.18	1.05	---	---	3.10	3.43	2.44
30	2.11	1.38	2.94	2.72	---	2.15	.97	---	---	3.07	3.39	2.53
31	2.06	---	2.96	2.71	---	2.29	---	---	---	3.03	3.44	---
MEAN	2.53	1.57	2.04	2.84	2.66	2.62	1.65	---	---	---	3.17	2.79
MAX	2.77	2.02	2.96	2.97	2.78	2.89	2.32	---	---	---	3.53	3.37
MIN	2.06	1.33	1.02	2.71	2.54	2.15	.80	---	---	---	2.80	2.41

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311500 WITHLACOCHEE RIVER NEAR DADE CITY, FL

LOCATION.--Lat 28°21'08", long 82°07'34", in SE¼ sec.32, T.24 S., R.22 E., Pasco County, Hydrologic Unit 03100208, on left bank 50 ft downstream from Lanier Bridge on River Road, 4 mi east of Dade City, and 110 mi upstream from mouth.

DRAINAGE AREA.--390 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1930 to March 1933, July 1958 to October 1962 (discharge measurements only), water years 1959-62 (annual maximum), January 1964 to September 1983 (discharge measurements and gage heights only); October 1983 to current year.

REVISED RECORDS.--WRD FL 1962: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Feb. 11, 1930 to Mar. 31, 1933, and July 21 to Nov. 19, 1958, nonrecording gage, and Nov. 20, 1958 to Oct. 3, 1962, nonrecording gage and crest-stage gage at same site at datum 64.29 ft higher. Jan. 21, 1964 to Oct. 8, 1987, nonrecording gage at same site and datum.

REMARKS.--Records fair. High-water diversion above station into Hillsborough River basin through Withlacoochee-Hillsborough Overflow near Richland (station 02311000).

AVERAGE DISCHARGE.--9 years (water years 1931-32, 1984-90), 165 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft³/s, Mar. 21, 1960, gage height, 78.57 ft, present datum, from rating curve extended above 3,600 ft³/s; no flow at times in some years; minimum gage height observed, 66.39 ft, June 1, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 451 ft³/s, Aug. 31, Sept. 1, gage height, 73.07 ft; no flow for many days; minimum gage height, 66.58 ft, June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	15	12	150	30	94	10	.42	.00	.28	178	442
2	76	14	11	153	27	109	7.1	.33	.00	.24	169	413
3	72	14	9.1	151	24	127	5.3	.19	.00	.31	156	384
4	68	13	7.7	148	21	140	4.2	.12	.02	.36	144	351
5	64	12	6.8	155	18	147	3.1	.11	.02	.31	130	317
6	62	12	6.6	147	16	146	2.4	.10	.00	.23	127	284
7	60	11	6.6	141	14	139	1.9	.10	.00	.14	135	254
8	59	11	7.7	137	13	130	1.8	.09	.00	.12	140	223
9	56	11	19	133	12	120	1.7	.08	.00	.11	141	192
10	53	13	21	129	12	107	1.6	.10	.00	.10	130	166
11	51	12	20	124	19	95	1.6	.23	.00	.10	118	141
12	48	12	19	118	21	83	1.6	.25	.00	.10	112	122
13	45	11	18	110	19	74	1.5	.16	.00	.11	132	104
14	42	11	16	100	17	64	1.3	.13	.00	.31	197	90
15	39	10	14	91	16	53	1.2	.12	.00	.95	253	78
16	37	16	15	84	17	45	1.1	.10	.00	1.2	285	70
17	34	20	15	77	16	38	1.1	.10	.00	1.2	326	66
18	32	17	19	71	15	33	1.1	.09	.00	1.3	362	57
19	31	15	23	66	14	27	1.1	.09	.00	1.9	377	51
20	29	14	31	62	14	22	1.2	.08	.00	6.0	374	46
21	26	13	42	59	18	19	1.1	.07	.00	14	358	41
22	24	12	49	56	18	15	1.0	.07	.00	21	340	37
23	22	12	63	51	28	12	.89	.05	.02	25	341	35
24	21	13	71	47	41	11	.83	.05	.07	35	307	32
25	20	12	79	44	42	8.7	.74	.04	.10	67	294	28
26	19	14	90	42	49	7.6	.60	.03	.11	139	319	25
27	18	15	101	40	65	5.7	.43	.03	.28	185	372	22
28	18	15	102	40	82	4.5	.29	.03	.41	198	415	20
29	17	14	110	38	---	3.6	.30	.02	.42	201	434	21
30	16	13	123	35	---	3.1	.42	.02	.35	196	426	25
31	15	---	139	33	---	4.8	---	.00	---	187	440	---
TOTAL	1252	397	1266.5	2832	698	1888.0	58.50	3.40	1.80	1283.37	8032	4137
MEAN	40.4	13.2	40.9	91.4	24.9	60.9	1.95	.11	.060	41.4	259	138
MAX	78	20	139	155	82	147	10	.42	.42	201	440	442
MIN	15	10	6.6	33	12	3.1	.29	.00	.00	.10	112	20

CAL YR 1989 TOTAL 29007.7 MEAN 79.5 MAX 609 MIN 6.6
WTR YR 1990 TOTAL 21849.57 MEAN 59.9 MAX 442 MIN .00

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311500 WITHLACOCHEE RIVER NEAR DADE CITY, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.79	69.62	69.53	71.49	70.01	70.83	69.42	68.25	66.94	68.20	71.76	73.03
2	70.77	69.60	69.47	71.51	69.95	70.97	69.27	68.22	66.88	68.18	71.69	72.92
3	70.71	69.58	69.38	71.49	69.87	71.14	69.17	68.16	66.90	68.21	71.59	72.79
4	70.66	69.56	69.29	71.45	69.78	71.26	69.10	68.09	67.09	68.23	71.49	72.65
5	70.61	69.54	69.24	71.51	69.69	71.32	69.01	68.04	67.06	68.21	71.37	72.48
6	70.59	69.50	69.22	71.45	69.59	71.31	68.94	67.96	67.01	68.18	71.35	72.32
7	70.56	69.48	69.23	71.38	69.53	71.25	68.89	67.88	66.99	68.13	71.42	72.15
8	70.54	69.46	69.29	71.35	69.48	71.17	68.85	67.78	66.99	68.09	71.46	71.97
9	70.51	69.49	69.80	71.32	69.43	71.07	68.80	67.69	66.98	68.04	71.46	71.75
10	70.47	69.56	69.87	71.27	69.42	70.96	68.75	67.90	66.97	67.99	71.37	71.57
11	70.43	69.54	69.85	71.23	69.70	70.84	68.75	68.18	67.01	67.94	71.26	71.37
12	70.40	69.51	69.81	71.17	69.76	70.72	68.73	68.18	66.98	67.91	71.20	71.19
13	70.35	69.48	69.77	71.09	69.71	70.61	68.69	68.14	66.93	68.00	71.38	71.02
14	70.29	69.44	69.70	70.99	69.63	70.49	68.64	68.12	66.88	68.19	71.88	70.88
15	70.25	69.42	69.64	70.90	69.60	70.35	68.59	68.06	66.84	68.48	72.23	70.76
16	70.20	69.69	69.66	70.82	69.62	70.23	68.56	68.00	66.80	68.60	72.40	70.67
17	70.16	69.86	69.69	70.74	69.60	70.11	68.53	67.92	66.76	68.59	72.59	70.61
18	70.11	69.74	69.83	70.67	69.59	70.02	68.55	67.86	66.74	68.61	72.76	70.50
19	70.09	69.67	69.95	70.59	69.56	69.91	68.54	67.79	66.70	68.83	72.82	70.42
20	70.05	69.60	70.12	70.55	69.54	69.79	68.58	67.72	66.66	69.23	72.80	70.34
21	70.00	69.56	70.33	70.50	69.67	69.68	68.55	67.64	66.63	69.69	72.73	70.26
22	69.94	69.53	70.44	70.46	69.68	69.57	68.50	67.57	66.61	69.95	72.65	70.20
23	69.89	69.54	70.62	70.39	69.89	69.49	68.46	67.50	67.13	70.05	72.65	70.16
24	69.85	69.55	70.71	70.33	70.17	69.43	68.43	67.43	67.65	70.26	72.48	70.11
25	69.81	69.52	70.80	70.28	70.19	69.35	68.39	67.36	67.90	70.71	72.42	70.03
26	69.78	69.61	70.92	70.25	70.29	69.30	68.33	67.29	68.04	71.44	72.54	69.96
27	69.75	69.67	71.04	70.21	70.51	69.20	68.26	67.24	68.20	71.81	72.78	69.89
28	69.74	69.64	71.05	70.20	70.70	69.12	68.20	67.20	68.25	71.90	72.95	69.83
29	69.71	69.61	71.12	70.17	---	69.06	68.21	67.13	68.25	71.92	73.02	69.84
30	69.68	69.57	71.25	70.12	---	69.01	68.25	67.07	68.22	71.89	72.98	69.96
31	69.65	---	71.39	70.07	---	69.13	---	67.00	---	71.82	73.03	---
MEAN	70.20	69.57	70.06	70.84	69.79	70.22	68.66	67.75	67.17	69.27	72.15	71.05
MAX	70.79	69.86	71.39	71.51	70.70	71.32	69.42	68.25	68.25	71.92	73.03	73.03
MIN	69.65	69.42	69.22	70.07	69.42	69.01	68.20	67.00	66.61	67.91	71.20	69.83

WTR YR 1990 MEAN 69.73 MAX 73.03 MIN 66.61

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311500 WITHLACOCHEE RIVER NEAR DADE CITY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-61, 1963, 1966 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1966 to March 1971, November 1972 to current year.

WATER TEMPERATURE: July 1966 to March 1971, November 1972 to current year.

REMARKS.--Specific conductance and water temperature are measured by local observer.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 437 microsiemens, May 1, 1976; minimum observed, 45 microsiemens, Sept. 17,18, 1968.

WATER TEMPERATURE: Maximum observed, 34.0°C, July 9, 1969, June 17,18, July 10, 1981; minimum observed, 6.0°C, Jan. 20, 1977.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--A specific conductance of 44 microsiemens was observed on Oct 14, 1959.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum observed, 358 microsiemens, Dec. 8; minimum observed, 89 microsiemens, Sept. 2.

WATER TEMPERATURE: Maximum observed, 32.0°C, June 29; minimum observed, 7.0°C, Dec. 24,25.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	286	344	---	229	179	---	211	214	195	---	94
2	215	287	342	188	233	165	195	212	216	196	---	89
3	199	288	351	188	232	159	---	212	216	191	---	93
4	197	287	351	186	---	153	194	213	210	198	---	97
5	200	---	---	185	240	150	196	213	209	201	---	97
6	205	302	350	182	240	149	197	---	210	200	---	98
7	205	300	348	187	237	147	---	214	212	208	---	100
8	210	310	358	187	239	150	201	214	216	205	---	103
9	219	313	352	189	236	148	201	214	210	207	---	106
10	219	316	322	189	235	146	202	204	---	207	---	109
11	215	325	---	188	---	147	201	206	206	202	---	113
12	217	325	313	195	225	149	202	211	207	199	---	121
13	224	326	309	198	222	150	202	---	208	199	---	137
14	220	327	308	199	---	154	---	208	210	204	---	130
15	227	329	320	198	219	158	204	210	209	205	---	137
16	226	320	324	197	218	164	205	209	210	205	---	139
17	232	319	325	196	218	167	204	209	209	209	---	146
18	235	301	319	193	224	172	206	210	209	218	---	152
19	237	306	320	194	226	174	206	212	208	227	---	150
20	236	312	250	194	219	175	203	---	209	220	---	155
21	241	321	287	196	219	180	203	210	210	306	---	150
22	244	326	266	196	210	180	204	212	209	327	---	159
23	245	---	241	202	---	188	204	211	184	310	---	---
24	263	340	244	199	183	182	206	213	184	278	---	162
25	253	341	243	203	180	185	207	214	186	227	---	162
26	256	339	222	205	180	185	207	213	183	186	---	169
27	261	337	209	207	181	186	215	---	186	162	---	173
28	---	335	196	237	178	188	211	213	189	140	---	177
29	277	339	181	210	---	191	---	213	189	---	---	190
30	279	339	173	216	---	191	211	213	190	131	---	176
31	284	---	168	223	---	189	---	214	---	---	---	---
MEAN	---	---	---	---	---	168	---	---	---	---	---	---
MAX	---	---	---	---	---	191	---	---	---	---	---	---
MIN	---	---	---	---	---	146	---	---	---	---	---	---

PEACE, WITHLACOOCHIEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHIEE RIVER BASIN

02311500 WITHLACOOCHIEE RIVER NEAR DADE CITY, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	23.0	17.0	---	20.0	18.0	---	28.0	28.0	30.0	---	26.0
2	27.0	22.0	18.0	15.0	21.0	18.0	23.0	28.0	29.0	30.0	---	26.0
3	26.0	21.0	18.0	15.0	22.0	18.0	---	29.0	27.0	29.0	---	27.0
4	26.0	27.0	15.0	16.0	---	19.0	20.0	27.0	28.0	30.0	---	27.0
5	26.0	---	---	18.0	20.0	19.0	21.0	27.0	28.0	30.0	---	27.0
6	27.0	22.0	15.0	20.0	20.0	19.0	20.0	---	29.0	31.0	---	26.0
7	25.5	23.0	16.0	20.0	19.0	20.0	---	27.0	28.0	30.0	---	26.0
8	26.0	23.0	18.0	20.0	20.0	20.0	23.0	25.0	29.0	30.0	---	26.0
9	25.0	22.0	17.0	18.0	20.0	20.0	23.0	25.0	28.0	30.0	---	26.0
10	25.0	21.0	15.0	17.0	20.0	20.0	22.0	25.0	---	30.0	---	26.0
11	24.5	20.0	---	18.0	---	21.0	23.0	27.0	29.0	27.0	---	26.0
12	25.0	20.0	16.0	16.0	19.0	21.0	25.0	27.0	30.0	30.0	---	27.0
13	25.5	21.0	15.0	14.0	19.0	21.0	23.0	---	29.0	28.0	---	26.0
14	25.2	21.0	14.0	14.0	---	22.0	---	29.0	28.0	26.0	---	26.0
15	26.0	22.0	14.0	14.0	21.0	23.0	22.0	28.0	29.0	27.0	---	26.0
16	26.0	20.0	14.0	14.0	20.0	22.0	24.0	28.0	29.0	29.0	---	27.0
17	26.5	18.0	13.0	17.0	21.0	22.0	23.0	28.0	29.0	30.0	---	26.0
18	26.0	18.0	13.0	18.0	22.0	22.0	25.0	28.0	30.0	28.0	---	27.0
19	27.0	17.0	15.0	19.0	22.0	20.0	24.0	29.0	30.0	30.0	---	27.0
20	20.0	17.0	14.0	21.0	21.0	19.0	25.0	---	31.0	28.0	---	26.0
21	15.6	22.0	15.0	21.0	22.0	18.0	21.0	27.0	31.0	28.0	---	26.0
22	17.0	18.0	13.0	20.0	22.0	19.0	21.0	26.0	31.0	27.0	---	26.0
23	18.0	---	9.0	19.0	---	19.0	23.0	27.0	31.0	27.0	---	---
24	19.0	17.0	7.0	19.0	17.0	19.0	23.0	27.0	29.0	28.0	---	25.0
25	20.0	18.0	7.0	20.0	17.0	20.0	24.0	28.0	31.0	28.0	---	24.0
26	25.0	19.0	8.0	17.0	16.0	20.0	24.0	27.0	27.0	28.0	---	25.0
27	22.0	19.0	10.0	16.0	16.0	21.0	24.0	---	30.0	27.0	---	25.0
28	---	20.0	11.0	16.0	18.0	21.0	24.0	28.0	31.0	27.0	---	25.0
29	22.0	19.0	12.0	17.0	---	21.0	---	28.0	32.0	---	---	24.0
30	22.0	18.0	15.0	19.0	---	22.0	27.0	29.0	30.0	27.0	---	24.0
31	22.0	---	15.0	19.0	---	22.0	---	29.0	---	---	---	---
MEAN	---	---	---	---	---	20.2	---	---	---	---	---	---
MAX	---	---	---	---	---	23.0	---	---	---	---	---	---
MIN	---	---	---	---	---	18.0	---	---	---	---	---	---

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311500 WITHLACOCHEE RIVER NEAR DADE CITY, FL--Continued

WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT 27...	0825	69.76	18	260	6.9	19.5	4.0
DEC 19...	0945	69.95	22	328	6.9	13.0	5.6
FEB 13...	1025	69.70	18	221	7.6	17.0	3.8
APR 17...	1005	68.53	1.0	205	--	21.0	3.4
JUL 31...	1120	71.82	185	127	6.3	26.5	--

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
OCT 27...	0.010	<0.020	0.010	0.74	E0.050	0.040
DEC 19...	0.010	0.020	0.020	0.48	0.060	0.050
FEB 13...	<0.010	<0.020	0.010	0.85	0.060	0.050
APR 17...	<0.010	0.030	<0.010	0.45	0.030	0.010
JUL 31...	0.010	0.050	0.040	2.2	0.090	0.070

DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)
APR 17...	1005	160	29	3.0	10	M0.70	69
JUL 31...	1120	480	22	2.1	7.0	2.8	34

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
APR 17...	3.6	20	0.50	1.3	167	130	16
JUL 31...	13	16	0.10	6.3	188	100	48

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02311700 DADE CITY CANAL NEAR DADE CITY, FL

LOCATION.--Lat 28°22'55", long 82°10'48", in SW¼ Sec.23, T.24 S., R.21 E., Pasco County, Hydrologic Unit 03100208, near center of span, on downstream side of bridge over Evans Canal immediately upstream from confluence with Pasco Packing Company Canal, 1.0 mi downstream from Pasco Packing Plant at Dade City, and 4.0 mi upstream from Withlacoochee River.

DISCHARGE AREA.--35 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1957 to October 1962 (discharge measurements for Pasco Packing Company and Evans Canals only). November 1962 to current year (discharge measurements only). Prior to October 1985, published with station 02312000 Withlacoochee River at Trilby.

GAGE.--Nonrecording gage. Datum of gage not determined. Prior to Aug. 16, 1961, nonrecording gage 150 ft upstream at different datum.

REMARKS.--Discharge measurements made either downstream from or at bridge over Dade City Canal, 30 ft downstream from confluence of Pasco Packing Company and Evans Canals. Water is diverted from ground-water sources through canals to the Withlacoochee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 103 ft³/s, Feb. 24, 1967; no flow observed Dec. 2, 1964, Aug. 24, 1965.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year. Published with station 02312000 Withlacoochee River at Trilby, water years 1983-85.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	GAGE HEIGHT (FEET) (00065)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT							
27...	1125	12	68.45	380	7.6	25.0	5.5
DEC							
19...	1300	25	68.91	387	7.3	24.5	5.4
FEB							
13...	1205	21	68.76	--	8.2	25.0	7.4
APR							
17...	1215	15	68.29	412	--	26.0	8.8
JUN							
05...	1050	5.5	67.89	286	8.0	29.0	5.1
JUL							
31...	1350	1.6	67.79	406	8.8	32.0	7.7
SEP							
26...	1520	11	68.32	--	--	--	--

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312140 BAYROOT SLOUGH HEADWATERS NEAR BAY LAKE, FL

LOCATION.--Lat 28°27'23", long 81°55'14", in NW¼ sec.28, T.23 S., R.24 E., Lake County, Hydrologic Unit 03100208, at bridge on State Highway 565, 0.1 mi upstream from Seaboard Coast Line Railroad bridge, and 1.5 mi southwest of town of Bay Lake.

DRAINAGE AREA.--18 mi², approximately.

PERIOD OF RECORD.--1960-61, October 1963 to current year (discharge measurements only).

REVISED RECORDS.--WDR FL-72-3: Drainage area.

REMARKS.--Discharge measurements made along railroad fill from 1.0 mi north to 0.8 mi south of State Highway 565, which includes Bayroot Slough, Bayroot Drain and Cam Slough.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 202 ft³/s, Sept. 14, 1960; no flow observed at times most years.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
OCT			JUN		
26...	1015	.00	06...	1100	.00
DEC			AUG		
21...	1215	.00	02...	1120	.00
FEB			SEP		
15...	1045	.00	27...	1105	.00
APR					
19...	1015	.00			

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312180 LITTLE WITHLACOCHEE RIVER NEAR TARRYTOWN, FL

LOCATION.--Lat 28°31'17", long 82°03'18", in NE¼ sec.1, T.23 S., R.22 E., Sumter County, Hydrologic Unit 03100208, near center of span on downstream side of bridge on State Highway 471, 2.3 mi south of Tarrytown, 3.1 mi southwest of Linden, and 14 mi upstream from mouth.

DRAINAGE AREA.--85 mi², approximately.

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 80.00 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Estimated daily discharges: Mar. 29 to Apr. 17. Records fair. Above bankfull stage, discharge measurements are made along State Highway 471 and include all flow from 2.3 mi north to 2.8 mi south of gaging station.

AVERAGE DISCHARGE.--24 years, 41.4 ft³/s, 6.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,210 ft³/s, Mar. 31, 1987, gage height, 6.51 ft; maximum gage height, 6.58 ft, Sept. 28, 1979; no flow for many days most years; river dry at gage for many days in 1967, 1968, 1971, 1977, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.0 ft³/s, Feb. 23, gage height, 3.85 ft; no flow for many days; minimum gage height, 0.64 ft, June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.04	.00	.46	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.04	.00	.31	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.03	.00	.18	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.01	.00	.10	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.50	.00	.08	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.44	.00	.05	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.30	.00	.02	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.84	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.68	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.46	.00	.00	.00	.00	.00	.00	.06	.00
11	.00	.00	.00	.36	.02	.00	.00	.00	.00	.00	.47	.00
12	.00	.00	.00	.28	.05	.00	.00	.00	.00	.00	.11	.00
13	.00	.00	.00	.17	.04	.00	.00	.00	.00	.00	.04	.00
14	.00	.00	.00	.11	.03	.00	.00	.00	.00	.00	.35	.00
15	.00	.00	.00	.11	.00	.00	.00	.00	.00	.00	1.0	.00
16	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00	.33	.00
17	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00	.08	.00
18	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00	.04	.00
19	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.04	.06	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.20	.04	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.19	.04	.00	.00	.00	.00	.00	.00	.05	.00
23	.00	.00	.85	.03	2.4	.00	.00	.00	.00	.00	1.2	.00
24	.00	.00	.28	.00	2.4	.00	.00	.00	.00	.00	1.2	.00
25	.00	.00	.12	.00	1.8	.00	.00	.00	.00	.00	.39	.00
26	.00	.00	.08	.04	1.3	.00	.00	.00	.00	.00	.11	.00
27	.00	.00	.08	.03	.95	.00	.00	.00	.00	.00	.06	.00
28	.00	.00	.05	.00	.70	.00	.00	.00	.00	.00	.01	.00
29	.00	.00	.04	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.04	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.04	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	2.01	4.93	9.69	1.20	0.00	0.00	0.00	0.00	5.50	0.00
MEAN	.000	.000	.065	.16	.35	.039	.000	.000	.000	.000	.18	.000
MAX	.00	.00	.85	.84	2.4	.46	.00	.00	.00	.00	1.2	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 7393.25 MEAN 20.3 MAX 271 MIN .00 CFSM .24 IN. 3.24
WTR YR 1990 TOTAL 23.33 MEAN .064 MAX 2.4 MIN .00 CFSM .00 IN. .01

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02312194 BIG GANT CANAL AT STRUCTURE S-11, NEAR WEBSTER, FL

LOCATION.--Lat 28°34'47", long 82°05'45", in NW¼ sec.15, T.22 S., R.22 E., Sumter County, Hydrologic Unit 03100208, on left bank 10 ft downstream from bridge on State Highway 478A, 400 ft upstream from structure S-11, 0.5 mi downstream from Big Gant Lake, 3.2 mi southwest of Webster, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--18 mi², approximately.

PERIOD OF RECORD5--June 1970 to September 1984 (discharge measurements and thrice-weekly gage heights only), incomplete, October 1984 to current year (discharge measurements only).

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Elevation of Big Gant Lake and flow at station regulated by manipulation of stoplogs in structure S-11; crest of weir is at elevation 72.6 ft with all stoplogs out and 75.8 ft with all stoplogs in place.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 42 ft³/s, Mar. 8, 1983; maximum gage height observed, 76.80 ft, Sept. 26, 1982; no flow observed at times most years; minimum gage height observed, 69.13 ft, May 29, 1981.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	GAGE HEIGHT (FEET)	DIS- CHARGE, INST. CUBIC FEET PER SECOND
OCT				JUN			
25...	1200	75.96	e.03	06...	0815	74.89	.00
DEC				AUG			
20...	1130	76.00	5.6	01...	1255	75.75	.00
FEB				SEP			
14...	1225	76.16	4.3	27...	0905	75.38	.00
APR							
18...	1145	75.79	.00				

e Estimated

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312197 BIG GANT CANAL AT STRUCTURE WC-2, AT RERDELL, FL

LOCATION.--Lat 28°34'16", long 82°08'52", in SW¼ sec.18, T.22 S., R.22 E., Sumter County, Hydrologic Unit 03100208, on left bank 75 ft upstream from structure WC-2, 0.1 mi upstream from mouth, and 0.5 mi east of Rerdell.

DRAINAGE AREA.--30 mi², approximately.

PERIOD OF RECORD.--June 1970 to September 1984 (discharge measurements and thrice-weekly gage heights only), incomplete, October 1984 to current year (discharge measurements only).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Soil Conservation Service bench mark). Auxiliary gage at downstream side of structure.

REMARKS.--Flow at station regulated by manipulation of gates in spillway; flow over closed gates occurs at elevation 65.55 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 83 ft³/s, July 8, 1974, gage height, 67.46 ft; maximum gage height observed, 70.00 ft, Sept. 30, 1979; no flow observed at times in 1981, 1990; minimum gage height observed, 64.48 ft, May 30, 1985.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	GAGE HEIGHT (FEET)	DIS- CHARGE, INST. CUBIC FEET PER SECOND
OCT				APR			
25...	1025	65.78	19	18...	1030	65.72	4.8
DEC				JUN			
20...	1005	65.72	11	06...	0745	65.54	.00
FEB				AUG			
14...	1050	65.72	6.0	01...	1125	65.69	4.2

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312198 BIG GANT CANAL BELOW STRUCTURE WC-2, AT RERDELL, FL

LOCATION.--Lat 28°34'16", long 82°08'54", in SW¼ sec.18, T.22 S., R.22 E., Sumter County, Hydrologic Unit 03100208, on left bank 75 ft downstream from structure WC-2, 0.1 mi upstream from mouth, and 0.5 mi east of Rerdel.

DRAINAGE AREA.--30 mi², approximately.

PERIOD OF RECORD.--June 1970 to September 1984 (thrice-weekly gage heights only), incomplete, October 1984 to current year (periodic gage heights only).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Soil Conservation Service bench mark).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 70.00 ft, Sept. 30, 1979; minimum observed, 61.05 ft, May 30, 1985.

GAGE HEIGHT, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET ABOVE DATUM)	DATE	TIME	GAGE HEIGHT (FEET ABOVE DATUM)
OCT			APR		
25...	1015	64.37	18...	1005	63.35
DEC			JUN		
20...	0950	64.36	06...	0750	62.32
FEB			AUG		
14...	1030	64.04	01...	1035	63.27

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312200 LITTLE WITHLACOCHEE RIVER AT RERDELL, FL

LOCATION.--Lat 28°34'21", long 82°09'20", in SE¼ sec.13, T.22 S., R.21 E., Hernando County, Hydrologic Unit 03100208, near center of span on downstream side of bridge on U.S. Highway 301, 0.2 mi north of Rerdell, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--145 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1958 to current year.

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 59.02 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 18 to Dec. 17. Records fair. Above bankfull stage, discharge measurements are made along U.S. Highway 301 and include all flow from 3.4 mi north to 1.8 mi south of gaging station.

AVERAGE DISCHARGE.--32 years, 79.5 ft³/s, 7.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, Mar. 19, 1960, gage height, 12.32 ft; no flow for many days in 1961, 1962, 1977, 1981, 1985, 1990; river dry at gage for many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft³/s, Dec. 23, gage height, 3.09 ft; no flow part or all of each day June 20,21,22,23, Aug. 11,12,13, minimum gage height, 0.53 ft, June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.4	6.0	17	8.2	17	7.8	2.4	.27	.42	2.9	4.9
2	18	5.2	5.7	15	8.2	16	6.6	2.4	.25	.37	3.2	4.4
3	19	4.9	5.5	15	8.4	15	6.2	2.3	.24	.31	2.9	4.2
4	14	4.6	5.3	15	8.2	14	5.7	2.5	.22	.33	2.8	3.7
5	12	4.3	5.1	20	8.2	13	5.3	2.2	.21	.38	2.3	3.4
6	12	4.1	5.0	20	7.5	12	5.0	2.1	.19	.23	1.9	3.1
7	12	3.9	4.9	19	7.3	11	4.9	1.9	.17	.19	1.5	2.9
8	12	3.9	6.4	20	7.2	11	4.8	1.6	.15	.13	2.0	2.7
9	11	5.0	9.9	19	6.9	9.7	4.5	1.5	.18	.07	2.7	2.5
10	11	5.9	9.3	18	9.1	9.1	4.3	1.8	.20	.04	2.1	2.3
11	11	5.3	8.6	18	19	8.5	4.8	1.8	.24	.03	2.4	2.6
12	9.8	5.1	8.3	18	16	8.3	4.8	1.4	.33	.01	2.5	2.8
13	9.1	4.6	7.8	17	14	7.8	4.5	1.1	.31	.08	2.4	2.5
14	8.6	4.2	7.5	15	13	7.2	4.2	.88	.28	1.1	4.1	2.5
15	8.1	4.0	7.2	14	13	6.6	4.1	.74	.26	1.9	5.0	2.3
16	7.7	4.5	7.0	14	12	6.3	4.0	.62	.23	1.6	5.1	2.2
17	7.3	4.3	6.8	14	11	5.9	3.8	.53	.20	1.1	4.6	2.3
18	7.3	4.1	13	13	11	5.8	4.2	.47	.18	1.6	3.9	2.5
19	7.6	4.0	14	13	9.8	5.3	4.2	.43	.12	1.9	3.5	2.0
20	6.8	3.8	16	12	9.6	5.0	4.0	.37	.02	2.0	3.3	1.8
21	6.7	3.7	18	12	9.6	4.7	3.6	.36	.00	3.3	3.5	1.6
22	6.5	3.6	18	12	9.4	4.5	3.3	.39	.00	3.2	3.0	1.5
23	6.1	5.6	27	12	21	4.3	3.2	.57	.10	2.9	4.2	1.3
24	6.0	6.0	25	11	24	4.2	5.7	.44	.59	2.5	5.2	.89
25	7.3	7.0	23	11	22	4.1	6.6	.37	.68	2.5	4.7	.77
26	7.4	8.5	21	11	20	4.0	5.6	.36	.34	2.4	4.1	.87
27	6.7	7.4	21	9.8	19	4.0	4.6	.33	.49	2.1	3.7	.93
28	6.3	6.9	20	9.3	18	3.9	3.5	.33	.36	2.1	3.1	1.1
29	5.8	6.5	19	8.9	---	4.3	3.2	.32	.27	2.5	3.6	2.9
30	5.6	6.3	18	8.9	---	5.4	2.7	.31	.48	2.0	3.3	2.7
31	5.5	---	17	8.6	---	9.3	---	.29	---	1.7	4.1	---
TOTAL	286.2	152.6	386.3	440.5	350.6	247.2	139.7	33.11	7.56	41.19	103.6	72.16
MEAN	9.23	5.09	12.5	14.2	12.5	7.97	4.66	1.07	.25	1.33	3.34	2.41
MAX	19	8.5	27	20	24	17	7.8	2.5	.68	3.3	5.2	4.9
MIN	5.5	3.6	4.9	8.6	6.9	3.9	2.7	.29	.00	.01	1.5	.77
CFSM	.06	.04	.09	.10	.09	.05	.03	.01	.00	.01	.02	.02
IN.	.07	.04	.10	.11	.09	.06	.04	.01	.00	.01	.03	.02

CAL YR 1989 TOTAL 11668.7 MEAN 32.0 MAX 280 MIN 3.2 CFSM .22 IN. 2.99
 WTR YR 1990 TOTAL 2260.72 MEAN 6.19 MAX 27 MIN .00 CFSM .04 IN. .58

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312200 LITTLE WITHLACOCHEE RIVER AT RERDELL, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to December 1967.

WATER TEMPERATURE: October 1964 to December 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 490 microsiemens, Dec. 26, 1967; minimum observed, 45 microsiemens Aug. 30, 1965.

WATER TEMPERATURE: Maximum observed, 30.5°C, June 30, 1965; minimum observed, 9.0°C, Jan. 30,31, 1966.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT 25...	0820	2.68	6.4	348	7.3	19.0	20	1.7	65
DEC 20...	0750	2.44	14	348	6.8	15.5	10	4.5	62
FEB 14...	0830	2.27	13	--	7.4	18.0	20	6.3	60
APR 18...	0805	1.56	3.8	208	7.4	22.0	5	7.0	34
JUN 05...	1255	0.87	0.19	243	6.7	29.0	5	4.8	38
AUG 01...	0825	1.34	1.7	326	6.8	25.0	<5	1.8	56

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
OCT 25...	2.3	6.3	2.0	162	2.3	12	0.20	8.4	204
DEC 20...	2.3	6.5	1.4	158	2.4	11	0.10	4.9	195
FEB 14...	2.2	6.6	2.9	150	2.4	12	0.10	5.1	190
APR 18...	2.0	5.4	0.20	89	1.3	11	0.20	6.9	131
JUN 05...	2.4	8.0	1.5	97	0.40	14	0.20	7.0	148
AUG 01...	2.3	6.3	2.2	143	0.40	11	0.10	9.8	183

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS TOTAL (MG/L AS P) (70507)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 25...	<0.010	0.040	0.140	0.66	0.030	0.010	130	--
DEC 20...	<0.010	0.060	0.100	0.48	0.030	0.010	130	--
FEB 14...	<0.010	0.040	0.010	0.57	0.040	0.020	130	--
APR 18...	0.010	<0.020	0.010	1.2	0.040	0.030	100	4.3
JUN 05...	<0.010	0.130	0.050	0.73	0.200	0.030	100	--
AUG 01...	<0.010	0.030	0.190	0.78	0.210	0.020	100	7.5

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312500 WITHLACOCHEE RIVER AT CROOM, FL

LOCATION.--Lat 28°35'33", long 82°13'20", in NE¼ sec.8, T.22 S., R.21 E., Hernando County, Hydrologic Unit 03100208, on left bank at upstream side of abandoned highway bridge, 0.4 mi northwest of Croom, 2.3 mi downstream from Little Withlacoochee River, 4.5 mi southeast of Nobleton, and 77 mi upstream from mouth.

DRAINAGE AREA.--810 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1304.

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 38.94 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Feb. 2, 1940, nonrecording gage at railroad bridge 500 ft upstream at same datum.

REMARKS.--Records good. Records include water diverted from ground-water supplies (see station 02311700). High-water diversion in headwaters (station 02311000).

AVERAGE DISCHARGE.--51 years, 448 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,650 ft³/s, Mar. 23, 1960, gage height, 13.78 ft; minimum, 4.4 ft³/s, July 7,8, 1981, gage height, 1.06 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1934 reached a stage of 15.2 ft, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 350 ft³/s, Sept. 7,8; maximum gage height, 4.63 ft, Sept. 6,7,8; minimum discharge, 13 ft³/s, July 9,10,11, gage height, 1.14 ft, July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	68	47	129	92	93	56	26	18	14	34	315
2	143	66	48	135	89	92	54	26	19	14	46	321
3	145	65	48	142	87	95	52	25	18	14	59	331
4	143	64	48	151	84	100	50	25	17	14	71	336
5	140	63	47	176	82	108	47	24	17	14	78	343
6	137	61	43	185	79	115	46	25	17	14	83	346
7	134	59	41	191	75	122	45	22	17	14	85	349
8	132	56	43	201	73	129	44	22	18	14	89	348
9	129	57	54	202	69	136	42	21	20	13	91	344
10	123	59	56	201	68	140	41	24	20	13	86	337
11	120	59	59	199	79	142	42	22	19	13	91	331
12	118	58	59	193	78	140	41	21	17	14	96	323
13	116	58	57	189	77	134	39	22	16	14	94	302
14	113	56	55	186	75	127	37	24	16	16	99	277
15	110	53	55	181	72	120	37	23	16	18	101	249
16	106	54	57	175	70	112	36	21	16	17	96	217
17	102	54	59	168	68	104	35	20	16	16	94	188
18	100	54	70	159	67	98	33	20	15	15	98	161
19	99	56	73	150	65	91	33	20	15	15	108	136
20	95	56	74	141	63	83	32	19	15	15	120	116
21	91	54	78	136	61	77	30	19	15	16	137	100
22	88	51	84	131	61	71	30	19	16	16	159	86
23	84	53	98	125	78	66	30	20	16	15	188	77
24	81	53	108	120	93	62	29	19	16	15	215	70
25	79	52	111	115	100	59	28	18	16	15	235	63
26	77	53	110	113	103	55	28	19	15	15	254	55
27	77	51	106	110	100	52	27	19	15	15	273	50
28	76	48	103	107	96	49	27	20	15	15	285	48
29	75	48	106	103	---	48	27	20	14	15	294	48
30	74	47	114	99	---	49	27	19	14	16	301	46
31	71	---	122	96	---	55	---	18	---	22	313	---
TOTAL	3317	1686	2233	4709	2204	2924	1125	662	494	466	4373	6313
MEAN	107	56.2	72.0	152	78.7	94.3	37.5	21.4	16.5	15.0	141	210
MAX	145	68	122	202	103	142	56	26	20	22	313	349
MIN	71	47	41	96	61	48	27	18	14	13	34	46

CAL YR 1989 TOTAL 73132 MEAN 200 MAX 805 MIN 41
WTR YR 1990 TOTAL 30506 MEAN 83.6 MAX 349 MIN 13

PEACE, WITHLACOCHE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312500 WITHLACOCHEE RIVER AT CROOM, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.36	2.48	2.15	3.04	2.77	2.76	2.21	1.63	1.42	1.21	1.76	4.42
2	3.38	2.45	2.17	3.10	2.74	2.75	2.18	1.62	1.44	1.20	2.00	4.46
3	3.40	2.43	2.17	3.16	2.72	2.77	2.15	1.59	1.42	1.20	2.22	4.52
4	3.37	2.42	2.17	3.24	2.70	2.81	2.11	1.57	1.40	1.21	2.37	4.56
5	3.34	2.40	2.14	3.45	2.68	2.88	2.07	1.56	1.39	1.21	2.48	4.60
6	3.30	2.37	2.09	3.53	2.64	2.94	2.04	1.56	1.39	1.19	2.53	4.62
7	3.28	2.34	2.04	3.58	2.60	3.00	2.02	1.55	1.41	1.18	2.56	4.63
8	3.25	2.29	2.07	3.65	2.56	3.07	2.00	1.53	1.43	1.17	2.60	4.62
9	3.21	2.32	2.25	3.67	2.52	3.12	1.98	1.52	1.49	1.16	2.62	4.58
10	3.15	2.35	2.28	3.67	2.51	3.15	1.95	1.55	1.49	1.15	2.57	4.53
11	3.11	2.34	2.31	3.65	2.66	3.16	1.98	1.54	1.44	1.15	2.62	4.48
12	3.08	2.33	2.31	3.61	2.65	3.14	1.95	1.53	1.39	1.17	2.67	4.42
13	3.06	2.33	2.27	3.58	2.64	3.09	1.91	1.54	1.36	1.19	2.65	4.28
14	3.02	2.30	2.24	3.56	2.61	3.02	1.87	1.56	1.33	1.29	2.70	4.11
15	2.98	2.25	2.23	3.52	2.57	2.95	1.86	1.55	1.33	1.34	2.72	3.90
16	2.94	2.27	2.24	3.48	2.54	2.87	1.85	1.53	1.32	1.30	2.67	3.66
17	2.89	2.26	2.26	3.42	2.52	2.79	1.83	1.50	1.30	1.26	2.65	3.42
18	2.86	2.27	2.41	3.35	2.50	2.73	1.80	1.48	1.29	1.23	2.69	3.19
19	2.85	2.29	2.45	3.28	2.47	2.66	1.78	1.48	1.29	1.20	2.80	2.96
20	2.80	2.30	2.47	3.21	2.45	2.58	1.77	1.47	1.28	1.21	2.91	2.75
21	2.76	2.27	2.52	3.16	2.43	2.50	1.74	1.46	1.28	1.28	3.08	2.58
22	2.72	2.22	2.58	3.11	2.42	2.42	1.73	1.47	1.31	1.24	3.27	2.43
23	2.68	2.25	2.73	3.07	2.64	2.35	1.72	1.48	1.35	1.22	3.51	2.31
24	2.64	2.25	2.83	3.01	2.81	2.30	1.71	1.45	1.34	1.20	3.72	2.22
25	2.61	2.24	2.86	2.97	2.87	2.25	1.69	1.44	1.30	1.21	3.87	2.11
26	2.59	2.26	2.85	2.95	2.89	2.20	1.68	1.44	1.26	1.20	4.01	2.00
27	2.59	2.22	2.81	2.93	2.85	2.15	1.67	1.44	1.25	1.18	4.15	1.92
28	2.58	2.17	2.78	2.90	2.80	2.10	1.65	1.49	1.24	1.19	4.23	1.88
29	2.56	2.16	2.81	2.86	---	2.07	1.66	1.50	1.22	1.20	4.29	1.87
30	2.55	2.14	2.89	2.83	---	2.09	1.65	1.45	1.21	1.22	4.33	1.85
31	2.52	---	2.97	2.80	---	2.20	---	1.41	---	1.45	4.41	---
MEAN	2.95	2.30	2.43	3.27	2.63	2.67	1.87	1.51	1.35	1.22	3.02	3.46
MAX	3.40	2.48	2.97	3.67	2.89	3.16	2.21	1.63	1.49	1.45	4.41	4.63
MIN	2.52	2.14	2.04	2.80	2.42	2.07	1.65	1.41	1.21	1.15	1.76	1.85

WTR YR 1990 MEAN 2.39 MAX 4.63 MIN 1.15

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312500 WITHLACOCHEE RIVER AT CROOM, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1960-61, 1963, 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT 22...	1050	2.68	84	282	7.7	19.0	70	1.8	49
DEC 18...	1015	2.43	76	307	7.4	14.0	10	7.8	51
FEB 12...	1010	2.65	77	290	7.3	19.5	50	5.8	47
APR 16...	0955	1.85	38	228	7.9	21.5	10	5.7	37
JUN 04...	1045	1.40	17	278	7.4	27.5	5	2.5	43
JUL 30...	1000	1.20	16	244	6.8	29.0	5	2.7	41

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
OCT 22...	3.2	6.9	0.80	123	4.7	13	0.30	6.4	172
DEC 18...	3.6	7.9	2.4	131	6.8	11	0.10	2.1	151
FEB 12...	3.5	9.2	1.6	121	6.3	15	0.10	2.1	175
APR 16...	M2.7	5.7	0.30	96	5.5	10	0.40	2.7	136
JUN 04...	3.2	6.1	2.1	118	4.5	8.9	0.10	7.8	148
JUL 30...	2.6	4.3	1.0	103	3.7	6.3	0.10	6.1	141

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 22...	<0.010	<0.020	0.020	0.99	0.180	0.050	210	--
DEC 18...	<0.010	0.020	0.020	0.48	0.060	0.020	220	--
FEB 12...	<0.010	<0.020	0.020	0.60	0.090	0.050	220	--
APR 16...	<0.010	<0.020	0.010	0.55	0.040	0.020	180	5.6
JUN 04...	<0.010	<0.020	0.020	0.37	0.110	0.070	230	--
JUL 30...	0.010	4.00	0.050	1.1	0.100	0.040	210	8.1

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312600 WITHLACOCHEE RIVER NEAR FLORAL CITY, FL

LOCATION.--Lat 28°44'36", long 82°13'13", in SE¼ sec.17, T.20 S., R.21 E., Citrus County, Hydrologic Unit 03100208, on left bank on upstream shoreward corner of pavillion at Trails End Camp, 1.1 mi downstream from diversions to Tsala Apopka Lake, 4.7 mi east of Floral City, and 62 mi upstream from mouth.

DRAINAGE AREA.--995 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1958 to January 1965 (gage heights only), February 1965 to September 1983 (discharge measurements and gage heights only); October 1983 to current year. Records of gage heights prior to October 1962 are unpublished and are available in files of the Orlando subdistrict office.

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1983, nonrecording gage at same site and datum.

REMARKS.--Records fair above 100 ft³/s and poor below. Discharge published is for site at bridge on State Highway 48 about 2 mi upstream from gage and about 1 mi upstream from diversions to Tsala Apopka Lake through Leslie Heifner and Orange State Canals. High-water diversion in headwaters (station 02311000).

AVERAGE DISCHARGE.--7 years, 405 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,480 ft³/s, Apr. 11,12, 1987; gage height, 44.13 ft; maximum gage height observed, 45.24 ft, Mar. 25, 1960; maximum reverse flow measured, 5.0 ft³/s, July 24, 1981; minimum gage height observed, 37.48 ft, July 8, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 200 ft³/s, Feb. 28, Sept. 1-3, maximum gage height, 40.93 ft, Jan. 11,12; minimum discharge, 8.5 ft³/s, July 11,12; gage height, 38.26 ft, July 12,13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	101	71	142	174	181	107	42	17	16	66	199
2	187	98	72	143	173	179	106	40	20	15	69	199
3	184	95	72	145	172	177	108	38	23	15	78	198
4	180	91	72	148	172	173	103	36	26	14	90	197
5	176	89	73	165	169	170	100	35	25	14	106	196
6	173	86	74	168	168	166	97	33	23	13	117	195
7	169	83	74	171	168	163	93	31	23	12	126	194
8	167	80	77	175	167	161	89	29	24	11	140	193
9	163	81	87	178	166	161	86	29	24	10	153	191
10	161	80	88	181	167	161	84	31	24	9.6	155	189
11	160	77	89	183	176	159	84	30	25	8.9	157	188
12	157	75	91	185	174	158	82	29	24	8.7	158	187
13	154	72	94	185	173	155	78	28	23	10	158	183
14	151	70	94	187	173	154	77	28	23	16	160	179
15	149	67	95	189	172	152	74	27	22	22	164	173
16	146	66	96	189	171	150	72	26	21	28	164	166
17	143	64	96	190	170	148	70	25	20	33	163	160
18	140	61	102	189	169	145	66	24	19	39	161	154
19	139	59	105	188	169	142	64	23	19	46	160	147
20	135	57	109	188	167	137	63	22	19	55	159	140
21	132	57	113	187	166	132	62	22	18	78	161	133
22	129	58	116	186	167	128	60	21	17	82	162	126
23	126	60	123	183	177	125	58	21	18	81	171	119
24	123	61	126	183	181	121	56	20	19	80	182	113
25	120	62	129	183	181	117	53	19	19	78	186	106
26	117	67	132	182	181	113	51	18	18	75	189	101
27	114	69	134	180	182	108	49	18	19	72	190	95
28	112	70	135	179	182	105	48	19	18	70	192	91
29	109	71	137	178	---	104	47	19	17	71	193	92
30	106	70	138	177	---	104	45	18	16	69	195	91
31	104	---	140	175	---	107	---	17	---	67	197	---
TOTAL	4515	2197	3154	5482	4827	4456	2232	818	623	1219.2	4722	4695
MEAN	146	73.2	102	177	172	144	74.4	26.4	20.8	39.3	152	156
MAX	189	101	140	190	182	181	108	42	26	82	197	199
MIN	104	57	71	142	166	104	45	17	16	8.7	66	91

CAL YR 1989 TOTAL 90021 MEAN 247 MAX 867 MIN 57
WTR YR 1990 TOTAL 38940.2 MEAN 107 MAX 199 MIN 8.7

02312600 WITHLACOOCHEE RIVER NEAR FLORAL CITY, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.81	40.39	40.19	40.59	40.69	40.74	40.36	39.66	38.82	38.61	38.58	39.79
2	40.81	40.37	40.17	40.59	40.68	40.74	40.36	39.62	38.92	38.59	38.62	39.79
3	40.80	40.35	40.16	40.59	40.67	40.73	40.38	39.58	39.02	38.57	38.76	39.78
4	40.79	40.32	40.14	40.62	40.66	40.72	40.34	39.55	39.08	38.55	38.91	39.78
5	40.77	40.31	40.13	40.84	40.62	40.70	40.31	39.52	39.04	38.53	38.99	39.77
6	40.76	40.29	40.12	40.86	40.61	40.68	40.29	39.49	39.00	38.49	39.04	39.76
7	40.75	40.27	40.10	40.87	40.61	40.67	40.26	39.44	38.98	38.45	39.08	39.75
8	40.74	40.26	40.13	40.90	40.59	40.66	40.22	39.40	39.00	38.41	39.15	39.75
9	40.72	40.29	40.26	40.91	40.58	40.67	40.20	39.38	39.00	38.37	39.23	39.73
10	40.72	40.30	40.25	40.92	40.59	40.67	40.18	39.43	38.99	38.34	39.26	39.72
11	40.73	40.28	40.25	40.92	40.69	40.66	40.18	39.39	38.99	38.30	39.29	39.70
12	40.71	40.27	40.26	40.92	40.67	40.66	40.16	39.36	38.98	38.28	39.30	39.70
13	40.69	40.25	40.27	40.90	40.66	40.65	40.13	39.34	38.94	38.27	39.30	39.66
14	40.67	40.25	40.25	40.90	40.66	40.65	40.11	39.31	38.90	38.37	39.33	39.62
15	40.67	40.24	40.24	40.90	40.65	40.64	40.09	39.27	38.87	38.50	39.38	39.56
16	40.65	40.25	40.24	40.89	40.64	40.63	40.06	39.25	38.83	38.53	39.38	39.48
17	40.63	40.24	40.22	40.89	40.63	40.62	40.04	39.22	38.79	38.54	39.37	39.39
18	40.63	40.22	40.29	40.88	40.60	40.61	40.00	39.18	38.77	38.57	39.34	39.31
19	40.63	40.21	40.31	40.87	40.59	40.59	39.97	39.14	38.76	38.60	39.32	39.22
20	40.60	40.20	40.35	40.86	40.58	40.56	39.98	39.11	38.73	38.63	39.32	39.11
21	40.58	40.19	40.39	40.85	40.56	40.52	39.96	39.07	38.69	38.84	39.34	39.01
22	40.56	40.18	40.42	40.83	40.57	40.50	39.94	39.06	38.66	38.85	39.36	38.91
23	40.54	40.19	40.50	40.81	40.69	40.47	39.90	39.03	38.69	38.83	39.47	38.81
24	40.52	40.19	40.53	40.80	40.74	40.45	39.86	38.99	38.74	38.79	39.60	38.71
25	40.50	40.18	40.56	40.80	40.73	40.42	39.83	38.94	38.73	38.77	39.65	38.62
26	40.48	40.23	40.58	40.79	40.73	40.39	39.80	38.92	38.71	38.72	39.68	38.55
27	40.46	40.24	40.58	40.76	40.74	40.35	39.77	38.92	38.72	38.67	39.69	38.46
28	40.45	40.24	40.58	40.74	40.74	40.32	39.74	38.93	38.70	38.64	39.71	38.40
29	40.43	40.22	40.58	40.74	---	40.33	39.73	38.91	38.67	38.65	39.73	38.41
30	40.42	40.20	40.58	40.72	---	40.32	39.70	38.87	38.63	38.63	39.75	38.41
31	40.41	---	40.59	40.70	---	40.36	---	38.83	---	38.60	39.76	

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312600 WITHLACOCHEE RIVER NEAR FLORAL CITY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
NOV 20...	1330	40.20	55	330	7.8	17.5	60	44	3.3
MAR 15...	1110	40.64	152	260	7.5	23.5	40	34	3.0
MAY 08...	1511	39.39	28	257	7.4	26.0	50	37	3.0
JUN 21...	1150	38.70	17	--	7.2	33.0	30	30	3.2
AUG 28...	1615	39.71	192	206	--	33.0	320	36	2.4

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINEITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NOV 20...	6.8	0.50	115	4.1	12	0.20	4.5	165
MAR 15...	7.6	0.50	87	4.6	13	0.10	0.30	136
MAY 08...	8.1	0.50	94	2.2	16	<0.10	1.2	158
JUN 21...	8.8	3.9	81	4.5	15	0.10	5.0	137
AUG 28...	6.9	1.0	75	2.5	15	0.10	8.1	194

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 20...	<0.010	<0.020	<0.010	0.72	<0.020	0.020	170	--
MAR 15...	<0.010	<0.020	<0.010	0.51	0.020	0.010	150	--
MAY 08...	<0.010	<0.020	<0.010	0.72	<0.020	0.010	160	13
JUN 21...	--	--	--	--	--	--	230	--
AUG 28...	0.020	0.040	0.480	2.6	0.120	0.100	170	35

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312635 JUMPER CREEK CANAL NEAR SUMTERVILLE, FL

LOCATION.--Lat 28°41'46", long 82°03'18", in NE¼ sec.1, T.21 S., R.22 E., Sumter County, Hydrologic Unit 03100208, near left bank on downstream side of bridge on State Highway 471, 3.4 mi south of Sumterville, 4.2 mi northeast of Bushnell, and 12.9 mi upstream from mouth.

DRAINAGE AREA.--28.6 mi².

PERIOD OF RECORD.--October 1976 to September 1977, March 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 68.04 ft above National Geodetic Vertical Datum of 1929 (U.S. Soil Conservation Service bench mark).

REMARKS.--Records poor. Flow affected by pumpage into and out of canal upstream and downstream from station.

AVERAGE DISCHARGE.--12 years (water years 1977, 1980-90), 22.2 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 145 ft³/s, Apr. 2, 1987; maximum gage height, 8.55 ft, Apr. 2, 1987; no flow many days in most years; canal dry at gage for many days in 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 42 ft³/s, Oct. 7,9,10,11,18; maximum gage height, 6.59 ft, Oct. 6; minimum daily discharge, 3.3 ft³/s, Dec. 25; minimum gage height, 4.16 ft, Apr. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	23	25	19	20	24	21	23	10	17	14	20
2	19	40	23	28	15	8.2	20	20	17	19	14	20
3	20	40	18	27	14	7.9	21	15	24	18	17	20
4	20	35	13	20	14	13	18	23	24	17	19	17
5	22	40	17	32	15	21	28	23	22	17	23	19
6	34	15	26	17	26	23	22	26	24	17	23	11
7	42	30	20	18	22	23	19	18	17	17	23	18
8	41	34	9.4	36	26	18	28	15	23	17	21	19
9	42	26	8.4	36	25	28	7.2	14	25	18	22	19
10	42	41	9.9	30	20	22	22	25	25	18	20	19
11	42	13	11	29	21	22	20	20	25	16	22	19
12	41	22	12	18	21	22	10	26	25	13	18	19
13	40	27	19	18	18	16	15	26	26	15	20	19
14	39	23	18	20	29	19	16	17	18	15	17	19
15	39	22	18	18	24	25	27	9.0	12	14	18	19
16	40	35	13	22	30	22	27	16	8.7	14	19	19
17	39	26	22	8.5	22	20	27	6.8	23	14	20	19
18	42	22	18	7.0	30	24	15	15	24	14	21	19
19	38	19	23	8.5	23	20	18	19	23	14	20	17
20	15	22	24	15	20	25	20	17	23	14	20	18
21	22	30	21	18	21	22	22	13	18	14	20	18
22	19	35	20	22	12	26	18	11	11	14	20	18
23	23	13	20	23	26	23	18	7.6	20	14	21	15
24	29	19	14	17	22	22	6.7	20	25	14	19	14
25	27	24	3.3	20	28	21	8.7	24	25	14	19	18
26	29	22	7.7	17	28	22	8.4	24	26	14	19	18
27	28	22	10	20	27	23	11	23	23	13	18	17
28	26	35	27	19	27	28	17	23	7.6	14	16	16
29	24	36	28	28	---	23	6.3	22	7.4	14	19	7.6
30	25	37	22	28	---	23	5.9	22	9.3	14	20	6.6
31	24	---	17	27	---	22	---	18	---	14	20	---
TOTAL	953	828	537.7	666.0	626	658.1	523.2	581.4	591.0	471	602	517.2
MEAN	30.7	27.6	17.3	21.5	22.4	21.2	17.4	18.8	19.7	15.2	19.4	17.2
MAX	42	41	28	36	30	28	28	26	26	19	23	20
MIN	15	13	3.3	7.0	12	7.9	5.9	6.8	7.4	13	14	6.6

CAL YR 1989 TOTAL 5396.25 MEAN 14.8 MAX 42 MIN .16
WTR YR 1990 TOTAL 7554.6 MEAN 20.7 MAX 42 MIN 3.3

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312640 JUMPER CREEK CANAL NEAR BUSHNELL, FL

LOCATION.--Lat 28°41'45", long 82°06'34", in NE¼ sec.4, T.21 S., R.22 E., Sumter County, Hydrologic Unit 03100208, near center of span on downstream side of bridge on State Highway 475, 2.2 mi north of Bushnell, and 10 mi upstream from mouth.

DRAINAGE AREA.--40 mi², approximately.

PERIOD OF RECORD.--September 1963 to current year.

REVISED RECORDS.--WDR FL-81-3: 1980 (m).

GAGE.--Water-stage recorder. Datum of gage is 55.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Diurnal fluctuation caused by mining operations upstream; daily flows are not affected appreciably.

AVERAGE DISCHARGE.--27 years, 27.1 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 227 ft³/s, Feb. 3, 1970, gage height, 6.06 ft; maximum gage height, 6.66 ft, Apr. 2, 1987; minimum daily discharge, 0.06 ft³/s, Dec. 25, 1981; minimum gage height, 0.76 ft, Dec. 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41 ft³/s, Oct. 7, 8, gage height, 4.56 ft, Oct. 7; minimum, 8.1 ft³/s, Apr. 28; minimum gage height, 2.53 ft, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	25	25	22	25	25	23	18	15	20	16	22
2	29	33	23	28	19	15	22	22	19	23	16	22
3	29	34	21	28	17	14	25	17	26	22	18	22
4	29	33	19	23	19	14	20	19	26	21	20	20
5	28	32	16	31	19	22	26	20	24	21	23	20
6	30	23	25	26	26	23	23	25	26	21	23	16
7	39	24	21	16	24	24	21	19	27	20	23	18
8	41	30	18	33	26	19	25	19	24	20	23	21
9	40	26	11	33	26	25	16	17	28	20	22	21
10	40	32	14	30	21	24	19	22	28	20	22	21
11	40	21	15	32	23	22	24	21	28	19	22	21
12	39	21	16	22	25	22	17	24	28	16	20	21
13	39	25	21	23	19	19	17	24	28	17	21	21
14	38	24	21	23	26	21	16	21	25	19	21	21
15	38	24	22	22	23	23	26	12	17	18	21	20
16	38	29	17	26	26	23	26	17	12	18	21	21
17	37	26	23	16	22	24	26	10	24	18	22	21
18	38	24	22	14	27	23	21	16	26	18	22	21
19	38	21	25	13	23	21	17	17	26	17	22	20
20	25	22	25	20	21	24	22	19	24	17	22	19
21	24	27	24	19	22	23	22	19	23	17	22	20
22	25	30	23	24	15	25	21	15	16	18	22	20
23	25	21	25	25	26	23	21	12	20	17	23	17
24	29	17	20	21	24	23	13	18	26	17	21	16
25	28	23	13	23	27	22	12	24	26	17	21	20
26	29	22	13	20	27	23	12	24	26	17	21	20
27	28	23	15	23	26	24	14	24	27	17	21	20
28	28	29	26	20	25	26	18	24	14	17	18	19
29	25	31	28	27	---	24	12	24	12	17	21	13
30	26	30	25	27	---	24	9.8	23	13	17	22	9.5
31	25	---	23	27	---	25	---	22	---	17	22	---
TOTAL	996	782	635	737	649	689	586.8	608	684	573	654	583.5
MEAN	32.1	26.1	20.5	23.8	23.2	22.2	19.6	19.6	22.8	18.5	21.1	19.4
MAX	41	34	28	33	27	26	26	25	28	23	23	22
MIN	24	17	11	13	15	14	9.8	10	12	16	16	9.5

CAL YR 1989 TOTAL 6759.9 MEAN 18.5 MAX 45 MIN 2.1
WTR YR 1990 TOTAL 8177.3 MEAN 22.4 MAX 41 MIN 9.5

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312645 JUMPER CREEK CANAL NEAR WAHOO, FL

LOCATION.--Lat 28°42'15", long 82°09'26", in SE¼ sec.36, T.20 S., R.21 E, Sumter County, Hydrologic Unit 03100208, on right bank 15 ft downstream from Bevilles Bridge, 2.5 mi northeast of Wahoo, 3.9 mi northwest of Bushnell, and 5.7 mi upstream from mouth.

DRAINAGE AREA.--50.6 mi².

PERIOD OF RECORD.--March 1979 to current year.

REVISED RECORDS.--WDR FL-81-3: 1980 (m).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--11 years, 37.7 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 265 ft³/s, May 8, 1979, gage height, 48.30 ft; maximum gage height, 48.47 ft, Mar. 31, 1987; minimum daily discharge, 2.8 ft³/s, Dec. 22-25, 1981; minimum gage height, 45.77 ft, all or part of each day Dec. 22-25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft³/s, Feb. 23,24, gage height, 47.53 ft; minimum, 12 ft³/s, May 17,18,24; minimum gage height, 46.28 ft, May 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	34	42	35	40	39	35	19	19	22	26	33
2	35	34	37	38	35	33	31	26	20	27	26	32
3	34	40	35	41	30	26	32	23	25	28	27	31
4	34	41	31	41	31	25	28	21	27	28	28	31
5	33	41	27	51	31	30	30	24	27	27	30	29
6	34	40	31	50	34	33	32	28	27	27	31	29
7	36	33	34	38	37	35	30	26	34	27	31	25
8	42	35	32	43	36	31	29	24	41	26	31	27
9	44	40	31	52	38	33	27	22	37	26	31	29
10	45	38	27	51	37	35	21	23	35	26	31	29
11	46	40	26	48	48	33	30	26	35	27	31	29
12	46	32	27	45	43	33	27	26	34	24	30	29
13	46	33	30	40	36	31	23	27	33	25	29	29
14	45	34	32	38	36	28	22	27	33	28	37	28
15	44	35	33	38	39	32	28	17	27	33	38	28
16	44	37	32	39	37	33	30	20	21	32	33	28
17	44	40	31	36	37	33	31	14	23	28	32	29
18	44	37	37	30	36	31	30	17	29	28	32	30
19	45	34	38	27	37	31	24	16	31	30	32	29
20	44	32	40	31	34	32	27	22	30	29	31	27
21	35	34	40	32	33	32	28	21	30	32	31	27
22	33	37	40	35	29	32	27	17	27	28	32	27
23	33	41	45	37	41	33	27	15	27	27	38	27
24	34	31	39	37	50	32	22	15	33	26	40	24
25	36	32	31	36	41	31	17	23	34	27	34	24
26	36	36	27	35	41	30	18	24	33	28	32	26
27	37	35	28	36	40	31	21	25	33	26	31	26
28	37	35	33	34	39	32	20	25	29	26	30	26
29	35	40	40	36	---	33	22	24	21	29	32	27
30	34	41	41	40	---	33	15	24	19	27	32	21
31	34	---	39	41	---	37	---	24	---	26	32	---
TOTAL	1203	1092	1056	1211	1046	993	784	685	874	850	981	836
MEAN	38.8	36.4	34.1	39.1	37.4	32.0	26.1	22.1	29.1	27.4	31.6	27.9
MAX	46	41	45	52	50	39	35	28	41	33	40	33
MIN	33	31	26	27	29	25	15	14	19	22	26	21

CAL YR 1989 TOTAL 10040 MEAN 27.5 MAX 48 MIN 10
WTR YR 1990 TOTAL 11611 MEAN 31.8 MAX 52 MIN 14

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312667 SHADY BROOK NEAR SUMTERVILLE, FL

LOCATION.--Lat 28°46'12", long 82°03'50", in NW¼ sec.12, T.20 S., R.22 E., Sumter County, Hydrologic Unit 03100208, on right bank in Thompkins Park, 400 ft upstream from bridge on U.S. Highway 301, and 1.7 mi north of Sumterville.

DRAINAGE AREA.--8.0 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1932-33, 1946, 1956, 1961, 1965-67, 1980-81 (miscellaneous discharge measurements), March 1982 to current year. Prior to November 1980, published as Panasoffkee River near Sumterville.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Records include wastewater of ground-water origin from mining operations upstream.

AVERAGE DISCHARGE.--8 years, 44.3 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340 ft³/s, Apr. 23, 1983, gage height, 50.76 ft; minimum discharge, 1.4 ft³/s, May 7, 8, 1985; minimum gage height, 46.66 ft, May 8, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft³/s, Feb. 23, maximum gage height, 48.07 ft, Feb. 23, Aug. 3, 4; minimum, 2.1 ft³/s, June 6; gage height 46.96 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	10	8.3	20	16	31	13	7.1	2.3	4.5	26	14
2	22	10	8.2	20	15	30	12	6.8	3.0	5.5	28	13
3	20	9.8	8.1	20	15	30	13	6.3	3.1	6.4	30	13
4	19	9.6	8.0	20	15	29	12	6.0	2.7	6.3	30	12
5	19	9.5	8.0	27	14	28	12	5.7	2.5	6.1	28	11
6	18	9.2	7.9	26	14	27	12	5.7	2.3	5.8	26	11
7	18	9.2	7.6	25	14	26	12	5.5	4.3	5.7	24	10
8	17	9.0	8.6	27	14	24	11	5.2	5.8	5.4	23	9.5
9	17	10	12	27	13	23	11	5.1	4.2	5.1	22	9.0
10	17	10	11	26	14	22	11	5.5	4.5	4.9	21	8.6
11	16	9.1	12	26	18	20	11	5.1	4.0	4.6	20	9.2
12	16	8.8	12	26	17	19	11	5.0	5.2	5.3	19	9.9
13	15	8.5	13	26	17	18	10	5.0	3.9	6.0	17	8.7
14	14	8.3	13	26	17	17	10	5.1	3.4	8.0	19	8.2
15	14	8.3	12	25	17	16	10	4.8	3.2	9.8	19	7.8
16	14	9.7	12	25	17	15	9.8	4.6	3.1	11	19	8.6
17	13	8.8	12	24	17	15	9.5	4.3	3.0	12	18	9.6
18	14	8.3	14	24	17	15	8.9	4.2	3.6	13	17	8.4
19	15	8.1	14	23	16	14	8.7	4.0	3.2	14	18	7.9
20	14	7.9	16	23	16	13	8.9	4.0	2.9	16	18	7.5
21	14	7.7	16	23	17	13	8.5	3.8	2.6	16	17	7.1
22	13	7.7	17	22	20	12	8.3	3.8	3.0	17	16	6.8
23	13	8.6	21	21	28	12	8.1	3.8	4.6	17	18	6.5
24	13	8.5	21	21	31	12	8.0	3.5	4.8	17	18	6.1
25	13	8.2	22	20	29	11	7.6	3.3	4.3	17	17	5.9
26	12	9.5	23	19	28	10	7.3	3.1	4.1	18	16	5.7
27	12	8.9	23	19	29	10	7.1	3.0	4.4	18	16	5.4
28	12	8.7	23	18	31	9.7	7.2	3.0	4.0	21	16	5.5
29	11	8.4	22	17	---	9.4	8.1	2.9	3.6	25	15	6.7
30	11	8.3	21	17	---	10	7.4	2.7	3.3	25	15	6.9
31	11	---	21	17	---	13	---	2.4	---	25	15	---
TOTAL	467	266.6	447.7	700	526	554.1	294.4	140.3	108.9	371.4	621	259.5
MEAN	15.1	8.89	14.4	22.6	18.8	17.9	9.81	4.53	3.63	12.0	20.0	8.65
MAX	22	10	23	27	31	31	13	7.1	5.8	25	30	14
MIN	11	7.7	7.6	17	13	9.4	7.1	2.4	2.3	4.5	15	5.4

CAL YR 1989 TOTAL 8486.7 MEAN 23.3 MAX 118 MIN 5.0
WTR YR 1990 TOTAL 4756.9 MEAN 13.0 MAX 31 MIN 2.3

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312667 SHADY BROOK NEAR SUMTERVILLE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE	SPE- CIFIC	PH	TEMPER-	COLOR	CALCIUM	MAGNE-	SODIUM,	POTAS-
		HEIGHT (FEET) (00065)	CON- DUCT- ANCE (US/CM) (00095)	(STAND- ARD UNITS) (00400)	ATURE WATER (DEG C) (00010)	(PLAT- INUM- COBALT UNITS) (00080)	DIS- SOLVED (MG/L AS CA) (00915)	SIIUM, DIS- SOLVED (MG/L AS MG) (00925)	DIS- SOLVED (MG/L AS NA) (00930)	SIIUM, DIS- SOLVED (MG/L AS K) (00935)
MAY 08...	1840	47.14	292	7.5	23.0	10	50	2.3	4.6	0.50
AUG 28...	1111	47.63	273	--	25.5	80	48	3.2	6.0	0.90
DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	
	MAY 08...	128	4.2	8.4	0.10	8.1	156	0.010	0.130	0.010
AUG 28...	122	3.1	10	<0.10	15	180	<0.010	0.060	0.010	
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	
	MAY 08...	0.26	<0.020	0.060	20	<1	<1	<1	80	20
AUG 28...	0.60	0.120	0.100	10	1	<1	10	310	220	
DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	
	MAY 08...	<1	<1	10	10	<0.10	<1	110	<10	2.9
AUG 28...	<1	<1	10	10	<0.10	<1	250	20	9.7	

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

284950082082001 LITTLE JONES CREEK AT MOUTH

WATER-QUALITY RECORDS

LOCATION.--Lat 28°49'50", long 82°08'20", in SE¼ sec.18, T.19 S., R.22 E., Sumter County, Hydrologic Unit 03100208, samples collected from boat, at mouth of Jones Creek, 1.6 mi north of Outlet River, 2.0 mi north of Panacoochee Retreats.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--Water years 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	
MAY 08...	1025	343	7.8	21.0	<5	52	5.3	5.0	0.60	129	21	10	
AUG 30...	1315	313	--	25.5	<5	52	5.0	5.0	0.50	126	19	7.9	
DATE		FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTH TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)
MAY 08...	0.20	10	179	0.010	1.20	<0.010	<0.20	<0.020	0.040	30	<1	<1	
AUG 30...	0.10	10	180	<0.010	1.20	<0.010	<0.20	0.060	0.050	20	<1	<1	
DATE		COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAY 08...	1	40	<10	<1	<1	<10	<10	<0.10	<1	320	<10	1.0	
AUG 30...	7	30	20	4	<1	<10	10	<0.10	<1	300	<10	1.0	

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312690 CHITTY CHATTY CREEK NEAR WILDWOOD, FL

LOCATION.--Lat 28°48'33", long 81°58'59", in NW¼ sec.26, T.19 S., R.23 E., Sumter County, Hydrologic Unit 03100208, near center of span on downstream side of box culverts on county road 468, 2.0 mi upstream from Lake Okahumpka, and 5.0 mi southeast of Wildwood.

DRAINAGE AREA.--38 mi², approximately.

PERIOD OF RECORD.--July 1959 to March 1960 (discharge measurements only), September 1963 to July 1966, December 1978 to current year. Prior to December 1978 records not equivalent because of channelization.

REVISED RECORDS.--WDR FL-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 52.70 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 15, 1978, at datum 3.30 ft higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--11 years (water years 1980-90), 12.6 ft³/s, 4.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 220 ft³/s, Mar. 31, 1987, gage height, 7.91 ft; no flow for many days most years; minimum gage height, 3.13 ft, Oct. 23,24, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1960 reached a stage of 6.55 ft datum then in use, from floodmarks, discharge, 260 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft³/s, Feb. 24, gage height, 5.70 ft; no flow for many days; minimum gage height, 4.08 ft, June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	1.8	4.6	17	9.1	18	4.7	3.2	.00	1.1	15	3.2
2	7.4	1.6	4.2	16	8.8	16	3.9	2.9	.00	2.0	13	2.4
3	7.4	1.3	3.7	15	8.6	15	6.3	2.2	.00	.81	13	1.6
4	6.7	1.0	3.3	14	8.3	14	6.0	1.5	.00	.12	15	.67
5	5.8	.74	2.9	21	7.8	13	4.9	1.2	.00	.00	12	.16
6	5.1	.56	2.6	21	7.3	12	4.9	1.1	.00	.00	9.1	.00
7	4.3	.40	2.5	19	6.9	11	6.2	.46	.00	.00	7.8	.00
8	4.0	.20	3.7	22	6.6	9.6	5.5	.00	.00	.00	6.2	.00
9	5.2	1.3	9.7	25	6.7	8.6	4.3	.00	.00	.00	5.2	.00
10	6.0	2.6	9.9	23	7.4	7.8	3.3	.26	.00	.00	4.9	.00
11	5.9	2.5	9.1	21	16	6.9	4.0	.27	.00	.00	4.6	.00
12	5.7	2.2	8.7	20	16	6.3	5.2	.00	.00	.00	4.7	.00
13	5.6	1.9	9.0	22	15	5.8	4.6	.00	.00	1.1	4.0	.00
14	5.3	1.7	8.4	22	15	5.3	3.8	.00	.00	6.3	6.4	.00
15	4.8	1.5	7.7	21	13	4.9	3.1	.00	.00	16	11	.00
16	4.6	2.6	7.2	20	12	4.5	2.5	.00	.00	15	10	.00
17	4.3	3.0	6.9	19	11	4.3	2.0	.00	.00	11	8.0	.00
18	4.4	2.6	10	17	11	4.1	1.5	.00	.00	15	6.9	.00
19	5.6	2.2	13	15	9.8	3.6	1.7	.00	.00	14	7.1	.00
20	5.3	1.8	16	14	9.1	3.0	2.4	.00	.00	10	6.5	.00
21	4.7	1.5	19	13	9.3	2.4	2.1	.00	.00	13	5.3	.00
22	4.2	1.1	19	12	9.6	1.7	1.5	.00	.00	13	4.6	.00
23	3.7	1.7	29	11	22	1.0	1.2	.00	.00	12	7.1	.00
24	3.3	2.2	24	11	42	.49	.98	.00	.00	10	10	.00
25	2.9	2.0	19	11	36	.12	.30	.00	.18	11	8.8	.00
26	2.5	2.9	15	11	26	.00	.00	.00	.40	16	7.3	.00
27	2.6	3.0	13	10	20	.00	.00	.00	3.1	22	6.2	.00
28	2.5	2.9	14	9.7	19	.00	.49	.00	2.8	24	5.3	.00
29	2.1	4.5	17	9.5	---	.00	3.0	.00	1.5	38	4.5	.00
30	1.7	5.1	17	9.3	---	.13	3.0	.00	.40	33	3.8	.00
31	1.9	---	17	9.2	---	3.4	---	.00	---	21	3.7	---
TOTAL	142.9	60.40	346.1	500.7	389.3	182.94	93.37	13.09	8.38	305.43	237.0	8.03
MEAN	4.61	2.01	11.2	16.2	13.9	5.90	3.11	.42	.28	9.85	7.65	.27
MAX	7.4	5.1	29	25	42	18	6.3	3.2	3.1	38	15	3.2
MIN	1.7	.20	2.5	9.2	6.6	.00	.00	.00	.00	.00	3.7	.00
CFSM	.12	.05	.29	.43	.37	.16	.08	.01	.01	.26	.20	.01
IN.	.14	.06	.34	.49	.38	.18	.09	.01	.01	.30	.23	.01

CAL YR 1989 TOTAL 4751.84 MEAN 13.0 MAX 78 MIN .00 CFSM .34 IN. 4.65
WTR YR 1990 TOTAL 2287.64 MEAN 6.27 MAX 42 MIN .00 CFSM .16 IN. 2.24

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312700 OUTLET RIVER AT PANACOCHEE RETREATS, FL

LOCATION.--Lat 28°49'01", long 82°08'40", in SE¼ sec.19, T.19 S., R.22 E., Sumter County, Hydrologic Unit 03100208, on west shore of Lake Panasoffkee, 0.8 mi north of outlet, 1.3 mi north of Panacoochee Retreats, 2.0 mi upstream from mouth, and 5.1 mi northwest of town of Lake Panasoffkee.

DRAINAGE AREA.--420 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year. Prior to October 1967, published as Panasoffkee River near Lake Panasoffkee.

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Dec. 18, 1962, nonrecording gage and Dec. 18, 1962, to Oct. 7, 1975, water-stage recorder at sites within 0.8 mi south at same datum.

REMARKS.--Estimated daily discharges: Apr. 30 to May 4, May 6,7,8,11,12,14-17, June 3,5,7-12, Aug. 19,21, Sept. 22,27,29. Records poor. Discharge measurements made at bridge on State Highway 470, about 1 mi downstream from lake outlet. Flow affected at times by backwater from Withlacoochee River. Prior to 1962, flow partially controlled by small rock dams and at times during 1962-64 by a temporary sheet piling dam about 400 ft downstream from bridge on State Highway 470. Gage heights are published as elevations for Lake Panasoffkee (station 02312698) in the section of this report entitled LAKE ELEVATIONS.

AVERAGE DISCHARGE.--28 years, 192 ft³/s, 6.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 784 ft³/s, Oct. 6, 1982; maximum gage height, 42.49 ft, Feb. 9, 1970; no flow June 27 to July 15, 1963, temporary dam in place; minimum daily gage height, 37.81 ft, July 16, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 189 ft³/s, Feb. 28, gage height, 39.40 ft; minimum discharge, 56 ft³/s, June 1; minimum observed, 38.13 ft, June 22, July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	87	99	124	142	182	140	104	56	72	92	145
2	111	88	98	127	141	181	140	103	57	72	94	144
3	110	88	100	126	141	175	139	102	61	72	94	146
4	109	88	98	126	139	176	136	101	62	69	102	144
5	108	89	97	156	137	175	138	100	61	67	100	142
6	106	89	96	162	138	173	136	98	60	64	100	140
7	103	89	96	167	136	171	135	97	67	67	100	138
8	100	90	98	168	136	170	134	96	75	67	100	138
9	97	92	103	169	136	164	135	92	83	62	101	137
10	96	94	99	168	138	162	132	89	84	60	104	135
11	96	94	99	168	148	160	131	89	85	58	106	133
12	96	93	101	164	149	158	131	89	84	60	107	133
13	95	93	103	160	151	155	129	88	82	60	108	131
14	95	94	100	161	152	154	127	88	77	62	114	127
15	94	96	100	159	153	153	127	87	72	77	119	123
16	94	98	100	159	151	151	124	86	68	86	119	125
17	93	96	99	156	150	149	123	86	66	83	119	130
18	92	95	105	154	149	145	121	85	68	82	120	125
19	89	94	106	153	149	144	123	82	66	83	123	112
20	81	96	111	152	148	139	125	80	62	83	123	107
21	86	97	113	148	150	139	120	78	62	88	121	102
22	88	97	113	144	152	138	118	76	58	92	122	94
23	88	101	120	144	164	136	117	75	74	91	126	85
24	87	101	121	143	169	135	116	72	73	94	131	79
25	87	100	126	141	177	134	114	71	77	92	131	75
26	87	105	127	133	180	132	112	69	73	94	132	72
27	88	104	128	140	181	132	111	68	77	91	134	66
28	88	103	127	141	183	131	109	66	77	92	135	62
29	84	103	127	141	---	133	107	63	74	94	139	62
30	85	101	127	142	---	137	105	61	72	94	139	69
31	86	---	128	142	---	140	---	59	---	91	143	---
TOTAL	2933	2855	3365	4638	4240	4724	3755	2600	2113	2419	3598	3421
MEAN	94.6	95.2	109	150	151	152	125	83.9	70.4	78.0	116	114
MAX	114	105	128	169	183	182	140	104	85	94	143	146
MIN	81	87	96	124	136	131	105	59	56	58	92	62
CFSM	.23	.23	.26	.36	.36	.36	.30	.20	.17	.19	.28	.27
IN.	.26	.25	.30	.41	.38	.42	.33	.23	.19	.21	.32	.30

CAL YR 1989 TOTAL 41436 MEAN 114 MAX 221 MIN 70 CFSM .27 IN. 3.67
WTR YR 1990 TOTAL 40661 MEAN 111 MAX 183 MIN 56 CFSM .27 IN. 3.60

PEACE, WITHLACOCOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCOCHEE RIVER BASIN

02312700 OUTLET RIVER AT PANACOCOCHEE RETREATS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1908, 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET) (72Q20)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
MAY 08...	0805	38.50	231	8.0	23.5	<5	28	5.4	6.3	0.40
AUG 30...	1043	38.69	194	--	31.5	5	26	4.5	5.7	0.90

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
MAY 08...	63	30	11	0.10	4.3	143	0.010	<0.020	0.010
AUG 30...	57	23	8.3	0.10	15	125	<0.010	<0.020	0.010

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
MAY 08...	0.49	<0.020	0.010	50	<1	<1	<1	30	<10
AUG 30...	0.60	0.030	0.020	20	<1	<1	2	30	10

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAY 08...	<1	<1	<10	<10	<0.10	<1	370	<10	4.7
AUG 30...	<1	<1	<10	<10	<0.10	<1	130	<10	4.6

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312720 WITHLACOCHEE RIVER AT WYSONG DAM, AT CARLSON, FL

LOCATION.--Lat 28°49'23", long 82°11'00", in NW¼ sec.23, T.19 S., R.21 E., Sumter County, Hydrologic Unit 03100208, at downstream end of left wall of lock of Wysong Dam, at Carlson, 1.8 mi downstream from Outlet River, 2.7 mi southeast of Rutland, and 55 mi upstream from mouth.

DRAINAGE AREA.--1,520 mi², approximately.

PERIOD OF RECORD.--August 1965 to September 1980, October 1980 to September 1981 (monthly mean discharge only), October 1981 to current year. Prior to October 1967, published as "at Carlson's Landing, near Lake Panasoffkee."

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Estimated daily discharges: July 31 to Aug. 30. Records fair. Some diversions upstream from station at times into Tsala Apopka Lake. High-water diversion in headwaters (station 02311000). Inflatable fabri-dam removed June 27, 1988.

AVERAGE DISCHARGE.--25 years, 653 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,920 ft³/s, Oct. 11, 1979; maximum gage height, 41.10 ft, Oct. 11, 1979; minimum daily discharge, unknown; minimum gage height, 34.84 ft, June 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 562 ft³/s, Sept. 3; maximum gage height, 38.26 ft, Sept. 2,3; minimum daily discharge, 93 ft³/s, June 1; minimum gage height, 36.33 ft, May 31, June 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	337	230	194	258	280	364	256	155	93	137	244	546
2	336	226	191	257	279	365	254	148	94	138	241	558
3	334	223	188	256	276	363	254	142	100	142	256	562
4	329	218	185	258	274	357	253	140	107	147	294	558
5	321	213	180	291	271	353	248	138	108	152	322	552
6	315	210	179	326	268	348	245	138	106	149	331	546
7	310	207	178	331	265	342	242	137	106	141	341	537
8	305	203	184	336	264	337	238	133	119	134	356	527
9	300	207	200	340	262	330	233	131	132	131	380	522
10	295	213	205	340	263	322	231	134	136	127	404	516
11	291	212	203	340	284	316	232	135	138	121	412	508
12	288	207	204	339	303	311	231	130	141	121	412	500
13	285	203	207	335	303	307	223	125	140	127	412	493
14	281	201	208	329	302	303	216	124	135	142	415	483
15	279	197	205	323	302	298	212	124	130	167	430	472
16	276	199	204	322	301	292	209	120	125	184	442	459
17	274	200	203	321	300	287	204	116	121	191	445	450
18	271	194	208	317	298	282	200	113	120	195	445	442
19	270	189	216	313	297	279	196	110	119	201	442	427
20	268	187	224	311	297	276	195	110	115	211	439	404
21	263	185	233	310	297	269	194	111	110	238	438	380
22	259	183	239	308	300	262	191	111	105	260	442	355
23	258	184	252	305	321	259	189	112	116	266	459	331
24	257	185	264	301	351	257	186	111	135	266	483	307
25	254	183	264	297	361	254	178	109	144	262	495	286
26	252	186	264	296	361	252	171	106	146	265	497	266
27	250	194	264	293	361	247	166	106	152	265	500	248
28	246	200	262	287	363	242	164	106	156	258	504	233
29	242	201	260	284	---	245	164	105	152	257	508	224
30	239	197	259	281	---	251	160	102	143	257	513	223
31	234	---	258	280	---	254	---	97	---	251	528	---
TOTAL	8719	6037	6785	9485	8404	9224	6335	3779	3744	5903	12830	12915
MEAN	281	201	219	306	300	298	211	122	125	190	414	430
MAX	337	230	264	340	363	365	256	155	156	266	528	562
MIN	234	183	178	256	262	242	160	97	93	121	241	223

CAL YR 1989 TOTAL 159530 MEAN 437 MAX 1130 MIN 178
WTR YR 1990 TOTAL 94160 MEAN 258 MAX 562 MIN 93

02312720 WITHLACOOCHEE RIVER AT WYSONG DAM AT CARLSON, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.43	37.01	36.85	37.00	37.03	37.36	36.98	36.59	36.33	36.62	37.12	38.22
2	37.42	36.99	36.83	36.99	37.02	37.36	36.98	36.56	36.33	36.62	37.12	38.25
3	37.41	36.98	36.81	36.98	37.01	37.36	36.98	36.54	36.37	36.64	37.24	38.26
4	37.39	36.96	36.79	36.99	37.00	37.34	36.98	36.53	36.42	36.66	37.43	38.25
5	37.36	36.94	36.77	37.12	36.99	37.33	36.96	36.52	36.42	36.68	37.48	38.24
6	37.34	36.92	36.76	37.26	36.98	37.31	36.94	36.52	36.41	36.67	37.51	38.23
7	37.32	36.91	36.75	37.27	36.97	37.29	36.93	36.52	36.42	36.64	37.56	38.20
8	37.30	36.89	36.77	37.29	36.96	37.27	36.92	36.51	36.49	36.61	37.62	38.18
9	37.28	36.91	36.84	37.30	36.95	37.24	36.90	36.50	36.55	36.60	37.73	38.16
10	37.26	36.94	36.86	37.30	36.96	37.22	36.89	36.51	36.57	36.58	37.79	38.15
11	37.24	36.93	36.85	37.29	37.04	37.19	36.90	36.52	36.58	36.55	37.78	38.13
12	37.23	36.91	36.85	37.28	37.12	37.17	36.89	36.49	36.60	36.55	37.80	38.11
13	37.22	36.89	36.86	37.26	37.12	37.16	36.86	36.47	36.60	36.58	37.79	38.09
14	37.21	36.88	36.86	37.23	37.12	37.14	36.83	36.47	36.58	36.65	37.82	38.06
15	37.20	36.87	36.84	37.21	37.12	37.13	36.82	36.47	36.55	36.77	37.89	38.03
16	37.19	36.87	36.83	37.20	37.11	37.11	36.81	36.46	36.53	36.85	37.90	37.99
17	37.18	36.88	36.82	37.19	37.11	37.09	36.79	36.44	36.51	36.88	37.91	37.96
18	37.17	36.86	36.84	37.18	37.10	37.07	36.77	36.42	36.51	36.90	37.90	37.94
19	37.17	36.84	36.87	37.16	37.10	37.05	36.75	36.41	36.51	36.92	37.89	37.89
20	37.16	36.83	36.90	37.15	37.10	37.04	36.75	36.42	36.49	36.97	37.89	37.82
21	37.14	36.82	36.94	37.15	37.10	37.02	36.75	36.42	36.46	37.09	37.89	37.73
22	37.12	36.81	36.96	37.14	37.11	36.99	36.74	36.42	36.43	37.19	37.92	37.64
23	37.12	36.82	37.01	37.13	37.19	36.98	36.73	36.43	36.49	37.21	38.00	37.55
24	37.11	36.82	37.06	37.11	37.31	36.97	36.72	36.42	36.59	37.21	38.07	37.46
25	37.10	36.81	37.05	37.10	37.35	36.96	36.68	36.41	36.64	37.19	38.07	37.37
26	37.09	36.83	37.05	37.09	37.35	36.95	36.66	36.40	36.65	37.21	38.08	37.30
27	37.08	36.86	37.04	37.08	37.35	36.94	36.64	36.40	36.67	37.21	38.10	37.23
28	37.07	36.88	37.03	37.06	37.35	36.92	36.63	36.40	36.69	37.18	38.11	37.16
29	37.05	36.88	37.02	37.04	---	36.93	36.63	36.39	36.67	37.18	38.12	37.12
30	37.04	36.87	37.01	37.03	---	36.96	36.61	36.38	36.64	37.18	38.13	37.12
31	37.02	---	37.00	37.03	---	36.97	---	36.35	---	37.16	38.17	

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREAS

WITHLACOCHEE RIVER BASIN

02312772 LESLIE-HEIFNER CANAL NEAR FLORAL CITY, FL

LOCATION.--Lat 28°45'12", long 82°13'49", in NW¼ sec.17, T.20 S., R.21 E., Citrus County, Hydrologic Unit 03100208, at upstream side of control structure, 50 ft upstream from bridge on Trail's End Road, 1.4 mi downstream from Withlacoochee River, and 4.1 mi east of Floral City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1964-72, 1982; October 1982 to September 1983 (discharge measurements only). October 1983 to November 1987 (discharge measurements and gage heights only); December 1987 to current year (discharge measurements only). Records of gage height prior to October 1984 and October to November 1987 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1983, nonrecording gage at site 50 ft downstream at same datum. Nov. 21, 1983 to Nov. 17, 1987 water-stage recorder at present site and datum.

REMARKS.--Control structure is usually closed or full open. Discharge at station is a diversion from Withlacoochee River to Tsala Apopka Lake; flow occasionally reversed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 227 ft³/s, Apr. 2, 1987; maximum gage height recorded, 44.37 ft, Apr. 9, 10, 1987; maximum reverse flow measured, 20 ft³/s, Apr. 30, 1969; minimum gage height recorded, 37.54 ft, June 10, 1985.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
NOV			MAY		
09...	1530	3.6	04...	1835	.00
JAN			JUN		
16...	1125	27	21...	1020	1.1
MAR			AUG		
15...	0951	19	28...	1447	12

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREAS

WITHLACOCHEE RIVER BASIN

02312786 THE CANAL (ORANGE STATE CANAL) NEAR FLORAL CITY, FL

LOCATION.--Lat 28°44'48", long 82°15'49", in SW¼ sec.13, T.20 S., R.20 E., Citrus County, Hydrologic Unit 03100208, at upstream side of control structure, 150 ft upstream from bridge on Trail's End Road, 1.1 mi upstream from Tsala Apopka Lake, 2.0 mi east of Floral City, and 2.4 mi downstream from Withlacoochee River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1964-72, 1982; October 1982 to September 1983 (discharge measurements only); October 1983 to September 1985 (discharge measurements and gage heights only). October 1985 to current year (discharge measurements only).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929, levels by Southwest Florida Water Management District. Prior to Nov. 21, 1983, nonrecording gage at site 150 ft downstream. Nov. 21, 1983 to Nov. 18, 1985 water-stage recorder at upstream side of control structure. June 2, 1984 to Dec. 1, 1987 water-stage recorder at downstream side of control structure. Prior to Oct. 1, 1984, at datum 0.09 ft higher.

REMARKS.--Control structure is usually closed or full open. Discharge at station is a diversion from Withlacoochee River to Tsala Apopka Lake; flow occasionally reversed. Flow occasionally diverted through culvert 800 ft upstream. Periodic measurements of diversion are unpublished and available in files of the Orlando subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured 235 ft³/s, Aug. 8, 1985; maximum daily gage height recorded, 43.04 ft, Sept. 1, 1985; maximum reverse flow measured, 12 ft³/s, Apr. 30, 1969; minimum gage height recorded, 37.41 ft, May 26, 1985.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND
NOV 09...	1400	7.1	MAY 04...	1820	.00
JAN 16...	1000	24	JUN 21...	0900	.47
MAR 15...	0830	19	AUG 28...	1300	11

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312975 TSALA APOPKA OUTFALL CANAL AT S-353, NEAR HERNANDO, FL

LOCATION.--Lat 28°57'19", long 82°20'13", in NE¼ sec.6, T.18 S., R.20 E., Citrus County, Hydrologic Unit 03100208, on left bank at control structure 353, on graded road 2.3 mi northeast of Hernando, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Dual water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Auxiliary gage at downstream side of control structure.

REMARKS.--Estimated daily discharges: Oct. 1 to Sept. 30, leakage through gates. Records poor. Flow regulated by manipulation of gates in spillway.

COOPERATION.--Gate-opening record provided by Southwest Florida Water Management District.

AVERAGE DISCHARGE.--22 years, 19.8 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 410 ft³/s, Sept. 4, 1968; maximum gage height, 39.49 ft, Mar. 17, 1986; no flow for many days in some years; minimum gage height, 34.95 ft, June 12, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.25 ft³/s, Oct. 1,2; maximum gage height, 38.51 ft, Oct. 2; minimum daily discharge, 0.05 ft³/s, Dec. 31 to May 12, Aug. 17 to Sept. 30; minimum gage height, 36.97 ft, June 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.13	.08	.05	.05	.05	.05	.05	.08	.10	.07	.05
2	.25	.12	.08	.05	.05	.05	.05	.05	.08	.10	.07	.05
3	.24	.12	.08	.05	.05	.05	.05	.05	.08	.10	.07	.05
4	.24	.11	.08	.05	.05	.05	.05	.05	.08	.10	.07	.05
5	.24	.11	.08	.05	.05	.05	.05	.05	.08	.10	.07	.05
6	.23	.11	.08	.05	.05	.05	.05	.05	.08	.10	.07	.05
7	.23	.10	.08	.05	.05	.05	.05	.05	.08	.10	.06	.05
8	.22	.10	.08	.05	.05	.05	.05	.05	.08	.09	.06	.05
9	.22	.10	.08	.05	.05	.05	.05	.05	.08	.09	.06	.05
10	.22	.10	.07	.05	.05	.05	.05	.05	.09	.09	.06	.05
11	.21	.10	.07	.05	.05	.05	.05	.05	.09	.09	.06	.05
12	.21	.10	.07	.05	.05	.05	.05	.05	.09	.09	.06	.05
13	.20	.10	.07	.05	.05	.05	.05	.06	.09	.09	.06	.05
14	.20	.10	.07	.05	.05	.05	.05	.06	.09	.09	.06	.05
15	.20	.10	.07	.05	.05	.05	.05	.06	.09	.09	.06	.05
16	.19	.10	.07	.05	.05	.05	.05	.06	.09	.09	.06	.05
17	.19	.10	.07	.05	.05	.05	.05	.06	.09	.09	.05	.05
18	.18	.10	.07	.05	.05	.05	.05	.06	.09	.08	.05	.05
19	.18	.09	.07	.05	.05	.05	.05	.06	.10	.08	.05	.05
20	.18	.09	.06	.05	.05	.05	.05	.06	.10	.08	.05	.05
21	.17	.09	.06	.05	.05	.05	.05	.06	.10	.08	.05	.05
22	.17	.09	.06	.05	.05	.05	.05	.07	.10	.08	.05	.05
23	.16	.09	.06	.05	.05	.05	.05	.07	.10	.08	.05	.05
24	.16	.09	.06	.05	.05	.05	.05	.07	.10	.08	.05	.05
25	.15	.09	.06	.05	.05	.05	.05	.07	.10	.08	.05	.05
26	.15	.09	.06	.05	.05	.05	.05	.07	.10	.08	.05	.05
27	.15	.09	.06	.05	.05	.05	.05	.07	.10	.08	.05	.05
28	.14	.09	.06	.05	.05	.05	.05	.07	.10	.07	.05	.05
29	.14	.08	.06	.05	---	.05	.05	.07	.10	.07	.05	.05
30	.13	.08	.06	.05	---	.05	.05	.07	.10	.07	.05	.05
31	.13	---	.05	.05	---	.05	---	.08	---	.07	.05	---
TOTAL	5.93	2.96	2.13	1.55	1.40	1.55	1.50	1.85	2.73	2.68	1.77	1.50
MEAN	.19	.099	.069	.050	.050	.050	.050	.060	.091	.086	.057	.050
MAX	.25	.13	.08	.05	.05	.05	.05	.08	.10	.10	.07	.05
MIN	.13	.08	.05	.05	.05	.05	.05	.05	.08	.07	.05	.05

CAL YR 1989 TOTAL 867.53 MEAN 2.38 MAX 164 MIN .05
WTR YR 1990 TOTAL 27.55 MEAN .075 MAX .25 MIN .05

02312975 TSALA APOPKA OUTFALL CANAL AT S-353, NEAR HERNANDO, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.43	38.00	37.86	37.99	38.03	38.22	37.93	37.41	37.06	37.51	37.56	37.69
2	38.47	37.98	37.86	37.99	38.04	38.23	37.93	37.39	37.35	37.49	37.58	37.74
3	38.46	37.96	37.84	37.96	38.02	38.23	37.93	37.37	37.36	37.48	37.67	37.73
4	38.45	37.95	37.82	37.98	38.04	38.20	37.90	37.36	37.36	37.48	37.65	37.72
5	38.43	37.94	37.82	38.12	37.97	38.17	37.88	37.35	37.35	37.49	37.63	37.72
6	38.41	37.92	37.81	38.15	37.95	38.16	37.87	37.32	37.33	37.46	37.62	37.70
7	38.40	37.92	37.80	38.17	37.95	38.13	37.84	37.28	37.32	37.43	37.65	37.69
8	38.38	37.91	37.83	38.28	37.95	38.12	37.82	37.26	37.30	37.41	37.71	37.68
9	38.34	38.00	37.91	38.24	37.94	38.13	37.80	37.26	37.29	37.38	37.71	37.66
10	38.33	38.01	37.88	38.23	38.03	38.12	37.80	37.35	37.26	37.37	37.71	37.65
11	38.32	38.00	37.91	38.23	38.17	38.11	37.79	37.32	37.27	37.41	37.69	37.62
12	38.31	37.98	37.92	38.23	38.13	38.10	37.74	37.31	37.26	37.48	37.68	37.60
13	38.30	37.97	37.91	38.17	38.13	38.08	37.72	37.30	37.23	37.49	37.66	37.58
14	38.29	37.97	37.88	38.17	38.12	38.07	37.72	37.27	37.21	37.57	37.64	37.57
15	38.28	37.96	37.87	38.17	38.12	38.06	37.70	37.25	37.19	37.61	37.63	37.55
16	38.26	37.95	37.87	38.16	38.12	38.04	37.68	37.23	37.16	37.58	37.63	37.53
17	38.25	37.92	37.87	38.16	38.10	38.08	37.67	37.21	37.15	37.56	37.62	37.52
18	38.24	37.90	37.91	38.16	38.08	38.03	37.63	37.17	37.18	37.58	37.60	37.51
19	38.21	37.87	37.92	38.15	38.08	38.02	37.60	37.15	37.17	37.60	37.58	37.50
20	38.16	37.87	37.96	38.15	38.07	37.98	37.60	37.14	37.15	37.59	37.56	37.48
21	38.14	37.86	37.96	38.16	38.09	37.95	37.59	37.11	37.12	37.61	37.55	37.47
22	38.13	37.85	37.95	38.12	38.12	37.94	37.58	37.10	37.10	37.60	37.55	37.46
23	38.11	37.90	37.99	38.11	38.26	37.92	37.56	37.09	37.32	37.62	37.60	37.43
24	38.08	37.89	37.99	38.11	38.29	37.91	37.55	37.06	37.44	37.61	37.62	37.40
25	38.07	37.89	38.00	38.13	38.26	37.90	37.52	37.03	37.41	37.60	37.61	37.38
26	38.05	37.93	38.01	38.09	38.23	37.89	37.51	37.01	37.44	37.58	37.60	37.37
27	38.03	37.94	38.01	38.07	38.21	37.86	37.49	37.02	37.53	37.56	37.59	37.35
28	38.01	37.92	38.00	38.06	38.22	37.85	37.48	37.07	37.53	37.57	37.58	37.33
29	38.00	37.90	38.00	38.07	---	37.86	37.46	37.06	37.52	37.60	37.56	37.35
30	38.00	37.87	37.99	38.06	---	37.87	37.44	37.02	37.50	37.59	37.57	37.36
31	38.00	---	38.01	38.03	---	37.94	---	36.99	---	37.57	37.67	

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312975 TSALA APOPKA OUTFALL CANAL AT S-353, NEAR HERNANDO, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946, 1969 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
MAR 14...	1605	38.07	e0.05	126	7.1	25.0	--	--	--
MAY 03...	1835	37.38	e0.05	111	7.8	31.0	20	14	1.3
AUG 28...	1835	37.58	e0.05	93	--	34.0	45	14	1.0

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
MAR 14...	--	--	--	--	--	--	--	--
MAY 03...	5.1	0.10	34	0.90	8.1	<0.10	0.20	75
AUG 28...	4.5	0.20	30	0.90	6.7	<0.10	1.0	63

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAR 14...	<0.010	<0.020	0.010	1.0	<0.020	<0.010	--	--
MAY 03...	<0.010	0.020	<0.010	0.86	<0.020	0.010	80	0.6
AUG 28...	<0.010	<0.020	0.030	1.4	0.030	0.020	200	11

e Estimated

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313000 WITHLACOCHEE RIVER NEAR HOLDER, FL
(National stream-quality accounting network station)

LOCATION.--Lat 28°59'19", long 82°20'59", in NW¼ sec.30, T.17 S., R.20 E., Marion County, Hydrologic Unit 03100208, near right bank on downstream side of bridge on State Highway 200, 4.5 mi northeast of Holder, and 38 mi upstream from mouth.

DRAINAGE AREA.--1,825 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to February 1929, August 1931 to current year.

REVISED RECORDS.--WDR-FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 27.52 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Aug. 14, 1928, to Feb. 15, 1929, nonrecording gage at present site at datum 2.00 ft higher. Aug. 29, 1931, to May 19, 1961, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.--Records good. High-water diversion in headwaters (station 02311000).

AVERAGE DISCHARGE.--59 years (water years 1932-90), 1,061 ft³/s, 7.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,660 ft³/s, Apr. 5, 1960, gage height, 13.28 ft; minimum, 95 ft³/s, June 4, 5, 1985; minimum gage height, -0.41 ft, June 19, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 800 ft³/s, Jan. 8, gage height, 2.35 ft; minimum discharge, 173 ft³/s, June 1; minimum gage height, 0.71 ft, Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	485	383	358	421	408	522	482	258	187	210	283	429
2	506	383	360	412	402	504	471	253	246	218	274	445
3	505	376	350	410	389	495	484	248	240	248	297	433
4	488	367	331	421	379	482	469	246	231	255	307	413
5	472	362	316	622	360	475	449	247	221	256	298	398
6	454	360	299	688	349	469	434	246	212	246	283	384
7	441	361	284	678	346	462	417	237	205	232	301	374
8	436	359	286	772	337	456	401	226	206	215	318	371
9	423	404	375	703	332	453	387	226	209	203	334	371
10	415	434	355	661	379	446	376	266	212	203	356	373
11	413	409	333	634	577	440	374	260	228	229	341	376
12	410	385	320	613	520	434	370	240	234	234	335	379
13	399	367	325	586	473	430	358	229	226	227	327	375
14	395	355	320	572	443	423	349	221	219	293	324	371
15	392	355	320	565	421	421	344	214	214	327	329	367
16	393	359	321	557	404	416	348	211	209	270	330	367
17	395	353	321	550	389	418	350	207	211	231	326	372
18	396	349	372	542	376	421	342	201	219	310	323	377
19	397	330	393	531	366	409	330	202	218	330	325	368
20	387	331	428	522	374	400	324	206	215	323	322	356
21	379	347	428	513	407	388	316	211	211	433	321	341
22	378	361	419	498	401	383	311	227	204	406	322	332
23	378	405	473	484	561	379	304	228	304	377	366	326
24	380	415	484	475	707	375	307	223	362	354	391	319
25	383	397	469	462	672	375	294	214	316	315	368	314
26	385	405	456	459	618	378	277	205	272	299	348	311
27	381	400	446	444	576	380	261	207	274	306	339	306
28	381	384	438	438	548	382	253	219	250	312	339	305
29	381	372	431	432	---	389	258	212	222	329	337	303
30	381	361	426	423	---	428	260	196	207	319	339	303
31	384	---	422	415	---	483	---	183	---	301	412	---
TOTAL	12793	11229	11659	16503	12514	13316	10700	6969	6984	8811	10215	10859
MEAN	413	374	376	532	447	430	357	225	233	284	330	362
MAX	506	434	484	772	707	522	484	266	362	433	412	445
MIN	378	330	284	410	332	375	253	183	187	203	274	303
CFSM	.23	.21	.21	.29	.24	.24	.20	.12	.13	.16	.18	.20
IN.	.26	.23	.24	.34	.26	.27	.22	.14	.14	.18	.21	.22

CAL YR 1989 TOTAL 205723 MEAN 564 MAX 1400 MIN 273 CFSM .31 IN. 4.19
WTR YR 1990 TOTAL 132552 MEAN 363 MAX 772 MIN 183 CFSM .20 IN. 2.70

02313000 WITHLACOOCHEE RIVER NEAR HOLDER, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.95	1.52	1.36	1.06	1.01	1.43	1.69	1.36	1.12	1.21	1.54	2.08
2	2.02	1.51	1.33	1.03	.99	1.38	1.66	1.35	1.34	1.25	1.51	2.14
3	2.02	1.48	1.27	1.02	.95	1.36	1.72	1.35	1.32	1.36	1.59	2.09
4	1.95	1.44	1.17	1.06	.91	1.32	1.69	1.35	1.29	1.39	1.63	2.02
5	1.89	1.43	1.08	1.75	.84	1.30	1.64	1.35	1.25	1.39	1.60	1.97
6	1.83	1.42	.99	1.97	.80	1.29	1.60	1.35	1.22	1.35	1.54	1.92
7	1.78	1.41	.90	1.94	.79	1.27	1.55	1.31	1.19	1.30	1.61	1.88
8	1.76	1.41	.87	2.26	.76	1.26	1.51	1.27	1.19	1.24	1.68	1.87
9	1.71	1.57	1.17	2.03	.74	1.26	1.47	1.27	1.20	1.20	1.74	1.87
10	1.68	1.68	1.06	1.88	.91	1.24	1.45	1.42	1.21	1.20	1.78	1.88
11	1.67	1.58	.95	1.79	1.60	1.23	1.46	1.40	1.28	1.30	1.76	1.89
12	1.65	1.49	.87	1.72	1.41	1.21	1.46	1.32	1.30	1.32	1.71	1.90
13	1.61	1.43	.86	1.63	1.25	1.20	1.43	1.28	1.27	1.29	1.63	1.88
14	1.60	1.38	.81	1.59	1.14	1.19	1.42	1.25	1.24	1.54	1.60	1.87
15	1.59	1.37	.78	1.56	1.06	1.20	1.42	1.22	1.22	1.67	1.65	1.85
16	1.58	1.39	.75	1.53	1.00	1.20	1.45	1.21	1.21	1.46	1.66	1.85
17	1.59	1.37	.72	1.51	.94	1.22	1.47	1.20	1.21	1.32	1.61	1.87
18	1.59	1.35	.88	1.48	.90	1.24	1.46	1.17	1.24	1.61	1.57	1.89
19	1.59	1.28	.96	1.44	.86	1.22	1.43	1.18	1.24	1.68	1.61	1.86
20	1.56	1.28	1.09	1.42	.89	1.20	1.42	1.19	1.23	1.66	1.56	1.82
21	1.52	1.33	1.09	1.38	1.01	1.18	1.41	1.21	1.21	2.06	1.56	1.76
22	1.51	1.39	1.06	1.33	.99	1.17	1.41	1.27	1.18	1.97	1.58	1.69
23	1.51	1.54	1.24	1.28	1.54	1.17	1.40	1.28	1.56	1.86	1.82	1.61
24	1.52	1.58	1.28	1.25	2.04	1.18	1.43	1.26	1.77	1.78	1.94	1.53
25	1.53	1.51	1.23	1.21	1.92	1.19	1.40	1.22	1.60	1.64	1.86	1.47
26	1.53	1.54	1.19	1.20	1.74	1.22	1.35	1.19	1.44	1.59	1.79	1.44
27	1.52	1.53	1.15	1.14	1.60	1.24	1.31	1.19	1.45	1.62	1.75	1.38
28	1.52	1.47	1.12	1.12	1.51	1.26	1.29	1.24	1.36	1.64	1.75	1.36
29	1.51	1.42	1.10	1.10	---	1.31	1.33	1.22	1.25	1.70	1.74	1.35
30	1.51	1.39	1.08	1.07	---	1.46	1.35	1.15	1.20	1.66	1.73	1.34
31	1.52	---	1.07	1.04	---	1.67	---	1.10	---	1.60	2.02	---
MEAN	1.66	1.45	1.05	1.44	1.15	1.27	1.47	1.26	1.29	1.51	1.68	1.78
MAX	2.02	1.68	1.36	2.26	2.04	1.67	1.72	1.42	1.77	2.06	2.02	2.14
MIN	1.51	1.28	.72	1.02	.74	1.17	1.29	1.10	1.12	1.20	1.51	1.34
CAL YR 1989	MEAN 1.87		MAX 4.43	MIN .72								

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313000 WITHLACOCHEE RIVER NEAR HOLDER, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-52, 1954 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1950 to December 1951, October 1962 to September 1983, March 1987 to current year.

WATER TEMPERATURE: January 1950 to December 1951, October 1962 to September 1983, March 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1987. Digital recorder set for 60-minute punch interval.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 770 microsiemens, Sept. 12, 1979; minimum observed, 114 microsiemens Oct. 10, 1979.

WATER TEMPERATURE: Maximum observed, 33.0°C, July 17, 1950; minimum observed, 5.0°C, Jan. 10, 1970, Jan. 19, 1977.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--A specific conductance of 102 microsiemens was observed on Apr. 6, 1960.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 499 microsiemens, Aug. 16; minimum daily mean, 234 microsiemens, June 15, 17.

WATER TEMPERATURE: Maximum daily mean, 29.7°C, June 22; minimum daily mean, 8.8°C, Dec. 25.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	360	342	367	343	338	264	301	350	371
2	---	---	---	355	343	366	345	295	304	296	351	379
3	---	---	---	362	346	363	346	294	314	290	347	394
4	---	---	---	356	347	362	345	293	311	291	362	381
5	---	---	---	353	347	364	343	295	292	290	382	359
6	---	---	---	357	346	366	346	291	298	296	407	319
7	---	---	---	353	348	366	348	291	251	296	403	300
8	---	---	---	335	348	366	348	291	247	294	400	293
9	---	---	307	354	348	365	347	284	252	293	412	286
10	---	---	324	355	342	363	347	284	239	291	411	280
11	---	---	318	355	329	361	347	277	239	288	393	276
12	---	---	313	356	358	359	346	275	237	284	394	267
13	---	---	312	351	357	359	345	274	276	282	393	262
14	---	---	315	345	356	360	344	273	235	283	434	268
15	---	---	316	342	358	360	345	275	234	290	439	253
16	---	---	315	340	360	360	347	272	236	290	499	248
17	---	---	314	339	361	359	349	270	234	290	487	245
18	---	---	312	338	360	355	350	268	237	288	476	242
19	---	---	326	337	358	355	351	266	236	332	431	241
20	---	---	330	338	356	354	350	267	242	335	437	243
21	---	---	338	338	357	354	349	265	246	338	353	248
22	---	---	335	338	362	355	350	271	256	377	352	246
23	---	---	335	337	347	356	351	265	245	365	359	244
24	---	---	347	338	356	357	351	257	264	350	370	245
25	---	---	345	339	365	355	350	261	267	358	352	249
26	---	---	343	338	365	354	349	271	283	344	357	253
27	---	---	347	338	364	352	349	264	304	339	362	257
28	---	---	353	337	365	350	349	284	306	342	363	258
29	---	---	360	336	---	349	349	299	309	332	364	258
30	---	---	364	339	---	345	350	259	307	334	359	257
31	---	---	357	341	---	341	---	252	---	348	353	---
MEAN	---	---	---	345	353	358	348	278	265	314	392	281
MAX	---	---	---	362	365	367	351	338	314	377	499	394
MIN	---	---	---	335	329	341	343	252	234	282	347	241

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02313000 WITHLACOOCHEE RIVER NEAR HOLDER, FL--Continued

TEMPERATURE, (DEG C), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	23.0	---	15.3	20.7	18.7	23.5	26.2	27.2	27.5	28.1	---
2	27.8	23.2	---	15.1	21.8	19.5	23.7	27.0	27.4	27.4	28.0	27.8
3	27.0	22.7	---	15.4	22.3	20.1	23.8	27.3	27.8	---	28.1	---
4	27.0	21.5	---	15.0	22.6	19.7	---	27.0	28.3	---	---	27.3
5	27.1	21.8	---	16.1	21.4	19.9	---	27.2	28.7	---	---	27.4
6	27.0	22.5	---	---	19.8	20.4	---	26.6	28.9	---	28.6	---
7	26.7	23.0	---	---	20.4	20.9	---	25.6	28.4	29.1	---	27.1
8	26.7	22.9	---	---	20.7	20.8	---	24.7	27.7	29.3	---	28.0
9	26.2	23.0	18.6	---	21.2	20.9	---	24.3	27.7	29.4	---	28.2
10	25.4	22.7	16.7	---	21.3	21.2	---	24.7	27.9	---	---	28.1
11	25.2	21.6	15.5	16.1	20.7	22.1	---	25.5	24.5	28.5	---	28.2
12	25.3	21.3	16.0	18.2	19.7	22.3	---	25.4	25.7	---	---	27.9
13	25.5	21.0	16.8	16.5	19.2	22.8	---	26.3	27.7	---	---	28.0
14	26.0	21.2	15.0	15.3	19.8	23.1	---	26.9	27.4	---	---	28.1
15	26.3	22.7	14.2	15.9	20.7	23.4	---	27.5	27.7	---	---	27.9
16	26.8	20.6	15.0	16.7	21.6	24.0	---	27.9	27.7	---	---	27.6
17	27.1	15.1	14.6	17.5	22.4	23.5	23.4	28.0	27.8	---	28.1	27.7
18	27.2	14.6	14.4	18.7	22.8	22.7	---	27.9	---	26.2	28.2	27.4
19	25.7	16.5	15.0	19.4	23.1	22.0	---	27.5	---	26.0	28.3	27.2
20	22.0	16.8	15.6	20.5	22.7	21.8	---	27.8	29.2	27.0	28.3	27.1
21	19.8	17.5	14.7	21.2	21.3	19.8	---	27.6	29.6	---	28.5	27.3
22	19.4	19.3	13.7	21.2	22.0	19.9	23.5	26.7	29.7	---	28.0	27.6
23	19.9	20.3	11.7	19.6	21.0	---	22.1	26.2	28.0	---	27.2	27.6
24	21.1	18.9	9.3	19.5	18.8	---	23.6	26.6	---	---	26.6	---
25	21.4	19.0	8.8	20.3	18.0	---	---	26.6	---	---	27.2	---
26	21.7	20.2	9.4	19.5	17.2	---	24.2	26.6	---	---	---	---
27	22.1	21.0	10.0	17.4	17.6	---	---	26.7	---	---	---	---
28	22.3	21.5	11.2	17.9	18.0	---	24.6	26.9	---	---	---	---
29	22.1	---	12.4	18.9	---	---	---	27.4	---	---	---	---
30	22.3	---	13.7	20.1	---	---	25.4	27.2	27.9	---	28.7	---
31	22.7	---	14.9	20.7	---	20.2	---	26.9	---	28.0	---	---
MEAN	24.5	---	---	---	20.7	---	---	26.7	---	---	---	---
MAX	28.0	---	---	---	23.1	---	---	28.0	---	---	---	---
MIN	19.4	---	---	---	17.2	---	---	24.3	---	---	---	---

PEACE, WITHLACOOCHIEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHIEE RIVER BASIN

02313000 WITHLACOOCHIEE RIVER NEAR HOLDER, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 16...	1454	1.40	363	302	7.7	22.5	0.40	6.7	6	38
JAN 23...	1240	1.28	484	342	7.9	19.0	0.60	6.9	13	170
MAY 03...	1112	1.36	246	295	--	27.5	0.30	--	--	--
JUN 05...	1357	1.25	221	300	7.8	29.0	1.0	7.6	<5	<5
JUN 29...	1045	1.26	214	--	--	--	0.80	--	--	--
JUL 10...	0926	1.20	203	294	7.8	30.0	0.30	4.8	60	K110
DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
NOV 16...	50	4.9	5.4	0.30	113	24	8.6	0.10	5.0	172
JAN 23...	56	5.2	5.8	0.50	116	38	10	0.10	3.1	217
MAY 03...	45	5.4	5.4	0.20	101	24	10	0.10	3.8	160
JUN 05...	46	5.0	5.5	0.50	103	27	11	<0.10	5.0	167
JUN 29...	52	4.8	5.0	0.60	113	30	7.4	0.10	7.7	198
JUL 10...	46	5.0	5.9	0.80	107	18	11	<0.10	7.6	170
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 16...	<0.010	0.240	0.020	0.020	0.48	0.50	0.020	<0.010	<0.010	--
JAN 23...	<0.010	0.170	0.030	0.020	0.37	0.40	0.040	0.010	0.030	--
MAY 03...	--	--	--	--	--	--	--	--	--	<10
JUN 05...	<0.010	<0.100	0.020	<0.010	0.28	0.30	0.040	0.030	0.020	<10
JUN 29...	--	--	--	--	--	--	--	--	--	<10
JUL 10...	<0.010	<0.100	0.010	<0.010	0.29	0.30	0.010	0.020	0.030	10
DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
MAY 03...	1	5	<0.5	<1.0	<1	<3	6	19	1	<4
JUN 05...	<1	4	<0.5	<1.0	<1	<3	1	23	<1	<4
JUN 29...	<1	6	<0.5	<1.0	<1	<3	4	20	1	4
JUL 10...	<1	5	<0.5	<1.0	<1	<3	1	20	1	5

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313000 WITHLACOCHEE RIVER NEAR HOLDER, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
MAY									
03...	3	<0.1	<10	1	<1	<1.0	290	<6	6
JUN									
05...	3	<0.1	<10	<1	<1	<1.0	280	<6	<3
29...	4	<0.1	<10	1	<1	<1.0	280	<6	6
JUL									
10...	8	3.2	<10	<1	<1	<1.0	270	<6	7

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313100 RAINBOW SPRINGS NEAR DUNNELLON, FL

LOCATION.--Lat 29°06'08", long 82°26'16", in SE¼ sec.12, T.16 S., R.18 E., Marion County, Hydrologic Unit 03100208, at head of springs, 3.9 mi north of Dunnellon, and 5.7 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1899, 1905, 1907, 1917, 1929-30 (one discharge measurement each water year), October 1930 to November 1964 (discharge measurements only), December 1964 to current year. Prior to October 1940, published as Blue Springs near Dunnellon.

GAGE.--Nonrecording gage. Datum of gage is 28.34 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 19, 1948, at datum 1.63 ft higher. No gage prior to Oct. 8, 1930. July 22, 1931 to Apr. 1, 1933, water-stage recorder at present site. (April 1933 to March 1969, and since April 1971, nonrecording gage read at time of discharge measurements only.)

REMARKS.--Records good. Discharge measurements made at bridge on State Highway 484, 5 mi downstream from head of springs; surface inflow between springs and measuring site is negligible except after heavy rains. Discharge computed from relation between artesian pressure at Rainbow Springs well and discharge at measuring site. Artesian pressures are published as water levels for Rainbow Springs Well (290514082270701) in WDR FL-90-1B.

AVERAGE DISCHARGE.--25 years (water years 1966-90), 722 ft³/s, 467 mgd.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 1,230 ft³/s, Oct. 12, 1964, gage height, 4.10 ft; maximum gage height observed, 5.90 ft, Apr. 5, 1960; minimum discharge measured, 487 ft³/s, Oct. 3, 1932, Apr. 4, 1957; minimum gage height observed, 1.50 ft, July 20, Sept. 14, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 643 ft³/s, Oct. 21, Nov. 10,11,12; maximum gage height observed, 2.34 ft, Aug. 29; minimum discharge, 539 ft³/s, June 21,22; minimum gage height observed, 1.96 ft, Mar. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	638	642	636	617	604	595	589	560	542	550	596	624
2	638	642	637	616	604	595	591	559	544	550	595	628
3	638	643	636	616	604	596	593	558	547	553	596	629
4	638	642	635	616	604	594	592	558	548	555	597	629
5	639	642	635	616	604	592	590	559	547	556	598	629
6	639	642	633	616	603	591	589	559	545	556	598	629
7	639	642	631	616	602	590	588	557	544	556	599	628
8	640	642	631	616	601	590	585	556	545	554	601	626
9	640	642	630	616	601	587	581	556	544	554	603	626
10	640	643	630	616	601	586	580	557	543	551	607	626
11	640	643	630	615	603	586	579	558	543	552	610	626
12	640	643	629	614	603	585	578	556	543	556	611	628
13	640	641	627	613	602	585	576	555	543	558	611	629
14	640	640	626	613	601	584	575	554	542	563	610	628
15	640	639	626	612	601	584	574	553	540	571	610	628
16	640	639	625	612	600	583	574	551	540	573	611	628
17	640	638	625	612	599	583	574	550	540	570	611	628
18	641	637	623	611	599	583	573	549	541	568	611	627
19	642	637	623	610	598	583	571	550	542	572	611	627
20	642	636	623	609	597	583	570	549	540	576	612	626
21	643	636	623	609	597	582	570	549	539	580	613	624
22	642	636	622	608	597	580	570	551	539	587	614	623
23	642	638	621	607	599	580	569	551	547	589	615	622
24	642	638	621	607	600	579	569	552	556	589	621	620
25	642	639	621	607	600	578	567	551	559	589	622	618
26	642	640	621	605	599	579	566	549	559	587	622	616
27	642	640	621	605	598	579	564	548	559	587	622	616
28	642	639	620	605	597	580	563	548	557	589	622	616
29	642	638	619	605	---	580	562	548	554	593	621	616
30	642	636	619	605	---	582	561	545	551	595	622	616
31	642	---	619	604	---	587	---	543	---	596	622	---
TOTAL	19857	19195	19418	18949	16818	18141	17283	17139	16383	17675	18914	18736
MEAN	641	640	626	611	601	585	576	553	546	570	610	625
MAX	643	643	637	617	604	596	593	560	559	596	622	629
MIN	638	636	619	604	597	578	561	543	539	550	595	616

CAL YR 1989 TOTAL 241058 MEAN 660 MAX 780 MIN 619
WTR YR 1990 TOTAL 218508 MEAN 599 MAX 643 MIN 539

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313100 RAINBOW SPRINGS NEAR DUNNELLON, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1961, 1963 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
MAY												
04...	0950	215	8.1	23.5	<5	36	4.4	2.6	0.20	98	3.9	4.5
AUG												
29...	1040	219	8.1	23.0	5	36	4.4	2.6	0.10	99	4.2	2.8
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS ORTH TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTH TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)
MAY												
04...	0.10	5.7	119	--	--	--	--	--	--	90	<1	1
AUG												
29...	0.10	6.0	111	<0.010	1.10	0.010	0.42	0.040	0.040	<10	1	<1
DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAY												
04...	3	20	<10	2	<1	<10	<10	0.50	<1	110	10	10
AUG												
29...	1	20	10	<1	<1	<10	<10	<0.10	<1	110	10	0.3

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313200 WITHLACOCHEE RIVER AT DUNNELLO, FL

LOCATION.--Lat 29°02'45", long 82°27'53", in NW¼ sec.35, T.16 S., R.18 E., Marion County, Hydrologic Unit 03100208, near right bank 50 ft upstream from bridge on U.S. Highway 41 at Dunnellon, 0.6 mi downstream from Blue Run, 0.8 mi upstream from Lake Rousseau, and 25 mi upstream from mouth.

DRAINAGE AREA.--1,960 mi², approximately.

PERIOD OF RECORD.--February 1963 to current year (gage heights only).

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Stage regulated by Lake Rousseau.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 29.64 ft, Sept. 12, 1964; minimum, 23.10 ft, estimated, Oct. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 28.56 ft, July 22; minimum observed, 25.44 ft., Jan. 11,12,13,14,15.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1931, 33.0 ft in April 1960, from floodmarks.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.82	27.96	27.82	---	25.54	26.22	28.12	28.00	27.84	27.94	28.38	28.54
2	27.92	27.96	27.78	---	25.54	26.30	28.14	28.04	27.94	28.04	28.38	28.54
3	27.96	27.94	27.66	---	25.54	26.34	28.18	28.09	28.04	28.04	28.34	28.54
4	27.96	27.92	27.56	---	25.54	26.44	28.18	28.04	28.04	28.04	28.34	28.54
5	27.96	27.92	27.36	25.53	25.54	26.48	28.14	28.04	28.04	28.08	28.32	28.48
6	27.96	27.92	27.16	---	25.54	26.56	28.08	28.04	28.04	28.14	28.24	28.44
7	27.96	27.94	27.06	25.94	25.54	26.66	28.04	28.04	27.98	28.14	28.32	28.38
8	27.96	27.94	27.00	26.08	25.54	26.74	28.02	28.04	27.98	28.14	28.44	28.34
9	27.90	28.00	27.00	25.94	25.54	26.82	27.94	27.96	27.98	28.04	28.44	28.34
10	27.90	28.06	26.56	25.94	25.54	26.90	27.94	28.08	27.98	28.04	28.46	28.34
11	27.88	27.96	26.36	25.44	25.94	26.98	27.94	28.08	28.02	28.08	28.46	28.34
12	27.86	27.94	26.21	25.44	25.84	27.02	27.94	27.96	28.02	28.14	28.40	28.34
13	27.84	27.82	26.06	25.44	25.74	27.04	27.94	27.94	28.03	28.14	28.34	28.34
14	27.86	27.86	25.86	25.44	25.69	27.08	27.94	27.94	28.04	28.36	28.34	28.34
15	27.86	27.86	---	25.44	25.64	27.16	27.98	27.94	28.02	28.54	28.34	28.34
16	27.86	27.86	---	25.64	25.64	27.20	28.02	27.94	28.02	28.14	28.32	28.34
17	27.90	27.86	---	25.64	25.64	27.24	28.02	27.92	28.04	28.04	28.26	28.34
18	27.92	27.86	---	25.64	25.54	27.26	28.02	27.92	28.04	28.18	28.34	28.34
19	27.96	27.70	---	25.66	25.54	27.28	28.00	27.92	28.04	28.22	28.34	28.28
20	27.96	27.76	---	25.64	25.54	27.34	27.98	27.92	28.04	28.34	28.38	28.20
21	27.92	27.92	---	25.64	25.54	27.34	27.98	28.00	28.04	28.52	28.38	28.20
22	27.90	27.98	---	25.54	25.64	27.38	27.98	28.04	28.04	28.56	28.48	28.18
23	27.90	28.06	---	25.52	25.94	27.42	27.98	28.04	28.14	28.44	28.52	28.14
24	27.92	28.06	---	25.52	26.16	27.44	28.02	28.06	28.24	28.34	28.54	28.08
25	27.94	28.06	---	25.54	26.14	27.48	27.98	28.02	28.24	28.24	28.54	28.04
26	27.94	28.00	---	25.54	26.02	27.54	27.94	28.02	28.14	28.34	28.54	28.04
27	27.92	27.96	---	25.56	26.02	27.66	27.92	27.96	28.14	28.34	28.44	27.98
28	27.92	27.96	---	25.52	26.12	27.74	27.90	27.94	28.04	28.34	28.34	28.04
29	27.92	27.84	---	25.54	---	27.84	27.92	27.94	27.94	28.44	28.34	28.04
30	27.92	27.84	---	25.54	---	27.94	27.96	27.94	27.94	28.44	28.38	28.04
31	27.96	---	---	25.54	---	28.04	---	27.88	---	28.42	28.44	---
MEAN	27.91	27.92	---	---	25.70	27.13	28.00	27.99	28.04	28.23	28.39	28.28
MAX	27.96	28.06	---	---	26.16	28.04	28.18	28.09	28.24	28.56	28.54	28.54
MIN	27.82	27.70	---	---	25.54	26.22	27.90	27.88	27.84	27.94	28.24	27.98

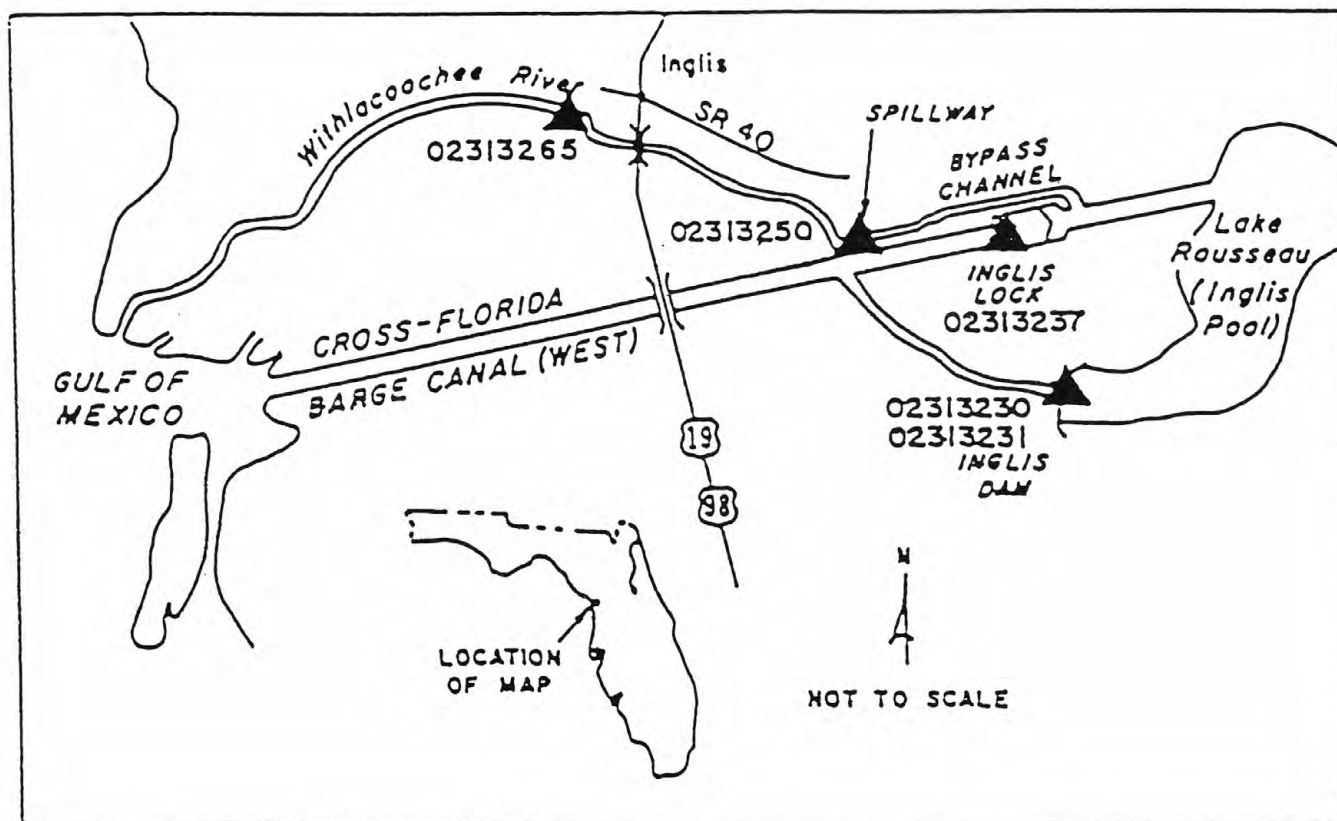


Figure 23.--Location of stream gaging stations in the lower Withlacoochee River basin.

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313230 WITHLACOCHEE RIVER AT INGLIS DAM, NEAR DUNNELLON, FL

LOCATION.--Lat 29°00'35", long 82°37'01", in SW¼ sec.8, T.17 S., R.17 E., Levy County, Hydrologic Unit 03100208, on left bank at upstream side of control structure of Inglis Dam, 3.5 mi southeast of Inglis, 9.8 mi west of Dunnellon, and 11 mi upstream from mouth.

DRAINAGE AREA.--2,020 mi², approximately.

PERIOD OF RECORD.--June 1964 to September 1969 (gage heights and discharge measurements only), October 1969 to current year.

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 20, 1971, water-stage recorder at site in forebay of powerhouse of the old Inglis Dam and July 20, 1971, to Aug. 23, 1972, at site in private boat basin on south shore of Lake Rousseau at same datum. Auxiliary gage at downstream side of control structure.

REMARKS.--Records good. Records include flow of springs, approximately 70 ft³/s just downstream from control structure; spring flow is considered to be mostly leakage from Lake Rousseau. Flow regulated by manipulation of gates in spillway. Discharge computed from relation between discharge and gate openings. Since December 1969, entire flow diverted below station from old river channel into Cross-Florida Barge Canal, and diversions above station from Lake Rousseau, for boat lockages, through Cross-Florida Barge Canal (see station 02313237) and for maintaining flow in old river channel through Withlacoochee River Bypass Channel (see station 02313250). Records of gage height are published as elevations for Lake Rousseau (station 02313229) in the section of this report entitled LAKE ELEVATIONS.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--21 years, 407 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,500 ft³/s, Oct. 12, 1979; maximum gage height, 28.28 ft, June 19, 1982; gates closed and flow consists of leakage, about 70 ft³/s for all or part of some days in most years; minimum gage height, 21.67 ft, Oct. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 900 ft³/s, Jan. 10-12; maximum gage height, 27.95 ft, July 14; gates closed and flow consists of leakage, about 70 ft³/s for many days; minimum gage height, 24.07 ft, Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	70	202	612	460	70	70	70	145	70	70	70
2	70	327	70	612	460	70	70	70	70	70	70	70
3	70	200	70	612	460	70	70	212	70	70	70	70
4	70	70	70	612	460	70	70	154	70	70	70	70
5	324	70	70	612	460	70	70	70	70	70	70	70
6	213	70	70	612	460	70	315	70	70	70	70	70
7	70	70	210	697	460	70	220	70	218	70	70	70
8	70	70	290	756	348	70	70	70	146	70	70	70
9	70	70	290	850	290	70	70	70	70	70	327	70
10	70	70	398	900	290	70	70	210	70	70	460	70
11	70	70	460	900	489	70	70	158	70	70	232	70
12	328	70	460	900	612	70	70	70	70	210	70	70
13	203	70	460	625	612	70	70	70	70	142	70	213
14	70	70	460	460	612	70	70	70	215	122	70	290
15	70	70	666	460	612	70	70	70	158	307	70	150
16	70	70	756	460	512	70	70	70	70	70	216	70
17	70	70	667	460	460	70	70	218	70	70	146	70
18	70	462	417	556	460	70	70	138	70	70	70	70
19	325	322	290	612	460	70	317	70	70	70	70	70
20	210	70	481	612	460	70	213	70	70	70	70	207
21	70	70	612	612	460	70	70	70	218	70	70	290
22	70	70	612	612	460	70	70	70	148	70	70	159
23	70	70	612	612	460	70	70	70	70	620	209	70
24	70	70	612	612	646	70	70	70	70	808	290	70
25	70	70	612	530	756	70	70	70	70	457	152	70
26	327	70	612	460	571	70	70	70	70	143	70	70
27	211	70	612	460	194	70	70	70	70	70	70	70
28	70	70	612	460	70	70	70	70	215	70	70	70
29	70	70	612	460	---	70	70	70	201	70	70	205
30	70	327	612	460	---	70	70	70	70	70	70	290
31	70	---	612	460	---	70	---	216	---	70	70	---
TOTAL	3751	3388	13589	18658	13054	2170	2885	2986	3134	4419	3642	3344
MEAN	121	113	438	602	466	70.0	96.2	96.3	104	143	117	111
MAX	328	462	756	900	756	70	317	218	218	808	460	290
MIN	70	70	70	460	70	70	70	70	70	70	70	70

CAL YR 1989 TOTAL 59911 MEAN 164 MAX 919 MIN 70
WTR YR 1990 TOTAL 75020 MEAN 206 MAX 900 MIN 70

02313231 WITHLACOOCHEE RIVER BELOW INGLIS DAM, NEAR DUNNELLON, FL

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1964 to current year (gage heights only).

REMARKS.--Stage affected by tide and manipulation of gates immediately above gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.73 ft, Sept. 13, 1964; minimum, 3.72 ft, below NGVD, Jan. 16, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.65 ft, Dec. 15; minimum, 2.14 ft below NGVD, May 26.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.49	.88	.20	1.24	.95	1.05	.82	.73	.90	1.02	.91	1.00
2	1.24	1.32	.39	.56	.96	1.33	1.02	.71	.81	1.15	.79	.87
3	.72	1.12	-.03	.95	1.01	1.57	.83	.98	.91	.73	.70	.89
4	.72	.80	-.12	1.11	1.30	.81	.27	1.10	1.01	.83	.76	.94
5	1.30	.75	.50	1.06	.41	.58	.53	1.18	1.20	.83	1.10	.76
6	1.31	1.08	.69	1.11	.69	.42	1.11	1.19	.96	1.00	1.00	.89
7	1.12	1.06	.86	1.46	.93	-.02	.95	.26	1.01	.88	1.13	1.05
8	1.20	1.35	1.33	1.63	.81	.19	.00	.59	.93	.87	1.12	1.09
9	.19	1.63	1.10	1.74	.85	.74	.14	1.31	.94	.79	1.44	1.00
10	.84	.74	.58	2.02	1.30	.95	.69	1.91	.94	.86	1.56	1.07
11	.52	.52	.97	1.99	1.43	.96	.86	.54	1.14	1.00	1.39	.92
12	.95	.75	1.63	2.13	.98	.91	-.19	.67	.61	1.17	1.28	.83
13	.95	.78	1.17	.80	1.30	.76	-.07	.99	.58	1.65	1.25	1.10
14	.85	1.04	.69	.59	1.36	.91	.47	.64	.89	2.07	1.25	1.31
15	.88	1.25	1.47	.81	1.69	1.23	.89	.73	1.11	1.37	1.30	1.24
16	.91	1.17	1.70	.83	1.47	1.52	.72	.85	1.00	.72	1.36	1.35
17	1.00	-.09	1.20	.95	.97	1.59	.60	1.06	.71	.44	1.30	1.09
18	1.11	1.14	.55	1.17	.86	.09	.48	.83	.57	.66	1.24	.53
19	1.36	.67	.76	1.17	1.14	.44	.26	.71	.73	.68	1.13	.54
20	-.08	.63	.62	1.30	.51	-.04	.40	1.10	1.00	.79	1.26	.96
21	-.07	.84	.88	1.30	.65	-.30	.49	1.21	1.27	1.11	1.35	1.32
22	.32	1.10	.42	1.02	1.31	.23	.70	1.42	1.25	1.28	1.24	1.11
23	.25	.82	.32	1.05	1.52	.35	.74	.82	1.55	2.17	1.55	1.18
24	-.03	-.25	.29	1.18	1.14	.52	.64	.99	1.10	2.16	1.34	.18
25	.01	.42	.82	1.40	1.21	.75	.66	1.06	.83	1.51	1.16	.62
26	.56	.79	1.00	.74	.59	.57	.92	1.09	.77	1.05	1.11	.91
27	.42	.69	1.14	.52	-.04	.61	1.16	1.46	.81	.73	1.04	.88
28	-.13	.55	1.22	.82	.63	.39	1.58	1.62	.99	.71	1.01	.68
29	.08	.08	1.29	1.18	---	.94	.95	1.56	.93	.80	1.03	.92
30	.55	.00	1.36	1.16	---	1.24	.76	1.06	.90	.86	1.05	1.09
31	.82	---	1.58	.98	---	1.15	---	1.08	---	.82	1.03	---
MEAN	.69	.79	.86	1.16	1.00	.72	.65	1.01	.94	1.06	1.17	.94
MAX	1.49	1.63	1.70	2.13	1.69	1.59	1.58	1.91	1.55	2.17	1.56	1.35
MIN	-.13	-.25	-.12	.52	-.04	-.30	-.19	.26	.57	.44	.70	---

CAL YR 1989	MEAN .81	MAX 2.46	MIN -.36
WTR YR 1990	MEAN .92	MAX 2.17	MIN -.30

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313237 CROSS-FLORIDA BARGE CANAL AT INGLIS LOCK, NEAR INGLIS, FL

LOCATION.--Lat 29°01'30", long 82°37'00", in SW¼ sec .5, T.17 S., R.17 E., Levy County, Hydrologic Unit 03100208, at downstream side of Inglis Lock, 0.8 mi downstream from Lake Rousseau, and 3.2 mi east of Inglis.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Nonrecording gage.

REMARKS.--Records good. Discharge at station is a diversion of flow, for boat lockages, from Lake Rousseau and Withlacoochee River into Gulf of Mexico, and is computed using daily volume of water used for lockage.

COOPERATION.--Lockage record provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 138 ft³/s, Jan. 11, 1970; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	.00	.00	.00	.00	.00	51	.00	17	108	.00	51
2	18	.00	55	.00	.00	.00	17	.00	.00	.00	.00	86
3	.00	.00	19	.00	15	30	.00	.00	23	.00	.00	.00
4	.00	35	.00	.00	30	16	.00	.00	.00	.00	66	.00
5	.00	18	.00	.00	.00	.00	.00	34	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	17	32	.00	.00	.00	.00
7	72	.00	18	15	.00	.00	22	.00	.00	66	.00	.00
8	72	.00	.00	.00	.00	.00	23	.00	.00	.00	.00	16
9	.00	.00	16	.00	.00	.00	.00	.00	52	.00	.00	33
10	.00	.00	.00	.00	.00	.00	.00	.00	33	.00	.00	.00
11	.00	34	.00	.00	38	.00	.00	.00	.00	.00	77	.00
12	.00	17	.00	.00	.00	.00	.00	82	.00	.00	35	.00
13	.00	.00	.00	14	.00	.00	.00	.00	.00	.00	.00	.00
14	115	.00	.00	15	.00	.00	33	.00	11	.00	.00	.00
15	34	.00	.00	.00	.00	15	.00	.00	.00	.00	.00	38
16	.00	.00	16	.00	.00	.00	.00	.00	49	.00	.00	.00
17	.00	.00	33	.00	31	.00	.00	.00	.00	.00	.00	.00
18	.00	17	.00	.00	34	29	.00	.00	.00	.00	48	.00
19	.00	.00	.00	.00	.00	.00	.00	72	.00	.00	98	.00
20	.00	.00	.00	31	.00	.00	.00	60	.00	.00	.00	.00
21	37	.00	.00	.00	.00	.00	4.8	18	4.9	16	.00	.00
22	19	.00	.00	.00	.00	.00	.00	.00	.00	15	.00	71
23	.00	.00	.00	.00	.00	.00	4.8	.00	17	.00	.00	102
24	.00	.00	.00	.00	.00	33	.00	.00	18	.00	.00	.00
25	.00	34	.00	.00	16	.00	.00	.00	18	.00	52	.00
26	17	.00	.00	.00	.00	.00	.00	.00	.00	.00	17	.00
27	18	.00	.00	15	.00	.00	.00	117	.00	.00	.00	.00
28	16	.00	.00	.00	.00	.00	17	.00	.00	36	.00	.00
29	36	.00	.00	.00	---	.00	.00	.00	.00	42	.00	17
30	.00	.00	34	.00	---	.00	.00	.00	71	.00	.00	18
31	.00	---	.00	.00	---	17	---	.00	---	.00	.00	---
TOTAL	492.00	155.00	191.00	90.00	164.00	140.00	189.60	415.00	313.90	283.00	393.00	432.00
MEAN	15.9	5.17	6.16	2.90	5.86	4.52	6.32	13.4	10.5	9.13	12.7	14.4
MAX	115	35	55	31	38	33	51	117	71	108	98	102
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 4049.20 MEAN 11.1 MAX 116 MIN .00
WTR YR 1990 TOTAL 3258.50 MEAN 8.93 MAX 117 MIN .00

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313250 WITHLACOCHEE RIVER BYPASS CHANNEL NEAR INGLIS, FL

LOCATION.--Lat 29°01'15", long 82°38'17", in NE¼ sec.12, T.17 S., R.16 E., Levy County, Hydrologic Unit 03100208, on right bank 90 ft upstream from control structure, 0.1 mi upstream from mouth, and 2.0 mi east of Inglis.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to July 16, 1971, water-stage recorder for Withlacoochee River at Inglis Dam, near Dunnellon (station 02313230) used as base gage for this station.

REMARKS.--Records good. Flow regulated by manipulation of gates in spillway; channel completed and flow through spillway began December 17, 1969. Discharge computed from relation between discharge and gate openings. Discharge at station is the diversion from Lake Rousseau to maintain flow in the old river channel.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--20 years, 1,113 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,840 ft³/s, Oct. 1, 1987; maximum gage height, 28.31 ft, May 19, 1977; minimum daily discharge, 53 ft³/s, Oct. 11, 1972; minimum gage height, 21.35 ft, Oct. 8, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,540 ft³/s, July 15; maximum gage height, 27.78 ft, July 14; minimum daily discharge, 408 ft³/s, July 1,2,24-26; minimum gage height, 23.79 ft, Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	961	821	756	556	577	769	664	546	478	408	821	895
2	924	635	1000	556	568	744	718	546	511	408	701	1070
3	924	727	1170	550	565	725	772	453	511	594	821	1130
4	924	821	1300	545	550	739	821	567	599	683	821	1130
5	741	821	1340	553	556	716	821	649	649	683	760	1090
6	829	821	1230	580	550	706	643	649	649	683	648	967
7	924	821	1160	613	545	715	698	649	555	683	614	924
8	924	821	1060	616	545	723	786	649	580	683	658	858
9	924	952	1000	616	565	687	786	649	614	618	683	821
10	924	1030	950	577	580	675	786	559	614	580	683	821
11	924	1030	889	536	616	681	751	596	570	647	829	821
12	736	1030	827	490	607	686	718	649	546	592	924	888
13	765	967	773	482	589	690	718	649	546	617	924	832
14	821	860	740	522	574	694	646	649	453	1190	924	786
15	821	821	697	556	553	697	546	649	493	1540	924	880
16	821	821	619	586	539	699	586	649	546	1150	808	924
17	821	821	556	601	542	698	678	507	546	682	752	924
18	821	664	542	607	548	705	718	442	546	546	752	924
19	637	546	565	592	539	665	537	442	546	586	752	924
20	728	546	601	574	550	646	621	442	546	683	752	834
21	821	564	595	559	553	650	718	442	546	772	752	786
22	821	655	589	548	548	653	718	535	546	954	752	871
23	821	809	592	539	586	597	718	580	767	610	752	857
24	821	958	586	527	610	563	760	624	1060	408	752	751
25	821	1020	586	530	610	524	821	649	1050	408	929	718
26	635	1060	583	548	610	505	821	649	958	408	1030	810
27	727	1060	580	556	650	509	736	649	1030	548	1030	855
28	821	996	577	562	710	512	597	649	875	614	1030	920
29	821	853	574	562	---	515	546	649	693	724	958	872
30	821	589	565	568	---	518	546	649	456	808	845	821
31	821	---	556	574	---	522	---	486	---	821	786	---
TOTAL	25645	24940	24158	17381	16135	20128	20995	18151	19079	21331	25167	26704
MEAN	827	831	779	561	576	649	700	586	636	688	812	890
MAX	961	1060	1340	616	710	769	821	649	1060	1540	1030	1130
MIN	635	546	542	482	539	505	537	442	453	408	614	718

CAL YR 1989 TOTAL 381200 MEAN 1044 MAX 1640 MIN 406
WTR YR 1990 TOTAL 259814 MEAN 712 MAX 1540 MIN 408

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313265 WITHLACOCHEE RIVER AT CRACKERTOWN, FL

LOCATION.--Lat 29°01'49", long 82°40'41", in NW¼ sec.3, T.17 S., R.16 E., Levy County, Hydrologic Unit 03100208, near right bank at end of Florida Power Corporation powerplant bulkhead and pump outlet, 0.5 mi west of Inglis, 0.7 mi southeast of Crackertown, and 6.6 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1967 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Stage affected by tide and by manipulation of gates in control structure upstream. The stage record published is the maximum and minimum tide event for each calendar day.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.57 ft, Aug. 31, 1985; minimum, 4.00 ft below NGVD, Jan. 13, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.21 ft, June 23; minimum, 4.00 ft below NGVD, Jan. 13.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	.76	---	1.73	2.57	1.82	1.34	1.15	1.50	1.41	1.34
2	---	---	1.25	---	1.37	2.79	1.76	1.16	1.43	1.90	1.23	2.08
3	---	---	1.48	---	1.27	2.19	1.13	1.45	1.86	1.23	1.75	2.38
4	---	---	.47	---	1.54	1.64	1.20	1.56	1.91	1.52	1.98	2.50
5	---	---	1.12	1.31	-.41	1.13	1.42	1.93	2.17	1.61	2.71	2.48
6	- .57	---	1.28	1.29	1.14	1.07	2.33	1.91	2.08	2.00	2.55	2.33
7	---	---	1.62	1.95	1.80	.73	.89	.99	2.09	2.03	1.66	2.31
8	---	---	2.17	1.49	.85	.59	.92	2.17	2.21	2.31	2.68	2.53
9	---	---	1.13	.76	2.13	1.52	1.42	2.66	2.42	2.15	2.53	2.44
10	---	---	.98	1.80	2.43	2.15	2.12	2.59	2.38	2.32	2.25	2.37
11	---	---	1.48	1.86	2.27	2.29	2.04	1.69	2.34	2.18	2.49	2.09
12	---	---	2.55	2.39	.63	2.24	1.15	2.25	1.92	2.21	2.36	2.04
13	---	---	3.17	.19	1.62	2.05	1.52	2.17	1.84	2.49	2.51	1.79
14	---	---	1.08	.63	1.50	2.45	1.72	1.65	1.60	3.01	2.53	2.18
15	---	---	1.59	.83	2.26	2.49	2.09	1.73	1.61	2.06	2.42	2.42
16	---	---	2.03	1.09	1.84	2.29	1.69	1.56	1.64	1.60	2.24	2.50
17	---	---	.54	1.34	.94	2.79	1.31	1.36	1.40	1.50	2.60	2.31
18	---	---	.37	1.28	.86	.83	.70	1.17	1.62	1.87	2.53	1.85
19	---	---	.17	.89	1.05	1.01	.39	1.38	2.01	2.04	2.65	1.89
20	---	---	---	.89	-.14	.13	.77	2.25	2.45	2.57	2.92	1.80
21	---	---	---	.72	1.12	.38	1.49	2.26	2.40	2.94	2.82	2.21
22	---	1.89	---	.46	1.42	.97	1.87	2.84	3.02	3.08	2.55	2.24
23	---	.84	---	.97	2.45	1.42	2.28	2.42	3.21	2.69	2.51	2.63
24	---	.26	---	1.98	1.24	2.20	2.11	2.81	2.93	2.36	1.82	.65
25	---	1.88	---	1.30	1.19	2.09	2.41	3.07	2.38	2.24	1.79	1.08
26	---	1.23	---	2.44	.43	2.08	2.82	3.07	2.54	1.81	1.86	1.48
27	---	1.88	---	.38	1.18	2.17	2.79	3.02	1.56	1.51	1.89	1.11
28	---	2.22	---	1.22	1.91	2.29	3.11	3.00	1.52	1.27	1.64	1.08
29	---	2.37	---	1.65	---	2.70	2.10	2.04	1.32	1.56	1.40	1.30
30	---	-.17	---	1.47	---	2.83	1.57	1.72	1.61	1.55	1.47	1.49
31	---	---	---	1.18	---	2.46	---	1.32	---	1.40	1.85	---
MEAN	---	---	---	---	1.34	1.82	1.70	2.02	2.02	2.02	2.18	1.96
MAX	---	---	---	---	2.45	2.83	3.11	3.07	3.21	3.08	2.92	2.63
MIN	---	---	---	---	-.41	.13	.39	.99	1.15	1.23	1.23	.65

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02313265 WITHLACOOCHEE RIVER AT CRACKERTOWN, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	-3.09	---	-2.21	-1.26	-2.19	-2.44	-1.64	-1.46	-1.85	-2.01
2	---	---	-2.64	---	-2.73	-1.20	-1.68	-2.10	-1.74	-1.85	-2.10	-2.04
3	---	---	-2.80	---	-2.67	-1.62	-2.67	-1.95	-1.94	-1.71	-2.58	-2.07
4	---	---	-2.34	---	-2.30	-2.18	-1.36	-1.65	-2.13	-2.08	-2.56	-2.02
5	---	---	-1.99	-1.60	-3.36	-2.28	-2.03	-1.34	-2.17	-2.38	-2.38	-2.09
6	-1.11	---	-1.36	-2.71	-3.69	-2.79	-1.50	-1.86	-2.56	-2.44	-2.48	-2.02
7	---	---	-1.45	-3.09	-3.34	-3.13	-2.24	-2.61	-2.99	-2.51	-2.38	-2.20
8	---	---	-1.88	-3.00	-3.36	-2.69	-2.64	-2.45	-2.39	-2.68	-2.14	-2.32
9	---	---	-1.91	-3.36	-3.00	-2.24	-2.66	-1.55	-2.73	-2.69	-1.86	-2.28
10	---	---	-3.26	-3.34	-2.33	-2.21	-2.55	-2.06	-2.73	-2.33	-1.79	-2.07
11	---	---	-3.04	-3.58	-2.58	-2.11	-2.68	-2.87	-2.52	-1.56	-1.71	-2.07
12	---	---	-2.90	-3.00	-3.09	-2.29	-3.35	-2.54	-2.56	-2.29	-1.64	-2.00
13	---	---	-2.57	-4.00	-2.49	-2.45	-3.03	-2.43	-2.90	-2.16	-1.67	-1.91
14	---	---	-3.58	-3.57	-2.37	-2.10	-2.60	-2.51	-2.56	-.63	-1.61	-1.92
15	---	---	-3.01	-3.00	-1.68	-1.83	-2.35	-1.00	-2.02	-1.03	-1.86	-1.96
16	---	---	-2.86	-2.51	-1.53	-1.18	-2.24	-2.39	-1.80	-2.02	-2.18	-1.69
17	---	---	-2.99	-2.41	-2.67	-1.81	-2.03	-1.96	-2.20	-2.92	-2.34	-1.93
18	---	---	-2.69	-2.21	-2.77	-2.37	-.67	-1.74	-2.60	-2.80	-2.33	-2.26
19	---	---	-1.90	-2.20	-1.82	-1.72	-3.25	-2.18	-2.74	-2.81	-2.35	-2.26
20	---	---	---	-2.24	-2.74	-2.47	-2.74	-1.84	-2.91	-2.83	-2.14	-2.21
21	---	---	---	-2.53	-3.12	-3.20	-2.44	-2.28	-3.06	-2.45	-1.94	-2.06
22	---	-1.00	---	-3.00	-2.58	-2.63	-2.10	-2.42	-3.04	-2.20	-1.83	-2.20
23	---	-1.20	---	-3.25	-2.81	-2.83	-2.74	-2.95	-1.79	-2.46	-1.70	-1.99
24	---	-2.75	---	-3.33	-3.39	-2.90	-2.95	-2.96	-1.93	-1.68	-1.34	-2.74
25	---	-2.41	---	-3.04	-3.68	-2.43	-2.95	-3.19	-2.46	-2.46	-1.33	-1.99
26	---	-1.96	---	-3.81	-3.79	-2.85	-2.80	-2.46	-2.49	-2.06	-1.28	-1.46
27	---	-2.47	---	-3.82	-3.00	-3.27	-2.52	-1.80	-2.28	-2.27	-1.35	-1.27
28	---	-2.63	---	-3.23	-2.62	-3.05	-1.60	-2.35	-1.66	-1.70	-1.38	-1.52
29	---	-2.87	---	-2.66	---	-2.79	-2.41	-1.71	-1.69	-1.61	-1.19	-1.39
30	---	-3.82	---	-2.63	---	-2.54	-2.50	-1.58	-1.67	-1.40	-1.39	-1.79
31	---	---	---	-3.04	---	-2.50	---	-1.67	---	-1.66	-2.03	---
MEAN	---	---	---	---	-2.78	-2.35	-2.38	-2.16	-2.33	-2.10	-1.89	-1.99
MAX	---	---	---	---	-1.53	-1.18	-.67	-1.00	-1.64	-.63	-1.19	-1.27
MIN	---	---	---	---	-3.79	-3.27	-3.35	-3.19	-3.06	-2.92	-2.58	-2.74

MISCELLANEOUS WATER-QUALITY DATA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

The following data were collected in conjunction with a detention pond investigative study.

283442081260601 - DETENTION POND INLET ON SILVER STAR ROAD AT ORLANDO

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)
FEB									
23...	0256	251	7.8	60	46	1.7	3.5	2.3	111
23...	1200	64	7.4	10	11	0.40	0.60	0.80	29
23...	1400	72	7.5	10	12	0.50	0.80	0.90	32
23...	1900	99	7.5	10	17	0.60	1.1	1.1	42
MAR									
01...	1215	218	8.1	60	40	1.5	2.5	1.9	99
31...	0828	303	7.8	100	58	2.1	4.1	2.4	136
APR									
23...	1200	235	7.8	70	42	1.6	3.9	1.8	93
MAY									
27...	1000	232	7.4	100	42	1.4	3.2	1.7	94
27...	1200	251	7.6	120	46	1.6	3.5	2.0	107
JUN									
03...	1000	237	8.1	100	44	1.6	3.2	1.8	103
03...	1200	192	7.8	60	33	0.60	1.5	1.2	78
08...	1200	224	7.9	100	42	1.4	2.7	1.8	96
23...	1000	172	7.3	30	25	0.80	1.0	0.90	78
27...	1200	107	7.5	30	19	0.70	1.0	1.0	44
JUL									
13...	1200	87	7.5	15	16	0.50	0.80	0.70	37
AUG									
09...	1200	177	7.7	50	33	1.0	1.7	1.3	76
10...	1200	149	7.7	50	25	0.90	1.6	1.3	60
11...	1200	167	7.5	20	31	0.60	0.80	0.80	76
13...	1200	125	7.4	30	23	0.60	0.70	0.90	55
24...	1200	95	7.3	--	18	0.30	0.60	0.80	39
SEP									
29...	1200	225	7.7	80	42	1.6	3.3	2.2	94
SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)									
SILICA, DIS- SOLVED (MG/L) (00955)									
SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)									
NITRO- GEN, NO2+NO3 TOTAL (MG/L) (00630)									
NITRO- GEN, AMMONIA TOTAL (MG/L) (00610)									
NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L) (00625)									
FEB									
23...	5.5	6.3	0.20	5.7	170	175	0.410	0.150	1.5
23...	1.2	0.90	0.10	1.0	32	35	0.050	0.010	<0.20
23...	0.60	1.0	0.10	1.1	32	40	0.070	0.040	0.20
23...	2.7	1.7	0.10	1.4	56	65	0.100	0.040	0.35
MAR									
01...	4.9	4.5	0.20	5.0	128	142	0.160	0.200	0.75
31...	12	11	0.10	4.3	206	218	0.590	<0.010	0.80
APR									
23...	7.2	8.1	0.10	4.2	161	197	1.40	<0.010	1.0
MAY									
27...	8.0	5.2	0.10	4.2	159	190	0.340	0.390	1.2
27...	6.3	6.0	<0.10	5.5	174	195	0.050	0.430	2.1
JUN									
03...	5.5	5.2	<0.10	6.0	156	210	0.610	0.030	1.8
03...	10	2.0	<0.10	2.0	111	242	0.430	0.150	2.0
08...	7.8	4.8	<0.10	5.6	162	263	0.210	0.060	2.0
23...	3.8	1.4	<0.10	1.9	80	225	0.090	0.070	3.9
27...	2.7	1.5	<0.10	1.6	63	98	0.550	0.010	0.90
JUL									
13...	2.3	1.4	<0.10	1.2	53	82	0.240	0.010	0.55
AUG									
09...	6.1	4.0	<0.10	3.4	116	196	0.550	0.010	1.3
10...	5.8	2.8	<0.10	2.6	86	164	0.160	0.150	1.3
11...	4.4	1.0	<0.10	1.4	93	276	0.480	0.020	1.7
13...	3.0	1.1	<0.10	1.6	74	162	0.300	0.020	0.93
24...	3.3	1.0	<0.10	0.80	57	98	0.350	0.150	0.76
SEP									
29...	6.8	7.0	0.10	4.3	154	196	0.580	0.010	1.2

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283442081260601 - DETENTION POND INLET ON SILVER STAR ROAD AT ORLANDO--Continued

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
FEB									
23...	0.090	--	100	2	810	2	20	20	12
23...	0.070	--	100	2	100	2	<10	20	2.3
23...	0.070	--	100	2	110	3	10	20	2.1
23...	0.060	--	200	3	180	4	10	30	3.4
MAR									
01...	0.060	--	100	1	550	2	20	10	7.8
31...	0.100	0.040	<100	2	1100	2	40	30	14
APR									
23...	0.200	0.070	200	6	1100	16	30	70	11
MAY									
27...	0.160	0.070	200	6	920	13	20	80	16
27...	0.150	0.060	100	4	1400	7	50	50	17
JUN									
03...	0.210	0.070	400	7	1200	20	40	100	15
03...	0.320	0.050	800	18	1300	51	20	220	14
08...	0.300	0.050	700	15	1500	47	20	190	13
23...	0.500	0.060	800	17	1700	84	40	210	6.6
27...	0.150	0.090	100	5	310	9	30	30	5.1
JUL									
13...	0.110	0.050	200	9	270	12	10	50	3.4
AUG									
09...	0.120	0.040	300	12	690	28	20	80	8.4
10...	0.160	0.050	300	10	680	24	20	80	8.1
11...	0.240	0.030	700	20	1800	120	30	170	4.7
13...	0.160	0.050	400	11	800	54	20	80	3.9
24...	0.130	0.050	100	6	460	18	<10	50	4.0
SEP									
29...	0.160	0.070	100	6	1100	14	40	70	15

283442081260602 - DETENTION POND OUTLET ON SILVER STAR ROAD AT ORLANDO

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)
FEB									
23...	0519	272	7.8	70	51	1.9	3.9	2.5	120
23...	1151	117	7.8	40	21	0.80	1.6	1.3	51
MAR									
31...	1024	288	7.6	100	54	2.0	4.6	2.6	119
APR									
23...	1205	184	7.8	60	33	1.2	3.2	1.7	71
MAY									
27...	1200	253	7.5	180	46	1.7	3.8	1.9	106
27...	1230	216	7.4	100	39	1.4	3.2	1.7	88
JUN									
03...	1400	199	7.8	70	37	1.3	2.8	1.4	86
03...	1500	238	8.0	120	45	1.4	3.2	1.9	103
08...	1000	168	7.9	70	30	1.1	2.1	1.4	72
08...	1100	134	7.6	30	20	0.40	0.50	0.70	58
23...	1100	150	7.2	50	27	1.0	1.8	1.3	60
27...	1200	116	7.5	40	21	0.80	1.1	1.1	49
JUL									
13...	1200	102	7.6	30	18	0.70	1.1	1.1	42
AUG									
09...	1200	188	7.7	60	36	1.3	2.2	1.6	80
10...	1200	198	7.6	70	36	1.4	2.3	1.9	82
11...	1200	153	7.6	60	28	1.0	1.6	1.6	65
13...	1200	184	7.6	75	34	1.2	2.0	1.8	78
24...	1200	246	7.5	100	45	1.6	2.8	2.2	109
SEP									
29...	1200	247	7.8	100	47	1.8	3.3	2.2	109

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283442081260602 - DETENTION POND OUTLET ON SILVER STAR ROAD AT ORLANDO--Continued

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
FEB									
23...	7.3	7.5	0.40	4.9	178	184	0.290	0.060	0.83
23...	3.1	2.3	0.30	1.9	68	72	0.110	0.070	0.30
MAR									
31...	14	12	0.10	3.6	207	225	1.30	<0.010	1.1
APR									
23...	5.9	5.9	<0.10	3.0	122	136	1.30	<0.010	0.83
MAY									
27...	6.9	6.3	<0.10	4.7	174	188	0.050	0.500	1.6
27...	7.1	5.2	<0.10	4.0	152	168	0.160	0.340	1.4
JUN									
03...	4.5	3.9	<0.10	4.9	125	140	0.020	0.180	0.80
03...	5.0	4.8	<0.10	6.4	153	177	0.180	0.470	1.8
08...	4.3	2.9	<0.10	3.8	102	117	0.060	0.240	1.1
08...	3.1	0.60	<0.10	0.80	57	186	0.360	0.080	3.8
23...	4.8	3.4	<0.10	3.4	103	114	0.110	0.250	1.2
27...	2.9	1.8	<0.10	1.9	72	100	0.190	0.020	0.56
JUL									
13...	2.6	1.9	<0.10	1.6	63	78	0.360	0.010	0.42
AUG									
09...	6.1	5.1	<0.10	3.9	127	148	0.570	0.010	0.49
10...	6.7	5.4	<0.10	3.9	132	162	0.840	0.020	0.71
11...	4.7	3.5	<0.10	3.3	100	118	0.310	0.010	0.88
13...	5.5	3.8	<0.10	3.3	115	144	0.570	0.060	0.62
24...	6.2	5.9	<0.10	5.4	169	200	0.100	0.210	1.3
SEP									
29...	5.3	5.9	<0.10	4.8	167	188	0.390	0.160	1.4

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
FEB									
23...	0.050	--	100	2	360	<1	10	20	13
23...	0.060	--	100	2	170	2	10	20	5.1
MAR									
31...	0.250	0.160	<100	5	910	4	20	50	17
APR									
23...	0.150	0.090	100	2	640	5	20	30	10
MAY									
27...	0.140	0.060	<100	1	760	2	30	40	18
27...	0.130	0.060	200	4	720	5	20	50	17
JUN									
03...	0.060	0.020	100	2	320	2	10	20	14
03...	0.150	0.070	200	2	970	4	30	30	15
08...	0.070	0.030	<100	<1	320	<1	<10	20	11
08...	0.510	0.050	1000	21	1800	90	30	200	4.5
23...	0.140	0.060	100	6	510	7	20	40	9.4
27...	0.100	0.050	100	18	220	4	10	30	6.4
JUL									
13...	0.110	0.070	100	9	180	6	<10	30	5.2
AUG									
09...	0.090	0.040	<100	2	320	2	30	20	10
10...	0.100	0.070	100	5	430	5	20	30	12
11...	0.070	0.030	100	2	170	2	10	20	8.3
13...	0.080	0.040	<100	3	270	4	10	30	10
24...	0.140	0.040	100	2	780	6	30	30	14
SEP									
29...	0.120	0.060	<100	2	540	<1	30	10	15

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283442081260603 - DETENTION POND WETLAND OUTLET

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)
FEB									
23...	0400	271	7.4	70	48	2.3	4.1	2.9	106
23...	1200	218	6.7	70	33	3.0	3.3	2.7	67
23...	2350	148	7.4	50	24	1.4	2.2	1.9	52
MAR									
31...	0435	282	8.1	100	52	2.1	4.8	3.2	117
MAY									
27...	1300	253	8.1	80	45	1.8	4.6	2.3	91
27...	1400	274	7.4	80	47	1.9	5.2	2.1	94
27...	1500	187	7.7	70	31	1.3	3.5	2.1	59
JUN									
03...	1400	212	7.4	80	38	1.5	3.2	2.0	84
08...	1100	176	7.3	60	31	1.1	2.3	1.6	67
08...	1200	141	8.0	60	32	5.5	31	2.5	54
08...	1300	--	--	--	--	--	--	--	--
23...	1200	182	7.5	65	32	1.2	2.1	1.5	75
JUL									
13...	1200	112	7.2	50	20	0.70	1.2	1.1	46
31...	1200	203	7.7	60	36	1.3	2.4	2.0	83
AUG									
10...	1200	222	7.9	80	41	1.5	2.7	2.1	94
24...	1200	232	7.6	80	44	1.7	2.8	2.2	100
SEP									
29...	1200	254	7.8	90	47	1.9	3.6	2.5	106

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
FEB									
23...	14	10	0.20	3.8	182	219	0.050	0.720	3.2
23...	22	12	0.20	3.3	156	177	<0.020	1.80	4.5
23...	7.8	5.2	0.30	2.5	92	2	0.280	0.430	1.3
MAR									
31...	12	13	0.10	3.2	196	241	1.50	<0.010	1.1
MAY									
27...	7.7	8.9	<0.10	3.8	179	197	1.50	<0.010	0.95
27...	10	9.4	<0.10	3.4	191	382	4.30	<0.010	<0.20
27...	6.7	6.6	<0.10	3.3	140	197	3.60	<0.010	1.9
JUN									
03...	6.1	5.2	<0.10	4.6	146	181	1.30	0.020	2.1
08...	6.0	3.5	<0.10	3.8	117	359	0.790	0.010	8.4
08...	6.7	6.1	<0.10	2.8	103	108	0.820	<0.010	0.95
08...	--	--	--	--	--	112	0.720	<0.010	0.95
23...	5.8	3.8	<0.10	3.6	122	148	0.770	0.010	0.67
JUL									
13...	3.1	1.7	<0.10	1.7	72	92	0.330	0.010	0.48
31...	5.7	6.0	<0.10	4.1	135	204	1.40	0.010	1.3
AUG									
10...	7.0	5.9	<0.10	4.8	150	230	0.730	0.010	1.7
24...	6.4	6.1	<0.10	5.6	164	246	0.670	0.010	2.0
SEP									
29...	6.8	7.7	<0.10	4.8	176	222	0.880	0.030	1.8

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283442081260603 - DETENTION POND WETLAND OUTLET--Continued

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
FEB									
23...	0.240	--	300	18	870	8	20	60	13
23...	0.100	--	200	49	540	11	30	150	14
23...	0.060	--	200	11	220	2	10	60	7.0
MAR									
31...	0.260	0.130	100	5	940	6	20	30	14
MAY									
27...	0.150	0.110	100	9	440	12	<10	20	12
27...	0.680	0.250	1200	15	2300	59	30	110	12
27...	0.290	0.150	400	37	840	20	20	60	9.7
JUN									
03...	0.280	0.110	400	7	650	12	20	40	14
08...	0.680	0.060	2500	21	2800	150	40	280	10
08...	0.130	0.070	<100	4	410	5	10	20	--
08...	0.200	0.150	<100	2	280	3	10	10	--
23...	0.130	0.080	100	5	350	7	10	30	12
JUL									
13...	0.120	0.060	100	3	330	9	10	20	7.4
31...	0.200	0.060	400	15	920	11	20	60	11
AUG									
10...	0.150	0.030	300	8	770	16	10	90	13
24...	0.220	0.070	100	5	930	20	20	50	14
SEP									
29...	0.170	0.080	200	7	680	9	10	30	15

283442081260607 - DETENTION POND 15 FEET FROM WEST SIDE MIDWAY

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
FEB										
24...	1430	1.50	109	--	19.5	30	5.5	20	0.70	1.1
24...	1435	6.50	99	--	18.5	30	4.7	18	0.60	1.0
26...	1330	1.50	148	7.3	19.5	40	5.6	27	1.0	1.5
26...	1335	6.50	127	7.2	18.0	30	3.7	23	0.80	1.3
MAR										
01...	1100	1.50	165	7.5	19.5	40	8.6	30	1.1	1.8
01...	1105	6.50	155	7.2	18.5	40	4.5	29	1.0	1.6
07...	1030	1.50	198	7.8	20.5	40	10.0	38	1.3	2.0
07...	1035	6.50	193	7.0	20.0	40	--	36	1.2	1.9
DATE										
FEB										
24...	1.1	49	3.1	1.9	0.10	1.7	58	70	0.060	0.060
24...	1.0	44	2.7	1.4	0.10	1.4	54	69	<0.020	<0.020
26...	1.4	67	3.7	2.3	0.20	2.7	88	97	0.100	0.100
26...	1.2	56	3.3	2.1	0.20	2.0	82	81	0.070	0.070
MAR										
01...	1.5	73	3.6	3.0	<0.10	2.6	110	105	<0.020	<0.020
01...	1.5	73	3.7	2.7	0.20	2.8	92	98	<0.020	<0.020
07...	1.6	92	4.2	3.3	0.20	3.8	118	129	<0.020	<0.020
07...	1.5	89	3.9	3.5	0.20	3.6	116	125	<0.020	<0.020

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283442081260607 - DETENTION POND 15 FEET FROM WEST SIDE MIDWAY--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
FEB										
24...	0.010	0.010	0.30	<0.20	0.060	0.030	100	<100	2	3
24...	0.030	0.030	0.33	<0.20	0.080	0.030	200	<100	2	1
26...	0.200	0.210	0.72	0.45	0.060	0.030	100	<100	2	1
26...	0.040	0.040	0.37	<0.20	0.060	0.030	100	<100	2	<1
MAR										
01...	0.200	0.200	1.2	0.55	0.080	0.020	200	<100	2	1
01...	0.020	0.020	0.35	<0.20	0.020	0.020	100	<100	2	1
07...	0.020	0.010	0.73	0.22	0.080	0.020	100	<100	2	<1
07...	0.040	0.040	0.72	0.25	0.050	0.020	100	<100	1	<1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
FEB									
24...	160	50	4	<1	10	<10	30	20	5.3
24...	190	80	6	<1	10	<10	20	20	4.7
26...	290	90	2	<1	10	<10	20	10	5.8
26...	230	90	3	<1	10	<10	20	10	4.8
MAR									
01...	280	80	1	<1	10	<10	10	10	6.0
01...	270	100	2	<1	10	<10	10	10	5.1
07...	260	100	<1	<1	10	<10	10	<10	7.7
07...	370	80	<1	<1	20	<10	10	<10	7.9

283442081260609 - DETENTION POND 15 FEET FROM EAST SIDE MIDWAY

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
FEB										
24...	1440	1.50	100	--	19.5	20	6.3	18	0.70	1.0
24...	1445	6.50	102	--	18.5	20	4.7	18	0.60	1.0
26...	1340	1.50	130	7.3	19.0	40	7.3	24	0.80	1.4
26...	1345	6.50	128	7.1	18.5	40	3.5	23	0.80	1.3
MAR										
01...	1110	1.50	163	6.8	19.0	40	9.0	31	1.1	1.8
01...	1115	6.50	154	7.3	18.5	40	6.0	29	1.0	1.7
07...	1040	1.50	197	7.8	20.5	50	10.0	38	1.3	2.0
07...	1045	6.50	189	7.0	20.0	50	1.7	35	1.2	1.8

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283442081260609 - DETENTION POND 15 FEET FROM EAST SIDE MIDWAY--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
FEB										
24...	1.0	43	2.6	1.6	0.20	1.5	56	70	0.040	0.040
24...	1.1	45	2.8	1.6	0.20	1.5	58	67	<0.020	<0.020
26...	1.3	57	3.3	2.2	0.20	2.0	78	83	0.070	0.070
26...	1.2	57	3.3	2.2	0.20	2.1	70	81	0.080	0.080
MAR										
01...	1.5	75	3.8	3.0	0.20	2.9	98	104	<0.020	<0.020
01...	1.5	72	3.7	2.7	0.10	2.8	90	97	<0.020	<0.020
07...	1.7	91	4.1	4.5	0.20	3.8	118	134	<0.020	<0.020
07...	1.6	86	3.8	3.2	0.20	3.5	116	120	<0.020	<0.020

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
FEB										
24...	0.020	0.020	0.85	<0.20	0.100	0.030	100	<100	3	12
24...	0.030	0.020	0.33	<0.20	0.060	0.030	200	<100	2	1
26...	0.300	0.280	0.70	0.55	0.070	0.040	100	<100	6	1
26...	0.070	0.080	0.33	0.33	0.050	0.040	100	<100	2	2
MAR										
01...	0.180	0.180	0.67	0.37	0.030	0.020	100	<100	1	<1
01...	0.010	0.010	0.45	<0.20	0.030	<0.020	100	<100	2	1
07...	0.010	0.010	0.90	0.25	0.060	0.020	100	<100	<1	<1
07...	0.070	0.070	1.1	0.23	0.080	0.020	100	<100	<1	<1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
FEB									
24...	250	80	6	<1	10	<10	20	20	5.1
24...	210	40	4	<1	10	<10	20	20	4.5
26...	210	70	3	<1	10	<10	20	20	4.5
26...	230	50	3	<1	10	<10	20	10	4.4
MAR									
01...	180	100	1	<1	<10	<10	10	10	5.8
01...	220	100	2	<1	10	<10	10	10	5.2
07...	300	90	<1	<1	10	<10	10	<10	8.6
07...	430	70	1	<1	30	<10	10	<10	7.7

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

The following data were collected in conjunction with an Apopka-Beauclair Canal investigative study.

281240081405900 - APOPKA-BEAUCLAIR CANAL 1 MI ABOVE LOCK NEAR ASTATULA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	TURBIDITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM, DIS-SOLVED (MG/L) (00915)	MAGNESIUM, DIS-SOLVED (MG/L) (00925)	SODIUM, DIS-SOLVED (MG/L) (00930)	POTASSIUM, DIS-SOLVED (MG/L) (00935)
FEB 27...	0910	528	--	16.0	--	--	--	--	--	--	--
JUN 27...	1045	605	--	27.5	--	--	--	--	--	--	--
JUN 27...	1047	605	--	27.5	--	--	--	--	--	--	--
JUL 13...	1025	500	--	27.5	--	--	--	--	--	--	--
AUG 29...	1235	409	8.3	31.5	100	7.4	6.0	40	17	15	11
DATE	ALKALINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, NO2+NO3 TOT. IN BOT. MAT (MG/KG AS N) (00633)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
FEB 27...	--	--	--	0.030	--	0.420	--	--	0.220	--	--
JUN 27...	--	--	--	0.280	--	4.60	--	--	0.620	--	--
JUN 27...	--	--	--	0.340	--	3.30	--	--	0.710	--	--
JUL 13...	--	--	--	0.010	--	<0.020	--	--	0.170	--	--
AUG 29...	121	25	35	<0.010	<0.010	<0.020	0.020	<2.0	0.010	0.020	7.2
DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOSPHORUS ORTHO DIS-SOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C) (00686)
FEB 27...	4.4	--	--	1.30	--	1.20	--	--	--	--	--
JUN 27...	4.4	--	--	1.30	--	1.10	--	--	--	--	--
JUN 27...	4.5	--	--	1.30	--	1.10	--	--	--	--	--
JUL 13...	4.5	--	--	1.40	--	1.20	--	--	--	--	--
AUG 29...	3.3	2.1	250	0.270	0.150	0.110	0.070	60	25	9.0	3.3

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283730081373000 - LAKE APOPKA NEAR CENTER NEAR WINTER GARDEN

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
JUL 13...	1145	--	--	--	--	--	--	--	--	--	--
AUG 29...	0955	403	9.4	29.5	60	22	9.2	30	18	18	13
DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
JUL 13...	--	--	--	<0.010	--	<0.020	--	--	<0.010	--	--
AUG 29...	116	24	40	<0.010	<0.010	<0.020	<0.020	<2.0	0.020	0.020	770
DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS ORTHO DIS- SOLVED (MG/L AS P) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)	
JUL 13...	5.0	--	--	0.260	--	0.080	--	--	--	--	
AUG 29...	4.3	1.8	41000	0.210	0.120	0.040	0.010	21	370	9.7	

284021081404400 - APOPKA-BEAUCLAIR CANAL INLET AT LK APOPKA NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) (00925)	SODIUM, DIS- SOLVED (MG/L) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) (00935)
JUN 27...	1255	385	--	28.0	--	--	--	--	--	--	--
AUG 29...	1025	402	8.4	30.0	100	10	5.8	36	17	16	11
DATE	ALKA- LITY LAB (MG/L) AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L) AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG) AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG) AS N) (00611)
JUN 27...	--	--	--	<0.010	--	<0.020	--	--	0.010	--	--
AUG 29...	118	24	35	0.010	0.010	0.120	0.120	<2.0	0.050	0.050	25

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

284021081404400 - APOPKA-BEAUCLAIR CANAL INLET AT LK APOPKA NEAR ASTATULA--Continued

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
JUN 27...	3.8	--	--	0.190	--	0.050	--	--	--	--
AUG 29...	3.9	1.9	12000	0.270	0.130	0.070	0.030	25	260	17

284046081404600 - APOPKA-BEAUCLAIR CANAL 0.5 MI BELOW LK APOPKA NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
AUG 29...	1100	407	8.3	30.5	100	9.1	4.0	39	17	15	10

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
AUG 29...	122	25	33	0.020	0.020	0.110	0.120	31	0.010	0.010	7.3

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
AUG 29...	3.6	1.8	24000	0.270	0.130	0.080	0.030	24	330	0.1

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

284046081404601 - APOPKA-BEAUCLAIR CANAL AT CONSTRUCTION

DATE	TIME	GAGE HEIGHT (FEET) (00065)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT									
11...	1150	46.11	--	--	--	--	0.010	0.010	0.040
30...	0930	45.89	366	--	21.0	5.9	0.010	0.010	0.030
NOV									
15...	0955	45.85	399	--	24.0	7.5	0.010	<0.010	<0.020
30...	0910	45.68	408	9.0	19.0	8.1	<0.010	<0.010	<0.020
DEC									
12...	0910	45.90	408	8.9	14.0	10.8	<0.010	<0.010	<0.020
JAN									
04...	1000	46.13	376	7.6	16.0	7.1	0.030	0.030	0.790
16...	1010	46.18	423	8.8	16.0	10.4	0.010	0.010	0.020
16...	1015	46.18	423	8.8	16.0	10.4	0.010	0.010	0.020
FEB									
02...	0900	46.11	421	8.8	23.0	8.3	<0.010	<0.010	<0.020
14...	0845	46.18	418	8.8	19.0	8.3	0.010	<0.010	<0.020
27...	0922	46.33	424	--	16.0	--	0.020	0.020	0.150
MAR									
15...	1400	46.17	429	9.0	25.0	9.1	0.010	<0.010	<0.020
28...	0930	45.99	447	8.9	24.0	7.0	0.010	<0.010	0.020
APR									
12...	1045	45.84	431	8.8	22.0	6.6	0.010	<0.010	<0.020
24...	1035	45.80	409	9.0	25.0	7.3	<0.010	<0.010	<0.020
MAY									
07...	1305	45.59	392	--	26.0	7.6	<0.010	<0.010	<0.020
23...	0915	45.25	404	9.4	27.0	8.0	0.010	0.010	<0.020
JUN									
12...	0930	45.49	393	8.4	29.0	3.9	0.010	0.010	<0.020
27...	1135	45.51	393	8.8	29.0	5.6	<0.010	0.030	<0.020
JUL									
13...	1100	45.66	374	--	28.5	4.4	<0.010	<0.010	<0.020
31...	0915	45.78	394	--	30.0	3.8	0.010	0.010	0.030
AUG									
14...	0910	45.95	382	8.7	30.0	4.9	0.010	<0.010	<0.020
SEP									
06...	0930	45.83	385	9.0	28.5	5.2	0.010	<0.010	<0.020
20...	1015	45.60	394	--	27.0	5.7	0.010	0.010	0.040

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

284046081404601 - APOPKA-BEAUCLAIR CANAL AT CONSTRICTION--Continued

		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)		
OCT												
	11...	0.040	0.010	0.010	3.8	1.8	0.340	0.030	0.010	0.010		
	30...	0.050	0.010	<0.010	4.5	1.7	0.250	0.020	0.070	<0.010		
NOV												
	15...	<0.020	0.010	0.010	3.8	1.8	0.100	<0.020	0.020	<0.010		
	30...	<0.020	0.020	0.020	4.1	1.7	0.110	0.020	0.060	0.020		
DEC												
	12...	<0.020	<0.010	<0.010	4.1	1.8	0.120	0.020	0.040	0.010		
JAN												
	04...	0.790	0.190	0.180	2.6	1.6	0.160	<0.020	0.050	0.010		
	16...	0.040	0.020	0.010	3.4	2.0	0.090	<0.020	0.050	0.020		
	16...	0.030	0.010	0.010	3.2	1.7	0.070	<0.020	0.040	0.010		
FEB												
	02...	0.020	0.010	0.010	3.8	1.6	0.130	<0.020	0.040	0.010		
	14...	<0.020	0.010	<0.010	4.8	2.0	0.180	0.020	0.050	0.010		
	27...	0.160	0.170	0.160	5.4	2.1	0.240	0.040	0.070	0.010		
MAR												
	15...	<0.020	<0.010	<0.010	6.5	2.2	0.240	0.020	0.080	0.010		
	28...	0.030	0.010	0.010	4.9	2.1	0.220	<0.020	0.060	0.010		
APR												
	12...	0.020	0.010	0.010	4.4	2.0	0.190	0.040	0.050	0.010		
	24...	0.020	0.020	0.020	4.6	2.5	0.200	0.020	0.060	0.040		
MAY												
	07...	<0.020	0.010	0.010	3.7	1.9	0.170	<0.020	0.060	0.010		
	23...	0.020	<0.010	<0.010	4.4	2.0	0.180	0.020	0.050	0.030		
JUN												
	12...	0.020	<0.010	<0.010	5.3	1.9	0.230	<0.020	0.090	0.010		
	27...	0.290	<0.010	0.020	3.6	2.5	0.220	0.090	0.090	0.060		
JUL												
	13...	<0.020	<0.010	<0.010	4.6	1.7	0.220	0.010	0.080	<0.010		
	31...	0.050	0.030	0.020	3.7	2.1	0.200	<0.020	0.100	0.010		
AUG												
	14...	<0.020	0.020	0.030	4.0	2.2	0.160	0.020	0.040	<0.010		
SEP												
	06...	<0.020	0.020	0.010	3.7	1.8	0.140	0.030	0.050	0.020		
	20...	0.050	0.020	0.020	3.8	1.7	0.120	0.030	0.040	0.010		
DATE	TIME	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	
OCT												
	30...	0930	100	12	34	16	14	11	112	24	35	26
NOV												
	30...	0910	50	21	34	18	17	12	120	25	40	23
DEC												
	12...	0910	30	9.9	34	18	16	11	121	24	38	13
JAN												
	16...	1010	30	7.8	37	19	16	12	128	24	39	19
	16...	1015	30	8.3	37	18	18	11	129	24	39	19
FEB												
	14...	0845	50	18	37	18	19	12	132	24	38	19
MAR												
	28...	0930	30	29	42	19	20	11	149	26	39	22
APR												
	24...	1035	30	0.86	31	19	18	12	122	26	41	14
MAY												
	23...	0915	60	13	26	20	22	12	109	27	45	20
JUN												
	27...	1135	80	12	31	18	19	10	109	24	38	23
JUL												
	31...	0915	80	18	34	17	16	10	115	32	38	14
SEP												
	06...	0930	50	12	31	17	16	11	109	23	37	20

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

284140081405401 - APOPKA-BEAUCLAIR CANAL AT DUDA BR S.POND NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)
JUN 27...	1125	578	--	27.0	--	--	--	--	--	--	--
AUG 29...	1125	387	8.4	31.0	100	11	5.8	37	17	15	10
DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
JUN 27...	--	--	--	<0.010	--	<0.020	--	--	<0.010	--	--
AUG 29...	114	23	35	0.010	<0.010	<0.020	<0.020	6.0	0.030	0.020	5.7
DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTH TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTH DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	CARBON, INORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
JUN 27...	3.7	--	--	0.370	--	0.220	--	--	--	--	--
AUG 29...	3.5	2.0	2100	0.260	0.120	0.070	0.020	200	25	83	50

284140081405402 - APOPKA-BEAUCLAIR CANAL AT DUDA BR N.POND NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)
JUN 27...	1118	508	--	27.0	--	--	--	--	--	--	--
JUL 13...	1035	424	--	27.5	--	--	--	--	--	--	--
AUG 29...	1155	440	7.5	30.5	120	7.3	4.5	42	17	15	11
DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
JUN 27...	--	--	--	<0.010	--	<0.020	--	--	0.040	--	--
JUL 13...	--	--	--	<0.010	--	<0.020	--	--	0.040	--	--
AUG 29...	130	23	36	0.010	<0.010	<0.020	<0.020	<2.0	0.020	0.020	30

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

284140081405402 - APOPKA-BEAUCLAIR CANAL AT DUDA BR N. POND NEAR ASTATULA--Continued

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
JUN 27...	2.2	--	--	0.210	--	0.150	--	--	--	--	--
JUL 13...	2.7	--	--	0.120	--	0.070	--	--	--	--	--
AUG 29...	3.4	1.9	2300	0.260	0.140	0.100	0.050	82	24	63	25

284209081405700 - APOPKA BEAUCLAIR CANAL 1.4 MI ABOVE LOCK NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
JUN 27...	1105	580	26.0	0.040	1.10	0.230	3.1	0.630	0.550
JUL 13...	1030	345	26.5	0.080	1.80	0.200	4.0	0.730	0.600

284209081405701 - APOPKA-BEAUCLAIR CANAL 1.4 MI ABOVE LOCK AT FLYWHEEL PUMP NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L AS N) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
JUL 13...	1032	--	--	--	--	--	--	--	--	--	--
AUG 29...	1215	407	8.3	31.5	100	8.7	6.2	40	17	15	10
DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NA) (00608)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
JUL 13...	--	--	--	0.160	--	3.90	--	--	0.500	--	--
AUG 29...	124	25	33	<0.010	<0.010	<0.020	0.030	<2.0	0.020	0.030	7.3

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
JUL 13...	5.0	--	--	0.880	--	0.730	--	--	--	--
AUG 29...	3.6	2.4	2100	0.270	0.140	0.100	0.050	25	35	<0.1

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

284235081410000 - APOPKA BEAUCLAIR CANAL 60-IN PIPE W.BANK ABOVE LOCK

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
JUN 27...	1055	467	27.0	0.010	<0.020	0.290	3.0	0.340	0.230

284419081412100 - APOPKA-BEAUCLAIR CANAL AT SR448 BRIDGE NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
AUG 29...	1440	416	8.1	31.0	100	6.0	7.2	41	17	15	12

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
AUG 29...	123	25	36	<0.010	<0.010	<0.020	0.030	3.0	0.020	0.040	0.9

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
AUG 29...	3.2	2.1	400	0.320	0.220	0.200	0.160	26	9.7	1.2

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

284557081403300 - APOPKA-BEAUCLAIR CANAL OUTLET AT LK BEAUCLAIR NEAR MOUNT DORA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
		(US/CM) (00095)	(00400)	(00010)	(00080)	(00076)	(00300)	(00915)	(00925)	(00930)	(00935)
AUG 29...	1410	401	8.1	30.0	100	3.8	16.0	40	16	13	11
DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
AUG 29...	117	24	35	<0.010	<0.010	0.020	0.050	<2.0	0.040	0.040	430
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. BOT MAT (MG/L AS N) (00623)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)	
AUG 29...	2.9	2.0	14000	0.300	0.200	0.170	0.130	24	220	0.2	

284623081394700 - LK BEAUCLAIR AT CENTER NEAR MOUNT DORA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)
AUG 29...	1335	389	9.2	30.0	60	5.0	18.5	38	16	15	12
DATE	ALKA- LINIT (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)
AUG 29...	118	25	34	<0.010	<0.010	<0.020	0.020	<2.0	0.020	0.020	1.8
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. BOT MAT (MG/L AS N) (00623)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	CARBON, INORG + ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
AUG 29...	3.8	1.7	340	0.180	0.120	0.050	0.010	64	25	2.6	<0.1

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

The following data were collected in conjunction with an investigative study in Ocala

291126082075700 - TUSKAWILLA LK NEAR DW31 INTAKE, OCALA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	
MAY 15...	1325	300	7.4	30.5	20	0.58	K12	K28	K28	39	5.1	12	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINEITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAY 15...	5.3	92	24	20	0.30	5.4	186	<0.010	<0.020	0.030	0.020	2.9	
DATE		PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
MAY 15...	1.10	0.480	0.210	2	<1	<10	4	120	10	1	70	<10	
DATE		MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PCB, TOTAL (UG/L) (39516)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- AZINON, TOTAL (UG/L) (39570)
MAY 15...	0.10	<1	40	9.4	<0.1	<0.10	<0.010	<0.1	<0.010	<0.010	<0.010	0.01	
DATE		DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	MIREX, TOTAL (UG/L) (39755)	LINDANE TOTAL (UG/L) (39340)	MALA- THION, TOTAL (UG/L) (39530)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL TRI- THION, TOTAL (UG/L) (39790)
MAY 15...	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	
DATE		PARA- THION, TOTAL (UG/L) (39540)	PER- THANE TOTAL (UG/L) (39034)	DI- SYSTON TOTAL (UG/L) (39011)	PHORATE OTAL (UG/L) (39023)	DEF TOTAL (UG/L) (39040)	TOX- APHENE, TOTAL (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	2, 4-DP TOTAL (UG/L) (82183)	
MAY 15...		<0.01	<0.1	<0.01	<0.01	<0.01	<1	<0.01	0.46	<0.01	<0.01	<0.01	

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

The following data were collected in conjunction with a Winter Park Chain of Lakes investigative study.

02234263 - SUE LAKE OUTLET AT WINTER PARK

DATE	TIME	GAGE HEIGHT (FEET) (00065)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
OCT 04...	1525	--	184	7.4	30.0	5	1.2	--	22	3.6	7.8
DEC 12...	1110	1.15	194	7.5	17.0	5	1.1	8.8	23	3.1	8.6
MAR 01...	1200	1.19	185	7.6	20.0	10	0.44	7.8	22	3.4	9.1
APR 24...	1125	1.00	204	7.6	23.5	5	0.17	5.9	25	4.2	9.3
24...	1245	1.00	203	7.7	24.5	10	10	6.9	24	4.2	9.3
JUN 25...	1430	1.06	207	7.3	30.0	10	0.64	--	24	4.3	10
AUG 31...	1505	0.95	235	7.4	31.0	5	0.64	4.9	29	5.3	10

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 04...	2.3	52	12	14	0.010	0.080	0.120	0.95	<0.020	0.020	6.1
DEC 12...	2.3	53	13	16	<0.010	0.040	0.050	0.90	0.050	0.010	4.9
MAR 01...	2.0	53	14	15	<0.010	0.040	0.050	0.54	0.050	0.010	3.6
APR 24...	1.7	62	15	16	<0.010	0.060	0.040	0.97	0.080	0.020	4.4
24...	1.7	62	15	16	<0.010	0.060	0.050	0.52	0.060	0.020	4.3
JUN 25...	2.4	60	15	17	0.010	0.080	0.130	1.5	0.040	0.020	5.5
AUG 31...	2.2	75	15	16	0.030	0.180	0.110	1.0	0.060	0.040	4.3

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

02234287 - PARK LAKE OUTLET AT MAITLAND

DATE	TIME	GAGE HEIGHT (FEET) (00065)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
OCT 04...	1600	--	210	7.0	30.0	20	1.3	--	29	3.3	7.1
DEC 12...	1215	--	222	7.2	17.0	10	0.96	7.6	31	3.1	7.6
MAR 01...	1120	3.97	225	7.6	20.0	10	0.60	7.4	32	3.5	8.0
APR 24...	1020	3.93	236	7.7	24.5	10	0.15	5.9	35	3.4	8.4
JUN 25...	1230	4.01	225	7.5	30.0	10	0.77	--	29	3.2	7.8
AUG 31...	1348	3.94	211	8.0	31.0	20	0.55	9.4	30	3.5	8.7

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 04...	2.7	69	12	12	0.020	0.320	0.150	0.95	0.040	0.030	8.0
DEC 12...	2.8	78	12	12	<0.010	0.050	0.040	0.96	0.060	0.020	7.3
MAR 01...	2.9	79	14	12	0.010	0.080	0.030	0.66	0.060	0.020	6.0
APR 24...	2.7	90	13	13	<0.010	<0.020	0.040	0.59	0.070	<0.030	6.1
JUN 25...	2.6	78	13	13	<0.010	0.020	0.020	0.90	0.060	0.020	6.8
AUG 31...	2.8	76	12	13	0.010	0.070	0.040	1.1	0.060	0.030	4.0

02234299 - LAKE MINNEHAHA OUTLET AT MAITLAND

DATE	TIME	GAGE HEIGHT (FEET) (00065)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
OCT 04...	1120	--	171	7.3	28.0	10	2.7	--	18	2.8	8.3
DEC 12...	1320	2.38	175	7.5	16.5	10	1.0	8.1	19	2.8	9.0
MAR 01...	1030	2.60	180	8.0	18.5	10	1.5	8.7	20	3.0	9.4
APR 24...	0930	2.16	185	7.6	23.5	10	0.18	6.0	20	3.3	9.7
AUG 31...	1245	--	198	7.3	30.0	<5	1.4	5.1	23	3.5	11

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 04...	2.8	39	12	17	<0.010	<0.020	0.010	0.99	<0.020	0.020	5.7
DEC 12...	3.0	40	13	19	<0.010	<0.020	<0.010	0.61	0.040	0.010	6.7
MAR 01...	3.0	43	14	18	0.010	0.020	0.010	0.56	0.050	0.010	5.1
APR 24...	2.9	44	18	18	<0.010	<0.020	0.040	0.57	0.040	0.010	5.6
AUG 31...	3.3	48	17	21	<0.010	<0.020	0.010	1.8	0.040	0.020	2.3

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283452081212401 - LAKE SUE OUTFLOW CANAL AT LAKE SUE

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) (00925)	SODIUM, DIS- SOLVED (MG/L) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) (00935)
MAR 01...	1250	183	8.3	20.5	10	0.40	9.1	22	3.3	9.1	2.0
APR 24...	1055	180	8.8	24.5	5	0.25	7.9	21	3.2	9.6	1.9
JUN 25...	1330	185	8.7	31.5	10	1.6	--	21	3.6	11	2.7
AUG 31...	1430	198	8.3	33.0	5	0.96	5.4	23	3.5	10	2.6

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS ORTH TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTH TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAR 01...	51	14	15	<0.010	0.020	0.020	0.54	0.040	0.010	3.7
APR 24...	49	15	17	<0.010	<0.020	0.020	0.52	0.040	0.010	4.8
JUN 25...	49	16	18	<0.010	0.030	0.050	1.8	0.020	0.020	6.4
AUG 31...	55	14	17	0.010	0.020	0.090	1.5	0.030	0.020	4.5

283517081204001 - LAKE VIRGINIA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) (00925)	SODIUM, DIS- SOLVED (MG/L) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) (00935)
OCT 04...	1420	191	8.1	30.0	5	1.3	40.0	--	21	3.7	8.6	2.6
DEC 13...	1255	197	7.8	17.0	<5	1.7	42.0	8.4	23	3.8	9.1	2.6
MAR 02...	1315	201	8.2	20.0	10	0.65	78.0	10.0	23	3.9	9.3	2.5
APR 25...	1400	204	8.8	25.0	<5	0.13	72.0	8.7	24	4.0	9.5	2.2
JUN 26...	1355	210	8.2	30.0	5	1.8	33.0	--	25	4.1	10	2.7
SEP 04...	1210	209	7.7	30.0	10	0.58	45.0	6.7	24	4.3	10	2.6

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTH TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
OCT 04...	50	14	15	<0.010	<0.020	0.010	0.84	<0.020	0.020	5.2	26.0	1.70
DEC 13...	53	15	17	<0.010	<0.020	<0.010	0.66	0.040	0.010	3.6	13.0	1.00
MAR 02...	54	16	16	<0.010	0.020	<0.010	0.55	0.040	0.010	3.5	4.40	0.200
APR 25...	59	16	17	<0.010	<0.020	0.020	0.52	0.040	0.010	4.5	4.30	1.40
JUN 26...	60	16	17	<0.010	<0.020	0.070	1.7	0.040	0.020	4.9	14.0	<0.400
SEP 04...	57	15	17	<0.010	<0.020	0.030	1.1	0.030	0.020	5.1	18.0	0.600

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283518081210201 - LAKE VIRGINIA WEST

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD	TEMPER- ATURE WATER	COLOR (PLAT- INUM- COBALT	TUR- BID- ITY	TRANS- PAR- ENCY (SECCHI DISK)	OXYGEN, DIS- SOLVED	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	POTAS- SIUM, DIS- SOLVED	
		(US/CM) (00095)	(UNITS) (00400)	(DEG C) (00010)	(UNITS) (00080)	(NTU) (00076)	(IN) (00077)	(MG/L) (00300)	(MG/L AS CA) (00915)	(MG/L AS MG) (00925)	(MG/L AS NA) (00930)	(MG/L AS K) (00935)	
MAR	02...	1250	198	8.2	20.0	10	0.68	76.0	10.2	23	3.9	9.3	2.5
APR	25...	1335	199	8.9	25.0	10	0.15	66.0	8.8	25	4.1	9.5	2.2
JUN	26...	1330	210	8.8	31.0	5	1.7	35.0	--	24	4.4	10	2.6
SEP	04...	1200	209	8.2	30.0	10	0.82	41.0	6.4	24	4.2	10	2.6
DATE	ALKA- LITY LAB	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO2+NO3 TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN,AM- MONIA + ORGANIC TOTAL	PHOS- PHORUS TOTAL	PHOS- PHORUS ORTHO TOTAL	CARBON, ORGANIC TOTAL	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM	
	(MG/L AS CACO3) (90410)	(MG/L AS SO4) (00945)	(MG/L AS CL) (00940)	(MG/L AS N) (00615)	(MG/L AS N) (00630)	(MG/L AS N) (00610)	(MG/L AS N) (00625)	(MG/L AS P) (00665)	(MG/L AS P) (70507)	(MG/L AS C) (00680)	(UG/L) (70953)	(UG/L) (70954)	
MAR	02...	54	17	16	<0.010	0.020	<0.010	0.59	0.040	0.010	3.7	7.40	<0.200
APR	25...	59	16	17	<0.010	<0.020	0.020	0.57	0.040	0.010	4.4	5.60	1.30
JUN	26...	57	18	18	<0.010	<0.020	0.080	1.3	0.030	0.020	4.9	15.0	<0.500
SEP	04...	57	16	16	<0.010	<0.020	0.020	1.2	0.030	0.020	5.4	23.0	0.700

283534081201801 - LAKE MIZELL

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
OCT	04...	1400	246	8.2	30.0	5	1.3	42.0	--	22	6.8	8.3	9.0
DEC	13...	1230	--	7.8	17.5	5	0.89	50.0	8.6	22	6.7	9.0	9.2
MAR	02...	1230	250	7.7	20.0	5	0.66	124	8.6	23	7.0	9.3	9.5
APR	25...	1305	260	8.8	25.5	5	0.16	84.0	8.6	24	7.0	9.5	9.2
JUN	26...	1300	252	8.9	30.5	5	0.48	37.0	--	24	7.2	10	9.2
SEP	04...	1140	250	7.6	30.0	<5	0.71	60.0	6.3	23	6.6	9.5	8.5
DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)	
OCT	04...	46	33	24	<0.010	<0.020	0.010	0.81	<0.020	0.020	5.7	18.0	1.00
DEC	13...	44	34	23	<0.010	<0.020	<0.010	0.84	0.040	0.010	4.0	11.0	0.800
MAR	02...	45	34	23	<0.010	0.060	0.030	0.62	0.040	0.010	4.0	1.00	<0.100
APR	25...	48	36	25	<0.010	<0.020	0.020	0.53	0.050	0.010	4.5	4.40	0.800
JUN	26...	48	34	24	<0.010	<0.020	0.060	1.4	0.020	0.020	5.2	9.60	<0.400
SEP	04...	47	30	22	<0.010	<0.020	0.010	1.3	0.030	0.030	5.5	6.50	0.400

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283545081201901 - LAKE MIZELL NORTH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
MAR												
02...	1215	250	7.7	20.0	5	0.77	98.0	8.6	23	7.0	9.0	9.0
APR												
25...	1245	252	8.9	25.5	5	0.24	61.0	9.2	23	7.0	9.6	9.3
JUN												
26...	1230	252	7.7	30.5	5	0.48	26.0	--	23	6.7	10	8.9
SEP												
04...	1120	245	7.5	30.0	<5	0.44	58.0	5.9	23	6.5	9.3	8.4

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
MAR												
02...	46	36	23	<0.010	0.020	<0.010	0.56	0.040	0.010	4.0	3.50	0.100
APR												
25...	47	36	24	<0.010	<0.020	0.020	0.51	0.040	0.010	4.6	4.40	0.400
JUN												
26...	44	34	24	0.010	<0.020	0.220	1.6	0.030	0.030	5.6	9.00	<0.400
SEP												
04...	46	30	23	<0.010	<0.020	0.010	1.2	0.030	0.020	5.0	7.00	0.400

283556081204101 - LAKE OSCEOLA SOUTH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
OCT												
04...	1325	194	8.1	30.0	5	1.5	38.0	--	22	3.9	8.5	2.6
DEC												
13...	1200	202	7.8	17.5	5	1.0	44.0	8.0	23	4.0	9.1	2.6
MAR												
02...	1150	199	8.3	19.5	10	1.3	38.0	10.8	24	4.1	9.2	2.6
APR												
25...	1205	197	9.2	25.0	5	0.27	31.0	10.5	24	4.1	9.9	2.3
JUN												
26...	1200	200	8.9	30.0	5	0.45	35.0	--	24	4.4	10	2.6
SEP												
04...	1050	207	7.7	30.0	5	0.58	52.0	7.0	21	3.9	8.8	2.3

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
OCT												
04...	54	15	16	<0.010	<0.020	0.010	0.91	<0.020	0.020	5.7	26.0	1.10
DEC												
13...	55	15	18	<0.010	<0.020	<0.010	0.80	0.040	0.010	3.9	17.0	1.20
MAR												
02...	57	16	17	<0.010	0.020	<0.010	0.85	0.050	0.010	4.2	36.0	<0.700
APR												
25...	59	17	17	<0.010	<0.020	0.020	0.85	0.050	0.020	5.0	20.0	0.800
JUN												
26...	56	17	18	<0.010	<0.020	0.300	1.3	0.040	0.020	5.4	9.60	<0.400
SEP												
04...	54	17	16	<0.010	<0.020	0.010	1.7	0.030	0.020	5.3	11.0	0.800

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283615081202801 - LAKE OSCEOLA NORTH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER-	COLOR	TUR-	TRANS- PAR- ENCY	OXYGEN,	CALCIUM	MAGNE-	SODIUM,	POTAS-	
		(US/CM) (00095)	(STAND- ARD UNITS) (00400)	ATURE WATER (DEG C) (00010)	(PLAT- INUM- COBALT UNITS) (00080)	BID- ITY (NTU) (00076)	(SECCHI DISK) (IN) (00077)	DIS- SOLVED (MG/L) (00300)	DIS- SOLVED (MG/L AS CA) (00915)	SOLVED (MG/L AS MG) (00925)	SOLVED (MG/L AS NA) (00930)	SOLVED (MG/L AS K) (00935)	
OCT													
04...	1300	195	8.2	29.5	5	1.5	36.0	--	22	3.9	8.6	2.6	
DEC													
13...	1150	202	7.8	17.5	5	1.9	42.0	8.3	23	3.8	9.2	2.7	
MAR													
02...	1125	200	8.2	19.5	10	1.3	41.0	10.2	24	4.1	9.2	2.6	
APR													
25...	1145	200	9.1	24.5	10	0.28	32.0	10.1	23	4.1	9.9	2.3	
JUN													
26...	1150	203	7.0	30.0	5	0.48	36.0	--	22	4.4	10	2.7	
SEP													
04...	1035	204	8.0	30.0	<5	0.59	51.0	6.6	23	4.3	10	2.6	
DATE		ALKA- LITY LAB	SULFATE	CHLO- RIDE, DIS- SOLVED	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO2+NO3 TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN,AM- MONIA + ORGANIC TOTAL	PHOS- PHORUS TOTAL	PHOS- PHORUS ORTHO TOTAL	CARBON, ORGANIC TOTAL	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM
		(MG/L AS CACO3) (90410)	DIS- SOLVED (MG/L AS SO4) (00945)	DIS- SOLVED (MG/L AS CL) (00940)	(MG/L AS N) (00615)	(MG/L AS N) (00630)	(MG/L AS N) (00610)	(MG/L AS N) (00625)	(MG/L AS P) (00665)	(MG/L AS P) (70507)	(MG/L AS C) (00680)	(UG/L) (70953)	(UG/L) (70954)
OCT													
04...	54	15	17	<0.010	<0.020	0.010	0.96	<0.020	0.020	6.2	25.0	0.900	
DEC													
13...	53	16	18	<0.010	<0.020	<0.010	0.85	0.040	0.010	4.1	13.0	0.900	
MAR													
02...	55	17	17	<0.010	0.020	<0.010	0.73	0.040	0.010	4.0	28.0	1.00	
APR													
25...	58	18	18	<0.010	<0.020	0.020	1.0	0.050	0.020	5.4	19.0	<0.400	
JUN													
26...	51	18	18	<0.010	<0.020	0.120	1.5	0.020	0.030	5.9	5.40	<0.400	
SEP													
04...	54	17	18	<0.010	<0.020	0.070	1.2	0.030	0.020	5.0	7.60	0.400	

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283644081204901 - LAKE MAITLAND SOUTH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
OCT 04...	1230	195	8.1	29.5	5	1.7	36.0	--	22	3.9	8.7	2.7
DEC 13...	1120	199	7.8	17.0	5	2.0	40.0	7.9	22	3.8	9.3	2.8
MAR 02...	1050	203	8.0	19.5	10	0.90	54.0	9.6	23	4.0	9.4	2.8
APR 25...	1110	205	8.2	25.0	5	0.17	68.0	8.7	23	4.1	9.9	2.7
JUN 26...	1100	205	8.6	30.0	5	1.1	36.0	--	22	4.4	11	3.0
SEP 04...	0955	206	7.3	29.5	<5	0.59	45.0	6.1	23	4.3	10	2.9

DATE	ALKA- LINITY LAB	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	NITRO- GEN, NITRITE TOTAL	NITRO- GEN, NO2+NO3 TOTAL	NITRO- GEN, AMMONIA TOTAL	NITRO- GEN,AM- MONIA + ORGANIC TOTAL	PHOS- PHORUS TOTAL	PHOS- PHORUS ORTHO TOTAL	CARBON, ORGANIC TOTAL	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM
	(MG/L AS CACO3)	(MG/L AS SO4)	(MG/L AS CL)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS N)	(MG/L AS P)	(MG/L AS P)	(MG/L AS C)	(UG/L)	(UG/L)
	(90410)	(00945)	(00940)	(00615)	(00630)	(00610)	(00625)	(00665)	(70507)	(00680)	(70953)	(70954)
OCT 04...	51	16	16	<0.010	<0.020	0.010	0.96	<0.020	0.020	6.4	26.0	1.00
DEC 13...	50	16	19	<0.010	0.020	<0.010	1.0	0.060	0.010	1.2	11.0	0.800
MAR 02...	52	20	18	<0.010	0.020	<0.010	0.61	0.040	0.010	3.9	14.0	0.300
APR 25...	53	20	18	<0.010	<0.020	0.020	0.47	0.040	0.010	5.0	5.00	0.200
JUN 26...	50	19	19	<0.010	<0.020	0.130	1.4	0.020	0.020	5.7	6.30	<0.500
SEP 04...	53	18	19	<0.010	<0.020	0.130	0.55	0.030	0.020	5.2	10.0	0.600

283708081214201 - LAKE MAITLAND WEST

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
MAR	02...	0945	201	8.0	20.0	10	1.6	55.0	9.8	23	4.0	9.7	2.8
APR	25...	1015	202	8.2	25.0	5	0.19	56.0	7.9	22	4.1	10	M2.8
JUN	26...	1000	205	8.3	30.0	10	1.9	30.0	--	22	4.2	11	3.4
SEP	04...	0905	206	8.1	29.5	<5	0.88	40.0	7.0	22	4.3	10	3.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
MAR 02...	50	20	18	<0.010	0.020	<0.010	0.70	0.050	0.010	4.3	9.60	0.300
APR 25...	52	20	18	<0.010	<0.020	0.050	0.66	0.040	0.010	5.0	5.80	0.300
JUN 26...	50	18	19	<0.010	<0.020	0.020	1.4	0.050	0.020	5.6	17.0	<0.800
SEP 04...	51	18	19	0.010	0.020	0.010	1.6	0.040	0.030	5.6	15.0	0.600

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

283709081210401 - LAKE MAITLAND NORTH

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
OCT												
04...	1145	192	8.1	29.0	5	1.9	32.0	--	21	3.8	8.8	2.8
DEC												
13...	1040	198	7.8	17.0	5	1.7	36.0	8.4	22	3.8	9.4	2.8
MAR												
02...	1025	202	8.0	19.0	10	1.5	52.0	9.5	23	4.0	9.5	2.9
APR												
25...	1045	202	8.1	24.5	<5	0.18	56.0	7.8	22	4.1	10	2.8
JUN												
26...	1030	207	8.3	30.0	5	0.84	38.0	--	22	4.3	11	3.1
SEP												
04...	0935	206	8.1	29.5	<5	1.2	40.0	6.5	22	4.3	10	3.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
OCT												
04...	49	15	17	<0.010	<0.020	0.010	1.0	<0.020	0.020	6.9	24.0	0.800
DEC												
13...	49	16	18	<0.010	<0.020	<0.010	1.0	0.050	0.020	2.0	17.0	0.900
MAR												
02...	51	20	18	<0.010	0.020	0.010	0.63	0.040	0.010	4.3	8.60	0.300
APR												
25...	52	20	19	<0.010	<0.020	0.020	0.62	0.040	0.010	5.0	8.20	0.500
JUN												
26...	49	18	19	<0.010	<0.020	0.010	1.0	0.020	0.020	5.5	15.0	<0.400
SEP												
04...	51	17	18	<0.010	<0.020	0.010	1.2	0.030	0.020	6.1	16.0	0.800

283727081203501 - LAKE MAITLAND OUTFLOW

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	TRANS- PAR- ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
OCT												
04...	1030	192	7.5	28.0	5	2.0	40.0	6.4	21	3.8	8.9	2.8
MAR												
01...	0945	195	7.6	18.0	5	0.60	--	8.1	22	4.0	9.3	2.9
DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
OCT												
04...	47	15	17	<0.010	0.020	0.010	1.0	<0.020	0.020	6.5	23.0	0.800
MAR												
01...	50	18	17	0.010	0.020	<0.010	0.61	0.040	0.010	5.6	--	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1989 TO SEPTEMBER 1990

The following data were collected in conjunction with an investigative project in Reedy Creek Improvement District.

282135081345500 - LATERAL 405 BELOW L-410 NEAR VINELAND

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K) (00935)
NOV 07...	1300	427	8.4	21.5	100	3.4	5.4	24	5.7	47	10
MAY 29...	0815	429	7.4	23.5	80	0.30	8.1	23	5.8	47	9.0
AUG 29...	0830	230	6.7	25.5	400	1.3	3.8	18	4.6	21	4.7

DATE	ALKA- LINITY LAB (MG/L) AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	NITRO- GEN, NITRITE TOTAL (MG/L) AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L) AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L) AS AL) (01105)	ARSENIC TOTAL (UG/L) AS AS) (01002)
NOV 07...	61	48	58	0.010	0.460	0.030	0.25	0.210	0.180	--	--
MAY 29...	57	15	80	0.030	1.00	0.070	0.75	0.280	0.180	80	<1
AUG 29...	30	5.8	33	0.020	0.440	0.120	2.1	0.350	0.330	410	E1

DATE	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L) AS BE) (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L) AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L) AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L) AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L) AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L) AS MN) (01055)	NICKEL, TOTAL RECOV- ERABLE (UG/L) AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L) AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L) AS C) (00680)
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 29...	<10	<1	<10	<1	100	<1	20	<1	<1	20	7.8
AUG 29...	<10	<1	<1	<1	390	<1	30	<1	<1	20	38

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in a table of annual maximum stage and discharge. Discharge measurements made at miscellaneous sites for both low flows and high flows are given in a separate table.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1990								
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual Maximum			
					Date	Gage height (ft)	Dis-charge (ft ³ /s)	
ST. MARYS RIVER BASIN								
02231250	Little St. Marys River near Hilliard, FL	Lat 30°43'55", long 81°53'35", in SE¼ sec. 27, T.4 N., R.24 E., Nassau County, Hydrologic Unit 03070204, at bridge on State Highway 115-A, 3.3 mi northeast of Hilliard, and 13 mi upstream from mouth. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to 1965, at datum 8.56 ft higher.	19.8	1961-65 1965-67‡ 1968-90	02-24-90	13.01	194	
ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER								
02231386	Cow Log Branch at Highway 441 near Yeehaw Junction, FL	Lat 27°39'46", long 80°53'09", in SW¼ sec.25, T.32 S., R.34 E., Osceola County, Hydrologic Unit 03080101, on downstream side of bridge on U.S. Highway 441, 2.8 mi southeast of Yeehaw Junction, and 4.3 mi upstream from mouth. Discontinued.	7.90	1983-90	10-11-89	5.83	35	
02232505	Savage Creek near Christmas, FL	Lat 28°32'22", long 81°01'10", in NE¼ sec.33, T.22 S., R.33 E., Orange County, Hydrologic Unit 03080101, on downstream side at bridge on Highway 420, 3.1 mi upstream from mouth, and 0.2 mi north of Christmas and Highway 50. Datum of gage is 28.95 ft above National Geodetic Vertical Datum of 1929.	3.69	1985-90	1990	<5.75	<123	
OKLAWAHA RIVER BASIN								
02240920	Fairfield Sink drain at Fairfield, FL	Lat 29°21'58", long 82°15'17", NW¼ sec.18, T.13 S., R.21 E., Marion County, Hydrologic Unit 03080102, on right bank of drainage ditches, 50 ft downstream from culvert on State Highway 316, approximately 450 ft upstream of sink, and 0.2 mi west of intersection of State Highways 316 and 225 at Fairfield. Datum of gage is 78.19 ft above National Geodetic Vertical Datum of 1929.	1.70	1966-90	10-02-89	20.84	13.8	
ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER								
02246100	Julington Creek near Greenland, FL	Lat 30°11'19", long 81°33'45", land grant 50, T.4S., R.27E., Duval County, Hydrologic Unit 03080103, at culvert on U.S. Highway 1, 11.0 mi upstream from mouth, and 1.5 mi northwest of Greenland. Datum of gage is National Geodetic Vertical Datum of 1929.	8.9	1965-67 1974-90	02-23-90	12.33	60	

‡ Operated as a continuous record gaging station

Crest-stage partial-record stations--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1990

Annual maximum discharge at crest-stage partial-record stations during water year 1990							
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual Maximum	
						Gage height (ft)	Dis-charge (ft ³ /s)
ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER--Continued							
02246200	Durbin Creek near Durbin, FL	Lat 30°05'57", long 81°31'34", in NE¼ sec. 6, T. 5 S., R. 28 E., St. Johns County, Hydrologic Unit 03080103, at bridge on county road, 1.0 mi downstream from Bowden Branch, 6.1 mi upstream from mouth, and 4.9 mi northwest of Durbin, FL.	36.7	1961-90	10-28-89	4.92	207
COASTAL AREA BETWEEN ST. JOHNS RIVER AND PONCE DE LEON INLET							
02247200	Fish Swamp Outlet near Summer Haven, FL	Lat 29°39'20", long 81°19'43", in SE¼ sec. 27, T. 10 S., R. 29 E., St. Johns County, Hydrologic Unit 03080201 at culvert on State Highway 204, 0.2 mi upstream from mouth and 7.7 mi southwest of Summer Haven. Datum of gage is 19.14 ft National Geodetic Vertical Datum of 1929.	4.62	1962-90	12-10-89	3.06	26.5
KISSIMMEE RIVER BASIN							
02269720	Morgan Hole Creek near Avon Park, FL	Lat 27°37'52", long 81°17'47", in NW¼ sec. 11, T. 33 S., R. 30 E., Highlands County, Hydrologic Unit 03090101, at bridge on perimeter road on Avon Park bombing range, 5.4 mi upstream from mouth and 12.5 mi east of Avon Park. Datum of gage is 53.15 ft above National Geodetic Vertical Datum of 1929.	13.9	1971-90	8-15-90	7.34	1,040

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1990

Discharge measurements made at low-flow partial-record stations during water year 1990						
Station No.	Station name	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Dis-charge (ft ³ /s)
ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER						
02231396	Blue Cypress Creek near Fellsmere, FL	Lat 27°43'40", long 81°48'49", in NW¼ sec.2, T.32 S., R.35 E., Indian River County, Hydrologic Unit 03080101, at culvert on private road, 2.0 mi upstream from Blue Cypress Lake, and 12.8 mi west of Fellsmere.	105	1969-70	12-05-89	14
				1985	1-29-90	9.6
				1987-89	3-22-90	7.8
02231475	Bull Creek near Holopaw, FL	Lat 28°01'53", long 81°02'21", in SE¼ sec.20, T.28 S., R.33 E., Osceola County, Hydrologic Unit 03080101, at bridge on U.S. Highway 441, 7.7 mi south of Holopaw.	31.7	1957	11-02-89	7.1
				1965-67	1-08-90	15
				1972	2-28-90	.00
				1986-89	4-11-90	.05
*02234150	Cow Creek near Maytown, FL	Lat 28°50'13", long 81°01'32", in SE¼ sec.16, T.19 S., R.33 E., Volusia County, Hydrologic Unit 03080101, at bridge on county road, 2.7 mi upstream from mouth, 4.2 mi northwest of Maytown, and 8.2 mi east of Osteen.	23	1964-66	11-13-89	.00
				1985-89	1-08-90	6.6
					3-05-90	4.3
					4-03-90	.00
					7-05-90	.00
					8-20-90	.00
COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET						
02248300	Little Cow Creek near Edgewater, FL	Lat 28°56'29", long 81°56'30", in SE¼ sec.8, T.18 S., R.34 E., Volusia County, Hydrologic Unit 03080202, at bridge on county road, 4.0 mi southwest of Edgewater.		1965	11-13-89	1.2
				1984-89	1-17-90	1.2
					3-05-90	1.1
					4-30-90	.18
					7-05-90	.00
					8-20-90	.74

* Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1990

Discharge measurements made at miscellaneous sites during water year 1990				Measured previously (water years)	Measurements	
Stream	Tributary to	Location	Drainage area (mi ²)		Date	Dis-charge (ft ³ /s)
ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER						
02234600 Wekiva Springs	Wekiva River	Lat 28°42'43", long 81°27'36", in NE¼ sec.36, T.20 S., R.28 E., Orange County, Hydrologic Unit 03080101, at head of Wekiva River, 4.1 mi northeast of Apopka, FL.		1932-33	11-14-89	61
				1936	5-25-90	52
				1945-46	9-19-90	60
				1956		
				1960-62 1969-80‡ 1981-89		
02234610 Rock Springs	Rock Springs Run	Lat 28°45'20", long 81°29'58", in NE¼ sec.15, T.20 S., R.28 E., Orange County, Hydrologic Unit 03080101, at head of Rock Springs Run, 5.7 mi north of Apopka, FL.		1931-33	5-25-90	45
				1935-36	9-19-90	50
				1945-46		
				1956		
				1960-62 1965-67 1969-89		
02234650 Miami Springs	Unnamed Creek	Lat 28°42'36", long 81°26'34", in NE¼ sec.31, T.20 S., R.29 E., Seminole County, Hydrologic Unit 03080101, at outlet of spring pool, 1,100 ft upstream from Wekiva River, and 5.9 mi west of Longwood, FL.		1945,1960	5-24-90	4.0
				1973-89	9-19-90	4.4
02234991 Sanlando Springs	Little Wekiva River	Lat 28°41'19", long 81°23'45", in SE¼ sec.3, T.21 S., R.29 E., Seminole County, Hydrologic Unit 03080101, at north outlet of spring pool, 0.2 mi upstream from Little Wekiva River, and 3.0 mi west of Longwood, FL.		1942,1946	5-24-90	13
				1954,1956	9-18-90	14
				1958,1961		
				1972-89		
02234992 Little Wekiva River	Wekiva River	Lat 28°41'28", long 81°23'42", in SE¼NE¼ sec.3, T.21 S., R.29 E., Seminole County, Hydrologic Unit 03080101, immediately downstream from Sanlando Springs, and 3.0 mi west of Longwood, FL.		1978-80	5-24-90	19
				1982	9-18-90	22
				1984-89		
02234996 Palm Springs	Little Wekiva River	Lat 28°41'27", long 81°23'34", in NW¼ sec.2, T.21 S., R.29 E., Seminole County, Hydrologic Unit 03080101, at outlet of spring pool, 200 ft upstream from Little Wekiva River, and 2.9 mi west of Longwood, FL.		1942,1954	5-24-90	4.3
				1956,1961	9-18-90	5.9
				1972-89		
02234997 Starbuck Spring	Little Wekiva River	Lat 28°41'48", long 81°23'28", in NW¼ sec.2, T.21 S., R.29 E., Seminole County, Hydrologic Unit 03080101, at outlet of spring pool, at edge of Little Wekiva River, and 2.7 mi west of Longwood, FL.		1944,1961	5-24-90	10
				1972-89	9-18-90	12
02235250 Seminole Springs	Seminole Creek	Lat 28°50'44", long 81°31'22", in SW¼ sec.9, T.19 S., R.28 E., Lake County, Hydrologic Unit 03080101, 0.2 mi below head of Seminole Springs, and 3.5 mi northeast of Sorrento, FL.		1931-33	5-24-90	35
				1946,1974		
				1981-83		
				1985-89		
02235255 Messant Springs ^{a/}	Seminole Creek	Lat 28°51'21", long 81°29'56", in Theresa Rodriguez Grant, T.19 S., R.28 E., Lake County, Hydrologic Unit 03080101, at head of Messant Spring Run, 5.1 mi northeast of Sorrento, FL.		1946,1961	5-24-90	12
				1972		
				1981-83		
				1985-89		

† Operated as a periodic station

a Published as Messinger Springs in 1961 water year

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1990--Continued

Discharge measurements made at miscellaneous sites during water year 1930-Continued				Measured previously (water years)	Measurements	
Stream	Tributary to	Location	Drainage area (mi ²)		Date	Dis-charge (ft ³ /s)
ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER--Continued						
02236095 Alexander Springs	St. Johns River	Lat 29°04'50", long 81°34'30", in Levy Land Grant, T.16 S., R.27 E., Lake County, Hydrologic Unit 03080101, at head of Alexander Springs Creek, 1.5 mi upstream from bridge on State Highway 445, and 6.5 mi southwest of Astor, FL.		1931,1933 1935-36 1946,1956 1961 1966-67 1969,1972 1977 1981-89	5-24-90 9-20-90	100 93
02236110 Ponce DeLeon Springs	Spring Garden Creek	Lat 29°08'02", long 81°21'47", in land grant 42, T.16 S., R.29 E., Volusia County, Hydrologic Unit 03080101, at weir outlets to Spring Garden Lake, 1.8 mi upstream from Deep Creek, and 8.1 mi northwest of De Land, FL.		1929,1932 1946-47 1956,1961 1965-80‡ 1981-89	5-25-90 9-21-90	25 20
02236130 Juniper Springs	Lake George	Lat 29°11'01", long 81°42'45", in SE¼ sec.17, T.15 S., R.26 E., Marion County, Hydrologic Unit 03080101, at head of Juniper Creek, 4.3 mi west of the intersection of State Highways 19 and 40, 9.3 mi upstream from Lake George, and 26.1 mi east of Ocala, FL.		1929 1935-37 1946,1956 1961,1972 1981-89	5-25-90 9-20-90	8.6 9.1
02236132 Fern Hammock, ^{b/} Springs	Juniper Creek	Lat 29°11'00", long 81°42'29", in SE¼ sec.17, T.15 S., R.26 E., Marion County, Hydrologic Unit 03080101, 0.4 mi downstream from Juniper Springs, 9.0 mi upstream from Lake George, and 26.3 mi east of Ocala, FL.		1935-37 1946,1956 1961,1972 1981-89	5-24-90 9-20-90	12 11
02236147 Sweetwater Springs	Juniper Creek	Lat 29°13'07" long 81°39'36", in NE¼ of F. M. Arredondo Grant, T.15 S., R.26 E., Marion County, Hydrologic Unit 03080101, near left bank of Juniper Creek, 0.5 mi upstream from State Highway 19, and 7.2 mi north-west of Astor Park, FL.		1981-89	5-25-90 9-21-90	14 13
02236160 Silver Glen Springs	Lake George	Lat 29°14'40", long 81°38'34", in SE¼ sec.25, T.14 S., R.26 E., Marion County, Hydrologic Unit 03080101, 0.5 mi upstream from Lake George, and 9.1 mi north-west of Astor, FL.		1931-33 1935-36 1946,1956 1961,1972 1981-82 1984-89	5-25-90 9-21-90	92 105
02236205 Salt Springs	Lake George	Lat 29°21'00", long 81°43'40", in sec.42, Joseph M. Hernandez Grant, T.13 S., R.26 E., Marion County, Hydrologic Unit 03080101, 4.0 mi upstream from Lake George, and 10.9 mi east of Eureka, FL.		1929-33 1935-36 1946,1956 1961 1966-67 1972 1981-89	5-25-90 9-21-90	80 73

‡ Operated as a periodic station

b Also known as "The Aquarium"

ANNUAL MAXIMUM FLOOD-PROFILE DATA

The following table contains the annual maximum stream elevation at selected gaging stations in the St. Johns River basin during the calendar year 1990.

These stations are equipped with a crest-stage gage which records the peak stage occurring between inspections of the gage.

Miles above mouth was measured along low-water channel on topographic maps.

The years given in the period of record represent calendar years.

Annual maximum flood-profile data during calendar year 1990							
Station No.	Station name	Location	Miles above mouth	Drainage area (mi ²)	Period of record (calendar) years	Annual Maximum Date	Elevation (ft)
ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER							
02231460	St. Johns River crest-stage gage No. 1 near Micco, FL	Lat 27°54'42", long 80°46'13", in SW¼ sec.31, T.29 S., R.36 E., Brevard County, Hydrologic Unit 03080101 on right bank at cabbage palm tree, 10 ft west of centerline of dike, at Sotille Ranch, 400 ft north of 90° turn in dike, and 16.6 mi west of Micco. Datum of gage is National Geodetic Vertical Datum of 1929.	276	616	1954-90	1990	<21.37
02231470	St. Johns River crest-stage gage No. 2 near Malabar, FL	Lat 28°00'47", long 80°46'13", in NE¼ sec.36, T.28 S., R.35 E., Brevard County, Hydrologic Unit 03080101, on right bank at palm tree 250 ft west of dike, 12.5 mi west of Malabar. Datum of gage is National Geodetic Vertical Datum of 1929.	269	674	1953-90	1990	<18.21
02231800	St. Johns River crest-stage gage No. 3 near Melbourne, FL	Lat 28°03'27", long 80°46'51", in SW¼ sec.12, T.28 S., R.35 E., Brevard County, Hydrologic Unit 03080101, on right bank at palm tree west of Melbourne-Tillman Drainage District dike, 75 ft south of old road fill, 10.9 mi southwest of Melbourne. Datum of gage is National Geodetic Vertical Datum of 1929.	265	953	1953-90	1990	<19.46
02232160	St. Johns River crest-stage gage No. 5 near Deer Park, FL	Lat 28°12'35", long 80°51'25", in NE¼ sec.19, T.26 S., R.35 E., Brevard County, Hydrologic Unit 03080101, on left bank, on east side of dike at Deseret Farms of Florida, Inc., 8.6 mi north of Deer Park, Osceola County. Datum of gage is National Geodetic Vertical Datum of 1929.	248	1,100	1953-90	1990	<14.35
02232240	St. Johns River crest-stage gage No. 6A at Lake Winder, near Cocoa, FL	Lat 28°16'02", long 80°51'28", in NE¼ sec.31, T.25 S., R.35 E., Brevard County, Hydrologic Unit 03080101, at palm tree, on north side of drainage ditch near northwest shore of Lake Winder, 9.8 mi southwest of Cocoa. Datum of gage is National Geodetic Vertical Datum of 1929.	d/ 246 e/ 244 e/ 243	1,180	1961-90	1990	<15.60

< Actual value is known to be less than the value shown

d/ Inlet of lake

e/ Outlet of lake

ANNUAL MAXIMUM FLOOD-PROFILE DATA

Annual maximum flood-profile data during calendar year 1990--Continued

Annual maximum flood-profile data during calendar year 1990--Continued							Annual Maximum	
Station No.	Station name	Location	Miles above mouth	Drainage area (mi ²)	Period of record (calendar) years	Date	Elevation (ft)	
ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER--Continued								
02232260	St. Johns River crest-stage gage No. 7 near Cocoa, FL	Lat 28°17'20", long 80°49'12", in SW¼ sec.22, T.25 S., R.35 E., Brevard County, Hydrologic Unit 03080101, on left bank at palm tree between Lake Winder and Lake Poinsett, 7.2 mi southwest of Cocoa. Datum of gage is unknown.	241	1,209	1953-90	1990	15.52	
02232430	St. Johns River crest-stage gage No. 8 near Christmas, FL	Lat 28°29'21", long 80°52'55", in NW¼ sec.13, T.23 S., R.34 E., Orange County, Hydrologic Unit 03080101, on left bank at cabbage palm tree, south of power line, at Tootoosahatchee Game Preserve 8.8 mi southeast of Christmas. Datum of gage is National Geodetic Vertical Datum of 1929.	217	1,385	1953-90	1990	<11.36	
02232700	St. Johns River crest-stage gage No. 9 near Christmas, FL	Lat 28°36'36", long 80°57'54", in NE¼ sec.1, T.22 S., R.33 E., Brevard County, Hydrologic Unit 03080101, on right bank on west side of cabbage palm tree, 15 ft west of centerline of sand road on Kyzer Ranch, 6.0 mi northeast of Christmas. Datum of gage is National Geodetic Vertical Datum of 1929.	201	1,635	1953-90	1990	<8.19	

< Actual value is known to be less than the value shown

ELEVATION AND WATER QUALITY OF LAKES

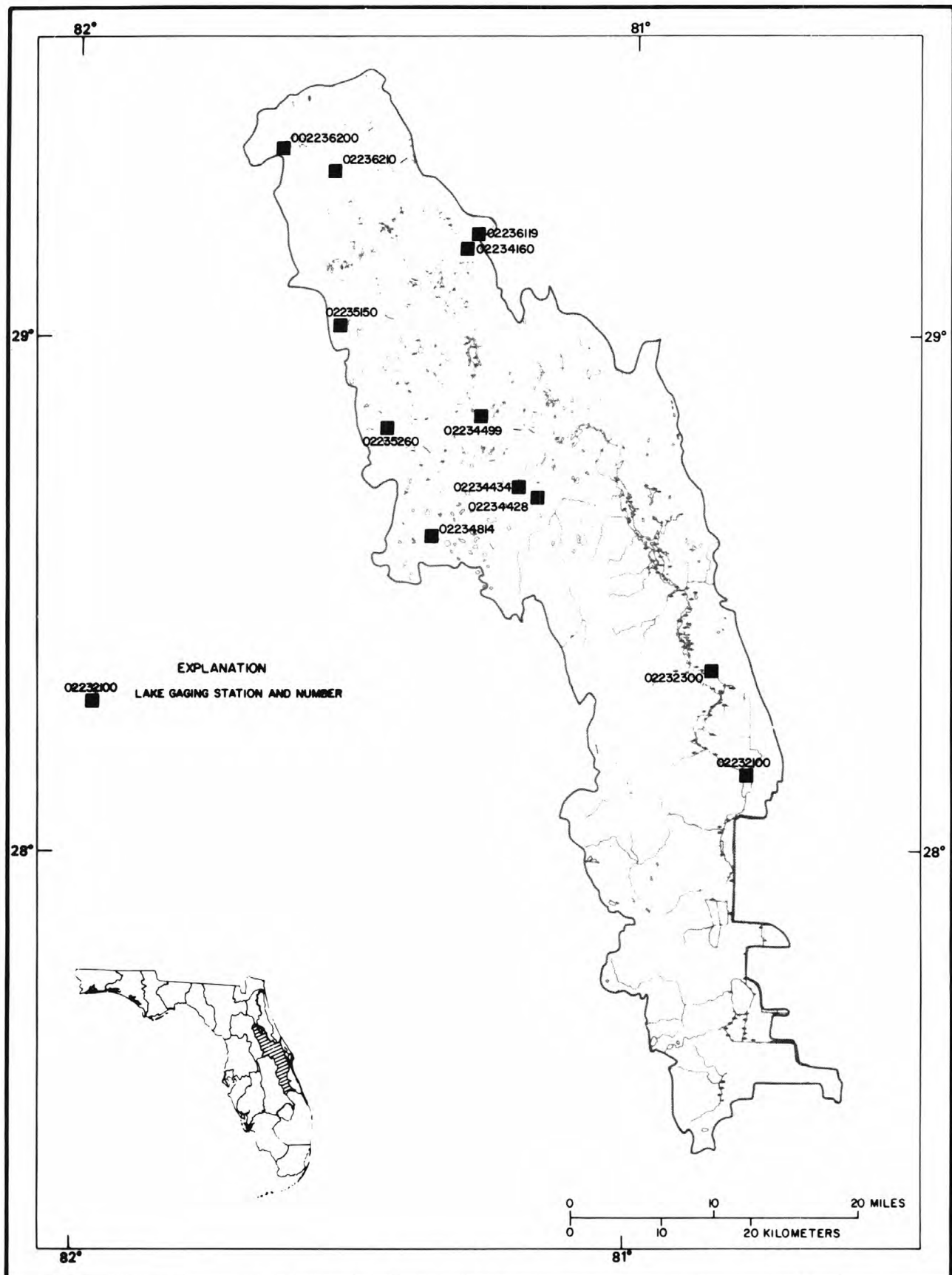
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Figure 24.--Location of lake gaging stations in the St. Johns River basin above the Oklawaha River.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAHAHA RIVER

02232100 LAKE WASHINGTON NEAR EAU GALLIE, FL

LOCATION.--Lat 28°08'47", long 80°44'02", in SW¼ sec.9, T.27 S., R.36 E., Brevard County, Hydrologic Unit 03080101, on east shore of lake, 0.2 mi west of Melbourne Waterworks, and 6.5 mi west of Eau Gallie.

SURFACE AREA.--2,665 acres (4.16 mi²).

DRAINAGE AREA.--1,025 mi².

PERIOD OF RECORD.--July 1942 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WRD FL 1966: Drainage area. WDR FL-81-1: Surface area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 30, 1975, at several sites within 1,100 ft northwest at following datums: July 24, 1942, to May 13, 1956, 12.39 ft higher; and May 14, 1956, to May 29, 1975, 10.39 ft higher. May 30, 1975 to June 19, 1989, 1,300 ft northwest of present site, at same datum.

REMARKS.--During November 1961, a semipermanent dam was built across the low-water channel of the St. Johns River about 0.5 mi downstream from the lake outlet. The crest of the dam was observed to be about 12.0 ft in 1961, about 13.4 ft in 1968, and about 9.5 ft in 1975. Washouts occurred at times and repairs to the dam were made by the addition of concrete bags. A steel piling dam at the lake outlet was completed on Feb. 1, 1976, with a permanent crest at 13.5 ft, and partially regulates lake elevation. Diversions are made from lake by City of Melbourne for municipal water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 20.39 ft, Oct. 1, 1960; minimum daily, 9.88 ft, May 28, 1975.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.20	15.38	14.46	14.70	14.01	14.33	13.71	13.23	12.48	12.88	13.43	14.98
2	14.24	15.34	14.46	14.70	14.00	14.38	13.72	13.21	12.46	12.95	13.41	14.97
3	14.25	15.29	14.42	14.72	13.98	14.44	13.73	13.17	12.45	12.97	13.40	14.96
4	14.26	15.24	14.40	14.72	13.98	14.46	13.70	13.14	12.44	12.99	13.41	14.95
5	14.27	15.21	14.38	14.73	13.90	14.48	13.68	13.12	12.42	13.00	13.40	14.94
6	14.29	15.17	14.35	14.74	13.88	14.48	13.67	13.10	12.39	13.00	13.39	14.93
7	14.30	15.14	14.32	14.73	13.88	14.48	13.64	13.03	12.40	12.98	13.38	14.91
8	14.37	15.10	14.33	14.71	13.87	14.47	13.59	12.99	12.42	12.97	13.37	14.90
9	14.39	15.07	14.46	14.68	13.86	14.48	13.58	12.98	12.42	12.95	13.37	14.89
10	14.95	15.02	14.42	14.66	13.87	14.48	13.58	12.99	12.42	12.94	13.38	14.87
11	15.06	14.98	14.39	14.63	13.89	14.46	13.60	12.93	12.40	12.93	13.44	14.86
12	15.17	14.94	14.39	14.61	13.88	14.44	13.55	12.89	12.35	12.92	13.59	14.91
13	15.30	14.91	14.38	14.54	13.90	14.41	13.52	12.88	12.31	12.97	13.63	14.92
14	15.41	14.88	14.33	14.52	13.90	14.38	13.53	12.85	12.28	13.01	13.72	14.91
15	15.50	14.85	14.31	14.49	13.89	14.35	13.54	12.83	12.27	13.13	13.83	14.90
16	15.56	14.86	14.29	14.46	13.89	14.32	13.52	12.81	12.24	13.17	14.01	14.92
17	15.60	14.81	14.27	14.44	13.88	14.29	13.51	12.78	12.21	13.19	14.15	14.94
18	15.64	14.77	14.26	14.41	13.86	14.20	13.49	12.75	12.19	13.20	14.33	14.97
19	15.68	14.75	14.26	14.38	13.86	14.14	13.45	12.71	12.18	13.19	14.50	14.99
20	15.66	14.73	14.27	14.35	13.83	14.09	13.41	12.69	12.17	13.23	14.61	15.01
21	15.62	14.71	14.30	14.33	13.83	14.00	13.42	12.67	12.13	13.26	14.72	15.02
22	15.59	14.68	14.31	14.29	13.87	13.96	13.40	12.65	12.23	13.29	14.76	15.03
23	15.55	14.65	14.42	14.25	14.04	13.91	13.39	12.60	12.40	13.35	14.80	15.03
24	15.50	14.62	14.47	14.23	14.19	13.86	13.36	12.56	12.55	13.37	14.83	15.02
25	15.51	14.59	14.50	14.22	14.22	13.82	13.34	12.53	12.54	13.39	14.85	15.03
26	15.46	14.60	14.53	14.14	14.22	13.79	13.33	12.52	12.57	13.39	14.86	15.04
27	15.46	14.58	14.55	14.10	14.27	13.74	13.30	12.54	12.81	13.37	14.89	15.04
28	15.44	14.56	14.58	14.08	14.31	13.72	13.30	12.59	12.85	13.38	14.94	15.06
29	15.45	14.52	14.62	14.08	---	13.71	13.28	12.60	12.85	13.42	14.95	15.10
30	15.45	14.47	14.65	14.06	---	13.71	13.27	12.55	12.86	13.43	14.96	15.15
31	15.42	---	14.69	14.03	---	13.72	---	12.51	---	13.43	14.98	---
MEAN	15.11	14.88	14.41	14.44	13.96	14.18	13.50	12.82	12.42	13.15	14.11	14.97
MAX	15.68	15.38	14.69	14.74	14.31	14.48	13.73	13.23	12.86	13.43	14.98	15.15
MIN	14.20	14.47	14.26	14.03	13.83	13.71	13.27	12.51	12.13	12.88	13.37	14.86

CAL YR 1989 MEAN 13.81 MAX 15.68 MIN 12.81
WTR YR 1990 MEAN 14.00 MAX 15.68 MIN 12.13

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232300 LAKE POINSETT NEAR COCOA, FL

LOCATION.--Lat 28°22'10", long 80°52'22", in SE¼ sec.25, T.24 S., R.34 E., Brevard County, Hydrologic Unit 03080101, near right bank of St. Johns River on downstream side of bridge on State Highway 520, 0.7 mi downstream from outlet of Lake Poinsett, and 8.8 mi west of Cocoa.

SURFACE AREA.--4,293 acres (6.71 mi²).

DRAINAGE AREA.--1,272 mi².

PERIOD OF RECORD.--November 1941 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office. Since October 1963, records for St. Johns River near Cocoa (station 02232400).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 23, 1943, nonrecording gage at datum 9.34 ft higher and Feb. 23, 1943, to Sept. 30, 1963, at datum 5.06 ft higher, at site on northeast side of lake at Poinsett Lodge.

REMARKS.--Lake is one of the St. Johns River chain of lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 17.55 ft, Oct. 11, 1953, at site then in use; minimum daily, 7.99 ft, June 18, 1945, at site then in use.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.39	14.36	13.32	13.43	12.62	12.44	12.11	11.29	10.60	11.02	11.31	12.48
2	12.38	14.35	13.32	13.40	12.61	12.47	12.08	11.29	10.58	11.11	11.30	12.52
3	12.40	14.31	13.24	13.39	12.58	12.45	12.00	11.30	10.54	11.23	11.29	12.58
4	12.42	14.29	13.21	13.37	12.53	12.46	11.96	11.28	10.51	11.28	11.32	12.63
5	12.45	14.26	13.20	13.34	12.41	12.46	11.99	11.17	10.50	11.31	11.32	12.67
6	12.44	14.23	13.18	13.32	12.45	12.45	11.97	11.10	10.55	11.33	11.31	12.71
7	12.47	14.20	13.15	13.31	12.41	12.47	11.92	11.05	10.55	11.39	11.31	12.76
8	12.53	14.18	13.16	13.28	12.39	12.51	11.88	11.12	10.57	11.42	11.30	12.80
9	12.57	14.13	13.23	13.24	12.37	12.47	11.93	11.11	10.56	11.41	11.30	12.84
10	13.22	14.10	13.22	13.22	12.32	12.47	11.89	10.99	10.55	11.40	11.30	12.86
11	13.62	14.06	13.24	13.20	12.30	12.46	11.81	10.95	10.50	11.40	11.32	12.89
12	13.92	14.03	13.24	13.15	12.24	12.48	11.74	10.99	10.50	11.39	11.35	12.92
13	14.15	14.01	13.19	13.09	12.25	12.48	11.73	10.95	10.49	11.37	11.35	12.96
14	14.28	13.99	13.20	13.09	12.26	12.47	11.73	10.89	10.46	11.39	11.39	12.99
15	14.34	13.96	13.19	13.09	12.24	12.49	11.72	10.89	10.43	11.40	11.44	13.01
16	14.39	13.91	13.16	13.08	12.19	12.48	11.70	10.87	10.42	11.40	11.52	13.03
17	14.41	13.84	13.13	13.05	12.15	12.44	11.67	10.83	10.39	11.40	11.54	13.07
18	14.42	13.81	13.14	13.02	12.12	12.36	11.63	10.78	10.41	11.39	11.58	13.18
19	14.39	13.76	13.16	13.00	12.08	12.36	11.70	10.79	10.43	11.36	11.63	13.20
20	14.32	13.71	13.17	12.99	12.02	12.31	11.61	10.77	10.41	11.36	11.69	13.21
21	14.35	13.69	13.23	12.95	12.03	12.29	11.53	10.68	10.41	11.36	11.77	13.24
22	14.35	13.67	13.26	12.91	12.03	12.31	11.49	10.63	10.50	11.31	11.82	13.26
23	14.31	13.62	13.29	12.88	12.15	12.28	11.46	10.62	10.59	11.31	11.88	13.27
24	14.32	13.59	13.36	12.87	12.21	12.29	11.47	10.66	10.65	11.31	11.96	13.28
25	14.32	13.58	13.49	12.85	12.28	12.26	11.46	10.66	10.67	11.31	12.05	13.28
26	14.32	13.52	13.53	12.72	12.33	12.25	11.41	10.67	10.76	11.30	12.10	13.32
27	14.35	13.51	13.55	12.72	12.38	12.19	11.40	10.63	10.93	11.26	12.16	13.34
28	14.33	13.50	13.53	12.71	12.41	12.19	11.36	10.65	11.01	11.29	12.23	13.41
29	14.31	13.43	13.52	12.70	---	12.19	11.34	10.58	11.03	11.32	12.30	13.48
30	14.37	13.34	13.50	12.68	---	12.22	11.33	10.61	11.03	11.34	12.34	13.55
31	14.37	---	13.48	12.64	---	12.17	---	10.61	---	11.33	12.42	---
MEAN	13.72	13.90	13.28	13.05	12.30	12.37	11.70	10.88	10.58	11.33	11.64	13.02
MAX	14.42	14.36	13.55	13.43	12.62	12.51	12.11	11.30	11.03	11.42	12.42	13.55
MIN	12.38	13.34	13.13	12.64	12.02	12.17	11.33	10.58	10.39	11.02	11.29	12.48

WTR YR 1990 MEAN 12.32 MAX 14.42 MIN 10.39

02234160 LAKE WINNEMISSETT NEAR DE LAND, FL

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56.86	56.51	56.21	56.28	56.23	56.26	56.07	55.79	55.20	55.23	55.16	55.14
2	56.84	56.51	56.19	56.27	56.22	56.25	56.06	55.77	55.18	55.21	55.14	55.13
3	56.83	56.53	56.17	56.27	56.22	56.25	56.17	55.75	55.16	55.20	55.16	55.12
4	56.81	56.51	56.14	56.26	56.21	56.23	56.14	55.73	55.14	55.18	55.18	55.10
5	56.79	56.50	56.12	56.33	56.20	56.22	56.12	55.71	55.13	55.17	55.16	55.07
6	56.77	56.48	56.11	56.40	56.17	56.21	56.10	55.68	55.19	55.15	55.14	55.05
7	56.76	56.47	56.10	56.40	56.16	56.20	56.09	55.67	55.32	55.12	55.12	55.03
8	56.74	56.46	56.13	56.40	56.15	56.19	56.07	55.64	55.41	55.10	55.10	55.01
9	56.74	56.45	56.23	56.40	56.14	56.18	56.04	55.62	55.42	55.08	55.11	54.98
10	56.73	56.44	56.21	56.39	56.15	56.16	56.03	55.65	55.48	55.05	55.13	54.96
11	56.72	56.42	56.19	56.38	56.26	56.15	56.07	55.65	55.52	55.04	55.16	54.94
12	56.71	56.41	56.19	56.38	56.26	56.14	56.07	55.63	55.51	55.06	55.15	54.94
13	56.69	56.39	56.20	56.36	56.24	56.13	56.05	55.61	55.48	55.15	55.13	54.92
14	56.69	56.38	56.18	56.34	56.23	56.11	56.03	55.59	55.46	55.21	55.19	54.90
15	56.68	56.37	56.16	56.33	56.23	56.10	56.02	55.57	55.44	55.25	55.30	54.88
16	56.68	56.37	56.15	56.33	56.22	56.09	56.01	55.55	55.41	55.28	55.29	54.87
17	56.66	56.35	56.14	56.32	56.22	56.08	56.00	55.53	55.39	55.27	55.27	54.90
18	56.65	56.32	56.19	56.32	56.23	56.07	55.98	55.51	55.38	55.27	55.27	54.98
19	56.65	56.30	56.20	56.31	56.22	56.05	55.97	55.50	55.35	55.28	55.25	54.96
20	56.60	56.28	56.26	56.31	56.21	56.03	55.96	55.49	55.33	55.26	55.23	54.94
21	56.56	56.26	56.27	56.31	56.19	56.00	55.94	55.46	55.31	55.26	55.22	54.92
22	56.53	56.25	56.27	56.30	56.19	55.98	55.92	55.44	55.32	55.30	55.20	54.90
23	56.51	56.28	56.35	56.29	56.30	55.97	55.93	55.41	55.32	55.30	55.20	54.89
24	56.53	56.28	56.33	56.28	56.34	55.95	55.92	55.39	55.33	55.30	55.20	54.86
25	56.52	56.26	56.31	56.28	56.32	55.93	55.90	55.37	55.32	55.28	55.18	54.83
26	56.53	56.27	56.30	56.29	56.29	55.92	55.88	55.34	55.30	55.27	55.16	54.81
27	56.56	56.27	56.30	56.26	56.28	55.91	55.86	55.32	55.30	55.24	55.15	54.79
28	56.55	56.26	56.29	56.25	56.27	55.89	55.83	55.31	55.28	55.23	55.15	54.79
29	56.53	56.26	56.28	56.25	---	55.90	55.82	55.28	55.26	55.22	55.13	54.80
30	56.53	56.23	56.28	56.24	---	56.00	55.81	55.25	55.24	55.20	55.13	54.79
31	56.52	---	56.28	56.24	---	56.07	---	55.22	---	55.18	55.16	---
MEAN	56.66	56.37	56.22	56.32	56.23	56.08	56.00	55.53	55.33	55.20	55.18	54.94
MAX	56.86	56.53	56.35	56.40	56.34	56.26	56.17	55.79	55.52	55.30	55.30	55.14
MIN	56.51	56.23	56.10	56.24	56.14	55.89	55.81	55.22	55.13	55.04	55.10	54.79
CAL YR 1989	MEAN 57.39		MAX 58.78	MIN 56.10								
WTR YR 1990	MEAN 55.84		MAX 56.86	MIN 54.79								

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234428 LAKE CHARM AT OVIEDO. FL

LOCATION.--Lat 28°40'42", long 81°11'55", in NE¼ sec.10, T.21 S., R.31 E., Seminole County, Hydrologic Unit 03080101, near west shore, 0.8 mi northeast of intersection of State Highways 419 and 426 in Oviedo.

SURFACE AREA.--20.3 acres (0.03 mi²).

DRAINAGE AREA.--0.11 mi².

PERIOD OF RECORD.--November 1975 to September 1979 (weekly), incomplete; May 1983 to current year (weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Heath and Associates Land Surveyors bench mark). Prior to Apr. 30, 1976, at same site at datum 41.29 ft higher.

REMARKS.--Lake is landlocked.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 47.32 ft, Jan. 24, 1989; minimum observed, 40.24 ft, July 14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 45.62 ft, Oct. 1; minimum observed, 43.74 ft, May 27.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

[illegible]

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234434 LAKE JESSUP NEAR SANFORD, FL

LOCATION.--Lat 28°42'04", long 81°14'17", in SE¼ sec.37, T.20 S., R.31 E., Seminole County, Hydrologic Unit 03080101, in boat canal on south shore, 5.4 mi east of the intersection of State Highway 434 and U.S. Highways 17 and 92, and 8 mi southeast of the courthouse in Sanford.

SURFACE AREA.--7,792 acres (12.2 mi²).

DRAINAGE AREA.--156 mi².

PERIOD OF RECORD.--August 1941 to April 1943; September 1943 to July 1948; October 1977 to current year (weekly), incomplete.

REVISED RECORDS.--WDR FL-81-1: Surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Apr. 30, 1943, nonrecording gage, and Sept. 1, 1943 to July 14, 1948, water-stage recorder at bridge 7.2 mi northeast at lake outlet at same datum (U.S. Army Corps of Engineers bench mark).

REMARKS.--Lake is one of St. Johns River chain of lakes. Elevation at gage subject to seiches caused by wind action and backwater at times from St. Johns River.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 7.75 ft, Sept. 26, 1945, site and datum then in use; minimum daily, -0.63 ft, Apr. 6, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since at least 1871, 13.28 ft NGVD in fall of 1880 at Lake Monroe near Sanford (station 02234499), from information by Fred T. Williams, former Sanford City Engineer. Lake Monroe, about 5 mi downstream and the next lake in the St. Johns River chain of lakes, reached an elevation of 8.50 ft, Oct. 15-17, 1953. Lake Jessup would have been at these elevations and probably higher on these dates.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 2.65 ft, Oct. 30; minimum observed, 0.00 ft, May 26.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	1.40	---	---	---	---	---	---
2	---	---	1.96	---	---	---	---	---	.80	---	---	1.00
3	---	---	---	---	.68	---	---	---	---	---	---	---
4	---	1.74	---	2.20	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	.40	---	---	1.40	---
6	---	---	---	1.90	---	---	---	---	---	---	---	---
7	1.71	---	---	---	---	---	1.38	---	---	.72	---	---
8	---	---	---	---	---	---	---	---	---	---	---	1.18
9	---	---	1.98	---	---	---	---	---	.90	---	---	---
10	---	---	---	---	.72	1.38	---	---	---	---	---	---
11	---	1.76	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	.40	---	---	1.40	---
13	---	---	---	1.56	---	---	1.11	---	---	---	---	---
14	1.68	---	---	---	---	---	1.20	---	---	.68	---	---
15	---	---	---	---	---	---	---	---	---	---	1.22	1.14
16	---	---	2.36	---	---	---	---	---	1.00	---	---	---
17	---	---	---	---	.92	1.26	---	---	---	---	---	---
18	---	1.78	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	.63	---	---	1.80	---
20	---	---	---	1.38	---	---	---	---	1.04	---	---	---
21	2.40	---	---	---	---	---	.90	---	---	.64	---	---
22	---	---	---	---	---	---	---	---	---	---	---	1.20
23	---	---	2.38	---	---	---	---	---	.80	---	---	---
24	---	---	---	---	1.32	1.10	---	---	---	---	---	---
25	---	1.78	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	.00	---	---	1.80	---
27	---	---	---	1.20	1.38	---	---	---	---	---	---	---
28	2.42	---	---	---	---	---	.70	---	---	1.52	---	---
29	---	---	---	---	---	---	---	---	---	---	---	1.30
30	2.65	1.80	---	---	---	---	---	---	.78	---	---	---
31	---	---	2.42	1.16	---	1.12	---	---	---	---	---	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234499 LAKE MONROE NEAR SANFORD, FL

LOCATION.--Lat 28°50'13", long 81°19'28", in SW¼ sec.16, T.19 S., R.30 E., Seminole County, Hydrologic Unit 03080101, on south bank of St. Johns River, at west side of bridge on U.S. Highways 17 and 92, at lake outlet, 4 mi northwest of Sanford.

SURFACE AREA.--8,840 acres (13.8 mi²).

DRAINAGE AREA.--2,582 mi².

PERIOD OF RECORD.--July 1920 to January 1940 (weekly); July 1941 to current year. Since July 1941, records for St. Johns River near Sanford (station 02234500). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WDR FL-75-1: Drainage area, surface area.

GAGE.--Water-stage recorder. Datum of gage is 0.09 ft below National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to July 29, 1941, nonrecording gage on south shore of lake at Sanford at datum 0.09 ft higher.

REMARKS.--Lake is one of the St. Johns River chain of lakes. Elevation at gage subject to fluctuations caused by wind seiches and tide.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 8.50 ft, Oct. 15-17, 1953; minimum daily, -0.52, Apr. 5, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since at least 1871, 13.28 ft in fall of 1880, from information by Fred T. Williams, former city engineer for Sanford.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation recorded, 2.52 ft, Nov. 1; minimum recorded, 0.25 ft, May 23,24.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.00	2.52	---	---	.84	1.23	1.05	.66	.49	.78	1.19	.81
2	1.97	2.51	---	---	.82	1.24	1.04	.62	.53	.71	1.13	.83
3	1.93	2.48	---	---	.81	1.22	1.05	.58	.57	.66	1.08	.93
4	1.89	2.45	---	---	.78	1.24	1.10	.54	.59	.62	1.08	.99
5	1.83	2.42	---	1.68	.70	1.24	1.14	.47	.61	.51	1.08	1.02
6	1.76	2.39	---	1.66	.70	1.27	1.09	.38	.61	.52	1.07	1.09
7	1.69	2.35	---	1.61	.71	1.36	1.04	.37	.65	.54	1.04	1.15
8	1.60	2.31	---	1.56	.72	1.44	1.00	.38	.76	.55	1.02	1.14
9	1.52	2.25	---	1.52	.73	1.48	1.01	.39	.74	.56	1.00	1.08
10	1.53	2.19	---	1.49	.75	1.49	.98	.40	.69	.55	1.04	1.00
11	1.61	2.14	---	1.45	.88	1.47	.92	.40	.74	.55	1.13	.95
12	1.69	2.08	---	1.38	.90	1.42	.88	.40	.70	.52	1.13	.97
13	1.75	2.03	---	1.36	.94	1.37	.88	.39	.66	.45	1.11	1.00
14	1.78	---	---	1.34	.92	1.31	.87	.37	.64	.58	1.10	1.03
15	1.78	---	---	1.33	.88	1.22	.87	.35	.65	.57	1.11	1.05
16	1.80	---	---	1.33	.83	1.13	.85	.32	.66	.53	1.06	1.08
17	1.78	---	---	1.31	.76	1.02	.84	.29	.66	.45	.98	1.10
18	1.77	---	---	1.28	.70	.95	.81	.27	.70	.50	.95	1.13
19	1.71	---	---	1.24	.65	.90	.83	.27	.88	.56	.97	1.19
20	1.65	---	---	1.21	.63	.82	1.00	.28	1.00	.54	1.00	1.24
21	1.68	---	---	1.17	.67	.79	1.01	.28	.96	.52	1.04	1.27
22	1.63	---	---	1.14	.83	.79	.99	.27	.90	.52	1.04	1.23
23	1.57	---	---	1.10	1.02	.79	1.00	.25	.97	.51	1.03	1.20
24	1.56	---	---	1.05	1.04	.80	1.03	.25	.98	.48	1.02	1.20
25	1.63	---	---	1.00	1.10	.79	1.01	.27	.93	.44	1.03	1.23
26	1.74	---	---	.91	1.09	.77	.97	.30	.90	.51	1.00	1.22
27	1.91	---	---	.95	1.14	.74	.90	.34	1.00	.54	.93	1.17
28	2.03	---	---	.93	1.19	.74	.83	.36	.96	.68	.84	1.11
29	2.19	---	---	.89	---	.85	.76	.39	.92	1.09	.81	1.10
30	2.40	---	---	.88	---	1.04	.71	.41	.86	1.23	.77	1.10
31	2.49	---	---	.85	---	1.07	---	.45	---	1.26	.80	---
MEAN	1.80	---	---	---	.85	1.10	.95	.38	.76	.61	1.02	1.09
MAX	2.49	---	---	---	1.19	1.49	1.14	.66	1.00	1.26	1.19	1.27
MIN	1.52	---	---	---	.63	.74	.71	.25	.49	.44	.77	.81

02234814 LAKE WEKIVA NEAR MAITLAND, FL

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 87.04 ft, June 30, 1974; minimum daily, 82.09 ft, July 18, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83.83	83.08	83.19	83.56	83.09	83.58	83.14	83.23	83.00	83.30	83.63	83.72
2	83.76	83.08	83.18	83.53	83.09	83.54	83.13	83.20	83.01	83.27	83.57	83.67
3	83.69	83.07	83.16	83.50	83.08	83.51	83.14	83.17	83.04	83.24	83.56	83.67
4	83.69	83.06	83.14	83.48	83.08	83.46	83.12	83.15	83.18	83.23	83.54	83.63
5	83.70	83.04	83.12	83.47	83.05	83.41	83.08	83.14	83.18	83.21	83.49	83.58
6	83.70	83.04	83.11	83.45	83.02	83.38	83.07	83.12	83.15	83.18	83.44	83.54
7	83.69	83.04	83.11	83.44	83.02	83.34	83.05	83.09	83.27	83.15	83.42	83.51
8	83.68	83.04	83.17	83.43	83.01	83.31	83.04	83.06	83.63	83.13	83.70	83.47
9	83.65	83.03	83.40	83.40	83.01	83.28	83.03	83.04	83.61	83.10	83.85	83.43
10	83.57	83.03	83.40	83.38	83.03	83.26	83.03	83.03	83.56	83.08	84.05	83.39
11	83.50	83.02	83.40	83.36	83.18	83.24	83.12	83.01	83.52	83.06	84.45	83.36
12	83.45	83.01	83.40	83.34	83.20	83.21	83.12	82.99	83.47	83.07	84.37	83.34
13	83.42	83.00	83.40	83.29	83.20	83.18	83.09	82.98	83.41	83.30	84.25	83.30
14	83.39	83.00	83.36	83.26	83.20	83.17	83.08	82.96	83.36	83.87	84.30	83.28
15	83.36	83.01	83.33	83.24	83.19	83.15	83.07	82.95	83.32	84.12	84.23	83.26
16	83.33	83.04	83.31	83.23	83.19	83.14	83.06	82.94	83.28	84.05	84.10	83.23
17	83.31	83.03	83.28	83.22	83.18	83.13	83.06	82.93	83.23	83.95	83.97	83.21
18	83.29	83.02	83.36	83.21	83.16	83.11	83.05	82.91	83.19	83.90	83.87	83.18
19	83.25	83.00	83.40	83.20	83.15	83.10	83.11	83.11	83.17	83.82	83.79	83.15
20	83.19	83.00	83.53	83.20	83.13	83.11	83.15	83.11	83.14	83.77	83.73	83.13
21	83.14	83.00	83.72	83.19	83.12	83.10	83.13	83.10	83.11	83.71	83.68	83.12
22	83.12	83.00	83.75	83.18	83.12	83.10	83.13	83.08	83.09	83.65	83.62	83.11
23	83.09	83.05	83.98	83.16	83.44	83.11	83.27	83.06	83.26	83.60	83.59	83.16
24	83.08	83.08	83.92	83.15	83.80	83.11	83.36	83.03	83.43	83.54	83.63	83.27
25	83.06	83.12	83.83	83.15	83.80	83.11	83.34	83.00	83.41	83.54	83.71	83.24
26	83.05	83.18	83.76	83.15	83.74	83.10	83.32	82.99	83.37	83.74	83.72	83.21
27	83.06	83.20	83.72	83.12	83.69	83.10	83.29	83.00	83.39	83.93	83.75	83.19
28	83.08	83.21	83.67	83.11	83.63	83.09	83.27	83.07	83.38	83.91	83.89	83.23
29	83.07	83.23	83.63	83.11	---	83.09	83.26	83.07	83.35	83.86	83.97	83.39
30	83.08	83.21	83.61	83.11	---	83.10	83.24	83.04	83.32	83.77	83.89	83.66
31	83.08	---	83.58	83.10	---	83.14	---	83.01	---	83.71	83.80	---
MEAN	83.37	83.06	83.45	83.28	83.24	83.22	83.14	83.05	83.29	83.54	83.82	83.35
MAX	83.83	83.23	83.98	83.56	83.80	83.58	83.36	83.23	83.63	84.12	84.45	83.72
MIN	83.05	83.00	83.11	83.10	83.01	83.09	83.03	82.91	83.00	83.06	83.42	83.11
CAL YR 1989	MEAN	83.38	MAX	84.54	MIN	82.90						
WTR YR 1990	MEAN	83.32	MAX	84.45	MIN	82.91						

02235260 MOUNT PLYMOUTH LAKE AT MOUNT PLYMOUTH, FL

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 52.47 ft, Dec. 25; lake dry July to September.

[illegible]

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02236119 LAKE ODOM NEAR DE LEON SPRINGS, FL

LOCATION.--Lat 29°09'25", long 81°21'22", in NW¼ sec.36, T.15 S., R.29 E., Volusia County, Hydrologic Unit 03080101, on southwest shore of lake, 1.2 mi north of intersection of Lake Winona Road and State Highway 17, and 2.5 mi north of De Leon Springs.

SURFACE AREA.--66.0 acres (0.10 mi²).

DRAINAGE AREA.--1.33 mi².

PERIOD OF RECORD.--November 1980 to September 1981, incomplete; October 1981 to current year (fragmentary).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 30.47 ft, Mar. 23, 1983; minimum observed, 22.01 ft, June 26, 1981.

ELEVATION, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV			MAY		
14...	1540	26.78	03...	1400	26.79
JAN			JUL		
10...	1655	27.24	02...	1316	26.00
MAR			AUG		
09...	1450	27.34	23...	1330	27.10

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAHAHA RIVER

02236200 LAKE KERR NEAR EUREKA, FL

LOCATION.--Lat 29°20'10", long 81°46'00", in NE¼ sec.26, T.13 S., R.25 E., Marion County, Hydrologic Unit 03080101, on south shore of lake, 2.5 mi southwest of Salt Springs, and 9 mi southeast of Eureka.

SURFACE AREA.--4,484 acres (7.01 mi²).

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--April 1936 to April 1950 (monthly); July 1950 to June 1952, October 1955 to March 1960; April 1960 to September 1961 (weekly), incomplete; October 1961 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Jacksonville field headquarters.

REVISED RECORDS.--WDR FL-75-1: Surface area, drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to July 1, 1950, nonrecording gage at site approximately 3 mi northwest on north shore of lake at datum 21.09 ft higher. July 1, 1950 to Dec. 1, 1955, nonrecording gage at present site at datum 21.50 ft higher and Dec. 2, 1955, to Oct. 10, 1961, at present datum.

REMARKS.--Lake is interconnected with Little Lake Kerr (formerly Lake Warner) during high-water periods.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 27.00 ft, Oct. 11, 1966; minimum daily, 19.92 ft, May 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 22.38 ft, Oct. 2; minimum daily, 20.64 ft, Sept. 19, 23-25.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.37	21.99	21.76	21.98	21.99	22.00	21.62	21.39	20.99	21.16	20.99	20.89
2	22.38	21.99	21.75	21.97	21.99	21.99	21.63	21.38	20.98	21.14	20.97	20.88
3	22.37	21.98	21.73	21.96	21.98	21.99	21.73	21.36	20.98	21.21	20.94	20.87
4	22.36	21.96	21.71	21.97	21.97	21.97	21.69	21.34	20.97	21.22	20.92	20.85
5	22.34	21.96	21.69	22.05	21.96	21.96	21.67	21.32	20.97	21.21	20.90	20.83
6	22.32	21.94	21.69	22.07	21.94	21.95	21.66	21.32	20.99	21.20	20.89	20.81
7	22.31	21.94	21.68	22.09	21.93	21.94	21.64	21.31	21.09	21.17	20.89	20.79
8	22.29	21.93	21.70	22.16	21.92	21.93	21.62	21.28	21.14	21.15	20.89	20.77
9	22.27	21.95	21.78	22.17	21.91	21.93	21.59	21.27	21.12	21.13	20.91	20.76
10	22.25	21.95	21.75	22.16	21.93	21.91	21.58	21.32	21.11	21.12	20.90	20.74
11	22.23	21.94	21.75	22.15	22.03	21.90	21.57	21.31	21.09	21.10	20.94	20.72
12	22.23	21.92	21.74	22.15	22.02	21.89	21.55	21.29	21.06	21.07	20.97	20.70
13	22.21	21.91	21.74	22.12	22.00	21.88	21.52	21.27	21.04	21.12	20.96	20.68
14	22.20	21.90	21.73	22.11	21.99	21.86	21.50	21.26	21.01	21.12	20.99	20.68
15	22.19	21.89	21.72	22.10	21.98	21.85	21.49	21.28	20.97	21.12	21.02	20.67
16	22.19	21.88	21.71	22.10	21.97	21.83	21.48	21.26	20.95	21.12	21.00	20.68
17	22.18	21.86	21.70	22.09	21.98	21.82	21.47	21.24	20.95	21.11	20.98	20.67
18	22.16	21.83	21.73	22.09	21.97	21.81	21.45	21.22	20.95	21.10	20.97	20.65
19	22.15	21.82	21.78	22.09	21.96	21.80	21.44	21.21	20.93	21.09	20.96	20.64
20	22.09	21.80	21.94	22.08	21.98	21.77	21.43	21.26	20.91	21.08	20.94	20.65
21	22.06	21.79	21.94	22.08	22.00	21.73	21.41	21.23	20.90	21.08	20.92	20.65
22	22.04	21.78	21.95	22.07	21.99	21.72	21.40	21.21	20.92	21.08	20.90	20.65
23	22.03	21.80	22.00	22.06	22.06	21.70	21.42	21.20	21.06	21.07	20.88	20.64
24	22.02	21.79	22.00	22.06	22.08	21.69	21.47	21.17	21.12	21.06	20.86	20.64
25	22.02	21.77	21.98	22.05	22.06	21.67	21.45	21.15	21.15	21.10	20.84	20.64
26	22.01	21.81	21.98	22.05	22.04	21.66	21.43	21.12	21.15	21.10	20.84	20.65
27	22.03	21.81	21.98	22.03	22.02	21.65	21.41	21.10	21.18	21.08	20.83	20.65
28	22.03	21.81	21.97	22.02	22.02	21.63	21.40	21.09	21.17	21.06	20.83	20.65
29	22.02	21.80	21.97	22.01	---	21.63	21.42	21.06	21.16	21.05	20.82	20.65
30	22.00	21.78	21.97	22.01	---	21.62	21.41	21.03	21.18	21.03	20.84	20.65
31	22.00	---	21.96	22.00	---	21.63	---	21.02	---	21.02	20.91	---
MEAN	22.17	21.88	21.82	22.07	21.99	21.82	21.52	21.23	21.04	21.11	20.92	20.71
MAX	22.38	21.99	22.00	22.17	22.08	22.00	21.73	21.39	21.18	21.22	21.02	20.89
MIN	22.00	21.77	21.68	21.96	21.91	21.62	21.40	21.02	20.90	21.02	20.82	20.64

CAL YR 1989 MEAN 22.31 MAX 22.91 MIN 21.68
WTR YR 1990 MEAN 21.52 MAX 22.38 MIN 20.64

02236210 LAKE GEORGE NEAR SALT SPRINGS. FL

SURFACE AREA.--46,780 acres (73.1 mi²).

DRAINAGE AREA.--3,721 mi².

REVISED RECORDS.--WDR FL-75-1: Surface area, drainage area.

REMARKS.--Elevation at gage subject to fluctuations caused by wind and tide.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 2.11 ft, Oct. 30; minimum daily, -0.21 ft, July 16.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.69	1.93	.76	.45	.18	.82	.71	.20	.52	.28	.79	.59
2	1.55	1.74	.73	.48	.20	.84	.66	.17	.56	.19	.64	.67
3	1.42	1.63	.64	.45	.16	.80	.70	.21	.53	.18	.64	.78
4	1.32	1.57	.56	.47	.06	.77	.70	.22	.45	.33	.74	.81
5	1.26	1.51	.40	.44	.00	.81	.72	.13	.33	.41	.78	.84
6	1.24	1.48	.25	.37	.18	.94	.60	.05	.31	.35	.74	.92
7	1.08	1.39	.21	.32	.28	1.06	.49	.14	.40	.28	.68	.94
8	.84	1.24	.24	.36	.32	1.28	.53	.27	.39	.26	.66	.88
9	.90	1.12	.46	.42	.32	1.29	.61	.24	.32	.27	.68	.77
10	1.23	1.05	.70	.42	.27	1.19	.61	.15	.23	.28	.71	.70
11	1.38	1.01	.74	.39	.35	1.05	.48	.11	.16	.23	.74	.69
12	1.46	.98	.66	.34	.42	.95	.45	.13	.24	.20	.76	.77
13	1.48	.95	.66	.24	.43	.85	.48	.05	.39	.12	.72	.84
14	1.47	.92	.63	.38	.37	.72	.53	.01	.48	.01	.68	.88
15	1.45	.91	.54	.47	.26	.60	.51	.02	.44	-.16	.62	.88
16	1.42	.83	.53	.53	.10	.50	.47	.04	.44	-.21	.51	.85
17	1.35	.80	.71	.51	-.04	.30	.41	.02	.54	-.11	.44	.83
18	1.24	.73	.83	.46	-.03	.19	.39	.01	.75	-.04	.52	.95
19	1.09	.66	.92	.41	.10	.17	.71	.06	.81	.00	.62	1.06
20	.91	.59	1.01	.34	.24	.19	.87	.08	.73	.09	.71	1.09
21	.74	.45	.99	.27	.61	.35	.78	.03	.67	.13	.75	1.06
22	.63	.29	1.02	.14	.68	.46	.65	-.06	.59	.12	.73	.98
23	.66	.24	1.25	.05	.62	.46	.64	-.01	.55	.08	.69	.88
24	.90	.33	1.32	.04	.46	.41	.72	.20	.48	.13	.67	.90
25	1.15	.51	1.21	.04	.36	.36	.70	.38	.49	.21	.67	.98
26	1.33	.57	1.00	.06	.46	.35	.60	.42	.51	.37	.58	.91
27	1.57	.59	.82	.09	.70	.42	.49	.38	.56	.62	.51	.82
28	1.78	.59	.65	.09	.80	.63	.37	.33	.56	.94	.51	.77
29	1.92	.57	.53	.09	---	.77	.31	.30	.51	1.15	.50	.80
30	2.11	.68	.48	.09	---	.83	.26	.39	.43	1.18	.46	.86
31	2.09	---	.42	.13	---	.79	---	.47	---	1.00	.49	---
MEAN	1.31	.93	.71	.30	.32	.68	.57	.17	.48	.29	.64	.86
MAX	2.11	1.93	1.32	.53	.80	1.29	.87	.47	.81	1.18	.79	1.09
MIN	.63	.24	.21	.04	-.04	.17	.26	-.06	.16	-.21	.44	.59
CAL YR 1989	MEAN	.65	MAX 2.11	MIN -.38								
WTR YR 1990	MEAN	.61	MAX 2.11	MIN -.21								

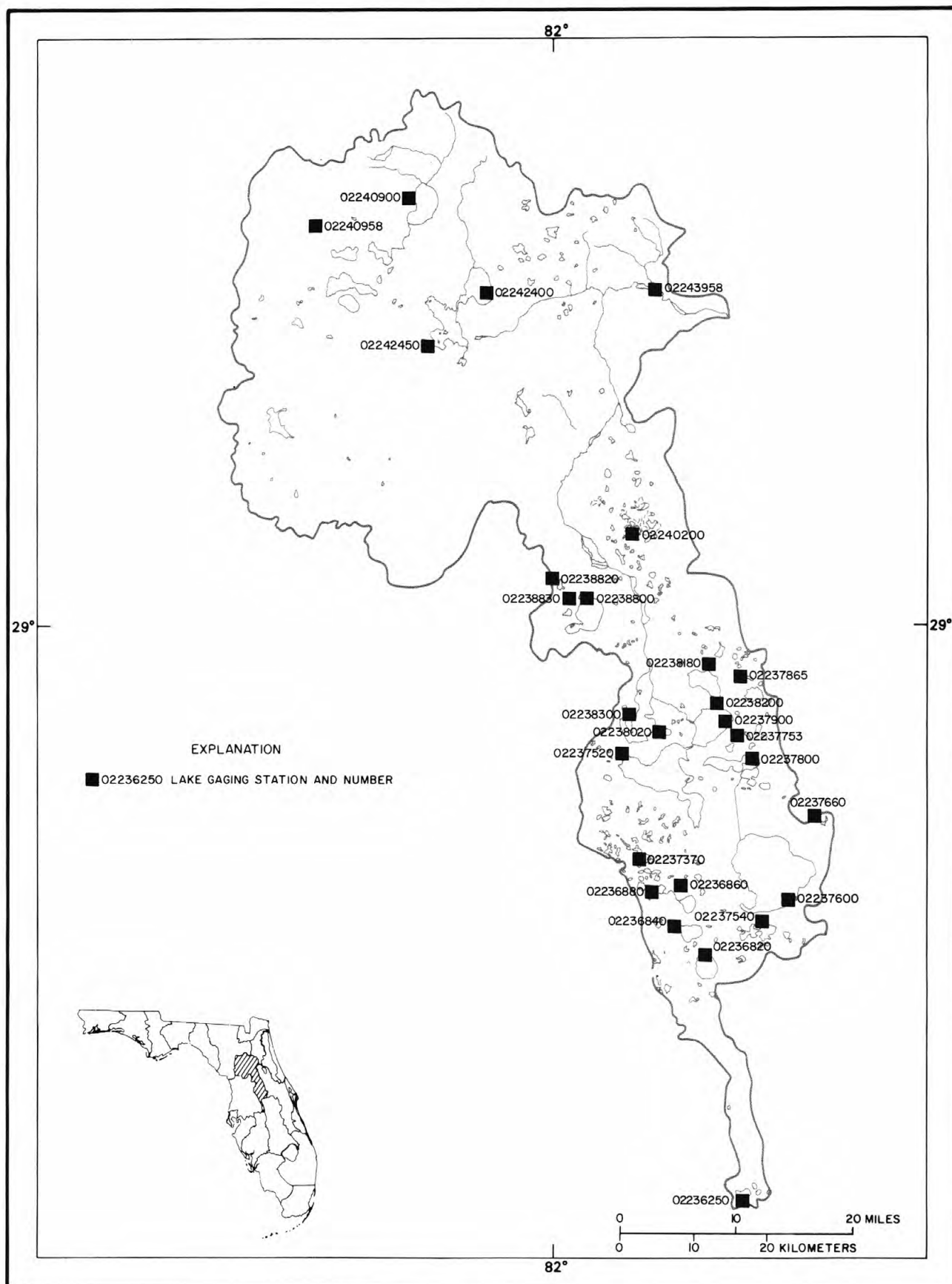


Figure 25.--Location of lake gaging stations in the Oklawaha River basin.

LOCATION.--Lat 28°06'51" long 81°40'17", in SW¼ sec.24, T.27 S., R.26 E., Polk County, Hydrologic Unit 03080102, at southeast end of stub canal on south side of lake, at Fletcher's Fish Camp, 2.5 mi northwest of Haines City.

DRAINAGE AREA.--5.4 mi², approximately.

GAGE.--Nonrecording gage. Datum of gage is 122.86 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD. Prior to Aug. 28, 1974, at site 50 ft northeast at same datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 133.32 ft, Sept. 11, 1960, from floodmark; minimum observed, 125.12 ft, May 27, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 127.66 ft, Oct. 1; minimum observed, 125.86 ft, July 8, 15, Aug. 5.

[illegible]

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236820 LAKE LOUISA NEAR CLERMONT, FL

LOCATION.--Lat 28°29'49", long 81°44'02", in SW¼ sec.8, T.23 S., R.26 E., Lake County, Hydrologic Unit 03080102, on north shore of lake, 4.5 mi southeast of Clermont.

SURFACE AREA.--3,659 acres (5.72 mi²).

DRAINAGE AREA.--121 mi².

PERIOD OF RECORD.--March 1957 to September 1975; October 1975 to current year (weekly). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WRD FL 1965: Surface area. WDR FL-72-3: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Gee and Jensen, Inc.). Prior to Aug. 30, 1974, at site 0.2 mi northwest at same datum.

REMARKS.--Lake is the most upstream of the Palatklakaha River headwaters chain of lakes. Since 1956, lake level partly controlled by earthen dam and concrete spillway with radial lift gates at outlet of Cherry Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 99.64 ft, Mar. 25, 1960; minimum observed, 92.48 ft, Dec. 24, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 96.18 ft, Oct. 7; minimum observed, 94.39 ft, July 7.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	95.63	---	---	---	---	---	94.58	---	---	---
3	---	---	---	---	95.70	95.76	---	---	---	---	---	---
4	---	95.86	---	---	---	---	---	95.00	---	---	95.25	---
5	---	---	---	---	---	---	---	94.98	---	94.83	---	---
6	---	---	---	95.84	---	---	---	---	---	---	---	---
7	96.18	---	---	---	---	---	95.39	---	---	94.39	---	---
8	---	---	---	---	---	---	---	---	---	---	---	95.30
9	---	---	95.66	---	---	---	---	---	94.72	---	---	---
10	---	---	---	---	---	95.70	---	---	---	---	---	---
11	---	95.84	---	---	---	---	---	---	---	---	95.28	---
12	---	---	---	---	---	---	---	94.84	---	---	---	---
13	---	---	---	95.80	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	95.26	---	---	95.22	---	---
15	---	---	---	---	---	---	---	---	---	---	---	95.19
16	---	---	95.64	---	---	95.62	---	---	94.60	---	---	---
17	---	---	---	---	95.64	95.60	---	---	---	---	---	---
18	---	95.74	---	---	---	---	---	---	---	---	95.42	---
19	---	---	---	---	---	---	---	94.72	---	95.28	---	---
20	---	---	---	95.78	---	---	---	---	---	---	---	---
21	95.94	---	---	---	---	---	95.18	---	---	95.34	---	---
22	---	---	---	---	---	---	---	---	---	---	---	95.08
23	---	---	95.82	---	---	---	---	---	94.70	---	---	---
24	---	---	---	---	95.86	95.48	---	---	---	---	---	---
25	---	95.66	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	95.44	---
27	---	95.66	---	95.74	---	---	---	---	---	---	---	---
28	96.00	---	---	---	---	---	95.00	---	---	95.35	95.43	---
29	---	---	---	95.74	---	---	---	---	---	---	95.43	95.06
30	---	---	---	---	---	---	---	---	94.79	---	---	---
31	---	---	---	---	---	95.51	---	---	---	---	---	---

LOCATION.--Lat 28°32'38", long 81°47'05", in NW¼ sec.26, T.22 S., R.25 E., Lake County, Hydrologic Unit 03080102, on northwest side of lake in cypress cove, on southeast side of bridge on State Highway 561, at lake outlet, 1 mi southwest of Clermont.

DRAINAGE AREA.--131 mi².

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

REMARKS.--Lake is one of the Palatlahkaha River headwaters chain of lakes. Since 1956, lake level partly controlled by earthen dam and concrete spillway with radial lift gates at outlet of Cherry Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 99.04 ft, Apr. 5, 1960; minimum daily, 92.49 ft, Dec. 20-25, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96.29	95.89	95.64	95.80	95.74	95.81	95.55	95.10	94.57	94.87	95.31	95.44
2	96.28	95.88	95.62	95.80	95.74	95.81	95.54	95.09	94.58	94.86	95.30	95.45
3	96.28	95.86	95.60	95.80	95.73	95.80	95.54	95.07	94.66	94.86	95.29	95.43
4	96.27	95.85	95.57	95.80	95.73	95.79	95.50	95.05	94.65	94.87	95.31	95.41
5	96.26	95.84	95.56	95.86	95.70	95.79	95.48	95.02	94.64	94.88	95.29	95.39
6	96.25	95.83	95.56	95.87	95.68	95.78	95.47	94.99	94.63	94.85	95.28	95.37
7	96.23	95.82	95.55	95.88	95.67	95.77	95.45	94.97	94.64	94.84	95.26	95.35
8	96.24	95.81	95.59	95.88	95.66	95.77	95.43	94.94	94.66	94.83	95.24	95.34
9	96.22	95.81	95.68	95.88	95.66	95.74	95.41	94.91	94.66	94.82	95.24	95.33
10	96.21	95.80	95.67	95.88	95.67	95.74	95.40	94.93	94.65	94.80	95.26	95.30
11	96.19	95.79	95.66	95.88	95.74	95.73	95.38	94.91	94.70	94.77	95.33	95.29
12	96.18	95.77	95.66	95.87	95.73	95.72	95.37	94.90	94.75	94.85	95.35	95.28
13	96.17	95.76	95.64	95.85	95.72	95.71	95.35	94.88	94.72	95.16	95.34	95.26
14	96.16	95.75	95.64	95.84	95.71	95.69	95.32	94.86	94.70	95.22	95.37	95.24
15	96.15	95.74	95.63	95.83	95.70	95.68	95.31	94.85	94.67	95.27	95.39	95.22
16	96.14	95.78	95.62	95.83	95.69	95.67	95.30	94.83	94.65	95.29	95.38	95.22
17	96.13	95.75	95.62	95.83	95.68	95.66	95.29	94.82	94.63	95.30	95.38	95.22
18	96.12	95.73	95.66	95.83	95.68	95.64	95.27	94.80	94.67	95.30	95.38	95.21
19	96.09	95.71	95.68	95.83	95.67	95.62	95.27	94.78	94.69	95.30	95.41	95.20
20	96.03	95.69	95.73	95.83	95.67	95.59	95.26	94.79	94.67	95.30	95.45	95.18
21	96.00	95.68	95.76	95.82	95.69	95.56	95.23	94.76	94.65	95.32	95.43	95.17
22	95.98	95.67	95.77	95.82	95.72	95.55	95.21	94.74	94.63	95.38	95.42	95.15
23	95.97	95.69	95.82	95.81	95.82	95.53	95.20	94.74	94.67	95.38	95.46	95.13
24	95.95	95.69	95.80	95.80	95.85	95.52	95.20	94.73	94.70	95.38	95.49	95.11
25	95.94	95.68	95.80	95.80	95.85	95.50	95.18	94.71	94.72	95.38	95.48	95.08
26	95.93	95.69	95.79	95.78	95.83	95.49	95.15	94.68	94.78	95.38	95.48	95.07
27	95.93	95.69	95.79	95.76	95.82	95.48	95.13	94.66	94.87	95.36	95.47	95.05
28	95.92	95.69	95.79	95.75	95.82	95.46	95.12	94.65	94.89	95.35	95.47	95.06
29	95.89	95.68	95.79	95.75	---	95.46	95.13	94.63	94.88	95.36	95.46	95.15
30	95.89	95.66	95.79	95.75	---	95.49	95.11	94.62	94.87	95.35	95.45	95.31
31	95.89	---	95.80	95.74	---	95.55	---	94.59	---	95.33	95.44	

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236860 LAKE APSHAWA NEAR MINNEOLA, FL

LOCATION.--Lat 28°36'13", long 81°46'36", in NE¼ sec.2, T.22 S., R.25 E., Lake County, Hydrologic Unit 03080102, on northwest shore of south portion of lake, 2.8 mi northwest of Minneola.

SURFACE AREA.--110 acres (0.17 mi²).

DRAINAGE AREA.--1.48 mi².

PERIOD OF RECORD.--April 1953 to December 1984 (weekly) incomplete; January 1985 to current year (once-daily). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WDR FL-72-3: Surface area, drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1968, nonrecording gage at site 1,500 ft northwest at datum 86.16 ft higher. Feb. 9, 1968 to Jan. 19, 1985, non-recording gage at site 800 ft east at present datum.

REMARKS.--Lake has no surface outlet. There is some pumpage from the lake for irrigation purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 92.68 ft, Oct. 8, 15, 1960; minimum observed, 82.10 ft, Nov. 17, 1977.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84.96	84.62	84.35	84.48	84.44	84.41	84.14	83.72	83.12	83.48	83.43	83.52
2	84.96	84.62	84.34	84.47	84.44	84.40	84.14	83.71	83.13	83.46	83.41	83.50
3	84.97	84.61	84.32	84.45	84.43	84.39	84.12	83.69	83.22	83.46	83.40	83.48
4	84.96	84.59	84.30	84.48	84.43	84.38	84.09	83.67	83.22	83.45	83.40	83.46
5	84.95	84.58	84.29	84.59	84.40	84.37	84.05	83.64	83.20	83.43	83.39	83.44
6	84.93	84.57	84.28	84.61	84.38	84.35	83.99	83.62	83.18	83.42	83.38	83.42
7	84.92	84.56	84.27	84.62	84.37	84.35	83.99	83.59	83.19	83.39	83.36	83.40
8	84.96	84.56	84.30	84.64	84.36	84.33	83.99	83.56	83.22	83.39	83.34	83.39
9	84.95	84.55	84.38	84.63	84.35	84.31	83.99	83.53	83.21	83.37	83.33	83.37
10	84.93	84.55	84.37	84.63	84.37	84.30	83.97	83.54	83.20	83.35	83.34	83.35
11	84.92	84.54	84.36	84.62	84.43	84.29	83.97	83.52	83.23	83.32	83.40	83.33
12	84.91	84.53	84.35	84.61	84.43	84.28	83.95	83.50	83.24	83.35	83.43	83.33
13	84.90	84.51	84.34	84.59	84.41	84.26	83.93	83.48	83.21	83.53	83.42	83.31
14	84.88	84.50	84.33	84.57	84.40	84.25	83.91	83.47	83.19	83.55	83.42	83.29
15	84.87	84.50	84.31	84.56	84.39	84.23	83.91	83.46	83.17	83.59	83.45	83.28
16	84.86	84.50	84.31	84.56	84.38	84.23	83.87	83.44	83.15	83.61	83.44	83.26
17	84.85	84.48	84.32	84.55	84.37	84.21	83.81	83.42	83.13	83.60	83.44	83.26
18	84.84	84.46	84.38	84.55	84.36	84.19	83.86	83.40	83.14	83.61	83.42	83.25
19	84.82	84.44	84.39	84.55	84.35	84.17	83.85	83.38	83.13	83.60	83.41	83.23
20	84.78	84.43	84.41	84.55	84.34	84.15	83.85	83.37	83.11	83.59	83.44	83.22
21	84.75	84.42	84.44	84.54	84.33	84.12	83.84	83.34	83.09	83.59	83.44	83.20
22	84.73	84.41	84.46	84.54	84.37	84.10	83.82	83.32	83.07	83.58	83.43	83.19
23	84.71	84.41	84.51	84.53	84.44	84.09	83.81	83.31	83.09	83.58	83.46	83.17
24	84.70	84.40	84.51	84.52	84.48	84.07	83.81	83.28	83.15	83.57	83.51	83.15
25	84.69	84.39	84.49	84.51	84.46	84.04	83.78	83.26	83.19	83.56	83.51	83.13
26	84.68	84.40	84.49	84.50	84.44	83.99	83.76	83.24	83.28	83.54	83.50	83.12
27	84.67	84.40	84.48	84.48	84.43	83.99	83.73	83.22	83.50	83.51	83.51	83.12
28	84.66	84.40	84.48	84.46	84.42	83.99	83.72	83.21	83.52	83.49	83.55	83.15
29	84.64	84.39	84.47	84.45	---	83.99	83.74	83.19	83.51	83.48	83.55	83.24
30	84.63	84.37	84.47	84.45	---	84.02	83.74	83.16	83.49	83.46	83.54	83.37
31	84.63	---	84.47	84.45	---	84.13	---	83.14	---	83.44	83.53	---
MEAN	84.83	84.49	84.39	84.54	84.40	84.21	83.90	83.43	83.22	83.50	83.44	83.30
MAX	84.97	84.62	84.51	84.64	84.48	84.41	84.14	83.72	83.52	83.61	83.55	83.52
MIN	84.63	84.37	84.27	84.45	84.33	83.99	83.72	83.14	83.07	83.32	83.33	83.12

WTR YR 1990 MEAN 83.97 MAX 84.97 MIN 83.07

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236880 CHERRY LAKE NEAR GROVELAND, FL

LOCATION.--Lat 28°35'33", long 81°49'21", in NE¼ sec.8, T.22 S., R.25 E., Lake County, Hydrologic Unit 03080102, on southwest shore of lake, 21 ft upstream from spillway at outlet, and 3 mi northeast of Groveland.

SURFACE AREA.--520 acres (0.81 mi²).

DRAINAGE AREA.--165 mi².

PERIOD OF RECORD.--September 1956 to current year. Records for Palatlahaha River at Cherry Lake Outlet, near Groveland (station 02236900). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Gee and Jenson, Inc. bench mark).

REMARKS.--Lake is one of the Palatlahaha River headwaters chain of lakes. Since 1956, lake level controlled by earthen dam and concrete spillway with radial lift gates at outlet. An undetermined amount of water is diverted at times through a gated culvert in dam for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 98.13 ft, Apr. 22, 1959; minimum daily, 92.40 ft, Dec. 21-25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 96.18 ft, Oct. 1-3, 8; minimum daily, 94.48 ft, June 1.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96.18	95.76	95.53	95.70	95.65	95.71	95.48	95.01	94.48	94.80	95.20	95.33
2	96.18	95.76	95.53	95.70	95.65	95.71	95.46	94.99	94.52	94.78	95.18	95.33
3	96.18	95.76	95.50	95.70	95.64	95.70	95.43	94.99	94.67	94.76	95.18	95.33
4	96.16	95.75	95.47	95.72	95.64	95.69	95.40	94.97	94.59	94.76	95.19	95.31
5	96.15	95.74	95.46	95.80	95.60	95.69	95.37	94.94	94.55	94.76	95.18	95.29
6	96.14	95.73	95.46	95.79	95.58	95.68	95.37	94.91	94.54	94.75	95.17	95.27
7	96.15	95.73	95.46	95.78	95.58	95.67	95.36	94.87	94.58	94.73	95.15	95.25
8	96.18	95.73	95.49	95.80	95.57	95.68	95.34	94.85	94.60	94.73	95.15	95.24
9	96.13	95.73	95.58	95.78	95.57	95.65	95.32	94.84	94.57	94.72	95.14	95.23
10	96.10	95.72	95.56	95.77	95.58	95.65	95.32	94.83	94.56	94.71	95.14	95.21
11	96.08	95.70	95.56	95.77	95.64	95.64	95.31	94.82	94.58	94.67	95.20	95.20
12	96.07	95.68	95.56	95.76	95.63	95.63	95.28	94.80	94.63	94.72	95.22	95.18
13	96.06	95.67	95.55	95.73	95.62	95.61	95.25	94.79	94.62	94.99	95.22	95.16
14	96.05	95.66	95.53	95.73	95.62	95.60	95.23	94.77	94.60	95.05	95.27	95.15
15	96.04	95.66	95.53	95.73	95.62	95.60	95.22	94.76	94.57	95.11	95.30	95.13
16	96.04	95.66	95.53	95.73	95.61	95.60	95.21	94.75	94.54	95.16	95.28	95.12
17	96.03	95.65	95.52	95.73	95.60	95.58	95.20	94.73	94.53	95.19	95.27	95.12
18	96.02	95.63	95.57	95.73	95.59	95.55	95.19	94.71	94.55	95.22	95.26	95.11
19	95.99	95.61	95.58	95.73	95.58	95.52	95.17	94.69	94.55	95.20	95.30	95.10
20	95.91	95.60	95.61	95.73	95.58	95.50	95.18	94.68	94.55	95.20	95.30	95.08
21	95.88	95.58	95.64	95.73	95.59	95.47	95.15	94.66	94.55	95.19	95.31	95.07
22	95.86	95.57	95.65	95.73	95.64	95.45	95.12	94.64	94.54	95.20	95.33	95.06
23	95.85	95.59	95.69	95.71	95.74	95.44	95.11	94.63	94.54	95.22	95.36	95.04
24	95.84	95.59	95.56	95.70	95.75	95.43	95.11	94.63	94.64	95.23	95.37	95.02
25	95.82	95.58	95.48	95.70	95.74	95.42	95.10	94.62	94.64	95.24	95.37	94.98
26	95.81	95.58	95.56	95.68	95.73	95.41	95.08	94.59	94.76	95.25	95.37	94.96
27	95.80	95.59	95.61	95.67	95.72	95.40	95.06	94.58	95.09	95.24	95.38	94.95
28	95.80	95.60	95.64	95.66	95.71	95.36	95.06	94.56	94.99	95.22	95.40	94.98
29	95.76	95.59	95.66	95.66	---	95.36	95.07	94.53	94.91	95.21	95.36	95.08
30	95.75	95.55	95.67	95.65	---	95.42	95.04	94.50	94.84	95.21	95.35	95.18
31	95.76	---	95.69	95.65	---	95.52	---	94.50	---	95.21	95.34	---
MEAN	95.99	95.66	95.56	95.72	95.63	95.56	95.23	94.75	94.63	95.01	95.27	95.15
MAX	96.18	95.76	95.69	95.80	95.75	95.71	95.48	95.01	95.09	95.25	95.40	95.33
MIN	95.75	95.55	95.46	95.65	95.57	95.36	95.04	94.50	94.48	94.67	95.14	94.95

CAL YR 1989 MEAN 96.16 MAX 96.90 MIN 95.46
WTR YR 1990 MEAN 95.35 MAX 96.18 MIN 94.48

LOCATION.--Lat 28°38'40", long 81°50'47", in SE¼ sec.19, T.21 S., R.25 E., Lake County, Hydrologic Unit 03080102, on west shore of lake, 0.8 mi south of U.S. Highway 27, and 5.7 mi north of Groveland.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 84.70 ft, Aug. 29; minimum observed, 82.58 ft, Dec. 3.

[illegible]

LOCATION.--Lat 28°48'14", long 81°52'24", in SE¼ sec.26, T.19 S., R.24 E., Lake County, Hydrologic Unit 03080102, on northwest shore of lake, at north side of concrete pier, 500 ft southeast of Leesburg Boat Club building in public park at Leesburg.

DRAINAGE AREA.--357 mi², includes Little Lake Harris.

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Mar. 27, 1968, nonrecording gage at several sites within 700 ft northwest at following datums: June 1936, to April 1950, 61.09 ft higher; Aug. 9, 1956, to Aug. 21, 1961, 0.13 ft lower; Aug. 22, 1961, to Mar. 26, 1968, at present datum.

REMARKS.--Lake is one of the Oklawaha River headwaters chain of lakes. Since 1956, lake levels have been partially controlled by lock and dam structure with gated spillway on Haines Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 64.81 ft, Apr. 22,24,26,27, 1960; minimum observed, 58.87 ft, Sept. 17,19-21,25-29, Oct. 3, 1956.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.88	62.60	62.60	62.82	62.76	63.10	62.86	62.80	62.52	62.74	62.80	62.60
2	62.86	62.60	62.60	62.84	62.74	63.08	62.86	62.80	62.52	62.76	62.78	62.60
3	62.86	62.60	62.60	62.86	62.74	63.06	62.88	62.80	62.50	62.78	62.76	62.58
4	62.84	62.60	62.60	62.88	62.76	63.04	62.88	62.80	62.50	62.80	62.74	62.58
5	62.84	62.60	62.60	62.90	62.78	63.02	62.88	62.80	62.48	62.80	62.72	62.56
6	62.82	62.60	62.60	62.92	62.80	63.00	62.90	62.80	62.48	62.78	62.70	62.56
7	62.82	62.60	62.60	62.94	62.82	63.00	62.90	62.78	62.50	62.78	62.70	62.54
8	62.80	62.60	62.60	62.96	62.84	63.00	62.90	62.78	62.50	62.76	62.68	62.54
9	62.78	62.60	62.60	62.96	62.86	63.00	62.90	62.76	62.50	62.74	62.68	62.52
10	62.78	62.60	62.60	62.98	62.88	63.00	62.88	62.76	62.52	62.74	62.66	62.50
11	62.76	62.60	62.60	62.98	62.90	63.00	62.86	62.74	62.54	62.76	62.66	62.48
12	62.74	62.60	62.60	62.98	62.92	63.00	62.84	62.74	62.56	62.78	62.66	62.46
13	62.74	62.60	62.60	63.00	62.94	63.00	62.82	62.72	62.58	62.80	62.68	62.44
14	62.72	62.60	62.60	63.00	62.94	62.98	62.80	62.72	62.60	62.82	62.70	62.42
15	62.72	62.58	62.60	62.98	62.92	62.96	62.78	62.70	62.62	62.88	62.70	62.40
16	62.70	62.58	62.60	62.96	62.92	62.94	62.78	62.70	62.64	62.98	62.68	62.38
17	62.68	62.56	62.62	62.94	62.90	62.92	62.78	62.68	62.66	63.00	62.68	62.36
18	62.68	62.56	62.64	62.92	62.90	62.90	62.80	62.68	62.64	63.00	62.66	62.34
19	62.66	62.54	62.66	62.90	62.92	62.88	62.80	62.66	62.64	63.00	62.66	62.34
20	62.64	62.54	62.68	62.88	62.96	62.88	62.80	62.64	62.62	62.98	62.68	62.32
21	62.62	62.54	62.70	62.86	62.98	62.86	62.80	62.64	62.62	62.98	62.68	62.32
22	62.60	62.56	62.72	62.86	63.04	62.86	62.80	62.62	62.60	62.96	62.68	62.32
23	62.60	62.56	62.74	62.84	63.08	62.84	62.80	62.62	62.60	62.94	62.70	62.30
24	62.60	62.58	62.74	62.84	63.12	62.84	62.80	62.60	62.62	62.92	62.70	62.30
25	62.60	62.58	62.76	62.82	63.18	62.82	62.80	62.60	62.64	62.90	62.70	62.28
26	62.60	62.60	62.76	62.82	63.20	62.82	62.80	62.58	62.66	62.88	62.68	62.26
27	62.60	62.60	62.78	62.80	63.18	62.80	62.80	62.58	62.68	62.86	62.66	62.24
28	62.60	62.60	62.78	62.80	63.14	62.80	62.80	62.56	62.70	62.84	62.64	62.22
29	62.60	62.60	62.80	62.78	---	62.82	62.80	62.56	62.72	62.82	62.62	62.20
30	62.60	62.60	62.80	62.78	---	62.84	62.80	62.54	62.74	62.82	62.62	62.20
31	62.60	---	62.82	62.76	---	62.86	---	62.54	---	62.80	62.60	

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237540 JOHNS LAKE AT OAKLAND, FL

LOCATION.--Lat 28°32'28", long 81°38'32", in SE¼ sec.30, T.22 S., R.27 E., Orange County, Hydrologic Unit 03080102, on north shore of lake, 0.4 mi south of State Highway 50, and 1.0 mi southwest of Oakland.

SURFACE AREA.--2,411 acres (3.77 mi²).

DRAINAGE AREA.--40.1 mi².

PERIOD OF RECORD.--September 1959 to current year (twice weekly), incomplete. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is 81.93 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Oct. 15, 1980, at several sites within 0.8 mi at datum 6.15 ft higher. Oct. 15, 1980 to May 20, 1981, at present site at datum 4.00 ft higher.

REMARKS.--Lake level partially controlled by culvert with lift gate on outlet canal to Lake Apopka. Outlet canal opened Sept. 30, 1959 and control installed in June or July 1960; culvert invert at about elevation 95.4 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 99.32 ft, Apr. 6, 1960; minimum observed, 85.57 ft, July 14, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 92.37 ft, Feb. 24, 27; minimum observed, 89.55 ft, July 7.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	90.43	---	---	---	90.31
2	---	---	91.47	91.65	---	---	---	---	89.73	---	---	---
3	92.33	---	---	---	91.39	92.33	90.93	---	---	89.61	---	---
4	---	91.83	---	---	---	---	---	---	---	---	89.77	90.25
5	---	---	91.43	---	---	91.35	---	90.41	89.83	89.60	---	---
6	---	---	---	91.61	91.29	---	---	---	---	---	---	---
7	92.27	91.79	---	---	---	---	90.83	---	---	89.55	89.85	---
8	---	---	---	---	---	---	---	90.41	---	---	---	90.18
9	---	---	91.49	91.61	---	---	---	---	89.83	---	---	---
10	92.23	---	---	---	91.31	91.29	90.75	---	---	89.69	---	---
11	---	91.73	---	---	---	---	---	---	---	---	90.17	90.09
12	---	---	91.41	---	---	---	---	90.41	89.75	---	---	---
13	---	---	---	91.57	92.25	91.19	---	---	---	---	---	---
14	92.17	91.71	---	---	---	---	90.69	---	---	89.83	90.21	---
15	---	---	---	---	---	---	---	90.41	---	---	---	90.03
16	---	---	91.45	91.53	---	---	---	---	89.71	---	---	---
17	92.11	---	---	---	92.25	91.18	90.65	---	---	89.79	---	---
18	---	91.65	---	91.48	---	---	---	---	---	---	90.23	89.99
19	---	---	91.53	---	---	---	---	90.41	89.73	---	---	---
20	---	---	---	91.47	92.28	91.03	---	---	---	---	---	---
21	91.97	91.63	---	---	---	---	90.63	---	---	89.79	90.27	---
22	---	---	---	---	---	---	---	89.94	---	---	---	89.87
23	---	---	91.61	91.43	---	---	---	---	89.71	---	---	---
24	91.93	---	---	---	92.37	90.97	90.53	89.88	---	89.77	---	---
25	---	91.57	91.57	---	---	---	---	---	---	---	90.33	89.83
26	---	---	---	---	---	---	---	89.83	89.69	---	---	---
27	---	91.55	---	91.41	92.37	90.93	90.50	---	---	---	---	---
28	91.89	91.53	---	---	---	---	90.45	---	---	89.69	90.33	---
29	---	---	---	---	---	---	---	89.79	---	---	---	90.01
30	---	---	91.57	91.35	---	---	---	---	89.63	---	---	---
31	91.85	---	---	---	---	90.99	---	---	---	89.73	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237600 LAKE APOPKA AT WINTER GARDEN, FL

LOCATION.--Lat 28°34'36", long 81°35'13", in NW¼ sec.14, T.22 S., R.27 E., Orange County, Hydrologic Unit 03080102, in southeast corner of west boat basin in public park at Winter Garden.

SURFACE AREA.--30,630 acres (47.9 mi²).

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--December 1935 to August 1942 (monthly); September 1942 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WRD FL 1965: Surface area, drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1942, nonrecording gage near present site on public pier at datum 66.25 ft higher. Sept. 18, 1942, to June 26, 1956, water-stage recorder at present site at datum 62.57 ft higher.

REMARKS.--Lake level partly regulated by lock and dam structure on Apopka-Beauclair Canal, 2.5 mi east of Astatula. Gate sills are at elevation 63.0 ft and fixed sheet piling weir at elevation 69.0 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 69.3 ft, Oct. 12, 1936; minimum daily, 64.04 ft, Aug. 13, 1956.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.82	66.62	66.50	66.83	66.78	67.00	66.78	66.38	65.76	66.13	66.49	66.60
2	66.87	66.64	66.48	66.82	66.78	67.00	66.76	66.34	65.79	66.14	66.48	66.60
3	66.88	66.63	66.58	66.80	66.78	67.04	66.85	66.27	65.88	66.11	66.49	66.59
4	66.85	66.60	66.48	66.80	66.76	67.02	66.83	66.24	66.02	66.10	66.54	66.57
5	66.82	66.59	66.41	66.85	66.87	67.00	66.69	66.28	66.02	66.12	66.52	66.56
6	66.79	66.57	66.40	66.88	66.73	67.00	66.67	66.29	65.99	66.12	66.50	66.55
7	66.78	66.56	66.40	66.89	66.73	66.96	66.68	66.25	65.96	66.03	66.48	66.52
8	66.87	66.55	66.41	66.93	66.72	66.91	66.65	66.14	65.98	66.02	66.57	66.49
9	66.86	66.56	66.68	66.93	66.70	66.93	66.58	66.10	66.03	66.01	66.55	66.47
10	66.84	66.58	66.61	66.92	66.72	66.93	66.57	66.16	66.08	66.02	66.54	66.45
11	66.85	66.55	66.56	66.91	66.88	66.92	66.62	66.18	66.17	66.02	66.55	66.44
12	66.84	66.53	66.53	66.93	66.87	66.91	66.63	66.08	66.14	66.09	66.58	66.42
13	66.81	66.52	66.67	66.98	66.80	66.89	66.56	66.10	66.11	66.22	66.58	66.40
14	66.80	66.51	66.58	66.88	66.78	66.86	66.55	66.09	66.11	66.27	66.61	66.39
15	66.79	66.50	66.54	66.86	66.76	66.83	66.53	66.07	66.10	66.39	66.63	66.39
16	66.77	66.62	66.55	66.85	66.76	66.80	66.53	66.05	66.08	66.43	66.61	66.35
17	66.76	66.59	66.55	66.85	66.82	66.83	66.52	66.05	66.08	66.42	66.65	66.38
18	66.76	66.54	66.61	66.85	66.78	66.90	66.51	66.03	66.10	66.43	66.66	66.36
19	66.85	66.52	66.61	66.86	66.79	66.84	66.47	65.99	66.10	66.45	66.65	66.33
20	66.88	66.51	66.69	66.84	66.82	66.87	66.44	66.00	66.10	66.47	66.64	66.31
21	66.69	66.50	66.73	66.86	66.78	66.81	66.45	65.97	66.06	66.46	66.65	66.29
22	66.66	66.47	66.79	66.88	66.79	66.75	66.43	65.97	66.05	66.51	66.65	66.30
23	66.66	66.53	66.99	66.85	67.00	66.73	66.46	65.94	66.07	66.54	66.68	66.29
24	66.69	66.52	66.94	66.84	67.16	66.72	66.44	65.88	66.13	66.53	66.68	66.31
25	66.69	66.47	66.80	66.82	67.07	66.71	66.39	65.85	66.12	66.51	66.66	66.26
26	66.68	66.51	66.78	66.95	67.05	66.72	66.39	65.81	66.13	66.51	66.67	66.22
27	66.68	66.51	66.78	66.82	67.02	66.71	66.34	65.83	66.19	66.56	66.65	66.22
28	66.72	66.51	66.79	66.80	67.02	66.68	66.32	65.87	66.17	66.53	66.64	66.21
29	66.78	66.56	66.79	66.80	---	66.66	66.38	65.93	66.16	66.53	66.63	66.28
30	66.66	66.57	66.79	66.79	---	66.64	66.39	65.85	66.16	66.50	66.63	66.37
31	66.63	---	66.78	66.81	---	66.71	---	65.78	---	66.49	66.61	---
MEAN	66.78	66.55	66.64	66.86	66.84	66.85	66.55	66.06	66.06	66.31	66.60	66.40
MAX	66.88	66.64	66.99	66.98	67.16	67.04	66.85	66.38	66.19	66.56	66.68	66.60
MIN	66.63	66.47	66.40	66.79	66.70	66.64	66.32	65.78	65.76	66.01	66.48	66.21
CAL YR 1989	MEAN	66.80	MAX	67.51	MIN	66.32						
WTR YR 1990	MEAN	66.54	MAX	67.16	MIN	65.76						

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237660 LAKE FRANCIS NEAR PLYMOUTH, FL

LOCATION.--Lat 28°40'20", long 81°32'23", in NW¼ sec.32, T.20 S., R.28 E., Orange County, Hydrologic Unit 03080102, on north shore of lake at Errol Estate, 1.3 mi northeast of Plymouth.

SURFACE AREA.--33.0 acres (0.05 mi²).

DRAINAGE AREA.--0.67 mi².

PERIOD OF RECORD.--September 1959 to July 1963 (twice weekly), incomplete; August 1963 to August 1964 (fragmentary); September 1964 to June 1967 (weekly), incomplete; July 1967 to current year (fragmentary). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office. Prior to January 1961, published as Lake Wenonah near Plymouth.

REVISED RECORDS.--WRD FL 1965: Surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 8, 1971, at site 1,400 ft south at datum 54.40 ft higher and Oct. 8, 1971, to Feb. 23, 1982 at present site at datum 54.40 ft higher.

REMARKS.--Lake is landlocked. There is some pumpage from lake for irrigation purposes. Lake is augmented by ground-water pumpage.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 66.22 ft, Oct. 15,17,24,29, 1960, present datum; minimum observed, 52.96 ft, May 25, 1990, present datum.

ELEVATION, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV			MAY		
22...	0915	54.70	18...	1447	53.21
JAN			25...	1445	52.96
30...	1140	54.41	JUL		
MAR			06...	1655	53.90
14...	1240	54.73	AUG		
APR			27...	1550	55.01
26...	0945	53.92			

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237753 WEST CROOKED LAKE NEAR EUSTIS, FL

LOCATION.--Lat 28°49'49", long 81°40'20", in SW¼ sec.13, T.19 S., R.26 E., Lake County, Hydrologic Unit 03080102, on east shore of southeast bay of lake, 1.7 mi southeast of Eustis.

SURFACE AREA.--107 acres (0.17 mi²).

DRAINAGE AREA.--0.67 mi², includes East Crooked Lake.

PERIOD OF RECORD.--February 1970 to current year (weekly), incomplete.

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is interconnected with East Crooked Lake above an elevation of about 69 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 71.48 ft, Apr. 11, 1970; minimum observed, 60.30 ft, Dec 4, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 74.74 ft was reached in 1960 from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 62.91 ft, Oct. 2; minimum observed, 61.21 ft, May 27.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	62.39	---	---	---	---	---	---	---	---	---
2	62.91	62.55	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	61.35	---	---	61.87
5	---	---	---	---	---	---	62.10	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	62.35	---	---	---	---	---	---	---	---	---
8	---	62.49	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	61.50	---	---
10	---	---	---	---	62.55	62.38	---	---	---	61.54	---	---
11	---	---	62.30	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	62.31	---	---	---	---	---	---
15	---	---	---	---	---	62.23	62.08	---	61.30	---	---	61.68
16	---	---	---	---	62.49	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	62.71	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	62.54	---	---	---	---	---	---	---	---
20	---	---	---	---	62.38	---	---	---	61.27	61.66	---	---
21	---	---	62.40	---	---	---	---	61.25	---	---	---	---
22	62.61	---	---	---	---	---	61.90	---	---	---	---	---
23	---	---	---	---	---	62.05	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	61.56
25	---	---	---	62.50	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	61.81	---	---	---	---	---
27	---	---	---	---	---	---	---	61.21	---	---	---	---
28	---	---	62.52	---	---	---	61.85	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	62.41	---	62.48	---	---	---	---	61.35	---	61.90	---
31	---	---	---	---	---	62.06	---	---	---	61.45	---	---

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237800 LAKE DORA AT MOUNT DORA, FL

LOCATION.--Lat 28°47'46", long 81°38'39", in NE¼ sec.31, T.19 S., R.27 E., Lake County, Hydrologic Unit 03080102, on west shore of northeast bay of lake, at Mount Dora Marina at Mount Dora.

SURFACE AREA.--4,437 acres (6.93 mi²).

DRAINAGE AREA.--236 mi².

PERIOD OF RECORD.--November 1935 to June 1942 (monthly); July 1942 to current year (once daily). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. See WDR FL-80-1 for history of changes prior to Sept. 28, 1973.

REMARKS.--Lake is one of the Oklawaha River headwaters chain of lakes. Since 1956, lake levels have been partially controlled by lock and dam structure with gated spillway on Haines Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 65.20 ft, Apr. 5, 1960; minimum observed, 60.59 ft, Feb. 18, 19, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 65.7 ft was reached in September 1926, from information by two local residents.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 63.10 ft, Feb. 23; minimum observed, 62.16 ft, Sept. 27, 28.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.74	62.56	62.56	62.78	62.90	62.98	62.86	62.72	---	---	62.72	62.62
2	62.78	62.56	62.54	62.76	62.90	62.98	62.84	62.70	---	---	62.70	62.58
3	62.78	62.54	62.52	62.76	62.88	62.98	62.84	62.66	---	---	62.70	62.52
4	62.76	62.54	62.50	62.82	62.86	62.96	62.84	---	---	---	62.68	62.52
5	62.72	62.54	62.48	62.84	62.86	62.94	62.82	---	---	---	62.60	62.52
6	62.72	62.52	62.48	62.88	62.84	62.92	62.82	---	---	62.76	62.59	62.48
7	62.70	62.52	62.46	62.90	62.82	62.90	62.82	---	---	---	62.58	62.46
8	62.70	62.52	62.46	62.94	62.80	62.90	62.82	---	---	---	62.68	62.46
9	62.76	62.60	62.58	62.94	62.78	62.88	62.81	---	---	---	62.72	62.43
10	62.74	62.58	62.62	62.94	62.78	62.86	62.79	---	---	---	62.62	62.40
11	62.74	62.58	62.62	62.92	62.96	---	62.78	---	---	62.94	62.62	62.38
12	62.68	62.56	62.60	62.92	62.94	---	62.78	---	---	62.94	62.62	62.36
13	62.68	62.56	62.60	62.90	62.94	---	62.74	---	---	62.90	62.78	62.32
14	62.66	62.58	62.58	62.90	62.92	---	62.72	---	---	62.88	62.84	---
15	62.68	62.58	62.58	62.88	62.90	---	62.70	---	---	62.84	62.84	---
16	62.68	62.56	62.56	62.88	62.90	---	62.69	---	---	62.82	62.82	62.34
17	62.66	62.56	62.56	62.88	62.92	---	62.68	---	---	62.84	62.82	62.34
18	62.64	62.54	62.62	62.90	62.92	---	62.68	---	---	62.87	---	62.34
19	62.66	62.60	62.66	62.90	62.92	---	62.67	---	---	62.90	---	62.32
20	62.64	62.60	62.70	62.90	62.90	---	62.68	---	---	---	---	62.28
21	62.62	62.58	62.72	62.90	62.90	---	62.70	---	---	---	---	62.28
22	62.60	62.58	62.74	62.88	62.98	---	---	---	---	---	---	62.26
23	62.58	62.56	62.78	62.88	63.10	---	---	---	---	---	---	62.22
24	62.56	62.56	62.80	62.88	63.08	---	---	---	---	62.88	---	62.20
25	62.56	62.54	62.80	62.88	63.06	---	---	---	---	62.86	62.68	62.18
26	62.54	62.54	62.78	62.92	63.04	---	62.63	---	---	62.82	62.66	62.18
27	62.54	62.58	62.78	62.90	63.02	---	---	---	---	62.78	62.62	62.16
28	62.56	62.58	62.78	62.88	63.00	---	62.74	---	---	62.78	62.62	62.16
29	62.58	62.58	62.76	62.84	---	---	62.74	---	---	---	62.62	62.18
30	62.58	62.56	62.80	62.84	---	---	62.72	---	---	62.74	62.62	62.18
31	62.56	---	62.78	62.84	---	---	---	---	---	62.73	62.64	---
MEAN	62.66	62.56	62.64	62.88	62.92	---	---	---	---	---	---	---
MAX	62.78	62.60	62.80	62.94	63.10	---	---	---	---	---	---	---
MIN	62.54	62.52	62.46	62.76	62.78	---	---	---	---	---	---	---

CAL YR 1989 MEAN 62.79 MAX 63.30 MIN 62.46

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237865 LAKE UMATILLA AT UMATILLA, FL

LOCATION.--Lat 28°55'06", long 81°39'44", in SE¼ sec.13, T.18 S., R.26 E., Lake County, Hydrologic Unit 03080102, on south shore of lake, 0.8 mi south of Umatilla.

SURFACE AREA.--165 acres (0.26 mi²).

DRAINAGE AREA.--2.46 mi².

PERIOD OF RECORD.--March 1970 to current year (weekly), incomplete.

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 4, 1983, at site 1,200 ft west at present datum.

REMARKS.--Lake is landlocked except above an elevation of about 70 ft, when there is overflow to the south into a swamp known as Eustis Meadows, thence through a canal into Lake Eustis.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 68.66 ft, Mar. 13, 1970; minimum observed, 64.20 ft, Dec. 18, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 67.34 ft, Sept. 1, minimum observed, 65.67 ft, June 2.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	67.34
2	---	---	---	---	---	---	---	---	65.67	---	---	---
3	---	---	---	---	66.42	66.60	---	---	---	---	---	---
4	---	66.44	---	---	---	---	---	66.26	---	---	66.66	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	66.44	---	---	66.40	---	---
8	---	---	---	---	---	---	---	---	---	---	---	67.30
9	---	---	---	---	---	---	---	---	65.88	---	---	---
10	---	---	66.29	---	66.38	66.53	---	---	---	66.46	---	---
11	---	---	---	---	---	---	---	66.12	---	---	66.62	---
12	---	66.40	---	---	---	66.50	---	---	---	---	---	---
13	66.60	---	---	66.52	---	---	66.42	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	66.64	---	---
15	---	---	---	---	---	---	---	---	---	---	---	67.26
16	---	---	---	---	---	---	---	---	65.82	---	---	---
17	---	---	66.25	---	66.47	66.44	---	---	---	---	---	---
18	---	66.36	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	65.98	---	---	---	---
20	---	---	---	---	---	---	66.38	---	---	---	67.02	---
21	66.42	---	---	66.50	---	---	---	---	---	66.82	---	---
22	---	66.30	---	---	---	---	---	---	---	---	---	67.13
23	---	---	---	---	66.70	---	---	---	65.82	---	---	---
24	---	---	66.42	---	---	66.34	---	---	---	---	---	---
25	---	---	---	---	---	---	66.36	65.86	---	---	---	---
26	---	66.36	---	---	---	---	---	---	---	---	66.98	---
27	---	---	---	66.48	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	66.34	---	---	---	---	---
29	66.37	---	---	---	---	---	---	---	---	---	---	67.02
30	---	---	66.42	66.45	---	---	---	65.76	66.02	---	---	---
31	---	---	---	---	---	66.42	---	---	---	---	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237900 LAKE EUSTIS AT EUSTIS, FL

LOCATION.--Lat 28°51'06", long 81°41'29", in SE¼ sec.10, T.19 S., R.26 E., Lake County, Hydrologic Unit 03080102, on northeast shore of lake, on private pier at Eustis.

SURFACE AREA.--7,806 acres (12.2 mi²).

DRAINAGE AREA.--646 mi².

PERIOD OF RECORD.--November 1935 to June 1942 (monthly); July 1942 to current year (once daily), incomplete. July 1942 to June 1956, records for Dead River near Tavares. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 2, 1990, nonrecording gage at same site and datum. See WDR FL-80-1 for history of changes prior to Oct. 18, 1970.

REMARKS.--Lake is one of the Oklawaha River headwaters chain of lakes. Since 1956, lake levels have been partially controlled by lock and dam structure with gated spillway on Haines Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 64.84 ft, Apr. 28, 1960; minimum observed, 58.82 ft, Sept. 22, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 66.1 ft was reached in 1926, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 63.06 ft, Mar. 3; minimum observed, 62.18 ft, Sept. 25.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.78	62.62	62.55	62.78	62.86	62.99	---	---	---	---	---	62.59
2	62.77	62.62	62.56	62.78	62.86	63.02	---	---	---	---	62.70	62.57
3	62.77	62.62	62.57	62.80	62.86	63.06	---	---	---	---	62.68	62.54
4	62.76	62.62	62.57	62.81	62.86	63.00	---	---	---	---	62.65	62.51
5	62.76	62.61	62.56	62.90	62.86	63.02	---	---	---	---	62.63	62.50
6	62.76	62.60	62.56	62.92	62.85	62.96	---	---	---	62.78	62.63	62.48
7	62.77	62.59	62.55	62.92	62.84	62.94	---	---	---	---	62.62	62.40
8	62.77	62.58	62.55	62.94	62.84	62.90	---	---	---	---	62.63	62.47
9	62.77	62.58	62.56	62.95	62.85	62.90	---	---	---	---	62.63	62.45
10	62.74	62.60	62.56	62.95	62.98	62.92	---	---	---	---	62.62	62.42
11	62.68	62.60	62.58	62.95	62.97	62.92	---	---	---	---	62.62	62.40
12	62.68	62.60	62.60	62.98	62.96	62.92	---	---	---	---	62.60	62.37
13	62.68	62.61	---	---	62.94	62.90	---	---	---	---	62.60	62.36
14	62.68	62.62	62.60	---	62.94	62.90	---	---	---	---	62.64	62.37
15	62.68	62.62	62.61	---	62.95	62.88	---	---	---	---	62.67	62.38
16	62.69	62.61	62.61	---	62.96	62.86	---	---	---	---	62.67	62.37
17	62.69	62.61	62.62	---	62.95	62.86	---	---	---	---	62.68	62.36
18	62.69	62.59	62.66	---	62.94	62.85	---	---	---	---	62.67	62.30
19	62.69	62.58	---	62.95	62.93	62.84	---	---	---	---	62.64	62.29
20	62.68	62.57	---	62.95	62.90	62.80	---	---	---	---	62.64	62.29
21	62.68	62.55	---	62.94	62.86	62.75	---	---	---	---	62.66	62.29
22	62.68	62.54	62.70	62.94	62.92	62.75	---	---	---	---	62.65	62.31
23	62.69	62.55	62.78	62.93	63.04	62.76	---	---	---	---	62.68	62.29
24	62.68	62.54	62.80	62.92	63.06	62.75	---	---	---	---	62.69	62.22
25	62.67	62.54	62.80	62.90	63.04	62.74	---	---	---	---	62.65	62.18
26	62.66	62.56	---	62.90	63.00	62.73	62.68	---	---	---	62.65	62.21
27	62.66	62.58	---	62.89	62.94	62.72	---	---	---	---	62.63	62.20
28	62.65	62.60	---	62.88	62.96	62.70	---	---	---	---	62.64	62.19
29	---	62.58	62.80	62.88	---	62.70	---	---	---	---	62.64	62.23
30	---	62.56	62.79	62.88	---	62.70	---	---	---	---	62.66	62.29
31	62.62	---	62.78	62.87	---	62.71	---	---	---	62.74	62.62	---
MEAN	---	62.59	---	---	62.93	62.85	---	---	---	---	---	62.36
MAX	---	62.62	---	---	63.06	63.06	---	---	---	---	---	62.59
MIN	---	62.54	---	---	62.84	62.70	---	---	---	---	---	62.18

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238020 SILVER LAKE NEAR LEESBURG, FL

LOCATION.--Lat 28°50'26", long 81°48'38", in NE¼ sec.16, T.19 S., R.25 E., Lake County, Hydrologic Unit 03080102, on private pier, on west shore of lake, 3.5 mi northeast of Leesburg.

SURFACE AREA.--382 acres (0.60 mi²).

DRAINAGE AREA.--1.50 mi².

PERIOD OF RECORD.--April 1983 to current year (weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 68.10 ft, Mar. 5, 1984; minimum observed, 64.54 ft, May 28, June 18, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 65.20 ft, Oct. 2; minimum observed, 64.54 ft, May 28, June 18.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	65.09	---	---	---	---	---	---	---	---
2	65.20	---	---	---	---	---	64.78	---	---	64.64	---	---
3	---	---	---	---	---	---	---	---	---	---	---	65.00
4	---	---	---	---	---	---	64.90	---	---	---	---	---
5	---	---	64.86	---	---	65.07	---	---	---	---	---	---
6	---	---	---	---	65.02	---	---	---	---	---	64.87	---
7	---	64.97	---	---	---	---	---	64.68	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	65.15	---	---	65.19	---	---	64.76	---	---	64.58	---	---
10	---	---	---	---	---	---	---	---	---	64.56	---	---
11	---	---	65.00	---	---	---	---	---	---	---	---	64.88
12	---	---	---	---	65.10	65.00	---	---	---	---	---	---
13	---	64.98	---	---	---	---	---	---	---	---	64.87	---
14	---	---	---	---	---	---	---	64.56	---	---	---	---
15	---	---	---	65.15	---	64.98	---	---	---	---	---	---
16	65.08	---	---	---	---	---	64.78	---	---	64.94	---	---
17	---	---	---	---	---	---	---	---	---	---	---	64.86
18	---	---	---	---	---	---	---	---	64.54	---	---	---
19	---	---	64.98	---	65.05	64.80	---	---	---	---	---	---
20	---	64.90	---	---	---	---	---	64.58	---	---	64.87	---
21	---	---	---	---	---	---	---	64.56	---	---	---	---
22	---	---	---	65.13	---	---	---	---	---	---	---	---
23	65.00	---	---	---	---	---	64.80	---	---	64.90	---	---
24	---	64.93	---	---	---	---	---	---	---	---	---	64.88
25	---	---	---	---	---	---	---	---	64.56	---	---	---
26	---	---	65.15	---	65.12	64.78	64.77	---	---	---	---	---
27	---	64.86	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	64.54	---	---	65.04	---
29	---	---	---	65.13	---	---	---	---	---	---	---	---
30	64.98	---	---	---	---	---	64.80	---	---	64.88	65.05	---
31	---	---	---	65.08	---	---	---	---	---	---	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238200 LAKE YALE AT GRAND ISLAND, FL

LOCATION.--Lat 28°52'52", long 81°42'21", in NW¼ sec.34, T.18 S., R.26 E., Lake County, Hydrologic Unit 03080102, at southeast end of lake, on east bank at end of stub canal in public park, 1 mi east of Grand Island, and 2.8 mi northwest of Eustis.

SURFACE AREA.--4.030 acres (6.30 mi²).

DRAINAGE AREA.--67.6 mi².

PERIOD OF RECORD.--September 1959 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando Subdistrict office.

REVISED RECORDS.--WDR FL-74-1: Surface area, drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Water is diverted from the west side of the lake through Yale-Griffin Canal into Lake Griffin, one of the Oklawaha River headwaters chain of lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 61.29 ft, Oct. 12, 1960; minimum daily, 57.12 ft, Dec. 26, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59.42	59.09	58.95	59.15	59.26	59.43	59.21	59.12	58.55	59.29	59.36	59.51
2	59.42	59.09	58.93	59.14	59.26	59.42	59.21	59.12	58.55	59.34	59.35	59.50
3	59.41	59.09	58.95	59.14	59.26	59.43	59.32	59.11	58.59	59.41	59.35	59.47
4	59.39	59.07	58.90	59.15	59.27	59.41	59.28	59.09	58.68	59.41	59.37	59.45
5	59.37	59.06	58.87	59.22	59.28	59.41	59.23	59.06	58.66	59.42	59.35	59.44
6	59.36	59.05	58.86	59.23	59.24	59.40	59.21	59.04	58.66	59.41	59.34	59.42
7	59.34	59.04	58.86	59.24	59.24	59.38	59.21	59.01	58.74	59.39	59.32	59.40
8	59.34	59.04	58.88	59.30	59.23	59.37	59.19	58.98	58.93	59.40	59.32	59.38
9	59.32	59.06	58.98	59.30	59.23	59.36	59.15	58.96	59.03	59.44	59.31	59.36
10	59.30	59.07	58.95	59.31	59.25	59.36	59.14	58.94	59.03	59.44	59.30	59.35
11	59.28	59.06	58.92	59.30	59.38	59.35	59.19	58.93	59.04	59.42	59.29	59.35
12	59.27	59.04	58.91	59.32	59.38	59.34	59.18	58.89	59.05	59.43	59.27	59.36
13	59.25	59.02	58.97	59.30	59.35	59.33	59.15	58.87	59.02	59.48	59.28	59.34
14	59.24	59.02	58.93	59.27	59.34	59.32	59.13	58.84	59.00	59.50	59.34	59.33
15	59.23	59.01	58.91	59.27	59.34	59.30	59.12	58.81	58.98	59.54	59.34	59.32
16	59.22	59.07	58.91	59.27	59.34	59.29	59.11	58.78	58.96	59.57	59.33	59.31
17	59.21	59.05	58.91	59.27	59.35	59.29	59.10	58.76	58.95	59.56	59.32	59.32
18	59.21	59.01	58.97	59.28	59.34	59.30	59.10	58.83	58.94	59.55	59.32	59.32
19	59.22	58.99	58.99	59.28	59.34	59.28	59.13	58.82	58.92	59.55	59.31	59.29
20	59.19	58.98	59.05	59.28	59.35	59.27	59.16	58.81	58.91	59.54	59.35	59.27
21	59.10	58.97	59.07	59.29	59.33	59.23	59.14	58.80	58.89	59.53	59.48	59.26
22	59.08	58.96	59.09	59.30	59.34	59.20	59.13	58.78	58.90	59.53	59.48	59.25
23	59.06	58.99	59.19	59.29	59.46	59.19	59.15	58.75	59.02	59.52	59.47	59.24
24	59.06	58.97	59.18	59.28	59.51	59.17	59.14	58.72	59.08	59.50	59.47	59.21
25	59.05	58.95	59.13	59.29	59.48	59.17	59.12	58.69	59.13	59.48	59.46	59.17
26	59.04	58.98	59.12	59.30	59.46	59.16	59.10	58.67	59.25	59.47	59.45	59.15
27	59.07	58.98	59.12	59.26	59.45	59.15	59.08	58.66	59.31	59.46	59.46	59.14
28	59.07	58.98	59.12	59.26	59.43	59.13	59.07	58.65	59.30	59.43	59.49	59.12
29	59.08	58.99	59.12	59.26	---	59.12	59.12	58.65	59.29	59.41	59.48	59.12
30	59.06	58.98	59.13	59.26	---	59.12	59.12	58.61	59.29	59.40	59.48	59.14
31	59.10	---	59.12	59.27	---	59.21	---	58.57	---	59.38	59.48	---
MEAN	59.22	59.02	59.00	59.26	59.34	59.29	59.16	58.85	58.95	59.46	59.38	59.31
MAX	59.42	59.09	59.19	59.32	59.51	59.43	59.32	59.12	59.31	59.57	59.49	59.51
MIN	59.04	58.95	58.86	59.14	59.23	59.12	59.07	58.57	58.55	59.29	59.27	59.11

CAL	YR	1989	MEAN	59.37	MAX	59.81	MIN	58.86
WTR	YR	1990	MEAN	59.19	MAX	59.57	MIN	58.55

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	58.74	58.56	58.44	58.54	58.92	59.18	59.04	58.88	58.40	58.78	58.74	58.56	
2	58.78	58.56	58.40	58.56	58.92	59.16	59.04	58.86	58.38	58.74	58.68	58.56	
3	58.78	58.54	58.40	58.56	58.92	59.16	59.10	58.86	58.38	58.74	58.64	58.56	
4	58.78	58.52	58.36	58.56	58.92	59.18	59.06	58.84	58.58	58.72	58.60	58.54	
5	58.76	58.52	58.34	58.66	58.96	59.18	59.02	58.82	58.56	58.72	58.60	58.56	
6	58.76	58.52	58.30	58.68	58.92	59.18	58.98	58.82	58.56	58.68	58.50	58.56	
7	58.76	58.50	58.30	58.68	58.90	59.18	58.98	58.82	58.54	58.66	58.48	58.54	
8	58.72	58.52	58.28	58.78	58.90	59.16	58.98	58.78	58.56	58.64	58.46	58.54	
9	58.76	58.54	58.40	58.78	58.90	59.16	58.98	58.76	58.56	58.62	58.48	58.54	
10	58.76	58.54	58.38	58.78	58.88	59.16	58.94	58.76	58.56	58.58	58.42	58.54	
11	58.76	58.56	58.38	58.78	59.06	59.16	58.94	58.78	58.54	58.56	58.38	58.54	
12	58.74	58.50	58.36	58.78	59.06	59.14	58.92	58.74	58.54	58.52	58.36	58.54	
13	58.72	58.50	58.38	58.80	59.04	59.14	58.88	58.72	58.52	58.70	58.34	58.54	
14	58.70	58.50	58.40	58.84	59.04	59.14	58.86	58.72	58.52	58.70	58.30	58.54	
15	58.70	58.50	58.36	58.84	59.04	59.12	58.86	58.72	58.48	58.80	58.34	58.52	
16	58.68	58.50	58.36	58.84	59.04	59.08	58.86	58.70	58.46	58.78	58.32	58.52	
17	58.68	58.48	58.36	58.86	59.04	59.08	58.84	58.68	58.46	58.82	58.30	58.52	
18	58.66	58.50	58.38	58.88	59.04	59.10	58.82	58.66	58.46	58.84	58.28	58.62	
19	58.68	58.50	58.42	58.88	59.04	59.10	58.82	58.64	58.52	58.84	58.28	58.60	
20	58.66	58.48	58.50	58.90	59.04	59.06	58.86	58.68	58.48	58.82	58.26	58.56	
21	58.66	58.44	58.50	58.90	59.04	59.04	58.86	58.62	58.44	58.80	58.24	58.54	
22	58.62	58.40	58.52	58.92	59.04	59.02	58.82	58.62	58.36	58.78	58.22	58.52	
23	58.58	58.42	58.60	58.90	59.06	59.00	58.86	58.58	58.58	58.76	58.20	58.50	
24	58.56	58.46	58.62	58.90	59.18	59.00	58.90	58.58	58.56	58.78	58.32	58.50	
25	58.54	58.42	58.60	58.90	59.18	59.00	58.88	58.56	58.58	58.79	58.34	58.48	
26	58.56	58.48	58.58	58.90	59.18	59.00	58.86	58.56	58.66	58.79	58.36	58.46	
27	58.56	58.46	58.56	58.90	59.18	58.90	58.86	58.56	58.78	58.78	58.38	58.46	
28	58.56	58.44	58.54	58.90	59.18	58.90	58.82	58.56	58.76	58.76	58.54	58.44	
29	58.56	58.44	58.54	58.90	---	58.88	58.92	58.52	58.76	58.90	58.54	58.44	
30	58.54	58.44	58.54	58.90	---	58.88	58.90	58.48	58.76	58.86	58.54	58.46	
31	58.56	---	58.54	58.92	---	59.02	---	58.44	---	58.78	58.56	---	
MEAN	58.67	58.49	58.44	58.80	59.02	59.08	58.92	58.69	58.54	58.74	58.42	58.53	
MAX	58.78	58.56	58.62	58.92	59.18	59.18	59.10	58.88	58.78	58.90	58.74	58.62	
MIN	58.54	58.40	58.28	58.54	58.88	58.88	58.82	58.44	58.36	58.52	58.20	58.44	
CAL YR	1989	MEAN	58.76	MAX	59.24	MIN	58.28						
WTR YR	1990	MEAN	58.69	MAX	59.18	MIN	58.20						

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238800 LAKE WEIR AT OKLAWAHA, FL

LOCATION.--Lat 29°02'23", long 81°55'44", in SE¼ sec.5, T.17 S., R.24 E., Marion County, Hydrologic Unit 03080102, on north shore of lake, on east side of pier, 100 ft east of Johnson's Beach Pavillion at Oklawaha.

SURFACE AREA.--5,760 acres (9.00 mi²).

DRAINAGE AREA.--53.8 mi².

PERIOD OF RECORD.--April 1936 to October 1942 (monthly means only), November 1942 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Jacksonville field headquarters.

REVISED RECORDS.--WDR FL-74-1: Surface area, drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 4, 1942, nonrecording gage at site 100 ft west at datum 56.58 ft higher. Nov. 4, 1942, to Mar. 22, 1956, water-stage recorder at datum 55.58 ft higher and Mar. 23, 1956, to Feb. 7, 1957, at datum 54.00 ft higher, at sites within 100 ft.

REMARKS.--Lake level partly controlled by broad-crested weir in outlet canal to the Oklawaha River; elevation of fixed crest is 57.44 ft. Canal dug and control built in April 1938.

EXTREMES FOR PERIOD OF RECORD.--Maximum monthly mean elevation, 59.6 ft, Jan. 1938; minimum daily, 53.46 ft, May 9, 1957.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.99	55.63	55.49	55.58	55.65	55.75	55.78	55.59	55.20	55.69	55.72	55.80
2	56.01	55.63	55.49	55.57	55.66	55.75	55.79	55.58	55.19	55.70	55.71	55.80
3	56.01	55.62	55.45	55.57	55.66	55.75	55.84	55.57	55.20	55.68	55.70	55.77
4	56.00	55.60	55.44	55.59	55.66	55.73	55.80	55.55	55.24	55.68	55.69	55.75
5	55.99	55.59	55.42	55.71	55.64	55.72	55.78	55.55	55.23	55.72	55.67	55.72
6	55.98	55.59	55.42	55.72	55.62	55.70	55.77	55.54	55.25	55.70	55.66	55.70
7	55.96	55.59	55.41	55.74	55.62	55.70	55.75	55.50	55.32	55.68	55.64	55.69
8	55.96	55.58	55.44	55.76	55.61	55.69	55.73	55.47	55.35	55.67	55.64	55.68
9	55.97	55.63	55.51	55.76	55.61	55.68	55.71	55.46	55.35	55.66	55.64	55.67
10	55.95	55.64	55.48	55.76	55.65	55.67	55.70	55.56	55.35	55.66	55.63	55.65
11	55.93	55.63	55.48	55.75	55.77	55.66	55.73	55.55	55.33	55.65	55.62	55.64
12	55.91	55.62	55.48	55.76	55.76	55.66	55.70	55.53	55.31	55.67	55.62	55.63
13	55.90	55.61	55.50	55.72	55.75	55.65	55.68	55.52	55.28	55.77	55.62	55.61
14	55.89	55.60	55.47	55.71	55.74	55.64	55.66	55.52	55.26	55.80	55.73	55.59
15	55.88	55.60	55.47	55.70	55.73	55.64	55.65	55.50	55.23	55.83	55.85	55.58
16	55.88	55.60	55.46	55.70	55.73	55.64	55.65	55.49	55.22	55.83	55.85	55.56
17	55.87	55.57	55.45	55.71	55.73	55.64	55.64	55.48	55.24	55.82	55.83	55.56
18	55.88	55.54	55.50	55.70	55.73	55.62	55.63	55.46	55.28	55.86	55.86	55.56
19	55.87	55.52	55.52	55.71	55.72	55.61	55.61	55.44	55.27	55.86	55.83	55.53
20	55.81	55.51	55.54	55.71	55.71	55.58	55.62	55.44	55.26	55.84	55.82	55.51
21	55.76	55.50	55.55	55.71	55.72	55.55	55.61	55.42	55.25	55.84	55.81	55.50
22	55.74	55.49	55.56	55.71	55.73	55.53	55.61	55.41	55.32	55.84	55.81	55.49
23	55.72	55.53	55.60	55.70	55.82	55.52	55.66	55.38	55.55	55.82	55.81	55.47
24	55.70	55.52	55.59	55.69	55.84	55.51	55.67	55.36	55.63	55.82	55.81	55.43
25	55.68	55.51	55.57	55.70	55.81	55.50	55.66	55.33	55.67	55.83	55.80	55.40
26	55.68	55.54	55.57	55.69	55.78	55.50	55.64	55.31	55.68	55.81	55.78	55.38
27	55.66	55.54	55.56	55.66	55.76	55.48	55.63	55.30	55.73	55.79	55.80	55.37
28	55.65	55.53	55.56	55.66	55.76	55.49	55.62	55.29	55.71	55.76	55.86	55.36
29	55.64	55.53	55.56	55.66	---	55.69	55.61	55.28	55.70	55.76	55.84	55.43
30	55.64	55.51	55.56	55.66	---	55.72	55.60	55.24	55.70	55.74	55.82	55.44
31	55.64	---	55.56	55.66	---	55.78	---	55.22	---	55.74	55.81	---
MEAN	55.84	55.57	55.51	55.69	55.71	55.64	55.68	55.45	55.38	55.76	55.75	55.58
MAX	56.01	55.64	55.60	55.76	55.84	55.78	55.84	55.59	55.73	55.86	55.86	55.80
MIN	55.64	55.49	55.41	55.57	55.61	55.48	55.60	55.22	55.19	55.65	55.62	55.36
CAL YR 1989	MEAN	55.83	MAX	56.10	MIN	55.41						
WTR YR 1990	MEAN	55.63	MAX	56.01	MIN	55.19						

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238820 SMITH LAKE NEAR CANDLER, FL

LOCATION.--Lat 29°04'12", long 81°59'25", in NE¼ sec.27, T.16 S., R.23 E., Marion County, Hydrologic Unit 03080102, on north shore of lake, 1.1 mi west of Candler.

SURFACE AREA.--482 acres (0.75 mi²).

DRAINAGE AREA.--5.01 mi².

PERIOD OF RECORD.--July 1972 to September 1990 (monthly), discontinued.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is landlocked. There is some pumpage from lake for irrigation purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 57.82 ft, Feb. 14, 1984; minimum observed, 49.70 ft, Dec. 24, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAY		
02...	1200	52.45	04...	1900	52.00
20...	0930	52.29	21...	1110	51.82
NOV			30...	1645	51.60
15...	1000	52.20	JUN		
27...	1505	52.05	30...	1100	51.70
JAN			JUL		
22...	1130	52.41	23...	1410	51.91
MAR			31...	1300	51.86
19...	1125	52.24	AUG		
APR			31...	1100	51.78
06...	1220	52.30	SEP		
			30...	0830	51.28

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238830 BOWERS LAKE NEAR OKLAWAHA, FL

LOCATION.--Lat 29°02'22", long 81°57'24", in SE¼ sec.1, T.17 S., R.23 E., Marion County, Hydrologic Unit 03080102, on southwest shore of lake, at Lakefront Apartments, 1.6 mi west of Oklawaha.

SURFACE AREA.--633 acres (0.99 mi²).

DRAINAGE AREA.--8.48 mi².

PERIOD OF RECORD.--July 1972 to September 1990 (monthly), discontinued.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1981, at site 0.4 mi west at same datum.

REMARKS.--Lake is landlocked except at high stages when outflow is to the northeast to Lake Weir outlet, thence to Oklawaha River. There is some pumpage from lake for irrigation purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 58.52 ft, Sept. 1, 1983; minimum observed, 53.50 ft, Oct. 30, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
06...	0845	56.05	26...	1400	55.83
21...	0850	55.95	MAY		
NOV			21...	0705	55.52
27...	1455	55.83	JUN		
DEC			06...	1230	55.28
07...	0935	55.70	JUL		
23...	0830	55.79	10...	0730	55.50
JAN			23...	1400	55.55
21...	0910	56.16	AUG		
22...	1055	56.17	12...	0830	55.27
FEB			SEP		
24...	0830	56.29	07...	0800	55.34
MAR					
19...	1055	56.03			
26...	1000	55.90			

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240200 LAKE BRYANT NEAR SILVER SPRINGS, FL

LOCATION.--Lat 29°08'21", long 81°51'03", in SW¼ sec.31, T.15 S., R.25 E., Marion County, Hydrologic Unit 03080102, on southeast shore on private pier, 4.4 mi northeast of Moss Bluff Dam, and 13.5 mi southeast of Silver Springs.

SURFACE AREA.--1,261 acres (1.97 mi²). Does not include North Lake.

DRAINAGE AREA.--9.86 mi².

PERIOD OF RECORD.--April 1936 to April 1950, July 1972 to current year (monthly). Records of elevation prior to July 1972 are unpublished and available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. April 1936 to April 1950, nonrecording gage on northeast side of lake at datum, 53.36 ft higher.

REMARKS.--Lake is in a chain of lakes in the western part of the Ocala National Forest. Outflow is to the east to Halfmoon Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 54.8 ft, October 1945; minimum observed, 50.20 ft, Dec. 2, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
02...	0935	51.88	30...	1443	51.55
NOV			MAY		
27...	1310	51.42	21...	0905	51.41
DEC			31...	1430	51.20
12...	0725	51.35	JUN		
JAN			07...	0800	51.13
17...	1020	51.80	JUL		
22...	0900	51.84	10...	1300	51.10
MAR			23...	0930	51.18
19...	0910	51.72	SEP		
26...	0900	51.70	29...	1400	50.89

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02240900 NEWNANS LAKE NEAR GAINESVILLE, FL

LOCATION.--Lat 29°39'04", long 82°14'22", in SE¼, sec.6, T.10 S., R.21 E., Alachua County, Hydrologic Unit 03080102, on west shore of lake, 5 mi east of Gainesville.

SURFACE AREA.--7,350 acres (11.5 mi²).

DRAINAGE AREA.--114 mi².

PERIOD OF RECORD.--April 1936 to October 1945 (monthly), incomplete; November 1945 to January 1946 and June 1946 to December 1952 (twice weekly), incomplete; July 1957 to September 1960; October 1960 to September 1962 (weekly), incomplete; October 1962 to July 1965 (fragmentary); August 1965 to March 1989 (weekly), incomplete; April to September 1989 (once-daily); October 1989 to September 1990 (weekly), incomplete. Records of elevations prior to October 1960 are unpublished and are available in files of the Jacksonville field headquarters.

REVISED RECORDS.--WDR FL-74-3: Drainage area. WDR FL-81-1: Surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 2, 1945, at approximately present site at datum 65.21 ft higher. Nov. 2, 1945, to Dec. 31, 1952, and July 15, 1957, to July 24, 1986, at several sites within 500 ft of present site at datum 63.33 ft higher.

REMARKS.--Outflow from lake is through Prairie Creek to Camps Canal and thence through River Styx to Orange Lake; some diversion of outflow to Paynes Prairie for irrigation. Since November 1966, lake level partially controlled by concrete dam in Prairie Creek at lake outlet; present control, completed in March 1976, has crest elevation at 66.8 ft with removable boards.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 71.21 ft, Mar. 12, 1948; minimum observed, 63.87 ft, May 19, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 66.30 ft, Apr. 7, 1990; minimum observed, 65.18 ft, June, 1990.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.62	65.30	---	---	---	---	66.10	---	---	65.60	---	---
2	---	---	---	---	---	---	---	66.00	65.40	---	---	65.78
3	65.60	---	---	---	65.42	66.20	---	---	---	---	---	---
4	65.60	---	---	65.44	---	---	---	---	---	---	---	---
5	65.60	---	---	---	---	---	---	---	65.39	---	65.95	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	65.60	65.28	---	---	---	---	66.30	---	---	---	---	---
8	65.58	---	65.28	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	66.20	---	---	65.38	---	---	---
10	65.56	---	---	65.48	---	---	---	65.85	---	65.72	---	65.78
11	---	---	---	---	65.48	---	---	---	---	---	65.90	---
12	65.55	65.28	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	65.55	---	---	---	---	---	---	---	---	---	---	---
15	65.55	65.26	---	---	---	---	66.30	---	---	---	---	---
16	---	---	---	---	---	---	---	---	65.18	---	---	---
17	---	---	---	65.48	65.48	---	---	---	---	65.90	---	---
18	65.48	---	---	---	---	66.18	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	65.80	65.75
20	65.45	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	66.10	65.68	---	---	---	---
22	---	---	---	---	---	66.07	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	65.38	---	---	---
24	---	65.24	---	65.47	66.06	66.04	---	65.58	---	66.02	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	65.26	65.38	---	---	---	---	---	---	66.00	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	65.90	65.74
29	---	65.24	65.40	---	---	---	66.00	65.45	---	---	---	---
30	---	65.22	65.40	65.44	---	---	---	---	65.60	---	---	---
31	---	---	---	---	---	66.10	---	---	---	65.94	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02240958 LAKE KANAPAHA AT ARREDONDO, FL

LOCATION.--Lat 29°36'44", long 82°24'14", in NW¼ sec.22, T.10 S., R.19 E., Alachua County, Hydrologic Unit 03080102, on south shore of lake at Broken Arrow Bluff Mobile Homes Park, 0.6 mi northeast of Arredondo, and 5.4 mi southwest of Gainesville.

SURFACE AREA.--204 acres (0.32 mi²).

DRAINAGE AREA.--8.65 mi².

PERIOD OF RECORD.--November 1971 to current year (weekly), incomplete.

REVISED RECORDS.--WDR FL-73-3: Surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Outflow from lake is into Haile Sink.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 60.02 ft, Sept. 8, 1988; lake dry at gage Oct. 27 to Nov. 29, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 52.25 ft, July 19; minimum observed, 49.80 ft, June 22.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	50.90	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	51.15	---	---	---	---	---	---	---	---	---	---
4	---	---	---	50.95	---	---	---	50.63	---	---	51.90	---
5	51.31	---	---	---	---	---	51.05	---	---	---	---	---
6	51.30	---	---	---	50.90	---	---	---	---	51.40	---	---
7	---	---	50.80	---	---	50.98	---	---	50.30	---	---	51.80
8	---	---	---	---	---	---	---	---	---	---	51.90	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	51.16	---	51.00	---	---	---	---	---	---	---	---
11	51.20	---	---	---	---	---	---	50.60	50.20	---	---	---
12	---	---	---	---	---	---	50.95	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	51.40	---	---
14	---	---	---	---	---	---	---	---	---	---	---	51.65
15	---	---	50.90	---	50.85	50.90	---	---	---	---	---	---
16	---	51.06	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	50.58	---	---	51.80	---
18	---	---	---	50.97	---	---	50.95	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	52.25	---	---
20	51.28	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	51.45
22	---	---	---	---	50.96	50.75	---	---	49.80	---	---	---
23	---	---	50.90	---	---	---	50.82	---	---	---	51.80	---
24	---	51.05	---	50.87	---	---	---	50.35	---	---	---	---
25	---	---	---	---	---	---	---	---	---	52.04	---	---
26	---	---	---	---	---	---	---	---	---	52.04	---	---
27	51.15	---	---	---	---	---	50.90	---	---	---	---	51.35
28	---	---	51.15	---	51.00	---	---	---	---	---	---	---
29	---	50.97	---	---	---	---	---	---	50.50	---	---	---
30	---	---	---	50.95	---	50.90	---	---	---	---	51.70	---
31	---	---	---	---	---	---	---	50.30	---	---	---	---

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02242400 LOCHLOOSA LAKE AT LOCHLOOSA, FL

LOCATION.--Lat 29°30'07", long 82°06'12", in SW¼ sec.27, T.11 S., R.22 E., Alachua County, Hydrologic Unit 03080102, on east shore of lake, at Finway Fish Camp, at Lochloosa.

SURFACE AREA.--8,800 acres (13.7 mi²).

DRAINAGE AREA.--88.0 mi².

PERIOD OF RECORD.--April and May 1936 (monthly), July 1942 to December 1952, April 1956 to September 1960, October 1960 to May 1961 (about twice weekly), July 1961 to March 1962 (weekly), April 1962 to July 1965 (fragmentary), August 1965 to April 1989 (weekly), incomplete, July 1989 to current year. Records of elevations prior to October 1960 are unpublished and are available in files of the Jacksonville field headquarters.

REVISED RECORDS.--WDR FL-80-1: Drainage area. WDR FL-74-3: Surface area.

GAGE.--Water-stage recorder. Datum of gage is 48.83 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to April 5, 1989, nonrecording gage at several sites within 0.3 mi south at following datums: April 1936, to July 9, 1942, 6.55 ft higher; July 10, 1942, to Dec. 31, 1952, 7.00 ft higher; and Jan. 1, 1953 to April 5, 1989 at present datum.

REMARKS.--Outflow from lake is through Cross Creek to Orange Lake; some overflow occurs through Lochloosa Slough (station 02242500) to Orange Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 61.94 ft, Mar. 16, 1948; minimum observed, 53.88 ft, Aug. 18, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 62.0 ft was reached in October 1941, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 56.67 ft, Oct. 2,3; minimum daily, 54.51 ft, Sept. 28.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56.59	56.20	56.06	56.03	55.81	55.88	55.54	55.27	54.84	---	55.04	54.84
2	56.67	56.19	56.05	56.00	55.81	55.89	55.56	55.24	54.84	---	55.02	54.85
3	56.67	56.18	56.04	55.99	55.80	55.92	55.69	55.21	54.85	---	55.03	54.85
4	56.65	56.16	56.01	55.99	55.83	55.89	55.66	55.20	54.86	---	55.05	54.84
5	56.63	56.14	56.00	56.00	55.78	55.87	55.63	55.20	54.86	---	55.03	54.84
6	56.61	56.14	55.99	56.02	55.74	55.85	55.62	55.18	54.85	---	55.02	54.82
7	56.59	56.13	55.98	56.04	55.74	55.83	55.61	55.13	54.84	---	55.01	54.81
8	56.58	56.12	55.99	56.08	55.73	55.81	55.57	55.09	54.85	---	54.99	54.80
9	56.54	56.18	56.06	56.06	55.72	55.82	55.54	55.08	54.85	---	54.98	54.79
10	56.51	56.18	56.00	56.05	55.77	55.81	55.55	55.17	54.92	---	54.97	54.78
11	56.50	56.16	55.99	56.04	55.82	55.80	55.57	55.13	54.93	---	54.98	54.77
12	56.48	56.15	56.00	56.05	55.80	55.78	55.52	55.08	---	---	54.98	54.74
13	56.46	56.13	56.06	55.99	55.78	55.76	55.48	55.10	---	---	54.97	54.72
14	56.45	56.12	56.00	55.97	55.76	55.74	55.48	55.08	---	---	54.96	54.72
15	56.44	56.12	55.99	55.96	55.76	55.73	55.48	55.15	---	---	54.95	54.72
16	56.43	56.16	56.00	55.95	55.76	55.72	55.46	55.14	---	---	54.94	54.71
17	56.42	56.12	55.98	55.94	55.78	55.74	55.46	55.15	---	---	54.94	54.71
18	56.41	56.09	55.99	55.94	55.78	55.75	55.42	55.11	---	---	54.96	54.67
19	56.42	56.08	56.00	55.93	55.79	55.73	55.38	55.08	---	---	54.94	54.65
20	56.38	56.07	56.04	55.92	55.78	55.72	55.36	55.08	---	---	54.93	54.64
21	56.33	56.06	56.04	55.93	55.76	55.67	55.37	55.06	---	---	54.92	54.63
22	56.31	56.05	56.03	55.92	55.78	55.63	55.36	55.06	---	---	54.93	54.63
23	56.30	56.13	56.07	55.89	55.90	55.62	55.36	55.02	---	---	54.93	54.62
24	56.28	56.11	56.08	55.89	55.96	55.61	55.36	54.99	---	55.08	54.91	54.58
25	56.27	56.10	56.05	55.90	55.91	55.59	55.34	54.95	---	55.07	54.89	54.55
26	56.25	56.12	56.04	55.91	55.87	55.59	55.32	54.94	---	55.10	54.88	54.54
27	56.23	56.12	56.03	55.85	55.87	55.56	55.30	54.93	---	55.09	54.87	54.53
28	56.24	56.11	56.03	55.84	55.88	55.53	55.29	54.95	---	55.08	54.87	54.51
29	56.22	56.11	56.02	55.85	---	55.53	55.30	54.96	---	55.07	54.86	54.52
30	56.21	56.08	56.02	55.83	---	55.52	55.29	54.90	---	55.06	54.85	54.54
31	56.20	---	56.02	55.82	---	55.56	---	54.86	---	55.05	54.85	---
MEAN	56.43	56.13	56.02	55.95	55.80	55.72	55.46	55.08	---	---	54.95	54.70
MAX	56.67	56.20	56.08	56.08	55.96	55.92	55.69	55.27	---	---	55.05	54.85
MIN	56.20	56.05	55.98	55.82	55.72	55.52	55.29	54.86	---	---	54.85	54.51

CAL YR 1989	MEAN 56.75	MAX 58.10	MIN 55.58
WTR YR 1990	MEAN 54.96	MAX 56.27	MIN 53.91

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02243958 LAKE OCKLAWAHA NEAR ORANGE SPRINGS, FL

LOCATION.--Lat 29°30'30", long 81°48'15", in NW¼ sec.28, T.11 S., R.25 E., Putnam County, Hydrologic Unit 030810102, at upstream side of control structure of Rodman Dam on Oklawaha River, 8.4 mi east of Orange Springs.

SURFACE AREA.--10,800 acres (16.9 mi²), at elevation 20.0 ft above NGVD, from data provided by U.S. Army Corps of Engineers.

DRAINAGE AREA.--2,747 mi², includes Paynes Prairie, a diked sinkhole area of 650 mi², approximately, which is noncontributing except for pumpage.

PERIOD OF RECORD.--October 1968 to current year. Records for Oklawaha River above Rodman Dam, near Orange Springs (station 02243959). Prior to October 1969, published as Rodman Reservoir near Orange Springs.

REVISED RECORDS.--WDR FL-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Lake is formed by earthfill dam with concrete control structure. Dam was completed and storage began on Sept. 30, 1968. Capacity, 120,000 acre-ft between elevations 6.0 ft, invert of gate sills, and 23.2 ft, standard project flood; no dead storage below elevation 6.0 ft. Lake is part of the Cross-Florida Barge Canal and is used for recreation purposes. Figures given herein represent total contents.

COOPERATION.--Preliminary capacity table provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 85,000 acre-ft, Feb. 4, 1970, elevation, 20.70 ft; minimum since July 1969, 15,000 acre-ft, Sept. 5, Nov. 10, 1972; minimum elevation, 12.57 ft, Nov. 10, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 56,700 acre-feet, Apr. 3, elevation, 18.34 ft; minimum daily contents, 50,000 acre-feet, Aug. 27, elevation, 17.67 ft.

Preliminary capacity table
(elevation, in feet NGVD, and contents, in acre-feet)

10	5,000	14	22,000	18	53,000	22	102,000
11	9,000	15	28,000	19	64,000	23	117,000
12	13,000	16	35,000	20	76,000		
13	17,000	17	44,000	21	88,000		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.99	18.15	18.02	18.04	18.14	18.20	18.11	18.12	17.99	18.17	17.88	17.96
2	18.04	18.15	17.99	17.99	18.12	18.19	18.18	18.09	18.01	18.22	17.87	17.97
3	18.00	18.11	17.98	18.00	18.06	18.18	18.34	18.10	18.04	18.23	17.90	17.94
4	17.96	18.08	17.96	18.03	18.09	18.06	18.20	18.10	18.06	18.19	17.89	17.95
5	17.95	18.01	17.98	18.05	18.01	18.05	18.07	18.15	18.06	18.23	17.92	17.98
6	17.96	18.03	17.98	18.10	18.03	18.05	18.03	18.10	18.04	18.20	17.97	17.98
7	17.96	18.06	17.98	18.15	18.07	18.07	17.95	18.01	18.10	18.14	18.04	17.97
8	17.95	18.08	18.05	18.24	18.05	18.06	17.87	17.98	18.12	18.04	18.08	17.97
9	17.94	18.16	18.18	18.13	18.08	18.11	17.87	17.98	18.11	18.00	18.13	17.99
10	17.95	18.14	18.12	18.08	18.15	18.06	17.90	18.08	18.14	17.98	18.17	17.99
11	17.96	18.09	18.12	18.03	18.27	18.02	17.97	18.00	18.12	18.04	18.09	18.00
12	17.97	18.06	18.14	18.08	18.25	18.00	17.93	17.96	18.08	18.13	18.00	17.99
13	17.96	18.04	18.21	18.03	18.22	17.97	17.90	18.01	18.03	18.27	18.02	18.01
14	17.97	18.03	18.14	18.04	18.20	17.95	17.92	18.00	18.03	18.25	18.08	18.02
15	17.97	18.01	18.15	18.03	18.18	17.94	17.95	18.00	18.04	18.22	18.13	18.00
16	17.97	18.03	18.15	18.03	18.15	17.92	17.94	18.04	17.98	18.20	18.15	18.02
17	17.98	18.00	18.14	18.02	18.14	17.95	17.95	18.10	17.95	18.16	18.14	18.05
18	17.99	17.96	18.18	18.05	18.12	17.98	17.89	18.04	17.92	18.15	18.15	18.05
19	18.02	17.92	18.21	18.02	18.13	18.06	17.84	18.00	17.91	18.12	18.06	18.07
20	18.01	17.92	18.23	18.02	18.09	18.10	17.84	18.08	17.91	18.15	18.02	18.09
21	17.96	17.96	18.22	18.02	18.07	18.10	17.86	18.09	17.90	18.18	17.99	18.11
22	17.92	17.95	18.18	18.01	18.10	18.11	17.89	18.13	17.93	18.14	17.99	18.13
23	17.93	18.03	18.21	17.97	18.25	18.11	17.94	18.07	18.07	18.12	17.96	18.09
24	17.99	18.03	18.23	17.99	18.32	18.08	17.98	18.02	18.16	18.11	17.89	18.02
25	18.06	18.05	18.23	18.07	18.23	18.06	18.04	18.02	18.17	18.14	17.75	17.97
26	18.14	18.11	18.21	18.13	18.21	18.05	18.08	18.02	18.18	18.15	17.69	17.97
27	18.18	18.11	18.18	18.13	18.22	18.01	18.08	18.02	18.17	18.08	17.67	17.93
28	18.16	18.08	18.15	18.19	18.24	18.01	18.08	18.08	18.17	18.00	17.74	17.92
29	18.17	18.08	18.11	18.21	---	18.02	18.12	18.13	18.16	17.92	17.82	17.91
30	18.19	18.04	18.08	18.19	---	18.04	18.15	18.06	18.17	17.86	17.90	18.03
31	18.17	---	18.06	18.14	---	18.09	---	18.01	---	17.84	18.01	---
MEAN	18.01	18.05	18.12	18.07	18.15	18.05	18.00	18.05	18.06	18.12	17.97	18.00
MAX	18.19	18.16	18.23	18.24	18.32	18.20	18.34	18.15	18.18	18.27	18.17	18.13
MIN	17.92	17.92	17.96	17.97	18.01	17.92	17.84	17.96	17.90	17.84	17.67	17.91

CAL YR 1989	MEAN 16.18	MAX 18.35	MIN 12.69
WTR YR 1990	MEAN 18.05	MAX 18.34	MIN 17.67

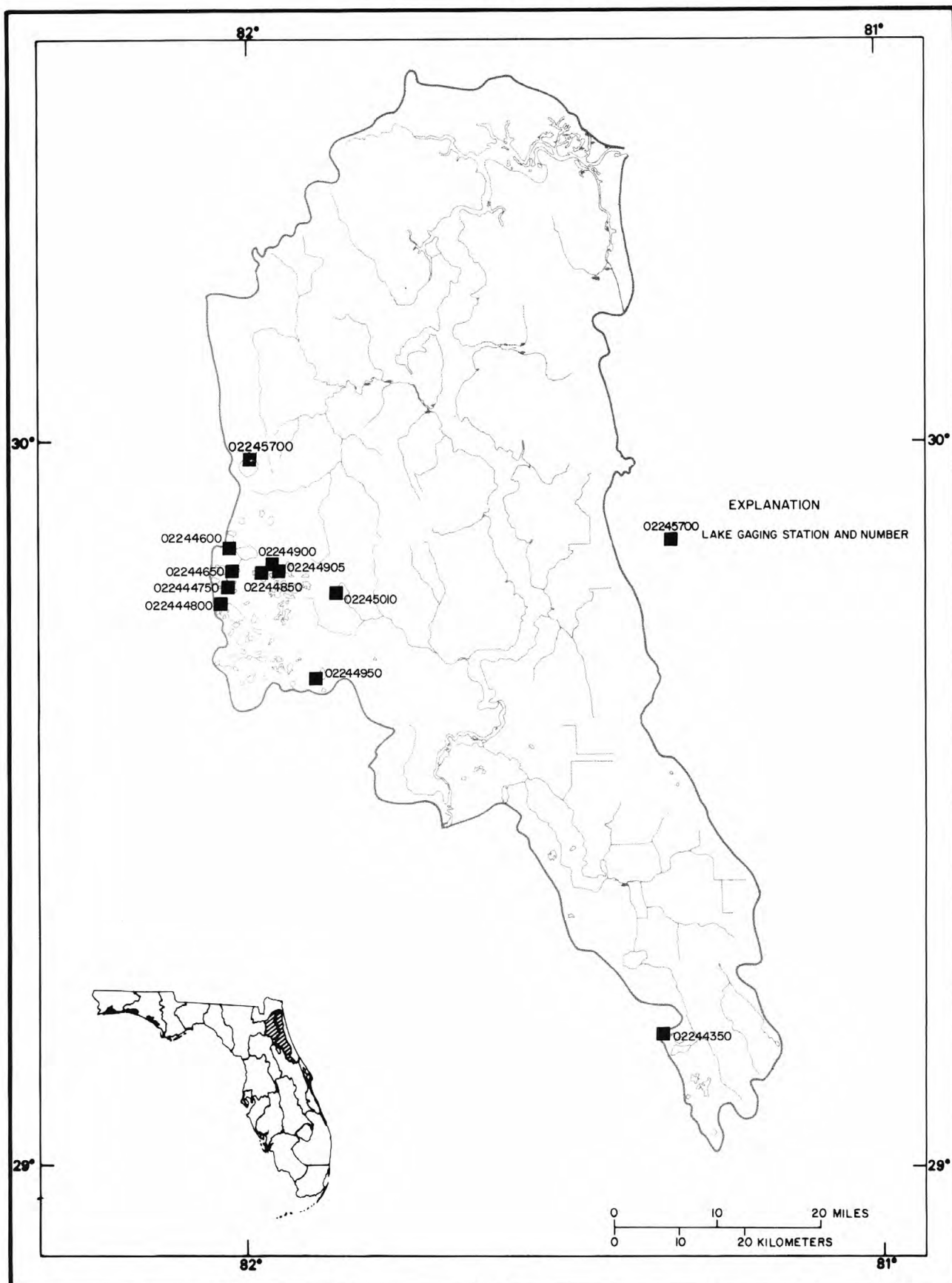


Figure 26.--Location of lake gaging stations in the St. Johns River basin below the Oklawaha River.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAHAHA RIVER

02244350 LAKE WINONA NEAR DE LAND, FL

LOCATION.--Lat 29°10'50", long 81°20'06", in SE¼ sec.19, T.15 S., R.30 E., Volusia County, Hydrologic Unit 03080103, on northwest shore of lake, on pier at YMCA camp, 10.8 mi north of De Land.

SURFACE AREA.--156 acres (0.24 mi²).

DRAINAGE AREA.--1.35 mi².

PERIOD OF RECORD.--March 1965 to current year.

REVISED RECORDS.--WDR FL-75-1: Surface area, drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is landlocked.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 40.52 ft, Oct. 20, 1969; minimum elevation observed, 31.34 ft, July 2, 1990, but may have been lower during the period June 1 to Aug. 1, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 32.70 ft, Aug. 25; minimum elevation observed, 31.34 ft, July 2, 1990, but may have been lower during the period June 1 to Aug. 1.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.48	32.44	32.23	32.19	32.19	32.42	32.31	32.05	---	---	---	32.63
2	32.50	32.43	32.21	32.19	32.19	32.42	32.30	32.04	---	---	---	32.62
3	32.49	32.42	32.20	32.18	32.19	32.41	32.36	32.02	---	---	---	32.60
4	32.48	32.41	32.16	32.18	32.19	32.40	32.34	32.00	---	---	---	32.58
5	32.47	32.40	32.14	32.29	32.17	32.39	32.32	31.98	---	---	---	32.56
6	32.45	32.36	32.12	32.31	32.15	32.39	32.30	31.98	---	---	---	32.54
7	32.46	32.35	32.12	32.32	32.14	32.38	32.29	31.97	---	---	---	32.53
8	32.51	32.34	32.14	32.34	32.14	32.37	32.26	31.94	---	---	---	32.51
9	32.52	---	32.22	32.34	32.13	32.37	32.24	31.92	---	---	---	32.50
10	32.52	---	32.21	32.34	32.15	32.35	32.23	31.96	---	---	---	32.48
11	32.53	---	32.20	32.34	32.27	32.35	32.29	31.95	---	---	---	32.46
12	32.52	---	32.19	32.33	32.27	32.34	32.29	31.93	---	---	---	32.44
13	32.51	---	32.21	32.31	32.26	32.33	32.27	31.91	---	---	---	32.43
14	32.51	---	32.19	32.28	32.25	32.32	32.25	31.90	---	---	---	32.41
15	32.51	32.32	32.16	32.28	32.24	32.32	32.24	31.89	---	---	---	32.40
16	32.50	32.33	32.14	32.27	32.24	32.31	32.23	31.87	---	---	---	32.38
17	32.49	32.32	32.13	32.27	32.24	32.31	32.22	31.85	---	---	---	32.40
18	32.48	32.29	32.19	32.27	32.27	32.32	32.21	31.83	---	---	---	32.46
19	32.47	32.28	32.21	32.27	32.27	32.31	32.19	31.82	---	---	---	32.44
20	32.43	32.26	32.26	32.27	32.26	32.29	32.18	31.84	---	---	---	32.42
21	32.40	32.25	32.27	32.27	32.26	32.27	32.16	31.82	---	---	---	32.41
22	32.38	32.24	32.28	32.26	32.27	32.24	32.15	31.80	---	---	---	32.39
23	32.36	32.26	32.35	32.25	32.43	32.23	32.16	31.78	---	---	32.64	32.38
24	32.36	32.25	32.30	32.25	32.47	32.22	32.16	31.76	---	---	32.64	32.36
25	32.35	32.24	32.26	32.24	32.46	32.20	32.14	31.73	---	---	32.70	32.33
26	32.36	32.26	32.23	32.24	32.44	32.19	32.13	31.70	---	---	32.69	32.31
27	32.42	32.27	32.22	32.22	32.43	32.18	32.11	31.69	---	---	32.68	32.30
28	32.45	32.26	32.21	32.21	32.43	32.16	32.09	31.67	---	---	32.67	32.39
29	32.44	32.26	32.20	32.20	---	32.16	32.08	31.64	---	---	32.66	32.50
30	32.44	32.24	32.20	32.20	---	32.22	32.07	31.62	---	---	32.65	32.50
31	32.44	---	32.19	32.20	---	32.31	---	---	---	---	32.64	---
MEAN	32.46	---	32.20	32.26	32.26	32.31	32.22	---	---	---	---	32.46
MAX	32.53	---	32.35	32.34	32.47	32.42	32.36	---	---	---	---	32.63
MIN	32.35	---	32.12	32.18	32.13	32.16	32.07	---	---	---	---	32.30

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244600 SAND HILL LAKE NEAR KEYSTONE HEIGHTS, FL

LOCATION.--Lat 29°51'01", long 82°01'10", in NE¼ sec.32, T.7 S., R.23 E., Clay County, Hydrologic Unit 03080103, on west shore of lake, at end of graded road, 1.3 mi east of Keystone Airport, and 3.5 mi north of Keystone Heights.

SURFACE AREA.--1,250 acres (1.95 mi²).

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--July 1957 to July 1959 (twice weekly); August 1959 to September 1960 (weekly); October 1960 to September 1965 (fragmentary); October 1965 to February 1976 (weekly); March 1976 to current year (monthly). Records of elevations prior to October 1960 are unpublished and available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 126.02 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

REMARKS.--Lake is one of the Etonia Creek headwaters chain of lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 132.73 ft, Sept. 22, 1964; minimum observed, 130.18 ft, Sept. 1, 1990.

EXPREMES FOR CURRENT YEAR.--Maximum elevation observed, 131.12 ft, Oct. 2; minimum observed, 130.18 ft, Sept. 1.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
02...	1030	131.12	01...	1100	130.56
10...	1050	131.02	17...	1750	130.42
NOV			MAY		
03...	1530	130.78	01...	0830	130.48
DEC			25...	1245	130.37
01...	1030	130.66	JUN		
08...	1430	130.57	01...	1530	130.30
JAN			JUL		
06...	0900	130.68	02...	0930	130.48
25...	1505	130.66	20...	1050	130.41
FEB			AUG		
02...	0900	130.70	01...	0900	130.40
MAR			SEP		
02...	1200	130.72	01...	0930	130.18
23...	1200	130.59			

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAHAHA RIVER

02244650 MAGNOLIA LAKE NEAR KEYSTONE HEIGHTS, FL

LOCATION (REVISED).--Lat 29°49'18", long 82°01'22", in SE¼ sec.8, T.8 S., R.23 E., Clay County, Hydrologic Unit 03080103, on west shore of lake, 50 ft east from end of public boat ramp, 2.5 mi north of Keystone Heights.

SURFACE AREA.--201 acres (0.31 mi²).

DRAINAGE AREA.--14.4 mi².

PERIOD OF RECORD.--March 1958 to April 1960 (fragmentary); May 1960 to September 1966 (once daily); October 1966 to June 1968 (about thrice weekly); July 1968 to March 1969 (fragmentary); April 1969 to July 1978 (once-daily); August 1978 to current year (weekly). Records of elevations prior to October 1960 are unpublished and available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 117.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Apr. 18, 1990 at site 2,500 ft southeast at same datum.

REMARKS.--Lake is one of the Etonia Creek headwaters chain of lakes. Temporary earthen dam at lake outlet from Sept. 9-12, 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 125.91 ft, Sept. 12, 1973, caused by temporary earthen dam at lake outlet; minimum observed, 118.92 ft, Sept. 28, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 122.70 ft, Oct. 7; minimum observed, 118.92 ft, Sept. 28.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	120.06	---	---	119.44
2	---	---	121.80	---	---	---	---	---	---	---	---	---
3	---	---	---	---	121.34	121.22	---	---	---	---	---	---
4	---	122.10	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	121.56	---	---	120.82	---	---	120.16	---	---
7	122.70	---	---	---	---	---	---	---	---	---	---	---
8	---	---	121.72	---	---	---	---	---	---	---	---	119.32
9	---	---	121.76	---	---	---	---	---	---	---	---	---
10	122.62	---	---	---	121.34	---	---	---	---	---	---	---
11	---	122.06	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	121.50	---	---	120.66	---	---	---	119.78	---
14	122.44	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	121.06	---	---	---	---	---	119.18
16	---	---	121.66	---	---	---	---	---	---	---	---	---
17	---	---	---	---	121.28	---	120.60	---	---	---	---	---
18	---	121.96	---	---	---	---	120.58	---	---	---	---	---
19	---	---	---	---	---	---	---	---	120.10	---	---	---
20	---	---	---	121.44	---	---	---	---	---	120.02	119.70	---
21	122.34	---	---	---	---	---	120.56	---	---	---	---	119.12
22	---	---	---	---	---	---	---	120.32	120.10	---	---	---
23	---	---	121.64	---	---	120.96	---	---	---	120.12	---	---
24	---	---	---	---	121.36	---	---	---	---	---	---	---
25	---	121.90	---	121.37	---	---	---	120.25	---	---	119.58	---
26	---	---	---	---	---	---	120.50	120.30	---	---	---	---
27	122.26	---	---	121.34	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	118.92
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	121.60	---	---	---	---	---	120.22	---	---	---
31	---	---	---	---	---	120.88	---	---	---	---	---	---

02244750 BROOKLYN LAKE AT KEYSTONE HEIGHTS, FL

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 101.59 ft, Oct. 6; minimum observed, 94.46 ft, Sept. 27.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	96.10	---
2	---	---	---	---	---	---	---	97.46	---	---	---	---
3	---	---	---	99.60	---	---	---	---	---	96.58	---	---
4	---	---	---	---	---	---	98.18	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	96.02	---
6	101.59	---	---	---	98.96	---	---	---	96.60	---	---	---
7	---	---	---	---	99.00	98.76	---	---	---	---	---	---
8	---	---	99.90	---	---	---	---	---	---	---	95.90	---
9	---	---	---	---	---	---	---	97.20	---	---	---	---
10	101.37	---	---	99.56	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	97.92	---	---	96.32	---	---
12	101.28	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	96.62	---	---	---
14	---	100.44	---	---	98.82	98.56	---	---	---	---	---	---
15	---	---	99.84	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	97.12	---	---	---	---
17	---	---	---	99.36	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	97.71	---	---	96.20	---	---
19	101.13	---	99.78	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	96.26	95.55	94.74
21	---	---	---	---	98.88	98.44	---	---	96.32	---	---	---
22	---	---	---	---	---	---	---	---	---	---	95.38	---
23	---	---	---	---	---	98.36	---	96.96	---	---	---	---
24	---	---	---	99.32	---	---	---	---	---	---	---	---
25	---	---	---	99.18	---	---	97.56	96.90	---	96.26	---	---
26	100.86	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	96.50	---	---	94.46
28	---	---	---	---	98.90	---	---	---	---	---	---	---
29	---	---	---	---	---	98.18	---	---	---	---	---	---
30	---	---	---	---	---	---	---	96.72	---	---	---	---
31	---	---	---	99.14	---	---	---	---	---	---	---	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244800 LAKE GENEVA AT KEYSTONE HEIGHTS, FL

LOCATION.--Lat 29°46'26", long 82°01'59", in NE¼ sec.30, T.8 S., R.23 E., Clay County, Hydrologic Unit 03080103, on northwest shore of lake, on private beach, 0.8 mi south of Keystone Heights.

SURFACE AREA.--1,746 acres (2.73 mi²).

DRAINAGE AREA.--35.5 mi².

PERIOD OF RECORD.--July 1957 to January 1961 (once-daily); February 1961 to July 1965 (fragmentary); August 1965 to current year (weekly), incomplete. Records of elevations prior to October 1960 are unpublished and available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 94.91 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

REMARKS.--Lake is one of the Etonia Creek headwaters chain of lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 107.23 ft, July 15, 1973; minimum observed, 93.49 ft, Sept. 26, 1990.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 109.1 ft was reached in 1948, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 96.41 ft, Oct. 4; minimum observed, 93.49 ft, Sept. 26.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	95.95	---	---	---	---	---	---	---	---	94.31	---
2	---	---	---	---	---	---	---	94.99	---	---	---	---
3	---	---	---	95.59	---	---	---	---	---	94.41	---	---
4	96.41	---	---	---	---	---	95.39	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	94.29	93.87
6	---	---	95.61	---	---	---	---	---	94.39	---	---	---
7	---	---	---	---	95.31	95.61	---	---	---	---	---	---
8	---	95.87	95.56	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	94.77	---	---	---	---
10	96.27	---	---	95.59	---	---	---	---	---	---	---	93.79
11	96.27	---	---	---	---	---	95.23	---	---	94.27	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	95.59	---	---	---	---	---	94.41	---	---	---
14	---	---	---	---	95.29	95.51	---	---	---	---	---	---
15	---	95.85	95.59	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	94.77	---	---	---	---
17	96.21	---	---	95.49	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	95.05	---	---	94.21	---	93.71
19	---	---	95.57	---	---	---	---	---	---	---	---	---
20	---	95.75	---	---	---	---	---	---	---	94.27	---	93.67
21	---	---	---	---	95.55	95.47	---	---	94.23	---	---	---
22	---	---	---	---	---	---	---	---	---	---	94.01	---
23	---	---	---	---	---	95.43	---	94.59	---	---	---	---
24	---	---	---	95.45	---	---	---	---	---	---	---	---
25	96.03	---	---	95.45	---	---	94.99	94.51	---	94.35	---	---
26	---	---	---	---	---	---	---	---	---	---	---	93.49
27	---	---	---	---	---	---	---	---	94.45	---	---	---
28	---	---	---	---	95.63	---	---	---	---	---	---	---
29	---	95.75	---	---	---	95.31	---	---	---	---	93.95	---
30	---	---	---	---	---	---	---	94.41	---	---	---	---
31	---	---	95.59	95.37	---	---	---	---	---	---	---	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244850 PEBBLE LAKE NEAR KEYSTONE HEIGHTS, FL

LOCATION.--Lat 29°49'31", long 81°57'10", in SE¼ sec.1, T.8 S., R.23 E., Clay County, Hydrologic Unit 03080103, on east shore of lake in Gold Head Branch State Park, 5.5 mi northeast of Keystone Heights.

SURFACE AREA.--9.5 acres (0.01 mi²).

DRAINAGE AREA.--0.19 mi².

PERIOD OF RECORD.--July 1945 to current year (weekly), incomplete. Records of elevations prior to October 1960 are unpublished and available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 101.16 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

REMARKS.--Lake has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 116.36 ft, July 11, 1948, may have been higher in October 1948; minimum observed, 84.24 ft, Apr. 28, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 93.98 ft, Oct. 3; minimum observed, 87.94 ft, Sept. 26.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	90.76	---	---	---	---
2	---	---	---	92.72	---	---	---	---	---	---	---	---
3	93.98	---	---	---	---	---	91.38	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	92.86	---	---	---	---	---	90.00	---	---	88.56
6	---	---	---	---	---	---	---	---	---	89.86	---	---
7	---	---	---	---	92.10	91.90	---	---	---	---	89.12	---
8	---	---	92.82	---	---	---	---	90.52	---	---	---	---
9	---	---	---	92.66	---	---	---	---	---	---	---	---
10	93.82	---	---	---	---	---	91.16	---	---	89.74	---	---
11	93.79	---	---	---	---	---	---	---	---	---	---	88.36
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	92.04	91.72	---	---	---	---	---	---
14	---	93.15	92.82	---	---	---	---	---	---	---	89.14	---
15	---	---	---	---	---	---	---	90.34	90.16	---	---	---
16	---	---	---	92.51	---	---	---	---	---	---	---	---
17	93.66	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	90.91	---	---	89.66	---	88.26
19	---	---	---	---	---	---	90.86	---	---	---	---	---
20	---	---	92.82	---	92.00	91.62	---	---	90.00	89.60	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	88.92	---
23	---	---	---	92.40	---	91.52	---	90.42	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	92.33	---	---	90.81	90.36	---	89.48	---	---
26	---	---	92.78	---	---	---	---	---	---	---	---	87.94
27	---	---	---	---	92.04	---	---	---	90.08	---	---	---
28	---	93.04	---	---	---	91.38	---	---	---	---	88.80	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	92.26	---	---	---	---	---	---	---	---
31	93.36	---	---	---	---	---	---	---	---	89.34	---	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244900 LAKE JOHNSON (LITTLE LAKE) NEAR KEYSTONE HEIGHTS, FL

LOCATION.--Lat 29°49'31", long 81°57'07", in SE¼ sec.1, T.8 S., R.23 E., Clay County, Hydrologic Unit 03080103, on north shore of little lake on northwest side of Lake Johnson in Gold Head Branch State Park, 5.5 mi northeast of Keystone Heights.

SURFACE AREA.--34.6 acres (0.05 mi²), little lake area. Combined areas of little lake and big lake are 475 acres, (0.74 mi²).

DRAINAGE AREA.--6.37 mi², combined areas.

PERIOD OF RECORD.--July 1945 to current year (weekly), incomplete. Records of elevations prior to Oct. 1960 are unpublished and available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 89.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Jan. 4, 1963, at site 200 ft south at datum 5.61 ft higher. Jan. 4, 1963 to Dec. 1977 at site 200 ft south at present datum. Since Feb. 7, 1959, auxiliary non-recording gage in big lake east of earthen dam.

REMARKS.--Gold Head Branch flows into little lake; little lake was first separated from big lake below an elevation of about 95 ft by a shallow channel and earthen dam, which was constructed June 30, 1957; the channel was deepened and a control with removable boards was constructed during August 1968. On January 17, 1969, the dam was found partially washed out and a new dam was constructed in April 1969; the top of the new dam is at an elevation of about 96 ft. Lake Johnson has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, about 105 ft in October 1948, from information by local resident; minimum observed, 90.87 ft, Aug. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 95.11 ft, Oct. 3; minimum observed, 93.71 ft, Sept. 26.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	94.89	---	---	---	---
2	---	---	---	95.05	---	---	---	---	---	---	---	---
3	95.11	---	---	---	---	---	95.03	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	95.01	---	---	---	---	---	94.59	---	---	94.01
6	---	---	---	---	---	95.01	---	---	---	94.69	---	---
7	---	---	---	---	95.01	---	---	---	---	---	94.21	---
8	---	---	95.01	---	---	---	---	94.75	---	---	---	---
9	---	---	---	95.07	---	---	---	---	---	---	---	---
10	95.05	---	---	---	---	---	94.91	---	---	94.57	---	---
11	95.15	---	---	---	---	---	---	---	---	---	---	93.89
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	95.05	95.01	---	---	---	---	---	---
14	---	94.92	95.03	---	---	---	---	---	---	---	94.35	---
15	---	---	---	---	---	---	---	94.71	94.75	---	---	---
16	---	---	---	95.11	---	---	---	---	---	---	---	---
17	95.01	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	94.83	---	---	94.51	---	93.89
19	---	---	---	---	---	---	94.81	---	---	---	---	---
20	---	---	95.07	---	95.09	95.01	---	---	94.65	94.49	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	94.19	---
23	---	---	---	95.05	---	94.96	---	94.81	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	95.04	---	---	94.86	94.79	---	94.49	---	---
26	---	---	94.99	---	---	---	---	---	---	---	---	93.71
27	---	---	---	---	95.07	---	---	---	94.83	---	---	---
28	---	95.03	---	---	---	94.93	---	---	---	---	94.15	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	95.05	---	---	---	---	---	---	---	---
31	94.93	---	---	---	---	---	---	---	---	94.37	---	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244905 LAKE JOHNSON (BIG LAKE) NEAR KEYSTONE HEIGHTS, FL

LOCATION.--Lat 29°49'26", long 81°56'42", in SW¼ sec.6, T.8 S., R.24 E., Clay County, Hydrologic Unit 03080103, on northwest shore of big lake in Gold Head Branch State Park, 5.8 mi northeast of Keystone Heights.

SURFACE AREA.--441 acres (0.69 mi²), big lake area. Combined areas of big lake and little lake are 475 acres (0.74 mi²).

DRAINAGE AREA.--6.37 mi², combined areas.

PERIOD OF RECORD.--February 1959 to June 1960 (fragmentary); January 1963 to current year (weekly), incomplete. Records of elevations prior to January 1963 are unpublished and available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 89.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Jan. 7, 1963, at same site at datum 2.40 ft lower. Prior to Sept. 18, 1990, at site 2000 ft northwest at same datum.

REMARKS.--Gold Head Branch flows into little lake; little lake was first separated from big lake below an elevation of about 95 ft by a shallow channel and earthen dam, which was constructed June 30, 1957; the channel was deepened and a control with removable boards was constructed during August 1968. On January 17, 1969, the dam was found partially washed out and a new dam was constructed in April 1969; the top of the new dam is at an elevation of about 96 ft. Lake Johnson has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 98.30 ft, Mar. 4, 1966; minimum observed, 83.12 ft, Sept. 26, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 87.87 ft, Oct. 3; minimum observed, 83.12 ft, Sept. 26.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	86.46	---	---	---	---
2	---	---	---	87.21	---	---	---	---	---	---	---	---
3	87.87	---	---	---	---	---	86.90	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	87.09	---	---	---	---	---	86.04	---	---	---
6	---	---	---	---	86.99	---	---	---	---	86.20	---	---
7	---	---	---	---	86.96	87.24	---	---	---	---	---	---
8	---	---	87.21	---	---	---	---	86.30	---	---	---	---
9	---	---	---	87.25	---	---	---	---	---	---	---	---
10	87.70	---	---	---	---	---	86.78	---	---	86.04	---	---
11	87.69	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	87.00	87.10	---	---	---	---	---	---
14	---	87.28	87.27	---	---	---	---	---	---	---	85.74	---
15	---	---	---	---	---	---	---	86.20	86.30	---	---	---
16	---	---	---	87.19	---	---	---	---	---	---	---	---
17	87.61	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	86.55	---	---	86.00	---	83.35
19	---	---	---	---	---	---	86.54	---	---	---	---	83.32
20	---	---	87.23	---	---	87.04	---	---	86.18	85.94	---	83.28
21	---	---	---	---	87.10	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	87.15	---	86.95	---	86.38	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	87.16	---	---	86.50	86.34	---	85.82	---	---
26	---	---	87.19	---	---	---	---	---	---	---	---	83.12
27	---	---	---	---	87.34	---	---	---	86.38	---	---	---
28	---	87.19	---	---	---	86.86	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	87.13	---	---	---	---	---	---	---	---
31	87.79	---	---	---	---	---	---	---	---	85.70	---	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244950 LAKE GRANDIN NEAR INTERLACHEN, FL

LOCATION.--Lat 29°40'16", long 81°52'55", in NE¼ sec.34, T.9 S., R.24 E., Putnam County, Hydrologic Unit 03080103, on south shore of lake, on private pier, 2.8 mi north of Interlachen.

SURFACE AREA.--354 acres (0.55 mi²).

DRAINAGE AREA.--3.71 mi².

PERIOD OF RECORD.--July 1957 to September 1960 (once-daily), incomplete; October 1960 to current year (fragmentary). Records of elevations prior to October 1960 are unpublished and are available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 73.69 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

REMARKS.--Lake outlet is through a swampy area and canal northward to Etonia Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 83.33 ft, on or about Sept. 13, 1964, from floodmark; minimum observed, 79.19 ft, May 25, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 80.47 ft, Oct. 10; minimum observed, 79.19 ft, May 25.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
10...	0830	80.47	23...	1515	79.89
DEC			MAY		
06...	1505	80.11	25...	1445	79.19
JAN			JUL		
25...	1655	80.09	25...	1200	79.49

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02245010 GEORGES LAKE NEAR FLORAHOME, FL

LOCATION.--Lat 29°47'24", long 81°51'34", in NW¼ sec.24, T.8 S., R.24 E., Putnam County, Hydrologic Unit 03080103, on west side of lake, on south side of stub canal, at Lakeside Hills Fish Camp, 4.3 mi northeast of Florahome.

SURFACE AREA.--812 acres (1.27 mi²).

DRAINAGE AREA.--5.33 mi².

PERIOD OF RECORD.--December 1982 to current year (weekly).

GAGE.--Nonrecording gage. Datum of gage is 85.51 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

REMARKS.--Lake is headwaters of Falling Branch.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 99.41 ft, Sept. 13, 20, 1988; minimum observed, 96.76 ft, Oct. 27, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 98.11 ft, Oct. 3; minimum observed, 96.93 ft, June 3, Sept. 30.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	97.67	---	---	---	---	---	---
2	---	---	---	97.65	---	---	---	---	---	---	---	97.33
3	98.11	---	---	---	---	---	---	---	96.93	---	---	---
4	---	---	---	---	---	---	---	97.47	---	97.31	97.33	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	97.49	---	---	---	97.71	---	---	---	---	---
7	---	97.65	---	---	97.55	---	---	---	---	---	97.46	---
8	---	---	---	---	---	97.67	---	---	---	---	---	---
9	---	---	---	97.69	---	---	---	---	---	---	---	97.36
10	97.97	---	---	---	---	---	---	---	97.11	---	---	---
11	---	---	---	---	---	---	---	97.33	---	---	---	---
12	---	---	97.51	---	---	---	---	---	---	97.11	---	---
13	---	---	---	---	97.55	---	97.67	---	---	---	---	---
14	---	97.61	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	97.61	---	---	---	---	97.61	---
16	---	---	---	97.63	---	---	---	---	---	---	---	97.13
17	97.91	---	---	---	---	---	---	97.27	---	---	---	---
18	---	---	---	---	---	---	---	---	96.95	---	---	---
19	---	---	97.55	---	---	---	---	---	---	97.08	---	---
20	---	---	---	---	---	---	97.47	---	---	---	---	---
21	---	97.65	---	---	97.67	---	---	---	---	---	---	---
22	---	---	---	---	---	97.54	---	---	---	---	97.46	---
23	---	---	---	97.59	---	97.54	---	---	---	---	---	---
24	97.77	---	---	---	---	---	---	---	---	---	---	96.99
25	---	---	---	97.61	---	---	---	97.11	---	97.10	---	---
26	---	---	97.63	---	---	---	---	---	---	97.37	---	---
27	---	---	---	---	97.67	---	97.43	---	97.31	---	---	---
28	---	97.61	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	97.55	---	---	---	---	---
30	---	---	---	97.59	---	97.62	---	---	---	---	97.36	96.93
31	97.71	---	---	---	---	---	---	96.99	---	---	---	---

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02245700 KINGSLEY LAKE AT CAMP BLANDING, FL

LOCATION.--Lat 29°58'28", long 81°59'22", in SE¼ sec.15, T.6 S., R.23 E., Clay County, Hydrologic Unit 03080103, on northeast shore of lake, on public pier, at Camp Blanding.

SURFACE AREA.--1,627 acres (2.54 mi²).

DRAINAGE AREA.--6.84 mi².

PERIOD OF RECORD.--June 1945 to March 1946 (twice daily), October 1946 (monthly), March 1947 to current year (twice weekly), incomplete. Records of elevations prior to October 1960 are unpublished and are available in files of the Jacksonville field headquarters.

GAGE.--Nonrecording gage. Datum of gage is 173.22 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark); gage readings have been reduced to elevations above NGVD. Prior to Aug. 3, 1961, gage located at site approximately 1,000 ft southeast of present location at same datum.

REMARKS.--Outlet of lake has a fixed concrete (broken) weir with average crest elevation of about 176 ft; flow is into North Fork Black Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 177.82 ft, Oct. 21, 1950, Sept. 12, 1964; minimum observed, 174.34 ft, Apr. 23, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 176.66 ft, Oct. 10; minimum observed, 175.10 ft, Sept. 29.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	175.92	---	---	---	175.54
2	---	---	176.00	176.00	---	---	---	---	175.52	---	---	---
3	176.58	---	---	---	176.02	176.18	176.10	---	---	175.52	---	---
4	---	176.18	---	---	---	---	---	---	---	---	175.50	175.48
5	---	---	175.92	---	---	---	---	175.90	175.50	---	---	---
6	---	---	---	176.00	176.00	176.16	---	---	---	---	---	---
7	176.54	176.18	---	---	---	---	176.08	---	---	175.50	175.46	---
8	---	---	175.92	---	---	---	---	175.86	---	---	---	175.42
9	---	---	176.00	176.04	---	---	---	---	175.50	---	---	---
10	176.66	---	---	---	175.98	176.12	176.00	---	---	175.50	---	---
11	---	176.20	---	---	---	---	---	---	---	---	175.64	175.38
12	---	---	176.02	---	---	---	---	175.82	175.52	---	---	---
13	---	---	---	176.02	176.04	176.12	---	---	---	---	---	---
14	176.60	176.18	---	---	---	---	175.96	---	---	175.50	175.62	---
15	---	---	---	---	---	---	---	175.78	---	---	---	175.34
16	---	---	176.02	176.02	---	---	---	---	175.48	---	---	---
17	176.54	---	---	---	176.02	176.10	175.92	---	---	175.58	---	---
18	---	176.14	---	---	---	---	---	---	---	---	175.60	175.32
19	---	---	176.02	---	---	---	---	175.74	175.46	---	---	---
20	---	---	---	176.04	176.08	176.10	---	---	---	175.61	---	---
21	176.50	176.10	---	---	---	---	175.92	---	---	175.58	175.54	---
22	---	---	---	---	---	---	---	175.68	---	---	---	175.26
23	---	---	176.00	176.04	---	176.06	---	---	175.46	---	---	---
24	176.36	---	---	---	176.22	176.06	175.92	---	---	175.62	---	---
25	---	176.06	---	176.02	---	---	---	175.62	175.50	---	175.56	175.14
26	---	---	176.00	---	---	---	---	175.62	---	---	---	---
27	---	---	---	176.02	176.20	176.02	---	---	---	---	---	---
28	176.28	176.02	---	---	---	---	175.90	---	---	175.58	175.56	---
29	---	---	---	---	---	---	---	175.58	---	---	---	175.10
30	---	---	175.98	176.02	---	---	---	---	175.48	---	---	---
31	176.22	---	---	---	---	176.00	---	---	---	175.54	---	---

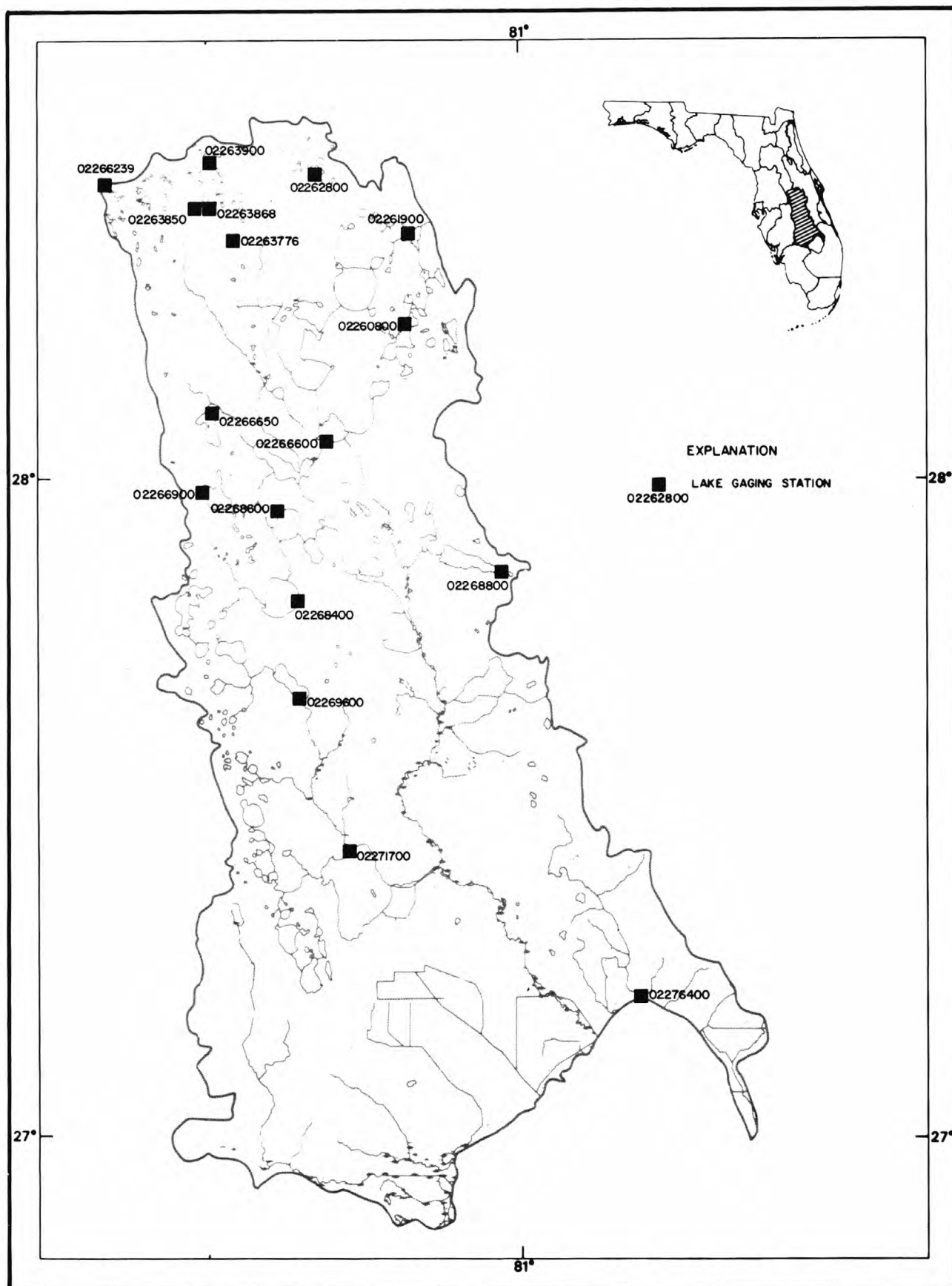


Figure 27.--Location of lake gaging stations in the Kissimmee River basin, the Taylor Creek basin and inflow to Lake Okeechobee from the north, and Fisheating Creek basin and inflow to Lake Okeechobee from the northwest.

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02260800 ALLIGATOR LAKE NEAR ASHTON, FL

LOCATION.--Lat 28°13'53", long 81°11'20", in SW¼ sec.11, T.26 S., R.31 E., Osceola County, Hydrologic Unit 03090101, on northeast shore of lake, at Alligator Lakeside Inn Fish Camp, 0.1 mi south of U.S. Highway 192, and 3.6 mi east of Ashton.

SURFACE AREA.--3,401 acres (5.31 mi²).

DRAINAGE AREA.--26.6 mi².

PERIOD OF RECORD.--November 1941 to current year (once-daily), incomplete. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Feb. 19, 1975, at several sites at datum 60.74 ft higher. Feb. 19, 1975 to May 5, 1989, at several sites on the north side of lake at present datum.

REMARKS.--Lake is one of the Kissimmee River headwaters chain of lakes. Subsequent to 1962, the improvement of canals and natural drains between these lakes and the construction of dams with gated controls has resulted in the partial regulation of lake elevations.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 66.81 ft, Sept. 25, 1960; minimum observed, 59.52 ft, June 10, 11, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 67.7 ft was reached in June 1934, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 64.20 ft, Feb. 24; minimum observed, 61.56 ft, July 12.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.47	63.73	63.69	64.01	64.11	64.00	63.80	62.42	61.76	61.68	61.90	62.16
2	63.47	63.75	63.69	64.03	64.11	64.00	63.80	62.52	61.70	---	61.90	62.14
3	63.45	63.75	63.69	64.05	64.11	64.00	63.76	62.50	61.72	---	61.90	62.12
4	63.47	63.75	63.69	64.05	64.11	64.00	63.68	62.46	61.68	61.66	61.96	62.12
5	63.49	63.75	63.69	64.09	64.11	64.00	63.50	---	61.66	61.66	61.86	62.10
6	63.51	63.75	63.67	64.09	64.11	64.00	63.48	62.36	61.62	---	61.86	62.08
7	63.49	63.73	63.67	64.11	64.09	64.00	63.48	62.32	61.57	61.60	61.86	62.06
8	63.53	63.73	63.65	64.13	64.07	64.00	63.42	62.30	61.62	61.60	61.84	62.06
9	63.55	63.73	---	64.13	64.02	64.00	63.36	62.28	61.62	61.60	61.82	62.06
10	63.58	63.73	63.79	64.15	64.02	64.00	63.30	62.28	61.62	61.58	61.80	62.04
11	63.60	63.71	63.79	64.17	64.06	64.00	63.26	62.26	61.62	61.58	61.84	62.00
12	63.63	63.71	63.81	64.15	64.06	64.00	63.20	62.24	61.66	61.56	61.86	62.10
13	63.65	63.71	63.83	64.05	64.06	64.00	63.18	62.24	61.70	61.60	61.90	62.10
14	63.65	63.71	63.85	64.01	64.06	64.00	63.16	62.22	61.68	61.62	61.96	62.10
15	63.65	63.71	63.85	64.01	64.06	63.90	63.14	62.20	61.66	61.64	62.00	62.10
16	63.69	63.69	63.85	64.01	64.06	63.90	63.10	62.18	61.68	61.68	---	62.10
17	63.71	63.69	63.85	64.01	64.06	---	63.00	62.16	61.70	61.70	62.00	62.10
18	63.71	63.67	63.89	64.01	64.06	63.96	63.00	62.14	61.70	61.74	---	62.10
19	63.71	63.69	63.91	64.01	64.06	63.90	63.00	62.12	61.68	61.78	62.00	62.10
20	---	63.69	63.95	64.01	64.06	63.86	62.98	62.12	61.66	61.78	62.06	62.08
21	63.69	63.69	64.05	64.01	64.06	63.80	62.86	62.10	61.66	61.78	62.08	62.06
22	63.67	63.67	64.11	64.01	64.06	63.80	62.84	---	61.62	61.78	62.08	62.06
23	63.67	63.65	---	64.01	64.08	63.78	62.80	62.08	61.62	61.76	---	62.04
24	63.67	63.65	64.13	64.01	64.20	63.78	62.78	62.02	61.68	61.76	62.10	62.04
25	63.65	63.67	64.13	64.01	64.10	63.76	62.46	61.96	61.66	61.80	62.10	62.02
26	63.65	63.69	64.15	64.01	64.10	63.74	62.00	61.94	61.66	61.80	62.12	62.00
27	63.71	63.70	64.17	64.01	63.96	63.74	62.00	61.92	61.70	61.80	62.12	62.00
28	63.73	63.71	64.05	64.01	63.96	63.74	---	61.90	61.70	61.78	62.14	62.00
29	63.75	63.71	64.03	64.01	---	63.74	62.10	61.92	61.70	61.80	62.14	61.98
30	63.75	63.70	64.03	64.01	---	---	62.30	61.84	61.70	61.84	62.14	62.00
31	63.73	---	64.01	64.11	---	---	---	61.78	---	61.90	62.16	---
MEAN	---	63.71	---	64.05	64.07	---	---	---	61.67	---	---	62.07
MAX	---	63.75	---	64.17	64.20	---	---	---	61.76	---	---	62.16
MIN	---	63.65	---	64.01	63.96	---	---	---	61.57	---	---	61.98

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02261900 LAKE MARY JANE NEAR NARCOOSSEE, FL

LOCATION.--Lat 28°22'46", long 81°11'15", in SW¼ sec.23, T.24 S., R.31 E., Orange County, Hydrologic Unit 03090101, on west shore of lake, at public park about 1,000 ft south of Mary Jane-Hart Canal, 6.5 mi northeast of Narcoossee, and 11 mi northeast of St. Cloud.

SURFACE AREA.--1,161 acres (1.81 mi²).

DRAINAGE AREA.--124 mi².

PERIOD OF RECORD.--November 1949 to current year (incomplete). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 26, 1973, at datum 56.66 ft higher.

REMARKS.--Lake is one of the Kissimmee River headwaters chain of lakes. Subsequent to 1962, the improvement of canals and natural drains between these lakes and the construction of dams with gated controls has resulted in the partial regulation of lake stages.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 64.81 ft, Mar. 20, 1960; minimum daily, 56.89 ft, May 31, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.06	60.46	60.65	60.87	60.81	60.83	60.58	59.98	59.46	59.50	59.88	59.72
2	60.07	60.46	60.66	60.84	60.82	60.84	60.50	59.96	59.51	59.53	59.88	59.71
3	60.07	60.45	60.67	60.82	60.83	60.84	60.44	59.94	59.50	59.51	59.93	59.71
4	60.08	60.45	60.66	60.83	60.83	60.81	60.39	59.93	59.56	59.50	60.02	59.69
5	60.10	60.44	60.66	60.84	60.81	60.80	60.38	59.91	59.56	59.49	60.05	59.68
6	60.12	60.44	60.66	60.84	60.80	60.78	60.38	59.89	59.56	59.48	60.05	59.67
7	60.13	60.44	60.67	60.83	60.79	60.76	60.38	59.86	59.55	59.46	60.01	59.66
8	60.16	60.43	60.73	60.81	60.78	60.77	60.37	59.83	59.55	59.44	59.99	59.65
9	60.18	60.46	60.89	60.79	60.78	60.78	60.36	59.81	59.55	59.44	59.96	59.63
10	60.20	60.46	60.90	60.77	60.77	60.79	60.36	59.81	59.54	59.45	59.96	59.62
11	60.22	60.46	60.92	60.75	60.86	60.80	60.46	59.79	59.55	59.43	59.99	59.63
12	60.24	60.46	60.96	60.76	60.86	60.80	60.43	59.77	59.56	59.42	59.99	59.65
13	60.35	60.47	61.04	60.74	60.85	60.80	60.37	59.76	59.54	59.48	60.01	59.64
14	60.36	60.46	61.03	60.74	60.85	60.80	60.34	59.75	59.51	59.59	60.06	59.64
15	60.37	60.46	61.02	60.74	60.84	60.80	60.30	59.73	59.49	59.64	60.14	59.62
16	60.38	60.53	61.02	60.75	60.84	60.80	60.26	59.71	59.47	59.79	60.12	59.61
17	60.39	60.54	61.00	60.75	60.84	60.77	60.22	59.70	59.48	59.82	60.08	59.64
18	60.39	60.53	61.06	60.74	60.84	60.72	60.18	59.68	59.56	59.84	60.04	59.70
19	60.41	60.52	61.07	60.71	60.83	60.69	60.19	59.66	59.55	59.85	60.02	59.69
20	60.39	60.52	61.12	60.68	60.82	60.67	60.15	59.64	59.53	59.87	59.98	59.67
21	60.36	60.51	61.14	60.65	60.81	60.65	60.10	59.62	59.52	59.88	59.94	59.66
22	60.35	60.51	61.08	60.62	60.82	60.64	60.06	59.60	59.50	59.89	59.89	59.66
23	60.35	60.53	61.07	60.59	60.93	60.63	60.03	59.59	59.50	59.90	59.85	59.65
24	60.34	60.54	60.99	60.60	60.99	60.62	60.04	59.56	59.51	59.90	59.80	59.62
25	60.33	60.53	60.90	60.63	60.92	60.62	60.03	59.55	59.50	59.89	59.75	59.59
26	60.34	60.56	60.83	60.64	60.85	60.61	60.02	59.54	59.50	59.88	59.70	59.58
27	60.39	60.58	60.83	60.63	60.82	60.59	60.01	59.54	59.52	59.87	59.68	59.57
28	60.42	60.61	60.87	60.65	60.83	60.58	60.00	59.58	59.52	59.88	59.72	59.60
29	60.45	60.64	60.91	60.66	---	60.59	60.00	59.57	59.50	59.91	59.73	59.69
30	60.45	60.65	60.91	60.68	---	60.67	59.99	59.50	59.49	59.90	59.72	59.77
31	60.46	---	60.89	60.79	---	60.70	---	59.44	---	59.89	59.72	---
MEAN	60.29	60.50	60.90	60.73	60.84	60.73	60.24	59.72	59.52	59.69	59.92	59.65
MAX	60.46	60.65	61.14	60.87	60.99	60.84	60.58	59.98	59.56	59.91	60.14	59.77
MIN	60.06	60.43	60.65	60.59	60.77	60.58	59.99	59.44	59.46	59.42	59.68	59.57

WTR YR 1990 MEAN 60.23 MAX 61.14 MIN 59.42

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02262800 LAKE CONWAY AT PINE CASTLE, FL

LOCATION.--Lat 28°27'55", long 81°21'21", in SW¼ sec.19, T.23 S., R.30 E., Orange County, Hydrologic Unit 03090101, near west-central part of lake on north side of peninsula, at Pine Castle.

SURFACE AREA.--1,079 acres (1.69 mi²).

DRAINAGE AREA.--12.7 mi².

PERIOD OF RECORD.--March 1952 to current year (once-daily). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 25, 1952, at Nela Isle Bridge, 0.2 mi southwest at datum 69.00 ft higher. Aug. 25, 1952, to Sept. 20, 1973, at site 150 ft east at datum 69.00 ft higher. Sept. 21, 1973, to Sept. 6, 1974, at site 150 ft east at present datum.

REMARKS.--Lake elevation is controlled by several drainage wells and a concrete and timber control at outlet. Outflow is to Lake Warren, thence through canal to Boggy Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 89.10 ft, Mar. 25-29,31, 1960; minimum observed, 82.44 ft, Oct. 23,24, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85.67	85.18	84.87	85.03	84.86	84.96	84.66	84.30	83.77	83.79	83.85	83.77
2	85.65	85.17	84.85	85.02	84.86	84.95	84.65	84.29	83.89	83.77	83.85	83.75
3	85.64	85.16	84.83	85.02	84.85	84.95	84.64	84.27	83.87	83.76	83.85	83.73
4	85.63	85.13	84.80	85.02	84.85	84.94	84.62	84.24	83.94	83.74	83.85	83.70
5	85.61	85.12	84.78	85.02	84.83	84.93	84.58	84.22	83.92	83.72	83.83	83.68
6	85.60	85.10	84.77	85.02	84.81	84.92	84.56	84.20	83.91	83.70	83.81	83.65
7	85.58	85.07	84.76	85.02	84.80	84.91	84.54	84.17	83.93	83.68	83.79	83.64
8	85.57	85.06	84.75	85.02	84.79	84.90	84.52	84.14	83.93	83.66	83.78	83.61
9	85.55	85.05	84.87	85.02	84.78	84.88	84.50	84.11	83.99	83.65	83.75	83.60
10	85.53	85.05	84.85	85.01	84.77	84.87	84.49	84.09	83.97	83.65	83.77	83.59
11	85.51	85.05	84.84	85.01	84.88	84.86	84.54	84.07	83.96	83.63	83.93	83.56
12	85.50	85.04	84.84	85.01	84.89	84.85	84.53	84.05	83.94	83.61	83.93	83.53
13	85.49	85.02	84.87	84.98	84.86	84.84	84.51	84.03	83.91	83.69	83.92	83.51
14	85.48	85.00	84.86	84.96	84.84	84.83	84.50	84.02	83.89	83.74	83.94	83.49
15	85.47	84.98	84.85	84.95	84.83	84.81	84.49	84.00	83.86	83.79	83.93	83.47
16	85.47	85.05	84.84	84.95	84.82	84.80	84.47	83.99	83.83	83.83	83.92	83.45
17	85.46	85.03	84.84	84.95	84.82	84.79	84.46	83.96	83.81	83.87	83.90	83.45
18	85.45	84.99	84.90	84.94	84.81	84.77	84.45	83.94	83.83	83.87	83.89	83.43
19	85.43	84.97	84.90	84.94	84.80	84.75	84.46	83.92	83.82	83.85	83.88	83.40
20	85.38	84.95	84.93	84.94	84.80	84.73	84.45	83.92	83.80	83.85	83.89	83.38
21	85.32	84.93	84.99	84.94	84.79	84.71	84.41	83.91	83.76	83.84	83.87	83.36
22	85.29	84.91	84.99	84.94	84.80	84.68	84.39	83.89	83.77	83.82	83.88	83.34
23	85.27	84.89	85.08	84.93	84.94	84.66	84.41	83.90	83.78	83.80	83.87	83.32
24	85.25	84.96	85.05	84.93	85.01	84.64	84.42	83.89	83.83	83.81	83.85	83.29
25	85.23	84.95	85.05	84.92	85.00	84.62	84.40	83.87	83.83	83.79	83.83	83.26
26	85.21	84.94	85.04	84.90	84.99	84.61	84.38	83.84	83.81	83.93	83.85	83.24
27	85.21	84.93	85.04	84.88	84.98	84.60	84.36	83.82	83.85	83.93	83.85	83.23
28	85.20	84.93	85.03	84.86	84.97	84.59	84.32	83.84	83.84	83.91	83.83	83.21
29	85.18	84.91	85.03	84.86	---	84.58	84.32	83.84	83.82	83.90	83.82	83.29
30	85.18	84.89	85.03	84.86	---	84.60	84.31	83.81	83.83	83.89	83.80	83.43
31	85.18	---	85.03	84.87	---	84.63	---	83.79	---	83.88	83.78	---
MEAN	85.43	85.01	84.91	84.96	84.86	84.78	84.48	84.01	83.86	83.79	83.85	83.48
MAX	85.67	85.18	85.08	85.03	85.01	84.96	84.66	84.30	83.99	83.93	83.94	83.77
MIN	85.18	84.89	84.75	84.86	84.77	84.58	84.31	83.79	83.76	83.61	83.75	83.21
CAL YR 1989	MEAN 85.63		MAX 86.79		MIN 84.75							
WTR YR 1990	MEAN 84.45		MAX 85.67		MIN 83.21							

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02263776 LAKE BRYAN NEAR VINELAND, FL

LOCATION.--Lat 28°21'46", long 81°29'57", in SE¼ sec.27, T.24 S., R.28 E., Orange County, Hydrologic Unit 03090101, on west shore of lake, 1.1 mi south of intersection of Interstate Highway 4 and State Highway 535, and 2.2 mi south of Vineland.

SURFACE AREA.--210 acres (0.33 mi²).

DRAINAGE AREA.--2.70 mi².

PERIOD OF RECORD.--September 1969 to current year (fragmentary).

REVISED RECORDS.--WDR FL-72-2: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Orange County bench mark).

REMARKS.--Outflow from lake is to Shingle Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 100.33 ft on or about Aug. 11, 1984, from floodmarks; minimum observed, 95.64 ft, May 8, 1981.

ELEVATION, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAY		
18...	0900	97.85	29...	1502	97.24
DEC			JUL		
12...	0902	97.43	24...	1525	98.17
FEB			SEP		
08...	1452	97.52	20...	1402	98.84
APR					
04...	1507	97.64			

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02263850 BAY LAKE NEAR VINELAND, FL

LOCATION.--Lat 28°24'48", long 81°33'28", in NW¼ sec.7, T.24 S., R.28 E., Orange County, Hydrologic Unit 03090101, on right bank at upstream wingwall of control structure 105A in lateral 105, 200 ft south of natural lake shore line, and 3.5 mi northwest of Vineland.

SURFACE AREA.--436 acres (0.68 mi²).

DRAINAGE AREA.--14.8 mi².

PERIOD OF RECORD.--February 1967 to September 1969; October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Walt Disney World bench mark). Prior to Feb. 7, 1969, on north shore of lake at datum 90.00 ft higher.

REMARKS.--Outflow from lake is through L-105 to Bonnet Creek since fall of 1968. In the fall of 1968, structure 105A was completed and became the control outlet of the lake. Draining of Bay Lake through S-105A began on Dec. 20, 1968. The headwater elevation at S-105A represented the lake level until Aug. 25, 1969, when a dike was constructed 200 ft upstream from the control structure. The lake elevation was then independent of the headwater elevation at S-105A. The dike was removed in August 1970 as the lake refilled. Since August 1970, lake elevation regulated by pumpage from ground water.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 95.07 ft, Aug. 18, 1967; minimum daily, 92.55 ft, May 24, 1968, except when lake was drained in 1970.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93.53	93.18	93.06	93.51	93.47	93.70	93.70	93.59	93.43	93.81	94.25	94.59
2	93.53	93.18	93.05	93.50	93.47	93.70	93.70	93.58	93.43	93.79	94.25	94.59
3	93.52	93.17	93.04	93.51	93.47	93.71	93.70	93.57	93.45	93.78	94.26	94.58
4	93.50	93.16	93.01	93.51	93.47	93.70	93.67	93.56	93.60	93.78	94.28	94.56
5	93.49	93.14	92.99	93.52	93.46	93.70	93.64	93.55	93.62	93.77	94.31	94.54
6	93.48	93.14	92.99	93.53	93.44	93.70	93.63	93.54	93.62	93.75	94.31	94.52
7	93.47	93.13	92.99	93.53	93.43	93.70	93.62	93.51	93.65	93.74	94.30	94.51
8	93.50	93.13	93.03	93.54	93.43	93.69	93.60	93.49	93.68	93.72	94.35	94.49
9	93.48	93.12	93.18	93.53	93.43	93.69	93.59	93.48	93.68	93.72	94.39	94.47
10	93.47	93.12	93.17	93.53	93.44	93.68	93.58	93.51	93.67	93.71	94.45	94.45
11	93.46	93.10	93.16	93.53	93.53	93.68	93.65	93.50	93.68	93.70	94.47	94.46
12	93.44	93.09	93.16	93.53	93.53	93.68	93.66	93.49	93.68	93.77	94.46	94.49
13	93.44	93.08	93.19	93.50	93.51	93.68	93.64	93.49	93.66	93.99	94.52	94.47
14	93.43	93.07	93.16	93.48	93.51	93.68	93.63	93.49	93.64	94.06	94.69	94.46
15	93.42	93.06	93.16	93.48	93.51	93.67	93.63	93.48	93.63	94.12	94.68	94.45
16	93.42	93.13	93.17	93.48	93.51	93.66	93.62	93.48	93.61	94.14	94.66	94.43
17	93.41	93.12	93.18	93.48	93.51	93.66	93.62	93.47	93.60	94.19	94.67	94.42
18	93.40	93.10	93.24	93.48	93.53	93.65	93.62	93.46	93.59	94.21	94.63	94.40
19	93.39	93.08	93.26	93.48	93.52	93.63	93.62	93.46	93.58	94.23	94.62	94.37
20	93.35	93.07	93.31	93.48	93.52	93.62	93.62	93.46	93.57	94.26	94.61	94.35
21	93.30	93.06	93.35	93.49	93.53	93.59	93.60	93.44	93.56	94.29	94.60	94.34
22	93.27	93.05	93.37	93.49	93.57	93.57	93.60	93.44	93.56	94.29	94.58	94.33
23	93.26	93.06	93.45	93.48	93.74	93.56	93.60	93.43	93.63	94.29	94.59	94.31
24	93.24	93.06	93.44	93.48	93.81	93.55	93.62	93.42	93.64	94.28	94.58	94.28
25	93.23	93.05	93.44	93.49	93.78	93.55	93.61	93.40	93.64	94.27	94.58	94.25
26	93.22	93.08	93.45	93.48	93.76	93.54	93.60	93.39	93.68	94.27	94.56	94.24
27	93.22	93.09	93.46	93.46	93.71	93.54	93.59	93.42	93.84	94.28	94.55	94.22
28	93.21	93.09	93.47	93.46	93.70	93.53	93.58	93.48	93.84	94.27	94.55	94.22
29	93.20	93.09	93.47	93.46	---	93.53	93.59	93.49	93.82	94.28	94.54	94.34
30	93.19	93.08	93.48	93.46	---	93.63	93.59	93.47	93.82	94.27	94.53	94.58
31	93.19	---	93.50	93.47	---	93.70	---	93.45	---	94.26	94.52	---
MEAN	93.38	93.10	93.24	93.50	93.55	93.64	93.62	93.48	93.64	94.04	94.49	94.42
MAX	93.53	93.18	93.50	93.54	93.81	93.71	93.70	93.59	93.84	94.29	94.69	94.59
MIN	93.19	93.05	92.99	93.46	93.43	93.53	93.58	93.39	93.43	93.70	94.25	94.22
CAL YR 1989	MEAN 93.56	MAX 94.53	MIN 92.94									
WTR YR 1990	MEAN 93.68	MAX 94.69	MIN 92.99									

02263868 SOUTH LAKE NEAR VINELAND, FL

SURFACE AREA.--128 acres (0.20 mi²).

PERIOD OF RECORD.--April 1969 to current year. Records for South Lake Outlet at S-15, near Vineland (station 02263869).

REMARKS.--Since January 1969, lake controlled by structure 15. Outflow is to Bonnet Creek through Canal No. 1.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91.60	91.14	90.94	91.25	91.08	91.23	91.00	90.65	90.30	90.48	91.27	92.50
2	91.59	91.13	90.94	91.24	91.08	91.22	90.99	90.62	90.29	90.46	91.27	92.50
3	91.60	91.12	90.92	91.24	91.07	91.22	90.97	90.60	90.31	90.45	91.34	92.50
4	91.55	91.10	90.89	91.24	91.06	91.21	90.94	90.58	90.40	90.44	91.52	92.48
5	91.58	91.09	90.88	91.24	91.04	91.20	90.92	90.56	90.41	90.42	91.63	92.47
6	91.61	91.08	90.87	91.24	91.02	91.20	90.90	90.54	90.40	90.41	91.63	92.45
7	91.57	91.07	90.86	91.25	91.01	91.19	90.89	90.51	90.39	90.40	91.62	92.44
8	91.46	91.05	90.90	91.25	91.00	91.17	90.87	90.48	90.40	90.40	91.62	92.42
9	91.46	91.05	91.03	91.24	91.00	91.16	90.86	90.46	90.42	90.39	91.64	92.40
10	91.47	91.04	91.02	91.23	90.99	91.15	90.84	90.48	90.41	90.37	91.68	92.38
11	91.45	91.02	91.01	91.23	91.08	91.14	90.90	90.47	90.41	90.36	91.70	92.38
12	91.44	91.01	91.01	91.22	91.08	91.13	90.90	90.45	90.41	90.42	91.70	92.39
13	91.43	91.00	91.04	91.20	91.07	91.12	90.87	90.44	90.39	90.60	91.79	92.37
14	91.42	90.98	91.03	91.18	91.05	91.11	90.86	90.43	90.37	90.69	92.09	92.35
15	91.41	90.97	91.02	91.18	91.05	91.10	90.85	90.41	90.35	90.76	92.17	92.34
16	91.40	91.04	91.02	91.18	91.04	91.08	90.84	90.39	90.33	90.81	92.21	92.32
17	91.38	91.03	91.01	91.17	91.03	91.07	90.82	90.37	90.32	90.91	92.31	92.31
18	91.37	91.01	91.07	91.17	91.03	91.06	90.81	90.36	90.31	91.00	92.33	92.29
19	91.35	91.00	91.08	91.17	91.02	91.04	90.80	90.34	90.30	91.13	92.36	92.27
20	91.31	90.98	91.12	91.16	91.01	91.02	90.79	90.32	90.28	91.20	92.40	92.25
21	91.27	90.97	91.16	91.16	91.02	90.99	90.77	90.30	90.27	91.25	92.40	92.24
22	91.25	90.96	91.18	91.16	91.04	90.97	90.76	90.29	90.27	91.26	92.41	92.22
23	91.24	90.98	91.26	91.14	91.21	90.96	90.75	90.29	90.33	91.27	92.44	92.20
24	91.22	90.97	91.25	91.14	91.27	90.94	90.76	90.27	90.36	91.28	92.47	92.18
25	91.21	90.96	91.24	91.13	91.26	90.93	90.74	90.25	90.36	91.27	92.49	92.15
26	91.20	90.98	91.23	91.12	91.25	90.92	90.72	90.24	90.39	91.28	92.49	92.14
27	91.19	90.98	91.23	91.10	91.24	90.91	90.69	90.28	90.53	91.28	92.50	92.12
28	91.18	90.98	91.23	91.09	91.23	90.89	90.68	90.36	90.52	91.27	92.50	92.13
29	91.16	90.98	91.24	91.09	---	90.88	90.67	90.36	90.50	91.30	92.49	92.23
30	91.15	90.96	91.24	91.09	---	90.92	90.66	90.34	90.49	91.29	92.48	92.50
31	91.15	---	91.24	91.09	---	90.99	---	90.32	---	91.28	92.48	---
MEAN	91.38	91.02	91.07	91.18	91.08	91.07	90.83	90.41	90.37	90.84	92.05	92.33
MAX	91.61	91.14	91.26	91.25	91.27	91.23	91.00	90.65	90.53	91.30	92.50	92.50
MIN	91.15	90.96	90.86	91.09	90.99	90.88	90.66	90.24	90.27	90.36	91.27	92.12
CAL YR 1989	MEAN	92.45	MAX	94.24	MIN	90.86						
WTR YR 1990	MEAN	91.14	MAX	92.50	MIN	90.24						

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02263900 LAKE BUTLER AT WINDERMERE, FL

LOCATION.--Lat 28°29'26", long 81°32'04", in NW¼ sec.17, T.23 S., R.28 E., Orange County, Hydrologic Unit 03090101, on east shore of lake at Windermere.

SURFACE AREA.--1,665 acres (2.60 mi²).

DRAINAGE AREA.--14.5 mi².

PERIOD OF RECORD.--January 1933 to October 1941 (weekly), incomplete; November 1941 to July 1976 (once daily); August 1976 to current year (weekly), incomplete. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando Subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is 90.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Nov. 27, 1941, at site 500 ft south at datum 10.17 ft higher. Nov. 27, 1941 to Mar. 9, 1942, at site of old hotel pier about 0.4 mi northwest at datum 6.40 ft higher. Mar. 9, 1942 to Dec. 7, 1978, at present site at datum 6.40 ft higher.

REMARKS.--Lake is one of the Cypress Creek headwaters chain of lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 101.78 ft, Sept. 13, 1960; minimum observed, 94.62 ft, July 21, 29, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 97.90 ft, Aug. 30; minimum observed, 96.27 ft, May 31.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	96.85	---
2	---	97.46	---	---	---	---	---	---	---	---	---	---
3	---	---	---	97.42	---	---	---	96.74	---	---	---	---
4	---	---	---	---	---	---	96.98	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	96.36	---	97.84
6	---	---	---	---	---	---	96.95	---	96.40	---	---	---
7	---	---	97.12	---	---	97.30	---	---	---	---	---	---
8	---	97.40	---	---	97.30	---	---	---	---	---	97.20	---
9	---	---	---	---	97.21	---	---	---	---	---	---	---
10	97.80	---	---	97.42	---	---	---	96.46	---	---	---	---
11	---	---	97.24	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	96.90	---	---	96.30	---	97.80
13	---	---	---	---	---	---	---	---	96.40	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	97.24	97.38	---	97.22	---	96.40	---	---	97.35	---
16	97.75	97.32	---	---	97.24	---	---	---	---	---	---	---
17	97.74	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	96.80	---	---	96.70	---	97.70
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	97.30	---	---	---	---	---	96.30	---	---	97.69
21	---	---	---	---	97.20	97.10	---	96.34	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	97.70	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	97.54	---	---	97.34	---	---	96.76	---	---	96.80	---	97.60
26	---	---	---	---	---	---	---	---	---	96.85	---	---
27	---	---	97.42	---	---	---	---	---	96.32	---	---	---
28	---	---	---	---	97.36	---	---	---	---	---	---	---
29	---	97.26	---	---	---	97.00	---	---	---	---	---	---
30	---	---	---	---	---	---	---	96.30	---	---	97.90	---
31	---	---	---	97.30	---	---	---	96.27	---	---	---	---

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02266239 TROUT LAKE NEAR CLERMONT, FL

LOCATION.--Lat 28°27'04", long 81°43'00", in SW¼ sec.28, T.23 S., R.26 E., Lake County, Hydrologic Unit 03090101, on northwest shore of lake, 7.8 mi southeast of Clermont.

SURFACE AREA.--163 acres (0.25 mi²).

DRAINAGE AREA.--1.31 mi².

PERIOD OF RECORD.--March 1970 to current year (weekly), incomplete.

REVISED RECORDS.--WDR FL-81-1: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is landlocked except at extremely high stages.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 96.90 ft, Apr. 1,8, 1970; minimum observed, 85.98 ft, Dec. 19,26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 95.68 ft, Oct. 1, minimum observed, 93.30 ft, July 10.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95.68	---	---	---	---	94.56	---	---	---	---	---	94.10
2	---	---	---	---	---	---	94.30	93.84	---	---	---	---
3	---	---	---	94.78	---	---	---	---	93.50	93.53	---	---
4	---	---	---	---	---	---	---	93.78	---	---	---	---
5	---	---	---	---	---	---	---	---	---	93.48	---	---
6	---	---	94.71	---	---	---	---	---	---	---	93.89	---
7	---	---	---	---	94.51	---	---	---	---	---	---	---
8	95.60	---	---	---	---	---	---	---	93.54	---	---	94.06
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	94.79	---	---	94.14	93.66	---	93.30	93.96	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	94.44	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	94.50	---	---	---	---	---	---	---
15	95.45	---	---	---	---	---	94.08	93.54	93.67	---	---	93.99
16	---	---	---	---	---	94.38	---	93.54	---	---	---	---
17	---	---	---	94.70	---	---	---	---	---	93.90	94.11	---
18	---	---	94.82	---	---	94.36	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	95.25	---	---	---	94.48	---	93.97	---	93.60	---	---	---
23	---	---	---	---	---	---	---	93.48	---	---	---	---
24	---	---	---	94.65	---	---	---	---	---	93.94	---	93.90
25	---	---	---	---	---	94.20	---	---	---	---	---	---
26	---	---	94.86	---	---	---	---	---	---	---	94.08	---
27	---	94.88	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	94.56	---	---	---	---	---	94.12	---
29	---	---	---	94.59	---	---	---	---	93.58	---	---	---
30	---	---	---	---	---	94.28	93.85	93.40	---	---	---	---
31	---	---	---	94.58	---	---	---	---	---	93.94	---	---

SOUTH FLORIDA

02266600 CYPRESS LAKE NEAR ST. CLOUD, FL

LOCATION.--Lat 28°04'29", long 81°18'07", in SW¼ sec.2, T.28 S., R.30 E., Osceola County, Hydrologic Unit 03090101, on east shore of lake, near mouth of Canoe Creek, and about 12 mi south of St. Cloud.

SURFACE AREA.--4,085 acres (6.38 mi²).

DRAINAGE AREA.--1,162 mi², combined drainage area of Cypress Lake and Lake Hatchineha.

PERIOD OF RECORD.--January 1942 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Dec. 13, 1973, at site 2.3 mi southwest at datum 48.78 ft higher and Dec. 13, 1973 to June 21, 1979, at site 2.3 mi southwest at present datum.

REMARKS.--Lake is one of the Kissimmee River headwaters chain of lakes. Stage is affected by operation of control structures upstream and downstream. Flow into Short Canal begins at about elevation 53.2 ft. Over-flow over the south shore begins at a slightly higher stage.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 57.18 ft, Sept. 26, 1960; minimum daily, 47.60 ft, June 4, 1971.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50.42	50.36	50.24	52.29	51.98	51.30	50.88	49.87	49.14	49.31	50.01	50.33
2	50.44	50.38	50.30	52.29	51.94	51.25	50.89	49.82	49.16	49.40	49.99	50.29
3	50.39	50.32	50.24	52.34	51.89	51.24	50.93	49.82	49.19	49.34	49.99	50.26
4	50.39	50.32	50.23	52.38	51.85	51.11	50.77	49.80	49.19	49.36	49.96	50.25
5	50.40	50.32	50.26	52.43	51.77	51.01	50.70	49.79	49.23	49.38	50.00	50.24
6	50.41	50.34	50.27	52.50	51.65	50.85	50.71	49.74	49.23	49.35	50.00	50.24
7	50.43	50.35	50.27	52.56	51.61	50.75	50.62	49.56	49.21	49.39	50.00	50.25
8	50.48	50.36	50.32	52.61	51.53	50.72	50.50	49.60	49.23	49.40	50.00	50.25
9	50.40	50.37	50.51	52.60	51.47	50.76	50.49	49.62	49.21	49.37	50.00	50.24
10	50.45	50.29	50.36	52.64	51.46	50.76	50.49	49.69	49.21	49.36	50.02	50.24
11	50.42	50.28	50.43	52.68	51.42	50.76	50.53	49.51	49.19	49.34	50.04	50.20
12	50.41	50.27	50.55	52.72	51.31	50.76	50.35	49.51	49.14	49.43	50.03	50.16
13	50.44	50.27	50.71	52.64	51.24	50.77	50.30	49.56	49.10	49.60	50.05	50.18
14	50.46	50.28	50.66	52.61	51.17	50.79	50.32	49.50	49.10	49.71	50.11	50.19
15	50.47	50.30	50.73	52.60	51.12	50.83	50.33	49.51	49.13	49.82	50.10	50.20
16	50.46	50.37	50.79	52.57	51.15	50.86	50.28	49.52	49.10	49.91	50.10	50.19
17	50.47	50.21	50.81	52.55	51.11	50.92	50.26	49.52	49.09	49.88	50.11	50.20
18	50.50	50.22	50.88	52.52	51.10	50.76	50.22	49.42	49.08	49.98	50.17	50.14
19	50.49	50.21	50.97	52.48	51.15	50.75	50.15	49.39	49.11	49.94	50.21	50.17
20	50.33	50.24	51.07	52.44	51.09	50.73	50.13	49.41	49.12	49.98	50.24	50.18
21	50.33	50.25	51.24	52.42	51.13	50.65	50.10	49.38	49.09	49.99	50.28	50.20
22	50.36	50.27	51.41	52.37	51.23	50.67	50.09	49.36	49.10	49.99	50.26	50.23
23	50.35	50.28	51.62	52.31	51.39	50.67	50.05	49.26	49.16	49.97	50.26	50.20
24	50.30	50.19	51.67	52.28	51.71	50.68	50.01	49.21	49.18	49.97	50.29	50.13
25	50.30	50.24	51.74	52.26	51.64	50.68	49.99	49.21	49.20	49.99	50.30	50.12
26	50.31	50.29	51.83	52.21	51.53	50.68	50.00	49.25	49.23	50.00	50.29	50.13
27	50.28	50.33	51.91	52.08	51.41	50.65	49.98	49.28	49.34	49.93	50.30	50.13
28	50.25	50.34	51.99	52.05	51.36	50.64	50.01	49.26	49.31	49.96	50.32	50.16
29	50.24	50.31	52.06	52.03	---	50.73	49.93	49.29	49.30	49.98	50.32	50.18
30	50.34	50.21	52.14	52.01	---	50.82	49.91	49.16	49.30	49.98	50.33	50.32
31	50.36	---	52.23	52.06	---	50.89	---	49.09	---	50.02	50.33	---
MEAN	50.39	50.29	50.98	52.40	51.44	50.82	50.33	49.48	49.18	49.71	50.14	50.21
MAX	50.50	50.38	52.23	52.72	51.98	51.30	50.93	49.87	49.34	50.02	50.33	50.33
MIN	50.24	50.19	50.23	52.01	51.09	50.64	49.91	49.09	49.08	49.31	49.96	50.11

CAL YR 1989	MEAN 50.53	MAX 52.82	MIN 49.00
WTR YR 1990	MEAN 50.45	MAX 52.72	MIN 49.08

CAL YR 1989	MEAN 65.78	MAX 66.32	MIN 65.18
WTR YR 1990	MEAN 65.67	MAX 66.10	MIN 65.20

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02266900 LAKE PIERCE NEAR WAVERLY, FL

LOCATION.--Lat 27°58'37", long 81°32'33", in NW¼ sec.8, T.29 S., R.28 E., Polk County, Hydrologic Unit 03090101, on west shore of lake, at public boat landing, 4.5 mi east of Waverly, and 5.5 mi northeast of town of Lake Wales.

SURFACE AREA.--3,736 acres (5.84 mi²).

DRAINAGE AREA.--58.9 mi².

PERIOD OF RECORD.--December 1947 to September 1971; October 1971 to current year (fragmentary). Prior to August 1959, records also for Catfish Creek near Lake Wales (station 02267000). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Aug. 20, 1959, water-stage recorder on left bank of Catfish Creek 0.2 mi downstream from lake. Aug. 20, 1959, to Sept. 30, 1971, water-stage recorder, and Oct. 1, 1971, to July 13, 1981, nonrecording gage at present site at datum 72.13 ft higher.

REMARKS.--Outflow from lake is through Catfish Creek to Lake Hatchineha, one of the Kissimmee River headwater lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 78.91 ft Sept. 17, 18, 1960; minimum observed, 75.23 ft, May 24, 1985.

ELEVATION, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAY		
17...	1225	76.07	30...	1036	75.51
DEC			JUL		
11...	1005	75.98	23...	1255	75.96
FEB			SEP		
02...	1050	76.10	21...	0923	76.11
APR					
02...	1121	75.99			

[illegible]

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02268600 LAKE ROSALIE NEAR LAKE WALES, FL

LOCATION.--Lat 27°56'23", long 81°25'14", in SE $\frac{1}{4}$ sec.21, T.29 S., R.29 E., Polk County, Hydrologic Unit 03090101, on west side of lake, in boat basin at Monroe's Trailer Park, 10.5 mi northeast of town of Lake Wales.

SURFACE AREA.--4,592 acres (7.18 mi²).

DRAINAGE AREA.--133 mi².

PERIOD OF RECORD.--December 1941 to February 1942 (weekly); March to July 1942, August 1942 to August 1943 (fragmentary); March 1958 to April 1967 (weekly), incomplete; May 1967 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Mar. 5, 1942, nonrecording gage at site 1.3 mi northeast at datum 53.19 ft higher. Mar. 5, 1942, to July 27, 1942, and Mar. 20, 1958, to Sept. 19, 1974, recording or nonrecording gages at several sites within 1.5 mi at datum 49.41 ft higher, and Sept. 19, 1974, to Oct. 17, 1979, nonrecording gage at site 400 ft west at present datum.

REMARKS.--Outflow from lake is through diversion canal to Lake Kissimmee, the most downstream of the Kissimmee River headwaters chain of lakes and also through Rosalie Creek to Tiger Lake, thence through Tiger Creek to Lake Kissimmee.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 55.93 ft, Oct. 3, 1960; minimum observed, 50.30 ft, June 2-4, 1967.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51.96	51.81	51.85	52.25	52.44	52.75	52.48	52.06	51.58	51.70	52.26	52.86
2	51.95	51.81	51.85	52.25	52.44	52.76	52.47	52.05	51.57	51.68	52.25	52.85
3	51.94	51.80	51.84	52.25	52.43	52.75	52.48	52.03	51.55	51.66	52.24	52.85
4	51.93	51.78	51.82	52.27	52.43	52.74	52.46	52.01	51.56	51.67	52.25	52.84
5	51.93	51.79	51.81	52.27	52.42	52.74	52.44	51.98	51.60	51.71	52.24	52.83
6	51.93	51.80	51.81	52.30	52.41	52.73	52.42	51.96	51.59	51.70	52.23	52.83
7	51.93	51.80	51.80	52.30	52.40	52.72	52.40	51.93	51.60	51.75	52.24	52.82
8	51.96	51.80	51.80	52.32	52.38	52.72	52.39	51.90	51.61	51.76	52.26	52.81
9	51.95	51.80	51.95	52.32	52.38	52.72	52.36	51.88	51.60	51.76	52.30	52.81
10	51.93	51.79	51.95	52.33	52.37	52.70	52.35	51.85	51.59	51.75	52.32	52.80
11	51.93	51.78	51.95	52.35	52.42	52.70	52.36	51.86	51.58	51.72	52.36	52.80
12	51.92	51.76	51.94	52.35	52.40	52.69	52.34	51.83	51.65	51.70	52.40	52.80
13	51.93	51.74	51.96	52.34	52.39	52.68	52.32	51.82	51.61	51.85	52.40	52.80
14	51.95	51.73	51.96	52.32	52.39	52.67	52.30	51.82	51.57	51.92	52.43	52.80
15	51.95	51.73	51.95	52.32	52.39	52.66	52.29	51.81	51.55	51.95	52.45	52.80
16	51.93	51.82	51.95	52.34	52.38	52.65	52.28	51.80	51.53	52.10	52.46	52.78
17	51.92	51.80	51.95	52.36	52.37	52.65	52.28	51.78	51.51	52.09	52.45	52.80
18	51.92	51.76	51.96	52.36	52.36	52.62	52.26	51.76	51.50	52.14	52.58	52.82
19	51.90	51.76	51.96	52.36	52.36	52.60	52.24	51.73	51.58	e52.16	52.66	52.94
20	51.88	51.76	51.96	52.37	52.35	52.58	52.22	51.71	51.56	e52.15	52.69	52.94
21	51.86	51.76	52.05	52.37	52.36	52.55	52.21	51.70	51.54	52.14	52.70	52.95
22	51.83	51.76	52.10	52.38	52.38	52.53	52.20	51.68	51.55	52.11	52.73	52.95
23	51.82	51.75	52.20	52.39	52.57	52.51	52.19	51.67	51.55	52.12	52.74	52.94
24	51.82	51.76	52.18	52.39	52.70	52.50	52.17	51.65	51.60	52.20	52.75	52.91
25	51.83	51.76	52.18	52.39	52.73	52.49	52.15	51.66	51.61	52.22	52.75	52.90
26	51.82	51.77	52.18	52.38	52.73	52.48	52.13	51.63	51.60	52.28	52.76	52.89
27	51.80	51.86	52.20	52.37	52.74	52.48	52.11	51.61	51.71	52.29	52.80	52.89
28	51.80	51.86	52.20	52.36	52.75	52.46	52.08	51.61	51.74	52.26	52.84	52.87
29	51.80	51.86	52.20	52.36	---	52.45	52.06	51.61	51.72	52.26	52.85	52.89
30	51.80	51.85	52.21	52.36	---	52.46	52.08	51.60	51.71	52.26	52.86	52.98
31	51.80	---	52.22	52.42	---	52.46	---	51.58	---	52.27	52.85	---
MEAN	51.89	51.79	52.00	52.34	52.46	52.62	52.28	51.79	51.59	51.98	52.52	52.86
MAX	51.96	51.86	52.22	52.42	52.75	52.76	52.48	52.06	51.74	52.29	52.86	52.98
MIN	51.80	51.73	51.80	52.25	52.35	52.45	52.06	51.58	51.50	51.66	52.23	52.78

CAL YR 1989 MEAN 52.34 MAX 53.53 MIN 51.73
WTR YR 1990 MEAN 52.17 MAX 52.98 MIN 51.50

e Estimated

[illegible]

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02269600 LAKE ARBUCKLE NEAR AVON PARK, FL

LOCATION.--Lat 27°39'55", long 81°22'38", in SW¼ sec. 25, T.32 S., R.29 E., Polk County, Hydrologic Unit 03090101, on U.S. Air Force recreation pier on south shore of lake, 9.5 mi northeast of Avon Park.

SURFACE AREA.--3,787 acres (5.92 mi²).

DRAINAGE AREA.--170 mi².

PERIOD OF RECORD.--December 1941 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando Subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. June 27, 1945, to Nov. 15, 1950, May 9, 1956, to June 15, 1962, and May 11, 1967, to Dec. 11, 1975, nonrecording gage at site 500 ft northwest near head of Arbuckle Creek at datum 51.53 ft higher.

REMARKS.--Lake is the most downstream of the Arbuckle Creek headwater lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 58.3 ft, Sept. 24, 1948, from floodmark; minimum daily, 51.15 ft, June 10, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 58.7 ft, was reached in 1926 and 1928, from information by local residents.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54.09	53.72	53.20	53.47	53.15	53.33	52.88	52.35	52.00	e52.15	52.55	53.92
2	54.10	53.69	53.18	53.46	53.13	53.33	52.86	52.32	51.99	e52.13	52.57	53.93
3	54.08	53.67	53.18	53.44	53.12	53.34	52.89	52.28	52.05	52.11	52.59	53.93
4	54.05	53.63	53.14	53.43	53.11	53.32	52.87	52.25	52.06	52.11	52.58	53.92
5	54.01	53.59	53.11	53.44	53.13	53.31	52.79	52.26	52.05	52.11	52.63	53.90
6	53.97	53.56	53.09	53.46	53.05	53.30	52.77	52.25	52.03	52.10	52.63	53.88
7	53.96	53.54	53.07	53.45	53.04	53.28	52.77	52.22	52.02	52.08	52.61	53.85
8	54.12	53.50	53.07	53.46	53.03	53.24	52.76	52.15	52.02	52.06	52.63	53.83
9	54.12	53.49	53.20	53.45	53.00	53.22	52.72	52.13	52.04	52.04	52.74	53.80
10	54.15	53.47	53.19	53.43	52.98	53.21	52.70	52.15	52.05	52.03	52.90	53.78
11	54.33	53.44	53.16	53.42	53.03	53.20	52.73	52.16	52.04	52.02	53.00	53.76
12	54.35	53.40	53.14	53.41	52.99	53.17	52.71	52.12	52.02	52.01	53.05	53.74
13	54.33	53.37	53.20	53.39	52.95	53.15	52.67	52.11	51.99	52.10	53.10	53.71
14	54.31	53.34	53.15	53.34	52.93	53.12	52.64	52.10	51.97	52.11	53.34	53.69
15	54.28	53.32	53.13	53.32	52.90	53.10	52.61	52.08	51.95	52.17	53.45	53.66
16	54.25	53.37	53.12	53.31	52.90	53.06	52.60	52.06	51.94	52.21	53.54	53.64
17	54.22	53.34	53.12	53.30	52.90	53.07	52.58	52.05	51.93	52.21	53.60	53.61
18	54.22	53.30	53.12	53.29	52.89	53.05	52.56	52.04	51.93	52.21	53.68	53.60
19	54.21	53.27	53.10	53.27	52.88	53.02	52.53	52.00	51.96	52.21	53.72	53.65
20	54.18	53.24	53.13	53.26	52.91	53.02	52.51	51.98	51.95	52.20	53.73	53.66
21	54.08	53.23	53.19	53.25	52.93	52.97	52.48	51.97	51.95	52.19	53.74	53.64
22	54.03	53.19	53.20	53.25	52.93	52.93	52.46	51.97	51.99	52.20	53.75	53.65
23	54.00	53.20	53.40	53.24	53.12	52.92	52.45	51.95	52.05	52.19	53.74	53.64
24	53.98	53.21	53.45	53.21	53.28	52.89	52.44	51.93	52.07	52.19	53.74	53.61
25	53.94	53.17	53.41	53.20	53.31	52.87	52.40	51.90	52.08	52.20	53.77	53.57
26	53.91	53.21	53.43	53.22	53.33	52.86	52.38	51.88	52.11	52.38	53.77	53.55
27	53.88	53.26	53.44	53.11	53.33	52.85	52.34	51.92	52.16	52.46	53.77	53.53
28	53.87	53.25	53.45	53.09	53.33	52.82	52.33	52.03	52.22	52.49	53.76	53.50
29	53.83	53.26	53.46	53.10	---	52.80	52.36	52.02	e52.19	52.50	53.74	53.55
30	53.78	53.24	53.46	53.12	---	52.79	52.36	51.99	e52.17	52.52	53.75	53.73
31	53.74	---	53.46	53.17	---	52.85	---	51.98	---	52.51	53.90	---
MEAN	54.08	53.38	53.23	53.31	53.06	53.08	52.60	52.08	52.03	52.20	53.29	53.71
MAX	54.35	53.72	53.46	53.47	53.33	53.34	52.89	52.35	52.22	52.52	53.90	53.93
MIN	53.74	53.17	53.07	53.09	52.88	52.79	52.33	51.88	51.93	52.01	52.55	53.50

CAL YR 1989 MEAN 53.01 MAX 54.35 MIN 51.62

WTR YR 1990 MEAN 53.01 MAX 54.35 MIN 51.88

e Estimated

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02271700 LAKE ISTOKPOGA NEAR DE SOTO CITY, FL

LOCATION (REVISED).--Lat 27°26'27", long 81°15'42", in sec.18, T.35 S., R.31 E., Highlands County, Hydrologic Unit 03090101, in canal on northeast corner of lake, at Palm Estates Retirement Community, 0.6 mi southwest of town of Lorida, and 9.1 mi east of De Soto City.

SURFACE AREA.--27,500 acres (43.0 mi²).

DRAINAGE AREA.--607 mi².

PERIOD OF RECORD.--August 1936 to current year. July 1965 to September 1989, records for Canal 41A at S-68 at Lake Istokpoga, near Lake Placid (station 02273200). Records of elevations prior to October 1960 are unpublished and available in files of the Orlando Subdistrict office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by South Florida Water Management District). Prior to May 19, 1937, nonrecording gage at datum 40.54 ft higher and May 19, 1937, to Aug. 17, 1942, at datum 38.54 ft higher, at site on northwest shore of lake 4 mi southwest of mouth of Arbuckle Creek. Aug. 20, 1942, to July 6, 1965, water-stage recorder near mouth of Arbuckle Creek at datum 34.07 ft higher. July 7, 1965, to Nov. 27, 1973, water-stage recorder at site 7.5 mi south at datum 30.00 ft higher. Nov. 28, 1973, to Mar. 27, 1990, at present datum at site 7.5 mi south.

REMARKS.--Lake controlled by dam with removable stoplogs in Istokpoga Canal from June 1949 to July 1962. Since July 21, 1962, lake controlled by operation of structure 68 on Canal 41A on southeast shore of lake. Dam on Istokpoga Canal is still in place. Flow occurs at times in this canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 42.9 ft, estimated, Sept. 17, 1945; minimum daily, 35.40 ft, May 30, 1962.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e39.38	39.50	39.48	e39.50	39.41	39.46	39.10	38.63	38.06	38.48	38.32	38.76
2	e39.42	39.51	39.45	39.48	39.41	39.44	39.12	38.58	38.04	38.52	38.33	38.72
3	39.38	39.53	39.49	39.48	39.40	39.46	39.10	38.57	38.16	38.45	38.35	38.71
4	39.37	39.52	39.45	39.48	39.40	39.46	39.05	38.54	38.17	38.41	38.40	38.72
5	39.37	39.50	39.41	39.48	39.47	39.44	39.06	38.50	38.18	38.35	38.47	38.74
6	39.38	39.49	39.40	e39.50	39.37	39.44	39.06	38.47	38.20	38.37	38.49	38.78
7	39.43	39.48	39.40	e39.51	39.36	39.42	39.05	38.33	38.19	38.42	38.50	38.81
8	39.57	39.47	39.41	39.52	39.35	39.38	38.94	38.35	38.22	38.39	38.51	38.84
9	39.57	39.49	39.51	e39.52	39.32	39.38	38.97	38.37	38.21	38.33	38.57	38.84
10	39.58	39.51	39.51	39.51	39.30	39.37	39.02	38.43	38.23	38.31	38.73	38.83
11	39.65	39.49	39.47	39.50	39.40	39.36	39.01	38.32	38.24	38.30	38.77	38.84
12	39.57	39.47	39.44	39.49	39.40	39.33	38.89	38.32	38.26	38.39	38.79	38.83
13	39.51	39.45	39.53	e39.47	39.33	39.31	38.87	38.31	38.23	38.55	38.84	38.86
14	39.45	39.44	39.48	e39.45	39.30	39.28	38.92	38.29	38.23	38.75	38.93	38.88
15	39.40	39.44	39.43	39.44	39.27	39.24	38.95	38.28	38.26	38.79	38.94	38.90
16	39.41	39.49	39.42	39.43	39.29	39.20	38.91	38.27	38.23	38.80	38.95	38.91
17	39.46	39.50	39.43	39.44	39.30	39.21	38.90	38.26	38.18	38.79	38.94	38.91
18	39.51	39.47	39.42	39.43	39.28	39.26	38.87	38.19	38.16	38.72	38.93	38.89
19	39.61	39.44	39.40	39.39	39.28	39.20	38.81	38.20	38.21	38.62	38.96	38.89
20	39.72	39.44	39.44	39.35	39.29	39.23	38.75	38.17	38.27	38.59	38.95	38.95
21	39.64	39.43	39.46	39.38	39.26	39.18	38.77	38.13	38.28	38.55	38.90	39.03
22	39.65	39.41	39.50	39.41	39.22	39.13	38.77	38.09	38.32	38.52	38.84	39.07
23	39.66	39.43	39.73	e39.40	39.41	39.12	38.74	38.02	38.43	38.47	38.78	39.07
24	39.68	39.46	39.71	39.39	39.54	39.08	38.73	38.14	38.50	38.43	38.73	39.02
25	39.69	39.43	39.60	39.38	39.51	39.06	38.72	38.07	38.49	38.39	38.65	39.02
26	39.66	39.44	39.57	39.49	39.51	39.04	38.71	38.09	38.49	38.32	38.58	39.05
27	39.65	e39.45	39.56	39.39	39.48	39.04	38.72	38.09	38.50	38.27	38.56	39.04
28	39.63	39.45	39.54	39.37	39.45	38.99	38.70	38.09	38.48	38.26	38.68	39.07
29	39.56	39.48	39.53	39.36	---	39.00	38.68	38.10	38.46	38.26	38.73	39.16
30	39.48	39.51	39.51	39.40	---	39.04	38.66	38.07	38.47	38.27	38.72	39.25
31	39.48	---	39.50	39.44	---	39.11	---	38.06	---	38.30	38.77	---
MEAN	39.53	39.47	39.49	39.44	39.37	39.25	38.88	38.27	38.28	38.46	38.70	38.91
MAX	39.72	39.53	39.73	39.52	39.54	39.46	39.12	38.63	38.50	38.80	38.96	39.25
MIN	39.37	39.41	39.40	39.35	39.22	38.99	38.66	38.02	38.04	38.26	38.32	38.71

CAL YR 1989 MEAN 38.68 MAX 39.73 MIN 37.18

WTR YR 1990 MEAN 39.00 MAX 39.73 MIN 38.02

e Estimated

SOUTH FLORIDA

LAKE OKEECHOBEE

02276400 LAKE OKEECHOBEE, FL

LOCATION.--Center of lake, lat 26°57', long 80°50', in southern Florida, Hydrologic Unit 03090201.

SURFACE AREA.--436,000 acres (681 mi²) at elevation 14 ft above National Geodetic Vertical Datum, from data provided by U.S. Army Corps of Engineers.DRAINAGE AREA.--About 5,650 mi².

PERIOD OF RECORD.--October 1931 to current year. Records of elevations prior to October 1960 available as follows: from 1912 to 1914 in reports or files of U.S. Army Corps of Engineers, 1915 to September 1931 in reports or files of Everglades Drainage District, and October 1931 to 1960 in files of the Orlando Subdistrict office.

REVISED RECORDS.--WRD FL 1969: Surface area. WDR FL-77-1: capacity table.

GAGE.--Three water-stage recorders at Hurricane Gate No. 2, Hurricane Gate No. 6 and Port Mayaca. Datum of gages is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1941, nonrecording gage at St. Lucie Canal. Oct. 1, 1941, to Dec. 31, 1950, seven nonrecording gages at various locations on rim of lake. Prior to Oct. 1, 1933, at datum 1.01 ft lower. Oct. 1, 1933, to Sept. 30, 1946, at datum 1.44 ft lower.

REMARKS.--Lake is diked to form a reservoir and is regulated by control structure gates at several outlets. It is used for navigation, municipal water supply, irrigation, and flood control. Total usable capacity is 2,860,000 acre-ft between elevations 10.5 and 17.5 ft.

COOPERATION.--Records of elevations and capacity table furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 18.77 ft, Nov. 2, 1947; minimum daily, 9.79 ft, July 30, 31, Aug. 1, 1981.

Capacity table, water year 1989-90 (elevation, in feet, and capacity, in acre-feet)

10.0	2,040,000	15.0	3,950,000
11.0	2,370,000	16.0	4,380,000
12.0	2,720,000	17.0	4,830,000
13.0	3,110,000	18.0	5,290,000
14.0	3,530,000		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.13	12.75	12.35	12.29	12.25	12.31	11.65	11.07	10.69	10.71	11.46	12.43
2	12.18	12.74	12.29	12.29	12.24	12.36	11.65	11.04	10.71	10.69	11.45	12.47
3	12.19	12.73	12.28	12.30	12.27	12.39	11.66	11.01	10.69	10.78	11.46	12.46
4	12.20	12.73	12.30	12.28	12.28	12.38	11.64	10.98	10.70	10.84	11.46	12.45
5	12.19	12.73	12.25	12.30	12.34	12.35	11.61	10.97	10.73	10.85	11.47	12.44
6	12.17	12.72	12.24	12.29	12.35	12.32	11.58	10.95	10.72	10.84	11.48	12.43
7	12.16	12.71	12.27	12.28	12.36	12.30	11.52	10.90	10.70	10.86	11.48	12.42
8	12.27	12.70	12.29	12.29	12.35	12.28	11.53	10.87	10.71	10.87	11.48	12.41
9	12.37	12.68	12.33	12.29	12.36	12.26	11.53	10.86	10.75	10.88	11.49	12.40
10	12.40	12.67	12.34	12.30	12.34	12.25	11.53	10.87	10.77	10.88	11.50	12.39
11	12.57	12.66	12.33	12.27	12.34	12.24	11.47	10.90	10.81	10.88	11.53	12.38
12	12.62	12.64	12.30	12.24	12.35	12.22	11.44	10.89	10.85	10.90	11.57	12.37
13	12.67	12.62	12.26	12.23	12.35	12.20	11.40	10.88	10.84	11.00	11.70	12.36
14	12.71	12.61	12.24	12.26	12.36	12.18	11.39	10.87	10.77	11.02	11.80	12.35
15	12.75	12.59	12.23	12.27	12.35	12.15	11.37	10.87	10.63	11.14	11.86	12.33
16	12.78	12.57	12.22	12.28	12.34	12.11	11.34	10.89	10.60	11.20	11.92	12.34
17	12.80	12.54	12.25	12.27	12.34	12.07	11.31	10.87	10.59	11.20	11.96	12.35
18	12.80	12.52	12.23	12.27	12.33	12.04	11.25	10.83	10.57	11.22	12.02	12.36
19	12.79	12.50	12.23	12.27	12.36	12.01	11.20	10.82	10.56	11.29	12.09	12.36
20	12.77	12.49	12.24	12.26	12.35	11.97	11.15	10.80	10.54	11.31	12.11	12.35
21	12.76	12.47	12.25	12.26	12.34	11.94	11.13	10.78	10.52	11.32	12.14	12.34
22	12.72	12.46	12.24	12.28	12.34	11.91	11.10	10.73	10.51	11.34	12.14	12.31
23	12.71	12.43	12.22	12.30	12.33	11.88	11.09	10.69	10.57	11.37	12.15	12.30
24	12.72	12.42	12.20	12.29	12.25	11.86	11.09	10.66	10.61	11.41	12.20	12.29
25	12.72	12.40	12.21	12.28	12.25	11.83	11.05	10.63	10.64	11.43	12.25	12.29
26	12.71	12.39	12.23	12.26	12.24	11.81	11.04	10.64	10.66	11.45	12.27	12.30
27	12.69	12.40	12.25	12.27	12.28	11.75	11.02	10.65	10.68	11.44	12.28	12.32
28	12.70	12.40	12.26	12.28	12.33	11.74	11.03	10.68	10.70	11.45	12.30	12.33
29	12.71	12.38	12.27	12.29	---	11.72	11.08	10.68	10.71	11.46	12.39	12.35
30	12.77	12.39	12.28	12.31	---	11.69	11.08	10.66	10.72	11.50	12.41	12.40
31	12.76	---	12.28	12.33	---	11.66	---	10.69	---	11.49	12.43	---
MEAN	12.56	12.57	12.26	12.28	12.32	12.07	11.33	10.83	10.67	11.13	11.88	12.37
MAX	12.80	12.75	12.35	12.33	12.36	12.39	11.66	11.07	10.85	11.50	12.43	12.47
MIN	12.13	12.38	12.20	12.23	12.24	11.66	11.02	10.63	10.51	10.69	11.45	12.29

CAL YR 1989 MEAN 12.51 MAX 14.42 MIN 11.13

WTR YR 1990 MEAN 11.85 MAX 12.80 MIN 10.51

WATER RESOURCES DATA - FLORIDA, 1990
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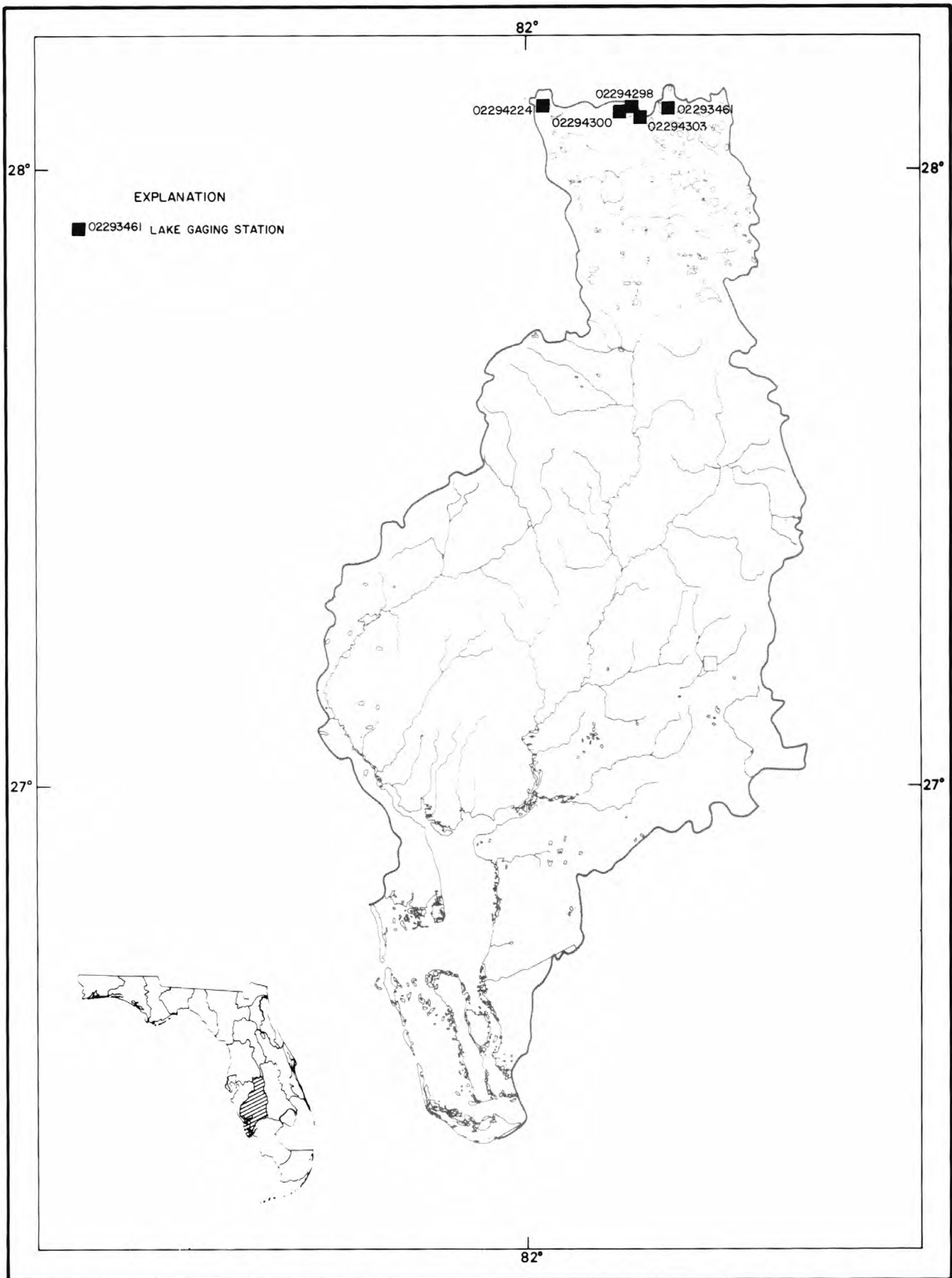


Figure 28.--Location of lake gaging stations in the Peace and Myakka River basins, Charlotte Harbor and coastal area.

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

PEACE RIVER BASIN

02293461 LAKE ALFRED AT LAKE ALFRED, FL

LOCATION.--Lat 28°05'41", long 81°44'06", in NW¼ sec.32, T.27 S., R.26 E., Polk County, Hydrologic Unit 03100101, on east shore of lake in town of Lake Alfred.

SURFACE AREA.--736 acres (1.15 mi²).

DRAINAGE AREA.--2.93 mi².

PERIOD OF RECORD.--March 1961 to September 1962; September 1969 to August 1975 (twice weekly); September 1975 to September 1983 (weekly), incomplete; October 1983 to September 1984 (fragmentary); October 1984 to October 1985 (twice weekly), incomplete; November 1985 to current year (once daily).

GAGE.--Water-stage recorder. Datum of gage is 120.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Feb. 24, 1981, at several sites and datums within 0.2 mi; Feb. 24, 1981 to Nov. 29, 1985 nonrecording gage at present site and datum.

REMARKS.--Lake is one of a group of lakes in the southern part of an extensive area of swampy flatlands and sandy ridges at a relatively high elevation, called the Green Swamp. Streams that flow into five major drainage systems originate in or near the Green Swamp area.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 132.08 ft, Mar. 30, Apr. 2-4, 1961; minimum observed, 122.40 ft, May 24, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 126.99 ft, Aug. 25, 26; minimum observed, 126.00 ft, May 31, June 1.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126.53	126.25	126.12	126.46	126.38	126.51	126.51	126.34	126.03	126.23	126.68	126.92
2	126.50	126.24	126.11	126.46	126.38	126.51	126.52	126.32	126.06	126.22	126.67	126.91
3	126.50	126.23	126.09	126.46	126.38	126.51	126.52	126.30	126.12	126.22	126.66	126.90
4	126.52	126.22	126.08	126.46	126.38	126.50	126.49	126.28	126.14	126.21	126.67	126.88
5	126.50	126.21	126.07	126.46	126.37	126.50	126.47	126.27	126.13	126.18	126.71	126.86
6	126.49	126.21	126.06	126.47	126.34	126.49	126.46	126.25	126.13	126.16	126.71	126.88
7	126.49	126.20	126.06	126.48	126.33	126.48	126.45	126.22	126.13	126.15	126.70	126.93
8	126.48	126.19	126.12	126.48	126.33	126.46	126.44	126.20	126.13	126.13	126.70	126.92
9	126.47	126.18	126.24	126.48	126.32	126.45	126.42	126.17	126.13	126.12	126.70	126.91
10	126.46	126.18	126.24	126.48	126.35	126.44	126.46	126.18	126.13	126.11	126.72	126.89
11	126.46	126.17	126.23	126.47	126.44	126.44	126.56	126.20	126.13	126.10	126.78	126.91
12	126.45	126.16	126.23	126.47	126.43	126.43	126.56	126.19	126.13	126.10	126.78	126.96
13	126.44	126.15	126.24	126.45	126.41	126.42	126.54	126.18	126.13	126.22	126.79	126.95
14	126.43	126.14	126.23	126.44	126.40	126.41	126.53	126.16	126.13	126.50	126.83	126.94
15	126.41	126.13	126.22	126.43	126.40	126.39	126.52	126.14	126.13	126.58	126.89	126.93
16	126.40	126.14	126.22	126.43	126.39	126.38	126.51	126.13	126.13	126.58	126.90	126.92
17	---	126.16	126.24	126.42	126.39	126.36	126.51	126.11	126.13	126.58	126.90	126.91
18	---	126.14	126.26	126.43	126.39	126.34	126.50	126.12	126.13	126.60	126.92	126.89
19	---	126.13	126.29	126.42	126.38	126.33	126.49	126.17	126.13	126.61	126.91	126.88
20	---	126.12	126.34	126.42	126.37	126.32	e126.47	126.16	126.13	126.62	126.90	126.86
21	126.36	126.11	126.40	126.43	126.36	126.28	126.45	126.14	126.13	126.66	126.90	126.85
22	126.32	126.11	126.43	126.43	126.39	126.26	126.44	126.13	126.13	126.67	126.92	126.84
23	126.31	126.11	126.49	126.42	126.50	126.25	126.43	126.12	126.13	126.66	126.95	126.83
24	126.30	126.12	126.48	126.41	126.57	126.24	126.43	126.11	126.17	126.66	126.96	126.80
25	126.29	126.11	126.46	126.41	126.55	126.23	126.41	126.11	126.27	126.66	126.99	126.79
26	126.29	126.12	126.45	126.41	126.54	126.22	126.39	126.09	126.30	126.67	126.99	126.77
27	126.28	126.15	126.45	126.38	126.53	126.21	126.37	126.08	126.30	126.65	126.98	126.75
28	126.27	126.15	126.45	126.37	126.52	126.19	126.36	126.08	126.29	126.66	126.97	126.74
29	126.27	126.15	126.45	126.37	---	126.27	126.36	126.07	126.25	126.70	126.96	126.78
30	126.26	126.14	126.45	126.37	---	126.48	126.36	126.06	126.24	126.70	126.95	126.88
31	126.25	---	126.45	126.38	---	126.50	---	126.03	---	126.69	126.94	---
MEAN	---	126.16	126.28	126.43	126.41	126.38	126.46	126.16	126.15	126.44	126.84	126.87
MAX	---	126.25	126.49	126.48	126.57	126.51	126.56	126.34	126.30	126.70	126.99	126.96
MIN	---	126.11	126.06	126.37	126.32	126.19	126.36	126.03	126.03	126.10	126.66	126.74

e Estimated

02294224 LAKE GIBSON NEAR LAKELAND, FL

SURFACE AREA.--477 acres (0.75 mi²).

DRAINAGE AREA.--4.31 mi² .

GAGE.--Nonrecording gage. Datum of gage is 135.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to October 1969, reference point at site on south shore of lake at datum 11.4 ft higher (by altimeter); October 1969 to March 1975, at present site at datum 0.93 ft higher.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 145.4 ft, Sept. 8, 1988; minimum observed, 140.40 ft, June 6-8, 12, 1985.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142.76	142.35	142.47	142.86	142.69	142.87	142.47	142.27	141.87	141.89	142.66	142.95
2	142.74	142.35	142.46	142.86	142.70	142.84	142.45	142.26	141.85	141.96	142.65	142.92
3	142.72	142.35	142.44	142.85	142.70	142.79	142.46	142.25	141.83	141.97	142.70	142.89
4	142.69	142.34	142.42	142.85	142.70	142.75	142.44	142.23	141.86	141.97	142.79	142.87
5	142.67	142.34	142.42	142.84	142.69	142.70	142.42	142.21	141.84	141.96	142.79	142.85
6	142.65	142.34	142.42	142.84	142.69	142.66	142.39	142.20	141.82	141.95	142.77	142.82
7	142.62	142.33	142.41	142.83	142.68	142.66	142.38	142.17	141.87	141.94	142.76	142.79
8	142.61	142.33	142.39	142.80	142.68	142.64	142.38	142.14	141.89	141.93	142.74	142.76
9	142.59	142.32	142.68	142.78	142.67	142.64	142.37	142.10	141.89	141.95	142.73	142.73
10	142.58	142.35	142.68	142.78	142.67	142.62	142.36	142.14	141.87	141.94	142.75	142.70
11	142.56	142.36	142.68	142.77	142.89	142.62	142.40	142.12	141.85	141.98	142.77	142.67
12	142.56	142.35	142.68	142.75	142.89	142.62	142.40	142.08	141.82	142.06	142.76	142.71
13	142.55	142.33	142.79	142.74	142.89	142.61	142.39	142.07	141.81	142.11	142.79	142.70
14	142.56	142.32	142.79	142.74	142.88	142.61	142.39	142.06	141.79	142.13	142.78	142.69
15	142.55	142.30	142.78	142.72	142.88	142.60	142.38	142.05	141.77	142.29	142.88	142.69
16	142.53	142.32	142.78	142.71	142.87	142.60	142.38	142.03	141.75	142.43	142.94	142.68
17	142.52	142.31	142.78	142.70	142.86	142.59	142.37	142.02	141.74	142.43	142.92	142.68
18	142.51	142.30	142.82	142.70	142.85	142.61	142.36	142.00	141.81	142.45	142.90	142.66
19	142.49	142.29	142.88	142.70	142.83	142.59	142.36	141.98	141.81	142.52	142.89	142.66
20	142.48	142.29	142.88	142.69	142.82	142.57	142.35	141.95	141.84	142.53	142.88	142.65
21	142.46	142.28	143.00	142.69	142.82	142.54	142.34	141.94	141.83	142.54	142.86	142.63
22	142.43	142.28	143.00	142.69	142.81	142.52	142.32	141.92	141.81	142.64	142.86	142.62
23	142.40	142.34	143.06	142.68	142.96	142.52	142.30	141.90	141.84	142.71	143.04	142.61
24	142.39	142.36	143.06	142.68	143.06	142.50	142.29	141.88	141.84	142.70	143.06	142.60
25	142.39	142.36	143.02	142.68	143.02	142.49	142.28	141.86	141.89	142.72	143.12	142.58
26	142.38	142.48	142.94	142.68	142.96	142.47	142.26	141.85	141.87	142.74	143.11	142.57
27	142.37	142.51	142.88	142.70	142.93	142.46	142.25	141.84	141.88	142.73	143.09	142.56
28	142.36	142.50	142.88	142.69	142.89	142.44	142.22	141.92	141.94	142.71	143.06	142.53
29	142.											

02294298 LAKE ARIETTA NEAR AUBURNDALE, FL

SURFACE AREA.--764 acres (1.19 mi²).

DRAINAGE AREA.--3.70 mi².

GAGE.--Nonrecording gage. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Nov. 21, 1972 at site nearby at datum 0.10 ft lower and Nov. 22, 1972 to Sept. 8, 1980 at several sites nearby at present datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 143.34 ft, Mar. 31, Apr. 1,2,3, 1983; minimum observed, 136.50 ft, May 25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 140.68 ft, Aug. 27; minimum observed 139.46 ft, May 18.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140.34	139.89	139.76	139.99	---	140.09	---	---	139.66	139.97	140.35	---
2	140.31	139.87	139.75	139.99	139.91	140.09	---	139.64	139.65	139.95	140.33	---
3	140.30	139.86	139.72	140.00	139.91	140.08	---	139.62	139.80	139.94	140.38	---
4	140.29	139.86	139.69	140.02	---	140.08	---	139.61	139.81	139.91	140.41	140.55
5	140.29	139.85	139.68	140.01	139.89	140.07	139.86	139.60	139.84	139.90	140.46	140.54
6	---	139.85	139.68	140.01	139.88	140.06	139.85	139.58	139.87	139.90	140.45	140.52
7	140.26	139.84	139.67	140.01	139.88	140.04	139.85	139.56	139.85	139.89	140.41	140.51
8	140.25	---	139.67	140.01	139.87	140.04	---	139.55	139.85	139.88	140.37	140.50
9	140.23	139.89	139.83	140.00	139.87	140.03	139.84	139.54	139.82	139.86	---	140.49
10	140.23	139.86	139.82	140.01	139.86	140.02	139.81	139.50	139.82	139.83	---	140.47
11	140.21	---	139.82	140.02	---	140.00	---	139.55	139.85	139.82	140.56	140.61
12	140.20	139.83	139.81	140.00	140.02	139.99	139.87	139.54	139.97	139.96	140.55	140.59
13	140.19	139.82	139.85	139.99	140.01	139.98	139.86	139.53	139.94	140.01	140.59	140.57
14	140.18	139.80	139.80	139.96	139.99	139.96	139.86	139.51	139.92	140.13	140.61	---
15	140.18	---	---	139.96	139.99	139.96	139.85	139.50	139.90	140.15	140.63	140.53
16	140.17	139.83	139.79	139.96	139.98	139.94	139.85	---	139.87	---	140.62	140.52
17	140.15	139.82	---	139.96	139.98	139.93	139.83	139.48	---	140.19	140.60	140.51
18	140.12	139.81	139.85	139.96	139.98	139.91	139.81	139.46	139.91	140.23	140.59	140.51
19	140.09	139.79	139.91	139.95	139.98	139.90	139.79	139.74	139.91	140.28	140.57	140.50
20	140.05	139.76	139.97	139.95	139.97	139.89	139.78	139.71	139.90	140.38	---	140.50
21	140.01	139.74	139.97	139.96	139.97	---	139.76	139.70	139.87	140.38	140.56	140.49
22	140.00	139.71	139.95	139.96	139.96	139.85	139.76	139.68	139.85	140.38	140.58	140.44
23	139.97	---	140.03	139.95	139.99	139.83	139.76	---	139.96	140.40	140.59	140.44
24	139.95	---	---	139.95	140.11	139.82	139.76	139.66	139.98	140.38	140.63	140.41
25	139.96	---	---	139.95	140.16	139.81	139.75	139.65	140.01	140.42	140.65	140.40
26	139.98	---	139.98	139.94	140.13	139.80	139.75	139.63	140.01	140.41	140.64	140.40
27	139.95	139.79	139.98	139.91	140.10	139.79	139.71	139.62	140.00	140.41	140.68	140.38
28	139.94	139.79	139.98	139.91	140.10	---	139.67	---	140.03	140.39	140.67	140.37
29	139.94	139.78	139.99	139.90	---	139.78	139.66	139.60	140.00	140.39	140.65	140.37
30	---	139.76	139.99	139.91	---	---	139.65	139.59	139.98	140.37	140.61	140.40
31	139.91	---	139.99	139.92	---	139.93	---	139.67	---	140.36	---	---
MEAN	---	---	---	139.97	---	---	---	---	---	---	---	---
MAX	---	---	---	140.02	---	---	---	---	---	---	---	---
MIN	---	---	---	139.90	---	---	---	---	---	---	---	---

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

PEACE RIVER BASIN

02294300 LAKE WHISTLER NEAR AUBURNDALE, FL

LOCATION.--Lat 28°05'18", long 81°48'54", in SE¼ sec.33, T.27 S., R.25 E., Polk County, Hydrologic Unit 03100101, on west shore of lake, on private pier, 2.2 mi northwest of Auburndale.

SURFACE AREA.--78.0 acres (0.12 mi²).

DRAINAGE AREA.--4.33 mi².

PERIOD OF RECORD.--August 1970 to current year (once-daily), incomplete.

REVISED RECORDS.--WDR FL-80-3: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Jan. 5, 1972, at site 0.4 mi south at datum 0.08 ft lower; Jan. 5, 1972, to Nov. 20, 1980, at site 0.4 mi south at present datum.

REMARKS.--Lake is in the Saddle Creek Branch area of Peace River headwaters.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 138.12 ft, Apr. 10, 1983; minimum observed, 134.50 ft, May 8, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 137.26 ft, Aug. 11, minimum observed, 136.48 ft, May 18.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137.06	136.74	136.66	136.96	136.82	136.92	---	136.62	136.76	136.96	137.00	136.98
2	137.06	136.74	136.66	136.95	136.82	136.92	---	136.60	136.76	136.94	136.98	136.96
3	137.05	136.74	136.65	136.94	136.80	136.90	136.82	136.58	136.84	136.92	136.96	136.92
4	137.04	136.74	136.64	136.94	136.80	136.89	136.82	136.56	136.90	136.90	136.96	136.90
5	137.02	136.74	136.62	136.96	136.78	136.88	136.80	136.56	136.90	136.88	137.06	136.88
6	137.00	136.74	136.62	136.96	136.78	136.88	136.78	136.58	136.88	136.88	137.04	136.86
7	136.98	136.72	136.62	136.96	136.77	136.86	136.78	136.56	136.88	136.86	137.00	136.90
8	137.00	136.72	136.62	136.96	136.76	136.86	136.76	136.54	136.90	136.84	136.98	136.88
9	136.98	136.72	136.80	136.95	136.76	136.84	136.75	136.52	136.90	136.80	136.96	---
10	136.96	136.72	136.80	136.94	136.76	136.84	136.74	136.50	136.90	136.80	136.93	---
11	136.94	136.72	136.78	136.94	136.90	136.84	136.82	136.58	136.90	136.80	137.26	---
12	136.92	136.70	136.78	136.92	136.88	136.83	136.82	136.56	136.98	136.78	137.24	---
13	---	136.68	136.80	136.92	136.88	136.82	136.80	136.54	136.96	---	137.22	---
14	---	136.68	136.78	136.90	136.86	136.80	136.78	136.54	136.94	137.10	137.20	---
15	---	136.66	136.76	136.88	136.84	136.78	136.78	136.53	136.92	137.12	---	---
16	---	136.72	136.74	136.88	136.84	136.78	136.76	136.52	136.90	137.12	137.16	136.85
17	---	136.70	---	136.88	136.84	136.78	136.76	136.50	136.90	137.14	137.12	136.84
18	136.90	136.66	---	136.88	136.84	136.76	136.75	136.48	136.96	137.14	137.10	136.82
19	136.88	136.64	---	136.88	136.84	136.74	136.74	136.76	136.96	137.10	137.10	136.80
20	136.84	136.62	---	136.88	136.83	136.72	136.72	136.76	136.95	137.06	137.08	136.79
21	136.82	136.62	136.96	136.88	136.82	136.70	136.70	136.74	136.94	137.20	137.06	136.78
22	136.80	136.60	136.94	136.87	136.80	136.68	136.70	136.72	136.92	137.18	137.04	136.76
23	136.78	136.66	137.00	136.86	136.98	136.67	136.70	136.70	136.90	137.16	137.06	136.75
24	136.78	136.64	136.98	136.86	137.00	136.66	136.68	136.70	137.00	137.14	137.04	136.74
25	136.76	136.62	136.96	136.86	136.98	136.66	136.66	136.72	137.02	137.12	137.06	136.72
26	136.78	136.70	136.96	136.86	136.98	136.65	136.64	136.70	137.06	137.16	137.10	136.70
27	136.76	136.72	136.96	136.84	136.96	136.64	136.62	136.70	137.06	137.12	137.08	136.70
28	136.74	136.72	136.96	136.82	136.94	136.63	136.60	136.72	137.04	137.10	137.06	136.68
29	136.74	136.70	136.96	136.82	---	136.62	136.64	136.72	137.00	137.08	137.04	136.68
30	136.74	136.68	136.96	136.82	---	136.80	136.64	136.70	136.98	137.06	137.02	136.74
31	136.74	---	136.96	136.82	---	---	---	136.70	---	137.02	137.00	---
MEAN	---	136.69	---	136.90	136.85	---	---	136.62	136.93	---	---	---
MAX	---	136.74	---	136.96	137.00	---	---	136.76	137.06	---	---	---
MIN	---	136.60	---	136.82	136.76	---	---	136.48	136.76	---	---	---

02294303 ARIANA LAKE AT AUBURNDALE. FL

SURFACE AREA.--1.019 acres (1.59 mi²).

DRAINAGE AREA.--7.86 mi².

PERIOD OF RECORD.--June 1945 to January 1948 (weekly), incomplete; February 1958 to February 1960 (fragmentary); November 1971 to current year (twice weekly), incomplete. Records of elevations prior to November 1971 are unpublished and available in files of the Orlando subdistrict office.

REVISED RECORDS.--WDR FL-80-3: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929 (levels by Southwest Florida Water Management District); gage readings have been reduced to elevations above NGVD. Prior to Mar. 18, 1975, at site 1.000 ft east at datum 31.90 ft higher.

REMARKS.--Lake is in Saddle Creek Branch area of Peace River headwaters.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 137.90 ft, Aug. 28, 1946; minimum observed, 131.28 ft, May 6, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 136.24 ft, Aug. 27; minimum observed, 134.68 ft, May 18.

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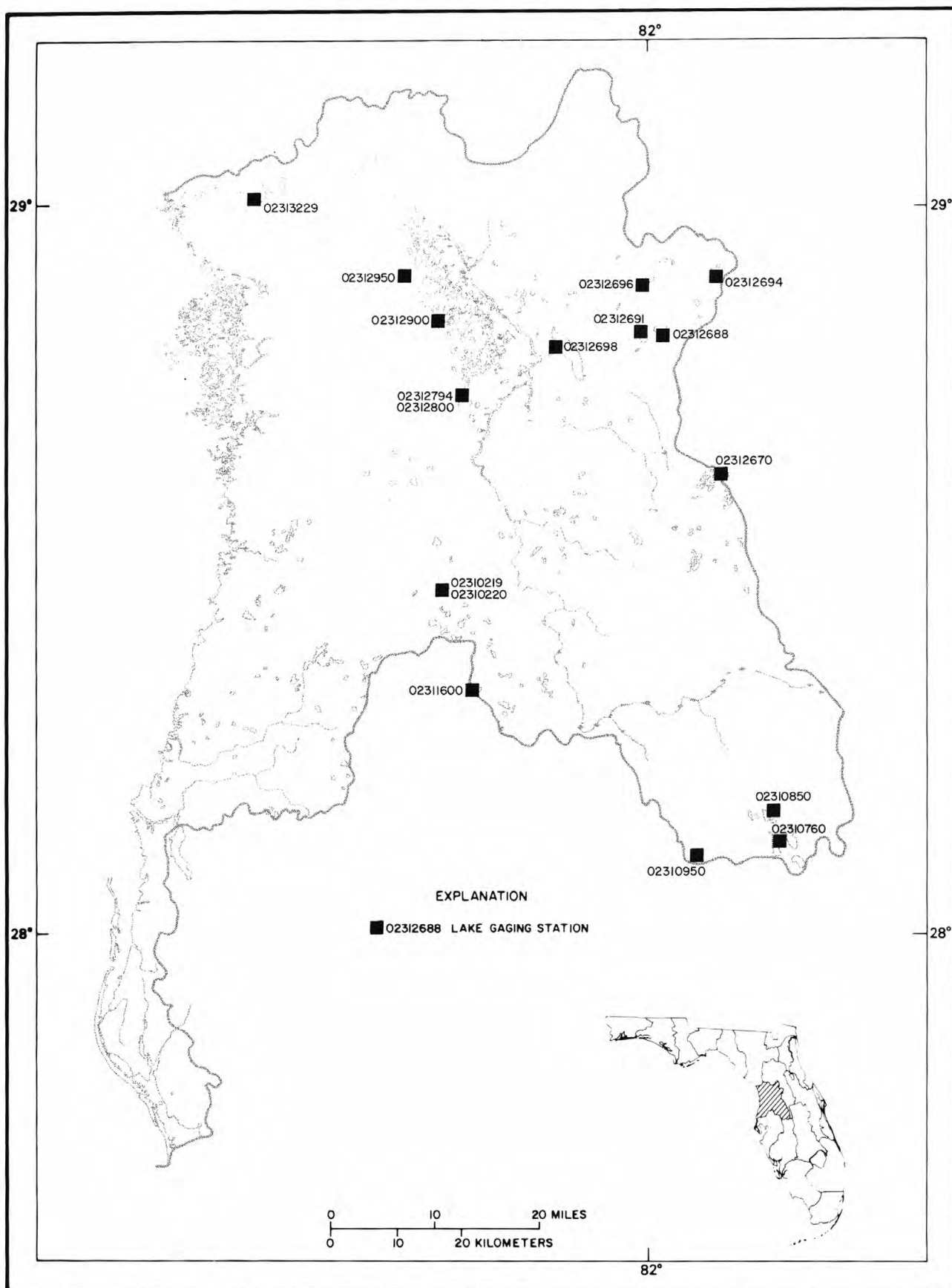


Figure 29.--Location of lake gaging stations in the Withlacoochee River basin and coastal areas.

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

COASTAL AREA FROM TAMPA BAY TO WITHLACOCHEE RIVER

02310219 NEFF LAKE SINK NEAR BROOKSVILLE, FL

LOCATION.--Lat 28°28'44", long 82°19'14", in SE¼ sec.17, T.23 S., R.20 E., Hernando County, Hydrologic Unit 03100207, in diked sinkhole area, at fish camp on east shore of lake, 6.3 mi southeast of Brooksville, and 9.0 mi east of Masaryktown.

DRAINAGE AREA.--5.08 mi².

PERIOD OF RECORD.--June 1971 to December 1974 (twice weekly), incomplete; January 1975 to current year (fragmentary). Records equivalent to Neff Lake since January 1965, except during extreme low water when dike separates sink from lake.

GAGE.--Nonrecording gage. Datum of gage is 88.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Jan. 29, 1985 at datum 2.00 ft higher.

REMARKS.--Sink is isolated from Neff Lake by an earthen dike below elevation of 86.6 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 104.11 ft, Mar. 22, 1984; sink dry for many days in 1969, 1972-74.

ELEVATION, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
24...	0720	97.83	17...	0755	95.43
DEC			JUN		
19...	0735	96.97	05...	0735	92.36
FEB			JUL		
13...	0810	96.60	31...	0830	92.55

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

COASTAL AREA FROM TAMPA BAY TO WITHLACOCHEE RIVER

02310220 NEFF LAKE NEAR BROOKSVILLE, FL

LOCATION.--Lat 28°28'44", long 82°19'14", in SE¼ sec.17, T.23 S., R.20 E., Hernando County, Hydrologic Unit 03100207, on east shore of lake, 6.3 mi southeast of Brooksville, and 9.0 mi east of Masaryktown.

SURFACE AREA.--224 acres (0.35 mi²).

DRAINAGE AREA.--5.08 mi².

PERIOD OF RECORD.--January 1965 to March 1968 (twice weekly), incomplete; April 1968 to January 1970 (fragmentary); February 1970 to December 1974 (twice weekly), incomplete; January 1975 to current year (fragmentary). Records equivalent to Neff Lake Sink since January 1965, except during extreme low water.

GAGE.--Nonrecording gage. Datum of gage is 88.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Jan. 29, 1985 at site 300 ft northwest at datum 2.00 ft higher.

REMARKS.--Lake is interconnected with Mountain Lake during extreme high-water periods. Some outflow through sinkhole on east shore of lake; lake is isolated from sink by an earthen dike below elevation of 86.6 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 104.11 ft, Mar. 22, 1984; lake dry for most of period May 1968 to September 1969.

ELEVATION, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 24...	0720	97.83	APR 17...	0755	95.43
DEC 19...	0735	96.97	JUN 05...	0735	92.36
FEB 13...	0810	96.60	JUL 31...	0830	92.55

PEACE, WITHLACOCOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCOCHEE RIVER BASIN

02310760 LAKE JULIANA NEAR POLK CITY, FL

LOCATION.--Lat 28°07'51", long 81°47'45", in SE¼ sec.15, T.27 S., R.25 E., Polk County, Hydrologic Unit 03100208, on east shore of lake, near concrete-walled pumping station, 4 mi southeast of Polk City.

SURFACE AREA.--919 acres (1.44 mi²).

DRAINAGE AREA.--5.4 mi², approximately.

PERIOD OF RECORD.--December 1961 to September 1975 (once-daily); October 1975 to current year (weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to June 8, 1984, at datum 26.49 ft higher.

REMARKS.--Lake is one of a group of lakes in the southern part of an extensive area of swampy flatlands and sandy ridges at a relatively high elevation, called the Green Swamp. Streams that flow into five major drainage systems originate in or near the Green Swamp area. Lake is connected to Lake Mattie by a canal which tends to equalize the lake elevations.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 132.92 ft, Mar. 12, 1970; minimum observed, 126.20 ft, May 7, 14, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 131.32 ft, Aug. 19; minimum observed, 130.59 ft, Nov. 18, Dec. 4.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	130.74	---	---	---
3	---	---	---	---	131.01	131.22	---	---	---	---	---	---
4	---	---	130.59	---	---	---	---	---	---	---	131.22	---
5	---	---	---	---	---	---	---	---	---	130.84	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	131.02	---	---	---	---	---	131.12	---	130.75	---	---	131.16
8	---	---	---	---	---	---	---	130.78	130.79	---	---	---
9	---	---	---	131.06	---	---	---	---	---	---	131.19	---
10	---	---	130.72	---	130.93	131.15	---	---	---	---	---	---
11	---	130.68	---	---	---	---	---	---	---	---	---	---
12	130.99	---	---	---	---	---	---	130.73	---	---	---	---
13	---	---	---	---	---	---	---	---	---	130.90	---	---
14	---	---	---	---	---	---	---	---	130.80	---	---	131.16
15	---	---	---	131.02	---	---	131.11	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	131.09	---	---	---	---	---	---	---
18	---	130.59	---	---	---	131.08	---	130.66	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	131.32	---
20	---	---	---	131.02	---	---	---	---	---	131.13	---	---
21	---	---	---	---	---	---	---	---	---	---	---	131.07
22	130.78	---	130.96	---	---	---	131.06	---	130.71	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	130.88	---	---	---	131.26	130.94	---	---	---	---	131.31	---
25	---	---	---	---	---	---	---	130.81	---	---	---	---
26	---	130.67	---	---	---	---	---	---	---	---	---	---
27	---	---	---	130.98	---	---	---	---	---	131.19	---	---
28	---	---	---	---	---	---	130.96	---	---	---	---	---
29	---	---	---	---	---	---	---	---	130.89	---	---	---
30	130.74	---	131.04	---	---	---	---	---	---	---	131.26	131.17
31	---	---	---	---	---	131.16	---	---	---	---	---	---

02310950 LAKE DEESON NEAR LAKELAND, FL

SURFACE AREA.--116 acres (0.18 mi²).

DRAINAGE AREA.--0.96 mi².

GAGE.--Water-stage recorder. Datum of gage is 118.21 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Oct. 17, 1957, nonrecording gage at same site at datum 20.25 ft higher and Oct. 17, 1957 to March 1960, at datum 20.79 ft higher.

REMARKS.--Lake is landlocked except at extreme high stages when flow is to the northeast to the headwaters of Gator Creek. Since Dec. 14, 1973, elevation of lake affected by pumpage into lake from nearby deep well.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 135.49 ft, Sept. 28, 1954; minimum daily, 119.81 ft, May 24, 1968.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126.95	126.49	126.28	126.64	126.42	126.47	125.98	125.44	124.90	124.52	125.10	125.56
2	126.95	126.48	126.26	126.63	126.41	126.46	125.96	125.41	124.88	124.52	125.09	125.55
3	126.94	126.46	126.24	126.63	126.40	126.45	125.96	125.38	124.88	124.50	125.11	125.53
4	126.93	126.44	126.21	126.62	126.39	126.44	125.93	125.35	124.86	124.49	125.18	125.52
5	126.91	126.43	126.19	126.63	126.37	126.43	125.90	125.32	124.83	124.49	125.18	125.50
6	126.90	126.41	126.18	126.62	126.35	126.42	125.88	125.29	124.81	124.47	125.17	125.49
7	126.88	126.40	126.17	126.62	126.33	126.41	125.85	125.25	124.82	124.45	125.15	125.47
8	126.88	126.39	126.21	126.62	126.32	126.39	125.83	125.21	124.84	124.43	125.13	125.45
9	126.87	126.40	126.40	126.62	126.31	126.37	125.81	125.19	124.82	124.41	125.13	125.44
10	126.85	126.41	126.39	126.61	126.30	126.36	125.78	125.22	124.80	124.39	125.12	125.42
11	126.84	126.39	126.37	126.61	126.45	126.35	125.82	125.19	124.78	124.39	125.15	125.45
12	126.82	126.37	126.37	126.60	126.45	126.33	125.81	125.16	124.75	124.41	125.16	125.53
13	126.81	126.35	126.41	126.58	126.43	126.31	125.78	125.13	124.72	124.54	125.24	125.51
14	126.80	126.33	126.39	126.56	126.42	126.29	125.76	125.11	124.68	124.67	125.27	125.50
15	126.79	126.32	126.37	126.55	126.41	126.28	125.74	125.09	124.65	124.74	125.27	125.49
16	126.78	126.33	126.38	126.55	126.40	126.26	125.72	125.06	124.62	124.77	125.26	125.47
17	126.76	126.31	126.38	126.54	126.39	126.24	125.71	125.03	124.60	124.78	125.25	125.46
18	126.75	126.28	126.42	126.53	126.37	126.23	125.69	125.00	124.60	124.81	125.24	125.45
19	126.73	126.26	126.43	126.53	126.37	126.20	125.67	124.97	124.58	124.85	125.24	125.43
20	126.68	126.24	126.52	126.52	126.35	126.17	125.64	124.94	124.56	124.85	125.22	125.41
21	126.65	126.22	126.60	126.52	126.33	126.14	125.61	124.91	124.53	124.92	125.20	125.39
22	126.62	126.20	126.61	126.51	126.32	126.12	125.59	124.89	124.52	125.12	125.23	125.37
23	126.60	126.25	126.68	126.50	126.46	126.10	125.57	124.86	124.55	125.14	125.40	125.35
24	126.58	126.27	126.67	126.49	126.54	126.08	125.55	124.83	124.58	125.14	125.43	125.32
25	126.56	126.26	126.66	126.48	126.52	126.06	125.52	124.80	124.58	125.15	125.54	125.29
26	126.55	126.31	126.65	126.47	126.50	126.04	125.49	124.77	124.57	125.15	125.54	125.27
27	126.54	126.33	126.65	126.45	126.49	126.02	125.46	124.83	124.60	125.13	125.54	125.25
28	126.54	126.32	126.65	126.44	126.48	126.00	125.45	124.98	124.58	125.13	125.56	125.24
29	126.											

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311600 CLEAR LAKE AT SAN ANTONIO, FL

LOCATION.--Lat 28°20'20", long 82°16'02", in SW¼ sec.1, T.25 S., R.20 E., Pasco County, Hydrologic Unit 03100208, on southwest shore of lake, on public pier, 0.5 mi northeast of San Antonio, and 5.0 mi west of Dade City.

SURFACE AREA.--158 acres (0.25 mi²).

DRAINAGE AREA.--0.92 mi².

PERIOD OF RECORD.--January 1965 to September 1966 (twice-weekly), incomplete; October 1966 to current year (weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is 97.00 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark); gage readings have been reduced to elevations above NGVD. Prior to Mar. 31, 1971, at site 30 ft northwest at same datum.

REMARKS.--Lake has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 127.86 ft, Apr. 4, 1987; minimum observed, 123.52 ft, May 6, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 126.18 ft, Oct. 8,15,21; minimum observed, 124.95 ft, June 30.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	125.63
2	---	---	125.66	---	---	---	---	---	125.14	---	---	---
3	---	---	---	---	125.84	125.95	---	---	---	---	---	---
4	---	125.78	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	125.28	---	---	125.13	---
6	---	---	---	125.90	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	125.60	---	---	125.03	---	---
8	126.18	---	---	---	---	---	---	---	125.09	---	---	125.55
9	---	---	---	---	---	---	---	---	125.11	---	---	---
10	---	---	125.70	---	125.76	125.86	---	---	---	---	---	---
11	---	125.76	---	---	---	---	---	---	---	---	125.11	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	125.96	125.85	---	---	125.32	---	---	---	---
14	---	---	---	---	---	---	125.50	---	---	125.15	---	---
15	126.18	---	---	---	---	---	---	---	---	---	---	125.45
16	---	---	125.68	---	---	---	---	---	124.97	---	---	---
17	---	---	---	---	125.82	125.72	125.47	---	---	---	---	---
18	---	125.70	---	---	---	---	---	---	---	---	125.05	---
19	---	---	125.73	---	---	---	---	---	---	---	---	---
20	---	---	---	125.86	---	---	---	125.18	---	---	---	---
21	126.18	---	---	---	---	---	125.40	---	---	125.35	---	---
22	---	---	---	---	---	---	---	---	---	---	---	125.33
23	---	---	125.88	---	---	---	---	---	---	---	---	---
24	125.91	---	---	---	---	125.68	---	---	125.01	---	---	---
25	---	125.66	---	---	125.94	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	125.20	---	---	125.19	---
27	---	---	---	125.80	---	---	---	---	---	---	---	---
28	125.86	---	---	---	---	---	125.36	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	125.23	---	125.13
30	---	---	---	---	---	---	---	---	124.95	---	---	---
31	---	---	125.86	---	---	125.70	---	---	---	125.23	---	---

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02312670 LAKE CATHERINE AT GROVELAND, FL

LOCATION.--Lat 28°34'27", long 81°51'37", in NE¼ sec.13, T.22 S., R.24 E., Lake County, Hydrologic Unit 03100208, on northeast shore of lake, 0.3 mi west of State Highway 19, and 1.0 mi northwest of Groveland.

SURFACE AREA.--137 acres (0.21 mi²).

DRAINAGE AREA.--4.53 mi².

PERIOD OF RECORD.--September 1965 to current year (weekly), incomplete.

REVISED RECORDS.--WDR FL-71-3: Surface area, drainage area.

GAGE.--Nonrecording gage. Datum of gage is 87.09 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

REMARKS.--Lake has no surface outlet. Elevations affected occasionally by pumpage out of lake or inflow into lake from citrus canning plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 99.76 ft, Sept. 15, 1988; minimum observed, 96.93 ft, May 30, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 98.23 ft, Oct. 4; minimum observed, 96.93 ft, May 30.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	97.89	---	---	---	---	---	---	---	---	97.79	---
2	---	---	---	---	---	---	---	97.46	---	---	---	---
3	---	---	---	97.99	---	---	97.92	---	---	---	---	---
4	98.23	---	---	---	---	---	97.89	97.42	---	97.93	---	---
5	---	---	---	---	---	97.85	---	---	---	---	---	97.87
6	---	---	97.71	---	---	---	---	---	97.25	97.89	---	---
7	---	---	---	---	97.83	97.91	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	97.65	---
9	---	---	---	---	---	---	---	97.29	---	---	---	---
10	---	---	---	98.17	---	---	---	---	---	---	---	---
11	98.19	---	---	---	---	---	97.74	---	---	97.75	---	---
12	---	---	---	---	---	---	---	---	---	---	---	97.73
13	---	---	97.89	---	---	---	---	---	97.43	---	---	---
14	---	---	---	---	97.85	97.71	---	---	---	---	---	---
15	---	97.77	---	---	---	---	---	---	---	---	97.86	---
16	---	---	---	---	---	---	---	97.25	---	---	---	---
17	---	---	---	98.05	---	---	---	97.19	---	---	---	---
18	98.07	---	---	98.05	---	---	97.59	---	---	98.11	---	---
19	---	---	---	---	---	---	---	---	---	---	---	97.75
20	---	---	97.96	---	---	---	---	---	97.73	---	---	---
21	---	---	---	---	97.75	97.71	---	---	---	---	---	---
22	---	97.87	---	---	---	---	---	---	---	---	97.93	---
23	---	---	---	---	---	---	---	97.06	---	---	---	---
24	---	---	---	97.99	---	---	---	---	---	---	---	---
25	97.99	---	---	---	---	---	97.63	---	---	98.00	---	---
26	---	---	---	---	---	---	---	---	---	---	---	97.65
27	---	97.71	97.99	---	---	---	---	---	98.19	---	---	---
28	---	---	---	---	97.97	97.49	---	---	---	---	---	---
29	---	97.73	---	---	---	---	---	---	---	---	97.90	---
30	---	---	---	---	---	---	---	96.93	---	---	---	---
31	---	---	---	97.91	---	---	---	---	---	---	---	---

02312688 LAKE DEATON NEAR WILDWOOD, FL

SURFACE AREA.--782 acres (1.2 mi²).

DRAINAGE AREA.--12.4 mi².

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (National Oceanic and Atmospheric Administration bench mark).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 65.28 ft, June 1, July 6, Aug. 3, 1984; minimum observed, 60.90 ft, Dec. 18, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

[illegible]

02312691 LAKE OKAHUMPKA NEAR WILDWOOD, FL

SURFACE AREA.--973 acres (1.5 mi²).

DRAINAGE AREA.--49 mi², approximately, of which 5 mi² probably is noncontributing.

PERIOD OF RECORD.--April 1978 to current year (weekly).

REVISED RECORDS.--WDR FL-88-1A: 1986, 1987.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Southwest Florida Water Management District bench mark).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 59.00 ft, July 10, 1982; minimum observed, 55.28 ft, July 10, Dec. 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 58.05 ft, Feb. 23; minimum observed, 57.10 ft, June 1, 8, 15.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

[illegible]

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312694 LADY LAKE NEAR LADY LAKE, FL

LOCATION.--Lat 28°54'50", long 81°53'43", in NE¼ sec.22, T.18 S., R.24 E., Lake County, Hydrologic Unit 03100208, on south shore of lake, 1.5 mi east of town of Lady Lake.

SURFACE AREA.--190 acres (0.30 mi²).

DRAINAGE AREA.--4.67 mi².

PERIOD OF RECORD.--February 1970 to September 1973 (weekly); October 1973 to current year (fragmentary).

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is landlocked. There is some pumpage from lake for irrigation purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 66.60 ft, Apr. 16, 1984; minimum observed, 60.66 ft, Apr. 30, 1990.

ELEVATION, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 22...	1605	60.71	APR 30...	1150	60.66
JAN 31...	1150	60.76	JUL 17...	1550	60.98
MAR 14...	1540	60.68	AUG 31...	1515	60.77

PEACE, WITHLACOOCHIE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02312696 LAKE MIONA NEAR OXFORD, FL

LOCATION.--Lat 28°54'21", long 82°00'19", in SE¼ sec.21, T.18 S., R.23 E., Sumter County, Hydrologic Unit 03100208, on north side of lake on private pier, 2.5 mi southeast of Oxford, and 3.7 mi northeast of Wildwood.

SURFACE AREA.--800 acres (1.2 mi²), includes Black Lake but excludes Cherry Lake.

DRAINAGE AREA.--38 mi², approximately, of which 10 mi² probably is noncontributing.

PERIOD OF RECORD.--April 1978 to current year (weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 56.60 ft, Oct. 1, 1982; minimum observed, 49.74 ft, May 4, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 50.64 ft, Oct. 1; minimum observed, 49.75 ft, June 3.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

[illegible]

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02312698 LAKE PANASOFFKEE NEAR LAKE PANASOFFKEE, FL

LOCATION.--Lat 28°49'01", long 82°08'40", in SE¼ sec.19, T.19 S., R.22 E., Sumter County, Hydrologic Unit 03100208, on west shore of lake, 0.8 mi north of outlet, 4.6 mi west of Coleman, and 5.1 mi northwest of town of Lake Panasoffkee.

SURFACE AREA.--4,821 acres (7.53 mi²).

DRAINAGE AREA.--420 mi², approximately.

PERIOD OF RECORD.--April 1955 to November 1962 (about weekly); December 1962 to current year. Records of elevations prior to October 1962 are unpublished and available in files of the Orlando subdistrict office. Records for Outlet River at Panacoochee Retreats (station 02312700).

REVISED RECORDS.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Dec. 18, 1962, nonrecording gage and Dec. 18, 1962, to Oct. 7, 1975, water-stage recorder at sites within 0.8 mi south at same datum.

REMARKS.--Outflow from lake is through Outlet River to Withlacoochee River; lake level affected at times by the stage of Withlacoochee River. Prior to 1962, lake level partially controlled during low water by small rock dams and at times during 1962 to 1964 by a temporary sheet piling dam in Outlet River. Most elevations from May to September 1990 are instantaneous values.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 44.28 ft, Apr. 5, 1960; minimum observed, 37.65 ft, May 12, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 39.40 ft, Feb. 28, minimum observed, 38.13 ft, June 22, July 11.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.35	38.95	38.83	38.95	39.00	39.37	38.99	---	---	38.24	38.46	39.01
2	39.33	38.95	38.82	38.95	39.00	39.36	38.98	---	---	38.24	38.47	39.01
3	39.31	38.94	38.83	38.94	39.00	39.33	38.97	---	---	38.24	38.47	39.01
4	39.30	38.93	38.82	38.95	38.98	39.33	38.95	---	38.16	38.22	38.57	39.00
5	39.29	38.93	38.81	39.10	38.95	39.32	38.96	38.55	---	38.20	38.56	38.99
6	39.27	38.93	38.80	39.14	38.96	39.32	38.95	---	38.14	38.18	38.56	38.97
7	39.24	38.92	38.80	39.16	38.95	39.30	38.93	---	---	38.20	38.56	38.96
8	39.21	38.92	38.82	39.17	38.95	39.30	38.93	38.50	---	38.20	38.56	38.96
9	39.19	38.92	38.85	39.17	38.95	39.25	38.93	---	38.34	38.16	38.57	38.95
10	39.18	38.93	38.82	39.17	38.97	39.22	38.91	38.42	---	38.14	38.60	38.94
11	39.17	38.92	38.82	39.17	39.07	39.20	38.89	---	---	38.13	38.63	38.92
12	39.16	38.90	38.83	39.14	39.08	39.17	38.88	---	---	38.14	38.64	38.92
13	39.14	38.90	38.84	39.12	39.11	39.15	38.87	38.40	38.32	38.14	38.65	38.90
14	39.13	38.90	38.82	39.12	39.11	39.14	38.85	---	38.28	38.16	38.73	38.88
15	39.12	38.90	38.82	39.11	39.12	39.12	38.84	---	38.24	38.28	38.78	38.86
16	39.11	38.91	38.82	39.11	39.11	39.10	38.82	---	38.21	38.38	38.78	38.86
17	39.10	38.89	38.81	39.10	39.09	39.08	38.81	---	38.19	38.34	38.78	38.88
18	39.09	38.87	38.85	39.09	39.09	39.04	38.79	38.36	38.21	38.33	38.79	38.85
19	39.06	38.86	38.85	39.08	39.08	39.03	38.81	---	38.19	38.47	38.81	38.78
20	39.00	38.86	38.88	39.07	39.07	38.98	38.83	---	38.16	---	38.81	38.75
21	39.03	38.87	38.89	39.05	39.10	38.97	38.78	---	38.16	38.34	38.80	38.72
22	39.03	38.86	38.90	39.03	39.12	38.96	38.76	---	38.13	---	38.79	---
23	39.02	38.87	38.93	39.03	39.24	38.95	38.75	---	38.26	38.46	38.84	38.60
24	39.01	38.87	38.93	39.02	39.29	38.93	38.74	---	38.25	38.44	38.89	38.56
25	39.00	38.85	38.96	39.02	39.34	38.92	38.72	---	38.28	38.46	38.89	38.53
26	38.99	38.88	38.96	38.97	39.35	38.91	38.70	---	38.25	38.47	38.90	38.42
27	38.99	38.86	38.97	39.00	39.36	38.90	38.68	---	38.28	38.45	38.92	---
28	38.98	38.86	38.96	39.00	39.37	38.89	38.66	---	38.28	38.46	38.93	38.41
29	38.95	38.86	38.96	39.00	---	38.91	38.64	---	38.26	38.47	38.98	---
30	38.95	38.84	38.96	39.01	---	38.95	---	---	38.24	38.47	38.98	38.42
31	38.95	---	38.96	39.00	---	38.99	---	---	---	38.45	39.01	---
MEAN	39.12	38.89	38.87	39.06	39.10	39.11	---	---	---	---	38.73	---
MAX	39.35	38.95	38.97	39.17	39.37	39.37	---	---	---	---	39.01	---
MIN	38.95	38.84	38.80	38.94	38.95	38.89	---	---	---	---	38.46	---

CAL YR 1989 MEAN 39.13 MAX 39.90 MIN 38.34

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

284753082070401 LAKE PANASOFFKEE NEAR COLEMAN LANDING

WATER-QUALITY RECORDS

LOCATION.--Lat 28°47'53", long 82°07'04", in NE¼ sec.33, T.19 S., R.22 E., Sumter County, Hydrologic Unit 03100208, samples collected from boat, 0.6 mi southwest of Coleman Landing, 2.5 mi west of town of Coleman.

SURFACE AREA.--4,821 acres.

DRAINAGE AREA.--420 mi², approximately.

PERIOD OF RECORD.--Water years 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET) (72020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
MAY 08...	0920	38.50	222	7.6	24.5	10	24	5.6	6.0	0.60
AUG 30...	1335	38.69	211	--	32.0	5	30	4.7	5.0	0.30

DATE	ALKA- LINITY LAB (MG/L CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
MAY 08...	57	26	11	0.20	6.8	113	0.010	<0.020	<0.010
AUG 30...	73	21	7.7	0.10	10	129	<0.010	0.030	<0.010

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED TOTAL (UG/L AS FE) (01046)
MAY 08...	0.55	<0.020	0.010	10	<1	<1	<1	<10	<10
AUG 30...	0.38	0.030	0.020	20	1	<1	<1	40	10

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
MAY 08...	<1	<1	<10	<10	<0.10	<1	270	<10	4.0
AUG 30...	<1	<1	<10	<10	<0.10	<1	250	<10	1.8

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312794 LITTLE LAKE AT FLORAL CITY, FL

LOCATION.--Lat 28°44'51", long 82°17'17", in NE¼ sec.15, T.20 S., R.20 E., Citrus County, Hydrologic Unit 03100208, on north shore of lake, on private pier, 0.6 mi east of Floral City.

SURFACE AREA.--57.6 acres (0.09 mi²).

DRAINAGE AREA.--1.40 mi².

PERIOD OF RECORD.--September 1975 to current year (twice weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Outflow from lake is through a canal to Tsala Apopka Lake. Lake level is controlled by culvert with removable boards at State Highway 48; flow is occasionally reversed.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 42.24 ft, Sept. 26, 1985; minimum observed, 35.04 ft, Nov. 13, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 40.46 ft, Mar. 9; minimum observed, 37.49 ft, Sept. 28.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	38.84	---	---	---	---	39.62	38.80	---	---	---
2	---	---	---	---	39.80	40.44	---	---	---	---	---	---
3	38.90	38.98	---	39.00	---	---	40.26	---	---	38.46	38.14	---
4	---	---	---	---	---	---	---	39.52	---	---	---	38.26
5	---	---	38.74	---	---	---	---	---	38.87	---	---	---
6	38.96	---	---	39.20	39.86	40.45	---	---	---	38.42	---	---
7	---	38.94	---	---	---	---	40.19	---	---	---	38.18	38.20
8	---	38.92	38.70	---	---	---	---	39.39	38.80	---	---	---
9	---	---	---	39.32	39.88	40.46	---	---	---	---	38.30	---
10	39.00	---	38.82	---	---	---	40.11	---	---	38.26	38.28	---
11	---	---	---	---	40.00	---	---	39.36	---	---	---	---
12	---	38.94	38.80	39.40	---	---	---	---	38.70	---	---	38.00
13	39.06	---	---	---	40.04	40.44	40.09	---	---	38.22	---	---
14	---	38.90	---	39.44	---	40.43	---	---	---	---	38.38	37.88
15	---	---	38.76	---	---	---	---	39.24	38.60	---	---	---
16	---	---	---	---	40.07	40.40	---	---	---	---	---	---
17	39.07	38.90	---	---	---	---	40.00	---	---	38.36	38.36	---
18	---	---	---	---	---	---	---	39.15	---	---	---	37.75
19	---	---	38.85	---	---	---	---	---	38.44	---	---	---
20	39.08	---	---	---	40.10	40.40	39.94	---	38.50	38.30	---	---
21	---	38.85	---	39.60	---	---	---	---	---	---	38.27	37.65
22	---	---	38.90	---	---	---	---	39.05	38.44	---	---	---
23	---	---	---	39.64	---	40.32	---	---	---	---	---	---
24	39.06	38.80	---	---	40.38	---	39.86	---	---	38.32	38.40	---
25	---	---	---	---	---	---	---	38.95	---	---	---	37.57
26	---	---	38.88	39.70	---	---	---	---	38.46	---	---	---
27	39.02	---	---	---	40.40	40.28	39.70	---	---	38.32	---	---
28	---	38.87	---	---	---	---	---	---	---	---	38.32	37.49
29	---	---	38.98	---	---	---	---	38.90	38.40	---	---	---
30	---	---	---	39.76	---	---	---	---	---	---	---	---
31	39.00	---	---	---	---	40.28	---	---	---	38.26	38.26	---

02312900 TSALA APOPKA LAKE AT INVERNESS, FL

SURFACE AREA.--About 19,000 acres (30 mi²).

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 39.80 ft, Feb. 23; minimum observed, 37.78 ft, Sept. 28.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	39.52	39.34	39.46	---	---	---	---	38.40	---	---	---
2	---	---	---	---	39.62	39.75	39.42	38.86	---	38.36	---	---
3	---	39.48	---	39.46	---	---	---	---	---	---	---	---
4	---	---	39.28	---	---	---	39.40	38.78	38.50	38.34	---	---
5	---	---	---	39.64	39.60	39.72	---	---	---	---	---	38.30
6	---	39.44	39.26	---	---	---	39.36	---	38.40	38.30	---	---
7	---	---	---	---	39.58	39.70	---	38.72	---	---	---	38.26
8	---	39.42	39.22	39.66	---	---	---	---	38.38	---	---	---
9	---	---	---	---	39.56	39.70	39.32	38.68	---	38.20	38.32	---
10	---	39.50	---	39.66	---	---	---	---	---	---	---	38.20
11	---	---	39.32	---	---	---	39.28	38.72	38.30	38.18	---	---
12	---	---	---	39.66	39.66	39.66	---	---	---	---	---	38.14
13	---	39.48	39.34	---	---	---	39.22	---	38.26	38.16	---	---
14	---	---	---	---	39.64	39.62	---	38.64	---	---	---	38.10
15	---	39.44	39.30	39.65	---	---	---	---	38.24	---	---	---
16	39.75	---	---	---	39.60	39.58	39.20	38.58	---	38.26	---	---
17	---	39.40	---	39.65	---	---	---	---	---	---	---	38.06
18	39.70	---	39.36	---	---	---	39.14	38.50	38.22	38.26	---	---
19	---	---	---	39.68	39.58	39.58	---	---	---	---	---	38.00
20	39.68	39.36	39.40	---	---	---	39.10	---	38.16	38.28	---	---
21	---	---	---	---	39.60	39.54	---	38.46	38.16	---	---	37.98
22	---	39.32	39.44	39.66	---	---	---	---	38.18	---	---	---
23	39.62	---	---	---	39.80	39.50	39.05	38.40	---	---	---	---
24	---	39.36	---	39.66	---	---	---	---	---	---	---	37.90
25	39.60	---	39.46	---	---	---	38.98	38.36	38.40	---	---	---
26	---	---	---	39.66	39.78	39.46	---	---	---	---	---	37.86
27	39.58	39.40	39.46	---	---	---	38.96	---	38.46	---	---	---
28	---	---	---	---	39.78	39.42	---	38.50	---	---	---	37.78
29	---	39.38	39.46	39.66	---	---	---	---	38.42	---	---	---
30	39.56	---	---	---	---	39.38	38.90	38.46	---	---	---	---
31	---	---	---	39.66	---	---	---	---	---	---	---	---

PEACE. WITHLACOOCHEE. HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02312950 TSALA APOPKA LAKE AT HERNANDO. FL

LOCATION.--Lat 28°54'08", long 82°22'30", in SE¼ sec.23, T.18 S., R.19 E., Citrus County, Hydrologic Unit 03100208, on southwest shore of west bay near northwest end of lake, on public pier at Hernando.

SURFACE AREA.--About 19,000 acres (30 mi²).

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1936 to April 1950 (monthly), incomplete; July 1957 to July 1958 (weekly), incomplete; August 1958 to current year (once-daily). Records prior to October 1960 are unpublished and available in files of the Orlando subdistrict office.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 19, 1957, at datum 36.60 ft higher and July 19, 1957, to Jan. 12, 1971, at three different sites in the immediate vicinity, at present datum.

REMARKS.--Tsala Apopka Lake borders along the west bank of the Withlacoochee River and consists of many lakes and sloughs, some connected and some not.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 41.74 ft, Apr. 6, 1960; minimum observed, 30.92 ft, July 19, 1957.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.44	37.96	37.86	37.96	38.00	38.20	37.92	37.42	36.98	37.52	37.54	37.60
2	38.46	37.96	37.84	37.94	38.00	38.20	37.90	37.40	37.36	37.52	37.52	37.66
3	38.46	37.96	37.82	37.94	37.98	38.18	37.88	37.38	37.36	37.48	37.56	37.68
4	38.44	37.94	37.80	37.92	37.98	38.18	37.86	37.36	37.36	37.48	37.64	37.72
5	38.42	37.92	37.78	38.04	37.97	38.16	37.86	37.34	37.34	37.46	37.62	37.74
6	38.40	37.90	37.76	38.08	37.96	38.16	37.86	37.32	37.32	37.44	37.60	37.72
7	38.38	37.90	37.74	38.10	37.94	38.14	37.84	37.30	37.30	37.42	37.62	37.70
8	38.36	37.88	37.74	38.24	37.94	38.12	37.82	37.28	37.28	37.40	37.64	37.68
9	38.34	37.86	37.88	38.22	37.96	38.12	37.80	37.26	37.28	37.38	37.66	37.66
10	38.34	38.00	37.88	38.20	38.00	38.10	37.80	37.36	37.26	37.36	37.68	37.64
11	38.34	38.00	37.88	38.20	37.98	38.08	37.80	37.34	37.24	37.40	37.68	37.62
12	38.34	37.98	37.88	38.18	37.96	38.06	37.78	37.32	37.24	37.46	37.68	37.60
13	38.32	37.96	37.88	38.18	37.94	38.06	37.76	37.28	37.24	37.46	37.68	37.58
14	38.30	37.94	37.86	38.18	38.10	38.04	37.74	37.26	37.22	37.50	37.66	37.56
15	38.28	37.94	37.86	38.16	38.10	38.02	37.72	37.24	37.18	37.52	37.64	37.54
16	38.28	37.94	37.84	38.16	38.08	38.00	37.68	37.22	37.14	37.60	37.62	37.52
17	38.26	37.92	37.86	38.14	38.06	37.98	37.66	37.20	37.12	37.60	37.60	37.50
18	38.24	37.90	37.90	38.14	38.04	38.02	37.64	37.18	37.18	37.56	37.60	37.50
19	38.22	37.88	37.94	38.14	38.04	38.00	37.62	37.14	37.16	37.60	37.58	37.48
20	38.18	37.86	37.98	38.12	38.04	37.98	37.62	37.10	37.14	37.58	37.56	37.48
21	38.14	37.84	37.98	38.12	38.12	37.96	37.60	37.08	37.12	37.60	37.54	37.46
22	38.12	37.82	38.00	38.10	38.20	37.94	37.58	37.08	37.08	37.60	37.54	37.46
23	38.10	38.00	38.00	38.10	38.24	37.92	37.56	37.08	37.20	37.60	37.52	37.44
24	38.08	38.00	38.00	38.08	38.28	37.90	37.54	37.06	37.40	37.60	37.60	37.42
25	38.08	37.90	37.98	38.08	38.28	37.90	37.52	37.04	37.42	37.60	37.62	37.40
26	38.06	37.90	37.98	38.08	38.26	37.88	37.50	37.02	37.40	37.58	37.62	37.38
27	38.04	37.90	37.96	38.08	38.24	37.86	37.48	37.00	37.54	37.58	37.60	37.36
28	38.02	37.90	37.96	38.06	38.22	37.84	37.44	37.04	37.54	37.56	37.58	37.34
29	38.00	37.90	37.96	38.04	---	37.82	37.46	37.04	37.52	37.56	37.56	37.36
30	37.98	37.88	37.96	38.02	---	37.80	37.44	37.02	37.50	37.56	37.54	37.36
31	37.98	---	37.96	38.00	---	37.90	---	36.98	---	37.56	37.58	---
MEAN	38.24	37.92	37.89	38.10	38.07	38.02	37.69	37.20	37.28	37.52	37.60	37.54
MAX	38.46	38.00	38.00	38.24	38.28	38.20	37.92	37.42	37.54	37.60	37.68	37.74
MIN	37.98	37.82	37.74	37.92	37.94	37.80	37.44	36.98	36.98	37.36	37.52	37.34
CAL YR 1989	MEAN 38.17		MAX 38.84	MIN 37.36								
WTR YR 1990	MEAN 37.75		MAX 38.46	MIN 36.98								

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02313229 LAKE ROUSSEAU NEAR DUNNELLON, FL

LOCATION.--Lat 29°00'35", long 82°37'01", in SW¼ sec.8, T.17 S., R.17 E., Levy County, Hydrologic Unit 03100208, at west end of lake, at upstream side of control structure of Inglis Dam on Withlacoochee River, 9.8 mi west of Dunnellon.

SURFACE AREA.--4,163 acres (6.50 mi²).

DRAINAGE AREA.--2,020 mi², approximately.

PERIOD OF RECORD.--June 1964 to current year. Records for Withlacoochee River at Inglis Dam, near Dunnellon (station 02313230).

REVISED RECORDS.--WDR FL-72-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 20, 1971, at site in forebay of power house of the old Inglis Dam at same datum. July 20, 1971, to Aug. 23, 1972, at site in private boat basin on south shore of lake at same datum.

REMARKS.--Lake is formed by earthen dam and concrete control structure consisting of two spillway bays with vertical lift gates. Lake was created to produce electric power but is now used for recreation only. Since December 1969, outflow from lake through Inglis Dam (station 02313230), Cross-Florida Barge Canal (station 02313237), and Withlacoochee River Bypass Channel (station 02313250).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 28.18 ft, June 19, 1982; minimum daily, 21.70 ft, Oct. 11, 1972.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.44	27.61	27.42	24.42	24.52	25.21	27.62	27.54	27.44	27.40	27.53	27.63
2	27.52	27.60	27.36	24.42	24.51	25.33	27.62	27.60	27.53	27.50	27.52	27.66
3	27.58	27.58	27.23	24.39	24.50	25.45	27.65	27.63	27.57	27.67	27.52	27.59
4	27.62	27.58	27.07	24.37	24.46	25.60	27.62	27.61	27.58	27.64	27.49	27.52
5	27.63	27.57	26.88	24.42	24.46	25.73	27.60	27.58	27.55	27.60	27.44	27.46
6	27.60	27.57	26.69	24.52	24.44	25.87	27.55	27.54	27.53	27.56	27.46	27.43
7	27.59	27.57	26.49	24.64	24.41	25.99	27.50	27.56	27.52	27.52	27.53	27.43
8	27.56	27.57	26.20	24.66	24.42	26.08	27.49	27.54	27.51	27.48	27.64	27.43
9	27.56	27.65	26.03	24.66	24.49	26.15	27.47	27.53	27.47	27.46	27.73	27.47
10	27.55	27.64	25.85	24.49	24.56	26.24	27.44	27.53	27.45	27.50	27.64	27.50
11	27.55	27.57	25.66	24.34	24.68	26.32	27.41	27.53	27.45	27.54	27.54	27.56
12	27.54	27.50	25.46	24.17	24.65	26.39	27.44	27.50	27.51	27.52	27.48	27.59
13	27.50	27.45	25.27	24.14	24.59	26.45	27.46	27.46	27.53	27.51	27.46	27.57
14	27.50	27.43	25.17	24.32	24.53	26.51	27.44	27.46	27.52	27.87	27.48	27.52
15	27.50	27.45	25.04	24.44	24.45	26.55	27.50	27.46	27.49	27.51	27.46	27.50
16	27.53	27.45	24.75	24.55	24.40	26.58	27.57	27.44	27.50	27.25	27.40	27.51
17	27.56	27.47	24.52	24.61	24.42	26.61	27.59	27.41	27.52	27.24	27.37	27.54
18	27.58	27.42	24.37	24.64	24.42	26.69	27.59	27.43	27.55	27.40	27.41	27.57
19	27.59	27.30	24.43	24.58	24.40	26.71	27.58	27.48	27.57	27.56	27.47	27.56
20	27.55	27.42	24.57	24.51	24.44	26.76	27.54	27.51	27.57	27.61	27.47	27.55
21	27.56	27.53	24.61	24.45	24.45	26.82	27.50	27.55	27.54	27.66	27.49	27.51
22	27.57	27.63	24.56	24.42	24.43	26.85	27.48	27.60	27.49	27.64	27.51	27.46
23	27.58	27.71	24.58	24.38	24.59	26.89	27.52	27.62	27.70	27.52	27.61	27.43
24	27.61	27.71	24.54	24.34	24.68	26.95	27.57	27.62	27.69	27.34	27.64	27.47
25	27.62	27.64	24.52	24.36	24.67	27.02	27.51	27.60	27.56	27.29	27.61	27.54
26	27.61	27.58	24.50	24.42	24.68	27.11	27.45	27.55	27.52	27.43	27.56	27.58
27	27.58	27.50	24.48	24.46	24.83	27.22	27.39	27.50	27.56	27.56	27.52	27.59
28	27.60	27.44	24.46	24.47	25.04	27.29	27.38	27.48	27.39	27.61	27.46	27.64
29	27.59	27.43	24.44	24.48	---	27.35	27.44	27.44	27.28	27.68	27.42	27.63
30	27.59	27.44	24.42	24.50	---	27.44	27.49	27.44	27.34	27.63	27.42	27.59
31	27.60	---	24.41	24.52	---	27.54	---	27.43	---	27.58	27.55	---
MEAN	27.57	27.53	25.35	24.45	24.54	26.51	27.51	27.52	27.51	27.53	27.51	27.53
MAX	27.63	27.71	27.42	24.66	25.04	27.54	27.65	27.63	27.70	27.87	27.73	27.66
MIN	27.44	27.30	24.37	24.14	24.40	25.21	27.38	27.41	27.28	27.24	27.37	27.43

CAL YR 1989 MEAN 27.30 MAX 27.82 MIN 24.37
WTR YR 1990 MEAN 26.77 MAX 27.87 MIN 24.14

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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