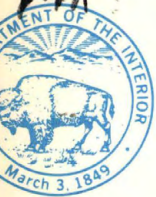


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Water Resources Data Florida Water Year 1988

Volume 1A. Northeast Florida Surface Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-88-1A
Prepared in cooperation with the State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 1988

1987

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Volume 1A: Northeast Florida Surface Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-88-1A
Prepared in cooperation with the State of Florida
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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WATER RESOURCES DATA - FLORIDA, 1988
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 1988 water year in Florida consist of continuous or daily discharge for 338 streams, periodic discharge for 34 streams, miscellaneous discharge for 28 streams, continuous or daily stage for 152 streams, periodic stage for 29 streams, peak discharge for 71 streams, continuous daily tide stage 8, and peak stage for 84 streams; continuous or daily elevations for 73 lakes, periodic elevations for 72 lakes; continuous ground-water levels for 490 wells, periodic ground-water levels for 1,620 wells, and miscellaneous water-level measurements for 2,678 wells; quality-of-water data for 158 surface-water sites and 884 wells. The data for northeast Florida include continuous or daily discharge for 132 streams, periodic discharge for 15 streams, miscellaneous discharge for 14 streams, continuous or daily stage for 45 streams, periodic stage for 27 streams, peak discharge for 26 streams, and peak stage for 27 streams; continuous or daily elevations for 39 lakes, periodic elevations for 53 lakes; continuous ground-water levels for 81 wells, periodic ground-water levels for 150 wells, and miscellaneous water-level measurements for 970 wells; quality-of-water data for 59 surface-water sites and 100 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.				
17. Document Analysis a. Descriptors *Florida, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses, Elevations, Water wells. b. Identifiers/Open-Ended Terms c. COSATI Field/Group				
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Volume 1A: Northeast Florida

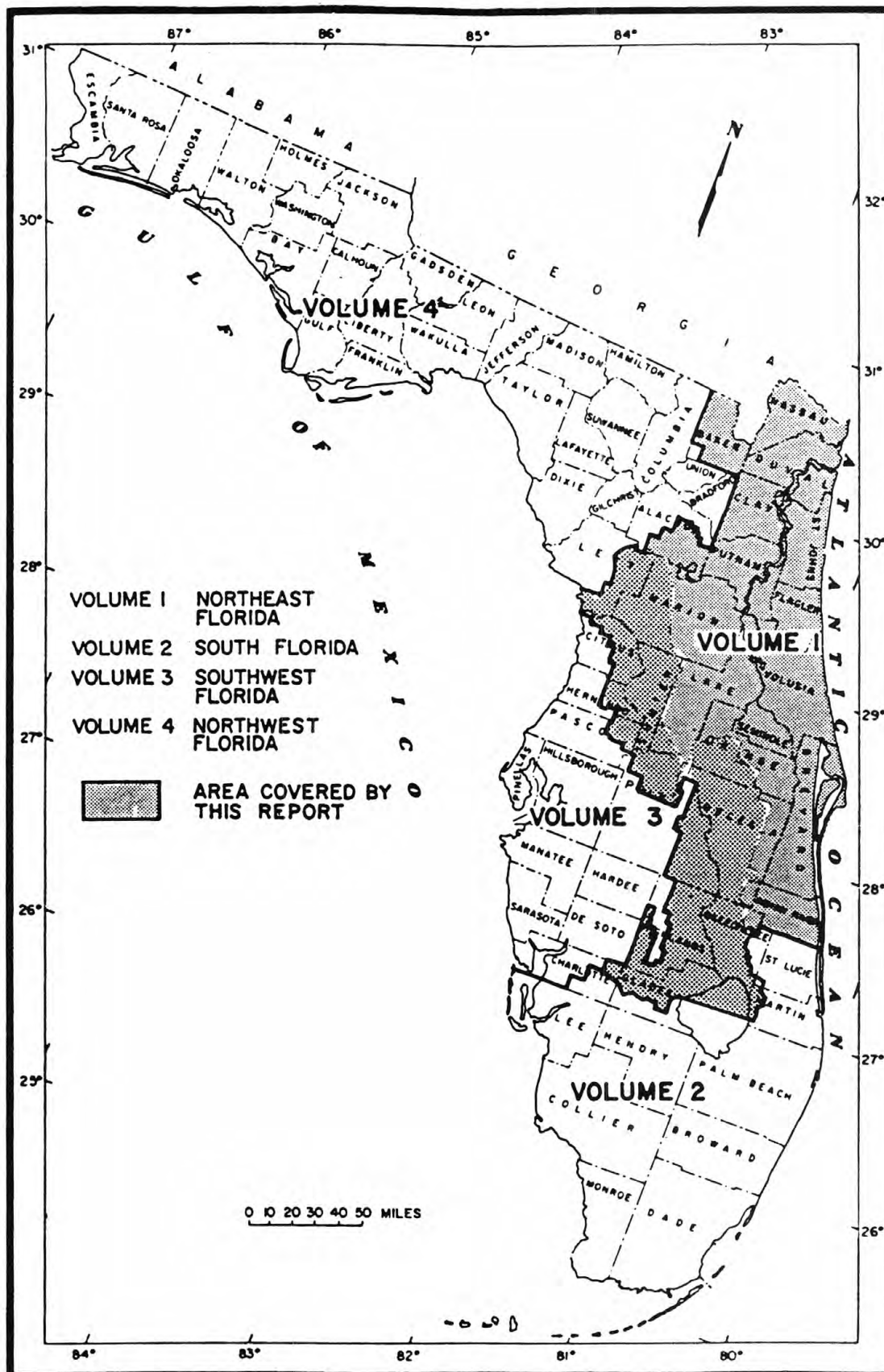


Figure 1 Geographic area covered by this report.

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STREAM AND LAKE GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED--Continued

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INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, County, and other 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 132 streams, periodic discharge for 15 streams, miscellaneous discharge for 14 streams, continuous or daily stage for 45 streams, periodic stage for 27 streams, peak discharge for 26 streams, and peak stage for 27 streams; continuous or daily elevations for 39 lakes, periodic elevations for 53 lakes; continuous ground-water levels for 81 wells, periodic ground-water levels for 150 wells, and miscellaneous water-level measurements for 970 wells; quality-of-water data for 59 surface-water sites and 100 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-88-1A." 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, Savannah District
Florida Department of Environmental Regulation
Florida Department of Natural Resources
St. Johns River Water Management District
South Florida Water Management District
Southwest Florida Water Management District
County of Lake
County of Polk
County of St. Johns

City of Cocoa
City of Daytona Beach
City of Edgewater
City of Jacksonville
City of Jacksonville Beach
City of Lake Mary
City of Port Orange
City of Sanford
Jacksonville Electric Authority
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

Heavy rainfall occurred in the extreme northern and western portions of the report area during a storm in early September. Monthly totals in those areas ranged from 2 inches above normal at Clermont to 8 inches above normal at Brooksville, and from 5 inches above normal at Ocala to 9 inches above normal at Jacksonville.

Record runoff from the storm was recorded at only one gaging station, 02301900 Fox Branch near Socrum (period of record, 1963-88), with a peak flow of 886 ft³/s on Sept. 6, as compared to the previous maximum of 685 ft³/s, Sept. 11, 1964.

Rainfall was above normal for the water year. Yearly totals ranged from near normal in the upper St. Johns, lower Kissimmee, and Fisheating Creek basins to 9 inches above normal in the Oklawaha and middle St. Johns River basins.

Streamflow hydrographs (figs. 2-11) reflect the rainfall patterns in the area. These hydrographs represent various areas of the subdistrict--one gaging station in the St. Marys River basin, three stations in the St. Johns River basin, three in the Kissimmee River basin, and three in the Withlacoochee River basin. The upper hydrograph is the daily mean discharge for the water year and the lower is the annual mean discharge for the period of record.

Streamflow at St. Marys River near Macclenny (fig. 2) was above the average for period of record during the months of February, March, and September.

In the St. Johns River basin, including the Oklawaha River, streamflow was above average at St. Johns River near Cocoa (fig. 3) from November through May. The St. Johns River near De Land (fig. 4) was above average from December through May and the Oklawaha River near Conner (fig. 5) was above average during March and September.

At Fisheating Creek at Palmdale (fig. 6), 56 percent of the total runoff for the year occurred during October through December as a result of a storm in October and another in November.

The Kissimmee River basin had above average runoff at Reedy Creek near Vineland (fig. 7) November through May, and September; and Kissimmee River, at S-65, near Lake Wales (fig. 8) November, December, February through May, and September.

In the Withlacoochee River basin, flows were above average at Withlacoochee River at Trilby (fig. 9) and Little Withlacoochee River at Rerdell (fig. 10) for the months of March and September; and Withlacoochee River near Holder (fig. 11) from February through June, and September.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

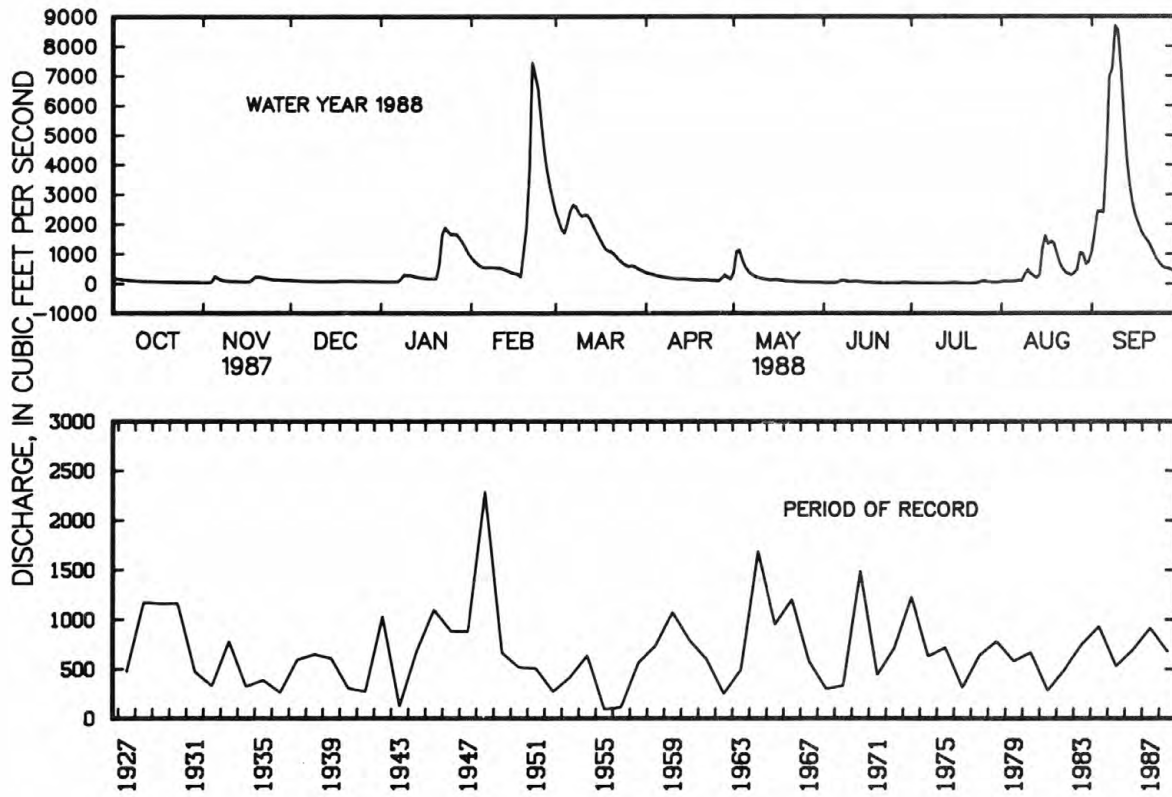


Figure 2.--Water-year and long-term hydrograph for 02231000
St. Marys River near Macclenny, FL.

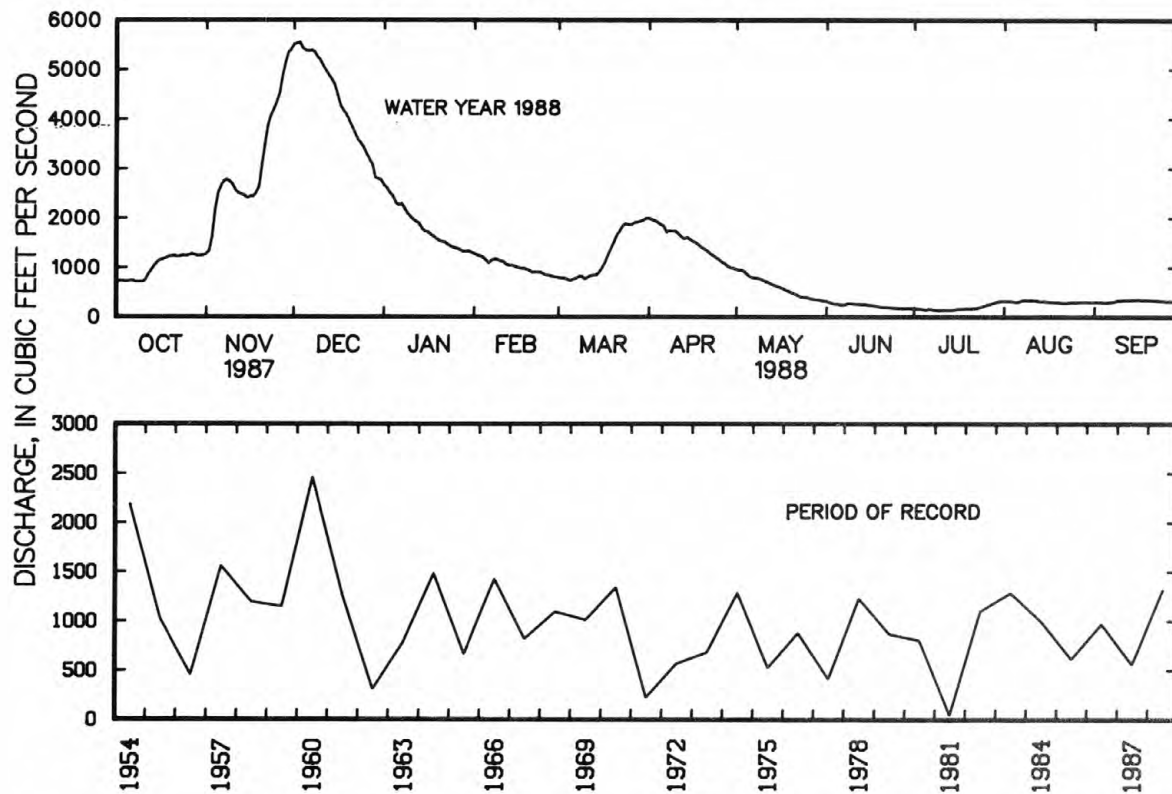


Figure 3.--Water-year and long-term hydrographs for 02232400
St. Johns River near Cocoa, FL.

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SUMMARY OF HYDROLOGIC CONDITIONS--Continued

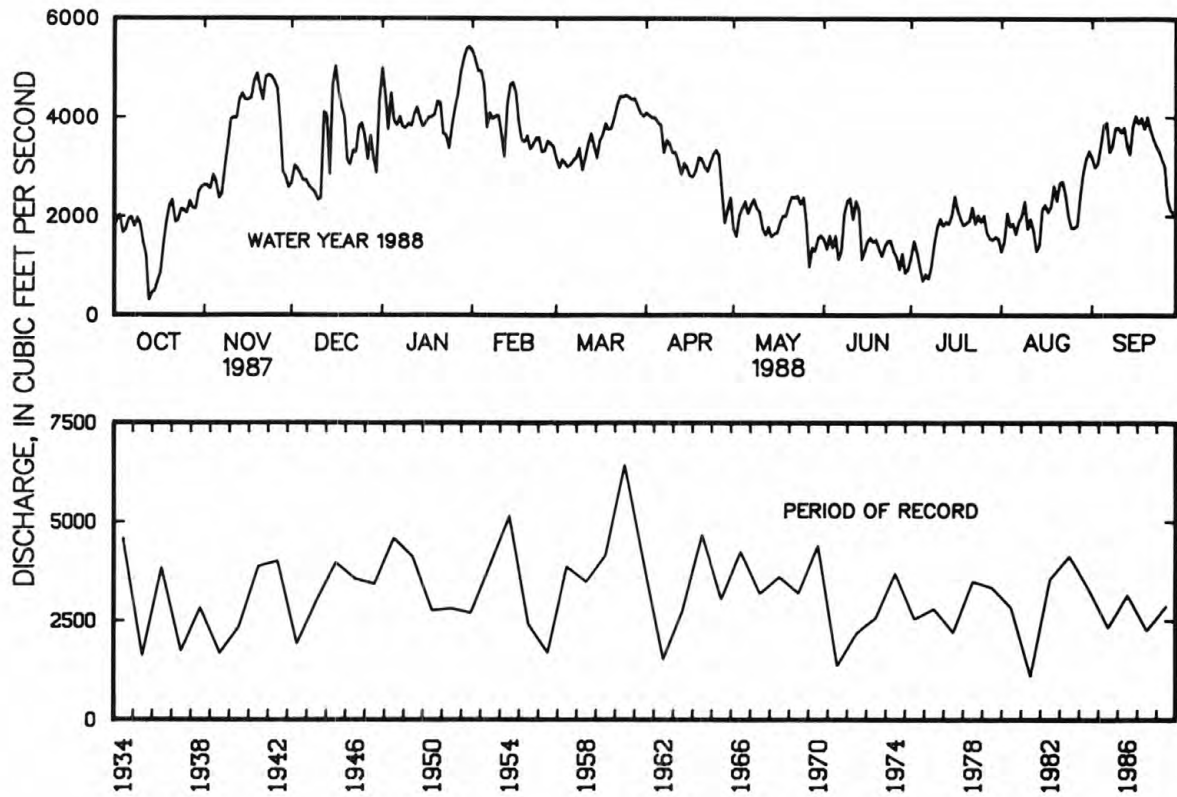


Figure 4.--Water-year and long-term hydrographs for 02236000
St. Johns River near De Land, FL.

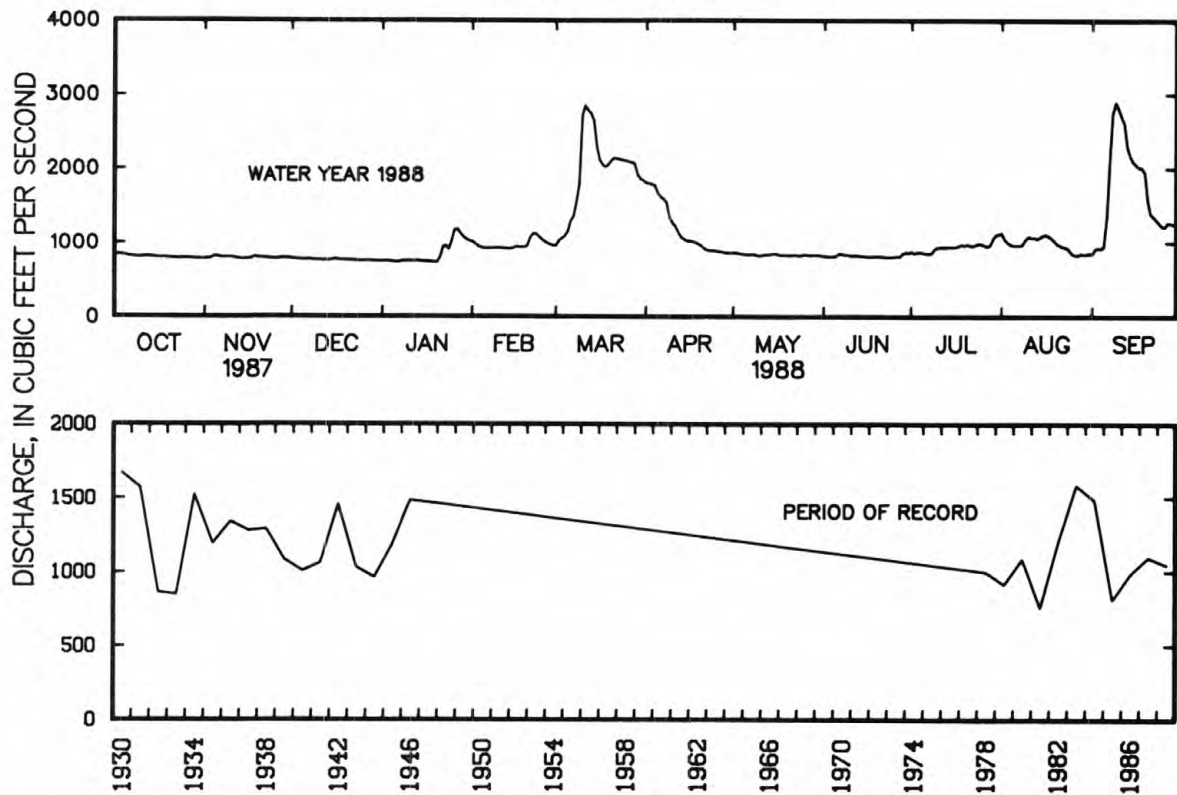


Figure 5.--Water-year and long-term hydrographs for 02240000
Oklawaha River near Conner, FL.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

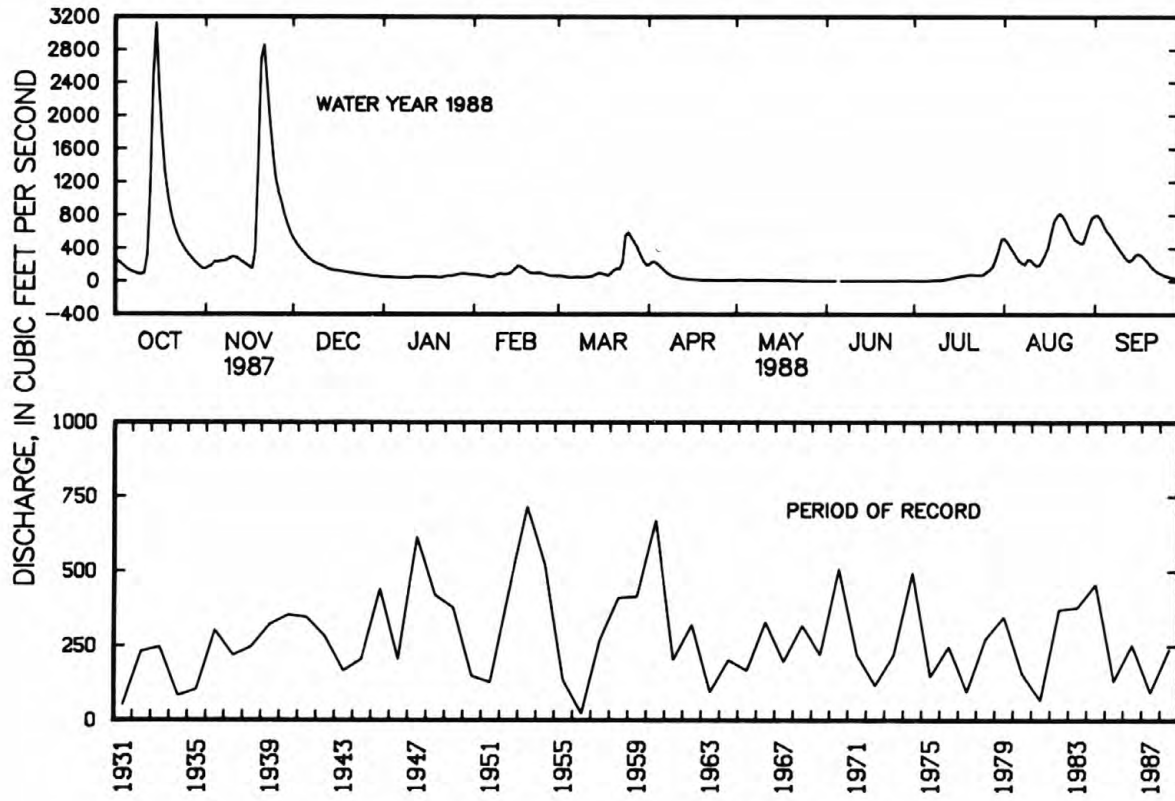


Figure 6.--Water-year and long-term hydrographs for 02256500
Fisheating Creek at Palmdale, FL.

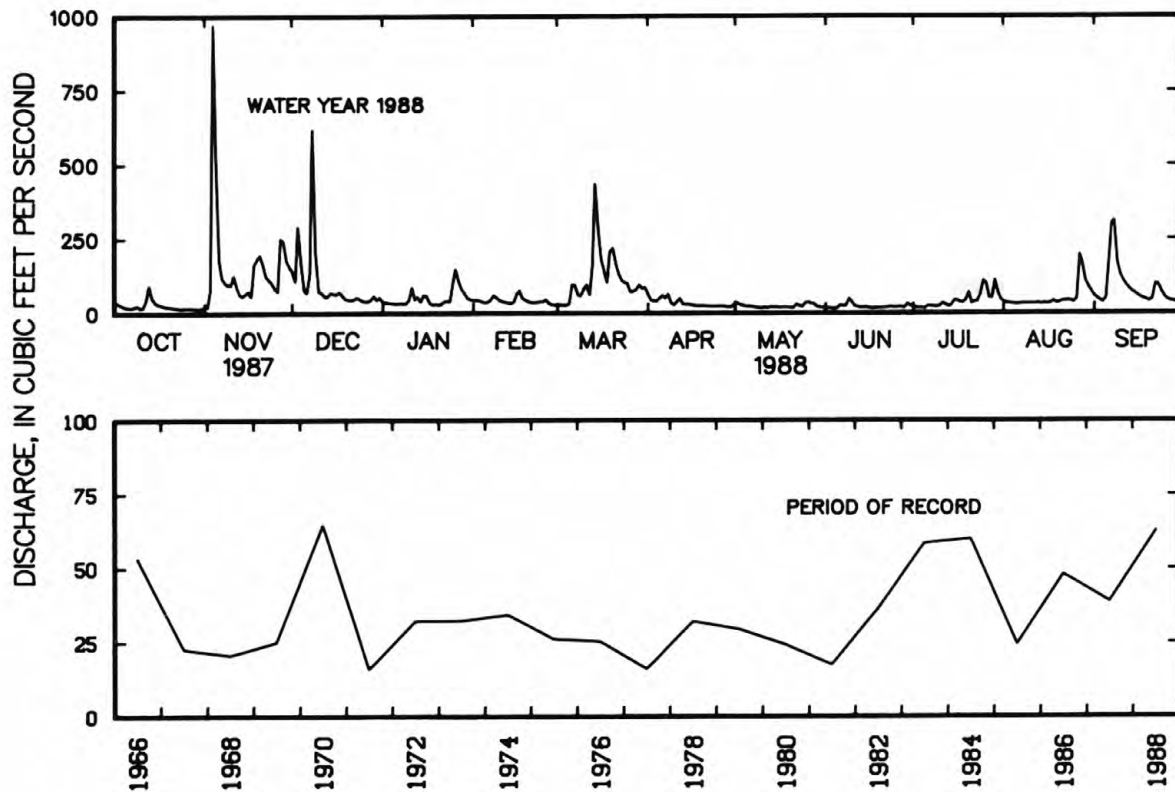


Figure 7.--Water-year and long-term hydrographs for 02266300
Reedy Creek near Vineland, FL.

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SUMMARY OF HYDROLOGIC CONDITIONS--Continued

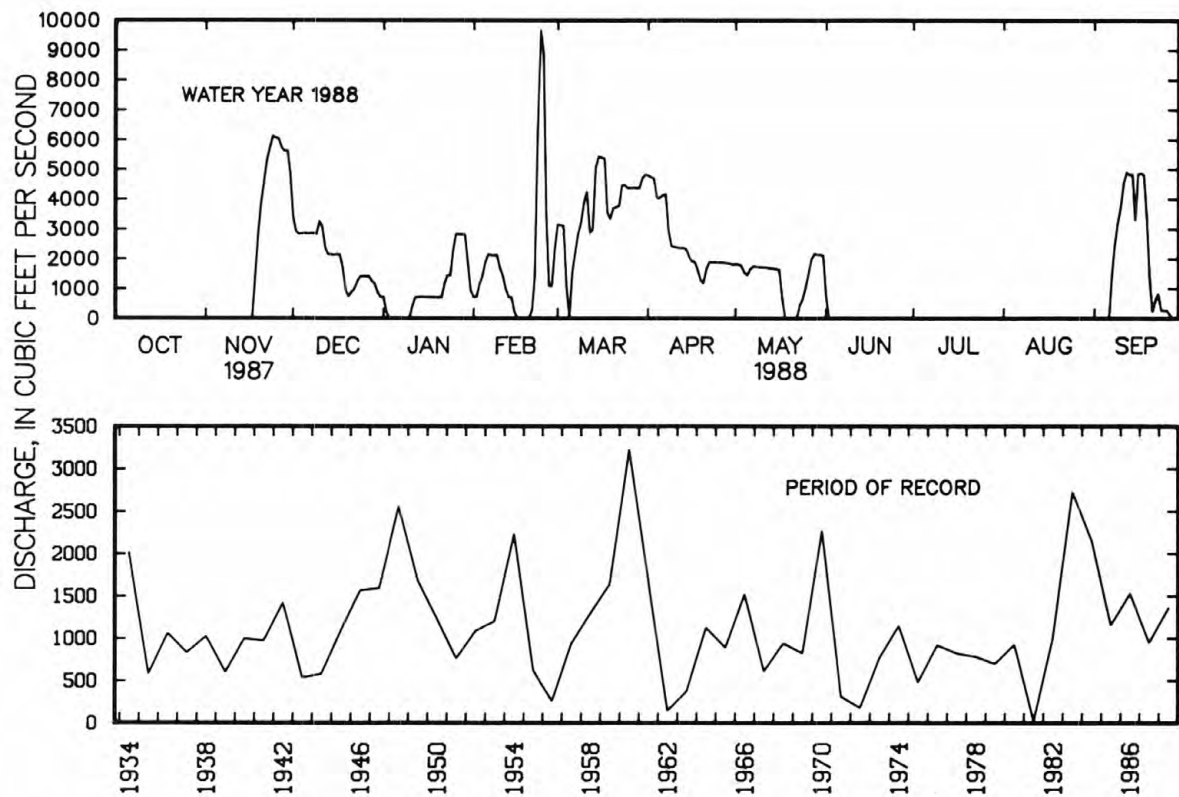


Figure 8.--Water-year and long-term hydrographs for 02268903
Kissimmee River at S-65 near Lake Wales, FL.

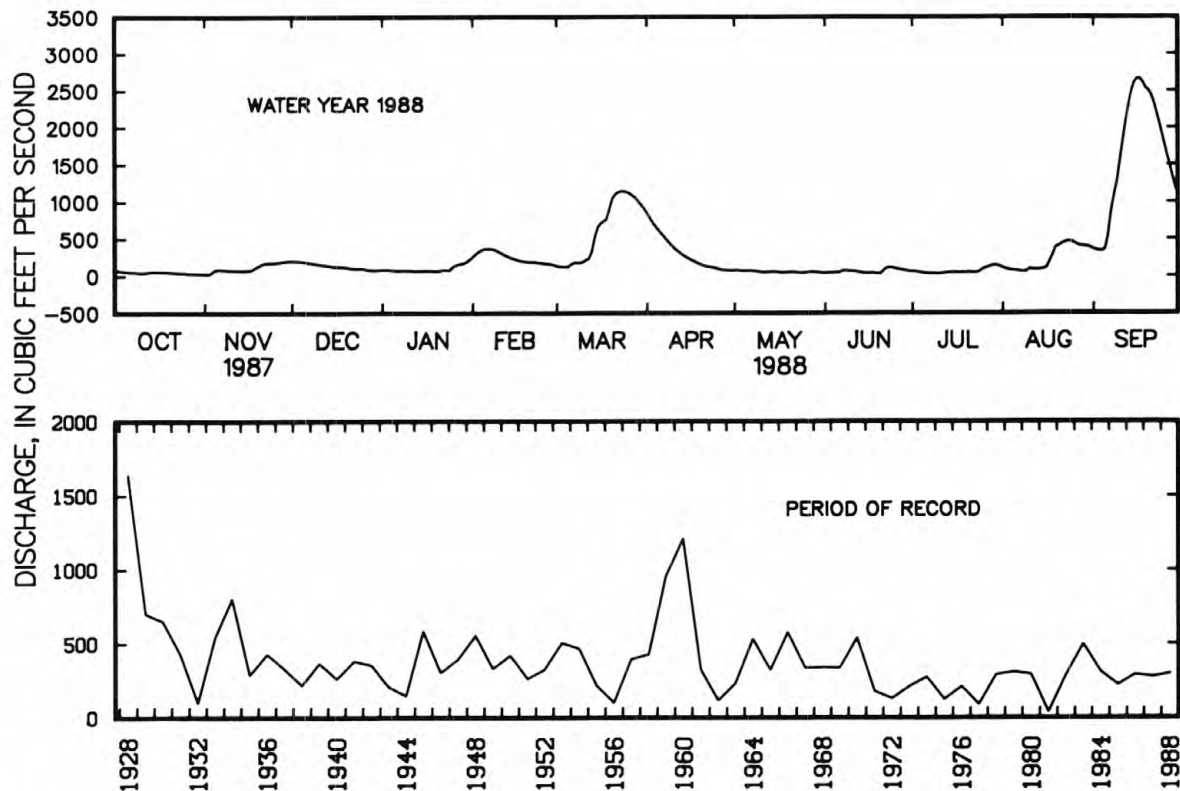


Figure 9.--Water-year and long-term hydrographs for 02312000
Withlacoochee River at Trilby, FL.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

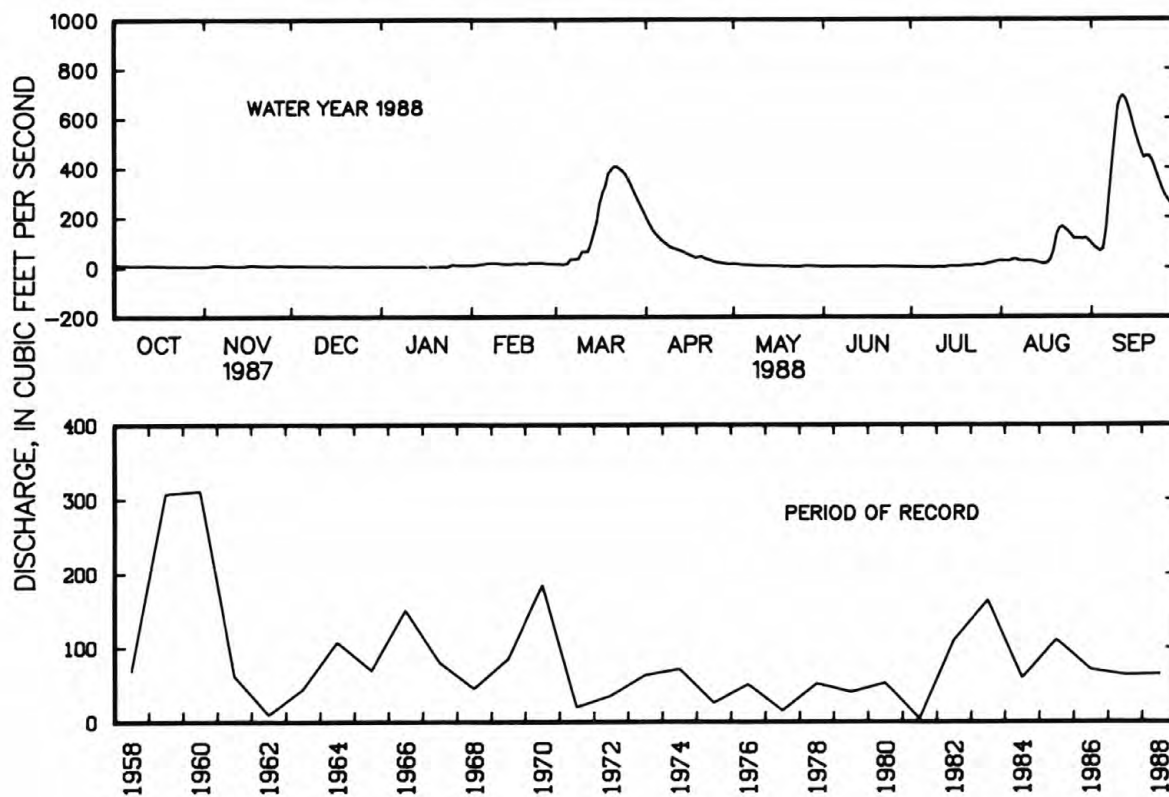


Figure 10.--Water-year and long-term hydrographs for 02312200
Little Withlacoochee River at Rerdell, FL.

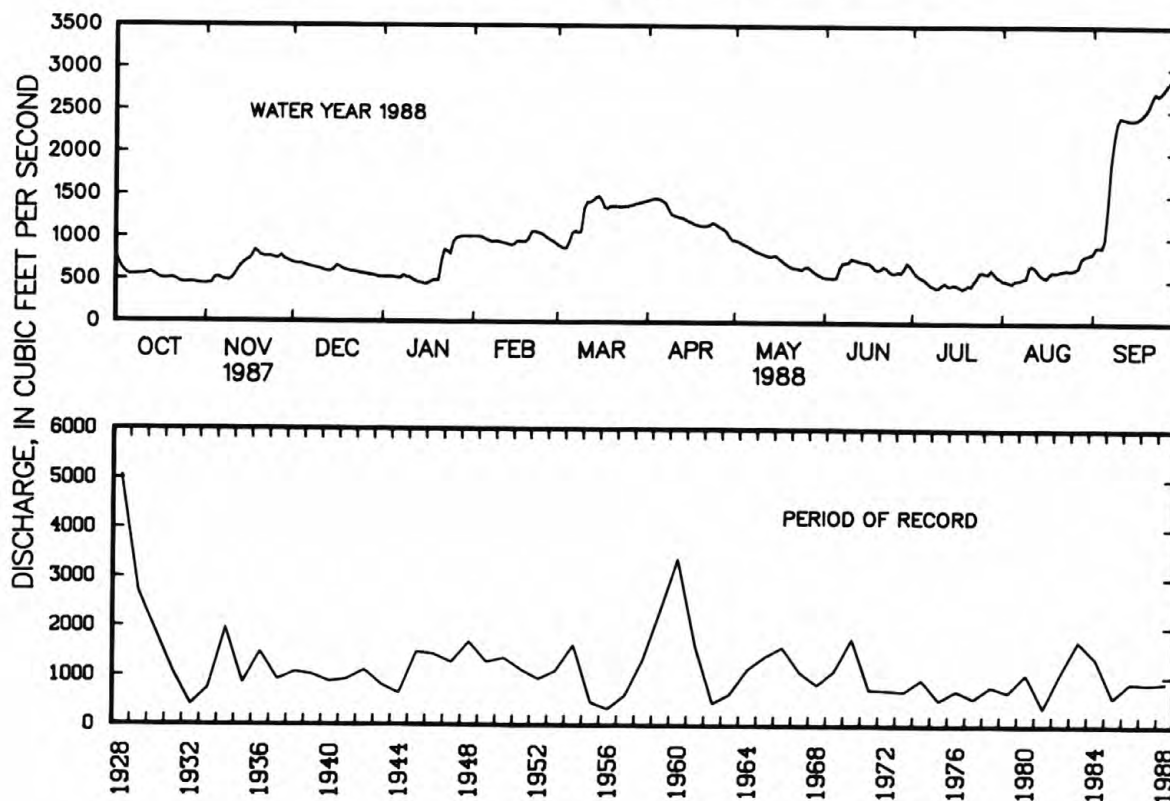


Figure 11.--Water-year and long-term hydrographs for 02313000
Withlacoochee River near Holder, FL.

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.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1988 water year that began October 1, 1987, and ended September 30, 1988. 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.)

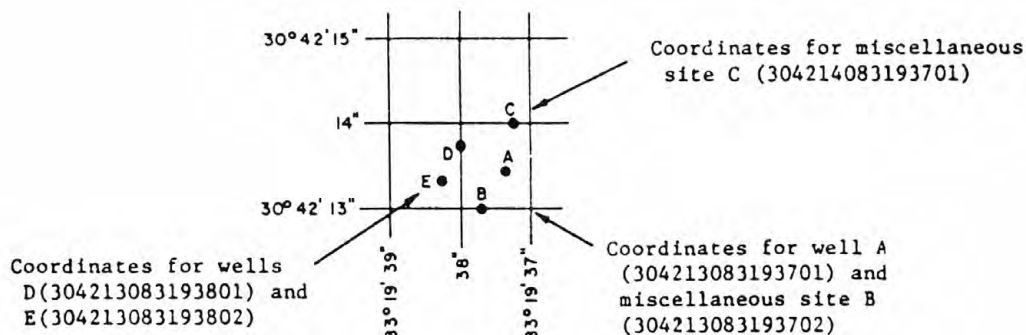


Figure 13.--System for numbering wells and miscellaneous sites.
(latitude and longitude)

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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.

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 feet 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 feet 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 feet 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

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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 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 feet 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 Office, 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.

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

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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/m³), and periphyton and benthic organisms in grams per square mile (g/m²).

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 feet 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.

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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 μ m 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 μ m 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 μ m 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, 1988, is called the "1988 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.

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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.
- 2-E1. APPLICATION OF BOREHOLE GEOPHYSICS TO WATER-RESOURCES INVESTIGATIONS, by W.S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
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- 3-A4. MEASUREMENT OF PEAK DISCHARGE AT WIDTH CONTRACTIONS BY INDIRECT METHODS, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
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- 3-A10. DISCHARGE RATINGS AT GAGING STATIONS, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. MEASUREMENT OF DISCHARGE BY MOVING-BOAT METHOD, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 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.
- 3-A14. USE OF FLUMES IN MEASURING DISCHARGE, by F.A. Kilpatrick and V.R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. COMPUTATION OF WATER-SURFACE PROFILES IN OPEN CHANNELS, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
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- 3-A17. ACOUSTIC VELOCITY METER SYSTEMS, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-B1. AQUIFER-TEST DESIGN, OBSERVATION, AND DATA ANALYSIS, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 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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PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

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- 5-A2. DETERMINATION OF MINOR ELEMENTS IN WATER BY EMISSION SPECTROSCOPY, by P.R. Barnett and E.C. Mallor, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
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STAGE, DISCHARGE, AND WATER QUALITY OF STREAMS

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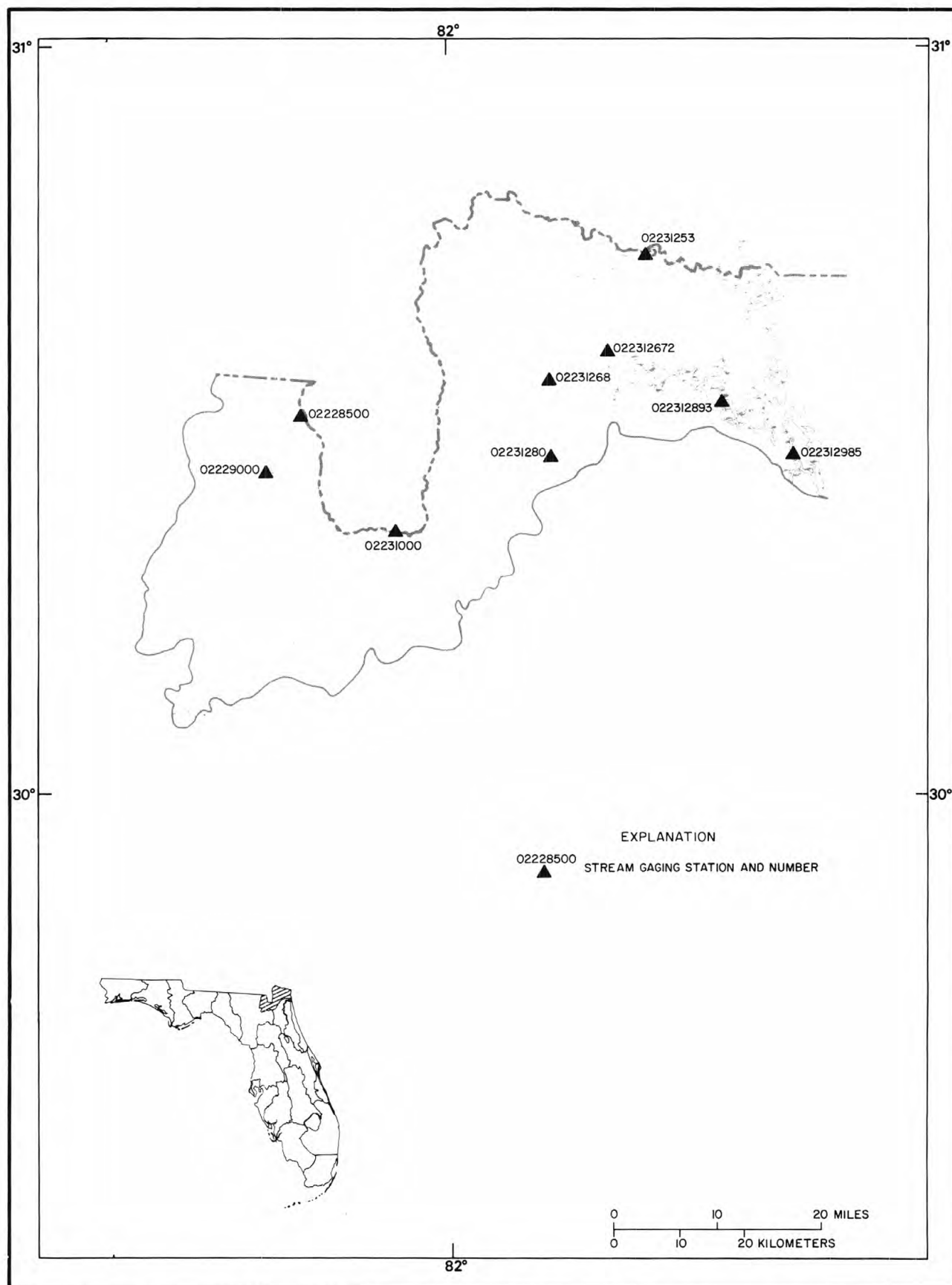


Figure 14.--Location of stream gaging stations in the St. Marys River basin and the coastal area between the St. Marys and St. Johns Rivers.

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.--Water-stage recorder. Datum of gage is 89.40 ft above National Geodetic Vertical Datum of 1929. January 1921 to June 1934, nonrecording gage at site 800 ft downstream at datum 3.22 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--43 years (water years 1922-23, 1928-29, 1933, 1951-88), 159 ft³/s, 13.50 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft³/s, Feb. 21, gage height, 14.52 ft; no flow July 5-17, 21; minimum gage height, 4.19 ft, July 16, 17.

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	21	1.5	12	15	122	499	81	80	1.3	.57	.79	16
2	19	1.5	11	15	109	448	75	124	1.1	.50	.68	22
3	17	1.7	10	15	98	408	70	101	.93	.12	.84	23
4	14	3.2	9.8	17	88	413	66	77	.87	.06	.98	23
5	12	6.8	8.9	17	81	550	62	61	.96	.00	1.6	41
6	11	5.4	8.3	16	100	597	57	51	4.0	.00	1.0	80
7	9.5	4.4	8.0	16	116	560	55	43	10	.00	1.0	106
8	8.0	3.9	7.8	31	105	496	50	37	17	.00	11	132
9	7.0	3.4	7.8	39	98	453	45	33	21	.00	7.2	368
10	6.3	3.2	7.8	47	90	476	42	31	19	.00	5.5	408
11	6.0	3.1	8.2	48	81	490	39	31	23	.00	4.3	331
12	5.8	2.8	8.4	44	75	444	41	29	18	.00	6.6	248
13	5.5	2.4	8.0	41	67	403	44	26	14	.00	4.3	171
14	4.6	2.3	7.8	38	60	365	40	25	12	.00	14	121
15	4.2	2.0	9.5	36	58	322	37	24	9.3	.00	28	90
16	3.7	1.9	28	33	67	280	35	22	7.3	.00	23	72
17	3.3	2.8	32	32	65	246	32	20	5.7	.00	29	76
18	2.9	16	31	33	64	219	31	17	4.4	.52	20	76
19	2.7	18	30	33	334	229	31	15	3.3	.27	13	109
20	2.4	18	29	34	1270	224	32	13	2.5	.05	8.8	100
21	2.3	17	28	112	1980	189	30	11	1.8	.00	6.1	78
22	2.0	15	26	322	1860	165	27	9.7	1.1	.15	4.1	61
23	1.9	15	25	357	1630	148	25	8.3	.82	.42	2.8	49
24	1.8	14	23	299	1400	134	23	7.2	.64	.66	2.0	41
25	1.8	14	22	277	1170	124	22	6.3	.52	.91	1.6	35
26	1.8	14	21	296	956	126	21	5.8	.23	.75	2.2	31
27	1.9	14	20	269	789	134	19	4.8	.14	.45	9.5	29
28	2.0	13	20	222	668	122	17	3.7	.08	.23	20	24
29	1.9	13	19	181	573	108	15	2.5	.04	.08	16	19
30	1.9	12	17	155	---	97	14	1.9	.56	.00	13	17
31	1.6	---	16	137	---	88	---	1.4	---	.27	16	---
TOTAL	186.8	245.3	520.3	3227	14174	9557	1178	922.6	181.59	6.01	274.89	2997
MEAN	6.03	8.18	16.8	104	489	308	39.3	29.8	6.05	.19	8.87	99.9
MAX	21	18	32	357	1980	597	81	124	23	.91	29	408
MIN	1.6	1.5	7.8	15	58	88	14	1.4	.04	.00	.68	16
CFSM	.04	.05	.10	.65	3.05	1.93	.25	.19	.04	.00	.06	.62
IN.	.04	.06	.12	.75	3.30	2.22	.27	.21	.04	.00	.06	.70

CAL YR 1987 TOTAL 69064.20 MEAN 189 MAX 1150 MIN .80 CFSM 1.18 IN. 16.06
WTR YR 1988 TOTAL 33470.49 MEAN 91.4 MAX 1980 MIN .00 CFSM .57 IN. 7.78

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.--24 years (water years 1956-67, 1977-88), 116 ft³/s, 12.60 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.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 21	0500	*1330	*11.05	Aug. 17	1300	796	9.75
Mar. 6	1300	604	9.22	Sept. 2	1400	835	9.77
Aug. 15	0300	679	9.37	Sept. 9	0800	1300	10.73

Minimum discharge, 0.20 ft³/s, Oct. 31, Nov. 1,2; minimum gage height, 1.08 ft, July 10.

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	45	.21	9.7	.52	137	601	78	154	2.2	.81	14	253
2	40	.21	8.7	.47	134	498	72	243	2.0	.72	42	715
3	34	.23	7.8	.46	129	415	67	176	1.8	.62	32	582
4	29	.48	7.0	.44	124	404	63	137	1.7	.58	24	344
5	24	1.8	6.2	.44	119	560	58	114	1.7	.53	26	414
6	20	5.1	5.5	.45	122	598	53	96	1.9	.50	18	865
7	18	6.4	4.9	.85	121	554	47	82	2.3	.50	14	855
8	15	6.3	4.5	3.6	115	476	42	70	2.5	.47	36	813
9	12	5.5	4.1	6.7	109	426	37	60	2.2	.43	93	1220
10	10	4.9	4.0	10	102	444	33	52	2.2	.40	50	990
11	8.8	4.8	4.1	11	95	454	30	48	4.0	.46	41	838
12	7.5	4.7	3.9	9.4	89	417	29	45	5.2	.51	37	747
13	6.3	3.9	3.5	8.2	82	379	30	38	3.8	.51	28	705
14	5.2	3.1	3.2	7.3	75	344	29	34	2.9	1.3	209	684
15	4.2	2.4	3.0	6.4	71	308	26	35	2.4	1.9	519	649
16	3.4	2.1	2.7	5.7	74	275	23	30	2.0	1.2	235	587
17	2.6	3.9	2.5	5.4	71	246	20	24	1.7	.90	606	497
18	2.1	17	2.3	5.9	68	224	17	20	1.5	.70	411	427
19	1.6	24	2.0	6.6	180	217	19	15	1.4	.59	205	424
20	1.3	26	1.9	9.6	689	204	19	12	1.3	.51	131	421
21	1.1	24	1.7	103	1280	185	18	9.1	1.2	.45	96	354
22	.91	21	1.6	158	1120	166	15	7.3	1.1	2.0	74	292
23	.69	18	1.4	143	957	151	13	5.9	1.1	2.4	56	242
24	.59	16	1.4	138	885	138	11	4.9	.97	10	55	205
25	.50	14	1.2	146	878	128	9.7	4.4	.89	42	66	177
26	.44	13	1.1	155	869	121	8.7	4.5	.82	27	76	159
27	.40	13	1.0	148	829	114	55	4.3	.84	15	98	147
28	.37	12	.95	143	769	106	52	3.8	.86	11	133	133
29	.35	11	.81	140	691	98	38	3.0	.79	7.9	102	121
30	.26	11	.64	139	---	91	31	2.6	.74	5.9	90	115
31	.23	---	.59	138	---	84	---	2.3	---	5.4	213	---
TOTAL	295.84	276.03	103.89	1650.43	10984	9426	1043.4	1537.1	56.01	143.19	3830	14975
MEAN	9.54	9.20	3.35	53.2	379	304	34.8	49.6	1.87	4.62	124	499
MAX	45	26	9.7	158	1280	601	78	243	5.2	.42	606	1220
MIN	.23	.21	.59	.44	68	84	8.7	2.3	.74	.40	14	115
CFSM	.08	.07	.03	.43	3.03	2.43	.28	.40	.01	.04	.99	3.99
IN.	.09	.08	.03	.49	3.27	2.81	.31	.46	.02	.04	1.14	4.46

CAL YR 1987 TOTAL 61679.46 MEAN 169 MAX 959 MIN .21 CFSM 1.35 IN. 18.36
WTR YR 1988 TOTAL 44320.89 MEAN 121 MAX 1280 MIN .21 CFSM .97 IN. 13.19

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.--Records good.

AVERAGE DISCHARGE.--62 years, 677 ft³/s, 13.13 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)
Feb. 22	Unknown	7,900	Unknown	Sept. 9	2000	*9,260	*17.43
Mar. 7	1500	2,690	12.08				

Minimum discharge, 20 ft³/s, July 22, gage height, 0.86 ft.

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	184	39	105	65	875	2400	372	375	40	32	74	1100
2	169	39	99	64	767	2110	338	1090	38	30	92	1740
3	153	40	94	63	673	1830	309	1130	37	28	79	2440
4	139	67	89	63	590	1680	285	804	40	27	87	2450
5	127	255	84	64	541	2030	264	558	39	26	88	2400
6	116	191	81	66	538	2440	242	418	55	26	103	4270
7	106	127	77	70	542	2670	219	324	118	25	122	6990
8	97	99	75	180	543	2590	203	260	116	24	112	7230
9	89	83	73	304	538	2360	188	214	85	23	331	8700
10	83	76	71	288	527	2260	174	183	73	22	481	8510
11	78	72	72	289	516	2320	162	162	85	21	344	7180
12	74	68	71	254	477	2290	155	148	90	22	266	5570
13	70	64	72	225	439	2120	157	139	75	24	196	4190
14	68	60	71	204	400	1910	161	129	63	28	305	3280
15	65	59	71	188	360	1710	152	141	54	37	1190	2670
16	62	57	70	175	334	1520	142	140	48	38	1630	2280
17	58	62	72	165	309	1330	132	121	44	30	1320	2010
18	55	148	86	162	222	1160	124	105	40	25	1430	1750
19	52	238	91	168	1050	1090	120	91	38	23	1360	1570
20	50	222	90	172	1850	1080	129	81	35	22	1000	1450
21	50	212	88	646	3760	981	132	73	34	21	681	1290
22	47	186	86	1640	7460	868	120	67	33	23	498	1070
23	45	162	83	1900	7030	770	110	61	32	29	367	863
24	44	144	82	1750	6530	687	102	57	30	46	338	710
25	43	135	80	1660	5480	618	96	55	29	88	293	590
26	43	128	78	1670	4490	582	93	54	28	100	368	528
27	43	123	75	1650	3810	599	186	52	30	79	491	520
28	42	119	73	1520	3290	581	302	49	51	62	1060	484
29	41	115	71	1360	2820	518	207	47	46	53	1020	423
30	41	110	68	1190	---	459	152	44	37	48	672	375
31	40	---	67	1010	---	412	---	42	---	51	752	---
TOTAL	2374	3500	2465	19225	56761	45975	5528	7214	1563	1133	17150	84633
MEAN	76.6	117	79.5	620	1957	1483	184	233	52.1	36.5	553	2821
MAX	184	255	105	1900	7460	2670	372	1130	118	100	1630	8700
MIN	40	39	67	63	222	412	93	42	28	21	74	375
CFSM	.11	.17	.11	.89	2.80	2.12	.26	.33	.07	.05	.79	4.03
IN.	.13	.19	.13	1.02	3.02	2.44	.29	.38	.08	.06	.91	4.50
CAL YR 1987	TOTAL 307851	MEAN 843	MAX 5960	MIN 39	CFSM 1.20	IN. 16.36						
WTR YR 1988	TOTAL 247521	MEAN 676	MAX 8700	MIN 21	CFSM .97	IN. 13.15						

ALTAMAHA-ST. MARYS RIVERS

ST. MARYS RIVER BASIN

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

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.77	1.13	1.98	1.51	6.83	11.61	4.35	4.22	1.25	1.10	1.76	7.70
2	2.63	1.13	1.92	1.49	6.37	10.90	4.13	7.62	1.22	1.06	1.99	9.83
3	2.48	1.14	1.86	1.48	5.95	10.14	3.94	7.80	1.20	1.02	1.83	11.64
4	2.34	1.50	1.80	1.49	5.20	9.68	3.78	6.56	1.24	1.01	1.93	11.69
5	2.21	3.32	1.75	1.50	5.34	10.69	3.63	5.44	1.22	.99	1.94	11.55
6	2.10	2.82	1.71	1.52	5.33	11.67	3.46	4.63	1.45	.98	2.11	13.96
7	1.99	2.22	1.67	1.57	5.35	12.05	3.28	4.04	2.28	.96	2.33	16.10
8	1.89	1.91	1.64	2.88	5.36	11.92	3.14	3.59	2.26	.93	2.22	16.28
9	1.81	1.73	1.61	4.05	5.33	11.53	3.01	3.24	1.90	.91	3.97	17.13
10	1.73	1.65	1.59	3.97	5.28	11.30	2.88	2.96	1.74	.90	5.01	17.02
11	1.67	1.60	1.60	3.98	5.20	11.45	2.76	2.76	1.90	.89	4.17	16.24
12	1.62	1.55	1.59	3.75	5.00	11.38	2.68	2.61	1.96	.90	3.64	15.13
13	1.58	1.50	1.60	3.48	4.80	10.93	2.71	2.51	1.78	.95	3.08	13.95
14	1.55	1.45	1.59	3.25	4.60	10.37	2.75	2.41	1.61	1.01	3.78	12.89
15	1.51	1.42	1.58	3.07	4.40	9.78	2.66	2.54	1.48	1.19	7.98	12.05
16	1.46	1.41	1.58	2.92	4.25	9.15	2.55	2.53	1.38	1.20	9.54	11.35
17	1.41	1.46	1.60	2.79	4.10	8.50	2.44	2.32	1.31	1.06	8.47	10.64
18	1.36	2.40	1.77	2.75	3.48	7.89	2.35	2.13	1.25	.97	8.85	9.90
19	1.33	3.21	1.82	2.82	7.50	7.66	2.31	1.98	1.20	.93	8.62	9.33
20	1.30	3.09	1.82	2.87	10.20	7.61	2.41	1.85	1.16	.91	7.32	8.94
21	1.29	3.01	1.79	5.66	13.50	7.27	2.44	1.75	1.14	.88	6.03	8.35
22	1.25	2.79	1.77	9.53	16.42	6.83	2.30	1.66	1.12	.91	5.11	7.57
23	1.22	2.56	1.74	10.33	16.15	6.42	2.19	1.59	1.10	1.05	4.32	6.81
24	1.20	2.39	1.72	9.89	15.82	6.06	2.10	1.52	1.07	1.33	4.13	6.16
25	1.19	2.30	1.70	9.62	15.06	5.75	2.03	1.49	1.05	1.93	3.83	5.62
26	1.18	2.23	1.67	9.65	14.25	5.59	2.00	1.48	1.02	2.07	4.32	5.29
27	1.18	2.17	1.64	9.58	13.56	5.67	2.93	1.45	1.05	1.82	5.00	5.24
28	1.17	2.13	1.62	9.17	12.91	5.58	3.89	1.41	1.43	1.60	7.52	5.03
29	1.16	2.09	1.59	8.61	12.26	5.23	3.17	1.36	1.34	1.46	7.38	4.66
30	1.15	2.03	1.56	7.98	---	4.88	2.65	1.32	1.19	1.38	5.99	4.37
31	1.13	---	1.53	7.37	---	4.59	---	1.28	---	1.43	6.33	---
MEAN	1.61	2.04	1.69	4.86	8.27	8.71	2.90	2.90	1.41	1.15	4.85	10.41
MAX	2.77	3.32	1.98	10.33	16.42	12.05	4.35	7.80	2.28	2.07	9.54	17.13
MIN	1.13	1.13	1.53	1.48	3.48	4.59	2.00	1.28	1.02	.88	1.76	4.37

CAL YR 1987 MEAN 5.25 MAX 15.31 MIN 1.13
WTR YR 1988 MEAN 4.21 MAX 17.13 MIN .88

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 current year (incomplete).

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.--Estimated daily discharge Aug. 1 to Sept. 18. 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. Velocity probe and structure damaged February to August.

AVERAGE DISCHARGE.--9 years (water years 1967-72, 1981-82, 1987), 1,484 ft³/s, 1,075,000 acre-ft/yr.

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, 5,780 ft³/s, Aug. 28, 1982; minimum gage height, 5.63 ft Feb. 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 14,200 ft³/s, Sept. 18; maximum gage height, 13.95 ft, Sept. 27; maximum daily reverse flow recorded, 727 ft³/s, Dec. 29, but may have been higher during period of missing velocity record; minimum gage height, 7.27 ft, July 12.

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	-166	338	1710	3640	---	---	---	---	---	---	1600	4000
2	946	503	1140	2580	---	---	---	---	---	---	2000	3950
3	3030	2200	1000	202	---	---	---	---	---	---	1600	3690
4	2700	2120	1780	735	---	---	---	---	---	---	1200	4190
5	2400	2520	-20	2910	---	---	---	---	---	---	1000	4500
6	1300	1700	1530	2900	---	---	---	---	---	---	1600	3380
7	1000	2920	1450	2450	---	---	---	---	---	---	2400	2540
8	1820	2700	2020	2280	---	---	---	---	---	---	2000	6630
9	1750	2200	2270	3150	---	---	---	---	---	---	1600	9250
10	2090	2600	2110	2910	---	---	---	---	---	---	1300	10100
11	2150	2190	2010	2880	---	---	---	---	---	---	1700	10800
12	2140	1290	2160	2510	---	---	---	---	---	---	2200	12000
13	1100	1390	1400	3790	---	---	---	---	---	---	2800	11900
14	2100	1370	1630	1120	---	---	---	---	---	---	3500	12000
15	1450	1490	2030	1010	---	---	---	---	---	---	3400	11600
16	1610	958	1570	1040	---	---	---	---	---	---	3000	11200
17	2040	1900	269	1180	---	---	---	---	---	---	1700	12800
18	2240	1420	218	1070	---	---	---	---	---	---	2500	14200
19	1560	943	880	1010	---	---	---	---	---	---	2200	11300
20	1790	2510	4360	1950	---	---	---	---	---	---	2790	8700
21	2400	1810	4240	2470	---	---	---	---	---	---	2360	6650
22	1410	2020	1440	3670	---	---	---	---	---	---	1390	3750
23	2400	2350	2080	2180	---	---	---	---	---	---	1090	3910
24	2110	2440	1020	333	---	---	---	---	---	---	2180	4170
25	2390	2420	5800	4370	---	---	---	---	---	---	1960	3920
26	1860	1840	1190	499	---	---	---	---	---	---	2610	3210
27	2830	1620	3020	3900	---	---	---	---	---	---	2770	3720
28	2310	822	3400	5350	---	---	---	---	---	---	2850	3970
29	1530	1880	-727	5910	---	---	---	---	---	---	2840	4010
30	1480	1810	6410	2910	---	---	---	---	---	---	3460	4750
31	681	---	2200	5050	---	---	---	---	---	---	3240	---
TOTAL	56451	54274	61590	77959	---	---	---	---	---	---	68840	210790
MEAN	1821	1809	1987	2515	---	---	---	---	---	---	2221	7026
MAX	3030	2920	6410	5910	---	---	---	---	---	---	3500	14200
MIN	-166	338	-727	202	---	---	---	---	---	---	1000	2540
AC-FT	112000	107700	122200	154600	---	---	---	---	---	---	136500	418100

CAL YR 1987 TOTAL 1144310 MEAN 3135 MAX 12000 MIN -727 AC-FT 2270000

NOTE.--Negative figures indicate reverse flow.

ST. MARYS RIVER BASIN

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
TIDAL HIGH VALUES

CAL YR 1987	MEAN 13.10	MAX 14.13	MIN 11.97
WTR YR 1988	MEAN 12.98	MAX 13.95	MIN 11.76

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.63	8.82	8.17	7.85	7.74	9.65	8.01	9.13	8.19	8.61	8.48	9.26
2	8.41	9.20	7.64	7.68	7.80	10.05	8.06	8.98	7.82	8.73	8.23	9.21
3	7.90	9.86	7.55	9.24	7.73	9.46	7.94	8.25	8.26	8.73	8.39	8.82
4	8.54	9.35	7.53	8.79	7.86	8.76	7.80	7.96	10.12	9.06	8.65	8.58
5	8.64	9.35	7.54	7.78	7.90	8.26	7.91	7.54	9.17	9.30	8.56	8.02
6	8.80	8.86	7.80	8.00	8.59	9.01	7.82	7.90	8.56	10.12	8.19	8.25
7	8.16	9.53	8.10	9.21	9.11	8.87	7.52	8.48	8.23	9.71	7.96	9.66
8	7.62	8.84	8.62	8.77	8.77	8.60	8.80	8.61	7.95	8.33	8.18	10.73
9	8.24	8.63	8.46	8.51	9.04	8.37	9.19	8.72	7.53	7.67	8.43	10.18
10	8.83	8.63	8.26	8.72	9.34	7.53	9.05	8.40	7.52	7.41	8.39	10.06
11	9.03	7.99	7.88	9.21	9.12	9.16	9.30	8.21	8.73	7.52	8.09	10.42
12	8.96	8.95	7.79	8.64	7.53	8.57	8.77	8.24	8.43	7.27	8.62	10.90
13	10.42	9.03	8.09	7.74	7.52	7.69	8.17	7.81	8.33	7.30	8.83	10.91
14	10.71	9.36	8.38	8.34	7.53	7.60	8.96	7.74	8.07	7.46	8.64	10.60
15	10.84	9.53	7.54	8.85	7.56	7.54	8.85	7.96	8.07	7.54	8.37	10.60
16	10.53	9.46	7.53	8.72	7.51	7.68	8.99	7.74	8.34	7.75	8.19	11.07
17	10.50	9.27	7.56	8.27	7.52	8.27	8.57	7.96	8.37	7.82	8.36	11.03
18	9.88	8.93	7.55	7.55	7.58	8.76	8.03	8.13	8.21	7.87	8.42	9.82
19	9.80	8.46	7.89	7.62	9.84	7.72	7.52	8.16	8.54	8.00	8.09	9.79
20	9.71	8.80	7.56	7.92	10.47	7.52	8.43	8.16	8.79	7.98	8.14	9.63
21	9.32	7.81	7.53	7.62	9.89	7.52	8.08	8.36	8.76	7.89	7.98	9.16
22	8.97	8.35	7.53	8.10	9.64	7.78	8.10	8.32	8.64	7.58	8.20	9.51
23	9.51	8.75	8.01	7.93	9.22	8.34	8.32	8.13	8.30	7.57	9.17	9.94
24	9.53	8.43	8.37	8.10	8.75	7.98	7.91	7.70	8.20	7.32	8.62	9.47
25	9.30	8.42	8.16	8.27	8.99	8.04	8.11	7.51	8.73	7.64	8.34	9.04
26	9.34	8.43	7.59	7.53	9.16	7.60	9.14	8.06	8.83	7.81	8.14	9.35
27	9.60	8.53	7.66	7.57	9.09	7.88	9.05	9.54	8.40	7.66	8.19	10.32
28	8.72	9.38	7.91	7.72	8.62	7.75	8.15	8.45	9.32	7.75	8.84	9.94
29	8.75	9.39	7.53	7.56	10.29	8.36	7.91	7.79	8.40	7.84	8.37	10.10
30	8.49	8.94	7.55	7.64	---	8.23	7.79	8.17	7.68	8.20	8.32	10.08
31	8.45	---	8.21	7.68	---	7.96	---	8.26	---	8.30	8.82	---
MEAN	9.17	8.91	7.85	8.17	8.61	8.27	8.34	8.21	8.42	8.06	8.39	9.81
MAX	10.84	9.86	8.62	9.24	10.47	10.05	9.30	9.54	10.12	10.12	9.17	11.07
MIN	7.62	7.81	7.53	7.53	7.51	7.52	7.52	7.51	7.52			

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

022312672 MILLS CREEK NEAR ITALIA, FL

LOCATION.--Lat 30°36'31", long 81°44'32", in NW¼ sec.7, T.2 N., R.26 E., Nassau County, Hydrologic Unit 03070205, on downstream side of bridge on U.S. Highway A1A, 1.5 mi west of Italia, and 5.5 mi east of Callahan.

DRAINAGE AREA.--56.6 mi².

PERIOD OF RECORD.--August 1982 to September 1986, (gage heights only). October 1986 to current year (discontinued).

GAGE.--Water-stage and electromagnetic current meter recorders. Datum of gage is 5.00 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 26 to Mar. 13, Mar. 27 to May 11, Aug. 13-22. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 542 ft³/s, Feb. 8, 1987; maximum gage height, 13.26 ft, Sept. 3, 1985; maximum daily reverse flow, 42 ft³/s, Oct. 19, 1986; minimum gage height, 4.92 ft, Jan. 26, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 266 ft³/s, Sept. 7; maximum gage height, 11.73 ft, Feb. 22; maximum daily reverse flow, 37 ft³/s, Oct. 14; minimum gage height, 5.11 ft, Feb. 13.

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	-11	-1.5	2.0	5.7	7.4	12	18	15	22	16	21	79
2	-4.2	-9.9	4.5	1.6	3.3	11	16	60	27	6.0	22	167
3	-6.2	-20	9.8	-2.9	-3.0	10	19	29	20	12	13	193
4	-7.1	-9.3	7.0	23	-11	8.0	23	21	-29	13	19	87
5	-4.9	7.3	.29	21	-12	15	25	16	-21	3.8	35	101
6	-7.9	15	10	12	4.4	23	25	13	20	-8.4	40	136
7	-2.7	-2.4	2.1	-3.0	.67	33	22	9.5	27	4.2	31	266
8	-3.5	30	5.3	34	10	45	16	8.0	17	30	23	116
9	-7.2	19	4.2	24	-2.4	60	12	6.0	17	29	19	168
10	-19	14	5.8	6.9	-4.5	80	9.0	5.5	15	25	21	93
11	-12	6.2	5.4	-1.7	-5.3	60	7.5	3.4	15	34	17	78
12	-4.8	-3.9	3.1	6.7	15	40	6.4	10	19	42	12	143
13	-34	4.5	-1.8	7.9	-3.7	30	11	19	19	23	13	79
14	-37	.78	.77	-12	-9.5	43	11	21	16	20	25	46
15	-21	2.2	10	-12	-1.2	71	8.5	23	15	21	80	31
16	-20	2.3	5.2	-.15	1.1	42	7.0	24	14	20	55	29
17	-21	13	-3.3	.51	-5.9	29	5.8	17	10	25	28	31
18	3.9	20	2.1	-.35	-1.8	23	4.9	14	18	33	17	34
19	9.1	12	5.0	-12	18	20	4.2	23	16	29	10	33
20	-3.7	12	4.7	-4.7	181	11	5.8	18	14	27	7.0	33
21	3.5	16	2.4	13	76	3.8	5.6	11	9.6	21	5.4	29
22	-7.4	6.6	-2.5	55	45	-9.1	5.0	13	12	21	29	24
23	-14	3.8	13	78	30	-14	4.1	13	23	24	22	22
24	-14	8.2	3.7	117	25	1.7	3.5	9.7	40	16	27	21
25	-4.8	3.3	6.5	114	10	-7.4	3.1	7.6	26	21	28	21
26	-6.0	3.8	5.7	120	17	62	2.7	1.1	13	24	31	23
27	-10	2.9	-.57	69	15	45	2.5	-.15	29	29	48	25
28	22	-3.0	-7.0	45	13	35	5.0	25	1.4	34	48	26
29	13	4.0	8.3	34	12	28	2.5	24	21	35	60	28
30	14	2.9	-4.4	24	---	24	1.5	17	29	32	59	32
31	10	---	10	15	---	21	---	21	---	24	53	---
TOTAL	-207.9	159.78	117.29	778.51	423.57	856.0	292.6	497.65	475.0	685.6	918.4	2194
MEAN	-6.71	5.33	3.78	25.1	14.6	27.6	9.75	16.1	15.8	22.1	29.6	73.1
MAX	22	30	13	120	181	80	25	60	40	42	80	266
MIN	-37	-20	-7.0	-12	-12	-14	1.5	-.15	-29	-8.4	5.4	21

CAL YR 1987 TOTAL 16872.70 MEAN 46.2 MAX 542 MIN -39
WTR YR 1988 TOTAL 7190.50 MEAN 19.6 MAX 266 MIN -37

NOTE.--Negative figures indicate reverse flow.

ALTAMAHA-ST. MARYS RIVER

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

022312672 MILLS CREEK NEAR ITALIA, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.14	8.62	8.42	8.05	7.79	8.72	8.00	8.91	8.47	8.40	8.48	8.95
2	8.43	8.92	8.01	7.97	7.81	8.79	8.05	9.03	8.34	8.79	8.39	9.18
3	8.20	9.17	7.86	8.73	7.80	8.63	8.00	8.86	8.26	8.81	8.33	9.24
4	8.38	9.32	7.29	8.82	7.82	8.43	7.97	8.43	8.76	8.74	8.49	9.09
5	8.59	9.39	7.49	8.19	8.07	8.16	7.93	8.02	9.10	8.80	8.43	8.82
6	8.70	9.25	8.01	8.13	8.50	8.73	7.94	7.93	8.91	8.98	8.23	8.88
7	8.51	9.32	8.18	8.60	8.62	9.07	7.31	8.18	8.49	9.01	7.88	9.91
8	8.22	9.08	8.43	8.86	8.64	9.04	8.00	8.30	8.18	8.65	7.85	10.76
9	8.38	8.68	8.31	8.29	8.53	8.89	8.40	8.38	7.99	8.01	8.04	11.11
10	8.66	8.40	7.97	8.15	8.52	8.48	8.54	8.34	7.55	7.63	8.11	11.02
11	8.79	7.54	7.55	8.55	8.69	8.40	8.64	8.12	8.46	7.85	8.03	10.71
12	8.76	7.88	7.27	8.51	8.08	8.80	8.62	8.27	8.63	7.95	8.21	10.35
13	9.00	8.20	7.35	8.13	6.78	8.44	8.35	8.28	8.59	7.64	---	10.03
14	9.23	8.45	7.79	7.94	7.54	8.09	8.71	8.22	8.40	7.56	---	9.70
15	9.30	8.61	7.76	8.54	8.06	7.99	8.88	8.28	8.23	7.52	---	9.39
16	9.35	8.70	7.02	8.70	7.70	8.19	8.85	8.23	8.23	7.51	---	9.21
17	9.38	8.83	7.10	8.61	7.92	8.44	8.90	8.11	8.25	7.53	---	9.23
18	9.31	8.75	7.75	8.34	8.30	8.62	8.69	8.13	8.07	7.64	---	8.91
19	9.17	8.62	8.12	8.37	9.15	8.45	8.07	8.10	7.96	7.59	---	8.61
20	9.11	8.76	8.07	8.59	10.12	8.00	8.04	7.89	8.05	7.60	---	8.64
21	9.02	8.48	7.93	8.88	11.44	7.54	8.20	7.83	8.12	7.44	---	8.60
22	8.95	8.60	8.15	8.94	11.69	7.65	7.71	7.82	8.18	7.28	---	8.65
23	9.15	8.77	8.44	8.80	11.36	8.30	7.67	7.63	8.02	7.31	8.44	8.94
24	9.16	8.69	8.57	8.81	10.79	7.89	7.48	7.32	7.95	7.14	8.54	9.00
25	9.14	8.61	8.41	8.94	10.15	7.54	7.38	7.15	8.06	7.36	8.49	8.91
26	9.12	8.52	7.98	8.47	9.61	7.41	8.36	7.92	8.52	7.81	8.46	8.94
27	9.21	8.50	7.68	7.81	9.10	7.19	8.56	8.89	8.65	8.04	8.68	9.18
28	8.99	8.66	7.87	7.89	8.60	7.42	8.02	8.71	8.93	8.19	8.97	9.30
29	8.73	8.88	7.50	7.74	8.91	7.81	7.80	8.19	8.90	8.35	8.89	9.33
30	8.53	8.74	7.93	7.68	---	7.82	7.91	8.21	8.53	8.49	8.74	9.42
31	8.40	---	8.24	7.70	---	7.83	---	8.41	---	8.55	8.76	---
MEAN	8.84	8.70	7.89	8.38	8.83	8.22	8.17	8.20	8.36	8.01	---	9.40
MAX	9.38	9.39	8.57	8.94	11.69	9.07	8.90	9.03	9.10	9.01	---	11.11
MIN	8.14	7.54	7.02	7.68	6.78	7.19	7.31	7.15	7.55	7.14	---	8.60

CAL YR 1987 MEAN 8.58 MAX 10.34 MIN 7.02

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.--7 years, 13.0 ft³/s, 12.61 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, 6.24 ft, June 5-7, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 21	0330	*476	*13.30	Sept. 7	1045	425	12.83

Minimum discharge, 0.02 ft³/s, July 6,7,8,9,10, minimum gage height, 6.25 ft, July 9.

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	.62	.49	2.0	2.1	8.6	9.3	3.8	40	.05	.07	1.0	17
2	.63	.49	1.9	2.2	7.7	8.3	3.5	75	.05	.08	3.1	27
3	.61	.57	1.8	2.4	7.0	7.4	3.3	24	.05	.10	2.7	55
4	.52	1.7	1.7	3.0	6.4	13	3.1	11	.07	.09	1.3	51
5	.45	1.9	1.6	3.3	6.1	42	3.0	5.3	.09	.06	1.2	64
6	.41	1.7	1.5	3.2	8.9	48	2.6	2.9	.20	.03	1.2	182
7	.36	1.4	1.6	4.7	14	41	2.3	1.6	.26	.02	1.5	400
8	.31	1.1	1.7	10	12	27	2.1	1.0	.31	.02	3.0	303
9	.30	1.1	1.9	23	9.2	20	2.0	.71	.23	.02	5.3	308
10	.32	1.2	2.1	15	7.9	24	1.8	.56	.79	.13	22	249
11	.35	1.1	2.3	14	6.8	29	1.7	.88	.55	7.7	20	125
12	.44	1.1	2.3	8.9	6.0	21	2.5	.90	.42	54	18	58
13	.50	1.0	2.2	6.3	5.3	15	3.3	.73	.26	39	5.6	34
14	.48	.99	2.1	5.1	4.8	12	3.8	.79	.15	13	27	23
15	.44	.99	2.5	4.4	5.4	9.4	3.1	.92	.11	7.5	74	16
16	.43	.96	3.8	3.9	8.4	7.6	2.3	.66	.08	3.1	22	11
17	.42	3.2	6.5	3.8	12	6.5	2.0	.38	.07	2.0	11	10
18	.42	6.5	5.2	4.8	8.9	6.2	1.8	.22	.05	3.6	5.7	11
19	.41	15	3.6	6.2	57	7.4	2.1	.15	.03	2.4	3.4	13
20	.42	9.5	3.1	9.9	332	8.7	2.3	.12	.15	1.2	2.4	22
21	.42	6.0	2.9	50	416	7.1	2.1	.10	.07	.71	1.9	13
22	.38	4.5	2.6	105	217	5.8	1.7	.09	.05	1.4	1.7	7.8
23	.38	3.2	2.6	45	91	5.0	1.3	.09	.05	3.8	2.3	5.1
24	.41	2.6	2.5	24	45	4.6	1.3	.09	.04	12	9.8	3.8
25	.43	2.3	2.5	23	29	4.5	1.2	.17	.05	17	22	3.1
26	.47	2.2	2.5	30	21	6.6	1.9	.16	.05	13	9.3	2.6
27	.56	2.2	2.5	22	16	12	2.0	.17	.27	3.8	22	2.3
28	.64	2.3	2.5	16	13	9.3	1.7	.16	.08	1.7	72	2.1
29	.58	2.3	2.3	13	11	7.0	1.1	.12	.08	1.0	27	2.3
30	.53	2.2	2.3	11	---	5.3	2.9	.09	.09	.72	13	2.9
31	.49	---	2.2	9.3	---	4.4	---	.07	---	.63	9.8	---
TOTAL	14.13	81.79	78.8	484.5	1393.4	434.4	69.6	169.13	4.80	189.88	422.2	2024.0
MEAN	.46	2.73	2.54	15.6	48.0	14.0	2.32	5.46	.16	6.13	13.6	67.5
MAX	.64	15	6.5	105	416	48	3.8	75	.79	54	74	400
MIN	.30	.49	1.5	2.1	4.8	4.4	1.1	.07	.03	.02	1.0	2.1
CFSM	.03	.19	.18	1.12	3.43	1.00	.17	.39	.01	.44	.97	4.82
IN.	.04	.22	.21	1.29	3.70	1.15	.18	.45	.01	.50	1.12	5.38

CAL YR 1987 TOTAL 5724.62 MEAN 15.7 MAX 171 MIN .26 CFSM 1.12 IN. 15.21
WTR YR 1988 TOTAL 5366.63 MEAN 14.7 MAX 416 MIN .02 CFSM 1.05 IN. 14.26

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 May 1984, October 1984 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.--22 years (water years 1966-83, 1985-88), 35.2 ft³/s, 15.99 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; minimum, 0.41 ft³/s, July 16, 1981, gage height, 14.50 ft.

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.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 22	0700	306	17.44	Sept. 9	1000	547	17.85
Feb. 21	0600	*1450	*18.92				

Minimum discharge, 1.8 ft³/s, June 26, gage height, 14.86 ft.

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	5.3	3.2	7.5	5.5	25	28	11	83	2.3	2.6	4.5	31
2	4.9	3.2	7.2	5.6	22	23	10	139	2.3	8.0	5.0	44
3	4.2	3.5	6.9	5.7	20	20	9.5	67	2.2	4.4	2.9	61
4	3.8	7.6	6.8	6.7	18	30	9.1	30	2.7	3.1	2.3	41
5	3.5	18	6.5	7.0	18	94	8.9	19	3.3	2.7	2.5	78
6	3.5	16	6.3	6.5	30	135	7.9	13	3.1	2.5	2.4	217
7	3.5	8.6	6.5	8.4	35	135	7.3	9.6	3.4	2.6	2.5	330
8	3.3	6.8	6.6	100	28	100	7.0	7.8	4.9	2.3	2.5	335
9	3.2	6.2	6.7	102	24	74	6.7	6.6	4.9	2.1	2.3	492
10	3.2	7.4	6.7	50	21	78	6.4	5.8	14	2.0	2.3	333
11	3.5	7.8	7.1	34	19	90	6.3	5.8	11	2.6	4.2	174
12	3.7	6.3	6.9	22	17	68	7.2	5.8	6.5	7.5	3.6	96
13	3.9	5.7	6.5	18	16	47	11	5.1	4.4	5.6	2.8	56
14	3.5	5.4	6.6	16	14	35	9.9	5.4	3.6	3.7	9.8	32
15	3.3	5.2	6.7	15	15	27	8.0	5.4	3.1	3.2	17	20
16	3.2	5.1	7.5	14	24	21	6.9	4.6	2.9	3.0	11	23
17	3.2	7.4	7.2	13	23	18	6.3	3.9	2.6	3.6	6.7	52
18	3.1	32	6.7	15	19	17	5.9	3.4	2.4	3.6	4.8	38
19	3.0	37	6.5	15	82	24	6.3	3.1	2.3	2.9	3.6	24
20	3.2	22	6.4	17	583	24	7.4	3.0	2.3	2.3	3.0	18
21	3.1	18	6.6	191	1190	19	6.4	2.8	2.3	2.1	2.8	15
22	3.0	12	6.4	287	559	17	5.5	2.7	2.3	2.1	2.5	12
23	2.9	11	6.5	180	300	15	5.0	2.6	2.1	3.1	2.7	9.4
24	3.0	9.7	6.4	108	178	14	4.8	2.5	2.0	5.1	3.5	7.8
25	3.1	8.9	6.3	102	116	13	4.6	2.7	2.0	3.9	4.7	7.0
26	3.3	8.6	6.2	109	80	18	4.9	4.2	1.9	2.9	8.0	6.3
27	3.5	8.6	6.2	89	57	25	8.8	3.9	2.0	2.3	5.9	6.2
28	3.6	8.8	6.2	60	42	20	8.5	3.3	2.5	2.1	9.4	5.6
29	3.4	8.2	6.0	42	34	16	5.8	2.9	2.6	2.0	8.7	5.5
30	3.2	8.1	5.7	34	---	13	5.7	2.5	2.3	1.9	7.6	6.4
31	3.1	---	5.6	29	---	12	---	2.4	---	2.4	26	---
TOTAL	107.2	316.3	203.9	1707.4	3609	1270	219.0	458.8	106.2	100.2	177.5	2576.2
MEAN	3.46	10.5	6.58	55.1	124	41.0	7.30	14.8	3.54	3.23	5.73	85.9
MAX	5.3	37	7.5	287	1190	135	11	139	14	8.0	26	492
MIN	2.9	3.2	5.6	5.5	14	12	4.6	2.4	1.9	1.9	2.3	5.5
CFSM	.12	.35	.22	1.84	4.16	1.37	.24	.49	.12	.11	.19	2.87
IN.	.13	.39	.25	2.12	4.49	1.58	.27	.57	.13	.12	.22	3.21

CAL YR 1987 TOTAL 15803.76 MEAN 43.3 MAX 456 MIN .77 CFSM 1.45 IN. 19.66
WTR YR 1988 TOTAL 10851.7 MEAN 29.6 MAX 1190 MIN 1.9 CFSM .99 IN. 13.50

ALTAMAHA-ST. MARYS RIVERS
COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

022312893 NASSAU RIVER NEAR TISONIA, FL

WATER-QUALITY RECORDS

LOCATION.--Lat 30°33'02", long 81°35'24", in SE¼ sec.34, T.2 N., R.27 E., Duval County, Hydrologic Unit 03070205, on private dock on right bank at Pearson Island, 2.1 mi northeast of Tisonia, 3.5 mi south of Hedges, 5.3 mi downstream from U.S. Highway 17 bridge, and about 16.0 mi upstream from mouth.

DRAINAGE AREA.--285 mi², approximately.

PERIOD OF RECORD.--October 1985 to July 1988 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1985 to July 1988.

WATER TEMPERATURE: February 1986 to July 1988.

INSTRUMENTATION.--Water-quality monitor since October 1985. Digital recorder set for one-hour punch interval.

REMARKS.--Interruptions in record were due to malfunction of recording instrument. Unpublished records of gage heights are available in the files of the Jacksonville Field Headquarters.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 57,300 microsiemens, Aug. 13, 1987; minimum, less than 100 microsiemens, Feb. 2-14, 1986.

WATER TEMPERATURE: Maximum, 30.6°C, June 26, 1988; minimum 7.9°C, Jan. 16, 1988.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 53,700 microsiemens, Oct. 26; minimum, 300 microsiemens, Feb. 23-28.

WATER TEMPERATURE: Maximum, 30.6°C, June 26; minimum, 7.9°C, Jan. 16.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46100	52700	47500	34500	27500	9000	29800	38400	42000	48000	---	---
2	45900	53100	46900	35900	28200	12000	30600	38600	42400	49000	---	---
3	45600	53400	47200	35200	30700	11700	32100	37500	42800	49400	---	---
4	48000	52900	44700	35500	29800	10100	32400	35900	43700	47900	---	---
5	48900	51700	47200	34700	31900	8900	33000	35100	42600	47800	---	---
6	49100	52400	47900	34700	32900	13900	33400	35300	42500	46900	---	---
7	48300	51200	48300	36100	35200	17300	33100	36200	42300	47100	---	---
8	49200	49400	49000	33500	33000	12400	34100	36700	42600	46700	---	---
9	50300	49300	49000	31700	29600	13000	35700	37500	41900	47000	---	---
10	51800	46900	47800	31100	31600	9300	36900	37300	41900	48900	---	---
11	52200	44600	45700	33000	36700	9900	37900	38200	42300	46300	---	---
12	51600	47900	44700	31500	33200	15500	37300	38500	42200	44900	---	---
13	53300	48000	28100	32200	21600	13700	38300	38600	41700	43000	---	---
14	53600	48500	28800	32500	28800	16000	40200	38900	42200	45400	---	---
15	53600	48500	23700	34300	31500	16300	40500	39400	41800	---	---	---
16	53500	48900	28000	34200	28200	21300	40900	39600	41800	---	---	---
17	53500	49100	26800	36000	35000	25400	41200	39700	41900	---	---	---
18	52700	46000	27900	38600	38600	29100	41700	39800	41800	---	---	---
19	52600	47500	31700	38600	38900	28200	41000	40100	42200	---	---	---
20	53100	47700	28300	38600	35000	26600	39100	39200	42000	---	---	---
21	52100	47300	29000	36400	19400	24600	40600	39100	42700	---	---	---
22	53500	47700	29200	32300	2600	24200	38700	39000	44500	---	---	---
23	53400	48500	29800	30300	900	29300	38400	37800	44500	---	---	---
24	53300	48200	30800	23300	500	26600	38000	37700	47500	---	---	---
25	53500	47900	34700	24200	600	24000	37800	37500	49400	---	---	---
26	53700	47700	31700	18100	700	22500	40300	40800	50400	---	---	---
27	53000	47400	36000	19700	1200	21800	38700	40700	49300	---	---	---
28	52600	48500	34600	26700	5700	24500	37400	40500	48500	---	---	---
29	52500	48000	33600	24200	9400	26400	38800	40700	49000	---	---	---
30	51900	47600	34000	24600	---	26500	39200	41400	48800	---	---	---
31	52200	---	33600	26600	---	28300	---	41800	---	---	---	---
MAX	53700	53400	49000	38600	38900	29300	41700	41800	50400	---	---	---

ALTAMAHA-ST. MARYS RIVERS
 COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS
 022312893 NASSAU RIVER NEAR TISONIA, FL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
 MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21800	41700	32700	27500	4000	800	11000	24100	32800	38000	---	---
2	23200	43700	30200	27600	4700	800	12400	21900	31800	39100	---	---
3	22300	46600	30500	30600	5900	900	12100	17300	33800	39400	---	---
4	27200	46000	28300	29800	5700	900	12200	14200	37600	40100	---	---
5	28900	41800	28500	27200	8000	800	12800	12600	36900	41100	---	---
6	31600	38600	32500	28000	11900	1000	13200	14600	34800	41900	---	---
7	28400	41600	33300	30300	12900	1100	11600	17900	34500	41500	---	---
8	26500	37200	35900	26800	11300	1000	18100	19200	33600	39000	---	---
9	30400	35500	35400	24800	12200	900	20500	21200	27700	37600	---	---
10	33900	34100	34600	24800	13800	800	22200	21000	30200	37300	---	---
11	36000	30600	31800	25600	12700	1100	24100	20300	33800	38300	---	---
12	35800	34800	21900	24100	4100	1300	22700	21700	33200	30800	---	---
13	41800	35700	21000	22000	5100	1200	20800	21100	33500	30000	---	---
14	45300	37400	18200	23000	6100	1100	23400	21100	31700	30500	---	---
15	45800	38300	18600	24900	9700	1100	25400	22000	33000	---	---	---
16	44800	38800	18700	25300	7000	1300	26200	22500	33400	---	---	---
17	45700	39000	18800	25300	8100	2100	26000	23400	34400	---	---	---
18	43700	34100	21400	23000	12200	4000	23300	23900	31400	---	---	---
19	42700	32500	23000	24500	14800	2700	19100	24600	34400	---	---	---
20	42500	33000	22600	25900	3300	2300	24200	24600	32200	---	---	---
21	41100	29000	22400	20000	900	2200	23100	25800	35900	---	---	---
22	40400	31300	23000	15200	400	3900	22900	25800	36400	---	---	---
23	43700	33400	24400	11000	300	6500	23400	25200	35800	---	---	---
24	44100	32300	25500	8900	300	5200	22700	25100	37200	---	---	---
25	43300	33000	25300	6800	300	5200	24300	23800	40500	---	---	---
26	43400	32200	24900	3100	300	4800	29400	26000	42300	---	---	---
27	44200	32600	27100	3900	300	5300	28100	33900	39300	---	---	---
28	40800	35100	27800	4100	300	5800	23900	31500	40000	---	---	---
29	40500	36400	25900	3300	700	8400	24200	29500	38600	---	---	---
30	39700	35500	25900	3200	---	9500	24500	31400	36500	---	---	---
31	40300	---	27800	3400	---	9600	---	32400	---	---	---	---
MIN	21800	29000	18200	3100	300	800	11000	12600	27700	---	---	---

ALTAMAHA-ST. MARYS RIVERS

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

022312893 NASSAU RIVER NEAR TISONIA, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.8	26.5	---	15.2	11.8	13.5	19.8	19.9	24.9	28.9	---	---
2	26.2	29.3	---	15.1	13.0	14.0	20.2	20.0	25.2	28.8	---	---
3	25.6	28.9	---	14.8	13.9	14.3	20.3	20.1	25.2	28.6	---	---
4	24.6	30.0	---	13.9	14.9	14.8	20.6	20.6	25.0	28.4	---	---
5	23.1	30.3	---	12.9	14.9	15.1	21.2	20.8	23.0	28.0	---	---
6	23.2	30.2	---	12.1	13.6	15.1	21.1	20.4	23.3	27.5	---	---
7	23.0	28.4	---	11.8	12.3	15.3	20.5	20.7	23.9	26.9	---	---
8	22.7	27.6	---	11.0	11.1	15.6	19.4	21.1	24.4	27.4	---	---
9	22.1	29.3	---	10.1	11.1	15.8	19.2	21.4	24.8	28.0	---	---
10	22.4	---	15.9	9.4	10.9	15.9	19.3	21.7	24.8	28.7	---	---
11	22.4	---	16.3	9.3	11.1	15.6	19.6	22.3	24.5	28.8	---	---
12	22.0	---	16.1	9.1	11.3	16.2	19.0	23.6	24.0	28.5	---	---
13	21.4	---	16.3	9.6	10.8	17.0	17.1	23.0	23.8	28.8	---	---
14	20.2	---	16.6	9.4	10.7	16.8	17.7	22.5	23.8	29.0	---	---
15	19.2	---	17.1	8.8	10.6	16.0	18.4	23.0	24.0	---	---	---
16	19.1	---	16.4	8.4	10.6	14.8	18.9	23.3	24.4	---	---	---
17	19.5	---	15.0	9.4	10.7	14.3	19.2	23.8	25.2	---	---	---
18	20.1	---	14.0	10.4	10.5	13.7	19.3	24.2	25.6	---	---	---
19	20.4	---	14.0	11.5	11.4	13.8	19.8	24.8	26.2	---	---	---
20	21.4	---	14.6	12.7	11.9	13.7	20.0	24.9	26.1	---	---	---
21	24.9	---	15.3	13.3	12.2	14.2	20.5	25.4	26.4	---	---	---
22	27.0	---	15.5	13.2	12.5	14.8	21.0	25.7	26.8	---	---	---
23	27.2	---	15.7	12.4	12.3	15.2	21.5	25.8	27.3	---	---	---
24	26.8	---	16.0	11.8	12.7	16.0	22.4	26.0	29.8	---	---	---
25	26.6	---	16.9	11.3	12.5	17.0	22.4	25.6	30.4	---	---	---
26	24.4	---	17.6	10.8	12.7	17.8	22.9	25.0	30.6	---	---	---
27	23.1	---	18.0	10.3	12.6	18.6	23.4	23.3	30.1	---	---	---
28	24.4	---	18.6	10.1	12.8	19.0	22.8	23.4	29.6	---	---	---
29	24.3	---	18.1	9.9	13.0	19.0	22.3	23.6	29.5	---	---	---
30	25.1	---	16.2	10.1	---	19.6	21.7	24.1	29.5	---	---	---
31	25.0	---	15.0	10.9	---	19.9	---	24.4	---	---	---	---
MAX	27.2	---	---	15.2	14.9	19.9	23.4	26.0	30.6	---	---	---

ALTAMAHA-ST. MARYS RIVERS

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

022312893 NASSAU RIVER NEAR TISONIA, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.9	23.9	---	14.6	10.7	12.5	19.3	19.2	23.6	28.4	---	---
2	25.3	25.2	---	14.8	11.5	12.8	19.4	18.6	24.1	27.9	---	---
3	24.6	28.0	---	14.0	12.4	13.6	19.6	19.0	24.3	27.7	---	---
4	23.3	27.9	---	13.1	13.2	13.9	19.7	19.4	22.9	27.7	---	---
5	22.4	28.8	---	12.2	13.5	14.3	20.1	20.0	22.5	27.5	---	---
6	22.2	28.1	---	11.6	12.3	14.5	20.4	19.7	22.3	26.9	---	---
7	22.0	26.4	---	10.8	11.0	14.0	19.3	19.5	23.0	26.2	---	---
8	21.5	26.6	---	10.1	10.6	14.5	18.5	19.9	23.4	26.4	---	---
9	21.0	26.7	---	9.4	10.5	15.2	18.5	20.5	23.9	26.8	---	---
10	21.2	---	14.6	9.1	10.5	15.0	18.5	20.9	24.1	27.5	---	---
11	21.6	---	15.2	8.8	10.7	14.7	18.7	21.3	23.7	28.0	---	---
12	21.3	---	15.1	8.4	10.7	15.1	17.2	21.8	23.3	27.6	---	---
13	20.2	---	15.5	8.8	10	15.9	16.3	22.5	23.1	28.1	---	---
14	19.2	---	15.7	8.7	9.9	16.0	16.2	22.1	23.0	28.3	---	---
15	18.5	---	16.2	8.3	10.1	14.8	16.8	21.8	23.1	---	---	---
16	18.4	---	15.1	7.9	9.8	13.9	17.7	22.2	23.1	---	---	---
17	18.7	---	14.2	8.2	10.1	13.2	18.0	22.7	23.7	---	---	---
18	19.2	---	13.6	9.3	10.4	13.3	18.5	23.0	24.3	---	---	---
19	19.5	---	13.4	10.1	10.4	13.3	19.0	23.6	24.9	---	---	---
20	20.2	---	13.7	11.2	11.4	12.6	19.1	23.8	25.4	---	---	---
21	20.5	---	14.3	12.6	11.5	13.0	19.3	24.2	25.4	---	---	---
22	23.6	---	14.9	12.2	11.5	13.7	19.7	24.7	25.8	---	---	---
23	26.1	---	14.7	11.6	11.3	14.4	20.5	25.0	26.2	---	---	---
24	25.0	---	14.8	11.2	11.8	14.8	21.2	25.0	26.8	---	---	---
25	24.5	---	15.5	10.9	11.7	15.7	22.0	25.0	29.3	---	---	---
26	22.2	---	16.2	10.3	11.6	16.7	22.0	23.0	29.7	---	---	---
27	21.6	---	17.0	9.6	11.5	17.4	22.1	22.4	29.3	---	---	---
28	21.3	---	17.4	9.1	11.8	18.0	22.1	22.1	28.8	---	---	---
29	22.5	---	16.3	9.0	11.9	18.3	21.4	22.2	28.3	---	---	---
30	22.9	---	15.0	9.3	---	18.5	20.1	22.6	28.6	---	---	---
31	23.8	---	14.7	9.8	---	19.1	---	23.2	---	---	---	---
MIN	18.4	---	---	7.9	9.8	12.5	16.2	18.6	22.3	---	---	---

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. Elevation of gage is 10 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 17.66 ft, Apr. 14, Sept. 27, 1988; minimum, 9.68 ft, Dec. 4, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 17.66 ft, Apr. 14, Sept. 27; minimum, 9.68 ft, Dec. 4.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.12	16.27	16.02	15.91	15.52	16.90	16.32	16.57	---	---	16.51	16.54
2	15.89	16.65	15.84	15.84	15.44	17.27	16.38	16.36	---	---	16.28	16.30
3	15.81	16.93	15.89	16.73	15.46	14.80	16.65	16.04	---	---	16.47	16.05
4	16.25	16.98	15.28	16.20	15.53	14.74	16.64	15.84	---	---	16.45	15.77
5	16.35	16.99	16.01	15.84	15.88	14.89	16.70	15.79	---	---	16.29	15.18
6	16.34	17.45	15.87	15.80	15.60	15.68	16.40	15.77	---	---	16.04	15.41
7	16.05	16.76	16.08	16.17	15.82	15.63	16.40	15.89	---	---	15.91	16.93
8	16.08	16.24	16.05	15.74	15.68	16.44	16.64	15.84	---	---	15.96	16.36
9	16.20	16.06	15.72	15.30	15.64	16.50	16.69	15.90	---	---	16.14	15.94
10	16.42	15.60	15.46	15.38	15.62	16.32	16.89	15.67	---	---	15.99	16.14
11	16.34	15.60	15.18	15.56	15.87	16.24	17.01	15.89	---	---	16.03	16.24
12	16.12	15.60	14.67	15.52	15.64	16.61	17.00	16.13	---	---	16.04	16.25
13	16.68	15.73	14.90	15.33	14.44	16.28	17.21	16.16	---	---	16.26	16.14
14	16.36	15.73	14.92	15.36	15.61	16.43	17.66	16.27	---	---	16.14	16.00
15	16.39	15.66	15.06	16.17	16.19	16.40	17.16	16.41	---	---	15.58	16.04
16	16.42	15.81	14.68	16.49	15.62	16.84	17.01	16.19	---	---	15.26	16.40
17	16.45	15.96	15.28	16.54	16.12	17.09	16.69	16.18	---	15.49	15.33	16.21
18	16.20	15.90	15.89	16.26	16.48	17.50	16.30	15.97	---	15.30	15.28	15.91
19	16.20	16.33	16.22	16.66	16.67	16.96	15.70	15.97	---	15.14	15.17	16.10
20	16.25	16.62	16.20	16.50	16.36	16.58	15.91	15.61	---	15.00	15.16	16.27
21	16.23	16.60	16.12	16.50	16.20	16.39	15.93	15.37	---	14.92	15.56	16.30
22	17.06	16.70	16.52	15.98	15.92	16.73	15.30	15.23	---	14.99	15.96	16.97
23	16.77	16.76	16.60	15.74	15.83	16.92	15.18	14.97	---	14.96	16.51	17.07
24	16.92	16.54	16.44	15.63	15.60	16.34	14.99	14.53	---	15.33	16.57	16.86
25	16.82	16.39	16.08	15.80	15.22	15.94	14.68	14.62	---	15.82	16.65	16.77
26	17.06	16.28	15.47	14.93	15.48	15.51	15.61	16.15	---	16.16	16.66	17.05
27	16.70	16.11	15.26	14.75	15.70	15.20	15.51	16.04	---	16.50	16.82	17.66
28	16.41	16.30	15.58	15.18	16.10	15.57	15.22	15.94	---	16.61	16.58	17.28
29	16.22	16.08	15.22	15.06	16.50	16.06	15.51	15.95	---	16.74	16.25	17.27
30	15.94	16.08	16.16	15.21	---	16.01	15.99	16.35	---	16.73	16.39	16.83
31	16.04	---	16.01	15.34	---	16.18	---	16.45	---	16.52	16.50	---
MEAN	16.36	16.29	15.70	15.79	15.78	16.22	16.24	15.87	---	---	16.09	16.41
MAX	17.06	17.45	16.60	16.73	16.67	17.50	17.66	16.57	---	---	16.82	17.66
MIN	15.81	15.60	14.67	14.75	14.44	14.74	14.68	14.53	---	---	15.16	15.18

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 1987 TO SEPTEMBER 1988
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.32	11.20	10.24	10.39	10.22	10.80	11.14	11.03	---	---	10.07	10.94
2	10.84	11.20	10.24	10.38	10.23	10.47	11.13	10.91	---	---	10.18	11.08
3	10.32	11.51	10.06	11.80	10.08	10.00	11.06	10.37	---	---	10.50	11.30
4	10.54	11.18	9.68	11.04	10.20	9.79	11.12	10.27	---	---	10.84	11.16
5	10.40	11.08	10.37	10.58	10.32	9.80	11.20	10.03	---	---	10.95	10.73
6	10.40	10.74	10.28	10.66	10.80	11.47	11.35	10.35	---	---	10.87	10.83
7	9.78	11.32	10.61	11.72	11.28	14.87	11.24	10.75	---	---	10.80	12.04
8	9.75	11.20	11.19	11.20	11.07	11.51	12.24	10.82	---	---	10.88	13.19
9	10.34	11.29	11.09	11.19	11.50	11.48	12.34	10.95	---	---	11.04	12.02
10	10.96	11.26	11.03	11.46	11.88	11.04	12.33	10.43	---	---	10.86	12.07
11	11.48	11.40	10.88	11.83	11.80	12.09	11.79	10.36	---	---	10.63	11.77
12	11.56	11.60	10.74	11.30	9.84	11.61	11.43	10.09	---	---	10.99	11.65
13	13.04	11.80	11.06	10.62	9.87	10.82	11.52	9.80	---	---	11.14	11.49
14	13.16	12.02	11.10	11.60	10.08	10.43	11.50	9.87	---	---	11.30	11.75
15	13.20	12.02	10.41	11.38	10.06	10.58	10.29	10.00	---	---	11.12	14.24
16	12.96	11.72	9.73	10.92	9.76	10.40	10.19	10.11	---	---	10.72	12.45
17	12.61	11.56	10.07	10.71	9.74	10.57	10.19	10.17	---	10.94	11.19	11.95
18	12.30	11.10	10.20	9.76	9.76	10.59	10.07	10.44	---	10.69	11.01	11.85
19	12.02	10.83	10.37	9.84	10.13	10.39	9.89	10.67	---	10.80	11.15	11.67
20	11.81	10.95	9.94	9.76	9.88	10.24	10.64	10.63	---	10.91	11.63	11.60
21	11.42	10.39	9.84	9.74	10.19	10.26	10.74	11.21	---	10.86	11.29	11.16
22	11.26	10.53	9.74	9.73	10.44	10.68	10.79	11.31	---	10.83	11.56	11.30
23	11.30	10.79	10.08	9.80	10.68	11.54	10.99	11.51	---	10.95	12.24	11.08
24	11.39	10.64	10.34	10.04	10.72	11.52	10.69	10.72	---	10.44	10.99	10.57
25	11.32	10.76	10.23	10.38	11.20	11.57	10.77	11.17	---	10.59	10.92	10.20
26	11.64	10.92	9.94	9.76	11.60	11.34	11.52	12.89	---	10.75	10.00	10.40
27	11.68	10.98	10.16	10.17	11.42	11.41	11.29	11.92	---	10.75	10.22	11.14
28	11.16	11.44	10.42	10.12	11.20	11.54	10.79	11.76	---	10.42	10.43	11.49
29	11.29	11.18	10.08	10.25	11.00	11.63	10.33	11.03	---	10.79	9.82	11.69
30	11.03	10.59	10.74	10.37	---	11.53	10.23	13.68	---	10.47	9.98	11.80
31	10.96	---	10.51	10.28	---	11.20	---	11.41	---	10.49	10.55	---
MEAN	11.39	11.17	10.37	10.61	10.58	11.07	11.03	10.86	---	---	10.83	11.55
MAX	13.20	12.02	11.19	11.83	11.88	14.87	12.34	13.68	---	---	12.24	14.24
MIN	9.75	10.39	9.68	9.73	9.74	9.79	9.89	9.80	---	---	9.82	10.20

COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1987 to current year.

WATER TEMPERATURE: February 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1987. Specific conductance recorded at 15-minute intervals, water temperature recorded at 60-minute intervals.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 59,800 microsiemens, Aug. 5, 1988; minimum, 7,010 microsiemens, Apr. 5, 1987.

WATER TEMPERATURE: Maximum, 34.0°C, July 10, Aug. 10, 1987; minimum, 8.4°C, Jan. 16, 1988.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 59,800 microsiemens, Aug. 5; minimum, 18,900 microsiemens, Mar. 10.

WATER TEMPERATURE: Maximum, 32.0°C, July 19,20; minimum, 8.4°C, Jan. 16.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52300	51400	49100	52300	46400	41000	42000	50300	54800	53000	58200	57600
2	52800	51600	48100	52000	45700	43100	43100	50800	56100	54000	58500	56800
3	52500	51500	49100	52300	45100	41900	43800	51200	56300	54200	59000	55900
4	52800	51100	45600	52100	46800	41600	43600	50500	55300	51600	59700	53700
5	53000	50800	50200	52500	49000	39300	43800	50800	53300	50500	59800	50000
6	53200	51100	49300	51900	48200	42200	43400	50400	55500	49700	59600	45300
7	52900	51100	50200	51600	49400	42200	41600	51000	54900	50200	59000	54900
8	52700	51200	50300	49800	49000	40400	43200	51300	55000	50300	58900	53300
9	53100	51100	48400	48500	49700	39100	44300	51700	51100	49900	59000	45100
10	53100	49400	46000	48900	49100	33500	45200	51400	52600	49100	58900	41200
11	52900	43300	42800	50400	48700	39500	45300	51500	53500	48000	59000	41300
12	52500	44000	40000	50000	48800	40900	44900	52500	54000	46000	59200	40900
13	52200	45000	40500	49400	41700	36600	45300	52300	54100	46100	58900	40600
14	52400	46300	41000	49900	45600	40000	46100	53300	54400	45700	58100	39100
15	52100	47700	36800	50400	47900	40000	53200	55600	54800	45400	56300	56400
16	52000	47600	32700	50800	44600	44000	53700	55600	54800	44700	55900	42300
17	51900	48500	39400	50800	49300	45900	53000	55600	54900	46000	55500	40200
18	51700	46900	48800	50900	49200	47500	52200	55500	53500	44400	54100	39200
19	51700	50000	51100	52000	47900	44800	51800	55600	52700	44700	51700	39400
20	51700	50800	51700	51200	45900	44000	51400	54400	52500	46400	49100	40800
21	51600	50900	52200	51600	44500	42700	51600	55400	51900	46400	53700	43000
22	51600	50600	52300	50000	41900	43500	49700	54500	51500	46200	56400	49400
23	52000	51400	52500	49000	39100	46400	47900	53200	51400	44200	58200	49700
24	51800	51100	52100	47700	36000	44000	44900	50000	51200	49100	58700	50000
25	51800	50700	51300	47500	33500	39500	44000	49900	51100	50200	58400	53200
26	51300	50500	50300	40400	34500	35100	48600	54300	50400	52400	58100	53200
27	51000	50100	48800	36700	32300	32400	49500	54600	49300	54300	58000	54900
28	51200	50400	50400	44600	34000	37900	48000	55100	48900	56500	58000	54100
29	50800	49800	49400	42600	38000	40100	49700	55000	49000	56500	58300	53900
30	50300	49500	52400	44800	---	42300	50500	55300	53500	56300	58700	53600
31	50700	---	52400	45200	---	41600	---	55500	---	56500	59300	---
MAX	53200	51600	52500	52500	49700	47500	53700	55600	56300	56500	59800	57600
WTR YR 1988	MAX 59800											

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50500	49700	39500	45800	30900	36400	35400	46300	57800	50200	51600	52000
2	51500	49900	36300	44200	32500	36400	36300	48700	59000	50800	57000	51800
3	50500	49400	34600	49600	33200	38400	37000	49800	56800	51100	57200	48700
4	51500	48500	31600	50300	33300	35500	36400	48900	56100	48600	58200	46300
5	51600	48400	28400	49000	39200	30700	36800	47800	55200	47200	58100	37700
6	52100	48700	34200	49400	44200	32800	37000	47900	58100	45700	57200	33600
7	51300	49700	38600	49800	45500	34400	33200	48700	54100	46500	56800	31100
8	51300	49400	41800	48000	47100	31500	37100	49200	45100	46700	55600	45400
9	51700	46700	42300	45800	47700	27800	41900	49500	47600	46300	54800	34800
10	51700	42100	37500	45700	48000	18900	42700	49200	44600	44100	55600	28800
11	51700	42700	33500	47600	48000	21600	44100	49100	47500	42000	55100	26400
12	51200	41000	27300	46500	37500	25800	42500	48700	51300	37900	55000	29000
13	51200	41000	27600	40400	31700	23000	41700	50200	52500	37500	56100	31200
14	51100	41000	29300	42100	31700	23100	43400	49900	53200	37900	53100	27100
15	50800	43400	27100	49300	33500	25600	45000	51300	53500	37300	51900	26900
16	50600	43600	23600	49300	34000	29800	51400	50900	53500	36700	49200	28300
17	50300	43100	23400	46800	34100	34500	49900	50600	51900	38100	47900	31700
18	50200	41200	27100	43100	40800	38200	49600	50000	50000	38400	45800	25300
19	50600	41100	41600	42200	40800	37800	46000	49100	49900	38500	43500	24400
20	50800	39500	41800	41200	37000	34800	48200	48400	49800	40300	41300	26300
21	50700	40400	42100	38000	35800	29000	46700	47900	49400	41100	41400	26500
22	50700	40600	43800	37600	33800	27700	41400	47700	47900	38700	41700	30300
23	50400	42400	43600	33600	28800	35700	39800	45000	47300	38200	45800	33100
24	50700	42500	45000	32000	24800	31500	35300	43000	47700	37100	49900	39100
25	50700	43000	44000	32000	25000	26500	34800	42100	45800	36700	51200	38100
26	50400	42200	42200	23400	25500	23100	37200	41900	48400	40800	51400	36400
27	50300	41600	39100	19100	25500	22700	43700	56700	43900	44700	51400	43100
28	50000	45500	39500	22500	25000	22000	44600	59500	45800	46400	53100	41200
29	49700	43500	40100	22400	25000	27600	45200	58900	46800	50200	54800	41700
30	48100	42000	39800	25800	---	32900	46600	59700	47000	52600	53500	44100
31	48600	---	47400	27000	---	35100	---	59600	---	53200	52800	---
MIN	48100	39500	23400	19100	24800	18900	33200	41900	43900	36700	41300	24400
WTR YR 1988	MIN 18900											

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 1987 TO SEPTEMBER 1988
MAXIMUM VALUES

[illegible]

ALTAMAHA-ST. MARYS RIVER

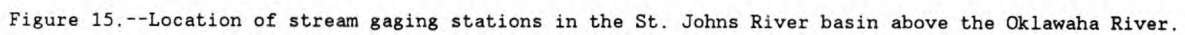
COASTAL AREA BETWEEN ST. MARYS AND ST. JOHNS RIVERS

0223129985 INTRACOASTAL WATERWAY NEAR CEDAR POINT, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.5	18.5	15.6	14.3	12.5	15.0	19.8	18.9	24.9	27.4	29.0	29.1
2	25.5	19.5	15.2	14.8	13.4	13.9	19.4	18.5	25.3	26.9	29.1	28.7
3	25.5	20.0	15.0	13.9	14.6	14.9	19.5	19.7	25.1	27.0	29.7	28.8
4	24.0	20.0	13.8	12.7	14.8	15.0	19.5	20.4	23.3	27.1	29.9	29.1
5	24.0	20.0	13.1	11.5	13	15.1	19.6	21.0	22.3	27.0	30.2	27.7
6	26.0	18.5	12.9	11.1	12	14.4	20.0	19.8	22.9	26.3	30.2	26.5
7	26.5	17.0	14.1	11.4	10.1	14.1	18.2	20.0	24.3	26.0	30.3	25.8
8	25.5	18.5	14.8	10.7	10.6	15.1	16.8	21.1	25.8	26.6	30.1	25.4
9	25.5	19.5	16.5	9.8	10.8	16.3	18.3	21.9	26.1	27.6	30.2	25.4
10	27.0	20.5	17.4	9.4	11.0	15.8	18.3	22.2	25.8	28.2	29.9	27.4
11	26.5	21.5	17.3	8.6	11.5	14.7	19.0	22.4	24.9	27.9	29.9	28.3
12	26.5	19.0	16.5	9.4	11.3	14.8	16.2	22.9	24.6	27.6	29.4	28.6
13	24.0	18.0	17.0	10.1	9.7	16.4	16.3	22.8	24.8	28.0	28.3	28.3
14	21.5	16.3	16.7	9.2	10.6	14.6	16.8	22.5	24.8	28.3	27.3	28.3
15	21.0	17.4	17.7	8.6	11.2	12.7	17.6	22.4	25.3	27.9	27.7	28.7
16	21.5	18.5	13.8	8.4	11.3	12.6	18.3	23.1	25.6	28.2	28.1	28.7
17	22.5	19.6	12.5	9.3	11.1	12.5	18.9	23.2	26.5	29.0	28.0	28.4
18	23.0	19.7	12.5	10.6	11.6	13.4	19.6	23.5	27.0	29.0	29.1	28.2
19	23.5	18.9	13.0	10.7	12.1	14.0	19.8	24.2	27.7	29.1	29.5	28.2
20	24.5	16.7	14.7	12.0	13.0	12.6	19.7	24.3	28.2	29.7	29.5	28.4
21	24.0	15.1	15.8	12.5	12.9	13.3	20.2	24.8	28.0	29.3	29.2	29.3
22	21.0	14.9	16.2	12.1	11.7	14.6	20.8	25.4	28.3	28.6	30.2	29.3
23	20.0	15.8	15.7	10.8	12.7	15.1	21.7	25.8	28.9	27.6	30.2	29.0
24	21.0	17.1	16.0	11.0	13.9	15.5	22.7	25.2	29.5	27.1	30.1	28.6
25	22.0	18.2	17.2	11.5	13.2	17.3	22.9	24.6	29.8	27.5	29.1	28.6
26	21.5	18.7	17.7	10.3	12.8	18.1	21.9	21.0	29.0	28.3	28.5	27.5
27	21.5	19.0	18.1	9.6	12.0	18.6	22.0	21.0	28.0	28.3	27.9	27.3
28	21.0	19.2	18.2	9.4	14.0	18.5	21.8	22.1	27.9	28.2	27.6	26.4
29	20.0	18.7	14.3	10.0	15.0	18.3	21.2	22.8	27.2	28.6	28.1	27.1
30	18.5	16.7	13.4	11.0	---	19.4	19.8	23.8	28.0	29.1	28.9	27.3
31	18.5	---	13.3	11.4	---	20.0	---	24.2	---	29.2	28.8	---
MIN	18.5	14.9	12.5	8.4	9.7	12.5	16.2	18.5	22.3	26.0	27.3	25.4

WTR YR 1988 MIN 8.4



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 right bank on downstream side of northbound bridge on Sunshine State Parkway, 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: Nov. 3 to Dec. 10. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--11 years, 42 ft³/s, 10.84 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 daily discharge 620 ft³/s, Nov. 21, maximum gage height recorded, 36.67 ft, Nov. 3, but may have been higher during period of no gage-height record Nov. 3 to Dec. 10; no flow, May 21 to June 7, June 26; minimum gage height 33.84 ft, June 5,7.

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	16	93	120	12	28	10	19	2.6	.00	1.4	7.2	10
2	15	303	100	12	25	9.6	15	5.0	.00	.69	8.8	10
3	14	395	90	12	22	9.0	13	4.3	.00	.26	12	10
4	12	405	77	13	21	7.7	11	3.4	.00	.09	11	8.7
5	9.4	415	68	13	20	13	10	2.3	.00	.01	9.9	8.4
6	8.3	392	58	12	18	36	8.9	1.6	.00	.64	19	11
7	7.3	350	50	14	17	52	6.9	1.1	.00	1.2	28	11
8	5.5	310	45	13	26	54	5.1	.79	.08	.76	27	15
9	4.3	270	40	14	35	47	4.0	.59	.63	.34	21	20
10	4.2	240	36	19	39	44	4.0	.39	1.0	.19	24	20
11	11	210	32	31	42	42	6.2	.24	1.2	.17	28	18
12	59	180	31	32	39	37	5.2	.16	1.1	.30	29	14
13	196	160	28	31	31	38	4.4	.13	.82	1.9	26	11
14	224	140	26	29	25	47	3.9	.32	1.0	9.5	22	8.2
15	178	120	23	25	24	40	3.1	.32	.91	4.6	19	6.5
16	136	105	21	22	29	34	2.3	.32	.40	2.8	21	5.5
17	107	94	21	19	28	29	1.9	.31	.20	2.2	33	4.1
18	87	94	21	18	31	25	1.7	.27	.11	4.5	40	3.2
19	73	120	18	16	28	75	1.3	.13	.05	10	37	2.8
20	61	600	18	15	24	156	1.1	.04	.07	25	33	2.3
21	50	620	18	15	23	192	.86	.00	.30	84	38	2.0
22	44	600	18	29	24	161	.67	.00	.41	72	35	1.7
23	40	470	17	31	22	118	.46	.00	.28	83	29	1.4
24	36	380	17	32	21	80	.29	.00	.11	85	24	1.1
25	31	315	16	43	20	54	.24	.00	.01	45	19	.72
26	27	250	15	52	18	47	.26	.00	.00	36	19	.42
27	24	200	13	52	15	43	.17	.00	.01	32	23	.24
28	21	170	12	44	13	34	.11	.00	.68	26	22	.15
29	19	140	12	36	11	29	.07	.00	1.1	17	18	.09
30	18	130	11	31	---	24	.22	.00	1.5	14	15	.06
31	17	---	12	29	---	22	---	.00	---	10	12	---
TOTAL	1555.0	8271	1084	766	719	1609.3	131.35	24.31	11.97	570.55	709.9	207.58
MEAN	50.2	276	35.0	24.7	24.8	51.9	4.38	.78	.40	18.4	22.9	6.92
MAX	224	620	120	52	42	192	19	5.0	1.5	85	40	20
MIN	4.2	93	11	12	11	7.7	.07	.00	.00	.01	7.2	.06
CFSM	.95	5.24	.66	.47	.47	.99	.08	.01	.01	.35	.44	.13
IN.	1.10	5.85	.77	.54	.51	1.14	.09	.02	.01	.40	.50	.15

CAL YR 1987 TOTAL 16095.58 MEAN 44.1 MAX 620 MIN .00 CFSM .84 IN. 11.38
WTR YR 1988 TOTAL 15659.96 MEAN 42.8 MAX 620 MIN .00 CFSM .81 IN. 11.08

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, 9.24 ft, revised, Sept. 5, 1979, estimated; minimum, -0.30 ft, revised, May 23, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 7.69 ft, Nov. 5; minimum daily 5.42 ft, June 18.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	6.41	6.87	6.13	6.02	6.11	6.43	5.87	5.58	6.05	---	6.83
2	---	6.54	6.84	6.11	6.02	6.09	6.40	5.88	5.53	6.04	---	6.64
3	---	6.89	6.80	6.11	6.02	6.07	6.38	5.86	5.49	6.06	---	6.62
4	---	7.67	6.76	6.10	6.01	6.05	6.35	5.84	5.51	6.06	6.31	6.58
5	---	7.69	6.73	6.09	6.00	6.08	6.33	5.82	5.51	6.04	6.29	6.54
6	---	7.44	6.69	6.08	6.00	6.15	6.31	5.79	5.50	6.12	6.27	6.51
7	5.99	7.22	6.66	6.06	5.99	6.20	6.28	5.77	5.48	6.29	6.26	6.50
8	5.96	7.21	6.64	6.06	6.06	6.27	6.25	5.75	5.46	6.91	6.27	6.49
9	5.94	7.21	6.61	6.06	6.12	6.29	6.22	5.73	5.44	7.35	6.25	6.47
10	5.93	7.22	6.59	6.07	6.14	6.34	6.20	5.71	5.43	7.17	6.24	6.46
11	5.99	7.20	6.56	6.10	6.15	6.38	6.19	5.69	5.46	7.01	6.27	6.45
12	6.63	7.16	6.53	6.09	6.15	6.37	6.17	5.67	5.47	6.55	6.32	6.44
13	7.18	7.11	6.50	6.08	6.14	6.36	6.15	5.66	5.47	6.48	6.35	6.42
14	7.11	7.07	6.49	6.07	6.11	6.39	6.13	5.68	5.45	6.42	6.33	6.40
15	6.77	7.03	6.47	6.06	6.12	6.42	6.12	5.67	5.45	6.38	6.37	6.37
16	6.57	6.99	6.44	6.04	6.16	6.42	6.10	5.65	5.46	6.36	6.37	6.35
17	6.54	6.95	6.42	6.03	6.15	6.40	6.08	5.64	5.43	---	6.39	6.33
18	6.53	6.94	6.39	6.03	6.13	6.42	6.05	5.63	5.42	---	6.39	6.31
19	6.52	6.97	6.37	6.02	6.14	6.55	6.03	5.62	5.58	---	6.38	6.29
20	6.51	7.04	6.35	6.01	6.14	6.68	6.01	5.60	5.70	---	6.35	6.26
21	6.49	7.05	6.33	6.01	6.17	6.72	5.99	5.59	5.77	---	6.33	6.24
22	6.46	7.03	6.31	6.06	6.16	6.70	5.97	5.57	5.83	---	6.33	6.22
23	6.42	7.03	6.29	6.05	6.16	6.66	5.94	5.55	5.92	---	6.37	6.19
24	6.39	7.04	6.27	6.04	6.18	6.64	5.91	5.55	5.97	---	6.39	6.17
25	6.36	7.05	6.25	6.06	6.19	6.62	5.89	5.65	6.00	---	6.44	6.14
26	6.33	7.02	6.24	6.07	6.18	6.60	5.87	5.64	5.95	---	6.54	6.11
27	6.31	6.99	6.22	6.04	6.16	6.56	5.85	5.63	5.95	---	6.90	6.08
28	6.29	6.96	6.21	6.01	6.14	6.53	5.83	5.62	6.04	---	7.11	6.05
29	6.27	6.94	6.19	6.01	6.12	6.54	5.81	5.62	6.08	---	7.05	6.03
30	6.24	6.92	6.16	6.04	---	6.52	5.81	5.62	6.07	---	7.00	6.01
31	6.23	---	6.15	6.03	---	6.48	---	5.61	---	---	6.95	---
MEAN	---	7.07	6.46	6.06	6.11	6.41	6.10	5.68	5.65	---	---	6.35
MAX	---	7.69	6.87	6.13	6.19	6.72	6.43	5.88	6.08	---	---	6.83
MIN	---	6.41	6.15	6.01	5.99	6.05	5.81	5.55	5.42	---	---	6.01

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.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
OCT 07...	1155	5.0	MAY 19...	1008	<0.01
DEC 11...	0837	16	AUG 03...	1040	16
FEB 16...	1700	11	SEP 29...	1115	6.4
MAR 31...	1315	9.8			

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, 1,380 ft³/s, Mar. 14, gage height, 8.40 ft.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
OCT 27...	0925	6.3	MAR 14...	0950	571
JAN 11...	0845	7.0	APR 19...	0900	1.4
FEB 23...	0910	10	AUG 10...	1130	2.9

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.--Estimated daily discharges: July 1 to Aug. 9. Records fair.

AVERAGE DISCHARGE.--35 years, 233 ft³/s, 12.76 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, 4,440 ft³/s, Nov. 21, gage height, 8.04 ft; no flow May 22 to July 5; minimum gage height, 0.89 ft, June 27.

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	227	101	733	47	87	94	382	4.0	.00	.00	.90	195
2	242	100	631	44	80	86	318	4.5	.00	.00	.66	188
3	368	146	547	42	74	76	264	3.9	.00	.00	1.0	195
4	426	416	473	40	68	68	224	3.2	.00	.00	1.8	233
5	401	1450	404	37	61	63	190	2.7	.00	.00	2.9	296
6	347	2090	351	35	56	81	160	2.3	.00	.02	5.4	341
7	293	1910	307	33	52	95	134	1.8	.00	.05	9.5	461
8	237	1580	272	32	55	149	110	1.4	.00	.12	16	616
9	194	1280	238	31	56	246	91	1.2	.00	.16	27	842
10	157	1050	216	31	58	326	77	.99	.00	.20	43	1160
11	150	892	197	31	68	337	71	.82	.00	.26	64	1320
12	249	770	178	30	79	331	61	.66	.00	.35	72	1270
13	903	659	162	29	86	463	50	.54	.00	.44	78	1120
14	2140	562	149	29	86	1150	42	.44	.00	.72	88	965
15	2320	476	139	29	86	2150	36	.37	.00	1.1	120	821
16	1980	401	134	29	89	2060	29	.28	.00	1.9	171	697
17	1610	351	121	29	85	1640	24	.20	.00	2.1	248	595
18	1290	353	117	28	82	1290	21	.14	.00	2.5	323	509
19	1040	431	115	27	82	1170	18	.09	.00	2.8	373	432
20	830	1970	113	26	80	1180	15	.05	.00	3.2	370	364
21	675	4240	110	28	84	1270	13	.01	.00	4.4	344	310
22	553	3980	103	37	84	1160	11	.00	.00	5.7	309	260
23	452	3130	95	40	85	971	9.3	.00	.00	7.8	277	219
24	373	2390	89	45	90	802	7.8	.00	.00	10	252	184
25	314	1830	82	61	95	668	6.5	.00	.00	13	253	151
26	263	1430	75	76	102	570	5.7	.00	.00	6.2	254	126
27	220	1190	70	87	107	544	4.7	.00	.00	4.1	256	111
28	187	1010	65	91	107	636	3.9	.00	.00	2.6	241	93
29	155	923	59	94	102	635	3.2	.00	.00	2.0	219	73
30	129	836	54	95	---	553	2.7	.00	.00	1.6	191	58
31	107	---	50	92	---	461	---	.00	---	1.2	179	---
TOTAL	18832	37947	6449	1405	2326	21325	2384.8	29.59	0.00	74.52	4790.16	14205
MEAN	607	1265	208	45.3	80.2	688	79.5	.95	.00	2.40	155	473
MAX	2320	4240	733	95	107	2150	382	4.5	.00	13	373	1320
MIN	107	100	50	26	52	63	2.7	.00	.00	.00	.66	58
CFSM	2.45	5.10	.84	.18	.32	2.77	.32	.00	.00	.01	.62	1.91
IN.	2.82	5.69	.97	.21	.35	3.20	.36	.00	.00	.01	.72	2.13

CAL YR 1987 TOTAL 98669.03 MEAN 270 MAX 4240 MIN .00 CFSM 1.09 IN. 14.80
WTR YR 1988 TOTAL 109768.07 MEAN 300 MAX 4240 MIN .00 CFSM 1.21 IN. 16.47

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.--Records poor.

AVERAGE DISCHARGE.--49 years, 673 ft³/s, 487,590 acre-ft/yr.

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, 4,660 ft³/s, Nov. 27; maximum gage height, 7.07 ft, Nov. 27,28; minimum daily discharge, 68 ft³/s, May 24,25, July 9, affected by wind; minimum gage height, 2.36 ft, May 25, affected by wind.

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	715	1130	4320	1340	514	458	1440	262	76	88	196	325
2	721	1150	4260	1260	504	438	1370	254	78	85	185	307
3	708	1330	4110	1220	504	428	1300	226	78	78	178	286
4	689	1440	4020	1160	494	424	1250	210	78	78	166	262
5	664	1520	3890	1110	494	428	1170	192	78	76	160	254
6	645	1630	3760	1060	499	494	1100	182	74	80	160	262
7	626	1820	3620	1010	478	509	1050	163	80	78	169	274
8	601	1980	3520	946	509	514	991	136	e106	72	166	312
9	571	2120	3410	908	514	514	938	128	e95	68	166	334
10	548	2200	3280	e864	520	542	886	111	98	70	189	339
11	565	2290	3200	e829	520	559	843	98	98	72	210	343
12	670	2340	3100	e788	504	565	795	90	95	70	222	366
13	775	2370	2970	741	504	676	754	83	90	70	246	404
14	815	2390	2860	715	499	829	702	88	88	100	242	433
15	872	2400	2750	689	488	946	657	93	90	119	242	453
16	1040	2390	2680	657	504	1070	620	88	90	121	254	468
17	1210	2390	2600	632	504	1220	577	85	88	125	282	468
18	1340	2410	2510	608	494	1360	525	83	85	128	303	468
19	1420	2540	2400	577	494	1540	488	78	85	133	278	463
20	1460	3030	2310	559	499	1640	453	78	88	133	258	458
21	1480	3280	2220	548	509	1680	438	76	88	136	242	438
22	1470	3710	2130	583	514	1720	409	72	85	160	242	424
23	1440	4030	2040	571	509	1740	385	72	88	210	242	399
24	1400	4240	1950	559	525	1750	362	68	85	250	266	376
25	1370	4400	1870	571	520	1750	339	68	88	250	371	352
26	1340	4520	1780	571	514	1720	325	74	85	254	380	334
27	1280	4660	1710	559	499	1720	307	78	80	246	376	325
28	1260	4640	1630	553	488	1670	286	76	85	250	376	312
29	1210	4540	1570	548	473	1620	266	76	93	234	390	282
30	1160	4440	1470	530	---	1590	246	76	90	226	366	266
31	1130	---	1390	520	---	1520	---	78	---	210	348	---
TOTAL	31195	83330	85330	23786	14591	33634	21272	3542	2605	4270	7871	10787
MEAN	1006	2778	2753	767	503	1085	709	114	86.8	138	254	360
MAX	1480	4660	4320	1340	525	1750	1440	262	106	254	390	468
MIN	548	1130	1390	520	473	424	246	68	74	68	160	254
AC-FT	61880	165300	169300	47180	28940	66710	42190	7030	5170	8470	15610	21400

CAL YR 1987 TOTAL 307310.9 MEAN 842 MAX 4660 MIN -2.1 AC-FT 609600
WTR YR 1988 TOTAL 322213 MEAN 880 MAX 4660 MIN 68 AC-FT 639100

e Estimated

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.98	4.37	6.91	4.87	3.71	3.46	4.93	3.33	2.53	2.58	2.87	3.13
2	3.99	4.39	6.88	4.80	3.69	3.42	4.87	3.30	2.54	2.57	2.84	3.09
3	3.97	4.59	6.80	4.75	3.68	3.40	4.82	3.22	2.54	2.54	2.81	3.04
4	3.94	4.71	6.74	4.69	3.66	3.39	4.77	3.17	2.54	2.54	2.77	2.98
5	3.90	4.78	6.67	4.64	3.65	3.40	4.70	3.10	2.54	2.53	2.74	2.96
6	3.87	4.89	6.59	4.59	3.65	3.53	4.64	3.06	2.52	2.55	2.74	2.97
7	3.84	5.06	6.51	4.52	3.61	3.56	4.59	2.99	2.55	2.54	2.76	3.00
8	3.80	5.20	6.44	4.45	3.66	3.57	4.52	2.90	e2.65	2.51	2.74	3.08
9	3.75	5.32	6.38	4.41	3.67	3.57	4.47	2.84	e2.61	2.49	2.73	3.13
10	3.71	5.39	6.30	4.36	3.67	3.62	4.41	2.77	2.62	2.50	2.80	3.14
11	3.74	5.46	6.25	4.32	3.66	3.65	4.37	2.71	2.62	2.51	2.86	3.15
12	3.90	5.50	6.18	4.27	3.63	3.66	4.32	2.67	2.61	2.50	2.89	3.19
13	4.05	5.53	6.10	4.20	3.62	3.84	4.27	2.62	2.59	2.50	2.95	3.27
14	4.10	5.54	6.03	4.16	3.60	4.07	4.21	2.63	2.58	2.63	2.94	3.32
15	4.17	5.55	5.96	4.11	3.58	4.23	4.16	2.64	2.59	2.69	2.94	3.36
16	4.37	5.54	5.92	4.06	3.60	4.39	4.11	2.61	2.59	2.70	2.97	3.38
17	4.54	5.54	5.86	4.01	3.59	4.58	4.06	2.58	2.58	2.71	3.04	3.38
18	4.65	5.56	5.80	3.96	3.57	4.73	3.99	2.56	2.57	2.72	3.09	3.38
19	4.71	5.66	5.72	3.91	3.56	4.90	3.93	2.54	2.57	2.73	3.03	3.37
20	4.74	6.02	5.66	3.87	3.56	5.00	3.88	2.54	2.58	2.73	2.98	3.36
21	4.75	6.20	5.59	3.85	3.58	5.04	3.84	2.53	2.58	2.73	2.94	3.32
22	4.74	6.49	5.52	3.90	3.58	5.07	3.78	2.51	2.57	2.81	2.94	3.29
23	4.71	6.70	5.46	3.87	3.57	5.09	3.71	2.51	2.58	2.95	2.94	3.24
24	4.67	6.83	5.39	3.85	3.59	5.10	3.65	2.49	2.57	3.05	3.00	3.19
25	4.64	6.93	5.32	3.86	3.58	5.10	3.59	2.49	2.58	3.04	3.23	3.14
26	4.60	7.00	5.25	3.85	3.57	5.09	3.55	2.52	2.57	3.05	3.25	3.10
27	4.54	7.07	5.19	3.83	3.54	5.10	3.49	2.54	2.55	3.03	3.24	3.08
28	4.52	7.06	5.13	3.81	3.52	5.08	3.43	2.53	2.57	3.03	3.24	3.05
29	4.46	7.03	5.07	3.79	3.49	5.05	3.37	2.53	2.61	2.99	3.27	2.98
30	4.41	6.97	4.99	3.76	---	5.03	3.31	2.53	2.59	2.96	3.22	2.94
31	4.37	---	4.92	3.73	---	4.98	---	2.54	---	2.92	3.18	---
MEAN	4.26	5.76	5.92	4.16	3.61	4.31	4.12	2.73	2.58	2.72	2.97	3.17
MAX	4.75	7.07	6.91	4.87	3.71	5.10	4.93	3.33	2.65	3.05	3.27	3.38
MIN	3.71	4.37	4.92	3.73	3.49	3.39	3.31	2.49	2.52	2.49	2.73	2.94

WTR YR 1988 MEAN 3.86 MAX 7.07 MIN 2.49

e Estimated

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.--Estimated daily discharges: Sept. 10-30. 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.--32 years, 32.1 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, 2,160 ft³/s, Nov. 4, gage height, 9.29 ft; minimum daily discharge, 0.01 ft³/s, June 5,6; minimum gage height, 2.85 ft, June 5,6.

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	11	15	79	5.3	13	5.2	17	.77	.07	.09	1.1	6.9
2	15	56	61	5.1	11	4.5	13	1.3	.05	.07	.80	7.9
3	10	482	48	5.7	9.8	3.9	11	1.2	.04	.05	.89	9.3
4	6.7	1630	39	6.9	8.7	3.5	8.9	.90	.02	.03	1.6	13
5	4.8	591	31	6.9	7.7	3.8	7.6	.64	.01	.02	1.7	11
6	3.8	273	26	6.2	7.2	41	6.3	.42	.01	.14	4.6	15
7	3.2	158	22	5.6	8.2	72	4.9	.28	.19	.21	23	29
8	2.6	109	19	5.4	12	51	3.8	.21	2.0	.12	29	47
9	2.2	83	17	5.2	19	33	3.2	.16	4.6	.08	18	171
10	2.0	71	16	6.3	18	30	3.0	.13	2.6	.15	10	152
11	6.6	63	15	9.2	15	31	3.8	.12	1.8	.73	7.4	120
12	350	51	13	11	13	29	5.0	.12	1.4	.50	6.4	94
13	648	39	12	9.9	10	320	4.8	.15	1.0	.32	6.4	74
14	191	31	11	8.3	8.6	728	4.1	.19	1.0	1.5	5.1	62
15	36	26	10	7.0	7.7	319	3.3	.22	.91	3.1	4.7	50
16	19	23	13	6.3	9.6	159	2.6	.19	.65	2.5	7.2	33
17	12	22	14	5.8	9.4	103	2.3	.16	.44	1.8	39	21
18	8.0	178	13	5.4	8.3	78	2.0	.14	.26	3.5	77	14
19	5.5	376	11	5.1	7.0	182	1.8	.12	.14	3.8	46	9.0
20	3.8	1390	10	4.7	6.2	183	1.6	.10	.18	2.8	26	7.5
21	2.6	478	9.4	5.7	8.2	111	1.5	.08	.95	2.1	15	6.2
22	1.8	221	8.9	27	13	75	1.3	.07	1.1	2.5	9.6	5.2
23	1.2	137	8.4	34	13	53	1.1	.06	.76	5.2	14	4.3
24	.80	99	7.9	26	20	39	.91	.07	.43	14	92	3.6
25	.53	78	7.8	28	18	30	.81	.33	.22	7.4	41	3.1
26	.38	72	7.8	37	12	24	.73	.36	.12	4.1	18	2.5
27	.29	293	7.5	38	9.3	51	.62	.26	.09	3.0	11	2.1
28	.22	257	7.2	29	7.4	62	.49	.19	.10	3.3	8.3	1.8
29	2.9	154	6.7	23	6.1	47	.36	.14	.13	2.5	6.8	1.5
30	4.9	107	5.8	18	---	32	.32	.11	.13	2.1	5.1	1.3
31	4.4	---	5.5	16	---	23	---	.08	---	1.6	4.1	---
TOTAL	1361.22	7563	562.9	413.0	316.4	2926.9	118.14	9.27	21.40	69.31	540.79	978.2
MEAN	43.9	252	18.2	13.3	10.9	94.4	3.94	.30	.71	2.24	17.4	32.6
MAX	648	1630	79	38	20	728	17	1.3	4.6	14	92	171
MIN	.22	15	5.5	4.7	6.1	3.5	.32	.06	.01	.02	.80	1.3
CAL YR 1987	TOTAL 17295.32	MEAN 47.4	MAX 1630	MIN .00								
WTR YR 1988	TOTAL 14880.53	MEAN 40.7	MAX 1630	MIN .01								

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 and electromagnetic current meter recorders. 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.--35 years, 987 ft³/s, 10.07 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, 5,560 ft³/s, Dec. 1-3, gage height, 15.89 ft; minimum daily discharge, 136 ft³/s, July 10; minimum gage height, 10.31 ft, June 27.

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	722	1280	5520	2660	1280	793	2000	955	314	167	323	301
2	731	1340	5540	2600	1250	785	1970	950	293	167	322	299
3	730	1630	5550	2510	1230	779	1950	944	274	164	320	297
4	724	2180	5420	2440	1210	752	1910	904	259	155	313	293
5	724	2510	5380	2310	1150	732	1870	838	261	144	305	294
6	728	2660	5370	2260	1090	759	1840	802	239	158	307	297
7	729	2760	5390	2290	1150	787	1720	783	242	153	338	303
8	708	2790	5350	2200	1170	823	1750	783	271	142	349	315
9	715	2740	5240	2090	1160	821	1740	765	272	139	343	337
10	712	2680	5190	2030	1130	770	1740	742	267	136	343	337
11	739	2550	5070	1970	1120	812	1690	710	261	144	340	343
12	856	2500	4970	1930	1060	836	1620	693	263	141	337	347
13	940	2480	4880	1890	1040	843	1580	660	255	138	315	345
14	1030	2460	4790	1790	1040	854	1610	637	259	140	315	351
15	1100	2400	4680	1730	1020	922	1570	610	243	152	316	352
16	1150	2440	4480	1720	994	1010	1530	596	234	162	306	354
17	1170	2440	4260	1670	984	1130	1500	568	228	164	299	347
18	1190	2510	4170	1630	978	1280	1460	537	220	166	297	346
19	1220	2640	4090	1580	958	1400	1400	517	209	171	296	346
20	1230	3090	3960	1540	938	1540	1370	486	201	169	290	342
21	1240	3510	3840	1520	897	1670	1330	468	196	171	285	337
22	1220	3880	3710	1510	908	1750	1280	434	194	179	284	334
23	1230	4070	3580	1460	905	1850	1240	408	190	188	288	330
24	1250	4200	3510	1420	900	1890	1200	396	186	207	296	325
25	1240	4350	3420	1400	862	1870	1160	398	180	222	291	318
26	1250	4530	3290	1380	841	1870	1110	378	175	243	294	315
27	1280	4890	3180	1360	835	1910	1080	358	171	262	299	321
28	1260	5140	3080	1320	814	1920	1030	351	173	281	299	316
29	1240	5360	2810	1320	803	1940	994	343	178	296	301	314
30	1250	5410	2790	1330	---	1960	987	338	172	314	301	315
31	1250	---	2770	1300	---	2000	---	329	---	321	299	---
TOTAL	31558	93420	135280	56160	29717	39058	45231	18681	6880	5756	9611	9771
MEAN	1018	3114	4364	1812	1025	1260	1508	603	229	186	310	326
MAX	1280	5410	5550	2660	1280	2000	2000	955	314	321	349	354
MIN	708	1280	2770	1300	803	732	987	329	171	136	284	293
CFSM	.76	2.34	3.28	1.36	.77	.95	1.13	.45	.17	.14	.23	.24
IN.	.88	2.61	3.78	1.57	.83	1.09	1.26	.52	.19	.16	.27	.27

CAL YR 1987 TOTAL 387487 MEAN 1062 MAX 5550 MIN 71 CFSM .80 IN. 10.83
WTR YR 1988 TOTAL 481123 MEAN 1315 MAX 5550 MIN 136 CFSM .99 IN. 13.45

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.77	6.32	8.12	7.40	6.50	5.49	6.70	5.78	4.05	3.06	4.31	5.12
2	5.80	6.35	8.12	7.36	6.46	5.46	6.67	5.76	3.95	3.06	4.33	5.08
3	5.80	6.50	8.13	7.32	6.42	5.42	6.65	5.72	3.85	3.02	4.34	5.03
4	5.79	6.88	8.12	7.27	6.38	5.38	6.62	5.66	3.75	2.98	4.34	4.99
5	5.80	7.26	8.12	7.21	6.32	5.36	6.60	5.59	3.66	2.95	4.34	4.97
6	5.80	7.49	8.13	7.17	6.27	5.46	6.57	5.54	3.58	2.98	4.36	4.98
7	5.78	7.56	8.14	7.15	6.28	5.49	6.50	5.48	3.55	2.94	4.42	5.00
8	5.75	7.56	8.13	7.09	6.27	5.48	6.50	5.42	3.80	2.90	4.54	5.05
9	5.74	7.53	8.12	7.06	6.25	5.45	6.48	5.36	3.88	2.88	4.62	5.24
10	5.71	7.49	8.11	7.06	6.23	5.56	6.46	5.30	3.88	2.84	4.67	5.42
11	5.75	7.43	8.09	7.02	6.22	5.70	6.47	5.24	3.86	2.82	4.70	5.61
12	5.91	7.39	8.08	6.98	6.18	5.74	6.43	5.25	3.80	2.81	4.72	5.67
13	6.08	7.35	8.07	6.94	6.15	5.79	6.40	5.20	3.74	2.81	4.70	5.65
14	6.22	7.31	8.05	6.88	---	5.86	6.38	5.17	3.90	2.97	4.68	5.60
15	6.37	7.27	8.03	6.83	---	5.90	6.35	5.12	4.10	3.23	4.65	5.55
16	6.46	7.25	8.01	6.81	---	5.97	6.30	5.06	4.07	3.25	4.61	5.49
17	6.48	7.24	7.98	6.77	---	6.03	6.28	4.99	3.98	3.24	4.60	5.43
18	6.48	7.34	7.96	6.73	---	6.05	6.25	4.92	3.86	3.28	4.60	5.38
19	6.48	7.41	7.93	6.69	---	6.23	6.21	4.84	3.73	3.31	4.57	5.35
20	6.47	7.53	7.89	6.65	5.88	6.37	6.19	4.76	3.64	3.32	4.53	5.32
21	6.45	7.62	7.85	6.64	5.85	6.50	6.16	4.68	3.58	3.34	4.51	5.28
22	6.42	7.70	7.81	6.65	5.84	6.57	6.11	4.59	3.49	3.37	4.51	5.24
23	6.41	7.73	7.77	6.63	5.80	6.60	6.07	4.51	3.40	3.45	4.59	5.20
24	6.39	7.75	7.74	6.60	5.76	6.61	6.02	4.46	3.32	3.57	4.79	5.15
25	6.36	7.77	7.70	6.66	5.70	6.61	5.98	4.69	3.24	3.78	4.83	5.10
26	6.34	7.81	7.66	6.66	5.66	6.61	5.93	4.71	3.16	3.97	4.94	5.06
27	6.34	7.88	7.62	6.64	5.62	6.65	5.89	4.68	3.09	4.07	5.05	5.05
28	6.31	7.94	7.58	6.62	5.57	6.72	5.84	4.57	3.06	4.15	5.14	5.01
29	6.29	8.03	7.51	6.60	5.54	6.74	5.79	4.43	3.09	4.20	5.19	4.96
30	6.29	8.08	7.48	6.58	---	6.73	5.76	4.29	3.08	4.26	5.19	4.94
31	6.28	---	7.45	6.54	---	6.72	---	4.17	---	4.29	5.16	---
MEAN	6.14	7.43	7.92	6.88	---	6.04	6.29	5.03	3.64	3.33	4.66	5.23
MAX	6.48	8.08	8.14	7.40	---	6.74	6.70	5.78	4.10	4.29	5.19	5.67
MIN	5.71	6.32	7.45	6.54	---	5.36	5.76	4.17	3.06	2.81	4.31	4.94

CAL YR 1987 MEAN 5.36 MAX 8.14 MIN 3.02

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 and electromagnetic current meter recorders. 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.--Estimated daily discharges: Feb. 14-19. Records fair.

AVERAGE DISCHARGE.--55 years, 1,294 ft³/s, 11.42 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, 4,790 ft³/s, Dec. 3, gage height, 8.15 ft; minimum, 144 ft³/s, July 12,13; gage height, 2.79 ft.

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	1330	2020	4730	3100	1860	1020	2040	1040	324	180	378	664
2	1360	2060	4740	3020	1820	995	2000	1020	305	178	382	641
3	1370	2230	4750	2950	1780	972	1970	1000	288	174	385	616
4	1370	2690	4710	2880	1740	944	1930	964	271	170	383	595
5	1380	3250	4700	2780	1690	930	1900	920	257	166	381	589
6	1390	3600	4710	2720	1640	993	1850	891	245	168	386	593
7	1390	3720	4700	2680	1650	1010	1770	858	242	163	400	599
8	1370	3720	4670	2590	1640	1010	1760	825	282	158	439	621
9	1370	3660	4640	2540	1620	990	1730	792	298	155	465	714
10	1360	3600	4590	2530	1610	1060	1700	760	298	150	485	811
11	1400	3510	4550	2470	1600	1170	1700	731	294	147	497	925
12	1550	3440	4510	2420	1550	1190	1650	741	286	146	503	956
13	1720	3380	4470	2350	1530	1230	1610	716	275	146	494	941
14	1870	3320	4430	2280	1510	1290	1590	696	304	165	485	913
15	2040	3260	4370	2230	1480	1310	1540	674	344	197	472	881
16	2150	3230	4310	2200	1450	1370	1500	647	338	200	456	843
17	2180	3200	4240	2150	1420	1420	1470	615	321	199	452	806
18	2200	3360	4200	2100	1370	1440	1430	584	300	204	450	779
19	2200	3470	4120	2070	1330	1600	1390	553	277	207	439	762
20	2190	3660	4040	2030	1300	1740	1370	519	262	209	424	743
21	2160	3810	3960	2010	1280	1870	1330	490	253	210	418	718
22	2130	3960	3870	2020	1270	1940	1290	455	240	215	416	698
23	2120	4000	3790	2000	1240	1970	1240	424	227	224	445	676
24	2090	4030	3730	1970	1210	1980	1200	414	216	243	521	651
25	2060	4080	3650	2030	1170	1980	1160	488	205	276	537	623
26	2050	4150	3570	2030	1130	1970	1130	503	195	310	582	606
27	2040	4280	3490	2010	1100	2020	1110	496	184	328	633	599
28	2010	4390	3420	1990	1070	2100	1070	452	180	344	680	581
29	1990	4560	3290	1970	1050	2130	1030	406	185	356	704	558
30	1990	4650	3240	1950	---	2100	1020	374	182	368	698	547
31	1980	---	3190	1910	---	2080	---	348	---	374	684	---
TOTAL	55810	106290	129380	71980	42110	45824	45480	20406	7878	6730	15074	21249
MEAN	1800	3543	4174	2322	1452	1478	1516	658	263	217	486	708
MAX	2200	4650	4750	3100	1860	2130	2040	1040	344	374	704	956
MIN	1330	2020	3190	1910	1050	930	1020	348	180	146	378	547
CFSM	1.17	2.30	2.71	1.51	.94	.96	.99	.43	.17	.14	.32	.46
IN.	1.35	2.57	3.13	1.74	1.02	1.11	1.10	.49	.19	.16	.36	.51

CAL YR 1987 TOTAL 487831 MEAN 1337 MAX 4750 MIN 158 CFSM .87 IN. 11.79
WTR YR 1988 TOTAL 568211 MEAN 1552 MAX 4750 MIN 146 CFSM 1.01 IN. 13.73

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: Oct. 13-28. Records fair.

AVERAGE DISCHARGE.--16 years, 24.9 ft³/s, 10.28 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, 179 ft³/s, Nov. 4, gage height, 62.22 ft; no flow many days, river dry at gage many days.

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	29	16	142	24	38	12	36	.95	.19	.25	.00	65
2	45	19	132	23	36	11	32	1.5	.09	.21	.03	64
3	41	45	123	22	34	10	29	1.5	.02	.18	.54	55
4	34	150	114	22	32	9.7	26	1.1	.00	.10	.49	46
5	29	172	106	21	30	9.7	24	.69	.00	.02	.33	41
6	24	161	98	19	29	19	21	.42	.00	.07	1.6	41
7	20	156	91	18	29	24	18	.25	.04	.06	8.2	51
8	16	152	85	18	31	22	16	.17	2.9	.01	4.7	63
9	13	144	80	19	35	20	14	.13	7.2	.00	6.8	98
10	11	137	75	22	35	43	13	.10	7.6	.00	6.8	114
11	14	130	72	25	33	52	16	.06	5.2	.00	6.2	102
12	43	121	68	26	31	46	18	.03	3.2	.00	13	89
13	85	111	64	26	29	53	16	.01	1.8	.00	16	79
14	100	103	60	25	27	110	14	.01	1.1	.00	15	71
15	75	95	57	24	26	112	12	.01	9.3	.33	13	64
16	52	88	59	23	26	98	10	.00	19	.22	26	58
17	37	85	57	22	25	87	8.7	.00	13	.12	118	51
18	31	127	52	21	24	83	7.2	.00	7.7	.16	129	46
19	25	138	49	20	23	119	5.9	.00	4.7	.11	106	41
20	23	146	46	19	21	124	4.8	.00	3.1	.03	88	37
21	36	144	44	20	21	111	3.9	.00	2.6	.00	79	34
22	32	136	42	31	21	99	3.1	.00	3.2	.00	67	30
23	30	128	39	32	20	89	2.4	.00	3.5	.06	64	27
24	28	121	37	30	20	80	1.8	.00	3.0	.50	97	24
25	26	115	36	42	19	73	1.3	.00	1.8	.85	99	21
26	25	111	34	51	17	66	1.0	.62	.96	.38	86	19
27	23	154	32	50	16	59	.78	1.8	.83	.19	90	24
28	22	172	31	46	14	54	.52	1.6	1.3	.14	90	31
29	19	162	29	43	13	49	.34	1.0	.81	.08	83	27
30	17	151	27	41	---	45	.30	.63	.51	.04	76	23
31	15	---	25	40	---	40	---	.36	---	.00	68	---
TOTAL	1020	3690	2006	865	755	1829.4	357.04	12.94	104.65	4.11	1458.69	1536
MEAN	32.9	123	64.7	27.9	26.0	59.0	11.9	.42	3.49	.13	47.1	51.2
MAX	100	172	142	51	38	124	36	1.8	19	.85	129	114
MIN	11	16	25	18	13	9.7	.30	.00	.00	.00	.00	19
CFSM	1.00	3.74	1.97	.85	.79	1.79	.36	.01	.11	.00	1.43	1.56
IN.	1.15	4.17	2.27	.98	.85	2.07	.40	.01	.12	.00	1.65	1.74

CAL YR 1987 TOTAL 13852.37 MEAN 38.0 MAX 358 MIN .00 CFSM 1.15 IN. 15.66
WTR YR 1988 TOTAL 13638.83 MEAN 37.3 MAX 172 MIN .00 CFSM 1.13 IN. 15.42

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02233102 ECONLOCKHATCHEE RIVER TRIBUTARY NEAR BITHLO, FL

LOCATION.--Lat 28°33'55", long 81°11'19", in NW¼ sec.23, T.22 S., R.31 E., Orange County, Hydrologic Unit 03080101, on right bank 15 ft upstream from culvert on State Highway 50, 3.5 mi east of Union Park, 5.1 mi west of Bithlo, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--1.83 mi².

PERIOD OF RECORD.--Annual maximum, water years 1969-82. January 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 51.35 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 26 to Apr. 20. Records fair.

AVERAGE DISCHARGE.--5 years; 2.82³ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 338 ft³/s, Sept. 22, 1969, gage height, 4.83 ft, from rating curve extended above 120 ft³/s; minimum daily discharge, 0.01 ft³/s, May 18,19, 1985, minimum gage height, 2.11 ft, part or all of each day May 30 to June 7, June 9, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft³/s, Sept. 8, gage height, 3.27 ft; minimum daily discharge, 0.15 ft³/s, May 24, June 3,4; minimum gage height, 2.15 ft, June 5.

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	4.0	1.1	4.5	.58	2.3	.85	2.2	1.5	.20	.52	.78	12
2	4.3	1.0	3.9	.58	2.1	.84	2.0	1.3	.19	1.3	1.8	13
3	.84	14	3.4	.58	1.9	.77	1.8	1.0	.15	1.1	4.4	10
4	1.2	28	3.6	.58	1.8	.77	1.7	.87	.15	.84	4.0	8.6
5	4.3	18	4.4	.58	2.2	.95	1.6	.68	.18	.74	3.1	12
6	1.8	14	4.4	.58	2.2	4.1	1.2	.57	2.3	2.4	2.8	30
7	.81	9.8	4.4	.58	2.0	3.3	.90	.49	2.4	2.3	2.2	28
8	.69	7.1	3.2	.88	2.0	2.7	.66	.44	4.3	1.6	1.6	28
9	.64	8.6	.67	1.0	2.0	2.3	.61	.38	2.8	1.1	1.3	38
10	.51	9.2	.65	1.0	1.8	9.0	.58	.37	1.6	.99	1.1	26
11	.70	7.0	.58	1.0	1.6	5.9	2.6	.34	1.0	1.3	1.0	17
12	2.6	5.9	.58	1.0	1.4	4.1	1.5	.39	.78	1.1	.95	12
13	6.2	3.6	.58	1.0	2.2	6.8	1.3	.46	.59	3.4	.87	9.2
14	6.0	3.9	.64	.98	2.1	11	1.1	.55	6.4	9.2	1.2	7.2
15	7.4	2.1	.67	.88	2.0	7.8	.95	.58	9.8	2.3	2.3	5.7
16	2.3	3.7	.67	.81	1.8	5.6	.79	.53	8.6	2.9	2.1	4.8
17	1.8	15	.67	.77	1.6	4.2	.66	.49	6.3	2.6	2.9	3.8
18	1.6	15	.67	.74	1.5	3.8	.58	.44	4.2	2.3	7.4	3.0
19	1.8	33	.67	.67	1.5	17	2.6	.38	2.7	1.6	7.1	2.6
20	1.3	19	.67	.67	1.7	12	1.1	.37	1.8	1.4	5.5	2.2
21	3.7	13	.67	.67	1.8	9.9	.98	.30	1.4	1.2	4.7	1.7
22	1.3	10	.67	.67	1.6	8.3	.86	.20	1.9	2.5	6.6	1.5
23	1.1	8.1	.67	1.7	1.4	7.0	.69	.19	1.9	5.1	19	1.3
24	1.2	8.3	.67	2.3	1.3	5.9	.61	.15	1.3	6.5	16	1.1
25	1.2	8.6	.67	2.1	1.2	5.1	.55	.34	.93	6.1	14	1.0
26	1.2	19	.67	2.4	.95	4.5	.51	.37	.77	4.5	16	.92
27	1.2	12	.67	13	.93	3.9	.47	.37	.88	3.0	26	1.3
28	.91	7.6	.67	13	.90	3.3	.44	.32	.88	2.0	32	1.2
29	.77	6.6	.67	11	.87	3.0	.41	.31	.74	1.5	20	1.0
30	.77	5.4	.60	8.1	---	2.7	.41	.25	.61	1.2	16	.88
31	.82	---	.58	3.7	---	2.4	---	.23	---	.92	13	---
TOTAL	64.96	317.6	46.73	74.10	48.65	159.78	32.36	15.16	67.75	75.51	237.70	285.00
MEAN	2.10	10.6	1.51	2.39	1.68	5.15	1.08	.49	2.26	2.44	7.67	9.50
MAX	7.4	33	4.5	13	2.3	17	2.6	1.5	9.8	9.2	32	38
MIN	.51	1.0	.58	.58	.87	.77	.41	.15	.15	.52	.78	.88

CAL YR 1987 TOTAL 1107.00 MEAN 3.03 MAX 94 MIN .06
WTR YR 1988 TOTAL 1425.30 MEAN 3.89 MAX 38 MIN .15

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.--29 years, 25.9 ft³/s, 12.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft³/s, Mar. 17, 1960, gage height, 11.64 ft; minimum discharge, 0.10 ft³/s, June 6,7, 1961; minimum gage height, 4.93 ft, May 14, 1967, May 6, 1971.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 4	0521	386	8.76	Mar. 19	0923	222	8.27
Nov. 19	2400	370	8.72	Sept. 9	0700	*450	*9.03
Nov. 27	0914	420	8.85				

Minimum discharge, 7.7 ft³/s, May 11; gage height, 5.72 ft.

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	80	22	122	17	28	12	23	39	13	12	28	66
2	83	26	102	17	25	12	20	21	12	18	32	63
3	54	71	87	17	23	12	19	14	11	15	51	50
4	43	327	75	17	22	12	19	12	11	13	40	46
5	35	205	63	16	20	13	17	11	10	11	40	65
6	29	144	53	16	19	52	15	10	34	22	36	205
7	25	112	48	15	21	40	14	9.5	36	18	40	225
8	23	91	44	15	22	28	13	8.9	53	14	38	202
9	20	77	41	16	25	23	13	8.6	28	12	45	393
10	19	84	39	23	22	46	12	8.1	21	13	38	256
11	21	72	36	21	20	43	21	8.0	23	16	32	166
12	50	55	38	19	19	31	17	10	18	13	27	124
13	146	46	50	18	17	47	15	26	15	15	26	102
14	111	41	52	18	16	156	13	24	31	41	22	88
15	87	37	53	16	16	119	12	22	51	99	21	77
16	72	34	56	16	33	98	12	15	28	46	23	69
17	58	44	46	15	25	85	11	12	21	29	28	61
18	47	193	39	15	21	78	11	11	18	23	35	54
19	41	199	33	14	19	196	11	10	16	20	100	48
20	39	293	30	14	18	158	12	9.5	16	20	69	46
21	49	182	28	14	18	120	11	9.1	16	21	62	44
22	45	136	27	33	20	99	10	8.8	15	25	77	41
23	36	114	24	26	17	84	9.9	8.6	14	50	71	39
24	30	100	23	20	16	71	9.6	11	13	162	57	36
25	26	93	22	42	15	60	9.3	70	12	116	46	34
26	24	97	21	130	14	51	9.3	33	11	67	45	37
27	22	371	20	74	14	46	8.9	32	12	48	76	64
28	21	260	20	50	13	39	8.5	22	15	37	124	44
29	19	189	19	40	13	34	8.3	18	16	32	88	37
30	17	148	17	35	---	29	8.7	15	14	27	85	33
31	17	---	17	31	---	26	---	14	---	24	70	---
TOTAL	1389	3863	1345	830	571	1920	393.5	531.1	604	1079	1572	2815
MEAN	44.8	129	43.4	26.8	19.7	61.9	13.1	17.1	20.1	34.8	50.7	93.8
MAX	146	371	122	130	33	196	23	70	53	162	124	393
MIN	17	22	17	14	13	12	8.3	8.0	10	11	21	33
CFSM	1.65	4.75	1.60	.99	.73	2.29	.48	.63	.74	1.28	1.87	3.46
IN.	1.91	5.30	1.85	1.14	.78	2.64	.54	.73	.83	1.48	2.16	3.86

CAL YR 1987 TOTAL 17785.3 MEAN 48.7 MAX 744 MIN 4.7 CFSM 1.80 IN. 24.41
WTR YR 1988 TOTAL 16912.6 MEAN 46.2 MAX 393 MIN 8.0 CFSM 1.71 IN. 23.22

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.--Estimated daily discharges: July 22 to Aug. 12. Records fair except estimated daily discharges, which are poor. Records include some flow diverted from Lake Mary Jane in the Kissimmee River Basin through Disston Canal.

AVERAGE DISCHARGE.--53 years, 267 ft³/s, 15.04 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, 2,460 ft³/s, Sept. 11, gage height, 12.01 ft; minimum discharge, 41 ft³/s, May 11, minimum gage height, 0.87 ft, June 5.

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	180	125	1400	160	415	130	252	55	61	91	145	1170
2	209	140	1190	155	358	124	225	94	58	96	155	1050
3	272	176	1010	153	317	120	199	111	55	113	165	909
4	280	471	817	152	284	115	175	90	52	113	180	754
5	249	1070	663	149	257	114	160	72	49	96	160	673
6	223	1810	565	146	240	199	146	60	51	99	175	776
7	201	1750	494	142	236	314	132	53	74	135	190	1030
8	180	1400	444	141	240	373	117	49	116	142	240	1290
9	160	1140	407	141	254	381	106	46	139	123	310	1540
10	144	968	374	152	259	428	94	43	148	103	420	2050
11	137	849	350	177	252	452	93	42	120	94	560	2410
12	156	752	325	185	246	481	119	48	97	103	450	2070
13	262	656	305	181	233	536	128	66	88	98	313	1600
14	406	563	292	180	215	594	120	84	83	87	231	1270
15	561	485	287	167	199	684	107	94	165	96	190	1020
16	617	420	291	164	220	844	95	100	329	173	216	791
17	574	378	299	157	266	917	86	87	315	236	254	656
18	490	482	284	149	270	830	77	75	228	226	364	576
19	415	727	276	147	244	856	75	69	166	244	533	515
20	362	1130	263	143	223	920	79	59	136	330	623	466
21	313	1380	247	149	210	1100	81	54	121	350	657	422
22	278	1450	233	217	212	1190	76	51	117	420	623	381
23	251	1320	224	259	212	1080	66	50	114	510	641	325
24	229	1120	216	252	202	886	60	47	116	620	664	282
25	208	940	207	414	183	713	55	51	106	760	619	255
26	190	782	197	642	168	593	53	78	94	990	644	235
27	176	805	190	813	156	510	54	110	91	760	888	257
28	165	1030	183	887	145	427	50	117	92	580	1420	328
29	150	1510	177	793	137	367	47	94	86	350	1600	353
30	139	1610	173	637	---	319	44	79	82	220	1500	345
31	127	---	166	503	---	279	---	68	---	140	1300	---
TOTAL	8304	27439	12549	8707	6853	16876	3171	2196	3549	8498	16430	25799
MEAN	268	915	405	281	236	544	106	70.8	118	274	530	860
MAX	617	1810	1400	887	415	1190	252	117	329	990	1600	2410
MIN	127	125	166	141	137	114	44	42	49	87	145	235
CFSM	1.11	3.80	1.68	1.17	.98	2.26	.44	.29	.49	1.14	2.20	3.57
IN.	1.28	4.24	1.94	1.34	1.06	2.60	.49	.34	.55	1.31	2.54	3.98

CAL YR 1987 TOTAL 141269 MEAN 387 MAX 4970 MIN 50 CFSM 1.61 IN. 21.81
WTR YR 1988 TOTAL 140371 MEAN 384 MAX 2410 MIN 42 CFSM 1.59 IN. 21.67

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 and electromagnetic current meter 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.

AVERAGE DISCHARGE.--7 years, 1,803 ft³/s, 11.99 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, 10.62 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, 6,090 ft³/s, Dec. 3, gage height, 6.23 ft; minimum, 329 ft³/s, June 27, 28, gage height, 0.95 ft.

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	1360	2360	5990	4170	3200	1530	2390	1180	582	409	612	2240
2	1360	2370	6050	4080	3120	1490	2340	1170	558	431	585	2210
3	1380	2470	6070	4000	3030	1440	2290	1160	531	414	581	2150
4	1390	2840	6000	3900	2940	1400	2230	1140	513	405	579	2070
5	1400	3050	5970	3770	2830	1380	2170	1110	486	411	579	2010
6	1400	3320	5950	3720	2720	1460	2110	1090	508	477	632	2100
7	1410	3730	5930	3680	2680	1490	2030	1060	561	490	747	2180
8	1400	4060	5890	3580	2650	1510	1980	1020	657	509	811	2340
9	1390	4210	5850	3500	2580	1520	1920	981	661	507	858	2730
10	1390	4300	5800	3480	2530	1610	1870	944	656	492	960	2940
11	1410	4280	5740	3440	2490	1690	1860	912	635	470	1040	3060
12	1500	4290	5700	3400	2420	1720	1830	898	588	437	1030	3160
13	1590	4330	5630	3340	2370	1760	1810	887	545	412	994	3200
14	1700	4310	5590	3250	2310	1890	1780	879	521	423	965	3160
15	1850	4260	5540	3180	2260	1970	1740	870	523	407	952	3070
16	2000	4220	5470	3140	2240	2030	1690	855	556	400	953	2950
17	2120	4190	5390	3080	2180	2080	1650	832	583	436	1090	2820
18	2230	4290	5360	3000	2130	2120	1610	807	571	477	1140	2690
19	2320	4400	5320	2940	2080	2300	1580	784	542	451	1150	2570
20	2380	4600	5250	2870	2020	2420	1570	755	512	447	1170	2470
21	2420	4720	5190	2850	1960	2500	1530	720	490	460	1270	2360
22	2430	4930	5110	2860	1920	2580	1490	687	459	460	1280	2250
23	2450	5040	5030	2810	1870	2650	1440	655	437	506	1320	2130
24	2460	5110	4960	2770	1820	2670	1400	624	415	566	1370	2020
25	2470	5160	4890	3010	1760	2650	1360	634	386	661	1400	1910
26	2480	5200	4780	3210	1710	2620	1310	650	356	797	1430	1830
27	2470	5420	4690	3290	1660	2620	1270	673	334	805	1550	1770
28	2450	5570	4590	3330	1610	2570	1230	669	360	786	1760	1720
29	2410	5690	4390	3340	1570	2520	1190	655	369	748	1950	1650
30	2390	5840	4320	3330	---	2480	1150	637	376	701	2130	1590
31	2360	---	4260	3280	---	2440	---	611	---	653	2230	---
TOTAL	59770	128560	166700	103600	66660	63110	51820	26549	15271	16048	35118	71350
MEAN	1928	4285	5377	3342	2299	2036	1727	856	509	518	1133	2378
MAX	2480	5840	6070	4170	3200	2670	2390	1180	661	805	2230	3200
MIN	1360	2360	4260	2770	1570	1380	1150	611	334	400	579	1590
CFSM	.94	2.10	2.63	1.64	1.13	1.00	.85	.42	.25	.25	.55	1.16
IN.	1.09	2.34	3.04	1.89	1.21	1.15	.94	.48	.28	.29	.64	1.30

CAL YR 1987 TOTAL 699846 MEAN 1917 MAX 6070 MIN 274 CFSM .94 IN. 12.74
WTR YR 1988 TOTAL 804556 MEAN 2198 MAX 6070 MIN 334 CFSM 1.08 IN. 14.65

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.36	3.20	6.16	5.16	4.57	2.87	3.90	2.35	1.32	1.10	1.32	3.74
2	2.34	3.22	6.20	5.10	4.51	2.80	3.85	2.33	1.27	1.14	1.26	3.71
3	2.36	3.33	6.22	5.05	4.43	2.73	3.79	2.31	1.22	1.09	1.25	3.64
4	2.36	3.71	6.18	4.98	4.35	2.66	3.73	2.27	1.19	1.07	1.25	3.55
5	2.35	3.92	6.17	4.88	4.24	2.62	3.67	2.23	1.13	1.07	1.25	3.49
6	2.34	4.17	6.17	4.85	4.14	2.74	3.60	2.19	1.19	1.21	1.34	3.59
7	2.33	4.53	6.16	4.83	4.11	2.80	3.50	2.14	1.31	1.23	1.54	3.68
8	2.30	4.78	6.14	4.75	4.08	2.84	3.45	2.07	1.54	1.27	1.63	3.85
9	2.26	4.90	6.12	4.70	4.02	2.85	3.39	2.00	1.55	1.27	1.68	4.25
10	2.23	4.96	6.10	4.68	3.97	2.99	3.33	1.94	1.55	1.23	1.84	4.46
11	2.25	4.96	6.06	4.65	3.94	3.10	3.32	1.88	1.51	1.18	1.95	4.57
12	2.38	4.97	6.04	4.63	3.88	3.14	3.28	1.86	1.41	1.11	1.94	4.66
13	2.52	5.00	6.01	4.58	3.82	3.19	3.24	1.84	1.32	1.05	1.87	4.70
14	2.64	4.99	5.99	4.50	3.77	3.35	3.21	1.84	1.28	1.08	1.81	4.67
15	2.80	4.97	5.97	4.44	3.72	3.44	3.16	1.83	1.29	1.04	1.78	4.58
16	2.96	4.95	5.93	4.41	3.70	3.50	3.11	1.80	1.37	1.02	1.79	4.47
17	3.08	4.92	5.89	4.36	3.65	3.56	3.05	1.76	1.44	1.08	2.06	4.34
18	3.18	5.01	5.87	4.30	3.60	3.61	2.99	1.71	1.42	1.16	2.15	4.21
19	3.26	5.08	5.85	4.24	3.54	3.80	2.96	1.67	1.36	1.08	2.19	4.10
20	3.31	5.22	5.81	4.18	3.48	3.94	2.94	1.61	1.31	1.06	2.22	3.99
21	3.33	5.31	5.78	4.17	3.43	4.03	2.89	1.54	1.26	1.07	2.42	3.87
22	3.32	5.45	5.74	4.18	3.38	4.10	2.83	1.47	1.20	1.05	2.45	3.75
23	3.32	5.53	5.68	4.15	3.32	4.17	2.76	1.41	1.16	1.14	2.52	3.62
24	3.32	5.58	5.65	4.11	3.26	4.19	2.70	1.35	1.12	1.25	2.60	3.49
25	3.31	5.61	5.60	4.35	3.19	4.17	2.63	1.38	1.06	1.45	2.64	3.37
26	3.30	5.65	5.55	4.54	3.13	4.15	2.56	1.42	1.00	1.73	2.71	3.27
27	3.30	5.79	5.49	4.62	3.06	4.14	2.49	1.48	.96	1.75	2.89	3.20
28	3.28	5.89	5.43	4.66	3.00	4.09	2.41	1.48	1.01	1.71	3.18	3.14
29	3.25	5.97	5.30	4.68	2.94	4.04	2.33	1.46	1.02	1.62	3.41	3.05
30	3.23	6.06	5.26	4.67	---	4.00	2.28	1.42	1.03	1.52	3.62	2.97
31	3.20	---	5.23	4.64	---	3.96	---	1.37	---	1.41	3.73	---
MEAN	2.83	4.92	5.86	4.58	3.73	3.47	3.11	1.79	1.26	1.23	2.14	3.87
MAX	3.33	6.06	6.22	5.16	4.57	4.19	3.90	2.35	1.55	1.75	3.73	4.70
MIN	2.23	3.20	5.23	4.11	2.94	2.62	2.28	1.35	.96	1.02	1.25	2.97

CAL YR 1987 MEAN 2.74 MAX 6.24 MIN .61
WTR YR 1988 MEAN 3.23 MAX 6.22 MIN .96

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: May 6 to June 16. Records fair except for estimated daily discharges which are poor. 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 1982-88 is a summation of flow of Deep Creek and Deep Creek diversion canal.

AVERAGE DISCHARGE.--Combined flow, 9 years (water years 1965-66, 1982-88, 118 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, 503 ft³/s, Sept. 9; maximum gage height, 7.65 ft, Sept. 9; minimum daily discharge, 1.2 ft³/s, June 27; minimum gage height, 1.49 ft, July 15.

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF DEEP CREEK AND DEEP CREEK DIVERSION CANAL
WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	29	178	45	255	53	84	23	4.5	3.7	2.1	86
2	18	27	175	41	226	48	78	16	3.3	7.6	2.2	100
3	15	31	172	37	202	44	73	16	4.5	1.9	2.5	79
4	13	166	170	34	183	41	69	11	5.7	1.3	2.4	63
5	11	179	158	27	163	43	63	9.9	5.6	1.4	3.0	102
6	11	155	155	24	149	185	58	8.7	5.1	11	7.4	349
7	10	131	155	24	153	200	52	7.7	11	4.5	13	291
8	9.4	112	153	23	156	167	47	6.9	27	4.1	13	283
9	8.2	99	149	22	154	149	43	6.1	22	2.1	14	503
10	7.9	91	147	23	146	356	40	5.4	17	2.6	12	395
11	11	81	144	23	139	291	42	8.5	14	3.7	26	267
12	36	68	140	23	132	241	42	17	11	1.5	11	204
13	83	59	134	22	119	227	35	35	9.3	7.6	8.0	171
14	81	53	131	19	110	238	33	26	7.1	26	5.7	150
15	67	45	132	17	108	197	30	22	5.1	18	4.6	139
16	60	38	132	16	123	166	28	18	3.6	8.8	5.0	143
17	56	40	121	15	114	143	26	15	2.8	7.2	8.5	124
18	54	79	116	14	105	137	25	13	2.8	23	19	109
19	50	108	115	13	98	253	24	11	2.7	13	11	101
20	49	132	111	12	93	223	21	9.3	2.8	7.7	8.2	102
21	47	101	107	18	100	195	20	7.6	2.9	5.8	15	88
22	43	91	103	42	105	175	19	6.6	2.6	4.3	12	77
23	39	88	95	52	99	160	18	5.4	2.6	13	79	66
24	38	88	92	62	91	147	16	4.6	2.6	16	92	56
25	37	91	88	494	83	139	15	4.7	1.7	19	53	49
26	37	108	82	463	75	131	13	11	1.3	23	48	106
27	36	264	76	412	68	122	10	23	1.2	9.3	88	83
28	35	232	71	391	63	110	9.2	17	1.8	6.0	106	67
29	32	203	58	354	57	102	8.6	12	1.8	4.6	125	51
30	31	184	49	320	---	95	9.8	9.0	1.9	3.3	104	46
31	29	---	48	289	---	89	---	6.7	---	2.5	74	---
TOTAL	1074.5	3173	3757	3371	3669	4867	1051.6	393.1	187.3	263.5	974.6	4450
MEAN	34.7	106	121	109	127	157	35.1	12.7	6.24	8.50	31.4	148
MAX	83	264	178	494	255	356	84	35	27	26	125	503
MIN	7.9	27	48	12	57	41	8.6	4.6	1.2	1.3	2.1	46

CAL YR 1987 TOTAL 35455.96 MEAN 97.1 MAX 1120 MIN .35
WTR YR 1988 TOTAL 27231.6 MEAN 74.4 MAX 503 MIN 1.2

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, 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, 8.76 ft, Jan. 25; minimum, 3.60 ft, all or part of each day June 26-28.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.29	4.01	5.68	4.43	6.58	4.69	4.66	4.15	3.74	3.72	3.87	4.43
2	4.29	4.02	5.59	4.38	6.25	4.64	4.60	4.10	3.72	3.79	3.86	4.34
3	4.22	4.10	5.52	4.34	6.00	4.59	4.56	4.09	3.76	3.78	3.91	4.28
4	4.17	5.42	5.48	4.31	5.79	4.56	4.51	4.05	3.79	3.72	3.89	4.22
5	4.14	6.02	5.38	4.24	5.59	4.57	4.47	4.01	3.78	3.69	3.88	4.41
6	4.11	5.96	5.34	4.21	5.48	5.79	4.42	3.97	3.78	3.84	3.89	6.21
7	4.10	5.68	5.33	4.21	5.55	6.24	4.36	3.93	3.84	3.90	3.89	6.03
8	4.07	5.37	5.31	4.21	5.58	6.05	4.31	3.89	4.09	3.88	4.14	5.76
9	4.04	5.14	5.28	4.24	5.58	5.87	4.28	3.86	4.08	3.81	4.24	6.51
10	4.04	4.99	5.26	4.29	5.50	7.15	4.25	3.83	3.93	3.76	4.19	6.50
11	4.05	4.86	5.23	4.34	5.42	6.87	4.32	3.90	3.92	3.75	4.74	5.97
12	4.44	4.73	5.20	4.35	5.35	6.56	4.35	4.04	3.87	3.72	4.35	5.53
13	5.31	4.64	5.16	4.34	5.23	6.39	4.27	4.32	3.80	3.93	4.20	5.23
14	5.35	4.58	5.14	4.33	5.13	6.31	4.21	4.17	3.77	4.65	4.09	5.02
15	5.10	4.52	5.15	4.31	5.07	6.03	4.16	4.10	3.78	4.53	4.03	4.93
16	4.93	4.46	5.17	4.29	5.27	5.74	4.13	4.03	3.74	4.24	4.00	5.10
17	4.78	4.47	5.10	4.28	5.21	5.48	4.11	3.99	3.72	4.15	4.05	4.90
18	4.67	5.06	5.06	4.27	5.13	5.35	4.08	3.95	3.70	4.74	4.40	4.75
19	4.57	5.36	5.04	4.26	5.06	6.16	4.08	3.91	3.67	4.43	4.22	4.66
20	4.50	5.46	5.02	4.25	5.01	6.04	4.06	3.88	3.65	4.20	4.11	4.76
21	4.44	5.22	4.98	4.29	5.10	5.85	4.04	3.85	3.65	4.11	4.44	4.64
22	4.37	5.08	4.94	4.59	5.23	5.65	4.02	3.86	3.64	4.08	4.21	4.52
23	4.28	5.01	4.88	4.64	5.17	5.47	4.02	3.83	3.64	4.29	5.03	4.41
24	4.23	4.96	4.85	4.60	5.10	5.31	4.01	3.78	3.64	4.38	5.01	4.31
25	4.19	4.96	4.82	7.78	5.02	5.19	4.00	3.79	3.62	4.46	4.59	4.24
26	4.15	5.11	4.77	7.94	4.92	5.10	3.91	3.90	3.60	4.53	4.34	4.21
27	4.14	6.38	4.72	8.18	4.85	5.01	3.88	4.06	3.60	4.26	4.39	4.19
28	4.12	6.28	4.69	8.17	4.80	4.92	3.93	3.98	3.60	4.12	4.76	4.19
29	4.09	6.05	4.57	7.76	4.73	4.84	3.97	3.91	3.70	4.05	5.28	4.17
30	4.05	5.84	4.47	7.34	---	4.77	4.00	3.84	3.71	3.98	5.02	4.16
31	4.03	---	4.46	6.96	---	4.72	---	3.78	---	3.92	4.63	---
MEAN	4.36	5.12	5.08	5.10	5.33	5.55	4.20	3.96	3.75	4.08	4.31	4.89
MAX	5.35	6.38	5.68	8.18	6.58	7.15	4.66	4.32	4.09	4.74	5.28	6.51
MIN	4.03	4.01	4.46	4.21	4.73	4.56	3.88	3.78	3.60	3.69	3.86	4.16

CAL YR 1987 MEAN 4.81 MAX 10.69 MIN 3.60
WTR YR 1988 MEAN 4.64 MAX 8.18 MIN 3.60

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.21, 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.--14 years (water years 1973-79, 1982-88), 32.3 ft³/s, 15.02 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; gage height, 32.24 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 193 ft³/s, Sept. 8, gage height, 34.88 ft; minimum, 2.4 ft³/s, Jan. 5, gage height, 32.25.

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	26	12	63	19	47	20	36	19	16	11	23	99
2	24	13	60	19	46	19	33	18	14	13	24	106
3	22	20	56	19	45	18	31	17	13	13	24	96
4	19	47	54	18	41	18	29	16	12	13	40	90
5	17	47	50	11	42	20	27	15	11	13	63	99
6	16	50	47	20	41	37	25	14	11	18	62	121
7	15	54	45	16	40	38	23	13	12	17	59	124
8	13	53	43	14	40	39	20	12	21	16	54	132
9	12	55	42	16	39	40	18	11	17	16	50	150
10	11	71	40	18	38	55	18	11	18	15	48	137
11	11	69	39	19	37	52	21	10	17	14	46	126
12	20	65	37	18	37	47	19	13	16	14	43	115
13	26	62	36	18	33	50	17	21	14	15	40	105
14	25	60	34	18	30	59	16	22	31	15	42	95
15	24	54	34	18	30	56	15	23	47	15	63	88
16	24	51	35	17	32	53	14	23	47	15	66	81
17	24	49	32	17	31	50	13	22	47	14	69	73
18	23	60	31	17	30	50	12	22	43	15	71	67
19	23	59	30	17	29	67	15	21	40	15	68	62
20	22	61	29	16	29	64	18	18	37	16	65	57
21	22	63	28	20	30	61	16	17	34	17	64	53
22	22	63	27	27	30	59	16	18	31	17	61	50
23	21	61	26	26	28	56	15	18	29	19	56	46
24	18	61	25	26	26	54	15	18	27	21	52	43
25	17	59	25	55	26	51	14	24	26	17	47	40
26	16	58	24	54	24	49	13	24	25	22	62	38
27	16	77	23	55	23	47	12	23	23	17	104	36
28	15	75	23	54	22	44	12	23	19	20	120	35
29	14	73	22	52	21	42	10	22	13	23	113	33
30	13	67	20	50	---	40	10	21	11	22	103	31
31	12	---	19	49	---	38	---	18	---	23	92	---
TOTAL	583	1669	1099	813	967	1393	553	567	722	511	1894	2428
MEAN	18.8	55.6	35.5	26.2	33.3	44.9	18.4	18.3	24.1	16.5	61.1	80.9
MAX	26	77	63	55	47	67	36	24	47	23	120	150
MIN	11	12	19	11	21	18	10	10	11	11	23	31
CFSM	.64	1.91	1.21	.90	1.14	1.54	.63	.63	.82	.56	2.09	2.77
IN.	.74	2.13	1.40	1.04	1.23	1.77	.70	.72	.92	.65	2.41	3.09

CAL YR 1987 TOTAL 12603.1 MEAN 34.5 MAX 152 MIN 3.3 CFSM 1.18 IN. 16.06
WTR YR 1988 TOTAL 13199 MEAN 36.1 MAX 150 MIN 10 CFSM 1.24 IN. 16.82

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA 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 September 1988.

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 good except those below 1.0 ft³/s, which are fair.

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

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 27	2400	16	38.94	Sept. 8	2000	*28	39.41
Sept. 8	1900	(a)	*39.68				

(a) Backwater from obstructed culvert.

Minimum discharge, 0.01 ft³/s, Apr. 29,30; gage height, 37.57 ft.

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	.30	.10	2.9	.77	4.4	.85	1.5	.57	.12	.76	.84	9.5
2	.24	.09	2.5	.71	3.9	.77	1.4	.54	.07	1.0	1.1	12
3	.19	.19	2.2	.73	3.5	.71	1.3	.51	.05	.93	2.2	9.3
4	.12	1.3	2.0	.70	3.2	.65	1.2	.45	.04	.80	2.5	3.6
5	.09	1.8	1.8	.63	2.8	.80	1.1	.41	.03	.70	2.3	3.6
6	.06	1.8	1.5	.59	2.8	3.7	1.1	.35	.78	1.3	2.2	12
7	.04	1.6	1.4	.58	2.9	4.0	.94	.30	2.3	1.3	2.1	6.9
8	.03	1.4	1.3	.68	3.0	3.5	.84	.19	3.6	1.2	1.9	11
9	.02	3.7	1.3	.70	2.9	3.1	.71	.09	3.3	1.0	1.8	24
10	.02	9.5	1.4	.81	2.6	6.4	.69	.04	3.0	.91	1.7	17
11	.03	8.1	1.5	.82	2.5	5.8	.70	.04	3.0	.82	1.6	12
12	.24	6.6	1.5	.76	2.3	4.9	.65	.16	2.6	.71	1.5	9.7
13	.52	5.5	1.5	.72	2.0	5.2	.62	.60	2.3	1.1	1.4	8.3
14	.60	4.7	1.6	.69	1.8	6.7	.60	.45	3.0	2.9	2.4	7.3
15	.52	4.1	2.0	.65	1.8	5.8	.55	.40	3.8	2.9	5.6	7.1
16	.52	3.4	2.5	.61	2.0	4.9	.47	.35	3.2	2.7	5.5	7.0
17	.47	3.5	2.2	.60	1.9	4.2	.41	.25	2.8	2.4	6.0	6.2
18	.47	5.0	1.9	.58	1.7	4.1	.32	.20	2.4	2.3	6.1	5.6
19	.52	4.8	1.7	.56	1.6	6.3	.39	.15	2.1	2.0	5.2	5.2
20	.40	4.9	1.6	.56	1.5	5.7	.51	.13	1.9	1.9	4.4	4.7
21	.30	4.1	1.6	.98	1.7	4.9	.48	.08	1.8	1.8	3.9	4.7
22	.24	3.3	1.5	2.0	1.7	4.3	.38	.06	1.7	1.7	3.4	5.1
23	.19	2.8	1.5	2.0	1.6	3.7	.27	.05	1.5	1.6	3.2	4.6
24	.12	2.5	1.5	2.0	1.4	3.3	.22	.04	1.3	1.7	3.4	4.1
25	.07	2.4	1.5	10	1.3	2.9	.19	.60	1.2	1.8	3.2	3.5
26	.04	2.7	1.5	10	1.1	2.6	.14	.61	1.1	1.6	3.0	3.2
27	.05	5.0	1.4	8.4	1.0	2.4	.09	.63	1.0	1.4	6.4	2.9
28	.06	4.5	1.3	7.1	.97	2.1	.04	.50	.93	1.4	15	2.7
29	.06	3.9	1.2	6.2	.92	1.9	.02	.35	.89	1.2	11	2.4
30	.07	3.4	.98	5.5	---	1.8	.09	.25	.84	1.1	8.6	2.2
31	.09	---	.85	4.9	---	1.7	---	.18	---	.96	7.6	---
TOTAL	6.69	106.68	51.13	72.53	62.79	109.68	17.92	9.53	52.65	45.89	127.04	217.4
MEAN	.22	3.56	1.65	2.34	2.17	3.54	.60	.31	1.75	1.48	4.10	7.25
MAX	.60	9.5	2.9	10	4.4	6.7	1.5	.63	3.8	2.9	15	24
MIN	.02	.09	.85	.56	.92	.65	.02	.04	.03	.70	.84	2.2

WTR YR 1988 TOTAL 879.93 MEAN 2.40 MAX 24 MIN .02 CFSM .31 IN. 4.17

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 1988.

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.--Records fair except those below 1.0 ft³/s, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 27	2300	13	32.93	Sept. 9	0100	--	*33.31
Sept. 8	2300	*16	33.30				

Minimum discharge, 0.01 ft³/s, Apr. 27; gage height, 31.00 ft.

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	.19	.13	3.7	.90	5.7	1.5	2.5	.84	.16	1.1	.83	11
2	.15	.15	3.2	.80	5.5	1.3	2.4	.52	.11	1.8	1.2	12
3	.13	.26	2.8	.78	5.3	1.2	2.2	.41	.06	1.2	1.8	12
4	.10	.73	2.5	.75	5.0	1.1	2.1	.34	.05	.93	1.8	12
5	.07	.81	2.2	.70	4.7	1.3	1.9	.26	.04	.79	1.8	13
6	.05	.90	1.8	.68	4.8	3.2	1.7	.20	1.4	1.9	1.9	15
7	.04	1.1	1.6	.66	4.1	3.3	1.5	.14	2.8	1.3	1.9	15
8	.03	1.2	1.5	.75	4.2	3.5	1.3	.09	3.6	1.2	1.8	15
9	.03	3.4	1.5	.80	3.8	3.5	1.1	.07	3.3	1.0	1.6	15
10	.02	6.3	1.6	.90	3.7	6.5	.98	.05	3.1	.90	1.5	15
11	.15	6.3	1.6	.90	3.6	6.2	1.1	.05	3.2	.75	1.5	15
12	.52	6.5	1.6	.85	3.4	5.9	.96	.19	2.9	.65	1.5	15
13	.69	6.4	1.7	.80	3.2	6.9	.86	.67	2.5	.79	1.4	14
14	.59	6.2	2.0	.75	3.1	9.2	.80	.56	3.4	1.6	3.6	14
15	.52	5.8	2.5	.70	3.5	7.7	.65	.47	4.4	2.1	7.1	14
16	.49	5.4	2.8	.66	3.6	7.3	.54	.39	3.9	2.4	6.6	14
17	.46	5.3	2.5	.64	3.2	6.7	.47	.36	3.5	2.3	6.6	13
18	.40	6.6	2.2	.60	3.0	6.7	.40	.23	3.0	2.3	6.7	12
19	.37	6.2	2.0	.65	2.8	9.0	.54	.19	2.5	2.1	6.4	11
20	.31	6.0	1.8	.75	2.5	6.9	.60	.18	2.2	2.0	6.0	10
21	.26	5.0	1.7	1.3	2.7	7.1	.51	.11	2.0	1.9	5.6	9.1
22	.24	3.9	1.6	1.6	2.6	6.5	.42	.09	1.8	1.7	5.3	9.3
23	.19	3.7	1.6	1.5	2.4	6.0	.37	.06	1.6	1.6	4.9	8.4
24	.15	3.5	1.6	1.7	2.3	5.4	.30	.05	1.4	1.8	5.0	7.1
25	.14	3.5	1.6	7.5	2.2	5.1	.24	.64	1.2	1.8	4.5	6.4
26	.10	4.0	1.6	7.4	2.0	4.6	.21	.67	1.2	1.7	4.9	5.8
27	.07	6.0	1.5	7.6	1.9	4.4	.17	.70	.95	1.5	7.8	5.2
28	.07	5.5	1.4	7.4	1.8	4.1	.13	.48	1.0	1.5	10	4.7
29	.05	5.0	1.3	7.3	1.7	3.4	.09	.40	1.2	1.3	9.6	4.2
30	.08	4.5	1.2	6.3	---	3.0	.23	.31	1.5	1.2	9.7	3.8
31	.10	---	1.1	5.9	---	2.7	---	.25	---	.98	9.8	---
TOTAL	6.76	120.28	59.3	70.52	98.3	151.2	27.27	9.97	59.97	46.09	140.63	331.0
MEAN	.22	4.01	1.91	2.27	3.39	4.88	.91	.32	2.00	1.49	4.54	11.0
MAX	.69	6.6	3.7	7.6	5.7	9.2	2.5	.84	4.4	2.4	10	15
MIN	.02	.13	1.1	.60	1.7	1.1	.09	.05	.04	.65	.83	3.8
CFSM	.02	.44	.21	.25	.37	.53	.10	.04	.22	.16	.50	1.20
IN.	.03	.49	.24	.29	.40	.61	.11	.04	.24	.19	.57	1.34

WTR YR 1988 TOTAL 1121.29 MEAN 3.06 MAX 15 MIN .02 CFSM .33 IN. 4.55

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.--Records good. Since about 1980, some regulation by retention ponds in headwaters.

AVERAGE DISCHARGE.--7 years (water years 1973-75, 1978-79, 1987-88), 11.5 ft³/s, 7.37 in/yr, 8,330 acre-ft/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 observed, 0.15 ft³/s, June 25, 1981, discharge measurement.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 25	0600	188	10.88	Aug. 14	2100	323	12.73
Mar. 14	0300	193	10.94	Aug. 27	2200	*359	*13.20
June 6	2000	227	11.30	Sept. 5	1900	230	11.69
				Sept. 8	2200	182	11.03

Minimum discharge, 1.30 ft³/s, Apr. 29,30; minimum gage height, 6.62 ft, July 30,31, Aug. 1.

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	3.7	2.2	9.6	4.8	22	13	8.3	10	3.6	5.1	6.3	67
2	2.8	2.7	8.6	4.7	21	13	7.8	6.2	3.3	7.9	13	48
3	2.3	11	7.8	5.4	20	12	7.1	4.6	2.9	5.1	13	31
4	1.8	32	7.3	5.2	20	12	6.7	3.7	2.7	3.9	10	26
5	1.6	15	7.0	4.7	19	18	6.1	3.3	2.6	3.9	9.7	97
6	1.5	13	6.7	4.5	22	40	5.6	2.8	53	15	9.6	98
7	1.6	11	6.6	5.0	21	23	5.2	2.3	36	8.0	9.4	50
8	1.7	10	6.3	5.4	23	20	4.7	2.0	25	6.4	8.7	79
9	1.5	86	6.1	7.0	21	20	4.3	1.8	16	5.4	8.2	78
10	1.4	54	6.1	7.4	20	49	5.0	1.5	13	4.8	7.8	45
11	2.6	25	6.1	6.7	20	30	6.0	2.1	12	4.3	7.6	37
12	10	20	5.6	6.1	19	27	5.0	4.2	10	4.1	7.8	33
13	11	18	5.3	6.0	17	38	4.7	7.9	8.3	5.0	7.3	28
14	6.7	16	5.2	5.2	17	80	4.4	6.8	15	7.8	70	25
15	5.2	14	8.4	5.1	19	32	3.9	5.0	15	9.9	61	27
16	4.6	12	11	4.9	21	24	4.0	3.8	11	11	30	25
17	4.4	17	8.5	4.8	19	21	3.5	3.2	9.0	8.8	26	20
18	3.8	24	7.4	4.7	18	32	2.9	4.0	7.6	8.5	25	18
19	3.6	19	6.9	4.5	17	49	4.4	3.4	6.8	7.6	17	16
20	3.5	18	6.9	4.4	16	28	4.6	3.6	6.2	7.2	16	14
21	3.5	13	6.9	15	21	23	3.9	2.9	6.0	7.6	14	15
22	3.1	11	6.9	16	20	21	3.3	2.9	5.5	7.1	13	16
23	2.8	10	6.8	12	20	19	2.8	2.6	4.9	6.7	12	13
24	2.6	10	6.5	15	18	17	2.4	3.5	4.4	8.2	12	11
25	2.4	11	6.3	100	17	15	2.1	11	4.2	8.5	10	10
26	2.2	17	6.1	38	16	14	2.1	8.1	4.0	7.3	44	9.4
27	2.1	36	6.0	31	15	13	2.0	7.1	3.6	6.5	116	7.9
28	2.0	16	5.9	29	14	12	1.6	5.6	4.1	6.4	96	6.9
29	1.8	11	5.3	27	14	11	1.4	4.4	5.8	6.2	36	6.2
30	1.6	11	4.8	25	---	9.8	3.8	3.7	6.0	6.0	30	5.8
31	1.6	---	4.8	24	---	9.1	---	3.9	---	5.8	25	---
TOTAL	101.0	565.9	209.7	438.5	547	744.9	129.6	137.9	307.5	216.0	771.4	963.2
MEAN	3.26	18.9	6.76	14.1	18.9	24.0	4.32	4.45	10.2	6.97	24.9	32.1
MAX	11	86	11	100	23	80	8.3	11	53	15	116	98
MIN	1.4	2.2	4.8	4.4	14	9.1	1.4	1.5	2.6	3.9	6.3	5.8
CFSM	.15	.89	.32	.67	.89	1.13	.20	.21	.48	.33	1.17	1.51
IN.	.18	.99	.37	.77	.96	1.31	.23	.24	.54	.38	1.35	1.69

CAL YR 1987 TOTAL 3319.16 MEAN 9.09 MAX 140 MIN .57 CFSM .43 IN. 5.82
WTR YR 1988 TOTAL 5132.6 MEAN 14.0 MAX 116 MIN 1.4 CFSM .66 IN. 9.01

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA 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.--Records fair.

AVERAGE DISCHARGE.--10 years (water years 1973-79, 1987-88), 16.3 ft³/s, 17.29 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, 1.0 ft³/s, June 8, 1986; minimum gage height, 5.56 ft, Dec. 5, 1973.

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)
Nov. 9	2000	147	12.33	Aug. 17	2400	113	11.65
Jan. 25	0600	91	11.17	Aug. 27	2200	151	12.41
Mar. 14	0200	163	12.62	Sept. 1	1900	168	12.71
Mar. 18	2300	82	10.95	Sept. 5	2200	148	12.34
Aug. 14	2000	184	12.99	Sept. 8	2200	*195	*13.17

Minimum discharge, 2.9 ft³/s, July 21, gage height 7.41 ft.

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	6.9	4.9	21	7.7	19	7.5	11	20	6.5	5.6	5.6	70
2	5.8	5.5	19	7.5	18	7.2	10	17	5.7	9.4	14	86
3	5.3	16	17	7.8	17	7.0	9.7	13	5.0	6.8	14	62
4	4.9	47	16	7.7	16	6.9	9.7	9.6	4.5	6.1	11	46
5	5.3	31	15	7.5	15	13	9.5	7.1	4.4	5.4	8.6	77
6	5.5	23	14	7.5	16	36	8.9	e6.6	17	18	12	123
7	5.3	18	13	7.6	16	30	8.3	e6.0	24	12	9.5	102
8	5.1	15	13	8.0	19	25	7.5	e5.6	34	9.5	8.3	118
9	5.0	48	12	8.6	18	22	6.7	e5.4	28	7.2	7.8	133
10	3.8	58	12	9.4	17	41	13	e5.4	23	6.0	7.0	100
11	5.4	39	12	10	16	29	23	e6.0	18	5.6	6.7	78
12	16	29	12	9.8	15	24	21	7.0	15	5.3	6.4	61
13	16	24	11	9.4	14	32	15	9.0	12	4.7	5.7	51
14	14	20	11	8.6	13	100	11	13	13	5.2	42	45
15	11	18	12	8.1	15	59	9.1	12	13	5.8	75	43
16	9.7	17	14	7.8	18	43	8.2	10	12	5.9	62	37
17	8.1	20	13	7.6	16	34	7.6	8.7	11	4.9	66	33
18	7.5	33	12	7.4	14	37	7.0	15	9.8	5.1	73	30
19	7.2	33	11	7.2	13	63	10	11	8.6	5.0	47	27
20	7.8	35	11	6.6	12	47	11	10	8.1	4.4	36	23
21	10	27	10	12	15	37	11	8.8	7.7	4.1	30	20
22	9.1	22	10	13	13	31	9.5	11	6.8	4.1	23	21
23	6.4	20	9.8	12	12	27	8.2	8.8	6.3	4.6	19	19
24	5.8	18	9.4	14	12	23	7.6	8.5	5.6	7.7	17	17
25	5.5	19	9.2	69	10	21	7.2	19	4.9	6.8	14	15
26	5.4	22	9.1	49	9.5	19	7.0	18	4.6	6.1	32	14
27	5.1	46	8.9	40	9.0	17	6.6	19	4.2	5.6	83	13
28	4.8	36	8.5	30	8.5	15	6.3	17	4.2	5.1	98	11
29	4.6	29	8.2	25	7.9	14	6.1	12	4.0	5.0	70	11
30	4.2	24	8.0	22	---	12	8.2	9.3	4.7	4.3	53	10
31	4.1	---	7.8	21	---	12	---	7.6	---	4.2	41	---
TOTAL	220.6	797.4	369.9	468.8	413.9	891.6	294.9	336.4	325.6	195.5	997.6	1496
MEAN	7.12	26.6	11.9	15.1	14.3	28.8	9.83	10.9	10.9	6.31	32.2	49.9
MAX	16	58	21	69	19	100	23	20	34	18	98	133
MIN	3.8	4.9	7.8	6.6	7.9	6.9	6.1	5.4	4.0	4.1	5.6	10
AC-FT	438	1580	734	930	821	1770	585	667	646	388	1980	2970
IN.	.64	2.32	1.08	1.36	1.20	2.59	.86	.98	.95	.57	2.90	4.35

CAL YR 1987 TOTAL 4558.83 MEAN 12.5 MAX 144 MIN .94 AC-FT 9040 IN. 13.25
WTR YR 1988 TOTAL 6808.2 MEAN 18.6 MAX 133 MIN 3.8 AC-FT 13500 IN. 19.79

e Estimated

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234500 ST. JOHNS RIVER 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 left bank at downstream side of bridge on U.S. Highways 17 and 92, at outlet of Lake Monroe, 4 mi northwest of Sanford, and 161 mi upstream from mouth.

DRAINAGE AREA.--2,582 mi².

PERIOD OF RECORD.--August 1941 to June 1956 (discharge measurements only), October 1964 to September 1968 (gage heights and occasional discharge measurements only), May 1987 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 0.09 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--

May to September 1987: Estimated daily discharges: May 1 to June 4, June 13-16, July 2-8. Records fair except for estimated daily discharges and those below 1,000 ft³/s, which are poor. Records of gage height are published as elevations for Lake Monroe (station 02234499) in the section entitled LAKE ELEVATIONS in WDR FL-87-1B.

Water year 1988: Estimated daily discharges: Dec. 20 to Jan. 21. Records fair except for estimated discharges and those below 1,000 ft³/s, which are poor. Records of gage height are published as elevations for Lake Monroe (station 02234499) in the section of this report entitled LAKE ELEVATIONS.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 17,500 ft³/s Oct. 14, 1953; maximum reverse flow measured, 1,420 ft³/s June 8, 1955 (affected by tide).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height since at least 1871, 13.37 ft in fall of 1880, from information by Fred T. Williams, former city engineer for Sanford. Since July 1941: Maximum daily gage height, 8.59 ft, Oct. 15-17, 1953; minimum daily, -0.43 ft, Apr. 5, 1945 (published as elevations for Lake Monroe near Sanford).

EXTREMES FOR CURRENT PERIOD.--

May to September 1987: Maximum daily discharge, 3,100 ft³/s, May 2,3; maximum gage height, 2.35 ft, May 1; minimum daily discharge, 534 ft³/s, June 26; minimum gage height, 0.37 ft, June 24.

Water year 1988: Maximum daily discharge, 3,710 ft³/s, Dec. 17; maximum gage height, 3.44 ft, Dec. 7,8; minimum daily discharge, 522 ft³/s, July 26; minimum gage height, 0.33 ft, July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, FOR PERIOD MAY TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	2900	1450	831	1170	946
2	---	---	---	---	---	---	---	3100	1400	819	1290	848
3	---	---	---	---	---	---	---	3100	1350	785	951	1020
4	---	---	---	---	---	---	---	3000	1300	968	846	1250
5	---	---	---	---	---	---	---	2900	1240	1090	778	1500
6	---	---	---	---	---	---	---	2700	1030	935	709	1590
7	---	---	---	---	---	---	---	2600	1120	843	634	1550
8	---	---	---	---	---	---	---	2400	1170	770	560	1590
9	---	---	---	---	---	---	---	2300	1230	893	550	1790
10	---	---	---	---	---	---	---	2300	1270	1100	620	1790
11	---	---	---	---	---	---	---	2200	1180	1080	737	1860
12	---	---	---	---	---	---	---	2200	938	1130	860	1700
13	---	---	---	---	---	---	---	2150	900	1010	853	1480
14	---	---	---	---	---	---	---	2150	850	1040	1170	1890
15	---	---	---	---	---	---	---	2100	800	1020	1040	1840
16	---	---	---	---	---	---	---	2050	780	1160	1560	1900
17	---	---	---	---	---	---	---	2050	763	1130	1450	1790
18	---	---	---	---	---	---	---	2000	724	1190	1390	1770
19	---	---	---	---	---	---	---	1950	722	1510	1300	1820
20	---	---	---	---	---	---	---	1900	731	1360	1020	1810
21	---	---	---	---	---	---	---	1850	994	1370	1320	1730
22	---	---	---	---	---	---	---	1800	854	1420	1190	1620
23	---	---	---	---	---	---	---	1750	610	1420	1160	1680
24	---	---	---	---	---	---	---	1700	536	1340	1180	1720
25	---	---	---	---	---	---	---	1650	537	1390	1190	1790
26	---	---	---	---	---	---	---	1600	534	1400	1160	1830
27	---	---	---	---	---	---	---	1600	547	1400	1120	1840
28	---	---	---	---	---	---	---	1550	582	1370	1140	1800
29	---	---	---	---	---	---	---	1500	634	1350	1110	1790
30	---	---	---	---	---	---	---	1500	751	1350	997	1830
31	---	---	---	---	---	---	---	1500	---	927	1060	---
TOTAL	---	---	---	---	---	---	---	66050	27527	35401	32115	49364
MEAN	---	---	---	---	---	---	---	2131	918	1142	1036	1645
MAX	---	---	---	---	---	---	---	3100	1450	1510	1560	1900
MIN	---	---	---	---	---	---	---	1500	534	770	550	848
CFSM	---	---	---	---	---	---	---	.83	.36	.44	.40	.64
IN.	---	---	---	---	---	---	---	.95	.40	.51	.46	.71

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234500 ST. JOHNS RIVER NEAR SANFORD, 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	1770	2480	3380	3410	3400	2360	2630	1650	1080	1360	800	2050
2	1890	2500	3510	3390	3370	2400	2800	1710	1240	1370	795	2290
3	1870	2510	3500	3350	3320	2280	2790	1780	1240	1300	1080	2330
4	1880	2590	3580	3330	3270	2320	2680	1820	1160	1170	1150	2360
5	1860	2660	3610	3300	3320	2260	2640	1790	1140	996	983	2530
6	1900	2700	3620	3290	3230	2400	2570	1730	1380	1600	987	2540
7	1890	2710	3590	3290	3110	2420	2490	1700	1460	1510	1100	2630
8	1890	2760	3580	3300	3060	2380	2410	1590	1590	1410	1170	2420
9	1850	2910	3600	3280	2990	2350	2430	1510	1520	1440	1110	2530
10	1890	3140	3570	3290	2950	2380	2310	1490	1470	1410	1180	2550
11	1820	3340	3590	3280	2910	2460	2070	1340	1370	1380	921	2640
12	1990	3300	3650	3280	2900	2460	2350	832	1330	1240	838	2610
13	2050	3340	3600	3260	2950	2550	2250	1440	1250	1270	1150	2610
14	2220	3370	3570	3220	2970	2750	2180	1550	881	1150	772	2650
15	2240	3410	3630	3190	3120	2630	2160	1600	1300	1090	1530	2680
16	2260	3330	3630	3200	3010	2630	2190	1470	1310	1010	1470	2630
17	2380	3310	3710	3190	2990	2600	2170	1380	1290	890	1370	2660
18	2450	3400	3630	3160	2940	2570	2030	1480	1190	844	1470	2770
19	2390	3370	3630	3130	2820	2820	2240	1320	1170	789	1370	2670
20	2570	3470	3650	3080	2830	2790	2140	1340	1200	706	1400	2650
21	2440	3440	3650	3070	2700	2810	2130	1270	1180	642	1390	2670
22	2450	3390	3650	3010	2640	2850	2120	1280	1120	589	1430	2690
23	2460	3370	3650	3170	2610	2890	2110	1240	1210	547	1280	2620
24	2520	3390	3650	3110	2650	2850	2120	1420	1080	570	1280	2640
25	2560	3350	3600	3260	2570	2850	1990	838	919	550	1290	2490
26	2460	3370	3550	3260	2630	2990	1820	1010	1060	522	1580	2410
27	2520	3380	3550	3210	2670	3000	1650	1070	1030	534	1580	2350
28	2570	3360	3500	3280	2640	2920	1560	1240	1150	601	1900	2320
29	2500	3410	3450	3330	2530	2940	1600	1330	1160	652	1670	2100
30	2590	3440	3440	3330	---	2880	1730	1310	1260	709	2060	2150
31	2590	---	3440	3390	---	2840	---	1270	---	752	2110	---
TOTAL	68720	94500	110960	100640	85100	81630	66360	43800	36740	30602	40216	75240
MEAN	2217	3150	3579	3246	2934	2633	2212	1413	1225	987	1297	2508
MAX	2590	3470	3710	3410	3400	3000	2800	1820	1590	1600	2110	2770
MIN	1770	2480	3380	3010	2530	2260	1560	832	881	522	772	2050
CFSM	.86	1.22	1.39	1.26	1.14	1.02	.86	.55	.47	.38	.50	.97
IN.	.99	1.36	1.60	1.45	1.23	1.18	.96	.63	.53	.44	.58	1.08

WTR YR 1988 TOTAL 834508 MEAN 2280 MAX 3710 MIN 522 CFSM .88 IN. 12.02

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.--Estimated daily discharges: Aug. 16 to Sept. 1. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--13 years (water years 1973-79, 1983-88), 35.6 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 592 ft³/s, July 22, 1984, gage height, 27.34 ft; maximum gage height 28.15 ft, Mar. 31, Apr. 1, 1987; 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, 179 ft³/s, Mar. 14, gage height, 27.22 ft; maximum gage height, 27.36 ft, Sept. 8; minimum, 8.2 ft³/s, May 7, gage height 24.33 ft.

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	26	21	69	27	50	26	33	26	17	18	31	85
2	24	22	65	27	45	25	31	18	16	20	51	83
3	22	43	60	26	42	24	30	16	15	18	59	77
4	20	82	55	26	39	24	29	16	15	18	77	71
5	20	106	49	25	37	32	29	15	15	19	79	95
6	19	113	45	25	38	44	28	14	24	33	77	132
7	19	100	41	26	35	43	26	13	27	23	72	144
8	18	83	38	25	37	47	26	12	28	21	75	149
9	17	76	36	26	37	47	25	12	22	20	75	157
10	16	80	35	26	36	75	26	13	20	22	68	151
11	22	83	34	26	36	71	26	15	19	23	62	137
12	38	77	33	27	34	71	26	21	16	23	58	119
13	34	68	32	28	32	82	25	21	15	37	52	103
14	33	59	32	28	31	120	25	21	35	35	54	96
15	32	52	35	27	32	97	24	21	34	32	62	89
16	31	47	35	27	31	85	22	21	29	31	64	75
17	30	47	34	26	31	73	21	20	24	30	69	59
18	28	60	33	26	32	77	21	20	20	31	66	49
19	27	77	33	26	33	100	33	19	18	32	59	51
20	26	88	32	25	32	105	28	19	20	38	52	52
21	25	92	32	37	33	102	27	18	20	56	47	46
22	23	84	31	34	32	92	25	18	18	56	42	44
23	24	74	31	35	32	80	24	17	17	50	37	37
24	23	66	30	37	32	68	23	20	16	45	34	27
25	22	60	29	95	31	57	22	34	17	40	33	24
26	22	57	29	97	30	50	22	24	16	36	45	23
27	21	73	29	101	29	44	22	24	15	33	70	23
28	20	80	29	91	27	40	21	22	15	34	88	22
29	20	80	29	80	26	37	21	20	16	33	88	20
30	20	75	28	69	---	36	26	19	16	33	80	20
31	20	---	28	58	---	34	---	18	---	32	80	---
TOTAL	742	2125	1151	1259	992	1908	767	587	595	972	1906	2260
MEAN	23.9	70.8	37.1	40.6	34.2	61.5	25.6	18.9	19.8	31.4	61.5	75.3
MAX	38	113	69	101	50	120	33	34	35	56	88	157
MIN	16	21	28	25	26	24	21	12	15	18	31	20

CAL YR 1987 TOTAL 15005 MEAN 41.1 MAX 398 MIN 10
WTR YR 1988 TOTAL 15264 MEAN 41.7 MAX 157 MIN 12

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.--53 years, 287 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, 757 ft³/s, Sept. 9, gage height, 3.39 ft; minimum daily discharge, 186 ft³/s, May 9, 10; minimum gage height, 2.07 ft, Oct. 29-31, Nov. 1.

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	271	233	291	233	354	260	250	219	201	216	221	325
2	265	237	287	233	331	258	245	214	202	217	235	355
3	260	251	283	234	313	257	243	205	203	218	291	354
4	259	321	276	233	299	255	238	201	201	216	302	335
5	255	338	268	232	287	262	237	199	204	213	285	340
6	255	326	263	232	285	355	234	198	225	229	265	467
7	256	320	258	231	291	392	229	196	236	231	257	591
8	251	318	254	234	293	376	226	194	246	222	251	676
9	249	315	251	235	296	354	224	193	238	218	246	724
10	250	315	250	239	289	429	222	192	225	217	247	698
11	251	308	245	241	285	444	224	191	217	223	249	641
12	274	301	243	238	281	428	224	204	211	221	242	576
13	291	295	243	237	275	419	221	215	205	221	237	513
14	280	289	243	237	271	448	219	212	209	246	236	463
15	270	283	244	235	271	461	218	210	232	242	250	429
16	266	274	257	235	281	441	215	208	229	229	252	412
17	262	272	254	233	278	405	213	204	220	223	264	388
18	257	297	248	234	275	378	210	201	214	219	276	363
19	255	299	245	234	272	425	209	199	210	219	266	342
20	252	299	243	233	270	440	224	198	208	227	259	324
21	249	296	242	244	274	425	218	197	213	233	257	310
22	245	295	241	290	280	401	212	197	212	237	253	301
23	242	294	241	288	276	372	207	197	208	233	249	293
24	242	289	240	282	274	348	204	201	205	233	247	284
25	241	285	240	455	271	328	202	216	205	232	243	275
26	239	287	240	528	266	309	200	224	211	226	240	268
27	238	312	240	549	264	298	201	218	208	224	267	271
28	236	311	240	511	263	285	199	211	204	223	341	270
29	233	305	238	459	262	271	195	208	210	221	364	265
30	232	299	235	416	---	263	195	205	217	220	355	265
31	232	---	235	382	---	256	---	202	---	222	331	---
TOTAL	7858	8864	7778	9097	8227	11043	6558	6329	6429	6971	8278	12118
MEAN	253	295	251	293	284	356	219	204	214	225	267	404
MAX	291	338	291	549	354	461	250	224	246	246	364	724

CAL YR 1987 TOTAL 111777 MEAN 306 MAX 1220
WTR YR 1988 TOTAL 99550 MEAN 272 MAX 724

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02235192 TRACY CANAL NEAR PAISLEY, FL

LOCATION.--Lat 28°56'56", long 81°30'42", in SE¼ sec.4, T.18 S., R.28 E., Lake County, Hydrologic Unit 03080101, on left bank at downstream side of culverts on county road, 0.5 mi upstream from Lake Norris, 2.1 mi downstream from Lake Tracy, and 3.1 mi southeast of Paisley.

DRAINAGE AREA.--29.1 mi².

PERIOD OF RECORD.--August 1982 to current year (discharge measurements only).

REMARKS.--Discharge affected by backwater from Lake Norris.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 52 ft³/s, Oct. 1, 1985; no flow observed in some years.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
NOV 23...	0930	9.5	MAY 06...	1350	3.6
JAN 15...	1200	4.4	JUL 06...	1020	12
MAR 21...	0940	25	AUG 30...	1510	4.5

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.--5 years (water years 1968-69, 1986-88), 71.6 ft³/s, 7.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 749 ft³/s, Sept. 1, 1968, gage height, 9.93 ft; minimum recorded, 3.2 ft³/s, June 11,12, 1985, gage height, 4.53 ft, but may have been less during period of no gage-height record Apr. 10 to June 9, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft³/s, Sept. 11, gage height, 8.02 ft; minimum, 18.0 ft³/s, part or all of each day Oct. 30,31, Nov. 1-3, May 24, June 20, Aug. 9,10, minimum gage height, 5.24 ft, Oct. 31, Nov. 1,2.

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	26	18	38	30	89	74	88	32	29	39	20	39
2	26	18	37	30	88	72	83	32	26	43	21	49
3	26	20	36	30	87	70	79	31	23	42	26	55
4	25	29	35	29	85	68	75	29	22	40	24	60
5	24	29	34	29	83	70	71	27	21	37	23	71
6	23	28	34	28	83	96	66	26	32	40	22	115
7	22	28	34	28	85	110	62	25	39	41	21	146
8	21	27	34	28	86	112	58	24	53	38	20	175
9	20	27	33	29	86	110	54	23	53	36	19	224
10	20	27	33	30	84	139	52	22	49	33	19	243
11	20	26	33	31	82	154	55	21	43	32	30	247
12	25	26	33	30	81	160	52	24	36	30	31	241
13	28	26	32	29	78	166	49	34	31	28	30	230
14	27	26	32	29	75	172	46	30	28	29	29	216
15	26	25	33	29	75	169	43	27	27	29	30	202
16	26	25	35	28	84	162	40	24	25	28	30	188
17	26	27	34	28	85	155	38	23	23	26	31	173
18	25	42	34	28	83	149	37	25	21	26	34	160
19	24	40	33	28	81	158	36	25	20	25	33	149
20	24	41	33	27	79	158	36	24	19	23	32	140
21	23	39	33	30	83	152	35	23	28	23	32	129
22	22	38	33	34	86	146	34	21	28	22	32	120
23	22	37	33	33	85	141	33	20	27	22	31	112
24	22	36	33	33	85	135	33	22	25	22	30	103
25	21	36	33	79	84	129	32	46	26	23	29	96
26	21	38	33	99	82	123	32	46	30	22	28	89
27	20	45	33	106	80	118	31	53	32	21	30	83
28	19	42	32	102	78	111	29	53	30	24	32	78
29	19	41	32	96	76	105	28	46	35	23	32	74
30	18	39	31	92	---	99	28	38	37	22	32	71
31	18	---	31	90	---	93	---	33	---	21	34	---
TOTAL	709	946	1037	1372	2398	3876	1435	929	918	910	867	4078
MEAN	22.9	31.5	33.5	44.3	82.7	125	47.8	30.0	30.6	29.4	28.0	136
MAX	28	45	38	106	89	172	88	53	53	43	34	247
MIN	18	18	31	27	75	68	28	20	19	21	19	39
CFSM	.18	.25	.27	.35	.66	.99	.38	.24	.24	.23	.22	1.08
IN.	.21	.28	.31	.41	.71	1.14	.42	.27	.27	.27	.26	1.20

WTR YR 1988 TOTAL 19475 MEAN 53.2 MAX 247 MIN 18 CFSM .42 IN. 5.75

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.--445 measurements, 160 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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 24...	1640	169	1750	400	MAY 09...	1545	151	1750	390
JAN 19...	1120	139	1580	450	JUL 05...	1510	140	1700	380
MAR 22...	1610	119	2000	480	SEP 01...	1120	139	1670	430

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.--55 years, 3,090 ft³/s, 13.69 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, 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, 5,430 ft³/s, Jan. 31; maximum gage height, 2.24 ft, Nov. 7; minimum daily discharge, 288 ft³/s, Oct. 13; minimum gage height, -0.05 ft, July 25.

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	1770	2640	2680	5000	5340	3160	4090	1730	1530	1160	1270	3190
2	1930	2630	3040	4460	5160	2970	4040	1580	1330	1510	1500	2970
3	2040	2550	2970	3740	4920	3140	3990	2010	1610	1290	2060	3070
4	1650	2850	2850	4500	4940	3090	3990	2160	1350	990	1780	3440
5	1740	2700	2710	3920	4660	2990	3890	2290	1600	673	1860	3840
6	1940	2350	2730	3830	3780	3050	3840	2040	1110	822	1640	3900
7	1990	2470	2600	4000	4100	3140	3270	2230	1300	734	1890	3280
8	1790	3000	2540	3810	3970	3200	3540	2340	2040	994	2010	3420
9	1980	3470	2480	3770	4030	3380	3470	2160	2310	1440	2300	3790
10	1840	3970	2320	3880	4040	2920	3270	2070	2360	1790	1730	3800
11	1480	4010	2370	3830	3640	3180	3290	1750	1920	1950	1940	3700
12	1220	3990	4120	4080	3190	3480	3080	1600	2310	1800	1700	3800
13	288	4370	4040	4210	4270	3680	2830	1780	2150	1890	1280	3450
14	456	4500	2830	3980	4670	3430	3080	1570	1110	1850	1420	3240
15	499	4350	4680	3800	4710	3180	2970	1650	1280	2040	2150	3820
16	694	4360	5040	3900	4490	3530	2800	1670	1480	2410	2240	4040
17	886	4400	4530	4010	3910	3660	2790	1880	1570	2130	2080	3870
18	1440	4740	4230	4010	3540	3890	2930	2020	1470	1940	2200	3990
19	1910	4900	3990	4060	3490	3740	3200	2010	1520	1800	2620	3760
20	2220	4600	3140	4330	3620	3790	3160	2240	1330	1870	2310	4010
21	2340	4340	3030	4290	3340	4010	3000	2400	1170	1910	2680	3770
22	1870	4830	3340	3660	3450	4260	2900	2380	1390	2190	2700	3570
23	1930	4860	3300	3640	3580	4430	3090	2410	1500	1850	2400	3430
24	2160	4830	3820	3360	3590	4420	3250	2230	1510	2030	1980	3310
25	2120	4730	3890	3820	3290	4450	3340	2370	1290	1870	1750	3150
26	2070	4580	3630	4170	3330	4410	3230	1860	1170	2010	1770	3010
27	2320	3850	3140	4470	3530	4360	2490	959	927	1660	1820	2330
28	2160	2890	3640	4910	3470	4380	1850	1370	1250	1550	2420	2130
29	2150	2780	3190	5190	3400	4230	2130	1290	835	1520	2870	2060
30	2500	2570	2860	5390	---	4080	2380	1560	928	1590	3170	2020
31	2600	---	4350	5430	---	4020	---	1610	---	1540	3320	---
TOTAL	53983	113110	104080	129450	115450	113650	95180	59219	44650	50803	64860	101160
MEAN	1741	3770	3357	4176	3981	3666	3173	1910	1488	1639	2092	3372
MAX	2600	4900	5040	5430	5340	4450	4090	2410	2360	2410	3320	4040
MIN	288	2350	2320	3360	3190	2920	1850	959	835	673	1270	2020
CFSM	.57	1.23	1.10	1.36	1.30	1.20	1.03	.62	.49	.53	.68	1.10
IN.	.65	1.37	1.26	1.57	1.40	1.38	1.15	.72	.54	.62	.79	1.23

CAL YR 1987 TOTAL 939380 MEAN 2574 MAX 7870 MIN 135 CFSM .84 IN. 11.40
WTR YR 1988 TOTAL 1045595 MEAN 2857 MAX 5430 MIN 288 CFSM .93 IN. 12.69

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)

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

[illegible]

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 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 daily mean, 1,270 microsiemens, July 19, 1986; minimum daily mean, 407 microsiemens, June 7, 1986.

WATER TEMPERATURE: Maximum daily mean, 31.5°C, July 17, 1986; minimum daily mean 11.5°C, Jan. 29, 1986.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 1,150 microsiemens, Aug. 16, 20; minimum daily mean, 601 microsiemens, Feb. 8.

WATER TEMPERATURE: Maximum daily mean, 30.5°C, July 1.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	747	612	661	805	856	863	831	933	1020	1120
2	---	---	730	615	663	811	859	882	866	988	1020	1110
3	---	---	717	622	663	827	860	905	925	937	1020	1080
4	---	---	720	630	664	829	865	843	913	868	1010	1020
5	---	---	730	631	655	836	862	879	926	919	1030	1030
6	---	---	713	626	634	835	862	918	921	936	951	953
7	---	---	718	624	609	832	865	905	930	934	1000	931
8	---	---	721	625	601	826	837	878	960	955	1030	906
9	---	---	726	628	606	821	841	---	861	996	1040	841
10	---	---	691	625	680	812	829	867	896	853	1050	833
11	---	---	665	627	706	822	804	872	901	851	1040	850
12	---	---	667	626	703	768	822	879	894	966	1040	827
13	---	---	663	631	705	754	886	902	902	989	1090	834
14	---	---	658	638	698	803	819	892	927	1020	1110	854
15	---	---	649	644	707	810	807	866	940	963	1100	813
16	---	---	645	644	681	809	829	849	951	975	1150	745
17	---	---	640	640	703	805	816	826	938	979	1110	721
18	---	---	638	649	701	802	844	818	899	995	1110	737
19	---	---	631	650	707	775	835	845	909	992	1140	753
20	---	---	637	649	723	---	846	840	946	997	1150	743
21	---	---	627	648	734	---	871	851	944	1020	1140	742
22	---	---	620	649	743	---	859	832	934	987	1130	740
23	---	---	623	660	747	761	821	871	920	1010	1130	726
24	---	---	623	658	751	803	857	882	918	968	1120	732
25	---	832	632	646	757	810	849	901	923	1000	1130	745
26	---	859	626	635	764	814	873	863	910	1030	1120	756
27	---	835	619	628	762	816	884	887	951	1040	1130	751
28	---	820	622	644	769	822	897	888	974	1010	1130	759
29	---	813	623	652	731	831	912	873	969	1020	1120	761
30	---	761	622	651	---	840	874	977	970	1020	1100	729
31	---	---	611	653	---	854	---	876	---	1020	1080	---
MEAN	---	---	663	637	698	---	851	---	922	973	1080	838
MAX	---	---	747	660	769	---	912	---	974	1040	1150	1120
MIN	---	---	611	612	601	---	804	---	831	851	951	721

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)

TEMPERATURE, (DEG C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	24.1	24.3	26.7	30.5	30.0	30.0
2	---	---	---	---	---	---	23.8	23.9	27.3	29.8	29.5	29.4
3	---	---	---	---	---	---	23.5	23.6	27.7	29.3	29.0	29.3
4	---	---	---	---	---	---	23.6	---	27.8	29.5	29.0	29.5
5	---	---	---	---	---	---	24.1	---	27.7	29.6	28.5	29.1
6	---	---	---	---	---	---	24.5	---	27.7	29.2	28.5	29.0
7	---	---	---	---	---	---	24.2	---	27.8	28.7	29.0	28.7
8	---	---	---	---	---	---	23.4	---	27.5	28.3	29.0	28.5
9	---	---	---	---	---	---	22.6	---	27.5	27.9	29.5	28.7
10	---	---	---	---	---	---	22.6	24.7	28.1	28.4	30.0	28.5
11	---	---	---	---	---	---	22.7	25.3	28.0	29.1	30.3	28.7
12	---	---	---	---	---	---	22.2	25.4	26.9	29.9	30.0	29.2
13	---	---	---	---	---	---	21.6	25.9	26.6	30.2	30.0	29.0
14	---	---	---	---	---	---	21.2	25.9	26.9	30.0	29.0	29.0
15	---	---	---	---	---	---	21.3	26.4	26.5	29.6	29.0	29.2
16	---	---	---	---	---	---	21.7	26.6	27.2	29.9	28.8	29.3
17	---	---	---	---	---	---	22.2	27.0	27.5	30.3	28.5	29.4
18	---	---	---	---	---	---	22.5	27.3	27.9	30.1	28.5	29.5
19	---	---	---	---	---	---	22.9	28.1	28.4	30.1	30.2	29.5
20	---	---	---	---	---	---	23.2	28.4	28.9	30.1	30.3	29.5
21	---	---	---	---	---	---	23.7	28.5	28.7	30.1	30.3	29.7
22	---	---	---	---	---	---	24.7	28.9	28.4	30.1	30.2	29.9
23	---	---	---	---	---	18.5	25.4	29.0	29.0	29.8	30.2	29.6
24	---	---	---	---	---	19.6	25.9	29.0	29.9	29.2	30.4	29.5
25	---	20.5	---	---	---	20.6	26.0	27.4	30.3	29.0	30.0	29.4
26	---	21.0	---	---	---	21.6	26.4	26.8	30.4	29.1	29.0	29.0
27	---	21.6	---	---	---	22.5	26.8	25.8	30.3	29.6	28.5	28.4
28	---	22.3	---	---	---	22.8	27.1	26.3	30.0	29.7	29.6	28.2
29	---	22.7	---	---	---	23.4	26.6	26.9	29.2	30.0	30.0	27.8
30	---	21.9	---	---	---	23.5	25.6	26.5	30.1	30.4	30.4	27.2
31	---	---	---	---	---	23.7	---	26.4	---	---	30.4	---
MEAN	---	---	---	---	---	---	23.9	---	28.2	---	29.5	29.1
MAX	---	---	---	---	---	---	27.1	---	30.4	---	30.4	30.0
MIN	---	---	---	---	---	---	21.2	---	26.5	---	28.5	27.2

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 DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 13...	1343	1.90	4990	940	7.4	18.0	2.4	6.0	160	70
JAN 06...	1058	1.85	3890	583	7.3	15.0	1.7	7.6	50	120
FEB 29...	1505	1.23	3280	767	7.6	16.5	3.0	7.6	28	18
MAY 04...	1256	8.05	204	895	7.8	24.0	1.7	6.4	530	58
JUL 05...	1330	0.97	465	1060	7.3	29.0	0.80	7.3	230	e14
SEP 07...	1241	1.31	3550	821	7.5	26.0	2.5	3.4	220	e130

DATE	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)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 13...	46	19	130	6.2	59	71	240	0.10	7.5	622
JAN 06...	32	11	74	4.4	51	41	140	0.10	3.9	393
FEB 29...	41	15	100	4.3	61	60	190	0.20	1.9	484
MAY 04...	43	16	110	5.4	49	59	200	0.20	2.6	533
JUL 05...	49	18	110	4.6	93	66	210	0.40	5.3	--
SEP 07...	40	17	120	4.6	50	68	210	0.10	7.0	568

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 13...	0.020	0.180	0.120	0.150	1.8	0.070	0.060	0.050	17	76
JAN 06...	0.020	0.160	0.080	0.090	1.2	0.060	0.050	0.030	17	35
FEB 29...	0.010	<0.100	0.060	0.080	1.1	0.060	0.030	0.030	61	82
MAY 04...	<0.010	0.220	0.040	0.040	1.2	0.080	0.060	0.020	6	83
JUL 05...	0.010	0.200	0.070	0.060	1.9	0.190	0.100	0.080	6	67
SEP 07...	0.020	0.150	0.120	0.150	1.6	0.170	0.120	0.100	13	92

e Estimated

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 1987 TO SEPTEMBER 1988

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
FEB 29...	30	<1	20	<0.5	4	1	<3	3	160	<5
MAY 04...	20	<1	20	<0.5	<1	1	<3	2	91	<5
JUL 05...	<10	<1	23	<0.5	1	2	<3	1	28	<5
SEP 07...	40	<1	22	<0.5	<1	1	<3	1	150	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB 29...	<4	5	<0.1	<10	6	<1	1.0	850	<6	14
MAY 04...	9	4	<0.1	<10	4	<1	<1.0	920	<6	10
JUL 05...	7	2	<0.1	<10	<1	<1	<1.0	950	<6	10
SEP 07...	<4	11	<0.1	<10	<1	<1	<1.0	890	<6	8

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 mi², revised.

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 current year (annual peak discharge and periodic discharge measurements only).

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

GAGE.--Nonrecording gage and crest-stage 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.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
NOV			MAY		
19...	1230	25	06...	1420	1.6
JAN			JUL		
14...	1455	18	01...	1355	.09
MAR			SEP		
18...	1250	81	02...	1345	.90

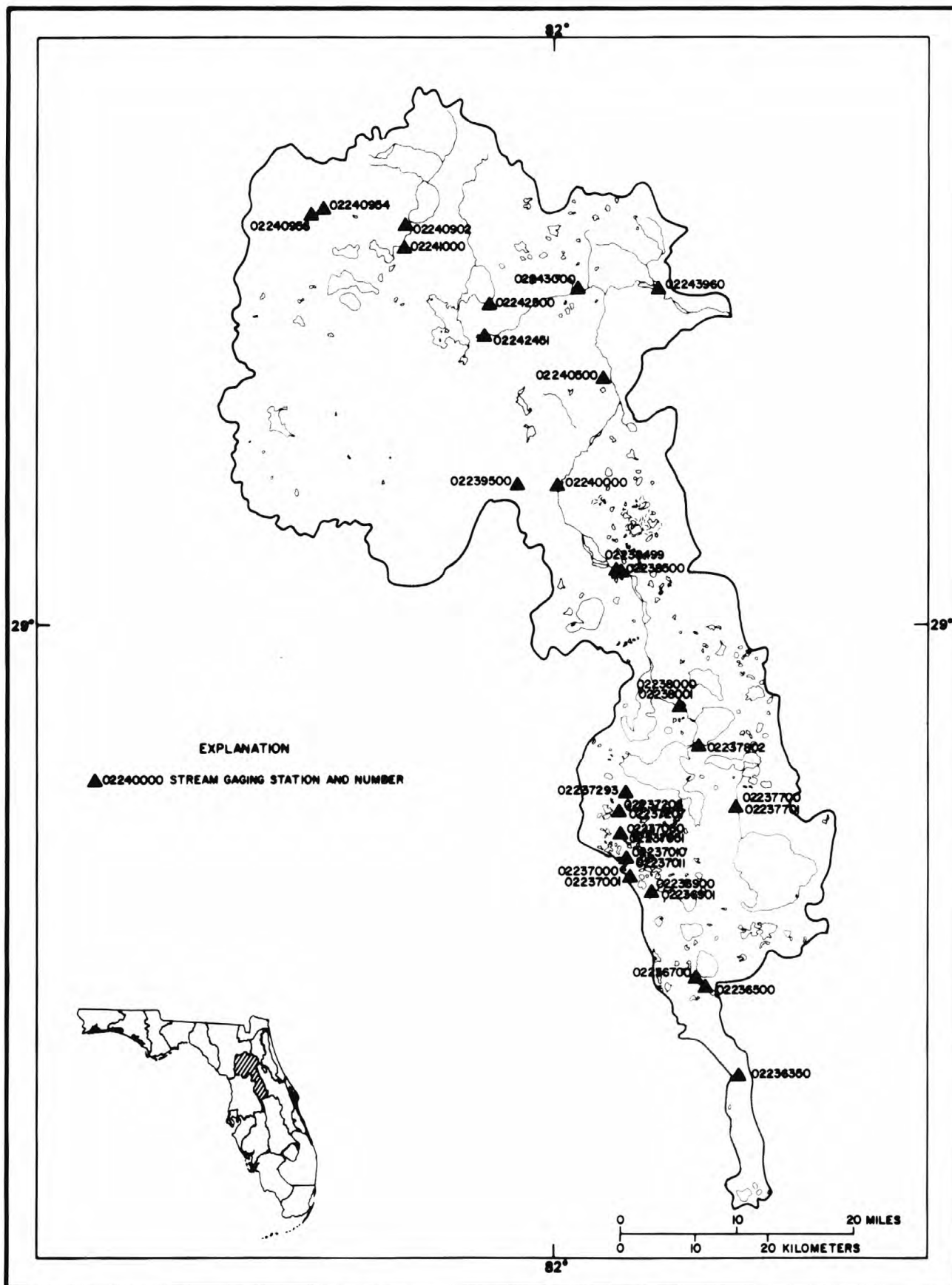


Figure 16.--Location of stream gaging stations in the Oklawaha River basin.

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.--9 years, 11.2 ft³/s, 3.54 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 63 ft³/s, Mar. 19, gage height, 5.06 ft; no flow for many days; minimum gage height, 1.90 ft, July 14.

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	.01	.00	.35	2.1	3.7	1.3	26	1.0	.00	.00	.00	.00
2	.01	.00	1.6	1.9	3.6	1.1	24	.89	.00	.00	.00	.00
3	.01	.01	5.9	1.8	3.5	.98	21	.74	.00	.00	.00	.00
4	.00	.15	7.2	1.7	3.3	.88	20	.63	.00	.00	.00	.00
5	.00	.24	7.4	1.6	3.1	1.2	17	.53	.00	.00	.00	.01
6	.00	.22	7.2	1.4	3.1	3.3	15	.43	.00	.00	.00	.22
7	.00	.18	7.0	1.3	3.1	3.5	14	.33	.00	.00	.00	.42
8	.00	.13	6.8	1.2	3.4	3.4	12	.24	.00	.00	.00	1.4
9	.00	.10	6.6	1.2	3.4	3.2	10	.16	.01	.00	.00	3.1
10	.00	.08	6.5	1.5	3.2	6.0	9.0	.11	.00	.00	.00	4.2
11	.00	.06	6.3	1.4	3.1	6.6	8.3	.07	.00	.00	.00	4.1
12	.01	.03	5.9	1.3	2.8	6.6	7.2	.04	.00	.00	.00	3.6
13	.01	.02	5.6	1.2	2.3	15	6.6	.03	.00	.00	.00	3.1
14	.01	.01	5.3	1.1	2.2	23	5.7	.02	.00	.00	.00	2.6
15	.01	.01	5.3	.98	2.3	25	5.0	.01	.00	.00	.00	2.1
16	.01	.01	5.8	.92	2.8	26	4.0	.01	.00	.00	.00	1.8
17	.01	.02	5.4	.87	2.7	25	3.3	.01	.00	.00	.00	1.4
18	.01	.24	5.1	.81	2.6	31	2.7	.01	.00	.00	.00	1.1
19	.00	.36	4.8	.69	2.5	62	2.2	.01	.00	.00	.00	.71
20	.00	.43	4.6	.65	2.4	61	2.0	.01	.00	.00	.00	.41
21	.00	.34	4.4	.98	2.5	58	1.8	.01	.00	.00	.00	.32
22	.00	.32	4.1	1.4	2.5	55	1.6	.01	.00	.00	.00	.78
23	.00	.31	3.8	1.3	2.4	52	1.3	.01	.00	.00	.00	.54
24	.00	.30	3.6	1.2	2.2	49	1.2	.01	.00	.00	.00	.30
25	.00	.31	3.4	2.8	2.1	45	1.0	.02	.00	.00	.00	.16
26	.00	.34	3.2	3.6	1.9	42	.89	.02	.00	.00	.00	.09
27	.00	.60	3.0	3.3	1.7	39	.77	.02	.00	.00	.00	.06
28	.00	.42	2.9	3.9	1.6	36	.65	.01	.00	.00	.00	.04
29	.00	.37	2.7	4.0	1.4	33	.54	.01	.00	.00	.00	.03
30	.00	.36	2.4	3.9	---	30	.59	.01	.00	.00	.00	.01
31	.00	---	2.2	3.8	---	28	---	.00	---	.00	.00	---
TOTAL	0.10	5.97	146.35	55.80	77.4	773.06	225.34	5.41	0.01	0.00	0.00	32.60
MEAN	.003	.20	4.72	1.80	2.67	24.9	7.51	.17	.000	.00	.00	1.09
MAX	.01	.60	7.4	4.0	3.7	62	26	1.0	.01	.00	.00	4.2
MIN	.00	.00	.35	.65	1.4	.88	.54	.00	.00	.00	.00	.00
CFSM	.00	.00	.11	.04	.06	.58	.17	.00	.00	.00	.00	.03
IN.	.00	.01	.13	.05	.07	.67	.19	.00	.00	.00	.00	.03

CAL YR 1987 TOTAL 2173.41 MEAN 5.95 MAX 109 MIN .00 CFSM .14 IN. 1.88
WTR YR 1988 TOTAL 1322.04 MEAN 3.61 MAX 62 MIN .00 CFSM .08 IN. 1.14

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.

WATER-DISCHARGE RECORDS

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.--30 years (water years 1959-88), 25.9 ft³/s, 5.17 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, 116 ft³/s, Nov. 4, gage height, 4.68 ft; maximum gage height, 4.69 ft, Mar. 13; minimum, 0.13 ft³/s, June 5; gage height, 0.95 ft.

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	7.7	1.2	24	6.0	28	9.2	32	7.2	.44	.83	11	11
2	6.7	1.6	22	5.7	26	8.6	30	7.4	.33	.65	9.0	11
3	5.8	14	21	5.5	25	8.1	28	6.8	.24	.49	7.9	9.2
4	4.8	92	19	5.3	23	7.7	26	6.1	.18	.36	9.9	7.9
5	4.1	89	13	4.9	21	8.7	24	5.3	.30	.28	9.9	9.5
6	3.5	82	16	4.5	21	21	23	4.6	2.7	.39	8.8	30
7	3.0	71	16	4.5	20	23	21	3.9	2.5	.35	9.1	50
8	2.6	62	15	6.1	21	23	19	3.3	5.9	.26	11	55
9	2.2	55	14	6.7	21	23	17	2.9	5.5	.24	12	52
10	2.0	48	15	7.9	20	34	16	2.5	4.8	.55	11	50
11	1.9	42	15	8.1	19	34	16	2.2	4.8	.92	10	47
12	5.0	36	14	8.0	18	32	15	1.9	3.9	.81	9.2	44
13	7.6	32	13	7.8	17	69	16	1.7	3.0	.64	8.3	40
14	6.9	28	12	7.5	15	102	16	1.5	2.5	.83	7.5	36
15	6.2	26	12	7.1	15	99	17	1.3	2.1	1.3	8.1	32
16	5.5	23	13	6.7	16	93	17	1.0	1.6	1.1	8.4	29
17	4.8	23	12	6.5	16	87	16	.88	1.3	1.1	7.7	25
18	4.3	32	11	6.3	15	84	16	.74	.99	4.2	7.0	23
19	3.8	34	11	6.0	15	99	15	.60	.77	5.2	6.3	20
20	3.4	36	10	5.8	14	93	14	.48	.66	6.0	5.9	18
21	3.1	35	10	8.5	15	86	13	.38	.81	11	6.8	16
22	2.6	32	9.6	13	14	79	11	.33	.94	17	6.9	14
23	2.3	28	9.3	12	14	73	10	.26	1.4	18	6.0	12
24	2.0	26	10	11	14	67	9.0	.22	.93	22	5.2	10
25	1.8	24	9.9	33	13	61	8.0	.85	.88	24	4.7	8.9
26	1.7	23	9.3	40	12	56	7.3	1.1	1.9	23	7.1	7.7
27	1.6	28	8.8	39	11	52	6.5	1.5	1.7	21	15	6.9
28	1.4	29	8.2	36	11	47	5.6	1.3	1.7	20	17	6.0
29	1.2	28	7.7	33	9.8	42	4.8	1.0	1.4	18	14	5.2
30	1.0	26	6.8	32	---	39	4.7	.77	1.1	16	12	4.8
31	.91	---	6.3	30	---	36	---	.59	---	13	10	---
TOTAL	111.41	1106.8	398.9	414.4	499.8	1596.3	473.9	70.60	57.27	229.50	282.7	691.1
MEAN	3.59	36.9	12.9	13.4	17.2	51.5	15.8	2.28	1.91	7.40	9.12	23.0
MAX	7.7	92	24	40	28	102	32	7.4	5.9	24	17	55
MIN	.91	1.2	6.3	4.5	9.8	7.7	4.7	.22	.18	.24	4.7	4.8
CFSM	.05	.54	.19	.20	.25	.76	.23	.03	.03	.11	.13	.34
IN.	.06	.61	.22	.23	.27	.87	.26	.04	.03	.13	.15	.38

CAL YR 1987 TOTAL 6045.96 MEAN 16.6 MAX 189 MIN .38 CFSM .24 IN. 3.31
WTR YR 1988 TOTAL 5932.68 MEAN 16.2 MAX 102 MIN .18 CFSM .24 IN. 3.25

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02236500 BIG CREEK NEAR CLERMONT, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1958-61, 1963, 1966-77, 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1982 to current year.

WATER TEMPERATURE: January 1982 to current year.

DISSOLVED OXYGEN: January 1982 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1982. Digital recorder set for 60-minute interval.

REMARKS.--No minimum water temperature reported due to missing record. Water quality daily records prior to October 1984 are unpublished and available in files of the Orlando Subdistrict Office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 225 microsiemens, Jan. 6,7, 1982; minimum daily mean, 42 microsiemens, Sept. 26,27, 1984.

WATER TEMPERATURE: Maximum daily mean, 28.5°C, July 10, Aug. 8,9, 1987; minimum daily mean, 5.5°C, Jan. 22, 1985.

DISSOLVED OXYGEN: Maximum daily mean, 8.9 mg/L, Jan. 9, 1985; minimum daily mean, 1.6 mg/L, May 23, 1982, July 12, 1985.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 115 microsiemens, Oct. 10; minimum daily mean, 75 microsiemens, Nov. 4.

WATER TEMPERATURE: Maximum daily mean, 27.3°C, Sept. 16.

DISSOLVED OXYGEN: Maximum daily mean, 8.1 mg/L, Oct. 15; minimum daily mean, 3.3 mg/L, May 24.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	108	---	---	---	98	93	97	98	97	99	101
2	111	113	---	---	---	98	94	96	98	93	99	100
3	111	108	---	---	---	98	94	96	97	92	99	101
4	112	75	---	---	---	98	94	96	96	90	96	102
5	113	87	98	---	---	97	94	97	94	88	102	99
6	113	91	98	---	---	93	94	98	93	86	99	88
7	114	94	99	---	---	93	94	98	101	87	97	86
8	114	97	99	---	---	96	95	98	101	88	94	89
9	114	---	102	---	---	96	95	98	92	87	94	91
10	115	---	102	---	---	93	95	98	94	87	95	91
11	114	---	102	---	---	94	95	98	95	97	96	92
12	113	---	102	---	---	96	96	98	94	104	97	92
13	110	---	101	---	---	84	96	100	95	98	97	92
14	107	---	101	---	---	82	96	99	94	91	97	92
15	109	---	100	---	---	87	96	99	95	91	98	93
16	111	---	100	---	---	89	96	97	96	96	96	94
17	111	---	100	---	---	90	96	97	96	95	96	94
18	111	---	100	---	---	90	96	97	95	98	97	94
19	112	---	99	---	100	88	96	97	95	97	98	94
20	112	---	98	---	100	88	96	97	94	97	98	94
21	112	---	98	---	99	89	96	96	94	97	98	94
22	112	---	98	---	99	90	96	96	93	94	98	94
23	112	---	97	---	99	90	96	94	93	96	98	94
24	111	---	98	---	99	90	96	93	96	97	98	94
25	111	---	97	---	99	90	97	94	95	96	99	94
26	111	---	96	---	98	91	97	101	98	100	95	94
27	110	---	96	---	99	92	98	106	102	99	96	95
28	109	---	---	---	99	92	98	101	99	98	100	95
29	108	---	---	---	98	92	---	99	98	98	99	94
30	107	---	---	---	---	92	97	99	98	98	101	94
31	106	---	---	---	---	93	---	99	---	98	102	---
MEAN	111	---	---	---	---	92	---	98	96	95	98	94
MAX	115	---	---	---	---	98	---	106	102	104	102	102
MIN	106	---	---	---	---	82	---	93	92	86	94	86

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02236500 BIG CREEK NEAR CLERMONT, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.6	20.3	---	---	---	16.7	21.4	19.3	23.3	26.1	26.8	26.2
2	23.8	21.1	---	---	---	17.1	21.1	19.7	23.2	25.8	26.4	26.4
3	23.2	21.7	---	---	---	18.2	21.4	19.9	23.4	25.2	26.1	26.7
4	22.1	21.9	---	---	---	19.3	22.1	20.3	23.4	25.3	26.3	26.8
5	21.4	22.6	---	---	---	18.7	22.6	21.0	23.7	25.2	26.7	25.8
6	21.1	21.5	---	---	---	17.5	22.1	20.1	23.4	24.6	26.6	24.4
7	21.1	20.1	---	---	---	17.8	20.7	20.1	23.5	24.4	26.6	24.3
8	19.8	20.2	18.7	---	---	18.7	19.3	20.3	23.9	24.3	26.3	24.6
9	19.9	---	18.6	---	---	19.9	19.0	20.4	24.5	25.0	26.2	25.1
10	21.3	---	19.5	---	---	19.4	19.7	21.0	24.5	25.1	26.2	26.2
11	22.5	---	19.8	---	---	17.4	19.7	21.5	24.2	25.3	26.1	26.6
12	22.3	---	19.9	---	---	18.3	18.5	21.8	23.6	26.3	26.0	26.8
13	21.1	---	19.8	---	---	19.1	17.1	21.9	23.0	26.6	25.9	26.8
14	19.5	---	18.7	---	---	19.1	17.6	22.6	23.1	25.7	25.8	26.8
15	19.2	---	14.6	---	---	16.1	18.6	22.8	23.6	25.3	25.5	27.1
16	20.1	---	14.7	---	---	14.6	18.9	22.8	24.2	25.8	25.6	27.3
17	21.1	---	15.6	---	---	14.6	19.7	23.4	24.4	26.1	25.4	27.2
18	22.0	---	16.6	---	---	15.3	20.7	23.3	24.4	25.1	25.6	26.8
19	22.5	---	17.6	---	17.8	16.2	21.3	23.3	24.5	25.2	26.2	26.3
20	23.2	---	17.3	---	19.6	15.6	20.9	23.7	24.8	25.4	26.2	26.3
21	23.3	---	15.1	---	17.5	15.6	21.3	23.2	24.6	25.0	26.0	26.3
22	20.9	---	13.1	---	14.9	16.5	21.4	24.0	25.0	25.0	26.3	26.0
23	20.1	---	14.0	---	15.3	17.9	22.2	23.5	25.1	25.3	26.8	26.1
24	20.8	---	16.6	---	16.6	19.0	23.5	23.8	26.1	24.5	26.7	25.6
25	21.4	---	16.2	---	15.6	20.2	24.0	22.3	25.9	24.8	26.6	25.5
26	21.2	---	13.9	---	13.8	21.2	23.9	22.2	25.3	25.2	25.8	25.3
27	21.2	---	13.0	---	13.1	21.6	24.4	22.1	25.3	25.8	25.3	25.2
28	20.4	---	---	---	14.9	21.8	23.1	22.6	25.5	25.7	25.6	25.1
29	18.5	---	---	---	15.3	21.4	---	22.6	26.0	26.1	26.2	24.5
30	18.3	---	---	---	---	21.6	19.5	22.4	26.3	26.9	26.6	24.8
31	19.0	---	---	---	---	21.8	---	23.0	---	27.0	26.6	---
MEAN	21.2	---	---	---	---	18.3	---	22.0	24.4	25.5	26.2	26.0
MAX	24.6	---	---	---	---	21.8	---	24.0	26.3	27.0	26.8	27.3
MIN	18.3	---	---	---	---	14.6	---	19.3	23.0	24.3	25.3	24.3

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02236500 BIG CREEK NEAR CLERMONT, FL--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	7.1	---	---	---	6.3	4.4	4.9	4.2	4.1	4.6	4.4
2	6.6	7.2	---	---	---	6.2	4.5	5.0	4.1	4.2	4.7	4.6
3	6.7	7.7	---	---	---	6.0	4.5	5.0	4.0	4.2	4.8	4.6
4	7.0	7.0	---	---	---	5.4	4.4	5.1	3.9	4.0	4.8	4.4
5	7.2	5.4	5.7	---	---	5.2	4.4	4.9	4.3	4.0	4.9	5.3
6	7.3	5.2	5.9	---	---	5.4	4.5	5.0	4.6	4.0	5.2	4.3
7	7.3	5.3	5.2	---	---	5.4	4.7	5.2	4.6	4.9	4.8	4.3
8	7.6	5.5	5.0	---	---	5.3	5.0	5.2	5.0	5.0	4.5	4.2
9	7.8	---	5.1	---	---	5.0	5.2	5.2	4.9	4.5	4.5	4.3
10	7.2	---	4.9	---	---	5.0	5.1	5.0	4.9	4.3	4.7	4.4
11	6.7	---	4.8	---	---	5.1	5.1	4.9	5.0	5.5	5.0	4.1
12	7.0	---	4.8	---	---	5.2	5.4	4.7	5.1	5.4	4.6	4.2
13	7.3	---	4.8	---	---	5.3	5.7	4.6	5.3	4.5	4.5	4.2
14	7.9	---	4.9	---	---	4.8	5.8	4.5	5.1	4.6	4.6	4.2
15	8.1	---	5.7	---	---	4.9	5.8	4.4	5.0	5.3	4.4	4.1
16	7.9	---	6.0	---	---	5.2	5.7	4.3	4.8	5.2	4.7	4.5
17	7.6	---	5.8	---	---	5.3	5.5	4.1	4.6	4.9	4.6	4.5
18	7.3	---	5.7	---	---	5.2	5.3	4.1	4.6	5.8	4.3	4.2
19	7.1	---	5.4	---	6.0	5.3	5.1	4.0	4.5	5.8	4.4	4.3
20	6.9	---	5.3	---	5.4	5.3	5.1	3.7	4.2	5.7	4.7	4.4
21	6.8	---	5.8	---	5.5	5.3	5.2	3.6	4.2	5.6	4.6	4.4
22	7.3	---	6.4	---	6.3	5.3	5.2	3.4	4.2	5.3	4.2	4.5
23	7.7	---	6.5	---	6.3	5.2	5.1	3.4	4.1	5.1	4.3	4.5
24	7.6	---	5.9	---	6.1	5.0	4.9	3.3	3.9	5.0	4.3	4.5
25	7.2	---	5.6	---	6.1	4.8	4.7	4.0	4.0	4.8	4.3	4.7
26	7.2	---	6.0	---	6.6	4.5	4.9	4.4	5.2	4.7	4.6	5.8
27	7.1	---	6.4	---	6.9	4.4	4.9	4.7	4.4	4.6	4.7	5.8
28	7.2	---	---	---	6.6	4.3	5.1	4.8	4.7	4.6	4.1	5.8
29	7.6	---	---	---	6.5	4.4	---	4.8	4.7	4.6	4.3	5.0
30	7.9	---	---	---	---	4.4	5.1	4.7	4.4	4.5	4.3	4.5
31	7.6	---	---	---	---	4.3	---	4.5	---	4.5	4.5	---
MEAN	7.3	---	---	---	---	5.1	---	4.5	4.5	4.8	4.6	4.6
MAX	8.1	---	---	---	---	6.3	---	5.2	5.3	5.8	5.2	5.8
MIN	6.3	---	---	---	---	4.3	---	3.3	3.9	4.0	4.1	4.1

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.--Estimated daily discharges: May 21 to June 2. Records poor. Some interconnection at high stages with Big Creek is possible.

AVERAGE DISCHARGE.--9 years, 15.8 ft³/s, 14.60 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, 130 ft³/s, Mar. 19, gage height, 8.77 ft; no flow for many days; minimum gage height, 6.64 ft, Oct. 31.

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	.53	.00	24	5.8	50	13	59	5.1	.01	.19	.95	1.8
2	.41	.00	22	5.5	45	12	54	4.9	.00	.10	.71	1.9
3	.25	.29	21	5.5	41	10	50	4.0	.00	.05	.59	1.8
4	.14	60	19	5.3	38	9.7	46	3.3	.00	.00	.53	1.8
5	.05	80	16	5.1	34	13	43	2.8	.19	.00	.48	2.7
6	.00	62	15	4.5	33	40	40	2.4	1.2	.00	.37	14
7	.00	50	14	4.9	31	47	35	2.2	2.4	.00	.56	38
8	.00	42	14	5.8	34	47	33	1.8	3.7	.00	.82	50
9	.00	36	13	6.0	34	46	30	1.6	2.2	.00	.75	56
10	.00	31	13	6.9	33	57	27	1.2	2.0	.00	.62	58
11	.00	25	11	6.9	33	61	24	1.1	1.5	.00	.56	56
12	.20	19	10	6.7	31	62	22	.90	.95	.00	.61	51
13	1.2	15	9.7	6.7	31	85	20	.86	.75	.00	.65	44
14	1.1	13	8.8	6.9	28	117	17	.82	.68	.00	.53	38
15	.90	10	8.8	6.9	28	127	15	.78	.48	.02	.48	32
16	.75	9.1	10	7.3	31	128	14	.68	.33	.00	.48	27
17	.56	8.8	9.4	7.3	28	121	12	.62	.20	.00	.51	21
18	.41	24	9.1	6.9	28	118	10	.53	.08	.19	.59	17
19	.31	31	9.1	6.7	24	128	8.8	.48	.02	.16	.59	15
20	.20	38	8.8	6.5	22	124	8.3	.41	.13	.20	.56	12
21	.11	36	8.8	8.8	28	119	8.1	.32	.25	1.2	.53	10
22	.00	33	8.6	15	27	113	7.3	.26	.75	4.4	.56	9.4
23	.00	28	8.6	15	24	108	6.5	.21	.56	4.7	.51	11
24	.00	25	8.6	14	24	101	5.8	.17	.46	4.5	.53	11
25	.00	24	8.3	54	22	95	5.5	.43	.90	3.2	.51	9.1
26	.00	22	7.8	74	21	90	4.9	.58	.75	2.3	.61	8.1
27	.00	27	7.6	76	18	84	4.4	.33	.62	1.6	2.0	7.6
28	.00	28	7.3	76	16	80	3.9	.19	.48	1.9	2.9	6.9
29	.00	28	6.7	71	14	74	3.3	.11	.39	2.0	2.4	6.2
30	.00	25	6.2	62	---	69	2.8	.06	.23	2.0	2.0	5.6
31	.00	---	6.0	56	---	64	---	.03	---	1.6	1.8	---
TOTAL	7.12	830.19	350.2	645.9	851	2362.7	620.6	39.17	22.21	30.31	26.29	623.9
MEAN	.23	27.7	11.3	20.8	29.3	76.2	20.7	1.26	.74	.98	.85	20.8
MAX	1.2	80	24	76	50	128	59	5.1	3.7	4.7	2.9	58
MIN	.00	.00	6.0	4.5	14	9.7	2.8	.03	.00	.00	.37	1.8
CFSM	.02	1.88	.77	1.42	2.00	5.18	1.41	.09	.05	.07	.06	1.41
IN.	.02	2.10	.89	1.63	2.15	5.98	1.57	.10	.06	.08	.07	1.58

CAL YR 1987 TOTAL 5922.18 MEAN 16.2 MAX 177 MIN .00 CFSM 1.10 IN. 14.99
WTR YR 1988 TOTAL 6409.59 MEAN 17.5 MAX 128 MIN .00 CFSM 1.19 IN. 16.22

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02236900 PALATLAHA 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.--Estimated daily discharges: May 27 to June 2. 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.--31 years (water years 1958-88), 37.4 ft³/s, 3.08 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, 426 ft³/s, Mar. 16; maximum gage height, 96.94 ft, Mar. 14; minimum daily discharge 1.5 ft³/s, Oct. 31, Nov. 1; minimum gage height, 95.32 ft, Oct. 31, Nov. 1,2.

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	2.6	1.5	3.4	3.2	3.7	3.8	128	3.8	3.2	3.4	3.4	3.8
2	2.5	1.6	3.4	3.3	3.7	3.8	3.1	3.8	3.1	3.4	3.4	3.8
3	2.5	2.1	3.4	3.2	3.7	3.8	3.5	3.8	3.1	3.4	3.4	3.8
4	2.4	2.7	3.4	3.2	3.8	3.8	3.8	3.8	3.1	3.4	3.4	3.7
5	2.4	2.8	3.4	3.2	3.8	3.9	3.9	3.7	3.1	3.3	3.5	3.9
6	2.3	2.9	3.4	3.2	3.7	4.0	4.0	3.7	3.3	3.3	3.6	13
7	2.3	3.0	3.4	3.2	3.7	4.0	4.0	3.7	3.4	3.2	3.6	23
8	2.2	3.0	3.4	3.2	3.8	4.0	4.0	3.6	3.4	3.2	3.5	112
9	2.2	3.0	3.4	3.2	3.8	4.1	4.0	3.6	3.4	3.2	3.5	183
10	2.1	3.0	3.4	3.2	3.8	4.2	4.0	3.6	3.4	3.2	3.5	179
11	2.1	3.0	3.4	3.2	3.8	4.2	4.0	3.6	3.4	3.1	3.5	178
12	2.2	3.0	3.4	3.2	3.8	4.2	4.0	3.6	3.3	3.1	3.5	178
13	2.3	3.0	3.4	3.2	3.8	9.4	3.9	3.6	3.3	3.1	3.5	184
14	2.2	3.0	3.4	3.2	3.8	75	3.9	3.5	3.3	3.1	3.5	187
15	2.2	3.1	3.4	3.2	3.8	135	3.9	3.5	3.3	3.3	3.5	184
16	2.2	3.1	3.4	3.2	3.8	426	3.9	3.5	3.3	3.3	3.5	278
17	2.2	3.2	3.4	3.2	3.8	379	3.9	3.5	3.2	3.3	3.6	295
18	2.2	3.3	3.3	3.2	3.8	315	3.9	3.5	3.2	3.3	3.6	262
19	2.2	3.3	3.3	3.2	3.9	302	3.9	3.4	3.2	3.2	3.6	250
20	2.2	3.3	3.3	3.2	3.9	297	4.0	3.4	3.2	3.3	3.5	157
21	2.2	3.3	3.3	3.2	3.9	288	3.9	3.4	3.3	3.3	3.5	3.0
22	2.1	3.3	3.3	3.3	3.9	284	3.9	3.3	3.3	3.3	3.5	3.4
23	2.0	3.3	3.3	3.3	3.9	280	3.9	3.3	3.4	3.3	3.5	3.6
24	2.0	3.3	3.4	3.3	3.9	270	3.9	3.3	3.4	3.3	3.5	3.7
25	1.9	3.3	3.4	3.6	3.8	273	3.9	3.4	3.5	3.3	3.5	3.8
26	1.9	3.3	3.4	3.6	3.8	274	3.8	3.4	3.5	3.3	3.5	3.8
27	1.8	3.4	3.4	3.6	3.8	276	3.8	3.4	3.5	3.3	3.6	3.9
28	1.8	3.4	3.3	3.6	3.8	273	3.8	3.4	3.5	3.4	3.8	3.8
29	1.7	3.4	3.3	3.6	3.8	260	3.8	3.3	3.5	3.5	3.8	3.8
30	1.6	3.4	3.3	3.7	---	257	3.8	3.3	3.5	3.5	3.8	3.8
31	1.5	---	3.2	3.7	---	253	---	3.2	---	3.5	3.8	---
TOTAL	66.0	90.3	104.3	102.6	110.3	4974.2	240.1	108.9	99.6	102.1	109.9	2718.6
MEAN	2.13	3.01	3.36	3.31	3.80	160	8.00	3.51	3.32	3.29	3.55	90.6
MAX	2.6	3.4	3.4	3.7	3.9	426	128	3.8	3.5	3.5	3.8	295
MIN	1.5	1.5	3.2	3.2	3.7	3.8	3.1	3.2	3.1	3.1	3.4	3.0
CFSM	.01	.02	.02	.02	.02	.97	.05	.02	.02	.02	.02	.55

CAL YR 1987 TOTAL 5061.0 MEAN 13.9 MAX 262 MIN 1.5 CFSM .08
WTR YR 1988 TOTAL 8826.9 MEAN 24.1 MAX 426 MIN 1.5 CFSM .15

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02236901 PALATLAKAHA RIVER BELOW SPILLWAY AT CHERRY LAKE OUTLET, NEAR GROVELAND, FL

LOCATION.--Lat 28°35'32", long 81°49'22", in NE¼ sec.8, T.22 S., R.25 E., Lake County, Hydrologic Unit 03080102, near left bank 20 ft downstream from spillway at outlet of Cherry Lake, and 3 mi northeast of Groveland.

DRAINAGE AREA.--165 mi².

PERIOD OF RECORD.--September 1956 to July 1957 (fragmentary), August 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 1968, published as Palatlahaha Creek at Cherry Lake Outlet, near Groveland (auxiliary).

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). Prior to Aug. 20, 1957, nonrecording gage at same site and datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 97.73 ft, Apr. 5, 1960; minimum, 90.65 ft, June 1, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 95.74 ft, Mar. 18,19; minimum, 93.68 ft, Oct. 31, Nov. 1,2.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93.97	93.68	94.29	94.24	94.60	94.70	95.10	94.39	---	94.59	94.65	94.90
2	93.94	93.68	94.28	94.24	94.60	94.68	94.70	94.39	---	94.57	94.64	94.89
3	93.93	93.84	94.28	94.23	94.60	94.68	94.57	94.38	94.14	94.56	94.64	94.85
4	93.91	94.22	94.29	94.23	94.61	94.67	94.55	94.37	94.12	94.54	94.62	94.81
5	93.88	94.22	94.27	94.23	94.61	94.70	94.54	94.36	94.11	94.52	94.65	94.92
6	93.87	94.22	94.26	94.22	94.62	94.84	94.54	94.34	94.26	94.50	94.81	95.21
7	93.86	94.21	94.25	94.21	94.63	94.85	94.53	94.32	94.31	94.49	94.89	95.25
8	93.84	94.20	94.25	94.21	94.64	94.85	94.50	94.29	94.38	94.47	94.92	95.30
9	93.81	94.20	94.25	94.21	94.66	94.88	94.48	94.28	94.37	94.46	94.91	95.43
10	93.79	94.20	94.25	94.22	94.66	95.01	94.47	94.27	94.36	94.45	94.90	95.43
11	93.79	94.20	94.25	94.22	94.66	95.00	94.48	94.26	94.35	94.45	94.90	95.41
12	93.87	94.19	94.26	94.22	94.69	94.99	94.49	94.24	94.32	94.44	94.89	95.36
13	93.90	94.18	94.26	94.22	94.68	95.05	94.46	94.24	94.30	94.42	94.88	95.33
14	93.89	94.18	94.25	94.23	94.68	95.17	94.45	94.23	94.30	94.46	94.87	95.32
15	93.88	94.17	94.26	94.24	94.68	95.24	94.44	94.23	94.31	94.50	94.88	95.30
16	93.87	94.16	94.29	94.23	94.69	95.40	94.43	94.22	94.30	94.48	94.90	95.36
17	93.86	94.19	94.28	94.22	94.69	95.66	94.42	94.20	94.30	94.50	94.92	95.53
18	93.85	94.27	94.27	94.22	94.69	95.66	94.40	94.19	94.28	94.52	94.93	95.49
19	93.84	94.28	94.27	94.22	94.70	95.72	94.42	94.18	94.25	94.51	94.92	95.44
20	93.83	94.30	94.26	94.23	94.70	95.67	94.46	94.16	94.26	94.52	94.92	95.34
21	93.83	94.29	94.26	94.26	94.72	95.63	94.45	94.14	94.38	94.54	94.92	94.93
22	93.80	94.28	94.26	94.30	94.72	95.59	94.44	94.12	94.40	94.59	94.92	94.77
23	93.78	94.27	94.26	94.30	94.73	95.55	94.43	94.10	94.45	94.64	94.94	94.72
24	93.77	94.26	94.26	94.31	94.73	95.52	94.42	94.09	94.45	94.66	94.98	94.71
25	93.76	94.26	94.26	94.53	94.73	95.48	94.40	---	94.47	94.67	94.98	94.71
26	93.76	94.27	94.26	94.58	94.72	95.44	94.39	---	94.56	94.67	94.98	94.72
27	93.75	94.29	94.26	94.59	94.71	95.41	94.38	---	94.57	94.69	95.09	94.79
28	93.74	94.30	94.26	94.59	94.71	95.38	94.37	---	94.57	94.69	95.23	94.79
29	93.72	94.30	94.26	94.59	94.70	95.35	94.34	---	94.57	94.69	95.17	94.78
30	93.70	94.30	94.25	94.59	---	95.32	94.33	---	94.58	94.68	95.04	94.77
31	93.68	---	94.24	94.59	---	95.28	---	---	---	94.67	94.94	---
MEAN	93.83	94.19	94.26	94.31	94.67	95.21	94.48	---	---	94.55	94.90	95.09
MAX	93.97	94.30	94.29	94.59	94.73	95.72	95.10	---	---	94.69	95.23	95.53
MIN	93.68	93.68	94.24	94.21	94.60	94.67	94.33	---	---	94.42	94.62	94.71

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237001 PALATLAHA RIVER BELOW SPILLWAY, NEAR MASCOTTE, FL

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.

DRAINAGE AREA.--182 mi².

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

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

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, 92.36 ft, Sept. 5; minimum, 90.68 ft, Nov. 1.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90.98	90.69	91.25	91.18	91.39	91.32	91.70	91.40	91.04	91.05	90.98	91.74
2	90.96	90.70	91.24	91.18	91.38	91.30	91.59	91.39	91.02	91.06	90.98	91.46
3	90.95	90.82	91.24	91.19	91.38	91.29	91.58	91.37	90.99	91.05	90.98	91.65
4	90.93	91.13	91.23	91.19	91.37	91.28	91.58	91.35	90.98	91.03	90.98	91.87
5	90.91	91.14	91.23	91.18	91.37	91.33	91.57	91.34	90.97	91.02	90.99	92.14
6	90.90	91.15	91.22	91.17	91.38	91.51	91.55	91.31	91.02	91.02	91.12	92.06
7	90.89	91.14	91.22	91.16	91.38	91.52	91.53	91.29	91.04	91.01	91.20	91.86
8	90.87	91.13	91.22	91.17	91.39	91.51	91.51	91.27	91.05	90.99	91.20	91.92
9	90.85	91.13	91.22	91.18	91.40	91.52	91.49	91.24	91.03	90.97	91.19	92.21
10	90.84	91.13	91.22	91.19	91.39	91.63	91.49	91.23	91.01	90.96	91.18	92.03
11	90.84	91.13	91.22	91.20	91.39	91.62	91.50	91.20	91.00	90.95	91.18	91.95
12	90.91	91.12	91.22	91.19	91.39	91.61	91.49	91.18	90.98	90.93	91.18	91.90
13	90.95	91.11	91.22	91.18	91.37	91.65	91.48	91.18	90.96	90.91	91.17	91.86
14	90.94	91.11	91.22	91.18	91.36	91.66	91.47	91.17	90.97	90.92	91.16	91.83
15	90.92	91.11	91.22	91.17	91.36	91.92	91.45	91.15	90.98	90.94	91.15	91.80
16	90.90	91.10	91.25	91.16	91.39	91.99	91.44	91.13	90.97	90.93	91.17	91.78
17	90.89	91.11	91.24	91.15	91.38	91.95	91.42	91.11	90.95	90.93	91.20	91.75
18	90.87	91.20	91.23	91.15	91.37	91.96	91.40	91.08	90.93	90.96	91.19	91.77
19	90.86	91.22	91.22	91.14	91.36	92.06	91.43	91.06	90.90	90.96	91.18	91.78
20	90.85	91.23	91.22	91.13	91.36	92.05	91.47	91.05	90.93	90.95	91.17	91.73
21	90.83	91.22	91.22	91.17	91.40	92.04	91.46	91.03	91.07	90.94	91.16	91.64
22	90.81	91.21	91.23	91.22	91.40	92.03	91.44	91.01	91.06	90.94	91.17	91.63
23	90.80	91.21	91.23	91.21	91.39	92.02	91.42	90.98	91.09	90.95	91.19	91.62
24	90.78	91.21	91.22	91.21	91.39	92.00	91.40	90.99	91.07	90.97	91.18	91.61
25	90.77	91.21	91.22	91.41	91.38	91.98	91.39	91.14	91.08	90.97	91.17	91.60
26	90.76	91.21	91.22	91.43	91.36	91.98	91.38	91.15	91.12	90.96	91.17	91.62
27	90.75	91.25	91.22	91.42	91.35	91.96	91.36	91.15	91.11	90.97	91.26	91.73
28	90.74	91.25	91.22	91.41	91.34	91.94	91.34	91.13	91.11	91.02	91.44	91.72
29	90.73	91.25	91.22	91.41	91.33	91.91	91.31	91.11	91.10	91.00	91.81	91.71
30	90.70	91.25	91.20	91.40	---	91.86	91.32	91.08	91.08	91.00	91.98	91.71
31	90.69	---	91.19	91.39	---	91.83	---	91.06	---	90.99	92.11	---
MEAN	90.85	91.13	91.22	91.23	91.38	91.75	91.47	91.17	91.02	90.98	91.23	91.79
MAX	90.98	91.25	91.25	91.43	91.40	92.06	91.70	91.40	91.12	91.06	92.11	92.21
MIN	90.69	90.69	91.19	91.13	91.33	91.28	91.31	90.98	90.90	90.91	90.98	91.46

CAL YR 1987 MEAN 91.29 MAX 92.46 MIN 90.69
WTR YR 1988 MEAN 91.27 MAX 92.21 MIN 90.69

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

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

LOCATION.--Lat 28°38'38", long 81°52'21", in SE¼ sec.23, T.21 S., R.24 E., Lake County, Hydrologic Unit 03080102, on right bank 150 ft downstream 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.

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, 91.75 ft, Sept. 9,10; minimum, 87.39 ft, part of each day Apr. 15-19, May 23,24.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88.30	88.22	88.30	88.22	88.45	88.71	90.00	87.57	87.88	88.44	88.28	90.63
2	88.28	88.22	88.29	88.21	88.46	88.71	88.81	87.57	88.44	88.44	88.24	90.44
3	88.27	88.29	88.29	88.22	88.47	88.70	88.67	87.56	88.42	88.43	88.21	89.54
4	88.26	88.46	88.28	88.22	88.48	88.71	88.64	87.55	88.41	88.42	88.18	89.12
5	88.25	88.39	88.28	88.21	88.50	88.75	88.57	87.54	88.40	88.41	88.17	89.25
6	88.25	88.36	88.27	88.21	88.53	88.91	88.28	87.53	88.43	88.41	88.22	90.91
7	88.24	88.33	88.27	88.20	88.53	88.91	87.94	87.52	88.43	88.41	88.29	91.33
8	88.23	88.32	88.26	88.20	88.56	88.91	87.67	87.51	88.43	88.40	88.25	91.33
9	88.23	88.31	88.26	88.21	88.57	88.92	87.50	87.50	88.43	88.39	88.23	91.54
10	88.22	88.30	88.26	88.21	88.58	---	87.43	87.49	88.42	88.38	88.24	91.71
11	88.22	88.29	88.26	88.21	88.59	---	87.42	87.49	88.42	88.37	88.22	91.65
12	88.25	88.29	88.25	88.20	88.59	---	87.41	87.48	88.41	88.36	88.27	91.61
13	88.25	88.28	88.25	88.20	88.59	---	87.41	87.48	88.39	88.35	88.31	91.59
14	88.26	88.28	88.25	88.20	88.59	---	87.40	87.49	88.40	88.36	88.35	91.57
15	88.31	88.28	88.25	88.20	88.60	---	87.40	87.48	88.42	88.37	88.36	91.55
16	88.30	88.28	88.26	88.19	88.64	---	87.39	87.47	88.41	88.36	88.38	91.54
17	88.30	88.29	88.25	88.19	88.64	---	87.40	87.46	88.40	88.37	88.40	91.53
18	88.30	88.35	88.25	88.19	88.65	---	87.39	87.46	88.38	88.40	88.40	91.53
19	88.29	88.34	88.24	88.19	88.65	---	87.45	87.45	88.37	88.40	88.40	91.55
20	88.29	88.34	88.24	88.18	88.65	---	87.50	87.44	88.39	88.40	88.40	91.29
21	88.29	88.32	88.24	88.21	88.71	---	87.50	87.42	88.47	88.39	88.40	89.97
22	88.28	88.31	88.24	88.22	88.72	---	87.49	87.41	88.46	88.39	88.41	89.61
23	88.27	88.31	88.24	88.21	88.72	---	87.49	87.40	88.48	88.40	88.42	89.48
24	88.27	88.30	88.23	88.21	88.73	---	87.49	87.40	88.47	88.42	88.42	89.39
25	88.26	88.30	88.23	88.39	88.73	---	87.49	87.50	88.46	88.42	88.42	89.31
26	88.26	88.30	88.23	88.42	88.72	---	87.49	87.51	88.47	88.42	88.42	89.28
27	88.25	88.32	88.23	88.42	88.72	---	87.50	87.52	88.46	88.42	88.49	89.28
28	88.25	88.31	88.23	88.42	88.71	---	87.49	87.51	88.46	88.43	89.02	89.22
29	88.24	88.31	88.23	88.42	88.71	---	87.49	87.50	88.45	88.40	90.45	89.17
30	88.23	88.31	88.22	88.43	---	---	87.50	87.48	88.44	88.39	90.07	89.13
31	88.22	---	88.22	88.44	---	---	---	87.46	---	88.35	90.16	---
MEAN	88.26	88.31	88.25	88.25	88.61	---	87.75	87.49	88.41	88.40	88.53	90.50
MAX	88.31	88.46	88.30	88.44	88.73	---	90.00	87.57	88.48	88.44	90.45	91.71
MIN	88.22	88.22	88.22	88.18	88.45	---	87.39	87.40	87.88	88.35	88.17	89.12

CAL YR 1987 MEAN 88.88 MAX 91.75 MIN 88.22

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83.46	82.90	83.44	83.23	83.56	83.63	84.57	84.20	83.98	83.77	83.74	83.72
2	83.44	82.89	83.43	83.22	83.56	83.62	85.40	84.19	83.96	83.75	83.71	84.06
3	83.41	82.98	83.42	83.21	83.55	83.61	85.34	84.17	83.93	83.72	83.69	84.55
4	83.38	83.41	83.40	83.21	83.55	83.60	85.29	84.14	83.90	83.69	83.66	84.75
5	83.35	83.46	83.39	83.20	83.53	83.64	85.02	84.11	83.88	83.66	83.65	85.01
6	83.33	83.46	83.38	83.19	83.53	83.79	84.54	84.08	83.96	83.65	83.67	84.91
7	83.30	83.46	83.38	83.19	83.54	83.83	84.18	84.05	83.98	83.64	83.79	84.59
8	83.27	83.46	83.37	83.20	83.56	83.84	84.04	84.02	83.97	83.62	83.81	84.65
9	83.24	83.46	83.36	83.20	83.57	83.85	84.44	83.99	83.95	83.59	83.82	84.65
10	83.21	83.45	83.35	83.21	83.57	83.97	84.46	83.97	83.92	83.60	83.85	84.51
11	83.20	83.44	83.35	83.22	83.57	83.97	84.47	83.94	83.91	83.62	83.85	84.55
12	83.24	83.42	83.34	83.22	83.57	83.99	84.46	83.92	83.87	83.60	83.83	84.53
13	83.28	83.41	83.33	83.22	83.56	83.89	84.44	83.90	83.84	83.60	83.81	84.48
14	83.26	83.40	83.33	83.21	83.56	83.07	84.42	83.94	83.83	83.65	83.79	84.43
15	83.24	83.39	83.33	83.20	83.59	83.12	84.39	83.93	83.84	83.71	83.78	84.38
16	83.22	83.39	83.36	83.20	83.62	83.68	84.37	83.90	83.82	83.69	83.77	84.35
17	83.20	83.40	83.35	83.20	83.62	84.20	84.35	83.88	83.79	83.68	83.76	84.31
18	83.18	83.47	83.35	83.20	83.62	84.40	84.33	83.85	83.77	83.70	83.74	84.27
19	83.16	83.47	83.34	83.20	83.62	84.54	84.35	83.82	83.73	83.71	83.72	84.26
20	83.15	83.47	83.34	83.20	83.62	84.53	84.39	83.79	83.77	83.74	83.69	84.67
21	83.13	83.46	83.33	83.22	83.67	84.50	84.37	83.76	83.91	83.73	83.67	85.53
22	83.09	83.46	83.32	83.25	83.68	84.47	84.34	83.73	83.91	83.72	83.65	85.45
23	83.07	83.45	83.32	83.25	83.68	84.45	84.32	83.70	83.92	83.78	83.62	85.37
24	83.05	83.44	83.31	83.25	83.68	84.43	84.29	83.78	83.90	83.85	83.61	85.31
25	83.03	83.44	83.31	83.50	83.66	84.40	84.27	84.06	83.88	83.87	83.59	85.26
26	83.01	83.44	83.30	83.55	83.65	84.36	84.25	84.09	83.87	83.86	83.57	85.22
27	83.00	83.47	83.29	83.55	83.64	84.34	84.23	84.11	83.84	83.84	83.62	85.21
28	82.98	83.47	83.28	83.55	83.64	84.32	84.20	84.09	83.82	83.84	83.55	85.18
29	82.95	83.46	83.25	83.55	83.63	84.28	84.17	84.06	83.81	83.82	82.42	85.14
30	82.93	83.45	83.24	83.55	---	84.23	84.16	84.04	83.79	83.79	82.88	85.11
31	82.91	---	83.23	83.56	---	84.18	---	84.01	---	83.77	83.37	---
MEAN	83.18	83.39	83.34	83.29	83.60	84.02	84.46	83.97	83.87	83.72	83.63	84.75
MAX	83.46	83.47	83.44	83.56	83.68	84.54	85.40	84.20	83.98	83.87	83.85	85.53
MIN	82.91	82.89	83.23	83.19	83.53	83.07	84.04	83.70	83.73	83.59	82.42	83.72
CAL YR 1987	MEAN	83.91	MAX	85.50	MIN	82.89						
WTR YR 1988	MEAN	83.77	MAX	85.53	MIN	82.42						

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237293 PALATLAKAHA 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: May 17-24, Aug. 22-24. 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.--17 years (water years 1971-75, 1977-88), 20 ft³/s, 1.23 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, 379 ft³/s, Mar. 20; maximum gage height, 72.23 ft, Apr. 1; no flow part of each day Apr. 1, Aug. 29, Sept. 20; minimum gage height, 66.68 ft, Aug. 28.

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	2.0	.52	2.2	1.4	2.3	2.8	224	3.2	2.6	2.8	2.5	46
2	1.9	.54	2.2	1.4	2.3	2.8	27	3.2	2.5	2.7	2.4	47
3	1.8	1.4	2.2	1.3	2.3	2.8	16	3.0	2.4	2.6	2.3	12
4	1.6	6.7	2.1	1.2	2.2	2.9	12	2.9	2.3	2.4	2.3	8.1
5	1.5	4.5	2.1	1.2	2.1	3.1	52	2.8	2.3	2.2	2.3	9.4
6	1.5	3.7	2.1	1.1	2.3	3.7	125	2.8	2.9	2.1	2.8	106
7	1.4	3.5	2.0	1.1	2.3	3.6	120	2.7	3.1	2.3	2.9	170
8	1.1	3.2	2.0	1.1	2.4	3.4	97	2.7	3.2	2.2	2.8	185
9	.84	3.1	2.1	1.1	2.4	3.3	9.4	2.6	3.0	2.1	2.7	233
10	.70	3.0	2.1	1.1	2.3	4.4	6.1	2.5	2.9	2.0	2.6	262
11	.98	2.9	2.0	1.1	2.4	4.3	5.8	2.5	2.8	2.1	2.6	269
12	1.5	2.8	2.0	1.0	2.5	3.9	5.4	2.5	2.6	2.1	2.6	269
13	1.7	2.5	2.0	.94	2.4	24	5.0	2.5	2.4	2.3	2.8	264
14	1.5	2.4	2.0	.94	2.3	119	4.3	2.9	2.6	3.3	2.7	256
15	1.5	2.3	2.0	.90	2.6	181	3.8	2.9	2.9	4.6	2.5	251
16	1.4	2.3	2.0	.88	3.0	226	3.7	2.6	2.7	3.7	2.5	246
17	1.3	2.4	1.9	.84	2.8	280	3.6	2.3	2.6	3.3	2.5	243
18	1.2	2.9	1.7	.84	2.8	335	3.6	2.2	2.3	3.2	2.4	240
19	1.2	2.8	1.7	.80	2.8	375	3.6	2.2	2.2	3.0	2.3	239
20	.98	2.7	1.7	.76	2.8	379	3.7	2.2	2.5	2.9	2.3	179
21	.84	2.5	1.7	.88	3.1	373	3.7	2.0	3.7	2.9	2.2	29
22	.76	2.3	1.7	.94	3.0	360	3.5	2.0	3.6	2.8	2.1	23
23	.66	2.3	1.7	.88	2.9	356	3.3	2.0	3.4	3.1	2.0	14
24	.74	2.3	1.7	.80	2.9	351	3.2	2.3	3.2	3.3	2.0	9.4
25	.66	2.3	1.6	2.0	2.8	347	3.1	4.2	3.0	3.3	2.0	7.4
26	.54	2.3	1.6	2.5	2.8	340	3.1	3.7	2.9	3.1	1.9	6.4
27	.54	2.6	1.6	2.5	2.8	336	3.1	3.5	2.9	3.0	2.4	5.8
28	.56	2.6	1.5	2.4	2.8	330	3.0	3.2	2.8	2.9	25	5.2
29	.56	2.4	1.5	2.4	2.8	326	2.9	3.0	2.8	2.8	69	4.5
30	.54	2.3	1.4	2.3	---	320	2.9	2.9	2.9	2.8	32	4.2
31	.52	---	1.4	2.3	---	312	---	2.8	---	2.7	41	---
TOTAL	34.52	80.06	57.5	40.90	75.2	5711.0	762.8	84.8	84.0	86.6	232.4	3643.4
MEAN	1.11	2.67	1.85	1.32	2.59	184	25.4	2.74	2.80	2.79	7.50	121
MAX	2.0	6.7	2.2	2.5	3.1	379	224	4.2	3.7	4.6	69	269
MIN	.52	.52	1.4	.76	2.1	2.8	2.9	2.0	2.2	2.0	1.9	4.2
CFSM	.01	.01	.01	.01	.01	.83	.12	.01	.01	.01	.03	.55
IN.	.01	.01	.01	.01	.01	.96	.13	.01	.01	.01	.04	.61

CAL YR 1987 TOTAL 10306.28 MEAN 28.2 MAX 451 MIN .52 CFSM .13 IN. 1.73
WTR YR 1988 TOTAL 10893.18 MEAN 29.8 MAX 379 MIN .52 CFSM .13 IN. 1.83

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

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

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.66	70.27	70.70	70.51	70.72	70.80	70.44	70.93	70.77	70.80	70.75	71.89
2	70.63	70.28	70.69	70.51	70.72	70.80	71.66	70.92	70.75	70.79	70.73	71.91
3	70.60	70.48	70.69	70.50	70.71	70.81	71.53	70.87	70.73	70.76	70.72	71.46
4	70.56	71.32	70.68	70.48	70.70	70.84	71.46	70.84	70.71	70.73	70.71	71.37
5	70.55	71.21	70.68	70.46	70.68	70.90	71.91	70.82	70.72	70.69	70.71	71.41
6	70.54	71.12	70.67	70.44	70.71	71.13	72.69	70.81	70.84	70.68	70.82	69.67
7	70.51	71.03	70.66	70.43	70.71	71.08	72.65	70.79	70.91	70.71	70.83	68.16
8	70.45	70.95	70.66	70.44	70.73	71.00	72.45	70.78	70.93	70.69	70.81	68.31
9	70.37	70.91	70.67	70.44	70.74	70.97	71.41	70.76	70.87	70.67	70.78	68.71
10	70.33	70.88	70.67	70.45	70.72	71.20	71.30	70.75	70.83	70.66	70.76	68.90
11	70.41	70.84	70.66	70.44	70.74	71.20	71.28	70.75	70.81	70.68	70.76	68.94
12	70.53	70.80	70.65	70.42	70.75	71.16	71.26	70.75	70.77	70.68	70.77	68.94
13	70.59	70.75	70.65	70.40	70.73	69.97	71.24	70.75	70.74	70.72	70.80	68.91
14	70.55	70.74	70.65	70.40	70.72	67.82	71.20	70.83	70.76	70.98	70.78	68.86
15	70.53	70.71	70.65	70.39	70.77	68.19	71.16	70.83	70.84	71.22	70.75	68.83
16	70.51	70.72	70.66	70.38	70.86	68.59	71.13	70.77	70.79	71.12	70.75	68.80
17	70.50	70.73	70.62	70.37	70.82	69.04	71.09	70.72	70.76	70.98	70.75	68.78
18	70.48	70.85	70.59	70.37	70.80	69.72	71.07	e70.70	70.72	70.92	70.74	68.76
19	70.46	70.82	70.59	70.36	70.80	70.24	71.09	e70.70	70.70	70.86	70.72	68.75
20	70.41	70.79	70.59	70.35	70.80	70.30	71.13	e70.69	70.75	70.85	70.71	70.27
21	70.37	70.75	70.58	70.38	70.89	69.85	71.10	e70.66	71.13	70.84	70.69	71.69
22	70.35	70.72	70.58	70.40	70.87	69.40	71.05	e70.65	71.09	70.82	70.67	71.61
23	70.32	70.72	70.58	70.38	70.85	69.38	70.97	e70.64	70.99	70.89	e70.66	71.50
24	70.34	70.71	70.58	70.36	70.84	69.36	70.94	e70.71	70.93	70.98	70.65	71.41
25	70.32	70.71	70.57	70.66	70.82	69.34	70.90	71.18	70.88	70.96	70.64	71.35
26	70.28	70.71	70.57	70.75	70.82	69.31	70.90	71.12	70.85	70.91	70.62	71.31
27	70.28	70.76	70.56	70.75	70.81	69.29	70.90	71.05	70.83	70.86	70.73	71.28
28	70.29	70.76	70.55	70.74	70.81	69.26	70.87	70.95	70.81	70.85	70.09	71.25
29	70.29	70.74	70.54	70.73	70.80	69.24	70.84	70.87	70.82	70.82	68.16	71.21
30	70.28	70.72	70.52	70.72	---	69.21	70.84	70.83	70.83	70.80	71.73	71.19
31	70.27	---	70.51	70.72	---	69.17	---	70.80	---	70.78	71.83	---
MEAN	70.44	70.78	70.62	70.49	70.77	69.95	71.28	70.81	70.83	70.83	70.70	70.18
MAX	70.66	71.32	70.70	70.75	70.89	71.20	72.69	71.18	71.13	71.22	71.83	71.91
MIN	70.27	70.27	70.51	70.35	70.68	67.82	70.44	70.64	70.70	70.66	68.16	68.16

WTR YR 1988 MEAN 70.64 MAX 72.69 MIN 67.82

e Estimated

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 2.5 mi 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.--30 years (water years 1959-88), 78.9 ft³/s, 57,160 acre-ft/yr.

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, 471 ft³/s, Sept. 9; maximum gage height, 67.53 ft, Mar. 18, affected by wind; minimum daily discharge, 32 ft³/s, many days; minimum gage height, 65.89 ft, May 25, Aug. 5, affected by wind.

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	33	32	36	35	225	104	202	35	33	33	33	34
2	33	33	36	35	184	105	201	35	33	33	33	35
3	33	33	36	35	154	105	201	35	34	33	33	35
4	33	35	35	35	153	105	200	35	33	33	33	35
5	33	35	35	35	152	104	198	34	33	34	35	35
6	33	35	35	35	150	106	197	33	33	33	33	103
7	33	35	36	35	152	134	192	32	37	33	33	209
8	33	36	36	35	152	154	134	33	44	33	33	428
9	33	35	35	35	153	209	101	33	34	33	34	471
10	33	35	35	35	153	241	101	33	33	33	33	465
11	33	35	35	35	153	245	100	33	33	33	33	455
12	33	35	35	35	151	246	99	34	33	33	34	360
13	32	35	35	35	151	247	99	34	35	33	39	256
14	33	35	36	35	152	246	100	34	33	33	33	256
15	33	36	36	35	153	244	100	34	33	33	39	255
16	33	35	35	35	152	246	100	34	33	33	33	255
17	33	35	35	35	152	247	100	34	33	34	33	254
18	33	35	35	35	153	249	100	34	33	33	33	255
19	33	35	35	35	153	292	100	34	33	33	33	125
20	33	35	35	35	152	350	76	34	33	34	33	36
21	33	35	35	36	151	349	35	34	34	33	33	36
22	33	35	35	35	152	349	35	33	33	33	33	36
23	33	35	35	36	152	350	35	34	33	33	33	36
24	33	35	36	36	122	349	35	33	35	33	33	36
25	33	35	36	90	104	348	35	34	33	33	33	36
26	33	35	36	386	104	347	35	33	33	33	33	36
27	33	36	36	415	104	346	35	34	33	37	33	36
28	32	36	36	243	104	258	35	34	36	33	34	36
29	32	36	35	244	104	203	35	34	33	33	34	36
30	33	35	35	244	---	202	35	34	33	33	34	36
31	32	---	35	244	---	203	---	37	---	33	34	---
TOTAL	1019	1048	1097	2709	4247	7283	3051	1051	1015	1030	1043	4717
MEAN	32.9	34.9	35.4	87.4	146	235	102	33.9	33.8	33.2	33.6	157
MAX	33	36	36	415	225	350	202	37	44	37	39	471
MIN	32	32	35	35	104	104	35	32	33	33	33	34
AC-FT	2020	2080	2180	5370	8420	14450	6050	2080	2010	2040	2070	9360

CAL YR 1987 TOTAL 26657 MEAN 73.0 MAX 589 MIN 15 AC-FT 52870
WTR YR 1988 TOTAL 29310 MEAN 80.1 MAX 471 MIN 32 AC-FT 58140

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237700 APOPKA-BEAUCLAIR CANAL NEAR ASTATULA, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.38	66.21	66.87	66.81	67.05	66.94	67.12	66.70	66.35	66.30	66.36	66.54
2	66.41	66.24	66.88	66.80	67.09	66.98	67.09	66.72	66.33	66.39	66.33	66.68
3	66.37	66.43	66.88	66.79	67.11	66.99	67.07	66.78	66.29	66.37	66.34	66.69
4	66.32	66.77	66.78	66.76	67.10	66.98	67.03	66.69	66.26	66.33	66.34	66.70
5	66.33	66.78	66.80	66.71	67.02	66.95	66.96	66.47	66.32	66.25	66.32	66.78
6	66.32	66.69	66.84	66.73	66.92	67.08	66.92	66.31	66.37	66.29	66.34	67.07
7	66.29	66.77	66.87	66.81	67.03	67.12	66.71	66.23	66.46	66.30	66.34	66.99
8	66.25	66.80	66.87	66.80	67.03	67.14	66.84	66.26	66.46	66.28	66.35	66.69
9	66.26	66.82	66.85	66.77	67.06	67.11	66.89	66.27	66.47	66.29	66.33	66.50
10	66.24	66.81	66.86	66.77	67.06	66.94	66.91	66.26	66.43	66.27	66.34	66.47
11	66.25	66.70	66.83	66.77	67.08	67.07	66.86	66.36	66.40	66.26	66.41	66.42
12	66.29	66.72	66.85	66.81	66.98	67.11	66.78	66.60	66.41	66.26	66.40	66.65
13	66.23	66.76	66.85	66.81	66.98	67.16	66.76	66.60	66.37	66.25	66.34	66.80
14	66.32	66.76	66.87	66.74	67.05	67.12	66.82	66.59	66.39	66.26	66.37	66.80
15	66.33	66.77	66.91	66.74	67.07	67.05	66.81	66.58	66.36	66.27	66.42	66.78
16	66.33	66.82	66.80	66.80	67.01	67.11	66.79	66.60	66.37	66.28	66.43	66.77
17	66.33	66.83	66.79	66.83	67.04	67.15	66.79	66.57	66.36	66.28	66.39	66.74
18	66.34	66.83	66.84	66.81	67.06	67.20	66.81	66.50	66.35	66.27	66.40	66.77
19	66.36	66.83	66.86	66.85	67.08	67.09	66.81	66.50	66.32	66.26	66.41	66.92
20	66.39	66.75	66.86	66.89	67.04	67.05	66.83	66.47	66.31	66.32	66.39	67.00
21	66.34	66.73	66.86	66.88	66.97	67.06	66.81	66.48	66.36	66.37	66.37	66.96
22	66.29	66.80	66.86	66.85	67.04	67.05	66.81	66.43	66.38	66.36	66.35	66.97
23	66.28	66.81	66.85	66.88	67.03	67.08	66.81	66.44	66.36	66.38	66.34	66.96
24	66.30	66.80	66.88	66.88	67.01	67.06	66.78	66.41	66.34	66.37	66.31	66.93
25	66.24	66.82	66.88	67.09	66.94	67.03	66.78	66.48	66.33	66.38	66.28	66.90
26	66.26	66.84	66.88	66.73	66.95	66.98	66.74	66.43	66.40	66.39	66.33	66.90
27	66.29	66.91	66.87	66.69	66.96	66.97	66.73	66.44	66.38	66.37	66.37	66.90
28	66.19	66.92	66.87	67.02	66.95	67.10	66.67	66.45	66.35	66.41	66.48	66.87
29	66.18	66.89	66.67	67.03	66.96	67.16	66.66	66.44	66.38	66.41	66.48	66.88
30	66.21	66.85	66.75	67.04	---	67.13	66.71	66.42	66.33	66.40	66.50	66.88
31	66.18	---	66.80	67.05	---	67.15	---	66.37	---	66.40	66.47	---
MEAN	66.29	66.75	66.84	66.84	67.02	67.07	66.84	66.48	66.37	66.32	66.38	66.80
MAX	66.41	66.92	66.91	67.09	67.11	67.20	67.12	66.78	66.47	66.41	66.50	67.07
MIN	66.18	66.21	66.67	66.69	66.92	66.94	66.66	66.23	66.26	66.25	66.28	66.42
CAL YR 1987	MEAN 66.59		MAX 67.30	MIN 66.12								
WTR YR 1988	MEAN 66.66		MAX 67.20	MIN 66.18								

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237700 APOPKA-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 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	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)
OCT											
06...	1200	385	7.4	25.0	20	16	--	28	17	16	13
28...	0930	398	7.5	22.0	30	9.8	4.1	32	18	17	12
NOV											
16...	1000	--	7.6	--	40	9.5	--	41	18	16	11
16...	1100	490	7.4	20.0	100	7.5	6.4	45	18	15	12
JAN											
26...	1010	510	7.2	12.5	70	25	5.9	46	17	12	13
27...	0900	--	--	--	--	--	--	--	--	--	--
27...	1100	--	--	--	--	--	--	--	--	--	--
FEB											
02...	1015	513	--	16.5	40	6.0	--	--	--	--	--
29...	1130	440	7.7	16.5	50	0.70	8.6	39	18	15	11
MAR											
22...	1110	435	--	17.5	--	--	9.3	--	--	--	--
APR											
18...	1115	410	7.6	23.0	50	13	7.0	31	17	15	10
MAY											
04...	1415	--	--	--	--	--	--	--	--	--	--
04...	1415	445	7.1	29.0	50	11	--	36	16	14	9.9
17...	1100	400	--	27.5	60	15	4.4	--	--	--	--
JUN											
02...	1145	405	7.1	29.0	30	1.7	4.4	32	17	16	12
24...	1035	396	--	31.0	--	7.7	--	--	--	--	--
JUL											
14...	1300	423	7.1	31.5	60	6.1	3.4	38	17	29	11
AUG											
19...	1340	410	7.2	32.0	40	1.0	7.1	34	16	21	11
SEP											
09...	0942	430	--	28.0	--	--	6.2	--	--	--	--
12...	0900	376	--	29.0	--	--	6.8	--	--	--	--
30...	1000	417	--	28.0	--	--	2.9	--	--	--	--

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT											
06...	108	21	43	<0.010	<0.010	<0.020	<0.020	0.020	0.010	6.4	2.6
28...	123	20	42	<0.010	<0.010	<0.020	<0.020	0.020	0.020	5.3	2.7
NOV											
16...	133	23	39	<0.010	<0.010	<0.020	<0.020	0.020	0.020	3.1	1.8
16...	131	35	36	0.080	0.080	0.790	0.790	0.040	0.040	3.5	2.1
JAN											
26...	119	48	32	0.020	0.020	2.80	2.80	0.180	0.180	4.1	2.1
27...	--	--	--	0.020	0.010	0.450	0.450	0.050	0.050	4.1	2.2
27...	--	--	--	0.040	0.040	1.60	1.50	0.110	0.120	5.4	2.2
FEB											
02...	--	--	--	0.060	0.060	1.20	1.20	0.020	0.040	3.8	1.8
29...	140	20	37	<0.010	<0.010	<0.020	<0.020	0.030	0.040	4.5	2.2
MAR											
22...	--	--	--	0.010	0.010	0.040	0.050	0.020	0.040	4.8	2.1
APR											
18...	121	21	38	0.010	0.010	<0.020	0.030	0.040	0.030	5.5	2.6
MAY											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	124	20	36	0.010	0.010	<0.020	0.020	0.010	0.010	4.9	1.8
17...	--	--	--	0.010	0.020	<0.020	0.030	0.010	0.010	4.9	1.9
JUN											
02...	127	22	40	<0.010	<0.010	<0.020	0.040	0.020	0.020	6.8	3.6
24...	--	--	--	0.010	0.010	<0.020	<0.020	0.020	0.020	3.8	2.1
JUL											
14...	135	20	37	<0.010	<0.010	<0.020	<0.020	0.040	0.040	3.9	2.0
AUG											
19...	128	22	38	<0.010	<0.010	<0.020	0.020	0.040	0.040	3.4	2.3
SEP											
09...	--	--	--	0.090	--	3.20	--	0.250	--	4.7	--
12...	--	--	--	0.020	--	0.150	--	0.010	--	4.9	--
30...	--	--	--	0.010	--	0.020	--	0.010	--	3.5	--

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237700 APOPKA-BEAUCLAIR CANAL NEAR ASTATULA, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)
OCT											
06...	0.100	0.050	0.060	0.020	45	--	--	--	--	--	--
28...	0.220	0.040	0.060	0.020	31	--	--	--	--	--	--
NOV											
16...	0.140	0.020	0.040	0.010	59	--	--	--	--	--	--
16...	0.300	0.120	0.130	0.110	34	--	--	--	--	--	--
JAN											
26...	1.02	0.540	0.650	0.540	--	--	--	--	--	--	--
27...	0.210	0.020	0.060	0.010	--	--	--	--	--	--	--
27...	0.390	0.070	0.160	0.080	--	--	--	--	--	--	--
FEB											
02...	0.200	0.020	0.050	0.010	25	--	--	--	--	--	--
29...	0.200	0.020	0.050	0.010	25	--	--	--	--	--	--
MAR											
22...	0.300	0.020	0.070	0.010	--	--	--	--	--	--	--
APR											
18...	0.320	0.020	0.080	0.010	19	--	--	--	--	--	--
MAY											
04...	--	--	--	--	--	<0.4	1700	3.0	160	3.8	29
04...	0.330	0.030	0.070	0.010	19	--	--	--	--	--	--
17...	0.270	0.020	0.060	0.010	--	--	--	--	--	--	--
JUN											
02...	0.290	0.040	0.060	0.020	26	--	--	--	--	--	--
24...	0.250	0.020	0.100	0.010	--	--	--	--	--	--	--
JUL											
14...	0.230	0.050	0.200	0.020	29	--	--	--	--	--	--
AUG											
19...	0.220	0.020	0.070	0.010	29	--	--	--	--	--	--
SEP											
09...	0.700	--	0.350	--	--	--	--	--	--	--	--
12...	0.300	--	0.100	--	--	--	--	--	--	--	--
30...	0.220	--	0.090	--	--	--	--	--	--	--	--

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.39	62.14	62.47	62.39	63.26	63.14	63.46	62.53	62.58	62.74	62.81	62.69
2	62.35	62.15	62.46	62.41	63.19	63.12	63.43	62.49	62.55	62.75	62.77	62.83
3	62.34	62.23	62.44	62.42	63.11	63.11	63.40	62.44	62.54	62.71	62.74	62.78
4	62.34	62.44	62.44	62.42	63.11	63.11	63.37	62.42	62.55	62.68	62.73	62.75
5	62.29	62.48	62.44	62.43	63.13	63.17	63.35	62.43	62.52	62.66	62.71	62.84
6	62.27	62.56	62.41	62.41	63.14	63.33	63.31	62.43	62.56	62.64	62.68	63.20
7	62.26	62.51	62.40	62.37	63.12	63.35	63.26	62.42	62.68	62.58	62.67	63.51
8	62.27	62.49	62.38	62.40	63.13	63.38	63.12	62.38	62.82	62.55	62.65	64.19
9	62.23	62.49	62.38	62.42	63.13	63.46	63.03	62.35	62.80	62.52	62.61	64.38
10	62.22	62.49	62.38	62.44	63.14	63.65	62.98	62.34	62.80	62.52	62.61	64.37
11	62.22	62.52	62.40	62.44	63.13	63.65	62.93	62.34	62.82	62.53	62.60	64.35
12	62.29	62.50	62.41	62.42	63.13	63.63	62.88	62.34	62.77	62.52	62.58	64.12
13	62.35	62.46	62.41	62.41	63.14	63.66	62.85	62.35	62.73	62.52	62.57	63.92
14	62.30	62.44	62.39	62.44	63.13	63.68	62.81	62.35	62.72	62.58	62.54	63.90
15	62.28	62.44	62.40	62.43	63.14	63.66	62.78	62.34	62.74	62.67	62.54	63.87
16	62.26	62.42	62.48	62.40	63.20	63.64	62.75	62.32	62.72	62.69	62.52	63.87
17	62.25	62.42	62.46	62.38	63.20	63.63	62.74	62.31	62.70	62.69	62.51	63.83
18	62.25	62.50	62.43	62.39	63.20	63.63	62.71	62.31	62.69	62.69	62.50	63.75
19	62.24	62.52	62.42	62.39	63.18	63.83	62.69	62.30	62.67	62.73	62.49	63.47
20	62.23	62.53	62.41	62.39	63.21	63.99	62.67	62.29	62.67	62.81	62.51	63.25
21	62.24	62.53	62.42	62.46	63.27	63.99	62.60	62.27	62.74	62.86	62.55	63.19
22	62.25	62.48	62.42	62.52	63.26	63.96	62.57	62.26	62.74	62.84	62.53	63.14
23	62.22	62.47	62.45	62.50	63.26	63.95	62.55	62.23	62.76	62.85	62.51	63.08
24	62.19	62.46	62.43	62.50	63.23	63.94	62.54	62.41	62.76	62.86	62.50	63.03
25	62.20	62.45	62.43	62.88	63.20	63.94	62.54	62.82	62.75	62.85	62.49	63.00
26	62.18	62.45	62.44	63.65	63.17	63.94	62.53	62.83	62.75	62.84	62.48	62.97
27	62.18	62.49	62.44	63.83	63.14	63.93	62.53	62.80	62.76	62.87	62.55	62.97
28	62.19	62.49	62.44	63.29	63.15	63.80	62.52	62.75	62.76	62.98	62.63	62.94
29	62.18	62.49	62.48	63.31	63.13	63.65	62.49	62.70	62.80	62.93	62.63	62.92
30	62.15	62.49	62.45	63.31	---	63.55	62.48	62.66	62.76	62.89	62.62	62.90
31	62.14	---	62.41	63.29	---	63.52	---	62.63	---	62.85	62.	

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237802 DORA CANAL AT TAVARES, FL

LOCATION.--Lat 28°48'39", long 81°44'33", in NE¼ sec.30, T.19 S., R.26 E., Lake County, Hydrologic Unit 03080102, at bridge on U.S. Highway 441 just upstream from Lake Eustis, 0.9 mi northwest of Tavares, and 1.1 mi downstream from Lake Dora.

DRAINAGE AREA.--238 mi².

PERIOD OF RECORD.--March 1958 to September 1959, October 1963 to current year (discharge measurements only).

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

REMARKS.--Flow occasionally reversed as a result of wind effect.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 610 ft³/s, Mar. 25, 1958; minimum measured, -74 ft³/s, June 22, 1981.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1987 to SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
OCT 07...	0815	a11	DEC 01...	1005	80

a Affected by wind

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 fair. 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; 25 years (water years 1957-78, 1986-88), 242 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, 1,470 ft³/s, Mar. 10; maximum gage height, 63.11 ft, Mar. 7; minimum daily discharge, 2.5 ft³/s, Oct. 29,30; minimum gage height, 61.97 ft, Oct. 31, Nov. 1,2, affected by wind.

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	21	4.7	106	52	64	118	776	47	67	228	472	147
2	22	46	53	50	69	118	764	48	66	226	455	154
3	24	98	54	55	72	122	754	52	65	220	448	158
4	16	170	55	49	74	122	743	50	62	209	437	162
5	12	187	46	49	62	128	731	47	63	191	435	175
6	13	167	45	35	61	155	721	39	86	183	432	459
7	13	169	43	39	65	388	694	40	93	187	427	707
8	11	179	46	46	74	545	596	41	113	185	430	1080
9	9.1	177	42	42	81	1080	540	34	119	190	436	1290
10	11	174	47	43	82	1470	532	32	114	185	430	1300
11	8.8	165	47	42	88	1420	401	30	108	181	436	1290
12	8.6	151	49	44	89	1440	207	30	102	134	430	988
13	7.0	155	48	48	84	1440	191	29	89	62	416	595
14	7.9	155	47	34	92	1420	194	33	90	84	425	596
15	7.1	154	53	42	97	1390	193	34	100	97	305	600
16	7.6	157	49	45	103	1380	193	30	99	102	114	596
17	12	162	49	52	108	1370	190	29	103	101	111	605
18	12	176	49	45	106	1380	188	30	107	170	111	601
19	9.5	176	47	48	115	1210	189	28	100	227	109	285
20	12	167	53	48	118	945	142	24	92	238	116	81
21	8.4	162	50	49	125	940	65	28	110	237	112	82
22	4.9	161	49	61	130	931	64	27	114	241	105	86
23	4.1	158	51	57	127	919	72	20	115	252	103	87
24	9.0	157	51	68	127	916	73	32	111	262	105	91
25	7.8	159	58	119	117	911	64	87	110	262	100	90
26	5.3	160	53	110	117	921	63	81	116	261	103	86
27	6.0	164	53	107	124	921	63	79	156	262	112	88
28	3.6	166	60	112	120	835	57	86	235	407	137	83
29	2.5	166	50	115	118	780	50	88	235	498	142	81
30	2.5	159	47	100	---	785	49	81	236	492	142	80
31	3.8	---	44	61	---	783	---	72	---	485	136	---
TOTAL	302.5	4601.7	1594	1867	2809	27283	9559	1408	3376	7059	8272	12723
MEAN	9.76	153	51.4	60.2	96.9	880	319	45.4	113	228	267	424
MAX	24	187	106	119	130	1470	776	88	236	498	472	1300
MIN	2.5	4.7	42	34	61	118	49	20	62	62	100	80

CAL YR 1987 TOTAL 80182.2 MEAN 220 MAX 1490 MIN 2.5
WTR YR 1988 TOTAL 80854.2 MEAN 221 MAX 1470 MIN 2.5

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02238000 HAINES CREEK AT LISBON, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.25	62.03	62.37	62.34	62.67	62.92	62.65	62.37	62.48	62.61	62.56	62.57
2	62.25	62.04	62.36	62.32	62.70	62.92	62.62	62.38	62.47	62.59	62.52	62.60
3	62.24	62.13	62.36	62.36	62.71	62.94	62.60	62.40	62.46	62.56	62.50	62.59
4	62.18	62.41	62.37	62.34	62.72	62.94	62.58	62.39	62.43	62.53	62.47	62.60
5	62.18	62.47	62.31	62.34	62.67	62.96	62.55	62.38	62.43	62.48	62.46	62.67
6	62.19	62.40	62.30	62.26	62.67	63.07	62.53	62.33	62.56	62.46	62.44	62.78
7	62.18	62.40	62.30	62.28	62.69	63.04	62.47	62.30	62.59	62.47	62.43	62.74
8	62.14	62.42	62.32	62.32	62.74	62.99	62.47	62.30	62.68	62.46	62.45	62.53
9	62.12	62.43	62.30	62.30	62.76	62.92	62.47	62.29	62.70	62.46	62.47	62.38
10	62.11	62.42	62.32	62.30	62.76	62.92	62.45	62.28	62.68	62.44	62.45	62.38
11	62.10	62.39	62.32	62.30	62.79	62.83	62.48	62.27	62.64	62.45	62.47	62.34
12	62.15	62.34	62.32	62.30	62.80	62.86	62.54	62.27	62.61	62.46	62.45	62.42
13	62.13	62.35	62.32	62.32	62.77	62.87	62.48	62.26	62.58	62.45	62.41	62.61
14	62.13	62.34	62.36	62.26	62.80	62.84	62.49	62.26	62.59	62.56	62.43	62.61
15	62.12	62.33	62.34	62.30	62.83	62.79	62.48	62.26	62.63	62.62	62.43	62.62
16	62.12	62.36	62.34	62.30	62.86	62.76	62.47	62.27	62.63	62.62	62.44	62.61
17	62.13	62.38	62.34	62.34	62.87	62.74	62.46	62.27	62.64	62.61	62.43	62.63
18	62.13	62.43	62.34	62.30	62.87	62.77	62.47	62.27	62.63	62.59	62.42	62.62
19	62.14	62.43	62.32	62.32	62.91	62.76	62.48	62.26	62.60	62.60	62.42	62.71
20	62.16	62.40	62.34	62.32	62.92	62.68	62.46	62.23	62.60	62.64	62.42	62.80
21	62.14	62.37	62.34	62.34	62.95	62.67	62.46	62.22	62.67	62.64	62.41	62.81
22	62.09	62.37	62.34	62.39	62.97	62.65	62.46	62.21	62.69	62.65	62.41	62.82
23	62.08	62.36	62.34	62.37	62.96	62.63	62.47	62.20	62.69	62.67	62.40	62.82
24	62.08	62.36	62.34	62.40	62.96	62.62	62.47	62.28	62.67	62.70	62.41	62.82
25	62.08	62.37	62.38	62.64	62.92	62.61	62.47	62.58	62.66	62.72	62.39	62.82
26	62.09	62.37	62.34	62.60	62.92	62.60	62.46	62.55	62.67	62.71	62.40	62.82
27	62.10	62.38	62.34	62.59	62.94	62.60	62.45	62.53	62.64	62.71	62.44	62.83
28	62.08	62.38	62.38	62.60	62.92	62.64	62.42	62.54	62.63	62.67	62.54	62.81
29	62.05	62.38	62.34	62.61	62.92	62.66	62.39	62.54	62.63	62.63	62.56	62.80
30	62.04	62.37	62.32	62.65	---	62.67	62.38	62.51	62.63	62.60	62.55	62.79
31	62.02	---	62.30	62.66	---	62.67	---	62.50	---	62.58	62.53	---
MEAN	62.13	62.35	62.34	62.39	62.83	62.79	62.49	62.35	62.61	62.58	62.46	62.66
MAX	62.25	62.47	62.38	62.66	62.97	63.07	62.65	62.58	62.70	62.72	62.56	62.83
MIN	62.02	62.03	62.30	62.26	62.67	62.60	62.38	62.20	62.43	62.44	62.39	62.34
CAL YR 1987	MEAN 62.51											
WTR YR 1988	MEAN 62.49											
			MAX 63.22	MIN 62.02								
			MAX 63.07	MIN 62.02								

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238001 HAINES CREEK BELOW BURRELL DAM, AT LISBON, FL

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.

DRAINAGE AREA.--648 mi².

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).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 9, 1957, nonrecording gage at same site and datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 61.48 ft, Oct. 9, 1960; minimum observed, 52.90 ft, June 26, 28, 1984, result of drawdown of Lake Griffin.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 60.12 ft, Sept. 8, 9; minimum, 57.80 ft, Nov. 1, affected by wind.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.37	57.96	58.88	58.80	59.19	59.24	59.11	58.43	58.11	58.86	58.89	58.66
2	58.36	57.98	58.84	58.80	59.18	59.20	59.06	58.43	58.10	58.83	58.90	58.74
3	58.35	58.08	58.84	58.78	59.17	59.18	59.03	58.42	58.10	58.83	58.90	58.77
4	58.31	58.32	58.84	58.78	59.18	59.16	58.98	58.42	58.06	58.80	58.90	58.82
5	58.28	58.36	58.84	58.78	59.17	59.20	58.95	58.43	58.07	58.77	58.92	58.92
6	58.28	58.34	58.80	58.78	59.16	59.32	58.93	58.40	58.40	58.77	58.95	59.28
7	58.27	58.36	58.80	58.78	59.15	59.46	58.91	58.36	58.47	58.76	58.98	59.52
8	58.23	58.38	58.80	58.84	59.17	59.55	58.75	58.34	58.53	58.75	58.92	59.84
9	58.19	58.40	58.80	58.84	59.18	59.67	58.72	58.33	58.55	58.73	58.82	60.11
10	58.19	58.56	58.80	58.80	59.16	60.00	58.73	58.32	58.54	58.71	58.80	60.09
11	58.19	58.59	58.78	58.82	59.16	59.85	58.69	58.31	58.52	58.70	58.77	60.05
12	58.23	58.56	58.80	58.80	59.20	59.76	58.57	58.29	58.50	58.66	58.75	59.77
13	58.23	58.56	58.80	58.82	59.17	59.70	58.53	58.28	58.47	58.60	58.72	59.40
14	58.21	58.57	58.82	58.84	59.13	59.61	58.50	58.29	58.48	58.66	58.69	59.37
15	58.20	58.58	58.87	58.82	59.16	59.53	58.50	58.28	58.50	58.68	58.63	59.33
16	58.19	58.59	58.92	58.78	59.22	59.46	58.50	58.27	58.49	58.64	58.61	59.29
17	58.19	58.63	58.89	58.78	59.20	59.42	58.49	58.25	58.50	58.61	58.59	59.26
18	58.18	58.71	58.85	58.80	59.19	59.41	58.50	58.26	58.49	58.62	58.57	59.23
19	58.17	58.74	58.78	58.82	59.20	59.58	58.55	58.23	58.47	58.69	58.54	59.00
20	58.17	58.77	58.84	58.80	59.23	59.67	58.54	58.21	58.48	58.71	58.54	58.86
21	58.16	58.74	58.86	58.87	59.32	59.64	58.53	58.18	58.57	58.71	58.52	58.85
22	58.12	58.73	58.84	59.03	59.31	59.64	58.52	58.15	58.60	58.72	58.49	58.83
23	58.10	58.74	58.84	59.02	59.30	59.62	58.52	58.13	58.70	58.73	58.48	58.82
24	58.09	58.76	58.84	59.05	59.31	59.59	58.53	58.11	58.70	58.77	58.47	58.81
25	58.08	58.78	58.84	59.25	59.30	59.56	58.51	58.24	58.73	58.80	58.46	58.80
26	58.08	58.80	58.84	59.26	59.29	59.55	58.51	58.22	58.76	58.79	58.44	58.82
27	58.08	58.84	58.84	59.24	59.29	59.52	58.50	58.21	58.78	58.79	58.50	58.88
28	58.06	58.86	58.84	59.21	59.26	59.36	58.48	58.20	58.81	58.91	58.58	58.86
29	58.03	58.89	58.84	59.20	59.26	59.21	58.45	58.18	58.83	58.95	58.59	58.85
30	58.00	58.90	58.84	59.20	---	59.18	58.42	58.15	58.85	58.94	58.61	58.83
31	57.99	---	58.84	59.20	---	59.15	---	58.13	---	58.92	58.61	---
MEAN	58.18	58.57	58.83	58.92	59.21	59.48	58.65	58.27	58.51	58.76	58.68	59.16
MAX	58.37	58.90	58.92	59.26	59.32	60.00	59.11	58.43	58.85	58.95	58.98	60.11
MIN	57.99	57.96	58.78	58.78	59.13	59.15	58.42	58.11	58.06	58.60	58.44	58.66

CAL YR 1987 MEAN 58.86 MAX 60.90 MIN 57.96
WTR YR 1988 MEAN 58.77 MAX 60.11 MIN 57.96

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.--Dual 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, 59.32 ft, Feb. 19; minimum, 57.59 ft, Nov. 2.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.26	57.86	58.82	58.77	59.12	59.15	58.31	58.28	58.08	58.72	58.56	58.79
2	58.28	57.88	58.79	58.72	59.13	59.13	58.27	58.33	58.07	58.71	58.60	58.63
3	58.26	57.97	58.80	58.72	59.12	59.12	58.27	58.39	58.07	58.71	58.62	58.65
4	58.18	58.24	58.81	58.71	59.12	59.09	58.30	58.39	57.98	58.67	58.62	58.75
5	58.21	58.25	58.76	58.67	59.00	59.07	58.28	58.37	57.99	58.61	58.65	58.81
6	58.24	58.15	58.77	58.67	58.97	59.17	58.30	58.30	58.36	58.60	58.68	59.10
7	58.22	58.24	58.77	58.75	59.00	59.13	58.22	58.27	58.41	58.65	58.71	59.02
8	58.14	58.29	58.78	58.73	59.06	59.03	58.27	58.30	58.49	58.65	58.72	58.76
9	58.12	58.33	58.78	58.71	59.08	58.94	58.35	58.29	58.53	58.63	58.67	58.76
10	58.08	58.49	58.81	58.73	59.07	58.84	58.39	58.28	58.48	58.62	58.64	58.72
11	58.08	58.44	58.80	58.74	59.09	58.54	58.46	58.25	58.40	58.61	58.64	58.65
12	58.11	58.43	58.82	58.74	59.11	58.46	58.49	58.23	58.40	58.58	58.61	58.70
13	58.05	58.48	58.80	58.78	59.07	58.40	58.37	58.20	58.37	58.53	58.53	58.80
14	58.07	58.50	58.82	58.70	59.07	58.49	58.41	58.20	58.38	58.56	58.51	58.78
15	58.09	58.49	58.87	58.66	59.14	58.60	58.41	58.21	58.40	58.61	58.54	58.77
16	58.10	58.55	58.81	58.71	59.11	58.58	58.39	58.22	58.43	58.59	58.49	58.72
17	58.10	58.58	58.79	58.74	59.14	58.57	58.39	58.21	58.45	58.56	58.45	58.67
18	58.11	58.62	58.80	58.80	59.11	58.59	58.44	58.21	58.45	58.52	58.43	58.61
19	58.11	58.63	58.82	58.81	59.19	58.53	58.48	58.17	58.42	58.56	58.40	58.70
20	58.13	58.62	58.83	58.89	59.14	58.46	58.46	58.14	58.41	58.58	58.37	58.77
21	58.09	58.60	58.81	58.95	59.19	58.45	58.46	58.12	58.49	58.59	58.38	58.75
22	57.98	58.65	58.82	58.94	59.23	58.43	58.47	58.10	58.52	58.60	58.37	58.73
23	58.00	58.66	58.79	58.90	59.23	58.40	58.48	58.11	58.63	58.61	58.38	58.73
24	58.01	58.67	58.82	58.91	59.20	58.38	58.48	58.11	58.63	58.63	58.37	58.72
25	57.97	58.70	58.82	59.20	59.15	58.37	58.47	58.21	58.66	58.65	58.52	58.71
26	58.02	58.73	58.81	59.16	59.17	58.33	58.47	58.07	58.70	58.66	58.52	58.71
27	58.03	58.77	58.82	59.13	59.22	58.31	58.42	58.09	58.71	58.66	58.53	58.76
28	57.93	58.78	58.83	59.13	59.18	58.35	58.38	58.12	58.68	58.62	58.51	58.75
29	57.93	58.81	58.70	59.13	59.19	58.38	58.36	58.12	58.72	58.58	58.58	58.74
30	57.91	58.80	58.70	59.14	---	58.35	58.34	58.09	58.73	58.58	58.63	58.73
31	57.87	---	58.76	59.14	---	58.34	---	58.07	---	58.56	58.68	---
MEAN	58.09	58.47	58.80	58.85	59.12	58.64	58.39	58.21	58.43	58.61	58.55	58.75
MAX	58.28	58.81	58.87	59.20	59.23	59.17	58.49	58.39	58.73	58.72	58.72	59.10
MIN	57.87	57.86	58.70	58.66	58.97	58.31	58.22	58.07	57.98	58.52	58.37	58.61

CAL YR 1987 MEAN 58.57 MAX 59.45 MIN 57.79
WTR YR 1988 MEAN 58.57 MAX 59.23 MIN 57.86

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.--Dual 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 datum 0.12 ft lower; 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.--33 years (water years 1944-55, 1968-88), 282 ft³/s, 204,300 acre-ft/yr.

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, 1,540 ft³/s, Mar. 12,13; maximum daily gage height, 43.99 ft, Mar. 11; minimum daily discharge, 23 ft³/s, many days; minimum daily gage height, 35.02 ft, Jan. 20.

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	26	32	25	38	185	137	894	25	42	133	481	25
2	33	27	28	41	185	146	900	31	42	146	330	28
3	43	23	25	27	148	150	896	31	41	140	262	42
4	43	26	28	25	133	149	885	30	53	151	257	44
5	23	25	25	23	130	150	767	35	55	122	261	31
6	26	26	34	23	128	147	715	33	36	120	284	23
7	28	35	23	23	132	147	717	51	43	120	286	624
8	28	36	26	23	128	673	720	43	39	130	270	930
9	30	27	26	25	130	885	424	28	43	223	330	1090
10	32	28	27	23	131	987	306	26	39	258	347	1230
11	32	30	28	26	131	1370	293	31	57	245	348	1230
12	23	27	28	28	128	1540	189	28	58	247	350	1230
13	26	26	32	23	131	1540	146	23	41	246	363	966
14	28	36	28	23	135	1530	148	39	39	244	365	881
15	27	39	23	28	131	1060	157	43	36	241	347	881
16	25	28	23	35	131	986	160	37	38	260	230	881
17	33	26	26	36	130	988	166	29	46	261	173	881
18	42	23	25	25	131	991	148	28	58	245	175	881
19	26	23	26	26	137	992	147	27	57	251	178	881
20	28	28	34	29	141	978	153	28	42	249	186	348
21	23	31	23	25	136	1010	57	44	41	246	191	111
22	26	35	25	25	131	1020	29	44	44	246	172	111
23	26	27	26	26	142	1020	43	29	41	266	175	111
24	42	30	23	26	132	1030	40	34	48	260	170	111
25	37	28	28	26	132	1020	26	25	61	246	68	111
26	23	26	45	134	131	1020	31	28	64	248	26	111
27	26	35	38	181	136	1030	27	28	46	256	32	111
28	26	36	27	181	142	1020	27	44	108	254	33	111
29	30	34	31	183	131	969	31	46	131	425	26	111
30	31	30	27	183	---	891	38	52	133	496	26	111
31	33	---	26	193	---	886	---	29	---	501	23	---
TOTAL	925	883	859	1733	3969	26462	9280	1049	1622	7476	6765	14237
MEAN	29.8	29.4	27.7	55.9	137	854	309	33.8	54.1	241	218	475
MAX	43	39	45	193	185	1540	900	52	133	501	481	1230
MIN	23	23	23	23	128	137	26	23	36	120	23	23
AC-FT	1830	1750	1700	3440	7870	52490	18410	2080	3220	14830	13420	28240

CAL YR 1987 TOTAL 80898 MEAN 222 MAX 1860 MIN 23 AC-FT 160500
WTR YR 1988 TOTAL 75260 MEAN 206 MAX 1540 MIN 23 AC-FT 149300

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.88	35.48	35.49	35.26	37.24	37.14	40.60	36.02	35.71	36.26	37.94	36.47
2	35.89	35.48	35.47	35.31	37.04	37.71	40.58	35.97	35.68	36.24	37.32	36.39
3	35.91	35.49	35.43	35.29	36.82	37.82	40.54	35.90	35.67	36.36	37.17	36.47
4	35.83	35.65	35.43	35.23	36.73	37.90	40.21	35.87	35.70	36.35	37.04	36.40
5	35.74	35.67	35.40	35.19	36.69	38.90	39.93	35.87	35.73	36.26	37.01	36.41
6	35.66	35.61	35.45	35.19	36.67	38.43	39.86	35.87	35.93	36.21	37.05	37.64
7	35.64	35.57	35.43	35.17	36.67	39.36	39.84	35.88	35.94	36.16	37.06	41.03
8	35.62	35.59	35.37	35.26	36.71	40.62	39.27	35.86	35.86	36.45	37.28	42.73
9	35.60	35.55	35.37	35.26	36.72	41.37	38.38	35.73	35.84	36.92	37.77	42.92
10	35.62	35.57	35.34	35.27	36.74	43.27	38.17	35.71	35.77	37.02	37.82	42.77
11	35.64	35.55	35.34	35.28	36.69	43.99	37.87	35.82	35.78	36.98	37.72	42.62
12	35.63	35.53	35.35	35.25	36.72	43.89	37.37	35.86	35.80	36.97	37.74	42.07
13	35.63	35.48	35.35	35.32	36.69	43.83	37.17	35.88	35.76	36.92	37.77	41.12
14	35.62	35.48	35.34	35.31	36.68	42.77	37.05	35.93	35.68	36.93	37.70	40.94
15	35.61	35.48	35.38	35.20	36.66	41.59	37.01	35.98	35.68	36.91	37.65	40.80
16	35.57	35.48	35.45	35.14	36.81	41.41	36.98	35.91	35.66	36.97	37.26	40.68
17	35.55	35.51	35.40	35.13	36.75	41.35	36.94	35.79	35.66	37.00	37.02	40.67
18	35.57	35.65	35.40	35.13	36.75	41.28	36.82	35.83	35.69	37.04	36.93	40.75
19	35.53	35.63	35.34	35.05	36.79	41.54	36.68	35.82	35.71	37.03	36.79	39.78
20	35.50	35.67	35.34	35.02	36.95	41.78	36.53	35.80	35.68	37.09	36.75	38.47
21	35.49	35.62	35.32	35.31	37.47	41.73	36.28	35.83	35.67	37.02	36.39	38.13
22	35.48	35.56	35.31	36.59	37.62	41.71	36.16	35.87	35.64	37.00	35.97	38.06
23	35.48	35.53	35.31	36.77	37.57	41.65	36.19	35.78	35.62	37.10	35.82	37.87
24	35.51	35.50	35.26	36.42	37.42	41.64	36.18	35.75	35.62	37.16	35.86	37.65
25	35.52	35.49	35.26	37.04	37.27	41.60	36.11	35.89	35.67	37.08	35.98	37.52
26	35.49	35.51	35.32	38.11	37.09	41.58	36.11	35.87	35.70	37.00	35.90	37.47
27	35.48	35.58	35.33	37.96	36.99	41.58	36.08	35.82	35.78	36.98	35.92	37.68
28	35.47	35.56	35.31	37.78	36.93	41.13	36.04	35.85	36.15	37.48	35.97	37.71
29	35.47	35.55	35.32	37.58	36.82	40.76	36.00	35.85	36.14	38.28	35.99	37.67
30	35.48	35.56	35.27	37.42	---	40.68	36.02	35.84	36.25	38.35	36.43	37.61
31	35.48	---	35.26	37.34	---	40.62	---	35.75	---	38.25	36.47	---
MEAN	35.60	35.55	35.36	35.89	36.92	40.99	37.63	35.85	35.77	36.96	36.89	39.15
MAX	35.91	35.67	35.49	38.11	37.62	43.99	40.60	36.02	36.25	38.35	37.94	42.92
MIN	35.47	35.48	35.26	35.02	36.66	37.14	36.00	35.71	35.62	36.16	35.82	36.39
CAL YR 1987	MEAN	36.94	MAX	44.51	MIN	35.26						
WTR YR 1988	MEAN	36.88	MAX	43.99	MIN	35.02						

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.--56 years (water years 1933-88), 811 ft³/s, 524 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, 939 ft³/s, Sept. 29, 30, stage rising, peak occurred Oct. 3, 1988; maximum independent daily discharge, 894 ft³/s, Apr. 4; maximum gage height, 2.68 ft, Sept. 9; minimum daily discharge, 746 ft³/s, Jan. 16; minimum gage height, 0.28 ft, Jan. 20.

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	815	786	783	759	780	788	889	868	820	798	775	774
2	808	790	776	759	783	787	889	864	821	794	773	775
3	807	794	776	762	786	789	891	860	820	792	774	778
4	805	800	783	757	789	792	894	859	814	789	773	783
5	809	794	775	750	786	793	892	859	808	788	773	788
6	812	783	772	751	783	798	887	858	814	789	772	794
7	810	779	774	758	784	803	875	853	818	789	771	798
8	802	782	777	760	792	818	871	847	821	787	772	806
9	799	787	779	755	796	830	864	840	818	785	771	816
10	803	790	780	752	796	840	866	827	813	783	769	825
11	810	785	781	750	798	829	870	829	809	782	768	836
12	815	779	777	749	797	834	870	827	807	782	768	849
13	808	781	770	751	792	846	862	826	806	782	768	863
14	801	782	768	747	793	852	857	830	803	783	769	875
15	801	779	774	748	804	846	856	839	804	783	770	881
16	801	780	769	746	797	846	857	848	807	781	771	886
17	803	784	764	750	793	851	858	847	806	780	770	894
18	802	783	764	753	800	865	862	845	802	781	772	905
19	802	785	766	752	806	870	865	839	797	779	773	911
20	799	786	768	752	807	864	858	832	797	778	774	906
21	797	780	770	757	797	869	856	830	795	778	773	894
22	791	779	771	748	793	873	853	829	785	779	771	915
23	791	779	764	747	800	876	851	828	783	780	771	928
24	792	780	762	752	802	880	857	826	785	780	773	929
25	794	785	763	764	799	884	869	830	796	780	774	931
26	799	787	764	753	800	888	871	828	799	779	773	934
27	799	788	762	747	795	888	865	825	799	776	772	936
28	792	788	765	750	792	886	860	823	796	774	774	937
29	785	788	760	759	790	886	858	824	797	773	773	939
30	783	786	751	770	---	888	862	822	799	774	776	939
31	783	---	754	777	---	889	---	821	---	775	777	---
TOTAL	24818	23549	23862	23385	23030	26248	26035	25983	24139	24253	23933	26025
MEAN	801	785	770	754	794	847	868	838	805	782	772	867
MAX	815	800	783	777	807	889	894	868	821	798	777	939
MIN	783	779	751	746	780	787	851	821	783	773	768	774

CAL YR 1987 TOTAL 301983 MEAN 827 MAX 938 MIN 734
WTR YR 1988 TOTAL 295260 MEAN 807 MAX 939 MIN 746

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02239500 SILVER SPRINGS NEAR OCALA, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	.63	.56	.38	.80	.86	1.77	1.16	.86	.92	1.14	1.00
2	.84	.63	.54	.38	.78	.92	1.77	1.14	.85	.89	1.11	1.06
3	.83	.65	.53	.38	.75	.95	1.77	1.12	.84	.88	1.07	1.09
4	.82	.71	.53	.36	.74	.99	1.77	1.10	.83	.88	1.03	1.09
5	.81	.68	.52	.35	.73	1.07	1.73	1.09	.85	.87	1.02	1.15
6	.79	.65	.52	.34	.73	1.30	1.71	1.08	.97	.86	1.02	1.60
7	.78	.64	.52	.35	.73	1.35	1.70	1.07	.94	.85	1.02	2.12
8	.76	.64	.51	.37	.74	1.38	1.69	1.07	.93	.85	1.01	2.53
9	.75	.63	.50	.36	.75	1.52	1.62	1.05	.92	.89	1.05	2.66
10	.75	.63	.50	.35	.75	2.09	1.57	1.03	.89	.91	1.08	2.59
11	.75	.61	.49	.34	.75	2.19	1.54	1.04	.88	.92	1.09	2.52
12	.76	.61	.48	.34	.74	2.13	1.49	1.04	.87	.92	1.09	2.46
13	.75	.60	.48	.34	.73	2.10	1.44	1.04	.86	.95	1.09	2.36
14	.74	.59	.47	.33	.73	2.08	1.41	1.04	.84	.97	1.09	2.29
15	.73	.58	.49	.32	.76	1.94	1.38	1.04	.83	.97	1.12	2.27
16	.73	.58	.48	.31	.79	1.85	1.36	1.02	.82	.97	1.15	2.25
17	.72	.61	.47	.31	.79	1.82	1.36	.99	.81	.99	1.16	2.24
18	.71	.63	.46	.30	.78	1.82	1.34	.98	.80	1.03	1.15	2.24
19	.71	.63	.46	.29	.79	1.85	1.32	.97	.80	1.02	1.12	2.24
20	.70	.62	.45	.29	.83	1.87	1.30	.96	.80	1.04	1.09	2.16
21	.69	.60	.45	.47	1.02	1.88	1.26	.94	.81	1.03	1.07	2.10
22	.68	.59	.44	.70	1.07	1.88	1.22	.94	.79	1.02	1.06	2.11
23	.67	.59	.43	.68	1.02	1.88	1.20	.92	.79	1.05	1.04	2.10
24	.67	.58	.43	.62	.98	1.88	1.20	.91	.81	1.07	1.02	2.08
25	.67	.57	.42	.80	.95	1.88	1.20	.97	.81	1.06	.97	2.07
26	.67	.58	.42	.94	.91	1.88	1.18	.94	.80	1.04	.95	2.07
27	.66	.58	.42	.90	.89	1.88	1.17	.92	.79	1.03	.96	2.11
28	.65	.58	.41	.86	.88	1.87	1.15	.91	.86	1.03	.98	2.08
29	.64	.57	.40	.83	.87	1.82	1.13	.90	.92	1.08	.98	2.07
30	.63	.57	.39	.81	---	1.79	1.14	.89	.95	1.12	1.00	2.06
31	.63	---	.38	.80	---	1.78	---	.88	---	1.13	1.00	---
MEAN	.73	.61	.47	.49	.82	1.69	1.43	1.00	.85	.98	1.06	2.03
MAX	.86	.71	.56	.94	1.07	2.19	1.77	1.16	.97	1.13	1.16	2.66
MIN	.63	.57	.38	.29	.73	.86	1.13	.88	.79	.85	.95	1.00
CAL YR 1987	MEAN	1.07	MAX	2.64	MIN	.34						
WTR YR 1988	MEAN	1.01	MAX	2.66	MIN	.29						

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.--Records good. Some effect from Moss Bluff Dam 13.3 mi upstream.

AVERAGE DISCHARGE.--27 years (water years 1931-36, 1978-88), 1,150 ft³/s, 13.06 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, 2,930 ft³/s, Sept. 9, gage height, 7.36 ft; minimum, 727 ft³/s, Jan. 20, gage height, 3.23 ft.

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	844	781	781	746	1010	959	1800	861	815	872	1130	848
2	842	782	777	750	982	1030	1790	856	810	854	1040	917
3	842	785	772	749	947	1060	1780	848	808	867	1000	926
4	834	815	769	743	932	1090	1760	843	808	868	971	919
5	826	816	767	737	924	1150	1660	838	812	859	962	949
6	816	804	770	733	921	1290	1610	837	846	851	961	1350
7	811	799	772	737	920	1360	1580	838	847	847	962	2100
8	809	801	766	752	924	1550	1530	839	835	859	970	2750
9	805	800	763	751	926	1790	1330	826	833	917	1040	2900
10	807	800	762	752	928	2720	1260	818	824	939	1080	2810
11	809	794	760	751	923	2850	1220	830	822	942	1070	2690
12	810	785	760	750	920	2780	1130	835	823	942	1070	2600
13	808	779	760	754	916	2740	1070	838	819	940	1060	2290
14	805	776	761	749	915	2640	1040	842	813	944	1070	2160
15	803	778	769	740	923	2280	1020	846	812	941	1100	2090
16	799	778	775	739	945	2110	1020	843	807	945	1110	2050
17	797	787	768	740	940	2040	1010	830	806	953	1090	2010
18	799	808	766	735	935	2020	994	830	808	971	1060	2010
19	797	802	763	731	938	2050	975	830	809	962	1020	1940
20	792	802	761	730	958	2110	952	827	808	975	976	1570
21	790	795	760	812	1070	2140	916	829	807	961	957	1390
22	787	791	758	944	1120	2130	893	832	802	956	941	1350
23	786	789	757	955	1120	2120	891	826	799	970	933	1310
24	789	782	753	908	1080	2110	891	821	800	988	901	1260
25	791	780	752	1030	1040	2100	883	840	804	980	845	1220
26	789	782	755	1180	1010	2090	877	834	806	962	828	1210
27	785	790	757	1180	984	2080	872	828	807	953	829	1270
28	783	790	756	1120	971	2060	863	828	850	967	848	1260
29	781	788	751	1070	958	1910	857	829	864	1060	839	1250
30	780	787	748	1040	---	1850	856	828	861	1110	844	1240
31	779	---	746	1020	---	1830	---	821	---	1120	850	---
TOTAL	24895	23746	23635	26128	28080	60039	35330	25871	24565	29275	30357	50639
MEAN	803	792	762	843	968	1937	1178	835	819	944	979	1688
MAX	844	816	781	1180	1120	2850	1800	861	864	1120	1130	2900
MIN	779	776	746	730	915	959	856	818	799	847	828	848
CFSM	.67	.66	.64	.70	.81	1.62	.98	.70	.68	.79	.82	1.41
IN.	.77	.74	.74	.81	.87	1.87	1.10	.80	.76	.91	.94	1.58

CAL YR 1987 TOTAL 400452 MEAN 1097 MAX 3340 MIN 746 CFSM .92 IN. 12.46
WTR YR 1988 TOTAL 382560 MEAN 1045 MAX 2900 MIN 730 CFSM .87 IN. 11.90

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.06	3.61	3.61	3.37	4.82	4.63	6.29	4.16	3.86	4.21	5.19	4.08
2	4.04	3.62	3.58	3.39	4.73	4.89	6.28	4.13	3.82	4.12	4.93	4.44
3	4.05	3.65	3.55	3.39	4.58	4.99	6.27	4.09	3.80	4.19	4.81	4.48
4	3.99	3.86	3.53	3.34	4.51	5.08	6.24	4.05	3.81	4.19	4.69	4.44
5	3.94	3.87	3.51	3.30	4.47	5.24	6.13	4.02	3.83	4.15	4.65	4.57
6	3.86	3.78	3.54	3.27	4.46	5.56	6.06	4.02	4.08	4.11	4.64	5.61
7	3.83	3.74	3.55	3.30	4.45	5.71	6.03	4.02	4.08	4.08	4.65	6.60
8	3.81	3.76	3.51	3.41	4.47	5.99	5.96	4.03	4.00	4.14	4.68	7.21
9	3.79	3.75	3.49	3.40	4.48	6.27	5.66	3.94	3.98	4.44	4.94	7.34
10	3.80	3.75	3.48	3.41	4.49	7.18	5.49	3.88	3.92	4.54	5.04	7.26
11	3.81	3.71	3.47	3.40	4.46	7.29	5.39	3.96	3.90	4.56	5.02	7.16
12	3.82	3.64	3.47	3.39	4.45	7.24	5.17	4.00	3.92	4.56	5.01	7.08
13	3.81	3.60	3.47	3.42	4.43	7.20	5.02	4.02	3.88	4.55	4.99	6.78
14	3.78	3.58	3.47	3.38	4.43	7.11	4.93	4.05	3.84	4.57	5.01	6.66
15	3.77	3.59	3.53	3.32	4.46	6.78	4.88	4.07	3.83	4.56	5.10	6.59
16	3.75	3.60	3.57	3.31	4.57	6.61	4.85	4.05	3.80	4.58	5.14	6.55
17	3.73	3.65	3.52	3.32	4.55	6.54	4.83	3.96	3.79	4.61	5.07	6.51
18	3.74	3.81	3.51	3.28	4.52	6.52	4.77	3.97	3.80	4.68	4.98	6.51
19	3.72	3.76	3.48	3.25	4.54	6.55	4.70	3.96	3.81	4.65	4.85	6.44
20	3.69	3.77	3.47	3.25	4.63	6.61	4.61	3.94	3.81	4.70	4.71	6.01
21	3.68	3.72	3.46	3.81	5.00	6.64	4.43	3.96	3.80	4.64	4.63	5.76
22	3.66	3.69	3.45	4.57	5.16	6.63	4.32	3.98	3.76	4.62	4.55	5.70
23	3.65	3.67	3.45	4.62	5.15	6.62	4.31	3.94	3.74	4.68	4.52	5.61
24	3.67	3.62	3.42	4.39	5.05	6.61	4.31	3.90	3.75	4.75	4.36	5.50
25	3.69	3.61	3.40	4.87	4.93	6.60	4.27	4.04	3.78	4.72	4.06	5.41
26	3.67	3.62	3.43	5.30	4.83	6.59	4.24	3.99	3.79	4.65	3.95	5.38
27	3.64	3.68	3.44	5.30	4.74	6.58	4.21	3.95	3.80	4.61	3.95	5.52
28	3.62	3.68	3.44	5.16	4.69	6.56	4.17	3.95	4.09	4.67	4.09	5.51
29	3.61	3.66	3.40	5.03	4.63	6.41	4.14	3.96	4.17	4.99	4.03	5.48
30	3.61	3.66	3.38	4.92	---	6.35	4.13	3.95	4.15	5.13	4.06	5.44
31	3.60	---	3.36	4.86	---	6.32	---	3.90	---	5.16	4.10	---
MEAN	3.77	3.69	3.48	3.86	4.64	6.32	5.07	3.99	3.88	4.54	4.66	5.92
MAX	4.06	3.87	3.61	5.30	5.16	7.29	6.29	4.16	4.17	5.16	5.19	7.34
MIN	3.60	3.58	3.36	3.25	4.43	4.63	4.13	3.88	3.74	4.08	3.95	4.08

WTR YR 1988 MEAN 4.48 MAX 7.34 MIN 3.25

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; 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, 444 microsiemens, Nov. 23; minimum daily mean, 227 microsiemens, Sept. 8.

WATER TEMPERATURE: Maximum daily mean, 26.8°C, July 31, Aug. 1, Sept. 12; minimum daily mean, 17.1°C, Jan. 27.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	432	434	438	439	406	422	391	436	398	390	382	397
2	431	434	438	438	409	412	391	437	398	394	386	387
3	430	434	438	438	411	408	392	412	399	394	385	385
4	430	428	438	440	410	410	394	400	399	395	388	391
5	433	433	437	440	409	410	398	399	398	396	---	387
6	435	433	439	439	416	379	401	399	387	397	---	323
7	434	433	443	438	416	370	402	398	394	397	---	258
8	435	431	443	436	415	373	403	398	397	396	---	227
9	435	432	441	436	411	355	410	400	396	391	---	239
10	433	433	440	437	413	293	414	400	398	389	---	277
11	434	434	439	436	411	307	416	398	399	391	---	308
12	436	433	438	435	414	329	424	397	399	391	---	323
13	437	434	438	436	418	351	425	398	400	389	---	340
14	438	434	439	438	417	363	426	397	401	390	---	346
15	437	434	437	437	420	377	426	396	400	391	---	352
16	435	435	438	436	421	373	426	398	400	394	---	354
17	434	435	438	439	423	378	426	399	400	392	372	357
18	434	435	438	439	419	377	427	399	399	390	380	356
19	434	439	439	440	414	373	429	399	400	394	383	360
20	435	440	439	439	418	372	431	399	400	394	382	375
21	435	440	439	429	404	370	434	398	402	392	383	376
22	434	441	440	416	396	372	436	398	400	391	383	369
23	435	444	439	413	413	378	435	399	400	391	388	375
24	434	443	439	420	423	378	435	399	399	394	394	376
25	433	442	438	425	421	381	436	394	397	394	402	378
26	434	443	436	389	433	383	436	398	400	393	399	376
27	435	442	437	374	430	383	436	398	400	392	397	367
28	436	442	439	393	426	380	436	397	393	386	396	374
29	436	440	439	389	425	382	435	397	393	378	398	374
30	435	438	439	398	---	388	436	398	384	376	396	379
31	434	---	439	401	---	389	---	398	---	382	398	---
MEAN	434	436	439	426	416	375	420	401	398	391	---	350
MAX	438	444	443	440	433	422	436	437	402	397	---	397
MIN	430	428	436	374	396	293	391	394	384	376	---	227

CAL YR 1987 MEAN 413 MAX 444 MIN 268

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.8	23.0	22.0	22.3	20.5	21.4	22.7	22.9	24.0	24.7	26.8	24.5
2	23.7	23.1	21.9	22.3	21.0	21.0	22.8	23.1	24.0	24.7	26.0	24.6
3	23.7	23.1	21.9	22.2	21.4	21.2	22.8	23.2	24.0	24.7	25.8	24.8
4	23.3	23.2	22.1	22.0	21.6	21.4	23.2	23.4	23.9	24.7	25.8	24.9
5	23.1	23.1	21.5	21.6	21.2	21.2	23.5	23.5	23.8	24.7	---	24.4
6	23.3	22.8	21.5	21.6	20.4	20.0	23.2	23.2	23.9	24.5	---	24.6
7	23.2	22.6	22.1	21.9	20.0	19.8	22.6	23.3	24.1	24.5	---	24.8
8	22.8	22.8	22.4	21.9	20.2	19.9	22.1	23.3	24.0	24.7	---	24.7
9	22.9	23.0	22.6	21.4	20.4	20.0	22.2	23.4	24.2	25.2	---	25.0
10	23.2	23.4	22.7	21.4	20.6	18.9	22.6	23.5	24.2	25.4	---	25.8
11	23.2	22.7	22.6	21.5	21.0	18.1	22.5	23.5	24.1	25.4	---	26.4
12	23.1	22.0	22.3	21.4	21.0	18.6	22.0	23.6	23.9	25.6	---	26.8
13	22.8	22.0	22.4	21.7	20.4	19.6	21.9	23.4	23.8	25.6	---	26.4
14	22.6	22.4	22.6	21.3	20.4	19.9	22.3	23.6	23.8	25.5	---	26.3
15	22.5	22.7	22.7	21.3	20.5	18.5	22.7	23.7	23.9	25.5	---	26.3
16	22.9	22.9	21.9	21.3	20.2	17.7	22.7	23.8	24.1	25.7	---	26.4
17	23.1	23.0	21.3	22.0	20.3	17.5	23.0	23.8	24.2	25.7	25.6	26.3
18	23.2	22.8	21.5	22.4	20.6	17.6	23.1	23.9	24.3	25.6	25.5	26.3
19	23.2	22.7	22.0	22.6	21.2	18.1	23.2	24.0	24.3	25.4	25.6	26.1
20	23.4	22.4	22.4	22.8	21.2	17.5	23.2	24.0	24.0	25.4	25.5	25.4
21	23.3	21.7	22.6	22.1	20.1	17.9	23.4	23.9	24.0	25.3	25.5	25.1
22	22.6	21.8	22.6	20.4	19.5	18.4	23.4	23.9	24.3	25.2	25.5	24.9
23	22.7	22.2	22.4	19.9	19.8	19.3	23.6	24.0	24.3	25.0	25.6	24.9
24	23.1	22.4	22.6	20.1	20.7	20.2	23.8	24.2	24.3	24.7	25.3	24.6
25	23.1	22.7	22.9	18.9	20.4	21.0	23.6	23.7	24.2	24.9	24.4	24.6
26	23.0	22.8	22.8	17.5	20.4	21.6	23.8	23.6	24.3	25.0	24.4	24.4
27	23.2	22.9	22.7	17.1	20.5	22.1	23.9	23.6	24.5	25.1	24.1	24.3
28	22.9	22.7	22.8	17.3	21.0	22.3	23.6	23.8	24.5	25.4	24.4	24.3
29	22.4	22.8	22.0	18.1	21.0	22.4	23.2	23.8	24.8	26.2	24.5	24.1
30	22.5	22.1	21.6	19.2	---	22.7	22.8	23.8	24.9	26.6	24.4	24.2
31	22.7	---	22.1	19.9	---	22.8	---	24.0	---	26.8	24.5	---
MEAN	23.0	22.7	22.2	20.9	20.6	20.0	23.0	23.6	24.2	25.3	---	25.2
MAX	23.8	23.4	22.9	22.8	21.6	22.8	23.9	24.2	24.9	26.8	---	26.8
MIN	22.4	21.7	21.3	17.1	19.5	17.5	21.9	22.9	23.8	24.5	---	24.1

CAL YR 1987 MEAN 22.7 MAX 25.0 MIN 16.6

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 13...	0753	3.61	799	799	7.7	21.5	0.40	5.2	68	48
JAN 06...	1440	3.27	733	403	8.1	22.0	0.50	7.8	E35	E40
FEB 29...	1027	4.63	957	381	7.8	20.5	1.2	5.0	32	52
MAY 04...	1715	4.05	842	421	8.1	24.5	0.30	7.0	490	140
JUL 05...	1750	4.13	856	436	8.0	25.0	1.0	6.8	64	E30
SEP 07...	1606	6.71	2210	228	--	24.5	5.0	3.6	470	580

DATE	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)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 13...	68	9.8	6.3	1.0	161	49	12	0.20	9.9	246
JAN 06...	69	10	7.7	1.0	175	49	8.9	0.20	9.5	256
FEB 29...	68	11	7.5	1.6	123	62	12	0.20	9.0	270
MAY 04...	68	10	6.6	1.0	149	55	10	0.20	9.2	255
JUL 05...	65	10	7.6	1.7	146	46	12	0.70	8.9	255
SEP 07...	38	7.3	7.1	2.6	79	45	13	0.10	9.1	218

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDEd (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 13...	0.010	0.820	0.030	0.110	<0.20	0.040	0.030	0.030	33	3
JAN 06...	0.010	0.810	0.020	0.040	<0.20	0.040	0.040	0.020	5	40
FEB 29...	0.020	0.740	0.070	0.080	0.70	0.040	0.020	0.030	27	100
MAY 04...	<0.010	0.750	0.070	0.060	0.30	0.040	0.040	0.020	4	50
JUL 05...	<0.010	0.740	0.150	0.140	1.3	0.040	0.030	0.030	2	100
SEP 07...	0.020	0.410	0.150	0.170	1.3	0.060	0.020	0.010	14	98

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 1987 TO SEPTEMBER 1988

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
FEB 29...	40	1	12	<0.5	2	3	<3	5	69	10
MAY 04...	<10	1	6	<0.5	<1	2	<3	1	10	<5
JUL 05...	<10	1	6	<0.5	<1	1	<3	<1	12	<5
SEP 07...	150	1	10	<0.5	<1	1	<3	1	300	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB 29...	<4	5	<0.1	<10	6	2	<1.0	530	<6	18
MAY 04...	9	2	<0.1	<10	4	<1	<1.0	610	<6	10
JUL 05...	7	3	<0.1	<10	<1	<1	<1.0	540	<6	<3
SEP 07...	<4	10	<0.1	<10	1	<1	<1.0	230	<6	6

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.--20 years (water years 1931-34, 1944-52, 1982-88), 1,350 ft³/s, 13.39 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, 626 ft³/s, Feb. 2, 1933, gage height, 18.08 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,680 ft³/s, Sept. 10, gage height, 24.50 ft; minimum, 739 ft³/s, Jan. 7, gage height, 19.63 ft.

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	890	801	780	754	1300	1140	1970	931	845	907	1050	1040
2	891	814	767	759	1250	1120	1920	944	836	911	1070	1090
3	884	829	764	767	1210	1110	1880	926	827	905	1090	1100
4	875	947	762	761	1180	1150	1860	909	824	905	1090	1100
5	869	946	760	752	1150	1250	1850	902	830	905	1080	1110
6	857	903	761	745	1150	1400	1830	892	869	909	1060	1270
7	843	857	773	750	1130	1550	1780	885	909	906	1050	1670
8	831	829	783	853	1130	1720	1710	880	933	899	1060	2580
9	824	821	782	863	1120	1810	1670	874	921	897	1060	3410
10	823	818	779	884	1100	2220	1630	864	908	917	1050	3670
11	823	812	774	863	1090	2980	1560	857	904	938	1080	3590
12	839	798	765	833	1070	3330	1450	880	902	960	1090	3370
13	857	775	760	816	1050	3310	1380	914	900	1010	1100	3110
14	844	758	755	808	1030	3190	1300	926	898	1060	1110	2840
15	833	753	782	795	1050	3030	1220	920	893	1030	1140	2580
16	829	752	848	775	1110	2860	1160	905	884	1010	1190	2360
17	819	782	825	763	1140	2630	1110	895	868	980	1240	2220
18	809	896	806	762	1150	2450	1080	884	854	975	1270	2130
19	803	905	797	757	1150	2390	1060	878	843	1000	1240	2090
20	797	890	785	753	1180	2330	1050	864	843	1030	1190	2140
21	786	851	770	938	1260	2280	1040	847	853	1010	1140	2090
22	778	818	774	1090	1330	2250	1010	837	843	1000	1090	2040
23	772	805	771	1160	1410	2250	981	834	827	1020	1040	1880
24	771	804	769	1190	1450	2240	956	834	819	1050	1010	1740
25	775	811	762	1280	1420	2230	940	902	823	1060	986	1640
26	781	814	760	1320	1360	2210	937	918	833	1040	961	1560
27	784	825	760	1370	1290	2190	931	915	825	1020	994	1540
28	785	824	758	1420	1230	2170	913	894	841	994	1090	1510
29	785	812	756	1420	1180	2140	896	874	912	980	1060	1490
30	788	796	753	1390	---	2110	891	861	915	981	1050	1470
31	793	---	754	1350	---	2040	---	852	---	1010	1030	---
TOTAL	25438	24846	24003	29741	34670	67080	39975	27498	25982	30219	33761	61430
MEAN	821	828	774	959	1196	2164	1332	887	866	975	1089	2048
MAX	891	947	848	1420	1450	3330	1970	944	933	1060	1270	3670
MIN	771	752	753	745	1030	1110	891	834	819	897	961	1040
CFSM	.60	.61	.57	.70	.87	1.58	.97	.65	.63	.71	.80	1.50
IN.	.69	.68	.65	.81	.94	1.83	1.09	.75	.71	.82	.92	1.67

CAL YR 1987 TOTAL 434938 MEAN 1192 MAX 4140 MIN 752 CFSM .87 IN. 11.84
WTR YR 1988 TOTAL 424643 MEAN 1160 MAX 3670 MIN 745 CFSM .85 IN. 11.56

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.--10 years, 72.5 ft³/s, 8.64 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, 549 ft³/s, Sept. 11, gage height, 7.69 ft; minimum, 0.25 ft³/s, Jan. 17; minimum gage height, 1.80 ft, Jan. 4, 5, 17.

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	8.6	4.0	2.7	.47	.53	60	213	58	8.1	3.5	1.9	6.4
2	8.4	4.0	2.7	.47	.48	59	208	48	7.0	3.4	2.0	8.8
3	8.4	4.0	2.5	.44	.48	56	202	41	6.6	3.4	2.1	10
4	8.2	3.9	2.5	.34	.55	67	196	34	7.4	3.3	2.5	10
5	7.8	3.6	2.4	.37	.58	96	193	32	6.7	3.3	2.3	17
6	7.7	3.8	2.2	.36	.52	122	186	28	6.4	3.3	2.2	111
7	7.6	3.8	2.3	.35	.75	138	179	27	6.4	3.2	2.1	271
8	7.1	3.7	1.9	.35	.88	150	175	24	6.0	3.9	2.3	368
9	6.8	3.6	1.7	.34	3.0	164	170	20	5.9	3.7	2.2	416
10	6.7	3.5	1.5	.31	11	198	165	17	6.0	3.2	2.3	514
11	6.4	3.5	1.3	.31	9.9	229	157	17	6.3	3.0	2.4	538
12	6.0	3.5	1.2	.31	6.9	243	150	19	6.2	3.0	2.5	540
13	5.8	3.3	1.4	.31	3.7	250	147	18	5.8	3.0	2.4	530
14	5.7	3.2	1.2	.33	2.6	256	140	30	5.6	3.1	2.4	512
15	5.5	3.0	1.1	.30	2.1	253	133	28	5.2	3.1	2.5	494
16	5.3	2.9	1.1	.29	2.3	250	126	25	5.0	3.1	2.8	478
17	5.2	2.9	1.0	.73	2.4	245	120	22	4.8	3.0	2.8	462
18	5.2	3.0	.93	1.3	2.6	244	111	19	4.5	3.1	3.1	446
19	4.8	3.0	1.0	1.1	2.6	256	106	18	4.2	3.0	3.0	432
20	4.7	3.0	1.1	.99	3.8	259	108	16	4.1	2.4	3.3	416
21	4.4	3.0	1.1	1.1	7.5	260	97	15	3.8	2.2	3.4	398
22	4.4	2.9	1.1	.79	20	261	88	14	3.7	2.0	3.3	384
23	4.4	2.8	1.0	.77	36	260	78	11	3.7	1.9	3.3	369
24	4.3	2.8	.89	.74	49	254	70	10	3.6	1.9	3.2	354
25	4.2	2.8	.77	.74	55	250	69	13	3.7	1.8	3.0	340
26	3.9	2.8	.74	.66	58	245	63	16	3.4	1.8	2.9	339
27	3.8	2.8	.71	.63	52	243	66	12	3.4	1.9	3.4	334
28	4.0	2.8	.63	.59	59	240	60	11	3.5	1.9	4.0	319
29	3.9	2.7	.62	.58	57	233	52	9.9	3.5	2.0	5.0	307
30	3.8	2.6	.55	.67	---	227	54	9.8	3.5	1.9	5.9	299
31	3.9	---	.49	.59	---	221	---	9.3	---	2.0	7.0	---
TOTAL	176.9	97.2	42.33	17.63	451.17	6289	3882	672.0	154.0	85.3	93.5	10023.2
MEAN	5.71	3.24	1.37	.57	15.6	203	129	21.7	5.13	2.75	3.02	334
MAX	8.6	4.0	2.7	1.3	59	261	213	58	8.1	3.9	7.0	540
MIN	3.8	2.6	.49	.29	.48	56	52	9.3	3.4	1.8	1.9	6.4
CFSM	.05	.03	.01	.00	.14	1.78	1.14	.19	.05	.02	.03	2.93
IN.	.06	.03	.01	.01	.15	2.05	1.27	.22	.05	.03	.03	3.27

CAL YR 1987 TOTAL 33720.23 MEAN 92.4 MAX 485 MIN .49 CFSM .81 IN. 11.00
WTR YR 1988 TOTAL 21984.23 MEAN 60.1 MAX 540 MIN .29 CFSM .53 IN. 7.17

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.--Estimated daily discharges: Sept. 10-30, figures represent discharge of Haile Sink. Records fair except for estimated daily discharges, which are poor. Flow affected at times by backwater from Haile Sink.

AVERAGE DISCHARGE.--16 years (water years 1973-88), 20.3 ft³/s, 6.69 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, 1,040 ft³/s, Sept. 7, gage height, 60.53 ft; minimum, 0.15 ft³/s, July 8,9,10, gage height, 56.06 ft.

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	6.0	.62	2.3	3.3	9.4	13	15	10	1.0	.97	4.3	201
2	4.6	.66	2.2	3.4	8.8	12	14	13	.98	1.0	8.7	96
3	2.2	.83	2.1	3.3	8.1	11	14	7.6	.90	.61	3.1	57
4	1.4	8.1	2.2	3.4	7.7	31	14	5.6	.90	.49	6.4	37
5	1.1	20	2.0	3.4	7.2	218	13	5.1	.97	.36	7.1	43
6	.84	7.1	2.0	3.4	9.1	195	13	4.4	2.6	.31	20	570
7	.59	2.1	2.1	4.0	14	126	14	3.9	4.6	.25	44	860
8	.33	1.4	2.1	9.7	13	76	12	3.6	3.5	.19	36	547
9	.31	2.3	2.2	13	13	92	11	3.4	2.7	.19	28	270
10	.36	14	2.2	14	10	327	11	3.2	1.2	.22	28	25
11	.41	15	2.9	10	8.5	239	21	3.1	.93	.50	33	24
12	.52	5.6	2.8	7.0	7.8	124	22	3.1	.74	.40	24	23
13	.52	2.5	2.4	5.6	7.0	77	20	3.0	.63	1.5	16	23
14	.42	1.9	2.2	5.0	6.6	55	15	8.2	.52	7.4	54	22
15	.36	1.7	4.1	4.4	10	41	12	14	.45	7.6	75	22
16	.42	1.4	32	4.2	50	33	9.9	5.1	.39	2.3	133	22
17	.38	4.1	20	4.0	33	28	9.1	3.2	.33	1.3	163	21
18	.36	35	10	4.3	20	32	8.4	2.6	.29	.91	104	21
19	.37	31	6.7	4.0	15	125	8.9	2.3	.26	.75	62	21
20	.50	43	5.2	4.9	62	107	10	2.0	.27	1.7	44	19
21	.48	27	4.5	90	239	69	7.8	1.7	.72	2.2	29	19
22	.37	13	4.1	127	138	49	7.0	1.6	.48	1.4	19	19
23	.41	7.1	3.8	64	71	38	6.5	1.5	.36	3.3	13	18
24	.47	4.9	3.7	32	43	32	6.4	1.4	.34	11	9.2	18
25	.51	3.9	3.6	41	30	28	6.2	6.6	.79	3.8	8.1	17
26	.59	4.1	3.4	51	22	25	6.2	9.0	1.8	1.5	12	17
27	.66	3.7	3.4	31	18	23	6.3	2.8	1.0	1.2	55	16
28	.65	3.0	3.4	20	16	21	5.5	1.8	1.5	.93	244	16
29	.55	2.7	4.4	14	14	19	4.9	1.4	4.0	.83	139	16
30	.51	2.5	4.0	12	---	17	5.0	1.2	1.1	.84	111	16
31	.53	---	3.5	10	---	16	---	1.1	---	.86	300	---
TOTAL	27.72	268.21	151.5	606.3	911.2	2299	329.1	136.5	36.25	56.81	1832.9	3096
MEAN	.89	8.94	4.89	19.6	31.4	74.2	11.0	4.40	1.21	1.83	59.1	103
MAX	6.0	43	32	127	239	327	22	14	4.6	11	300	860
MIN	.31	.62	2.0	3.3	6.6	11	4.9	1.1	.26	.19	3.1	16
AC-FT	55	532	301	1200	1810	4560	653	271	72	113	3640	6140
CFSM	.02	.22	.12	.47	.76	1.80	.27	.11	.03	.04	1.44	2.50
IN.	.03	.24	.14	.55	.82	2.08	.30	.12	.03	.05	1.65	2.80

CAL YR 1987 TOTAL 7869.43 MEAN 21.6 MAX 374 MIN .31 AC-FT 15610 CFSM .52 IN. 7.11
WTR YR 1988 TOTAL 9751.49 MEAN 26.6 MAX 860 MIN .19 AC-FT 19340 CFSM .65 IN. 8.80

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02241000 CAMPS CANAL NEAR ROCHELLE, FL

LOCATION.--Lat 29°34'33", long 82°15'00", in SW $\frac{1}{4}$ 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 fair. Seasonal diversion out of or into canal above station by drainage and/or pumpage for irrigation of pastures in Paynes Prairie.

AVERAGE DISCHARGE.--13 years (water years 1958-60, 1979-88), 84.5 ft³/s, 1.48 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, 380 ft³/s, Sept. 12, gage height, 10.83 ft; minimum, 0.39 ft³/s, part or all of each day, July 31 to Aug. 4; minimum gage height, 6.68 ft, Aug. 3, 4.

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	7.2	5.2	2.2	1.3	2.1	22	102	21	3.9	1.5	.39	2.8
2	6.9	5.7	2.2	1.3	2.1	23	98	19	3.5	1.4	.39	3.0
3	6.6	6.3	2.2	1.2	2.0	22	94	17	3.1	1.3	.39	4.0
4	6.5	7.4	2.4	1.2	2.0	26	91	15	2.8	1.3	.46	4.4
5	6.5	6.2	2.6	1.1	2.1	33	88	14	3.1	1.3	.52	10
6	6.3	4.6	2.8	1.0	2.5	42	85	13	3.1	1.2	.52	62
7	6.1	3.9	2.9	1.0	2.3	48	82	12	2.8	1.2	.52	143
8	6.0	3.8	3.0	1.2	2.9	54	77	10	2.7	1.1	.52	186
9	5.7	3.8	2.8	1.3	2.8	66	70	9.1	2.4	1.3	.52	257
10	5.5	4.3	2.6	1.4	6.1	90	69	8.0	2.2	1.3	.52	314
11	5.5	4.0	2.3	1.4	8.0	93	65	7.6	2.3	1.3	.52	360
12	5.5	3.3	2.2	1.3	7.8	102	56	7.7	2.3	1.2	.74	378
13	5.2	3.1	2.1	1.3	6.3	109	54	7.9	2.2	1.5	.91	374
14	5.0	2.9	2.1	1.2	5.5	114	52	8.1	2.1	1.4	1.3	350
15	4.8	2.9	2.3	1.2	5.1	114	49	13	2.0	1.5	1.3	327
16	4.8	2.7	2.4	1.0	5.4	113	46	11	1.9	1.4	1.7	309
17	4.4	3.1	2.1	1.0	4.8	112	44	10	1.8	1.3	2.1	300
18	4.3	3.9	2.0	1.5	4.7	115	41	8.7	1.8	1.3	1.8	296
19	4.2	3.4	1.9	2.1	5.0	122	38	7.9	1.7	1.1	1.5	284
20	4.1	3.2	1.8	2.4	6.9	120	37	7.5	1.7	1.3	1.4	247
21	4.0	2.9	1.9	5.0	8.2	119	35	7.1	1.6	1.1	1.4	231
22	3.8	2.9	2.0	3.4	9.2	122	31	6.7	1.5	1.0	1.4	226
23	3.8	2.7	2.0	2.2	14	124	27	5.8	1.4	1.0	1.3	215
24	4.0	2.6	1.9	2.0	17	123	24	5.0	1.4	1.0	1.3	194
25	4.2	2.5	1.8	2.3	20	120	23	6.3	1.8	1.0	1.3	179
26	4.4	2.7	1.7	2.2	20	118	22	6.4	2.1	1.0	1.3	174
27	4.6	2.7	1.7	2.0	21	115	22	6.8	1.7	.94	2.0	167
28	4.6	2.8	1.6	1.9	21	113	21	5.7	1.7	.67	2.8	162
29	4.8	2.6	1.6	1.8	22	111	20	5.1	1.7	.52	2.1	155
30	4.8	2.4	1.4	1.9	---	107	18	4.7	1.6	.52	2.1	148
31	5.0	---	1.4	2.0	---	106	---	4.3	---	.42	2.6	---
TOTAL	159.1	110.5	65.9	53.1	238.8	2818	1581	291.4	65.9	35.37	37.62	6042.2
MEAN	5.13	3.68	2.13	1.71	8.23	90.9	52.7	9.40	2.20	1.14	1.21	201
MAX	7.2	7.4	3.0	5.0	22	124	102	21	3.9	1.5	2.8	378
MIN	3.8	2.4	1.4	1.0	2.0	22	18	4.3	1.4	.42	.39	2.8
CFSM	.01	.00	.00	.00	.01	.12	.07	.01	.00	.00	.00	.26
IN.	.01	.01	.00	.00	.01	.14	.08	.01	.00	.00	.00	.29

CAL YR 1987 TOTAL 37043.7 MEAN 101 MAX 544 MIN 1.4 CFSM .13 IN. 1.78
WTR YR 1988 TOTAL 11498.89 MEAN 31.4 MAX 378 MIN .39 CFSM .04 IN. .55

02241000 CAMPS CANAL NEAR ROCHELLE, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.20	7.19	7.09	6.91	7.09	8.01	9.07	7.97	7.26	6.96	6.69	7.17
2	7.19	7.23	7.10	6.90	7.09	8.03	9.04	7.93	7.23	6.94	6.69	7.19
3	7.17	7.28	7.13	6.89	7.08	8.02	9.00	7.87	7.20	6.92	6.68	7.27
4	7.16	7.37	7.15	6.88	7.08	8.08	8.96	7.83	7.17	6.91	6.70	7.30
5	7.16	7.29	7.16	6.87	7.10	8.21	8.93	7.79	7.20	6.89	6.71	7.69
6	7.14	7.17	7.18	6.85	7.15	8.34	8.89	7.76	7.19	6.88	6.73	8.62
7	7.13	7.11	7.18	6.84	7.13	8.43	8.86	7.73	7.17	6.87	6.73	9.41
8	7.12	7.10	7.19	6.88	7.18	8.52	8.81	7.70	7.16	6.86	6.73	9.73
9	7.09	7.12	7.18	6.91	7.17	8.68	8.72	7.65	7.15	6.91	6.73	10.21
10	7.08	7.16	7.16	6.95	7.43	8.95	8.71	7.57	7.13	6.90	6.73	10.53
11	7.09	7.14	7.14	6.94	7.57	8.98	8.66	7.54	7.14	6.89	6.73	10.74
12	7.09	7.08	7.12	6.92	7.56	9.07	8.55	7.55	7.13	6.88	6.78	10.82
13	7.08	7.05	7.09	6.90	7.44	9.13	8.53	7.57	7.13	6.96	6.82	10.80
14	7.06	7.04	7.09	6.89	7.38	9.17	8.50	7.58	7.10	6.93	6.92	10.70
15	7.06	7.05	7.12	6.87	7.35	9.18	8.46	7.77	7.08	6.96	6.92	10.59
16	7.05	7.03	7.14	6.86	7.37	9.17	8.41	7.72	7.05	6.93	7.02	10.51
17	7.03	7.07	7.11	6.85	7.33	9.16	8.38	7.69	7.05	6.91	7.10	10.46
18	7.02	7.18	7.08	6.96	7.32	9.18	8.34	7.63	7.03	6.90	7.03	10.44
19	7.02	7.14	7.06	7.11	7.34	9.25	8.29	7.57	7.01	6.87	6.96	10.25
20	7.01	7.13	7.05	7.14	7.49	9.23	8.27	7.53	6.99	6.90	6.94	10.15
21	7.01	7.10	7.06	7.34	7.59	9.22	8.24	7.50	6.98	6.85	6.94	10.05
22	7.00	7.10	7.07	7.22	7.64	9.24	8.18	7.47	6.96	6.84	6.94	10.02
23	7.01	7.09	7.07	7.12	7.79	9.26	8.11	7.41	6.95	6.84	6.92	9.94
24	7.02	7.08	7.06	7.07	7.88	9.25	8.06	7.34	6.94	6.84	6.91	9.80
25	7.05	7.09	7.04	7.14	7.95	9.23	8.03	7.45	7.00	6.84	6.91	9.68
26	7.07	7.11	7.02	7.12	7.97	9.20	8.00	7.45	7.10	6.84	6.91	9.65
27	7.10	7.14	6.99	7.08	7.97	9.18	8.00	7.48	7.00	6.82	7.04	9.60
28	7.12	7.15	6.98	7.05	7.97	9.16	7.99	7.40	6.99	6.76	7.18	9.55
29	7.14	7.14	6.96	7.05	8.01	9.15	7.94	7.35	6.99	6.73	7.10	9.50
30	7.15	7.12	6.94	7.05	---	9.12	7.91	7.32	6.98	6.71	7.11	9.45
31	7.16	---	6.93	7.07	---	9.10	---	7.29	---	6.70	7.16	---
MEAN	7.09	7.13	7.09	6.99	7.46	8.90	8.46	7.59	7.08	6.87	6.89	9.59
MAX	7.20	7.37	7.19	7.34	8.01	9.26	9.07	7.97	7.26	6.96	7.18	10.82
MIN	7.00	7.03	6.93	6.84	7.08	8.01	7.91	7.29	6.94	6.70	6.	

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.--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.--14 years (water years 1948-55, corrected, 1983-88), 108 ft³/s, 1.45 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, 354 ft³/s, Sept. 26, gage height, 5.18 ft; minimum daily discharge, 0.28 ft³/s, Aug. 9; minimum gage height, 1.95 ft, Aug. 9.

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	7.3	3.8	4.3	2.1	3.3	5.2	18	11	3.1	1.1	.85	1.3
2	6.9	3.8	4.0	2.0	3.2	5.1	18	11	2.9	1.1	.58	1.8
3	6.8	3.9	3.7	2.0	3.1	4.8	18	11	2.8	1.0	.49	2.3
4	6.5	5.1	3.5	2.9	3.0	5.2	19	11	2.7	.95	.44	2.0
5	6.1	5.4	3.5	3.0	3.1	7.0	19	11	2.5	.91	.40	2.8
6	5.9	5.2	3.2	2.1	3.5	8.1	19	11	2.4	.85	.37	7.4
7	5.8	5.0	3.0	1.9	3.6	8.3	21	10	2.3	.81	.33	15
8	5.6	4.7	2.7	2.0	3.6	8.2	19	9.6	2.2	.78	.30	24
9	5.3	4.6	2.6	2.1	3.7	8.6	17	9.1	2.1	.73	.28	33
10	5.1	5.0	2.7	2.4	3.5	12	16	8.9	2.0	.70	.31	68
11	5.2	5.3	2.7	2.3	3.3	12	17	8.9	1.9	.67	.38	116
12	5.5	5.2	2.7	2.2	3.2	12	18	8.9	1.7	.64	.48	159
13	5.7	4.8	2.6	2.1	3.2	13	18	8.7	1.5	.62	.43	201
14	5.5	4.6	2.5	2.0	3.1	14	17	9.3	1.4	.61	.48	228
15	5.3	4.3	2.9	1.9	3.2	15	16	9.4	1.3	.62	.50	248
16	5.2	3.5	3.7	1.8	4.0	14	16	9.3	1.2	.60	.60	275
17	5.1	3.5	3.6	1.7	3.9	14	16	9.1	1.2	.58	.62	292
18	5.1	4.6	3.3	1.7	3.6	15	16	8.9	1.1	.59	.63	291
19	4.9	4.9	3.0	1.6	3.4	18	16	8.7	1.0	.58	.57	297
20	4.9	5.4	2.8	1.6	4.1	18	15	8.4	.95	.52	.54	295
21	4.7	5.4	2.7	3.0	5.6	18	15	7.9	.91	.49	.50	307
22	4.6	4.9	2.6	3.7	6.0	18	15	7.4	.89	.53	.52	312
23	4.4	4.5	2.6	3.8	5.8	17	15	5.9	.85	.63	.67	306
24	4.2	4.3	2.5	3.7	5.8	17	14	5.4	.85	.67	.72	303
25	4.2	4.3	2.4	4.6	5.9	18	13	5.6	.93	.61	.80	298
26	4.2	4.2	2.4	4.9	5.9	20	13	5.2	.95	.58	.87	326
27	4.2	4.3	2.4	4.8	5.7	20	13	4.7	.89	.58	1.3	341
28	4.2	4.3	2.4	4.4	5.7	18	12	4.4	1.2	.55	1.7	335
29	4.2	4.3	2.4	4.0	5.4	18	12	4.1	1.3	.50	1.5	320
30	4.0	4.4	2.4	3.7	---	18	12	3.8	1.2	.51	1.5	211
31	3.8	---	2.2	3.4	---	18	---	3.5	---	.67	1.4	---
TOTAL	160.4	137.5	90.0	85.4	120.4	417.5	483	251.1	48.22	21.28	21.06	5618.6
MEAN	5.17	4.58	2.90	2.75	4.15	13.5	16.1	8.10	1.61	.69	.68	187
MAX	7.3	5.4	4.3	4.9	6.0	20	21	11	3.1	1.1	1.7	341
MIN	3.8	3.5	2.2	1.6	3.0	4.8	12	3.5	.85	.49	.28	1.3
CFSM	.01	.00	.00	.00	.00	.01	.02	.01	.00	.00	.00	.19
IN.	.01	.01	.00	.00	.00	.02	.02	.01	.00	.00	.00	.21

CAL YR 1987 TOTAL 50605.2 MEAN 139 MAX 1010 MIN 2.2 CFSM .14 IN. 1.86
WTR YR 1988 TOTAL 7454.46 MEAN 20.4 MAX 341 MIN .28 CFSM .02 IN. .27

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.--14 years (water years 1948-55, corrected, 1983-88), 21.6 ft³/s, 15,600 acre-ft/yr.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28.0 ft³/s, Sept. 10, gage height, 6.62 ft; no flow for many days; minimum gage height, 2.24 ft, Aug. 3,4.

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	.00	.00	.00	.00	.04	.21	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.25
3	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00	.00	.91
4	.00	.00	.00	.00	.00	.43	.00	.00	.00	.00	.00	.55
5	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00	.00	1.5
6	.00	.00	.00	.00	.12	1.5	.00	.00	.00	.00	.00	11
7	.00	.00	.00	.00	.15	1.3	.00	.00	.00	.00	.00	11
8	.00	.00	.00	.00	.21	1.1	.00	.00	.00	.00	.00	16
9	.00	.00	.00	.00	.22	1.3	.00	.00	.00	.00	.00	24
10	.00	.00	.00	.00	.20	2.8	.00	.00	.00	.00	.00	27
11	.00	.00	.00	.00	.17	2.0	.00	.00	.00	.00	.00	27
12	.00	.00	.00	.00	.14	1.5	.00	.00	.00	.00	.00	24
13	.00	.00	.00	.00	.09	1.3	.00	.00	.00	.00	.00	22
14	.00	.00	.00	.00	.05	1.0	.00	.00	.00	.00	.00	20
15	.00	.00	.00	.00	.25	.81	.00	.00	.00	.00	.00	18
16	.00	.00	.00	.00	.56	.65	.00	.00	.00	.00	.00	17
17	.00	.00	.00	.00	.48	.50	.00	.00	.00	.00	.00	17
18	.00	.00	.00	.00	.41	.69	.00	.00	.00	.00	.00	17
19	.00	.00	.00	.00	.46	1.4	.00	.00	.00	.00	.00	18
20	.00	.00	.00	.00	.93	1.2	.00	.00	.00	.00	.00	18
21	.00	.00	.00	.00	1.3	.97	.00	.00	.00	.00	.00	19
22	.00	.00	.00	.00	1.0	.80	.00	.00	.00	.00	.00	23
23	.00	.00	.00	.00	.81	.65	.00	.00	.00	.00	.00	22
24	.00	.00	.00	.00	.67	.53	.00	.00	.00	.00	.00	22
25	.00	.00	.00	.09	.52	.41	.00	.00	.00	.00	.00	21
26	.00	.00	.00	.16	.41	.33	.00	.00	.00	.00	.00	22
27	.00	.00	.00	.15	.32	.25	.00	.00	.00	.00	.00	24
28	.00	.00	.00	.11	.28	.16	.00	.00	.00	.00	.00	23
29	.00	.00	.00	.08	.24	.08	.00	.00	.00	.00	.00	22
30	.00	.00	.00	.06	---	.02	.00	.00	.00	.00	.00	22
31	.00	---	.00	.04	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.69	10.03	25.26	0.00	0.00	0.00	0.00	0.00	510.21
MEAN	.00	.00	.00	.022	.35	.81	.00	.00	.00	.00	.00	17.0
MAX	.00	.00	.00	.16	1.3	2.8	.00	.00	.00	.00	.00	27
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	1.4	20	50	.0	.0	.0	.0	.0	1010

CAL YR 1987 TOTAL 4311.94 MEAN 11.8 MAX 145 MIN .00 AC-FT 8550
WTR YR 1988 TOTAL 546.19 MEAN 1.49 MAX 27 MIN .00 AC-FT 1080

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.--Records good. 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.--39 years (water years 1943-52, 1956-71, 1976-88), 159 ft³/s, 2.02 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; minimum gage height, 0.78 ft, July 12, 1988.

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)
Sept. 30	2300	*440	*6.42				

Minimum discharge, 3.0 ft³/s, July 12, gage height, 0.78 ft.

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	14	6.8	11	9.7	27	28	35	16	6.9	4.0	4.5	7.8
2	13	6.7	11	9.8	24	24	32	16	6.5	4.2	4.6	11
3	12	8.1	11	9.8	23	22	30	16	6.2	3.8	4.6	13
4	11	37	11	9.7	20	37	30	14	6.1	3.6	4.4	9.8
5	11	39	12	9.5	20	89	27	12	6.1	3.5	4.3	18
6	11	22	11	9.1	25	136	24	11	8.0	3.5	4.2	204
7	10	15	10	9.3	28	124	25	11	23	3.4	4.2	305
8	9.8	13	10	21	27	100	23	10	13	3.2	4.3	325
9	9.5	12	10	20	31	97	22	9.9	8.7	3.2	4.3	364
10	9.5	11	10	22	26	260	21	9.7	7.1	3.1	4.4	312
11	9.4	11	11	22	26	221	24	9.1	6.3	3.1	5.0	280
12	11	9.9	10	17	24	174	21	9.4	5.9	3.2	4.8	252
13	15	9.6	9.7	18	20	141	22	10	5.5	5.6	4.7	228
14	12	10	9.6	15	18	117	20	12	5.3	6.5	7.9	214
15	10	10	15	13	24	99	18	11	4.9	4.7	11	197
16	9.7	9.4	28	12	50	84	17	10	4.7	4.4	9.8	201
17	9.0	11	18	12	43	71	16	9.6	4.5	4.0	14	206
18	8.7	28	16	11	37	77	15	9.7	4.2	5.9	8.5	225
19	8.5	27	15	11	33	138	15	8.6	3.8	4.8	6.7	251
20	8.4	25	16	12	56	134	15	7.9	4.0	5.0	5.9	268
21	8.1	22	15	59	100	114	15	7.5	4.0	4.5	5.5	281
22	7.7	18	14	63	91	100	14	7.2	4.0	5.3	5.3	306
23	7.6	15	13	49	71	83	13	6.9	3.9	6.7	5.3	328
24	7.7	16	13	39	57	75	12	6.8	3.7	9.1	5.3	353
25	7.7	14	14	66	47	67	12	12	3.7	6.5	5.1	368
26	7.6	14	13	61	40	58	14	11	3.7	5.2	5.1	384
27	7.6	14	12	52	33	52	14	10	3.7	4.7	9.1	395
28	7.3	15	11	43	30	47	14	9.2	3.8	4.4	21	408
29	7.0	13	11	34	28	48	13	8.4	4.2	4.2	11	414
30	6.9	12	10	33	---	44	13	7.8	3.9	4.1	9.1	431
31	6.8	---	9.8	27	---	38	---	7.3	---	4.1	8.5	---
TOTAL	294.5	474.5	391.1	798.9	1079	2899	586	317.0	179.3	141.5	212.4	7559.6
MEAN	9.50	15.8	12.6	25.8	37.2	93.5	19.5	10.2	5.98	4.56	6.85	252
MAX	15	39	28	66	100	260	35	16	23	9.1	21	431
MIN	6.8	6.7	9.6	9.1	18	22	12	6.8	3.7	3.1	4.2	7.8
CFSM	.01	.01	.01	.02	.03	.09	.02	.01	.01	.00	.01	.24
IN.	.01	.02	.01	.03	.04	.10	.02	.01	.01	.00	.01	.26

CAL YR 1987	TOTAL 55752.1	MEAN 153	MAX 978	MIN 6.7	CFSM .14	IN. 1.94
WTR YR 1988	TOTAL 14932.8	MEAN 40.8	MAX 431	MIN 3.1	CFSM .04	IN. .52

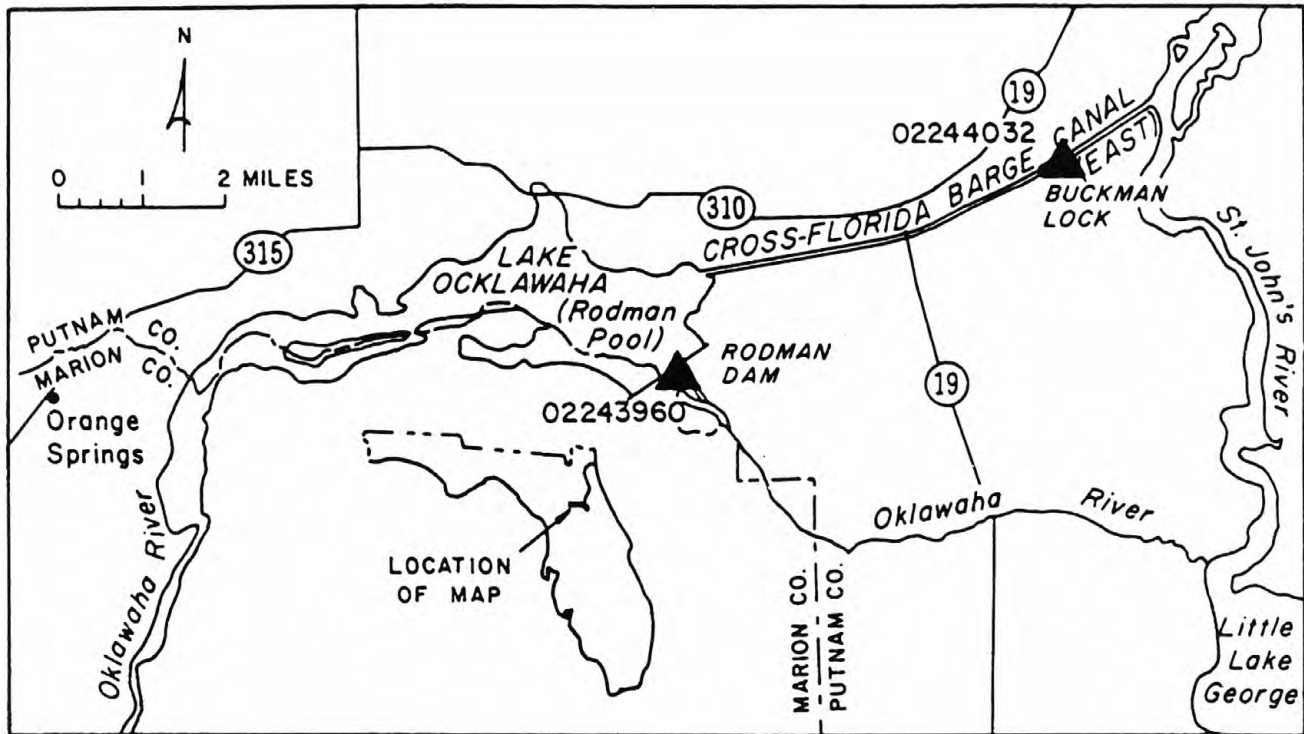


Figure 17.--Location of stream gaging stations in the lower Oklawaha River basin.

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.--20 years, 1,470 ft³/s, 1,067,000 acre-ft/yr.

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, 5,200 ft³/s, Sept. 7; maximum gage height, 8.02 ft, Sept. 7; minimum daily discharge, 426 ft³/s, Nov. 16; minimum gage height, 0.89 ft, May 17.

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	667	722	814	575	1210	861	2000	571	573	672	719	895
2	720	812	530	653	1150	861	1900	572	574	629	891	993
3	721	867	427	718	1150	957	1860	574	574	576	1010	1140
4	799	1260	429	718	1150	1010	1670	576	572	576	1010	1200
5	864	1750	430	717	1150	1490	1570	759	479	576	1010	1330
6	864	1390	431	626	1150	2020	1580	864	524	577	1010	2460
7	864	753	599	574	1150	2170	1580	859	578	578	1020	5200
8	772	574	720	756	1150	2160	1570	766	581	579	1020	4510
9	720	575	803	865	1150	2160	1570	716	584	580	1020	4280
10	720	766	865	1050	1150	2850	1570	717	584	581	1020	4330
11	720	1410	946	1150	1150	2800	1370	717	583	665	1020	4700
12	720	1290	1010	970	1150	3510	1290	717	583	995	1020	5190
13	720	806	1000	779	1150	4200	1290	719	670	1620	1020	4970
14	720	711	912	717	849	4150	1290	902	887	1700	1030	4310
15	720	521	861	716	715	4100	1290	1190	1020	1430	1200	3590
16	803	426	863	625	787	3000	1110	856	1100	1290	1320	2810
17	860	427	862	573	950	2890	920	501	1160	1010	1520	2390
18	862	687	861	573	1110	3120	673	946	1160	1050	1620	2390
19	861	1370	861	574	1510	3570	575	1010	1050	1150	1620	2400
20	775	1540	772	575	1740	3330	761	1070	821	1150	1620	2750
21	716	1070	717	1120	2130	2250	865	790	718	1150	1610	3030
22	630	578	716	1820	1540	1870	866	518	717	1150	1240	3520
23	484	427	716	1750	1150	2320	1040	429	717	1150	1020	3520
24	429	508	716	1040	1430	2540	1150	429	717	1150	930	2280
25	430	668	716	1250	1590	2540	1150	432	716	1150	877	2000
26	431	718	717	1590	1580	2530	1150	614	627	1140	876	2000
27	432	950	717	1580	1580	2290	1050	900	575	971	878	2000
28	530	1070	640	1400	1400	2050	911	1010	573	857	885	2000
29	671	1010	573	1290	1010	2000	772	1000	574	857	889	2000
30	722	1000	575	1290	---	2000	626	740	577	769	892	3450
31	722	---	575	1290	---	2000	---	572	---	718	893	---
TOTAL	21669	26656	22374	29924	36081	75599	37019	23036	21168	29046	33710	87638
MEAN	699	889	722	965	1244	2439	1234	743	706	937	1087	2921
MAX	864	1750	1010	1820	2130	4200	2000	1190	1160	1700	1620	5200
MIN	429	426	427	573	715	861	575	429	479	576	719	895
AC-FT	42980	52870	44360	59350	71570	150000	73430	45690	41990	57610	66860	173800

CAL YR 1987 TOTAL 466738 MEAN 1279 MAX 7580 MIN 426 AC-FT 925800
WTR YR 1988 TOTAL 443920 MEAN 1213 MAX 5200 MIN 426 AC-FT 880500

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02243960 OKLAWAHA RIVER AT RODMAN DAM, NEAR ORANGE SPRINGS, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.51	3.68	4.40	3.42	5.06	4.56	5.71	3.82	3.70	3.52	3.77	4.29
2	3.78	3.85	3.83	3.63	4.94	4.46	5.67	3.78	3.70	3.51	3.90	4.36
3	3.44	4.08	3.41	4.04	4.90	4.44	5.61	3.67	3.67	3.52	4.11	4.44
4	3.58	4.57	3.34	4.24	4.89	4.48	5.51	3.64	3.66	3.52	4.11	4.58
5	3.90	5.14	3.28	4.15	4.89	4.85	5.38	3.97	3.51	3.52	4.09	4.70
6	3.92	5.29	3.27	3.97	4.90	5.41	5.35	4.24	3.42	3.54	4.11	5.50
7	3.92	4.66	3.41	3.78	4.89	5.67	5.36	4.23	3.47	3.56	4.11	6.88
8	3.88	4.08	3.64	3.97	4.89	5.71	5.38	4.09	3.45	3.56	4.11	7.32
9	3.81	3.93	3.79	4.06	4.89	5.74	5.38	3.89	3.41	3.54	4.10	7.12
10	3.82	3.99	3.98	4.29	4.89	6.02	5.38	3.88	3.38	3.57	4.16	7.09
11	3.83	4.62	4.09	4.59	4.89	6.31	5.28	3.87	3.36	3.59	4.25	7.14
12	3.88	5.07	4.24	4.62	4.88	6.40	5.14	3.87	3.38	3.87	4.25	7.30
13	3.90	4.63	4.18	4.43	4.87	6.87	5.13	3.90	3.49	4.52	4.25	7.38
14	3.93	4.26	4.23	4.18	4.64	6.93	5.12	4.10	3.77	5.16	4.44	7.13
15	3.98	3.87	4.28	4.13	4.28	6.96	5.12	4.48	4.03	5.11	4.71	6.90
16	4.00	3.50	4.26	4.01	4.16	6.67	5.01	3.04	4.18	4.97	4.77	6.51
17	4.03	3.52	4.20	3.85	4.14	6.37	4.74	2.48	4.34	4.71	4.91	6.10
18	4.05	3.78	4.18	3.81	4.31	6.46	4.28	3.89	4.35	4.36	5.06	6.04
19	4.10	4.52	4.18	3.79	4.72	6.62	3.82	4.64	4.32	4.39	5.07	6.07
20	4.12	5.21	4.12	3.77	5.26	6.68	3.93	4.57	4.12	4.36	5.08	6.18
21	4.07	5.03	3.99	4.41	5.52	6.22	4.17	4.26	3.88	4.34	5.08	6.35
22	4.02	4.30	3.98	5.22	5.53	5.74	4.17	3.77	3.87	4.35	4.89	6.55
23	3.67	3.63	3.98	5.51	5.06	5.82	4.32	3.28	3.85	4.37	4.58	6.68
24	3.43	3.53	3.98	5.13	5.03	6.05	4.58	3.24	3.84	4.36	4.41	6.23
25	3.42	3.61	3.98	5.02	5.18	6.08	4.60	3.27	3.83	4.58	4.22	5.80
26	3.43	3.70	3.97	5.31	5.21	6.07	4.61	3.42	3.63	4.68	4.19	5.73
27	3.45	3.98	3.94	5.32	5.22	5.99	4.59	3.87	3.42	4.52	4.27	5.73
28	3.45	4.53	3.86	5.26	5.17	5.82	4.46	4.18	3.52	4.21	4.32	5.72
29	3.55	4.58	3.57	5.14	4.92	5.74	4.22	4.22	3.54	4.16	4.27	5.71
30	3.68	4.59	3.42	5.12	---	5.72	3.97	4.03	3.54	4.00	4.27	5.93
31	3.67	---	3.41	5.11	---	5.72	---	3.72	---	3.78	4.26	---
MEAN	3.78	4.26	3.88	4.43	4.90	5.89	4.87	3.85	3.72	4.12	4.39	6.12
MAX	4.12	5.29	4.40	5.51	5.53	6.96	5.71	4.64	4.35	5.16	5.08	7.38
MIN	3.42	3.50	3.27	3.42	4.14	4.44	3.82	2.48	3.36	3.51	3.77	4.29

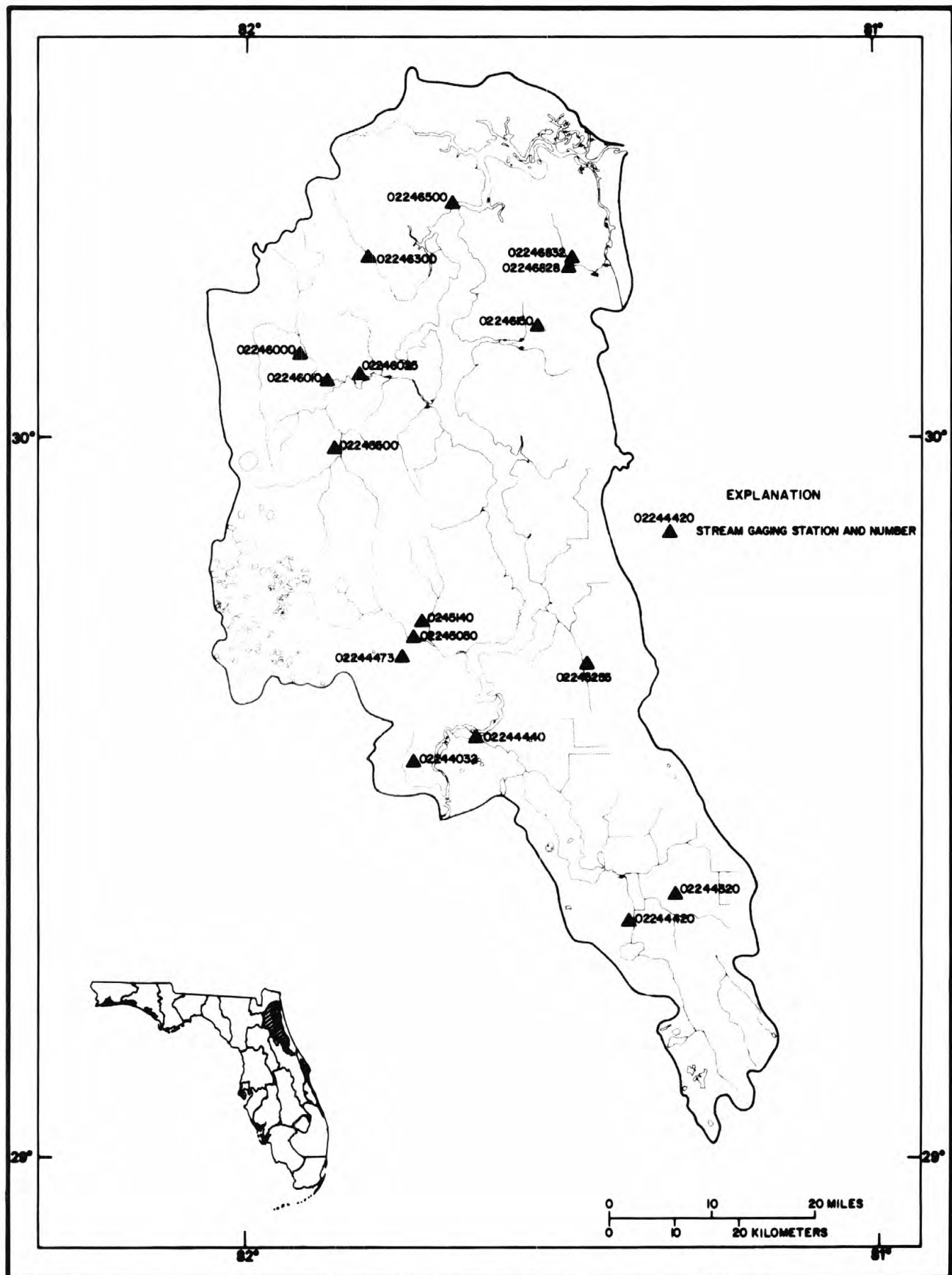


Figure 18.--Location of stream gaging stations in the St. Johns River basin below the Oklawaha River basin.

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.

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	65	100	69	114	57	72	87	91	33	50	34	20
2	99	88	16	108	49	138	93	59	78	150	44	23
3	143	71	91	59	88	119	127	37	112	142	68	129
4	100	46	72	.00	112	27	78	44	132	99	45	109
5	88	67	124	54	72	100	61	61	64	22	22	64
6	56	110	78	38	69	104	71	.00	65	36	113	.00
7	55	148	48	.00	65	82	.00	119	26	33	92	.00
8	44	109	22	60	21	78	159	84	61	54	66	.00
9	72	56	33	15	52	24	159	33	66	89	23	45
10	149	37	121	44	43	.00	125	27	74	71	45	80
11	70	38	95	50	38	93	48	50	182	56	.00	50
12	36	69	95	17	40	163	15	15	135	23	12	21
13	35	58	133	171	85	75	81	15	21	47	129	.00
14	45	110	26	163	126	18	85	117	34	58	26	23
15	34	88	.00	109	95	55	104	115	.00	11	58	.00
16	97	56	.00	98	93	23	166	34	80	104	35	57
17	135	67	45	95	53	59	105	38	22	47	23	62
18	116	11	16	21	67	59	15	42	137	32	58	138
19	96	58	98	81	70	55	17	67	106	46	59	32
20	104	57	124	48	116	59	19	79	46	35	114	26
21	83	108	45	26	92	80	.00	146	45	79	89	29
22	66	119	69	15	52	.00	50	104	78	59	35	36
23	75	45	61	62	49	94	108	68	100	130	57	.00
24	157	57	82	81	73	50	101	78	45	58	35	59
25	135	46	.00	.00	89	94	.00	32	105	47	23	47
26	55	58	124	32	70	151	.00	46	103	41	23	.00
27	57	133	116	19	153	95	31	76	51	34	57	.00
28	25	152	102	.00	158	129	11	76	72	50	80	12
29	58	94	22	21	75	107	8.0	154	90	27	35	.00
30	13	57	82	48	---	52	73	99	22	101	35	.00
31	68	---	81	110	---	84	---	22	---	113	34	---
TOTAL	2431	2313	2090.00	1759.00	2222	2339.00	1997.00	2028.00	2185.00	1944	1569.00	1062.00
MEAN	78.4	77.1	67.4	56.7	76.6	75.5	66.6	65.4	72.8	62.7	50.6	35.4
MAX	157	152	133	171	158	163	166	154	182	150	129	138
MIN	13	11	.00	.00	21	.00	.00	.00	.00	11	.00	.00
AC-FT	4820	4590	4150	3490	4410	4640	3960	4020	4330	3860	3110	2110

CAL YR 1987 TOTAL 21155.00 MEAN 58.0 MAX 157 MIN .00 AC-FT 41960
WTR YR 1988 TOTAL 23939.00 MEAN 65.4 MAX 182 MIN .00 AC-FT 47480

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.--Records fair.

AVERAGE DISCHARGE.--13 years, 76.5 ft³/s, 13.27 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, 483 ft³/s, Mar. 11, gage height, 10.07 ft; no flow for many days; minimum gage height, 4.36 ft, July 5, 6.

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	19	2.2	47	3.8	202	85	46	.14	.00	.00	.00	1.3
2	16	2.3	45	3.5	188	72	40	.17	.00	.00	.00	2.1
3	13	3.1	43	3.3	175	62	35	.16	.00	.00	.00	2.9
4	10	18	39	3.1	162	55	30	.11	.00	.00	.00	3.6
5	8.4	40	35	2.8	148	57	25	.04	.00	.00	.00	7.8
6	7.2	31	31	2.6	145	194	21	.00	.15	.00	.00	47
7	6.0	34	27	2.6	142	269	17	.00	.10	.00	.00	103
8	4.8	41	24	9.4	139	269	14	.00	.07	.00	.00	205
9	3.7	55	22	9.4	134	243	12	.00	.03	.00	.00	319
10	3.0	73	20	16	129	406	9.5	.00	.00	.00	.00	360
11	2.6	82	18	26	122	474	7.9	.00	.00	.00	.00	314
12	4.4	83	16	30	113	424	6.7	.00	.00	.00	.00	233
13	7.3	82	14	31	103	365	5.7	.06	.00	.00	.00	158
14	6.4	78	13	29	92	322	4.6	.22	.00	.01	.00	93
15	6.1	73	15	27	91	284	3.7	.16	.00	.04	.00	54
16	6.4	66	20	23	124	252	2.9	.10	.00	.02	.00	50
17	6.5	61	16	21	131	226	2.3	.03	.00	.03	.14	63
18	6.8	69	13	19	130	208	1.8	.00	.00	.02	.11	64
19	7.3	61	11	17	127	201	1.5	.00	.00	.00	.08	47
20	7.6	59	9.9	15	164	192	1.2	.00	.00	.00	.03	32
21	7.5	58	9.0	47	239	181	.91	.00	.00	.00	.01	22
22	6.8	55	8.2	89	262	168	.63	.00	.00	.01	.00	15
23	6.1	52	7.6	78	237	155	.45	.00	.00	.07	.00	11
24	5.5	50	7.2	75	202	141	.34	.00	.00	.22	.00	7.4
25	4.9	48	6.8	233	175	127	.25	.08	.00	.20	.00	5.2
26	4.4	46	6.3	331	154	113	.21	.00	.00	.13	.12	3.8
27	4.0	46	5.8	339	135	100	.17	.00	.00	.09	.24	3.0
28	3.6	47	5.5	298	118	85	.13	.00	.00	.09	.16	3.2
29	3.1	48	5.1	267	101	72	.07	.00	.00	.06	.09	4.5
30	2.7	49	4.5	242	---	62	.03	.00	.00	.03	.04	5.8
31	2.4	---	4.1	220	---	54	---	.00	---	.00	.01	---
TOTAL	203.5	1512.6	549.0	2513.5	4384	5918	290.99	1.27	0.35	1.02	1.03	2240.6
MEAN	6.56	50.4	17.7	81.1	151	191	9.70	.041	.012	.033	.033	74.7
MAX	19	83	47	339	262	474	46	.22	.15	.22	.24	360
MIN	2.4	2.2	4.1	2.6	91	54	.03	.00	.00	.00	.00	1.3
CFSM	.08	.64	.23	1.04	1.93	2.44	.12	.00	.00	.00	.00	.95
IN.	.10	.72	.26	1.19	2.08	2.81	.14	.00	.00	.00	.00	1.06

CAL YR 1987 TOTAL 23733.09 MEAN 65.0 MAX 751 MIN .00 CFSM .83 IN. 11.28
WTR YR 1988 TOTAL 17615.86 MEAN 48.1 MAX 474 MIN .00 CFSM .61 IN. 8.37

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.--Estimated daily discharges: Oct. 1 to Nov. 20, Dec. 20 to Jan. 15. Records fair.

AVERAGE DISCHARGE.--37 years (water years 1952-88), 85.1 ft³/s, 12.43 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, 393 ft³/s, Mar. 10,11, gage height, 6.66 ft; minimum, 0.48 ft³/s, Aug. 25,26; gage height, 0.76 ft.

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	43	6.9	107	9.4	189	105	92	12	2.7	1.4	1.0	1.1
2	38	7.3	100	8.6	189	96	84	10	2.5	1.5	.96	1.2
3	34	10	93	7.6	186	90	77	8.0	2.4	1.4	1.0	1.5
4	30	16	85	7.2	181	86	71	7.1	2.3	1.2	1.0	1.4
5	27	24	80	6.6	173	98	65	6.6	2.3	1.2	.95	2.9
6	25	18	77	5.8	181	212	57	5.9	6.7	1.5	.86	8.2
7	22	20	74	8.8	186	237	50	5.2	15	1.4	.90	10
8	20	26	67	16	181	214	39	4.7	8.0	1.2	.83	28
9	17	38	63	16	179	199	34	4.4	5.6	1.1	.84	45
10	15	76	61	21	168	363	31	4.1	4.3	1.1	.86	55
11	12	160	48	23	165	386	29	3.9	3.9	1.0	.84	78
12	17	168	40	29	160	358	27	4.1	3.5	1.0	.85	83
13	24	169	33	40	145	323	23	7.0	3.1	.99	.76	78
14	22	164	31	42	133	288	20	14	2.9	1.2	.74	66
15	20	152	37	41	138	249	18	8.0	2.8	1.9	.72	55
16	20	136	41	40	176	220	16	6.1	2.6	1.4	.75	47
17	21	130	33	40	160	207	15	5.2	2.5	1.3	.78	39
18	22	150	28	41	149	200	15	4.8	2.4	1.3	.84	33
19	25	140	26	41	149	212	14	4.4	2.3	1.2	.76	29
20	26	130	23	41	199	201	13	3.9	2.2	1.3	.70	24
21	26	115	21	63	266	187	12	3.6	2.2	1.2	.66	21
22	25	104	19	96	269	178	11	3.4	2.1	1.2	.61	18
23	22	100	18	87	236	170	10	3.2	2.0	2.1	.55	15
24	20	96	17	83	206	162	9.7	3.1	1.9	2.6	.52	14
25	18	100	16	203	177	154	9.2	8.4	1.8	2.2	.48	12
26	16	101	15	264	152	148	10	5.5	1.7	1.7	.83	13
27	14	101	14	247	135	148	11	4.8	1.6	1.4	2.9	11
28	12	103	13	214	123	136	9.5	3.9	1.6	1.4	2.0	9.5
29	11	105	12	194	112	121	8.2	3.3	1.6	1.2	1.4	8.8
30	9.4	109	11	188	---	111	7.8	3.0	1.4	1.1	1.3	11
31	8.1	---	10	188	---	102	---	2.8	---	1.1	1.2	---
TOTAL	661.5	2775.2	1313	2312.0	5063	5961	888.4	174.4	97.9	42.79	29.39	819.6
MEAN	21.3	92.5	42.4	74.6	175	192	29.6	5.63	3.26	1.38	.95	27.3
MAX	43	169	107	264	269	386	92	14	15	2.6	2.9	83
MIN	8.1	6.9	10	5.8	112	86	7.8	2.8	1.4	.99	.48	1.1
CFSM	.23	.99	.46	.80	1.88	2.07	.32	.06	.04	.01	.01	.29
IN.	.26	1.11	.53	.92	2.03	2.38	.36	.07	.04	.02	.01	.33

CAL YR 1987 TOTAL 29321.5 MEAN 80.3 MAX 638 MIN 2.4 CFSM .86 IN. 11.73
WTR YR 1988 TOTAL 20138.18 MEAN 55.0 MAX 386 MIN .48 CFSM .59 IN. 8.06

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.--15 years, 45.0 ft³/s, 14.14 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.

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)
Mar. 10	2100	460	7.16	Sept. 9	1100	1360	8.46
Sept. 6	2400	*1510	*8.62				

Minimum daily discharge, 2.2 ft³/s, July 8,10; minimum gage height, 2.11 ft, July 10.

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	3.7	3.8	8.2	6.5	17	21	12	6.3	3.4	2.9	2.9	24
2	3.4	4.0	7.9	6.5	16	19	11	7.0	3.3	2.9	3.0	122
3	3.1	5.0	7.6	6.6	14	17	11	6.2	3.1	2.6	3.5	220
4	2.9	11	7.4	6.7	13	29	10	5.3	3.0	2.5	2.8	123
5	2.9	15	7.2	6.7	13	142	9.8	4.7	3.4	2.4	2.7	95
6	3.0	17	7.0	6.5	20	268	8.8	4.2	4.3	2.4	2.8	533
7	2.9	11	7.1	7.0	30	236	8.7	3.9	4.7	2.3	4.5	988
8	2.8	7.9	7.3	22	30	176	8.0	3.7	6.0	2.2	6.1	740
9	2.9	7.0	7.2	23	28	160	7.6	3.7	6.2	2.2	4.8	1180
10	3.0	6.9	7.2	24	24	399	7.7	3.6	4.8	2.2	3.7	729
11	3.1	6.4	7.4	20	20	347	11	3.5	3.7	3.0	4.5	450
12	3.8	6.1	7.2	15	18	242	10	3.6	3.3	4.2	4.8	313
13	4.7	5.9	7.2	12	16	193	10	4.9	3.1	4.2	4.9	229
14	4.5	6.0	7.1	11	14	153	9.4	11	3.0	3.9	17	168
15	4.1	6.0	7.8	9.6	16	118	8.4	20	2.9	4.8	37	124
16	4.0	5.9	11	8.9	37	91	7.6	15	2.8	3.5	30	94
17	3.7	7.0	10	8.7	39	68	6.9	9.1	2.7	3.0	50	67
18	3.5	19	9.1	8.5	31	55	6.5	6.5	2.7	2.8	72	43
19	3.4	27	8.5	8.2	28	124	6.2	5.4	2.6	3.8	29	33
20	3.6	26	8.2	8.0	57	144	6.0	4.5	2.6	4.1	14	35
21	3.5	21	8.1	33	152	120	5.7	4.0	2.7	3.1	10	67
22	3.2	14	8.0	76	157	92	5.3	3.7	2.7	2.9	8.0	83
23	3.3	11	7.8	66	106	72	4.9	3.5	2.7	3.7	6.8	67
24	3.6	9.5	7.7	35	73	54	4.8	3.4	2.6	4.5	6.4	55
25	3.7	8.9	7.6	44	52	41	4.7	7.3	2.5	4.0	8.2	41
26	3.8	9.2	7.5	65	39	33	4.9	9.7	2.4	3.2	12	29
27	4.0	9.7	7.3	52	32	27	4.6	7.5	2.5	2.8	22	25
28	3.8	9.7	7.2	32	27	22	4.2	5.8	2.9	2.8	106	23
29	3.5	9.4	7.0	24	24	18	3.8	4.7	3.1	2.6	136	19
30	3.5	8.8	6.5	21	---	16	3.9	4.1	2.8	2.5	62	24
31	3.5	---	6.5	19	---	14	---	3.7	---	2.4	31	---
TOTAL	108.4	315.1	238.8	692.4	1143	3511	223.4	189.5	98.5	96.4	708.4	6743
MEAN	3.50	10.5	7.70	22.3	39.4	113	7.45	6.11	3.28	3.11	22.9	225
MAX	4.7	27	11	76	157	399	12	20	6.2	4.8	136	1180
MIN	2.8	3.8	6.5	6.5	13	14	3.8	3.4	2.4	2.2	2.7	19
CFSM	.08	.24	.18	.52	.91	2.62	.17	.14	.08	.07	.53	5.20
IN.	.09	.27	.21	.60	.98	3.02	.19	.16	.08	.08	.61	5.81

CAL YR 1987	TOTAL 17572.3	MEAN 48.1	MAX 1300	MIN 2.8	CFSM 1.11	IN. 15.13
WTR YR 1988	TOTAL 14067.9	MEAN 38.4	MAX 1180	MIN 2.2	CFSM .89	IN. 12.11

02244473 RICE CREEK NEAR SPRINGSIDE, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.35	2.31	2.73	2.65	3.48	3.68	3.18	2.65	2.33	2.26	2.26	3.70
2	2.32	2.34	2.71	2.65	3.39	3.55	3.10	2.72	2.31	2.27	2.27	5.44
3	2.28	2.45	2.68	2.66	3.31	3.45	3.05	2.64	2.29	2.22	2.34	6.28
4	2.24	2.99	2.67	2.67	3.24	3.86	3.02	2.55	2.28	2.19	2.25	5.61
5	2.24	3.28	2.64	2.67	3.20	5.76	2.96	2.49	2.32	2.17	2.24	5.33
6	2.25	3.41	2.63	2.65	3.63	6.53	2.88	2.43	2.44	2.17	2.25	6.98
7	2.24	2.98	2.64	2.70	4.13	6.38	2.87	2.39	2.49	2.16	2.45	8.00
8	2.23	2.74	2.66	3.73	4.10	6.03	2.81	2.38	2.62	2.14	2.63	7.68
9	2.23	2.64	2.66	3.77	4.03	5.92	2.77	2.37	2.64	2.13	2.49	8.25
10	2.25	2.63	2.66	3.86	3.83	6.99	2.78	2.36	2.49	2.13	2.37	7.66
11	2.26	2.59	2.68	3.64	3.66	6.83	3.03	2.35	2.37	2.28	2.47	7.13
12	2.35	2.56	2.66	3.33	3.54	6.40	3.00	2.36	2.32	2.42	2.50	6.71
13	2.45	2.54	2.66	3.15	3.39	6.13	2.99	2.51	2.29	2.43	2.47	6.34
14	2.43	2.54	2.65	3.03	3.27	5.87	2.93	3.06	2.27	2.40	3.27	5.98
15	2.38	2.54	2.71	2.95	3.41	5.59	2.85	3.62	2.26	2.50	4.33	5.64
16	2.37	2.53	3.01	2.90	4.40	5.31	2.77	3.34	2.25	2.35	4.02	5.34
17	2.33	2.63	2.94	2.87	4.47	5.02	2.71	2.90	2.24	2.27	4.65	4.99
18	2.31	3.52	2.85	2.85	4.17	4.81	2.67	2.67	2.22	2.24	5.05	4.53
19	2.30	3.94	2.80	2.83	4.02	5.63	2.64	2.56	2.21	2.38	3.92	4.22
20	2.31	3.88	2.78	2.82	4.80	5.81	2.63	2.47	2.21	2.42	3.11	4.29
21	2.30	3.62	2.76	4.14	5.85	5.60	2.59	2.40	2.23	2.29	2.78	4.97
22	2.26	3.19	2.76	5.12	5.90	5.31	2.55	2.37	2.23	2.26	2.59	5.21
23	2.28	2.97	2.75	4.98	5.47	5.07	2.51	2.34	2.22	2.37	2.47	5.00
24	2.30	2.86	2.74	4.29	5.08	4.80	2.50	2.32	2.21	2.46	2.44	4.80
25	2.31	2.80	2.73	4.56	4.77	4.51	2.49	2.75	2.19	2.41	2.61	4.50
26	2.33	2.83	2.72	4.97	4.47	4.23	2.51	2.96	2.18	2.31	2.97	4.03
27	2.35	2.88	2.70	4.75	4.20	3.98	2.47	2.77	2.19	2.25	3.59	3.84
28	2.33	2.88	2.70	4.21	4.01	3.73	2.43	2.61	2.26	2.24	5.42	3.76
29	2.29	2.84	2.68	3.84	3.83	3.54	2.39	2.49	2.30	2.21	5.73	3.57
30	2.28	2.78	2.64	3.66	---	3.38	2.40	2.41	2.25	2.19	4.88	3.81
31	2.28	---	2.64	3.56	---	3.26	---	2.37	---	2.18	4.08	---
MEAN	2.30	2.89	2.72	3.50	4.11	5.06	2.75	2.60	2.30	2.28	3.19	5.45
MAX	2.45	3.94	3.01	5.12	5.90	6.99	3.18	3.62	2.64	2.50	5.73	8.25
MIN	2.23	2.31	2.63	2.65	3.20	3.26	2.39	2.32	2.18	2.13	2.24	3.57

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.--15 years, 99.6 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; minimum gage height, 0.70 ft, Apr. 7, 1982, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,110 ft³/s, Sept. 6, gage height, 7.55 ft; minimum, 43 ft³/s, Oct. 9, gage height, 0.96 ft.

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	51	48	62	57	73	73	66	62	58	52	56	96
2	50	50	61	57	72	70	65	61	57	53	55	175
3	48	51	60	57	70	68	64	59	56	52	58	258
4	44	61	60	57	69	73	63	58	55	52	56	203
5	44	69	60	57	68	115	61	57	55	51	55	160
6	44	66	60	57	71	167	60	57	57	51	62	454
7	44	62	59	57	78	211	59	56	58	51	66	782
8	44	59	59	62	78	186	58	56	61	51	69	597
9	45	57	59	65	76	151	57	55	58	51	65	778
10	48	57	59	69	74	254	60	55	56	50	62	690
11	48	57	59	69	72	365	64	55	55	51	69	551
12	50	55	60	65	65	294	64	56	54	55	66	475
13	53	59	59	63	62	203	65	73	53	65	63	387
14	51	60	59	61	60	153	67	90	53	68	76	322
15	50	60	60	60	60	121	65	84	53	71	130	278
16	49	59	66	59	73	104	64	69	53	69	130	248
17	49	61	68	59	75	95	64	64	52	64	250	224
18	48	82	65	59	72	91	63	61	52	66	402	240
19	48	80	63	58	69	134	62	59	51	60	224	224
20	48	86	62	58	96	157	62	58	51	60	133	268
21	48	76	61	82	191	154	61	57	51	58	100	293
22	48	69	61	121	291	120	61	56	53	57	85	232
23	48	67	60	116	241	103	60	55	53	63	76	194
24	48	65	60	96	160	94	59	55	53	64	71	171
25	49	64	60	98	119	87	59	65	53	63	71	153
26	49	64	59	109	101	82	59	75	52	61	77	141
27	49	64	59	104	91	80	58	74	52	58	81	133
28	49	64	59	94	84	76	58	68	53	57	183	129
29	48	63	58	85	77	72	57	64	53	55	182	119
30	48	62	58	79	---	70	57	61	53	55	145	119
31	48	---	57	75	---	68	---	59	---	55	114	---
TOTAL	1488	1897	1872	2265	2788	4091	1842	1934	1624	1789	3332	9094
MEAN	48.0	63.2	60.4	73.1	96.1	132	61.4	62.4	54.1	57.7	107	303
MAX	53	86	68	121	291	365	67	90	61	71	402	782
MIN	44	48	57	57	60	68	57	55	51	50	55	96

CAL YR 1987 TOTAL 35155 MEAN 96.3 MAX 664 MIN 44
WTR YR 1988 TOTAL 34016 MEAN 92.9 MAX 782 MIN 44

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.--Estimated daily discharges: Aug. 13-17. Records good.

AVERAGE DISCHARGE.--14 years (water years 1974-75, 1977-88), 47.4 ft³/s, 13.61 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, 6.86 ft, July 27, 28, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sept. 9	1400	*776	*12.90	No other peak greater than base discharge.			

Minimum discharge, 4.0 ft³/s, July 10, gage height, 6.91 ft.

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	9.6	8.4	16	9.9	29	31	23	13	8.5	4.8	4.9	11
2	9.1	8.9	15	9.4	26	28	22	15	8.0	5.0	4.6	15
3	8.5	10	14	9.4	24	26	20	12	7.6	4.6	4.8	22
4	8.1	18	14	9.3	23	34	20	11	7.4	4.5	4.5	19
5	7.9	28	13	9.1	22	92	19	10	7.7	4.4	4.3	23
6	7.9	22	13	8.8	26	125	17	9.7	8.5	4.5	4.8	127
7	7.9	20	12	8.9	35	147	16	9.2	9.1	4.4	5.8	357
8	7.7	16	12	13	34	137	16	9.0	12	4.3	7.0	463
9	7.7	14	12	16	32	116	15	8.8	15	4.2	6.0	685
10	7.8	14	12	22	29	189	15	8.6	13	4.1	6.0	611
11	8.0	13	12	21	26	261	15	8.5	10	4.3	6.9	411
12	8.9	12	12	19	24	195	14	9.1	8.5	5.7	6.1	284
13	11	12	12	16	22	139	14	11	7.6	11	16	196
14	10	11	12	15	20	107	14	19	7.1	8.8	22	141
15	9.6	11	12	14	21	79	14	19	6.8	7.8	23	108
16	9.3	11	19	14	33	58	13	15	6.6	7.2	22	84
17	8.9	12	22	13	34	47	12	12	6.4	6.3	25	65
18	8.6	29	21	13	30	45	12	11	6.2	10	18	56
19	8.4	31	19	13	28	90	12	11	6.0	8.2	12	47
20	8.5	45	18	14	56	112	12	9.7	5.9	6.6	9.4	53
21	8.4	36	16	37	115	99	11	9.1	5.9	6.1	7.7	48
22	8.1	30	15	74	192	76	11	8.7	5.9	5.9	6.7	43
23	8.1	24	15	75	172	59	10	8.2	5.7	12	6.2	35
24	8.3	20	14	65	122	49	10	7.9	5.5	12	5.8	29
25	8.3	18	13	67	89	42	10	12	5.2	9.8	6.1	24
26	8.6	18	13	77	65	37	10	18	5.1	7.5	9.2	20
27	8.8	18	12	70	50	37	9.9	16	5.1	6.4	12	19
28	8.6	18	12	57	42	34	9.5	14	5.1	5.8	29	21
29	8.2	17	11	45	36	31	9.1	12	5.3	5.3	20	18
30	8.1	16	11	37	---	28	9.3	10	4.9	4.9	14	20
31	8.1	---	10	32	---	25	---	9.2	---	4.8	12	---
TOTAL	265.0	561.3	434	903.8	1457	2575	414.8	356.7	221.6	201.2	341.8	4055
MEAN	8.55	18.7	14.0	29.2	50.2	83.1	13.8	11.5	7.39	6.49	11.0	135
MAX	11	45	22	77	192	261	23	19	15	12	29	685
MIN	7.7	8.4	10	8.8	20	25	9.1	7.9	4.9	4.1	4.3	11
CFSM	.18	.40	.30	.62	1.06	1.76	.29	.24	.16	.14	.23	2.86
IN.	.21	.44	.34	.71	1.15	2.03	.33	.28	.17	.16	.27	3.19

CAL YR 1987 TOTAL 15834.5 MEAN 43.4 MAX 605 MIN 7.7 CFSM .92 IN. 12.45
WTR YR 1988 TOTAL 11787.2 MEAN 32.2 MAX 685 MIN 4.1 CFSM .68 IN. 9.27

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: Sept. 7-11, 17-30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--13 years, 8.47 ft³/s, 5.56 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)
Mar. 10	0100	189	7.09	Sept. 9	Unknown	*237	*7.40

Minimum discharge, 0.01 ft³/s, Oct. 31, Nov. 1,2,3, gage height, 4.08 ft.

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	.14	.01	.39	.36	2.0	2.1	11	15	.70	.57	.44	1.4
2	.09	.01	.36	.36	1.8	1.8	10	3.9	.69	.60	.41	1.3
3	.09	.02	.36	.37	1.6	1.7	7.6	1.3	.59	.55	.40	1.1
4	.11	12	.33	.42	1.5	13	4.1	1.1	.56	.53	1.1	3.7
5	.07	8.1	.30	.43	1.4	54	5.4	2.0	.62	.53	1.2	5.6
6	.04	1.0	.29	.40	6.7	110	5.3	2.3	.88	.70	.78	56
7	.09	.50	.30	.60	4.9	59	4.6	2.3	1.1	.63	.99	92
8	.10	.43	.30	4.5	4.0	30	3.3	2.4	1.0	.57	1.6	140
9	.05	.39	.30	4.4	3.2	44	4.3	2.2	.79	.51	.71	200
10	.03	.39	.33	5.4	2.5	138	5.8	1.5	.65	4.1	.53	18
11	.03	.36	.38	2.2	2.1	82	3.4	1.7	.57	13	.51	7.0
12	.26	.32	.39	1.4	2.0	49	2.0	1.1	.50	7.1	.44	3.7
13	.37	.32	.38	1.2	1.6	30	3.1	.77	.48	2.7	.45	2.5
14	.27	.33	.36	1.0	1.4	22	4.3	6.0	.47	2.9	.62	1.8
15	.19	.32	.50	.94	3.0	16	4.8	2.8	.48	4.3	.61	1.4
16	.16	.32	.90	.90	8.5	14	4.8	1.5	.48	1.9	.59	1.2
17	.13	1.2	.66	.89	3.9	11	5.0	1.0	.50	1.1	.58	1.0
18	.10	3.5	.55	.87	2.9	9.8	4.5	.81	.52	.89	.51	.92
19	.07	6.5	.52	.85	5.6	30	1.9	.88	.55	.72	.36	.84
20	.06	3.3	.49	.81	26	21	1.8	1.7	.59	.64	.29	.76
21	.05	.77	.46	50	58	14	2.8	1.5	.67	.58	.26	.70
22	.05	.57	.47	18	21	9.7	2.8	1.3	.70	.58	.30	.65
23	.10	.52	.48	4.7	12	7.3	2.9	1.2	.72	1.4	.46	.62
24	.13	.50	.46	4.1	7.7	7.0	2.8	1.3	.72	2.0	.55	.57
25	.15	.51	.45	62	5.5	9.1	2.3	2.3	.67	1.2	.31	.54
26	.09	.52	.45	17	4.7	41	2.6	1.5	.61	.85	2.8	1.2
27	.06	.94	.44	6.5	3.6	111	3.3	.97	.59	.87	4.1	2.7
28	.06	.77	.44	3.7	3.0	62	2.9	.82	.70	.57	2.7	6.0
29	.04	.54	.42	2.8	2.5	31	2.6	.74	.65	.53	.98	5.0
30	.02	.47	.36	2.5	---	19	3.4	.68	.60	.55	8.5	4.5
31	.02	---	.35	2.3	---	13	---	.66	---	.50	3.6	---
TOTAL	3.22	45.43	13.17	201.90	204.6	1062.5	125.4	65.23	19.35	53.97	37.68	562.70
MEAN	.10	1.51	.42	6.51	7.06	34.3	4.18	2.10	.64	1.74	1.22	18.8
MAX	.37	12	.90	62	58	138	11	15	1.1	13	8.5	200
MIN	.02	.01	.29	.36	1.4	1.7	1.8	.66	.47	.50	.26	.54
CFSM	.01	.07	.02	.31	.34	1.66	.20	.10	.03	.08	.06	.91
IN.	.01	.08	.02	.36	.37	1.91	.23	.12	.03	.10	.07	1.01

CAL YR 1987	TOTAL 2699.87	MEAN 7.40	MAX 173	MIN .01	CFSM .36	IN. 4.85
WTR YR 1988	TOTAL 2395.15	MEAN 6.54	MAX 200	MIN .01	CFSM .32	IN. 4.30

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.--49 years, 156 ft³/s, 15.81 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, 0.25 ft, June 19, 1981.

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. 21	1900	1,650	13.12	Sept. 9	1000	3,770	17.16
Sept. 7	0100	*7,190	*20.79				

Minimum discharge, 13 ft³/s, July 10, gage height, 0.30 ft.

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	32	23	48	43	95	101	77	63	28	21	42	168
2	30	24	46	42	88	93	74	62	25	27	33	513
3	28	34	45	43	82	87	71	45	24	22	73	660
4	26	127	44	43	77	207	70	38	22	19	45	360
5	26	98	42	42	73	673	67	34	23	18	33	327
6	25	71	42	42	99	738	62	31	31	17	30	2560
7	25	48	42	42	116	685	59	29	95	16	28	5450
8	24	41	42	70	110	434	55	28	77	15	26	2770
9	23	37	42	84	103	338	54	27	43	14	23	3320
10	24	37	45	107	94	725	52	27	32	16	24	1830
11	25	35	69	88	85	949	54	26	27	18	31	1120
12	27	32	53	70	79	534	61	32	24	28	33	679
13	28	31	48	62	73	337	67	43	22	63	30	413
14	26	31	45	57	68	261	60	47	21	41	298	302
15	25	31	68	54	81	200	54	47	20	44	547	248
16	25	30	127	52	179	158	50	37	19	34	378	229
17	24	58	107	51	160	132	48	32	19	25	572	208
18	23	198	76	50	123	147	46	37	18	28	724	204
19	23	172	63	49	147	430	46	41	17	32	336	249
20	23	257	59	49	430	473	46	32	17	33	209	210
21	23	119	55	326	1330	326	43	27	17	27	137	208
22	22	79	53	438	1130	246	40	25	17	23	96	173
23	22	67	52	279	560	195	38	24	28	32	77	145
24	23	60	51	178	339	160	37	23	23	47	65	126
25	23	56	50	264	252	136	36	97	23	36	62	113
26	24	57	49	308	194	123	36	94	21	34	75	113
27	25	57	48	233	154	112	34	66	27	27	108	116
28	24	54	47	168	130	107	33	49	32	24	360	107
29	22	53	46	134	112	96	31	41	29	22	388	98
30	22	50	44	116	---	88	31	35	23	20	255	94
31	22	---	43	103	---	82	---	31	---	21	202	---
TOTAL	764	2067	1691	3687	6563	9373	1532	1270	844	844	5340	23113
MEAN	24.6	68.9	54.5	119	226	302	51.1	41.0	28.1	27.2	172	770
MAX	32	257	127	438	1330	949	77	97	95	63	724	5450
MIN	22	23	42	42	68	82	31	23	17	14	23	94
CFSM	.18	.51	.41	.89	1.69	2.26	.38	.31	.21	.20	1.29	5.75
IN.	.21	.57	.47	1.02	1.82	2.60	.43	.35	.23	.23	1.48	6.42

CAL YR 1987 TOTAL 51288 MEAN 141 MAX 2150 MIN 22 CFSM 1.05 IN. 14.24
WTR YR 1988 TOTAL 57088 MEAN 156 MAX 5450 MIN 14 CFSM 1.16 IN. 15.85

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: Mar. 3 to Apr. 13. Records fair. Stage-discharge relation affected by tide on some days.

AVERAGE DISCHARGE.--57 years, 194 ft³/s, 14.88 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.--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. 21	1400	*5,230	*18.18	Sept. 7	1900	5,050	18.00

Minimum discharge, 11 ft³/s, June 25,26, gage height, 0.56 ft.

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	34	23	69	44	144	153	100	109	21	18	76	411
2	34	26	63	44	129	163	91	214	19	23	75	393
3	33	31	58	45	116	125	83	137	19	30	53	511
4	30	120	56	46	105	400	76	88	19	26	43	505
5	29	358	52	45	98	800	71	65	22	23	48	425
6	27	266	49	44	131	1100	65	52	22	22	56	933
7	27	143	48	45	171	1000	60	43	22	20	112	3650
8	26	103	50	136	154	700	56	37	26	16	51	3400
9	29	76	50	171	145	490	52	34	29	13	65	2600
10	32	68	51	182	131	720	49	32	28	18	55	2000
11	33	65	64	165	119	1200	46	33	25	26	41	1350
12	33	59	63	130	105	1000	52	33	23	25	41	947
13	34	54	58	105	90	660	57	32	18	18	46	555
14	35	51	54	88	81	460	55	34	16	15	369	343
15	35	48	53	80	78	340	52	41	15	14	675	265
16	35	47	56	72	122	250	50	38	17	38	430	221
17	35	67	60	66	132	180	48	34	22	31	531	188
18	35	287	61	72	121	310	44	31	15	27	521	157
19	35	319	58	82	209	510	44	29	14	22	339	136
20	35	345	56	78	889	800	75	27	13	23	237	120
21	35	326	54	388	4510	650	54	24	13	32	186	103
22	34	324	52	809	3140	475	45	24	12	28	133	106
23	26	232	52	836	1500	370	41	24	13	24	103	102
24	23	158	51	526	860	305	40	23	12	33	79	91
25	24	122	49	447	515	255	37	24	12	40	66	80
26	23	106	48	563	355	215	36	26	12	32	66	87
27	26	99	47	463	267	180	90	28	13	28	102	118
28	27	92	47	343	213	160	71	28	15	24	225	107
29	26	86	46	256	180	140	44	25	20	24	227	100
30	25	77	45	197	---	125	39	23	19	19	203	97
31	24	---	44	164	---	110	---	22	---	19	300	---
TOTAL	939	4178	1664	6732	14810	14346	1723	1414	546	751	5554	20101
MEAN	30.3	139	53.7	217	511	463	57.4	45.6	18.2	24.2	179	670
MAX	35	358	69	836	4510	1200	100	214	29	40	675	3650
MIN	23	23	44	44	78	110	36	22	12	13	41	80
CFSM	.17	.79	.30	1.23	2.89	2.61	.32	.26	.10	.14	1.01	3.79
IN.	.20	.88	.35	1.41	3.11	3.02	.36	.30	.11	.16	1.17	4.22

CAL YR 1987 TOTAL 76394 MEAN 209 MAX 3330 MIN 22 CFSM 1.18 IN. 16.06
WTR YR 1988 TOTAL 72758 MEAN 199 MAX 4510 MIN 12 CFSM 1.12 IN. 15.29

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 at times.

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, 16.10 ft, Sept. 8; minimum, 10.52 ft, July 24.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.90	12.34	12.15	11.75	11.44	12.03	11.65	12.08	11.91	11.86	11.66	12.13
2	12.02	12.60	11.93	11.77	11.48	12.15	11.65	12.26	11.83	12.16	11.64	12.26
3	11.85	12.84	11.77	12.30	11.48	12.04	11.60	12.09	11.73	12.16	11.71	12.22
4	11.98	12.94	11.38	12.25	11.50	11.96	11.56	11.79	12.21	12.13	11.87	12.01
5	12.05	12.89	11.49	11.96	11.69	11.90	11.56	11.52	12.48	12.26	11.84	11.68
6	12.10	12.84	11.72	11.93	11.99	12.27	11.55	11.46	12.29	12.44	11.75	12.02
7	11.95	12.88	11.89	12.23	12.22	12.47	11.20	11.69	12.04	12.44	11.58	14.61
8	11.67	12.60	12.05	12.30	12.20	12.21	11.65	11.82	11.86	12.16	11.56	15.50
9	11.87	12.38	11.97	12.07	12.21	12.00	12.00	11.89	11.65	11.81	11.64	14.63
10	12.09	12.15	11.82	12.02	12.25	11.77	12.14	11.81	11.34	11.55	11.67	14.11
11	12.26	11.69	11.61	12.31	12.39	11.96	12.17	11.67	11.81	11.49	11.61	13.26
12	12.33	12.00	11.46	12.29	11.94	12.26	12.03	11.73	11.97	11.42	11.68	12.96
13	12.83	12.16	11.49	12.02	11.24	11.88	11.93	11.72	11.97	11.31	11.74	12.78
14	13.04	12.33	11.74	11.97	11.46	11.60	12.12	11.73	11.89	11.24	12.09	12.58
15	13.11	12.43	11.65	12.30	11.67	11.57	12.15	11.76	11.79	11.25	11.93	12.51
16	13.11	12.50	11.23	12.37	11.42	11.70	12.13	11.72	11.78	11.24	11.70	12.66
17	13.15	12.48	11.22	12.24	11.48	11.83	12.20	11.66	11.82	11.23	11.67	12.72
18	12.98	12.41	11.51	11.99	11.63	11.96	12.06	11.65	11.73	11.24	11.68	12.40
19	12.85	12.40	11.72	11.99	12.01	11.91	11.76	11.64	11.67	11.28	11.51	12.38
20	12.79	12.46	11.66	11.98	12.48	11.75	11.74	11.55	11.76	11.30	11.40	12.43
21	12.65	12.26	11.58	12.10	13.93	11.48	11.81	11.55	11.84	11.23	11.37	12.35
22	12.71	12.35	11.69	12.13	13.84	11.48	11.58	11.54	11.91	11.11	11.47	12.36
23	12.79	12.42	11.86	12.00	12.58	11.87	11.54	11.43	11.83	11.06	11.87	12.56
24	12.79	12.34	11.97	11.84	11.99	11.73	11.42	11.27	11.77	11.01	11.94	12.52
25	12.75	12.28	11.87	11.99	11.81	11.49	11.33	11.12	11.83	11.10	11.86	12.35
26	12.77	12.23	11.68	11.66	11.90	11.41	11.86	11.68	12.03	11.29	11.77	12.44
27	12.83	12.23	11.56	11.34	11.80	11.30	12.03	12.35	11.95	11.42	11.82	12.79
28	12.57	12.43	11.64	11.45	11.75	11.40	11.74	12.17	12.28	11.45	12.04	12.79
29	12.48	12.51	11.44	11.40	12.12	11.61	11.63	11.85	12.23	11.52	11.91	12.87
30	12.32	12.37	11.76	11.38	---	11.61	11.63	11.82	11.94	11.61	11.83	12.92
31	12.23	---	11.87	11.40	---	11.61	---	11.92	---	11.66	11.95	---
MEAN	12.48	12.42	11.69	11.96	12.00	11.81	11.78	11.74	11.90	11.56	11.73	12.79
MAX	13.15	12.94	12.15	12.37	13.93	12.47	12.20	12.35	12.48	12.44	12.09	15.50
MIN	11.67	11.69	11.22	11.34	11.24	11.30	11.20	11.12	11.34	11.01	11.37	11.68

CAL YR 1987 MEAN 11.99 MAX 14.17 MIN 10.91
WTR YR 1988 MEAN 11.99 MAX 15.50 MIN 11.01

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.--Records fair.

AVERAGE DISCHARGE.--17 years (water years 1967-69, 1975-88), 10.7 ft³/s, 10.68 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.--Peak discharges greater than base discharge of 100 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 20	2115	*92	*7.12				

Minimum discharge, 0.17 ft³/s, Aug. 24; minimum gage height, 4.19 ft, July 18.

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	3.3	5.8	2.7	5.8	7.5	13	10	5.0	3.1	6.6	1.5	5.6
2	3.2	3.0	6.2	6.0	7.3	12	10	4.2	2.6	6.5	4.0	3.2
3	1.6	5.5	7.0	6.2	7.2	12	10	5.8	4.6	5.0	3.3	3.6
4	2.6	15	7.8	5.6	7.0	16	8.0	9.5	6.2	4.3	4.3	.92
5	4.6	12	8.8	4.5	7.3	26	9.6	8.7	4.1	4.8	4.5	4.8
6	4.5	7.9	5.5	4.5	10	31	8.9	8.4	2.9	5.8	3.7	12
7	4.8	3.2	8.2	6.0	9.7	28	8.1	7.6	2.9	3.2	1.7	18
8	4.4	2.1	8.7	5.2	8.5	23	7.6	8.4	3.0	5.4	1.9	30
9	3.1	1.8	8.1	6.7	7.1	21	7.1	8.3	2.8	5.2	4.5	49
10	1.5	1.8	7.4	7.2	7.1	31	3.2	8.3	4.6	4.3	4.2	21
11	.84	1.7	8.0	6.1	7.2	26	3.0	7.7	6.4	2.9	1.4	12
12	1.0	1.3	7.7	5.4	6.7	21	5.5	4.3	6.2	6.9	4.1	6.9
13	4.4	1.0	7.6	6.7	5.1	18	6.7	3.4	4.8	6.0	4.0	7.2
14	5.9	3.3	7.8	6.7	5.4	15	7.7	4.7	6.0	4.9	5.4	6.9
15	3.8	6.3	7.0	6.6	7.6	15	7.9	8.1	7.1	5.6	2.6	4.4
16	5.5	7.1	8.8	6.4	11	14	7.8	6.9	7.0	4.6	5.4	6.2
17	4.9	9.5	8.2	6.2	8.9	13	6.7	3.8	5.6	1.1	3.9	1.9
18	1.8	15	7.8	6.3	7.7	13	3.9	6.1	4.5	1.2	1.6	6.5
19	2.3	13	4.4	5.0	15	20	6.5	5.4	5.8	4.4	.43	8.0
20	1.5	17	5.0	3.7	53	17	6.9	6.4	4.6	4.0	2.9	6.8
21	1.2	11	5.8	18	66	15	4.8	7.1	3.5	4.3	3.5	6.0
22	.99	8.0	4.4	18	36	13	6.2	6.9	5.5	3.1	3.3	5.8
23	.95	4.1	6.3	11	28	10	5.1	6.2	3.1	2.7	2.9	5.0
24	1.8	5.9	6.6	8.9	24	12	3.7	6.3	5.0	5.4	.57	5.0
25	4.1	7.7	3.5	17	20	12	4.2	3.7	5.2	4.7	.97	4.6
26	4.4	8.3	3.3	16	18	13	4.3	6.0	1.8	4.0	2.7	4.2
27	5.1	4.4	1.5	10	15	14	3.5	6.5	3.1	4.1	2.9	4.7
28	5.6	1.9	1.2	7.8	11	11	5.7	7.6	9.2	3.2	5.8	4.5
29	5.7	1.4	1.0	7.4	11	12	5.1	8.2	7.8	1.6	4.0	5.0
30	4.7	1.3	2.2	8.0	---	12	5.7	7.2	6.9	4.4	3.0	16
31	5.3	---	4.8	7.8	---	12	---	6.8	---	3.6	4.4	---
TOTAL	105.38	187.3	183.3	246.7	435.3	521	193.4	203.5	145.9	133.8	99.37	275.72
MEAN	3.40	6.24	5.91	7.96	15.0	16.8	6.45	6.56	4.86	4.32	3.21	9.19
MAX	5.9	17	8.8	18	66	31	10	9.5	9.2	6.9	5.8	49
MIN	.84	1.0	1.0	3.7	5.1	10	3.0	3.4	1.8	1.1	.43	.92
CFSM	.25	.46	.43	.59	1.10	1.24	.47	.48	.36	.32	.24	.68
IN.	.29	.51	.50	.67	1.19	1.43	.53	.56	.40	.37	.27	.75

CAL YR 1987 TOTAL 3662.18 MEAN 10.0 MAX 85 MIN .84 CFSM .74 IN. 10.02
WTR YR 1988 TOTAL 2730.67 MEAN 7.46 MAX 66 MIN .43 CFSM .55 IN. 7.47

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.--Estimated daily discharges: Mar. 5-8, Apr. 2-22. Records fair.

AVERAGE DISCHARGE.--22 years (water years 1966-83, 1985-88), 36.0 ft³/s, 15.82 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.--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)
Feb. 21	unknown	*1280	*37.75	No other peak greater than base discharge			
Minimum discharge, 1.1 ft ³ /s, July 20,21; minimum gage height, 29.93 ft, part or all of each day, Oct. 22-25, Oct. 30 to Nov. 2.							

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	9.3	2.3	13	3.4	44	50	8.8	27	1.5	1.8	9.8	8.8
2	7.2	2.4	11	4.1	39	45	8.6	35	1.5	1.8	3.6	12
3	5.8	4.2	8.5	5.1	34	42	6.8	18	1.5	1.7	2.2	25
4	4.4	67	7.4	5.1	31	41	6.2	7.5	1.5	1.6	1.9	13
5	4.0	110	6.6	5.4	38	64	5.8	5.3	1.7	1.5	1.8	16
6	4.0	82	6.3	5.1	41	122	5.4	4.7	1.8	1.5	3.2	88
7	3.7	44	6.1	9.0	45	195	5.0	2.6	1.8	1.4	3.5	256
8	3.1	29	5.9	47	51	140	4.7	2.4	1.8	1.4	2.5	314
9	3.0	20	5.9	56	54	110	4.5	2.3	1.7	1.4	2.2	353
10	2.9	21	6.1	54	47	90	4.3	2.2	1.8	1.4	3.2	276
11	3.1	18	6.6	54	38	70	4.1	2.3	2.2	1.7	6.4	213
12	3.4	14	5.8	47	33	56	3.9	2.2	1.8	1.5	3.7	156
13	3.4	9.9	5.3	35	29	49	3.7	2.3	1.6	1.5	3.1	112
14	2.8	7.7	4.8	29	25	44	3.6	3.6	1.6	1.6	36	68
15	2.7	6.8	5.9	25	21	42	3.5	3.3	1.5	2.1	30	40
16	2.6	6.3	7.7	24	39	39	3.4	2.4	1.4	4.6	11	37
17	2.6	26	7.1	25	33	37	3.2	2.2	1.4	2.1	16	29
18	2.5	107	4.9	28	31	36	3.2	2.7	1.3	1.5	12	22
19	2.5	105	4.8	31	88	35	3.4	2.6	1.3	1.3	5.5	20
20	2.6	94	4.4	28	391	35	6.9	2.1	1.3	1.3	3.5	17
21	2.5	77	4.0	108	1230	34	5.3	1.9	1.4	1.2	2.8	12
22	2.4	53	3.7	240	529	34	3.5	1.8	1.3	1.3	2.5	10
23	2.3	41	3.6	173	327	33	2.9	1.8	1.3	2.0	2.4	7.7
24	2.3	34	3.4	130	234	32	2.7	1.7	1.4	5.8	2.3	6.2
25	2.4	29	3.6	146	162	30	2.5	1.9	1.3	4.6	2.4	5.3
26	2.4	26	3.9	153	89	27	3.2	2.0	1.3	3.1	2.3	6.6
27	2.6	23	4.6	123	79	25	3.2	1.8	2.3	2.4	2.8	6.6
28	2.6	21	4.7	100	70	22	2.8	1.7	4.2	2.0	5.8	5.4
29	2.4	18	4.1	67	60	17	2.3	1.6	4.2	1.7	5.8	3.8
30	2.3	15	3.3	55	---	13	3.3	1.6	2.1	1.5	2.9	5.3
31	2.3	---	3.2	50	---	10	---	1.6	---	2.2	3.3	---
TOTAL	102.1	1113.6	176.2	1865.2	3932	1619	130.7	152.1	52.8	62.5	196.4	2144.7
MEAN	3.29	37.1	5.68	60.2	136	52.2	4.36	4.91	1.76	2.02	6.34	71.5
MAX	9.3	110	13	240	1230	195	8.8	35	4.2	5.8	36	353
MIN	2.3	2.3	3.2	3.4	21	10	2.3	1.6	1.3	1.2	1.8	3.8
CFSM	.11	1.20	.18	1.95	4.39	1.69	.14	.16	.06	.07	.21	2.31
IN.	.12	1.34	.21	2.25	4.73	1.95	.16	.18	.06	.08	.24	2.58

CAL YR 1987 TOTAL 16692.1 MEAN 45.7 MAX 469 MIN 1.0 CFSM 1.48 IN. 20.10
WTR YR 1988 TOTAL 11547.3 MEAN 31.5 MAX 1230 MIN 1.2 CFSM 1.02 IN. 13.90

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 current year (gage heights only).

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

GAGE.--Water-stage recorder. Datum of gage is 9.99 ft below National Geodetic Vertical Datum of 1929. 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.

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

AVERAGE DISCHARGE.--21 years (water years 1955-74, 1981), 5,546 ft³/s, 4,018,000 acre-ft/yr.

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.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.67 ft, Sept. 8; minimum, 8.64 ft, Dec. 17.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
TIDAL HIGH VALUES

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	11.58	---
MEAN	11.97	11.99	11.39	11.52	11.48	11.43	11.49	11.44	11.58	11.31	11.38	12.10
MAX	12.50	12.46	11.83	11.97	11.91	11.84	12.02	11.82	12.05	11.87	11.74	12.67
MIN	11.42	11.24	10.79	10.78	10.73	10.86	11.02	10.79	11.14	10.76	10.99	11.37

CAL YR 1987 MEAN 11.64 MAX 12.56 MIN 10.48

WTR YR 1988 MEAN 11.59 MAX 12.67 MIN 10.73

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.--14 years, 32.0 ft³/s, 16.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s, Sept. 19, 1984, gage height, 8.06 ft; minimum, 1.6 ft³/s, July 15, 1981; minimum gage height, 2.82 ft, part of each day, June 24-26, July 20-22, 1988.

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)
Sept. 9	0100	*164	*6.16				

Minimum discharge, 3.0 ft³/s, part of each day, June 24-26, July 20-22, gage height, 2.82 ft.

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	5.5	5.9	13	8.2	20	25	14	14	4.2	4.9	4.5	13
2	5.4	6.5	12	8.1	19	23	13	16	4.1	5.4	4.1	15
3	4.9	11	12	8.7	18	22	13	14	3.9	4.8	3.9	18
4	4.7	21	11	8.8	18	28	15	11	4.0	4.3	3.7	16
5	4.7	21	11	8.2	18	45	14	8.8	4.4	4.2	3.6	16
6	4.7	17	11	8.1	24	59	12	7.4	4.4	4.5	3.6	33
7	4.5	14	11	8.4	25	58	12	6.4	4.6	3.9	3.9	65
8	4.4	11	11	10	24	49	11	6.1	4.5	3.5	4.5	102
9	4.4	10	11	12	22	41	10	5.8	4.2	3.4	11	162
10	4.4	10	11	16	20	46	9.4	5.5	4.0	3.3	13	141
11	4.6	9.5	11	15	19	46	9.1	5.5	4.6	3.7	7.8	95
12	5.1	8.7	11	13	18	40	9.7	6.3	4.5	5.4	6.4	65
13	5.5	8.1	11	12	16	34	11	6.5	4.3	5.1	7.6	48
14	5.5	8.0	10	11	15	29	11	8.2	4.0	4.9	54	40
15	5.2	7.9	11	10	16	24	9.5	8.3	3.8	4.6	45	34
16	5.3	8.0	12	10	21	22	8.8	7.1	3.7	4.1	46	30
17	5.5	13	11	9.9	20	20	8.8	6.0	3.7	3.8	31	27
18	5.3	24	11	11	19	21	8.1	5.3	3.5	3.7	22	32
19	5.0	29	10	11	25	30	8.3	4.8	3.4	3.3	16	53
20	5.0	37	10	11	55	32	9.4	4.5	3.4	3.1	13	50
21	5.1	33	9.8	36	101	28	9.2	4.4	3.5	3.1	11	39
22	4.9	26	9.8	45	101	23	7.9	4.3	3.4	3.6	9.9	31
23	5.0	21	9.8	42	74	21	7.2	4.1	3.4	4.2	9.4	26
24	5.3	18	11	32	56	20	6.8	4.3	3.2	5.1	16	22
25	5.6	16	11	37	44	20	6.8	12	3.1	5.7	22	19
26	6.0	16	10	41	38	21	6.9	8.0	3.1	5.1	20	18
27	5.9	15	9.8	39	35	23	6.7	6.8	4.6	5.5	16	17
28	5.5	15	9.4	32	30	22	6.1	5.9	8.9	4.6	15	16
29	5.3	14	9.0	26	27	20	5.6	5.1	6.7	4.1	16	15
30	5.2	14	8.5	23	---	17	5.9	4.7	5.6	4.1	16	28
31	5.5	---	8.4	21	---	16	---	4.5	---	4.8	15	---
TOTAL	158.9	468.6	328.5	584.4	938	925	286.2	221.6	126.7	133.8	470.9	1286
MEAN	5.13	15.6	10.6	18.9	32.3	29.8	9.54	7.15	4.22	4.32	15.2	42.9
MAX	6.0	37	13	45	101	59	15	16	8.9	5.7	54	162
MIN	4.4	5.9	8.4	8.1	15	16	5.6	4.1	3.1	3.1	3.6	13
CFSM	.20	.61	.41	.73	1.25	1.16	.37	.28	.16	.17	.59	1.66
IN.	.23	.68	.47	.84	1.35	1.33	.41	.32	.18	.19	.68	1.85

CAL YR 1987 TOTAL 8262.3 MEAN 22.6 MAX 203 MIN 4.4 CFSM .88 IN. 11.91
WTR YR 1988 TOTAL 5928.6 MEAN 16.2 MAX 162 MIN 3.1 CFSM .63 IN. 8.55

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 fair.

AVERAGE DISCHARGE.--14 years, 7.64 ft³/s, 30.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 270 ft³/s, Sept. 26, 1979, gage height, 5.13 ft; maximum gage height, 5.57 ft, Aug. 5, 1974; minimum discharge, 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.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sept. 9	1000	*104	*4.18				

Minimum discharge, 0.43 ft³/s, July 20,21; minimum gage height, 1.40 ft, June 25,26,27.

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	2.8	1.2	2.7	1.8	3.7	5.6	4.0	6.2	1.3	1.1	1.2	2.1
2	2.4	1.3	2.6	1.8	12	5.4	4.0	6.1	1.2	2.1	.81	3.1
3	2.3	1.5	2.6	1.8	4.9	5.2	3.8	3.8	1.1	1.6	.72	3.9
4	2.0	5.1	2.5	1.8	4.4	8.0	3.7	3.1	1.1	.95	.63	2.9
5	1.8	5.9	2.3	1.7	4.3	15	3.6	2.8	1.2	.79	.68	3.2
6	1.8	3.3	2.3	1.5	6.6	16	3.4	2.5	1.3	.80	1.0	11
7	1.7	2.4	2.3	1.7	6.5	13	3.2	2.2	1.7	.69	.96	24
8	1.6	2.2	2.3	2.2	5.4	9.1	3.0	2.1	1.5	.57	1.1	42
9	1.6	2.0	2.3	2.0	5.0	8.5	2.9	2.0	1.2	.84	.88	90
10	1.6	2.0	2.3	2.2	4.6	12	2.9	1.9	1.1	.95	1.7	45
11	1.8	2.0	2.3	1.8	4.3	9.8	2.8	2.2	2.6	1.2	1.3	18
12	2.1	1.8	2.2	2.5	4.1	7.8	2.9	6.5	2.3	2.0	.86	12
13	2.3	1.7	2.1	2.4	3.7	7.0	3.7	4.4	1.4	1.8	1.3	9.6
14	2.1	1.7	2.1	1.8	3.7	6.3	3.2	4.0	1.1	1.1	21	8.0
15	2.0	1.8	2.1	2.1	4.1	5.6	2.8	3.9	.99	.90	8.1	7.1
16	1.9	1.7	2.2	2.4	5.4	5.3	2.6	3.0	.95	.69	8.8	6.4
17	1.6	3.1	2.4	2.0	4.5	5.1	2.6	2.6	.93	.73	5.4	7.2
18	1.6	7.2	2.4	1.6	4.1	5.6	2.5	2.3	.85	.72	3.8	8.8
19	1.5	6.2	2.4	1.5	6.4	8.2	2.9	2.1	.81	.51	3.1	9.3
20	1.4	7.7	2.3	1.5	23	6.6	5.4	1.9	.81	.46	2.8	7.1
21	1.4	4.7	2.0	9.4	53	5.5	3.3	1.7	.81	.46	2.5	5.8
22	1.3	3.8	2.0	6.7	23	5.0	2.7	1.6	.76	.64	2.2	5.1
23	1.3	3.5	2.0	5.2	13	4.9	2.4	1.5	.70	1.6	2.0	4.5
24	1.4	3.3	2.0	5.1	11	4.8	2.3	1.6	.63	3.1	2.3	4.2
25	1.4	3.3	2.0	7.6	8.9	4.6	2.2	3.6	.60	1.6	2.9	3.9
26	1.4	3.2	1.9	6.7	7.8	4.8	2.4	2.7	.58	1.0	2.9	3.7
27	1.5	3.2	1.8	5.7	7.0	7.5	2.3	2.2	2.3	1.0	2.1	3.7
28	1.4	3.2	1.8	3.5	6.3	5.8	2.1	1.9	3.9	.97	3.3	3.5
29	1.3	3.1	1.8	3.3	5.9	4.9	1.9	1.6	2.1	.80	3.3	3.3
30	1.2	2.9	1.7	3.3	---	4.5	2.2	1.5	1.3	.93	2.7	4.1
31	1.2	---	1.7	3.2	---	4.2	---	1.4	---	1.5	2.3	---
TOTAL	52.7	96.0	67.4	97.8	256.6	221.6	89.7	86.9	39.12	34.10	94.64	362.5
MEAN	1.70	3.20	2.17	3.15	8.85	7.15	2.99	2.80	1.30	1.10	3.05	12.1
MAX	2.8	7.7	2.7	9.4	53	16	5.4	6.5	3.9	3.1	21	90
MIN	1.2	1.2	1.7	1.5	3.7	4.2	1.9	1.4	.58	.46	.63	2.1
CFSM	.50	.94	.64	.93	2.60	2.10	.88	.82	.38	.32	.90	3.55
IN.	.58	1.05	.74	1.07	2.81	2.42	.98	.95	.43	.37	1.04	3.97

CAL YR 1987 TOTAL 2762.65 MEAN 7.57 MAX 113 MIN .72 CFSM 2.23 IN. 30.23
WTR YR 1988 TOTAL 1499.06 MEAN 4.10 MAX 90 MIN .46 CFSM 1.20 IN. 16.40

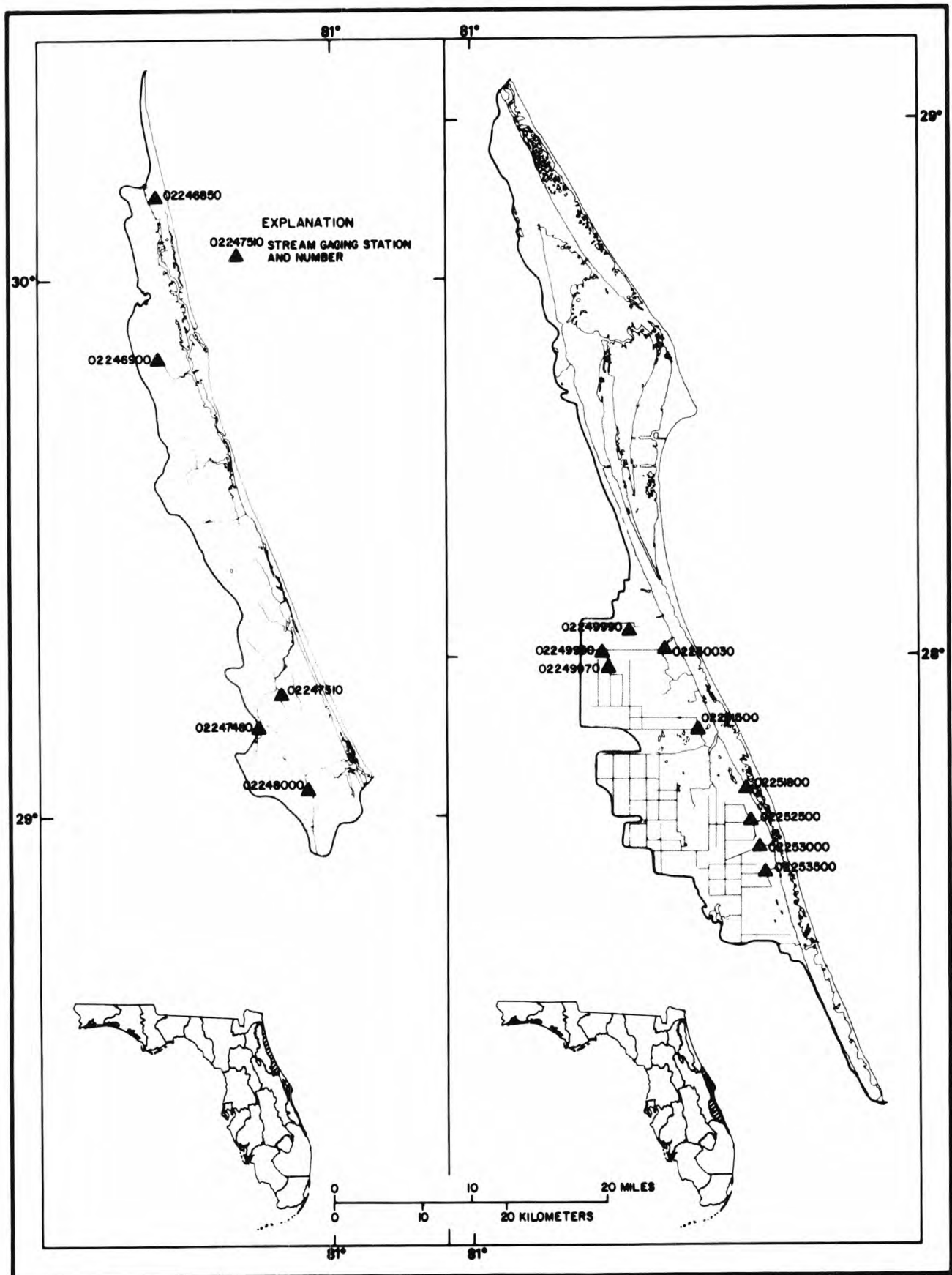


Figure 19.--Location of stream gaging stations in the coastal area between the St. Johns and St. Lucie Rivers.

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 current year.

GAGE.--Water-stage recorder. Datum of gage is 2.00 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

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; no flow for many days each year; minimum gage height, 3.48 ft, Aug. 13, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 31 ft³/s, Sept. 10; maximum gage height, 6.00 ft, Sept. 10; no flow Aug. 7-12; minimum gage height, 3.48 ft, Aug. 13.

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	.93	.11	7.1	3.5	14	17	15	8.3	6.5	3.5	.89	7.4
2	.86	.28	6.6	3.4	13	17	14	8.5	6.3	3.4	.71	7.3
3	.81	.43	6.3	3.5	13	16	14	8.3	6.1	3.2	.55	7.3
4	.72	1.7	6.0	3.4	12	16	13	8.0	6.0	3.0	.37	7.0
5	.66	2.5	5.6	3.3	12	18	13	7.8	5.9	2.8	.22	7.2
6	.66	2.9	5.3	3.2	13	19	12	7.5	6.0	2.7	.09	8.5
7	.66	3.2	5.1	3.4	13	18	12	7.3	6.1	2.6	.00	11
8	.63	3.3	4.8	5.3	12	18	11	7.0	6.1	2.3	.00	19
9	.57	3.4	4.7	6.3	12	19	11	6.8	5.8	2.0	.00	29
10	.55	3.4	4.6	7.4	12	20	10	6.6	5.6	1.9	.00	31
11	.57	3.4	4.6	7.8	12	19	9.8	6.4	5.9	1.7	.00	30
12	.63	3.4	4.5	7.9	12	19	9.7	6.3	5.5	1.7	.00	29
13	.76	3.4	4.3	8.0	12	18	9.5	6.3	5.1	1.7	.09	27
14	.67	3.3	4.1	7.8	11	18	9.2	6.7	4.7	1.5	2.2	24
15	.66	3.3	4.4	7.6	11	17	9.0	6.8	4.4	1.5	4.1	21
16	.66	3.4	5.0	7.4	12	16	8.8	5.7	4.2	1.3	5.9	19
17	.66	3.6	5.0	7.1	12	15	8.6	6.5	4.0	1.2	7.4	17
18	.62	4.4	5.1	7.1	12	15	8.5	6.3	3.9	.97	8.5	15
19	.57	5.3	5.0	7.2	13	16	8.7	6.4	3.7	.78	9.1	14
20	.58	6.5	5.0	7.1	16	16	8.9	6.4	3.7	.62	9.3	13
21	.57	6.9	4.9	11	21	15	8.7	6.4	3.6	.45	9.3	12
22	.51	7.1	4.7	13	23	15	8.5	6.6	3.5	.62	9.1	11
23	.47	7.2	4.6	14	24	14	8.3	6.5	3.4	1.3	8.7	9.7
24	.44	7.3	4.4	14	24	13	8.1	6.4	3.3	1.4	8.7	8.9
25	.38	7.4	4.3	15	23	13	7.9	7.2	3.2	1.4	8.5	8.2
26	.38	7.6	4.2	16	22	14	7.8	7.4	3.1	1.4	8.1	7.8
27	.45	7.8	4.1	17	21	15	7.6	7.4	3.6	1.6	8.0	7.2
28	.39	7.6	3.9	16	19	16	7.4	7.3	3.8	1.6	8.3	6.9
29	.28	7.6	3.8	15	18	16	7.1	7.1	3.7	1.4	8.3	6.7
30	.19	7.5	3.7	15	---	15	7.1	6.8	3.6	1.3	8.0	7.1
31	.13	---	3.6	14	---	15	---	6.7	---	1.1	7.7	---
TOTAL	17.62	135.22	149.3	277.7	444	508	294.2	216.7	140.3	53.94	142.12	429.2
MEAN	.57	4.51	4.82	8.96	15.3	16.4	9.81	6.99	4.68	1.74	4.58	14.3
MAX	.93	7.8	7.1	17	24	20	15	8.5	6.5	3.5	9.3	31
MIN	.13	.11	3.6	3.2	11	13	7.1	6.3	3.1	.45	.00	6.7

CAL YR 1987 TOTAL 2057.07 MEAN 5.64 MAX 29 MIN .00
WTR YR 1988 TOTAL 2808.30 MEAN 7.67 MAX 31 MIN .00

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 fair.

AVERAGE DISCHARGE.--27 years, 17.7 ft³/s, 12.14 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)
Sept. 9	0300	*90	*6.18				

No flow for many days; minimum gage height, 2.19 ft, Oct. 20.

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	.02	.00	.18	.34	1.0	2.0	4.5	3.1	.40	.51	.05	.05
2	.01	.00	.18	.36	.99	1.9	4.0	2.5	.29	.71	.04	.15
3	.01	.00	.17	.40	1.0	1.9	3.6	1.9	.15	.44	.04	.13
4	.01	.12	.17	.41	1.0	3.3	3.3	1.6	.06	.35	.03	.08
5	.01	.10	.17	.31	1.1	6.4	3.0	1.4	.08	.34	.02	.14
6	.01	.03	.20	.30	2.1	13	2.7	1.2	.17	.41	.04	2.3
7	.01	.01	.20	.34	1.9	8.8	2.5	1.1	.31	.32	.10	10
8	.00	.00	.20	.61	1.9	6.5	2.2	1.0	.33	.25	.06	32
9	.00	.00	.20	.56	1.7	5.8	2.2	1.0	.20	.21	.05	71
10	.00	.01	.20	.59	1.6	23	2.0	1.0	.07	.19	.04	45
11	.00	.01	.21	.47	1.5	21	2.0	1.0	.03	.25	.04	42
12	.01	.01	.22	.43	1.5	22	1.8	1.1	.02	.53	.04	32
13	.02	.01	.23	.43	1.4	20	1.7	1.3	.01	.35	.04	23
14	.01	.01	.24	.42	1.3	16	1.6	5.4	.01	.47	.10	16
15	.01	.02	.31	.42	1.6	12	1.4	3.4	.00	.73	.06	12
16	.00	.02	.32	.43	2.1	9.0	1.3	2.3	.00	.52	.05	9.5
17	.00	.11	.25	.42	1.9	7.8	1.2	1.8	.00	.33	.04	7.6
18	.00	.30	.25	.42	1.7	7.9	1.2	1.5	.00	.23	.03	6.9
19	.00	.35	.23	.41	2.2	13	1.1	1.3	.00	.18	.02	7.0
20	.00	.32	.23	.42	3.7	12	1.1	1.1	2.6	.14	.02	6.2
21	.00	.22	.23	2.2	5.2	10	1.1	.95	.86	.11	.02	5.4
22	.00	.19	.25	1.1	3.4	9.1	1.1	.88	.51	.19	.01	4.7
23	.00	.17	.25	.86	2.7	8.3	1.1	.79	.40	.36	.00	4.0
24	.00	.16	.24	.83	2.4	7.7	1.1	.79	.34	.42	.00	3.5
25	.00	.16	.25	2.5	2.2	7.1	1.1	1.3	.31	.26	.01	3.1
26	.00	.20	.25	1.8	2.1	7.2	1.1	1.3	.29	.16	.05	4.1
27	.00	.23	.30	1.3	2.0	9.8	.98	1.3	.36	.11	.12	30
28	.00	.21	.34	1.1	2.0	8.0	.97	1.3	1.0	.08	.09	30
29	.00	.20	.34	1.0	2.0	6.9	.84	.82	.66	.07	.06	23
30	.00	.18	.30	1.0	---	5.7	.78	.61	.46	.07	.08	24
31	.00	---	.33	1.0	---	5.0	---	.51	---	.06	.04	---
TOTAL	0.13	3.35	7.44	23.18	57.19	298.1	54.57	46.55	9.92	9.35	1.39	454.85
MEAN	.004	.11	.24	.75	1.97	9.62	1.82	1.50	.33	.30	.045	15.2
MAX	.02	.35	.34	2.5	5.2	23	4.5	5.4	2.6	.73	.12	71
MIN	.00	.00	.17	.30	.99	1.9	.78	.51	.00	.06	.00	.05
CFSM	.00	.01	.01	.04	.10	.49	.09	.08	.02	.02	.00	.77
IN.	.00	.01	.01	.04	.11	.56	.10	.09	.02	.02	.00	.85

CAL YR 1987 TOTAL 5190.16 MEAN 14.2 MAX 323 MIN .00 CFSM .72 IN. 9.75
WTR YR 1988 TOTAL 966.02 MEAN 2.64 MAX 71 MIN .00 CFSM .13 IN. 1.81

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 on 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.

AVERAGE DISCHARGE.--10 years, 20.4 ft³/s, 14,780 acre-ft/yr.

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, 63 ft³/s, Mar. 11,12, gage height, 31.78 ft; no flow for many days; minimum gage height, 26.46 ft, Aug. 16.

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	.00	.00	1.2	.00	22	8.8	11	1.2	.00	.00	.00	.00
2	.00	.00	1.0	.00	21	7.9	9.1	.94	.00	.00	.00	.00
3	.00	.00	.99	.00	20	7.2	8.1	.78	.00	.00	.00	.00
4	.00	.00	.89	.00	20	6.8	7.3	.62	.00	.00	.00	.00
5	.00	.00	.75	.00	18	7.5	6.6	.39	.00	.00	.00	.00
6	.00	.00	.66	.00	19	17	5.6	.20	.00	.00	.00	.00
7	.00	.00	.61	.00	20	27	4.7	.06	.00	.00	.00	.00
8	.00	.00	.55	.00	22	31	3.9	.00	.00	.00	.00	.00
9	.00	.00	.52	.00	24	31	3.6	.00	.00	.00	.00	.00
10	.00	.00	.45	.00	24	49	3.1	.00	.00	.00	.00	.00
11	.00	.00	.41	.00	23	62	3.0	.00	.00	.00	.00	.00
12	.00	.00	.33	.00	22	62	2.8	.00	.00	.00	.00	.00
13	.00	.00	.25	.00	20	56	2.4	.00	.00	.00	.00	.00
14	.00	.00	.20	.00	18	49	1.9	.00	.00	.00	.00	.00
15	.00	.00	.19	.00	17	41	1.6	.00	.00	.00	.00	.00
16	.00	.00	.22	.00	17	34	1.4	.00	.00	.00	.00	.00
17	.00	.00	.16	.00	16	30	1.1	.00	.00	.00	.00	.00
18	.00	.00	.12	.00	15	27	.83	.00	.00	.00	.00	.00
19	.00	.00	.09	.00	15	30	.81	.00	.00	.00	.00	.00
20	.00	.08	.06	.00	14	34	.69	.00	.00	.00	.00	.00
21	.00	.00	.03	.00	17	34	.52	.00	.00	.00	.00	.00
22	.00	.00	.01	.00	19	31	.37	.00	.00	.00	.00	.00
23	.00	.52	.00	.06	20	28	.22	.00	.00	.00	.00	.00
24	.00	.88	.00	.11	19	24	.34	.00	.00	.00	.00	.00
25	.00	.88	.00	4.7	17	22	.78	.00	.00	.00	.00	.00
26	.00	.53	.00	11	14	20	.94	.00	.00	.00	.00	.00
27	.00	1.1	.00	19	13	19	1.8	.00	.00	.00	.00	.00
28	.00	1.2	.00	25	11	17	1.1	.00	.00	.00	.00	.00
29	.00	1.2	.00	26	10	15	.59	.00	.00	.00	.00	.00
30	.00	1.2	.00	25	---	14	.44	.00	.00	.00	.00	.00
31	.00	---	.00	24	---	12	---	.00	---	.00	.00	---
TOTAL	0.00	7.59	9.69	134.87	527	854.2	86.63	4.19	0.00	0.00	0.00	0.00
MEAN	.00	.25	.31	4.35	18.2	27.6	2.89	.14	.00	.00	.00	.00
MAX	.00	1.2	1.2	26	24	62	11	1.2	.00	.00	.00	.00
MIN	.00	.00	.00	.00	10	6.8	.22	.00	.00	.00	.00	.00
AC-FT	.0	15	19	268	1050	1690	172	8.3	.0	.0	.0	.0

CAL YR 1987 TOTAL 5078.69 MEAN 13.9 MAX 167 MIN .00 AC-FT 10070
WTR YR 1988 TOTAL 1624.17 MEAN 4.44 MAX 62 MIN .00 AC-FT 3220

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 good.

AVERAGE DISCHARGE.--24 years, 54.3 ft³/s, 9.60 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)
Mar. 10	1400	*307	*9.51				

Minimum discharge, 0.29 ft³/s, July 11,12; minimum gage height, 6.05 ft, Aug. 5,6.

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	7.3	3.3	26	5.1	29	16	21	16	1.4	1.0	.52	1.2
2	5.9	4.8	22	5.0	26	15	19	19	1.3	1.2	.54	1.5
3	4.4	6.6	18	5.3	30	14	17	9.7	1.3	1.3	.61	1.2
4	3.6	44	18	5.6	30	13	16	7.8	1.3	.67	.55	.95
5	3.1	145	14	5.1	28	15	15	5.3	1.5	.42	.48	1.6
6	2.9	78	12	4.9	30	70	13	3.9	3.9	.92	.57	15
7	2.8	44	13	5.3	39	92	12	3.0	10	1.3	1.9	19
8	2.6	30	12	25	39	70	10	2.7	7.7	.90	1.8	25
9	2.4	23	9.7	23	42	57	9.3	2.5	3.6	.55	1.1	42
10	2.3	19	8.8	19	40	245	8.6	2.3	2.3	.39	.97	27
11	2.7	16	8.4	24	36	198	8.2	2.2	2.1	.32	1.0	15
12	8.3	13	7.7	17	33	132	7.8	2.4	2.0	.31	.93	11
13	21	11	7.3	13	30	107	7.3	2.7	1.7	.34	1.4	9.2
14	18	9.9	7.1	13	27	92	8.8	2.6	1.7	2.1	1.4	6.6
15	14	9.0	8.0	13	26	79	9.6	2.5	1.6	3.4	1.1	4.7
16	12	8.4	11	9.7	27	69	6.6	2.2	1.7	1.7	.82	3.7
17	9.8	9.4	11	8.4	26	61	5.3	2.1	1.6	1.1	.83	3.0
18	7.8	39	9.1	8.3	23	57	4.7	1.9	1.4	.96	.78	3.0
19	6.5	41	7.8	7.7	22	76	4.3	1.7	1.4	.86	.59	26
20	5.6	34	7.1	7.7	22	72	4.0	1.7	1.4	.91	.57	25
21	5.0	27	6.7	12	34	63	3.8	1.6	1.4	.91	.81	13
22	4.4	20	6.5	18	39	56	3.3	1.4	1.4	.72	.68	8.1
23	4.7	16	6.3	16	33	50	3.0	1.3	1.4	.77	.57	5.4
24	4.4	15	6.3	15	29	45	2.7	1.3	1.3	.82	1.6	3.9
25	4.1	22	6.4	144	26	41	2.4	2.8	1.2	.87	2.1	3.0
26	4.1	21	6.5	183	24	37	2.7	3.2	1.1	2.2	1.6	2.5
27	4.4	43	6.5	110	21	35	4.8	4.7	1.2	1.4	5.7	4.7
28	4.5	45	6.4	71	19	32	4.1	3.5	1.4	1.1	6.1	18
29	3.8	38	6.2	53	18	28	2.8	2.1	1.4	.84	3.7	13
30	3.3	29	5.6	44	---	26	2.6	1.7	1.3	.72	1.9	12
31	3.2	---	5.3	35	---	23	---	1.5	---	.61	1.2	---
TOTAL	188.9	864.4	306.7	926.1	848	1986	239.7	119.3	64.0	31.61	44.42	325.25
MEAN	6.09	28.8	9.89	29.9	29.2	64.1	7.99	3.85	2.13	1.02	1.43	10.8
MAX	21	145	26	183	42	245	21	19	10	3.4	6.1	42
MIN	2.3	3.3	5.3	4.9	18	13	2.4	1.3	1.1	.31	.48	.95
CFSM	.08	.38	.13	.39	.38	.83	.10	.05	.03	.01	.02	.14
IN.	.09	.42	.15	.45	.41	.96	.12	.06	.03	.02	.02	.16

CAL YR 1987 TOTAL 12279.89 MEAN 33.6 MAX 623 MIN .82 CFSM .44 IN. 5.95
WTR YR 1988 TOTAL 5944.38 MEAN 16.2 MAX 245 MIN .31 CFSM .21 IN. 2.88

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.--37 years, 32.1 ft³/s, 13.05 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)
Jan. 25	1200	*361	*8.40				

Minimum discharge, 0.73 ft³/s, June 3; minimum gage height, 1.12 ft, June 27, 28.

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	4.3	2.5	23	3.3	35	8.9	8.9	4.9	.94	.95	1.2	6.3
2	4.0	2.7	20	3.1	29	8.3	8.0	3.8	.93	1.2	1.1	9.5
3	3.5	5.0	17	3.3	25	7.7	7.2	2.9	.86	1.1	1.1	11
4	3.1	63	15	3.6	21	7.4	6.5	2.5	.85	.99	1.0	9.4
5	2.8	45	13	3.6	19	8.3	6.0	2.2	.84	.93	1.0	10
6	2.6	34	11	3.5	20	61	5.3	2.0	3.3	2.6	1.4	29
7	2.4	27	10	3.4	24	64	4.8	1.8	2.1	1.4	1.7	36
8	2.2	21	9.3	4.2	26	49	4.5	1.6	1.4	1.1	1.2	63
9	2.1	18	8.5	4.2	27	38	4.1	1.5	1.2	1.0	1.1	128
10	2.0	15	7.8	5.3	24	123	3.8	1.3	1.2	1.0	1.2	81
11	2.9	13	7.3	6.0	21	105	3.8	1.5	1.7	1.7	1.1	54
12	11	10	6.8	5.7	19	77	3.6	2.0	1.4	1.7	1.1	36
13	17	8.6	6.3	5.2	17	61	3.5	1.8	1.2	2.0	1.2	24
14	12	7.4	6.0	4.8	15	62	3.4	1.8	1.1	4.9	1.2	18
15	11	6.6	6.2	4.3	15	50	3.0	1.7	1.0	2.7	1.2	16
16	11	5.8	8.1	4.0	20	37	2.7	1.5	1.0	2.3	2.6	16
17	9.8	7.9	8.0	3.7	19	29	2.6	1.4	.93	1.7	1.9	14
18	8.7	32	7.3	3.5	17	25	2.5	1.4	.90	1.7	1.4	12
19	8.3	28	6.6	3.3	16	62	2.4	1.3	.85	1.4	1.2	13
20	7.5	34	6.1	3.1	15	57	2.3	1.2	.86	1.5	1.2	16
21	6.4	33	5.8	6.3	18	45	2.1	1.1	.86	1.4	1.3	13
22	5.5	27	5.4	13	20	34	1.9	1.0	.87	1.4	1.3	11
23	4.7	23	5.1	11	17	27	1.7	.96	.90	1.7	3.6	9.2
24	4.3	19	4.8	11	16	22	1.5	.94	.86	2.0	7.4	8.0
25	3.9	18	4.6	278	14	19	1.5	1.5	.86	1.9	3.3	7.0
26	3.7	17	4.4	208	12	17	2.0	1.7	.86	1.6	2.7	9.1
27	3.4	39	4.1	134	11	16	2.0	1.5	.80	1.5	4.7	25
28	3.2	41	4.0	90	11	14	1.6	1.2	3.0	1.3	10	25
29	2.9	35	3.8	66	9.7	12	1.4	1.1	2.3	1.3	8.9	16
30	2.8	29	3.6	53	---	11	1.5	1.0	1.0	1.5	7.3	19
31	2.5	---	3.4	44	---	10	---	.96	---	1.4	5.9	---
TOTAL	171.5	667.5	252.3	995.4	552.7	1167.6	106.1	53.06	36.87	50.87	82.5	744.5
MEAN	5.53	22.2	8.14	32.1	19.1	37.7	3.54	1.71	1.23	1.64	2.66	24.8
MAX	17	63	23	278	35	123	8.9	4.9	3.3	4.9	10	128
MIN	2.0	2.5	3.4	3.1	9.7	7.4	1.4	.94	.80	.93	1.0	6.3
CFSM	.17	.67	.24	.96	.57	1.13	.11	.05	.04	.05	.08	.74
IN.	.19	.74	.28	1.11	.62	1.30	.12	.06	.04	.06	.09	.83

CAL YR 1987 TOTAL 7591.51 MEAN 20.8 MAX 472 MIN .80 CFSM .62 IN. 8.46
WTR YR 1988 TOTAL 4880.90 MEAN 13.3 MAX 278 MIN .80 CFSM .40 IN. 5.44

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, 7.0°C, Jan. 20, 1977.

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, 631 microsiemens, July 2; minimum daily mean, 125 microsiemens, Jan. 28.

WATER TEMPERATURE: Maximum daily mean, 27.3°C, Sept. 11,12; minimum daily mean, 9.8°C, Jan. 28.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	543	541	234	428	157	---	244	608	540	602	440	290
2	545	540	234	436	166	---	258	566	543	631	434	285
3	540	540	236	---	175	---	279	551	533	599	427	300
4	541	---	234	---	183	---	293	495	535	590	420	---
5	548	---	240	---	191	---	316	448	537	604	415	---
6	549	---	240	---	232	---	331	473	570	629	418	---
7	548	---	240	---	---	149	357	479	562	535	445	---
8	541	---	246	432	---	150	375	484	543	507	431	292
9	545	---	257	439	---	156	393	486	534	502	423	298
10	545	---	275	438	---	171	411	485	530	510	424	296
11	544	---	282	436	---	152	425	488	526	528	424	262
12	531	---	291	401	---	140	528	528	529	466	424	251
13	524	---	298	356	---	128	516	533	521	462	423	252
14	549	---	310	361	---	127	506	537	519	442	423	254
15	548	---	---	373	---	132	496	530	521	341	423	236
16	544	---	---	382	---	---	499	526	520	342	430	243
17	544	---	---	394	---	---	521	526	513	364	402	255
18	544	---	---	404	---	---	529	528	507	370	395	265
19	544	---	---	413	---	---	524	530	488	383	391	270
20	542	---	---	419	---	136	544	532	492	386	392	259
21	545	---	---	423	---	138	548	527	512	396	397	242
22	548	---	---	413	---	138	565	525	520	396	402	238
23	544	275	---	410	212	141	566	523	514	404	429	225
24	541	261	---	400	204	148	574	520	510	404	388	221
25	541	264	371	330	204	156	576	548	507	406	315	276
26	541	264	379	169	209	168	577	561	512	410	328	303
27	543	269	383	150	210	179	574	566	489	419	326	309
28	540	262	389	125	209	192	583	554	562	417	326	282
29	540	234	398	132	210	199	599	549	---	416	340	248
30	540	234	408	141	---	213	602	542	---	421	333	232
31	540	---	417	149	---	225	---	539	---	447	314	---
MEAN	543	---	---	---	---	---	470	525	---	462	397	---
MAX	549	---	---	---	---	---	602	608	---	631	445	---
MIN	524	---	---	---	---	---	244	448	---	341	314	---

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.6	21.5	15.6	16.7	16.2	19.1	20.3	19.1	22.2	24.9	24.6	25.9
2	22.7	21.8	14.9	17.2	17.1	19.1	20.2	19.7	20.7	24.3	24.4	26.2
3	22.1	22.0	14.6	18.1	18.1	19.6	20.5	19.4	22.1	23.4	24.1	26.4
4	21.7	22.4	15.1	16.7	18.8	20.3	21.6	19.7	17.7	23.4	24.3	26.9
5	20.4	21.5	13.7	14.1	17.7	20.0	21.8	20.6	17.7	23.7	24.3	26.3
6	20.7	20.5	12.7	14.0	14.0	17.5	20.6	19.5	20.5	23.7	24.1	24.7
7	20.9	19.4	15.0	15.6	15.7	17.0	15.2	19.7	11.5	23.4	24.2	24.4
8	19.8	19.4	17.0	16.7	17.7	17.7	11.2	19.5	20.7	23.2	24.3	25.0
9	19.6	20.5	17.9	14.4	18.3	18.7	12.0	19.8	22.9	23.2	24.3	25.6
10	21.7	21.1	18.4	13.1	19.2	18.6	13.3	20.4	22.5	23.9	24.2	26.9
11	22.5	20.8	18.8	12.7	19.8	16.9	19.6	21.0	16.2	24.0	24.4	27.3
12	22.5	17.4	17.0	12.5	20.0	17.4	17.0	21.3	21.2	24.6	24.5	27.3
13	21.6	16.0	17.4	12.8	19.7	18.9	16.1	21.7	14.4	24.8	24.0	27.0
14	20.7	16.2	18.1	13.6	19.7	19.8	17.3	21.9	11.3	25.2	24.0	26.7
15	20.1	17.3	19.4	13.1	20.0	16.4	15.5	21.7	13.9	24.7	24.0	26.5
16	20.7	18.1	16.2	12.8	19.8	14.1	17.5	18.6	19.5	25.4	24.1	26.9
17	21.5	19.2	13.4	14.1	20.5	14.0	17.8	21.3	22.2	25.5	24.6	26.8
18	22.1	19.5	12.6	13.5	20.7	14.9	16.4	20.8	21.9	24.5	24.5	26.4
19	22.7	19.6	14.1	16.4	21.1	16.6	20.2	19.6	22.3	24.8	24.8	25.6
20	23.1	19.0	16.2	18.7	21.5	15.8	20.1	19.6	23.0	24.6	24.5	25.7
21	22.6	16.2	18.3	19.1	20.9	15.8	18.9	20.9	23.0	24.6	24.8	26.0
22	21.1	14.7	19.1	16.0	20.8	16.4	17.4	21.2	23.4	24.7	25.1	26.0
23	20.7	15.6	18.4	13.3	20.7	17.5	17.2	21.2	23.5	24.4	25.0	26.2
24	21.2	16.9	17.0	11.9	20.8	18.5	11.9	21.2	23.3	23.9	26.0	25.8
25	21.8	16.4	19.6	14.1	20.7	19.3	19.1	21.6	19.9	24.1	26.0	25.6
26	21.8	19.3	19.4	12.5	20.4	20.1	11.4	21.8	24.0	24.0	25.2	25.6
27	21.9	20.3	19.4	10.7	20.3	20.7	18.5	21.6	24.6	24.5	25.3	25.3
28	21.2	17.0	19.4	9.8	20.5	20.6	17.5	21.1	24.8	24.3	26.2	24.9
29	19.8	19.8	17.4	10.3	19.9	20.0	15.1	19.5	25.7	24.6	26.6	24.7
30	19.4	18.3	14.4	12.9	---	20.0	18.4	20.5	25.2	24.5	26.3	24.3
31	20.6	---	15.7	15.2	---	20.4	---	21.8	---	24.8	26.0	---
MEAN	21.4	18.9	16.7	14.3	19.3	18.1	17.3	20.6	20.7	24.3	24.8	26.0
MAX	23.6	22.4	19.6	19.1	21.5	20.7	21.8	21.9	25.7	25.5	26.6	27.3
MIN	19.4	14.7	12.6	9.8	14.0	14.0	11.2	18.6	11.3	23.2	24.0	24.3

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 13...	1710	1.61	3.9	223	7.0	17.0	--	7.6	180	270
JAN 06...	0804	1.37	1.0	370	7.6	12.5	4.2	3.4	210	200
FEB 29...	1823	1.61	3.9	213	7.3	16.0	2.5	8.4	2000	510
MAY 04...	0954	1.28	2.6	395	7.7	18.5	1.6	5.3	1700	400
JUL 05...	1000	1.12	0.92	636	7.6	23.0	3.2	4.4	E1600	440
SEP 07...	0853	2.65	31	155	7.1	24.0	4.3	5.0	360	410
DATE	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)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 13...	30	3.9	18	1.2	65	23	30	0.10	9.3	209
JAN 06...	49	4.9	25	3.9	129	14	39	0.20	10	277
FEB 29...	32	3.9	20	0.70	49	22	31	0.20	7.3	204
MAY 04...	60	5.2	29	2.8	132	19	41	0.20	10	295
JUL 05...	92	6.9	39	2.1	248	14	59	0.20	15	399
SEP 07...	19	3.3	12	2.5	40	25	18	0.10	7.8	174
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 13...	0.020	0.160	0.090	0.110	1.5	0.060	0.050	0.040	9	33
JAN 06...	0.150	0.450	0.720	0.720	1.8	0.470	0.200	0.160	63	29
FEB 29...	0.020	<0.100	0.090	0.090	1.1	0.070	0.060	0.050	26	69
MAY 04...	<0.010	0.160	0.060	0.090	0.80	0.100	0.070	0.030	4	75
JUL 05...	<0.010	<0.100	0.120	0.110	0.90	0.200	0.040	0.040	18	39
SEP 07...	0.020	0.100	0.070	0.070	1.4	0.500	0.420	0.360	24	75

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 1987 TO SEPTEMBER 1988

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
FEB 29...	340	<1	19	<0.5	2	3	<3	3	830	<5
MAY 04...	40	<1	24	<0.5	<1	2	<3	<1	780	<5
JUL 05...	<10	<1	24	<0.5	<1	1	<3	1	110	<5
SEP 07...	360	2	16	<0.5	<1	1	<3	2	1400	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB 29...	<4	13	<0.1	<10	6	<1	<1.0	170	<6	12
MAY 04...	9	14	<0.1	<10	5	<1	1.0	330	<6	19
JUL 05...	14	31	0.3	<10	<1	<1	<1.0	480	<6	5
SEP 07...	<4	16	<0.1	<10	<1	<1	<1.0	110	<6	22

ST. JOHNS RIVER

COASTAL AREA BETWEEN PONCE DE LEON INLET AND SEBASTIAN INLET

02249950 C-1 CANAL AT 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 to September 1988.

GAGE.--Water-stage recorder. Datum of gage has not been determined.

REMARKS.--Records fair above 50 ft³/s and poor below. Flow affected at times by operation of control structure 7.3 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September, 373 ft³/s, Mar. 13, gage height, 11.54 ft; minimum, 2.3 ft³/s, May 16,17; minimum gage height, 4.73 ft, July 4,5.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	17	29	64	8.0	9.3	8.8	30	58
2	---	---	---	---	19	30	55	6.3	11	8.5	29	51
3	---	---	---	---	19	30	47	4.1	10	7.9	27	45
4	---	---	---	---	18	29	41	3.2	10	7.4	24	39
5	---	---	---	---	17	32	43	4.9	9.4	7.3	22	37
6	---	---	---	---	15	113	43	6.7	9.7	14	22	40
7	---	---	---	---	15	131	39	8.4	13	16	27	42
8	---	---	---	---	34	99	36	9.1	27	13	25	68
9	---	---	---	---	45	71	33	9.2	23	11	28	99
10	---	---	---	---	39	77	31	8.8	23	13	54	84
11	---	---	---	---	34	93	29	9.1	17	18	107	68
12	---	---	---	---	28	71	27	8.1	14	15	99	57
13	---	---	---	---	22	204	22	4.7	13	14	85	48
14	---	---	---	---	18	320	20	3.4	15	42	79	44
15	---	---	---	---	16	242	17	3.2	14	77	83	42
16	---	---	---	---	28	189	14	2.6	12	70	113	40
17	---	---	---	---	38	153	11	2.9	11	56	109	34
18	---	---	---	---	37	128	10	5.4	11	42	99	30
19	---	---	---	20	36	168	11	9.7	10	32	87	29
20	---	---	---	17	33	165	21	9.1	10	32	77	25
21	---	---	---	16	35	136	24	6.8	11	40	73	22
22	---	---	---	27	41	109	11	5.0	11	39	83	21
23	---	---	---	26	40	93	7.0	3.7	11	42	79	19
24	---	---	---	25	42	80	5.9	2.7	9.8	65	80	16
25	---	---	---	37	40	69	5.2	5.2	8.6	53	143	15
26	---	---	---	39	36	62	7.3	8.1	8.6	48	129	15
27	---	---	---	35	32	93	10	9.7	8.9	54	105	15
28	---	---	---	29	29	92	8.0	12	10	47	89	13
29	---	---	---	27	27	80	6.0	13	12	41	82	12
30	---	---	---	24	---	82	7.4	14	9.9	40	70	14
31	---	---	---	20	---	73	---	15	---	34	63	---
TOTAL	---	---	---	---	850	3343	705.8	222.1	373.2	1007.9	2222	1142
MEAN	---	---	---	---	29.3	108	23.5	7.16	12.4	32.5	71.7	38.1
MAX	---	---	---	---	45	320	64	15	27	77	143	99
MIN	---	---	---	---	15	29	5.2	2.6	8.6	7.3	22	12

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 to September 1988.

GAGE.--Water-stage recorder. Datum of gage has not been determined.

REMARKS.--Records fair above 40 ft³/s and poor below.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September, 409 ft³/s, Mar. 13, gage height, 11.34 ft; minimum, 8.3 ft³/s, May 24; minimum gage height, 5.59 ft, June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD JANUARY TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	22	36	54	16	13	17	31	66
2	---	---	---	---	22	36	52	14	14	17	30	61
3	---	---	---	---	21	37	50	12	15	17	28	55
4	---	---	---	---	21	37	48	12	15	17	27	49
5	---	---	---	---	21	40	47	12	15	17	25	47
6	---	---	---	---	21	76	47	12	15	19	26	46
7	---	---	---	---	22	90	46	13	15	20	28	48
8	---	---	---	---	27	71	44	13	18	20	29	64
9	---	---	---	---	30	58	42	13	17	20	29	77
10	---	---	---	---	29	60	40	13	17	21	56	60
11	---	---	---	---	27	70	38	13	16	23	124	49
12	---	---	---	---	26	61	36	12	16	22	126	45
13	---	---	---	---	24	203	34	11	15	23	112	42
14	---	---	---	21	24	351	35	10	16	46	103	42
15	---	---	---	21	24	231	32	11	16	64	102	40
16	---	---	---	20	28	152	29	10	15	52	111	37
17	---	---	---	20	29	105	27	9.6	15	42	103	34
18	---	---	---	20	28	82	27	10	15	36	98	31
19	---	---	---	20	28	118	26	11	15	32	94	29
20	---	---	---	20	27	124	26	11	15	31	91	28
21	---	---	---	20	29	95	26	10	15	34	89	27
22	---	---	---	23	31	76	24	9.6	15	31	91	26
23	---	---	---	23	31	66	22	9.1	16	30	91	25
24	---	---	---	22	32	60	21	8.7	16	34	104	24
25	---	---	---	26	32	55	20	9.9	15	31	128	23
26	---	---	---	28	31	53	20	10	16	35	119	23
27	---	---	---	26	31	75	19	11	17	40	106	22
28	---	---	---	25	31	71	19	12	18	38	95	22
29	---	---	---	25	33	63	18	12	18	38	86	21
30	---	---	---	24	---	60	20	13	18	39	78	22
31	---	---	---	23	---	57	---	13	---	34	72	---
TOTAL	---	---	---	---	782	2769	989	356.9	472	940	2432	1185
MEAN	---	---	---	---	27.0	89.3	33.0	11.5	15.7	30.3	78.5	39.5
MAX	---	---	---	---	33	351	54	16	18	64	128	77
MIN	---	---	---	---	21	36	18	8.7	13	17	25	21

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 to September 1988.

GAGE.--Water-stage recorder. Datum of gage has not been determined.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September, 167 ft³/s, Mar. 13, gage height, 8.30 ft; minimum, 0.33 ft³/s, May 7; minimum gage height, 4.68 ft, July 8,9,13.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	3.1	3.4	2.8	1.1	.88	.56	.76	1.6
2	---	---	---	---	3.3	3.2	2.8	.81	.85	.55	.71	1.4
3	---	---	---	---	3.1	3.1	2.7	.70	.83	.52	.69	1.4
4	---	---	---	---	2.9	3.1	2.7	.59	.78	.52	.64	1.4
5	---	---	---	---	2.8	3.7	2.7	.71	.83	.57	.58	1.4
6	---	---	---	---	2.7	22	2.6	.49	.92	.75	.63	1.6
7	---	---	---	---	2.7	12	2.7	.40	2.1	.64	.67	1.9
8	---	---	---	---	7.0	7.9	2.4	.74	2.2	.53	.70	3.2
9	---	---	---	---	6.4	6.3	2.3	.76	1.2	.54	.96	3.4
10	---	---	---	---	4.9	9.9	2.2	.82	1.2	.83	4.3	2.2
11	---	---	---	---	4.4	7.5	2.2	1.2	1.1	1.0	4.1	1.8
12	---	---	---	---	4.0	6.0	2.2	1.5	.84	.61	2.2	1.6
13	---	---	---	---	3.6	66	2.0	1.3	1.0	.53	1.6	1.4
14	---	---	---	---	3.4	37	1.9	1.4	.71	.94	1.5	1.4
15	---	---	---	2.3	4.0	14	1.7	1.4	.69	1.2	2.3	1.3
16	---	---	---	2.3	6.1	9.5	1.7	1.4	.65	.88	2.8	1.2
17	---	---	---	2.3	4.4	7.6	1.6	1.3	.60	.76	2.0	1.1
18	---	---	---	2.3	4.0	7.5	1.6	1.3	.66	.65	1.7	1.0
19	---	---	---	2.2	3.9	18	1.5	1.2	.96	.60	1.5	1.0
20	---	---	---	2.2	3.8	11	1.4	1.2	.64	.70	1.6	.89
21	---	---	---	2.7	4.2	8.0	1.3	1.2	.66	.73	1.6	.83
22	---	---	---	3.9	4.2	6.8	1.2	1.1	.64	.89	1.7	.79
23	---	---	---	4.7	4.0	6.3	1.2	1.1	.59	1.2	1.5	.78
24	---	---	---	3.5	4.1	5.8	1.1	1.1	.60	1.5	1.5	.74
25	---	---	---	5.2	3.8	5.6	1.1	1.4	.56	1.1	2.0	.75
26	---	---	---	4.3	3.7	5.7	1.0	1.3	.53	1.1	1.8	1.6
27	---	---	---	3.6	3.5	6.5	.89	1.2	.53	1.1	1.7	.90
28	---	---	---	3.3	3.4	6.1	.83	1.1	.87	.90	1.7	.76
29	---	---	---	3.1	3.3	4.2	.78	.83	.59	.82	1.7	.65
30	---	---	---	3.0	---	2.9	.82	.84	.54	.77	1.8	.65
31	---	---	---	3.0	---	2.8	---	.89	---	.70	1.8	---
TOTAL	---	---	---	---	114.7	319.4	53.92	32.38	25.75	24.69	50.74	40.64
MEAN	---	---	---	---	3.96	10.3	1.80	1.04	.86	.80	1.64	1.35
MAX	---	---	---	---	7.0	66	2.8	1.5	2.2	1.5	4.3	3.4
MIN	---	---	---	---	2.7	2.8	.78	.40	.53	.52	.58	.65

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 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 discharge was computed for Dec. 24-28, Mar 13-15, and Sept. 16-30 because of lost data from the current meter recorder. Records fair above 200 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, 1,220 ft³/s, Nov. 20, 1987; maximum gage height, 9.73 ft, present datum, Sept. 21, 1985; 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 recorded, 1,220 ft³/s, Nov. 20; maximum gage height, 9.25 ft, Nov. 20; minimum daily, 1.1 ft³/s, July 17; minimum gage height, 4.98 ft, May 24.

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	273	46	131	53	106	99	133	70	76	67	104	202
2	304	126	121	54	106	100	131	107	42	54	103	191
3	160	334	123	54	102	98	120	67	41	48	99	173
4	127	809	114	58	99	94	108	21	37	39	97	162
5	65	768	105	55	97	93	109	28	37	36	96	156
6	52	440	101	50	97	346	108	39	36	42	95	165
7	69	236	90	42	102	476	103	41	39	48	106	171
8	119	279	86	60	150	357	102	42	64	36	109	220
9	112	206	91	60	206	301	108	44	65	36	106	327
10	90	78	91	53	183	289	103	43	66	35	137	305
11	83	59	85	36	168	332	102	42	56	57	244	245
12	130	53	78	38	154	301	98	62	52	40	182	213
13	688	47	77	48	141	---	89	55	50	34	166	184
14	613	47	76	45	135	---	85	62	54	40	158	168
15	153	64	74	48	132	---	86	58	54	72	166	152
16	138	133	103	60	131	745	85	49	44	41	223	---
17	92	115	83	57	140	594	78	33	32	1.1	197	---
18	78	203	82	67	139	527	63	25	31	87	189	---
19	70	259	79	84	128	401	46	35	30	120	150	---
20	72	1220	72	95	123	474	53	49	25	120	134	---
21	68	684	55	92	124	579	100	48	40	116	177	---
22	57	247	63	98	144	441	99	64	77	121	229	---
23	53	150	61	100	140	408	88	66	73	127	215	---
24	53	376	---	98	142	356	79	53	65	165	205	---
25	53	552	---	144	136	317	39	58	58	208	338	---
26	44	611	---	161	120	299	42	50	48	169	303	---
27	35	811	---	145	116	253	66	47	38	181	169	---
28	32	599	---	137	110	225	74	46	60	172	211	---
29	29	165	52	127	105	154	70	45	68	153	239	---
30	32	140	54	121	---	147	69	53	72	145	221	---
31	31	---	54	119	---	143	---	116	---	122	204	---
TOTAL	3975	9857	---	2459	3776	---	2636	1618	1530	2732.1	5372	---
MEAN	128	329	---	79.3	130	---	87.9	52.2	51.0	88.1	173	---
MAX	688	1220	---	161	206	---	133	116	77	208	338	---
MIN	29	46	---	36	97	---	39	21	25	1.1	95	---

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.11	6.39	6.61	5.44	5.21	5.38	5.34	5.63	5.47	5.67	5.25	5.55
2	6.13	6.55	6.55	5.49	5.22	5.41	5.38	5.86	5.47	5.77	5.29	5.57
3	5.96	7.29	6.37	5.62	5.26	5.30	5.32	5.59	5.43	5.76	5.33	5.52
4	6.00	8.32	6.20	5.72	5.24	5.29	5.26	5.38	5.52	5.83	5.37	5.40
5	5.88	7.88	6.19	5.90	5.55	5.57	5.38	5.38	5.60	5.98	5.36	5.40
6	5.76	7.61	6.05	5.77	5.98	6.40	5.35	5.41	5.63	6.04	5.37	5.36
7	5.72	7.33	5.89	5.39	5.59	6.40	5.37	5.46	5.70	5.95	5.39	5.37
8	5.89	6.97	5.89	5.55	5.63	6.00	5.37	5.36	5.70	5.85	5.34	5.55
9	5.76	6.76	5.97	5.80	5.87	5.78	5.35	5.24	5.61	5.68	5.32	5.75
10	5.84	6.63	5.96	5.87	5.85	5.88	5.36	5.19	5.56	5.56	5.43	5.81
11	5.99	6.59	5.92	5.83	5.65	5.99	5.41	5.24	5.74	5.49	5.85	5.84
12	7.48	6.52	5.79	5.64	5.59	5.79	5.33	5.32	5.68	5.38	5.77	5.83
13	8.31	6.26	5.73	5.55	5.58	7.14	5.57	5.35	5.67	5.31	5.74	5.83
14	7.64	6.18	5.63	5.76	5.45	8.24	5.55	5.45	5.65	5.41	5.60	5.77
15	7.18	6.18	5.55	5.77	5.30	7.49	5.52	5.53	5.64	5.53	5.50	5.70
16	6.96	6.09	5.87	5.66	5.43	6.99	5.59	5.40	5.58	5.44	5.73	5.74
17	6.83	6.04	5.80	5.44	5.48	6.55	5.59	5.26	5.48	5.30	5.71	5.78
18	6.82	6.59	5.70	5.45	5.40	6.29	5.45	5.23	5.43	5.44	5.68	5.80
19	6.64	6.93	5.60	5.46	5.32	6.75	5.37	5.26	5.43	5.19	5.52	5.75
20	6.61	9.02	5.60	5.40	5.31	6.76	5.59	5.28	5.44	5.08	5.45	5.75
21	6.57	8.17	5.57	5.34	5.75	6.36	5.60	5.24	5.50	5.19	5.40	5.74
22	6.62	7.54	5.54	5.75	5.64	6.03	5.52	5.12	5.50	5.19	5.47	5.70
23	6.52	7.21	5.69	5.71	5.55	5.93	5.43	5.15	5.53	5.19	5.49	5.68
24	6.37	7.05	5.58	5.71	5.56	5.80	5.34	5.14	5.48	5.30	5.52	5.74
25	6.42	6.92	5.55	5.68	5.65	5.71	5.28	5.15	5.48	5.38	5.90	5.80
26	6.29	6.95	5.61	5.64	5.59	5.62	5.22	5.27	5.45	5.23	5.99	5.88
27	6.26	7.38	5.58	5.59	5.36	5.74	5.42	5.56	5.47	5.23	5.93	5.96
28	6.39	7.18	5.44	5.60	5.37	5.74	5.52	5.52	5.55	5.28	5.81	6.07
29	6.46	6.92	5.57	5.41	5.34	5.47	5.49	5.44	5.68	5.26	5.76	6.01
30	6.26	6.76	5.62	5.25	---	5.48	5.43	5.41	5.64	5.26	5.69	6.02
31	6.24	---	5.40	5.21	---	5.39	---	5.52	---	5.26	5.62	---
MEAN	6.45	7.01	5.81	5.59	5.51	6.09	5.42	5.37	5.56	5.47	5.57	5.72
MAX	8.31	9.02	6.61	5.90	5.98	8.24	5.60	5.86	5.74	6.04	5.99	6.07
MIN	5.72	6.04	5.40	5.21	5.21	5.29	5.22	5.12	5.43	5.08	5.25	5.36

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.--January 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage has not been determined.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--

January to September 1987: Maximum discharge, 138 ft³/s, Sept. 21, gage height, 8.25 ft; minimum, 8.4 ft³/s, July 12, gage height, 4.69 ft.

Water year 1988: Maximum discharge, 392 ft³/s, Mar. 14, gage height, 9.66 ft; minimum, 7.5 ft³/s, June 26, gage height, 4.60 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	25	19	76	14	14	11	30	16
2	---	---	---	---	25	19	59	14	13	11	37	15
3	---	---	---	---	26	19	47	13	12	11	40	14
4	---	---	---	---	27	19	40	13	15	11	49	40
5	---	---	---	---	26	17	35	13	14	11	44	41
6	---	---	---	---	23	17	32	13	12	11	39	57
7	---	---	---	---	22	58	29	14	12	10	34	59
8	---	---	---	---	22	66	28	17	12	10	30	61
9	---	---	---	---	19	53	26	17	12	9.7	24	50
10	---	---	---	---	19	46	25	17	11	9.3	22	43
11	---	---	---	---	23	38	23	22	10	8.8	24	47
12	---	---	---	---	28	34	22	29	11	8.5	23	49
13	---	---	---	---	27	30	21	31	11	9.0	22	52
14	---	---	---	---	23	28	21	31	11	15	32	49
15	---	---	---	---	21	26	21	29	11	35	47	44
16	---	---	---	---	21	24	23	26	10	39	45	38
17	---	---	---	---	21	23	21	25	9.9	53	37	34
18	---	---	---	---	20	23	20	29	9.8	71	32	31
19	---	---	---	---	21	25	19	28	9.6	55	29	27
20	---	---	---	---	20	26	18	26	9.2	44	26	31
21	---	---	---	---	20	24	18	24	9.1	38	23	101
22	---	---	---	26	21	23	17	22	9.6	35	21	47
23	---	---	---	29	21	22	16	20	9.5	31	20	42
24	---	---	---	32	20	21	16	18	9.4	27	23	38
25	---	---	---	30	20	21	16	16	10	24	22	36
26	---	---	---	30	21	22	15	15	12	22	21	34
27	---	---	---	26	21	24	15	14	13	21	22	30
28	---	---	---	36	20	25	14	15	13	22	20	27
29	---	---	---	35	---	33	14	14	12	21	18	24
30	---	---	---	28	---	49	14	15	11	20	17	23
31	---	---	---	27	---	74	---	15	---	21	16	---
MEAN	---	---	---	---	22.2	30.6	25.4	19.6	11.3	23.4	28.7	40.0
MAX	---	---	---	---	28	74	76	31	15	71	49	101
MIN	---	---	---	---	19	17	14	13	9.1	8.5	16	14

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02251500 NORTH PRONG SEBASTIAN CREEK NEAR MICCO, 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	27	80	90	26	30	25	43	20	9.5	10	23	28
2	25	109	74	26	30	24	40	20	9.5	10	22	27
3	25	198	63	27	28	25	38	18	9.4	9.5	22	25
4	24	318	55	29	27	25	36	18	9.2	9.2	21	25
5	21	258	52	29	26	35	34	16	8.9	8.8	19	27
6	19	209	49	28	24	102	32	15	8.9	23	19	24
7	19	179	44	27	31	124	30	17	12	18	24	24
8	19	152	42	27	42	93	28	17	18	15	25	24
9	19	132	45	26	41	73	27	16	16	15	21	28
10	18	117	46	27	39	73	26	15	15	16	28	31
11	24	100	45	33	37	70	27	18	14	15	43	32
12	115	83	43	29	32	57	26	15	13	14	45	30
13	229	71	41	28	31	180	25	14	12	18	39	28
14	185	61	39	28	30	367	24	16	13	38	35	26
15	150	56	39	28	41	267	24	16	13	31	34	26
16	122	52	39	27	52	194	25	15	11	31	34	23
17	100	50	37	26	44	152	24	13	11	29	33	22
18	94	67	37	25	40	126	22	14	9.4	27	31	21
19	142	87	35	25	37	196	21	13	10	24	30	20
20	119	261	34	24	35	178	22	13	9.0	23	31	20
21	92	230	33	26	39	140	20	12	8.9	22	35	19
22	72	183	32	33	40	113	19	12	9.2	28	45	18
23	59	157	31	30	38	92	20	11	8.7	32	36	17
24	52	140	31	29	38	79	18	11	8.3	31	32	17
25	47	128	31	35	35	67	18	16	8.1	33	30	16
26	44	138	30	39	32	58	17	16	7.8	33	33	16
27	43	170	29	41	30	85	16	16	8.2	31	40	16
28	42	147	29	40	28	76	16	15	9.2	31	36	16
29	37	123	28	42	27	62	16	14	13	29	32	16
30	35	104	27	35	---	54	17	10	10	27	29	16
31	35	---	26	31	---	49	---	9.9	---	25	28	---
TOTAL	2054	4160	1276	926	1004	3261	751	461.9	323.2	706.5	955	678
MEAN	66.3	139	41.2	29.9	34.6	105	25.0	14.9	10.8	22.8	30.8	22.6
MAX	229	318	90	42	52	367	43	20	18	38	45	32
MIN	18	50	26	24	24	24	16	9.9	7.8	8.8	19	16

WTR YR 1988 TOTAL 16556.6 MEAN 45.2 MAX 367 MIN 7.8

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, 2.59 ft, Oct. 13; minimum recorded, -0.43 ft, Apr. 1.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.33	1.66	1.30	.52	.26	.68	-.07	---	.61	.90	.37	.37
2	1.02	1.82	1.41	.61	.29	.67	---	---	.68	.99	.36	.46
3	.90	1.64	1.18	.86	.39	.38	---	---	.70	1.05	.48	.43
4	1.20	1.91	.80	1.14	.38	.13	---	---	.59	1.05	.54	.27
5	1.06	1.94	1.22	1.34	.93	.64	---	---	.98	1.41	.50	.34
6	1.02	2.25	1.10	1.11	1.78	1.02	---	---	.80	1.33	.53	.20
7	.89	1.94	.60	.38	1.02	1.16	---	---	.83	1.21	.50	.36
8	1.26	1.46	.59	.64	.90	.76	---	---	.71	.98	.35	.52
9	.86	1.28	.83	1.35	1.21	.29	---	---	.58	.66	.46	.47
10	1.04	1.17	.88	1.22	1.30	.49	---	---	.51	.58	.49	.64
11	1.10	1.32	.90	1.31	.94	.74	---	---	.96	.42	.34	.84
12	1.85	1.50	.65	1.09	.70	.58	---	---	.83	.19	.24	.86
13	2.59	1.27	.56	.74	.72	.49	---	---	.84	.13	.66	.91
14	2.40	1.08	.47	1.21	.66	.84	---	---	.52	.41	.47	.79
15	1.87	1.14	.18	1.30	.41	1.10	---	---	.76	.41	.26	.60
16	2.21	.88	.64	1.22	.61	.94	---	---	.76	.29	.19	.74
17	2.23	.67	.93	.60	.62	.77	---	---	.74	.02	.32	.86
18	2.06	1.34	.85	.68	.51	.35	---	---	.54	.23	.37	.93
19	1.59	1.64	.52	.72	.28	.81	---	---	.47	.10	.12	.83
20	1.66	1.99	.57	.47	.50	1.00	---	.27	.52	-.05	.07	.92
21	1.79	2.14	.60	.04	1.19	.57	---	.32	.65	.01	.32	.89
22	1.90	1.59	.53	1.07	.95	.33	---	.12	.63	-.03	.16	.80
23	1.71	1.29	.92	.97	.64	.35	---	.21	.66	.00	.42	.82
24	1.49	1.37	.52	.99	.64	.22	---	.04	.61	.16	.43	.91
25	1.65	1.20	.31	.92	.94	.18	---	.24	.61	.07	.63	1.00
26	1.70	1.29	.54	.66	.96	.18	---	.74	.61	.23	.55	1.05
27	1.55	1.62	.51	.73	.81	.12	---	1.00	.75	.17	.59	1.28
28	1.83	1.55	.48	.82	.71	.26	---	.93	.91	.31	.78	1.41
29	1.98	1.50	.92	.59	.61	.15	---	.76	.90	.24	.68	1.32
30	1.56	1.49	1.14	.22	---	.18	---	.67	.72	.35	.63	1.19
31	1.65	---	.39	.07	---	-.02	---	.47	---	.35	.51	---
MEAN	1.58	1.50	.74	.83	.75	.53	---	---	.70	.46	.43	.77
MAX	2.59	2.25	1.41	1.35	1.78	1.16	---	---	.98	1.41	.78	1.41
MIN	.86	.67	.18	.04	.26	-.02	---	---	.47	-.05	.07	.20

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 1987 TO SEPTEMBER 1988
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	1.12	.85	-.04	-.05	.17	-.43	---	.02	.34	-.11	-.10
2	.50	1.17	.90	-.02	-.05	.16	---	---	.17	.49	-.12	.03
3	.50	1.04	.66	.19	-.04	.16	---	---	-.02	.47	-.06	.03
4	.64	1.18	.35	.33	-.05	.04	---	---	.19	.57	.04	-.19
5	.54	1.30	.59	.81	-.01	.10	---	---	.21	.80	.05	-.31
6	.40	1.51	.43	.48	1.24	.54	---	---	.30	.83	-.01	-.37
7	.35	1.26	.08	-.15	.29	.48	---	---	.35	.65	-.01	-.24
8	.50	.96	.08	-.03	.39	.14	---	---	.29	.46	-.07	-.06
9	.36	.77	.32	.57	.75	.13	---	---	.05	.28	-.08	-.09
10	.40	.70	.37	.81	.58	.22	---	---	-.02	.01	.00	.15
11	.58	.75	.35	.80	.18	.28	---	---	.17	-.14	-.11	.37
12	.73	1.00	.17	.36	.27	.15	---	---	.22	-.24	-.25	.40
13	1.95	.75	.20	.24	.17	.15	---	---	.28	-.24	.08	.46
14	1.54	.71	---	.92	.15	.56	---	---	.14	-.07	-.14	.24
15	1.28	.72	---	.28	.11	.40	---	---	.24	-.20	.33	.17
16	1.37	.48	.40	.50	.18	.33	---	---	.21	-.31	-.18	.25
17	1.22	.27	.54	.03	.08	.19	---	---	.09	-.35	-.06	.37
18	1.49	.91	.22	.09	.10	.16	---	---	.04	-.29	-.15	.45
19	1.13	.83	-.07	.01	.09	.16	---	-.22	.05	-.37	-.31	.37
20	1.17	1.26	-.23	-.14	.08	.18	---	-.10	.17	-.32	-.30	.39
21	1.13	1.46	.00	-.16	.44	.14	---	-.28	.27	-.40	-.29	.40
22	1.35	.89	-.11	.51	.18	.13	---	-.31	.26	-.30	-.22	.39
23	1.17	.67	.17	.47	.23	.07	---	-.06	.26	-.33	-.13	.29
24	.86	.66	-.04	.52	.22	.00	---	-.39	.15	-.32	-.08	.36
25	1.02	.68	-.15	.17	.20	---	---	-.21	.21	-.30	-.07	.35
26	.89	.73	.01	.22	.72	---	---	-.15	.13	-.29	.05	.45
27	.91	1.13	.03	.43	.27	---	---	.43	.17	-.30	.07	.51
28	.96	1.12	-.02	.20	.18	---	---	.43	.22	-.23	-.05	.68
29	1.22	1.02	.00	.01	.18	---	---	.25	.36	-.21	.08	.74
30	.97	.97	.45	-.05	---	---	---	.09	.28	-.21	.05	.65
31	.95	---	-.04	-.04	---	---	---	.00	---	-.18	.02	---
MEAN	.91	.93	---	.27	.24	---	---	---	.18	-.02	-.07	.24
MAX	1.95	1.51	---	.92	1.24	---	---	---	.36	.83	.33	.74
MIN	.26	.27	---	-.16	-.05	---	---	---	-.02	-.40	-.31	-.37

ST. JOHNS RIVER

COASTAL AREA SEBASTIAN INLET TO ST. LUCIE RIVER

02252500 NORTH CANAL NEAR VERO BEACH, FL

LOCATION.--Lat 27°41'32", long 80°25'00", in SE¼ sec.15, T.32 S., R.39 E., Indian River County, Hydrologic Unit 03080203, on left bank 600 ft upstream from bridge on State Highway 605, and 3.9 mi north of Vero Beach.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 27, 1952, at site 50 ft downstream at datum 0.81 ft lower. Feb. 27, 1952, to Nov. 5, 1957, at bridge 600 ft downstream at present datum.

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.--37 years (water years 1952-88, corrected), 31.6 ft³/s, 22,890 acre-ft/yr.

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, 720 ft³/s, Oct. 12, gage height, 9.32 ft; minimum, 6.2 ft³/s, May 24, minimum gage height, 1.69 ft, Sept. 14,15,16,17,21,29.

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	106	270	35	17	14	12	21	66	15	13	19	7.3
2	43	221	32	16	19	12	19	36	14	11	9.6	7.2
3	26	281	30	17	20	12	19	18	11	11	9.1	11
4	12	312	30	19	19	12	90	19	7.2	11	8.8	15
5	12	158	28	18	19	13	13	19	7.4	9.4	12	17
6	12	126	26	17	18	40	16	17	12	221	16	16
7	12	106	24	17	18	49	14	14	20	165	23	8.4
8	11	84	26	17	25	22	16	12	106	44	31	59
9	11	48	28	17	18	21	18	12	27	11	12	25
10	13	18	26	17	14	40	24	11	7.7	17	59	7.7
11	94	22	26	19	14	29	36	10	7.4	31	70	7.4
12	325	36	24	19	16	24	44	10	7.5	30	22	7.3
13	487	42	22	18	22	109	38	9.8	11	55	9.1	7.1
14	188	43	20	16	20	157	29	14	22	254	8.7	6.6
15	84	41	21	15	19	53	21	21	14	89	12	7.2
16	42	40	20	15	22	14	17	20	14	51	19	7.8
17	49	38	19	14	20	13	15	18	11	13	16	6.9
18	48	42	18	14	19	14	16	16	8.3	13	16	9.0
19	55	128	19	16	17	257	14	15	8.4	18	10	11
20	60	167	19	17	16	130	9.4	13	15	23	9.4	10
21	58	101	19	17	16	54	10	12	17	25	10	6.8
22	53	77	17	22	17	19	9.6	11	11	43	97	7.8
23	48	41	14	24	18	18	9.5	8.3	11	36	20	13
24	41	17	15	20	21	26	15	7.8	12	72	7.3	13
25	37	18	22	20	20	36	17	113	8.8	88	7.1	11
26	35	26	22	16	18	38	16	8.0	9.4	114	52	13
27	35	38	20	12	16	38	16	7.3	11	88	31	9.8
28	33	37	21	36	13	31	11	8.5	14	56	21	9.2
29	28	38	19	51	12	26	7.9	12	21	50	20	7.6
30	21	36	17	19	---	28	17	13	18	45	13	9.0
31	22	---	17	13	---	27	---	14	---	33	7.6	---
TOTAL	2101	2652	696	585	520	1374	618.4	585.7	479.1	1740.4	677.7	354.1
MEAN	67.8	88.4	22.5	18.9	17.9	44.3	20.6	18.9	16.0	56.1	21.9	11.8
MAX	487	312	35	51	25	257	90	113	106	254	97	59
MIN	11	17	14	12	12	12	7.9	7.3	7.2	9.4	7.1	6.6
AC-FT	4170	5260	1380	1160	1030	2730	1230	1160	950	3450	1340	702

CAL YR 1987 TOTAL 12994.5 MEAN 35.6 MAX 487 MIN 5.7 AC-FT 25770
WTR YR 1988 TOTAL 12383.4 MEAN 33.8 MAX 487 MIN 6.6 AC-FT 24560

CAL YR 1987	TOTAL	24224.4	MEAN	66.4	MAX	821	MIN	1.7	AC-FT	48050
WTR YR 1988	TOTAL	24487.5	MEAN	66.9	MAX	821	MIN	1.7	AC-FT	48570

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 micromsiemens, July 17, 1981; minimum daily mean, 284 micromsiemens, 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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 10...	1730	8.21	3.2	890	7.4	25.0	4.9	4.3	150	--
JAN 05...	1437	8.66	40	1590	7.7	19.5	2.0	7.7	E12	92
MAR 01...	1027	8.58	31	1240	7.6	18.5	0.90	10.5	120	<0
MAY 03...	1845	8.51	25	1590	7.5	24.5	1.3	4.4	140	620
JUL 06...	1833	11.24	629	1050	7.6	25.0	17	2.8	E5600	7300
SEP 06...	2000	9.82	237	1080	7.5	27.5	2.7	3.8	E150	E170

DATE	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)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 10...	87	19	87	6.6	163	79	200	0.40	12	631
JAN 05...	110	38	180	9.0	187	110	360	0.50	8.5	1070
MAR 01...	110	28	130	6.0	195	95	270	0.40	2.0	820
MAY 03...	94	35	160	17	159	110	340	0.40	11	932
JUL 06...	66	23	110	8.3	109	68	220	0.70	9.4	657
SEP 06...	100	24	110	7.2	180	81	240	0.40	14	764

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 10...	0.060	0.520	0.230	0.300	1.0	0.200	0.170	0.130	13	77
JAN 05...	0.010	<0.100	0.050	0.060	0.50	0.090	0.120	0.080	4	50
MAR 01...	0.010	<0.100	0.030	0.040	0.50	0.050	0.040	0.040	62	100
MAY 03...	0.040	0.300	0.360	0.370	1.3	0.200	0.150	0.110	5	80
JUL 06...	0.020	0.600	0.140	0.130	0.90	0.610	0.200	0.160	67	90
SEP 06...	0.030	0.220	0.120	0.160	1.0	0.190	0.150	0.140	3	100

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 1987 TO SEPTEMBER 1988

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
MAR 01...	10	<1	39	<0.5	2	3	<3	2	130	<5
MAY 03...	<10	1	43	<0.5	<1	<1	<3	11	290	<5
JUL 06...	20	2	32	<0.5	1	1	<3	5	110	<5
SEP 06...	20	1	39	<0.5	2	1	<3	3	200	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 01...	12	6	<0.1	<10	6	<1	<1.0	4500	<6	11
MAY 03...	11	77	<0.1	<10	3	<1	<1.0	5400	<6	11
JUL 06...	9	38	0.2	<10	3	<1	<1.0	3800	<6	36
SEP 06...	8	36	<0.1	<10	<1	<1	<1.0	3200	<6	13

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., T.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: Oct. 13 to Nov. 2. Records fair. Considerable pumping into canal for drainage above station. Since Jan. 6, 1956, low flow regulated by control structure upstream.

AVERAGE DISCHARGE.--38 years, 39.8 ft³/s, 28,840 acre-ft/yr.

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, 0.64 ft, Aug. 15, 1984, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft³/s, Oct. 12, gage height, 10.31 ft; minimum daily discharge, 5.5 ft³/s, Oct. 9, Apr. 23; minimum gage height, 0.77 ft, Apr. 22,23.

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	107	245	29	12	11	14	11	36	12	20	36	17
2	44	210	27	8.7	15	14	12	12	10	19	17	19
3	24	284	23	15	16	14	14	12	8.1	19	16	16
4	7.7	307	22	24	15	14	14	13	6.8	17	15	15
5	7.5	141	22	24	16	13	10	14	8.5	17	18	17
6	6.4	144	20	21	22	33	8.6	13	9.0	232	22	16
7	5.6	106	19	17	23	30	9.2	11	73	160	31	10
8	5.6	76	19	20	19	14	9.8	8.3	375	49	33	86
9	5.5	42	21	22	14	19	9.9	6.9	102	16	15	40
10	5.8	20	21	23	15	19	11	5.9	20	23	15	12
11	139	21	20	27	13	18	24	5.7	18	31	109	11
12	509	31	18	26	15	20	27	7.0	20	29	34	11
13	680	34	17	19	24	21	22	6.9	21	83	13	11
14	520	33	16	19	18	104	16	24	26	341	13	10
15	150	33	15	18	15	29	13	37	26	178	18	8.9
16	25	33	14	21	14	13	10	25	22	101	20	9.1
17	32	30	15	16	14	12	9.0	20	20	21	12	9.0
18	33	34	18	15	15	12	9.1	19	18	18	11	9.8
19	40	177	17	15	14	245	6.8	16	23	28	11	11
20	45	224	14	13	14	84	5.7	14	27	31	13	11
21	43	95	14	13	17	32	6.0	12	25	32	12	8.5
22	38	72	16	24	19	12	5.7	9.6	23	44	224	8.5
23	34	38	14	24	18	11	5.5	8.0	21	34	42	10
24	30	21	14	21	20	14	8.9	8.4	21	148	13	12
25	27	20	17	21	19	18	12	168	15	250	48	10
26	26	23	18	14	19	18	9.7	11	13	219	177	10
27	26	30	17	10	18	19	7.6	10	18	136	106	12
28	25	32	18	38	15	17	7.1	10	19	188	70	13
29	21	33	15	37	15	15	7.8	12	32	117	58	13
30	17	32	17	9.4	---	16	14	13	27	92	48	11
31	18	---	15	8.7	---	13	---	13	---	69	18	---
TOTAL	2697.1	2621	562	595.8	482	927	336.4	581.7	1059.4	2762	1288	457.8
MEAN	87.0	87.4	18.1	19.2	16.6	29.9	11.2	18.8	35.3	89.1	41.5	15.3
MAX	680	307	29	38	24	245	27	168	375	341	224	86
MIN	5.5	20	14	8.7	11	11	5.5	5.7	6.8	16	11	8.5
AC-FT	5350	5200	1110	1180	956	1840	667	1150	2100	5480	2550	908
CAL YR 1987	TOTAL 12763.7	MEAN 35.0	MAX 680	MIN 4.5	AC-FT 25320							
WTR YR 1988	TOTAL 14370.2	MEAN 39.3	MAX 680	MIN 5.5	AC-FT 28500							

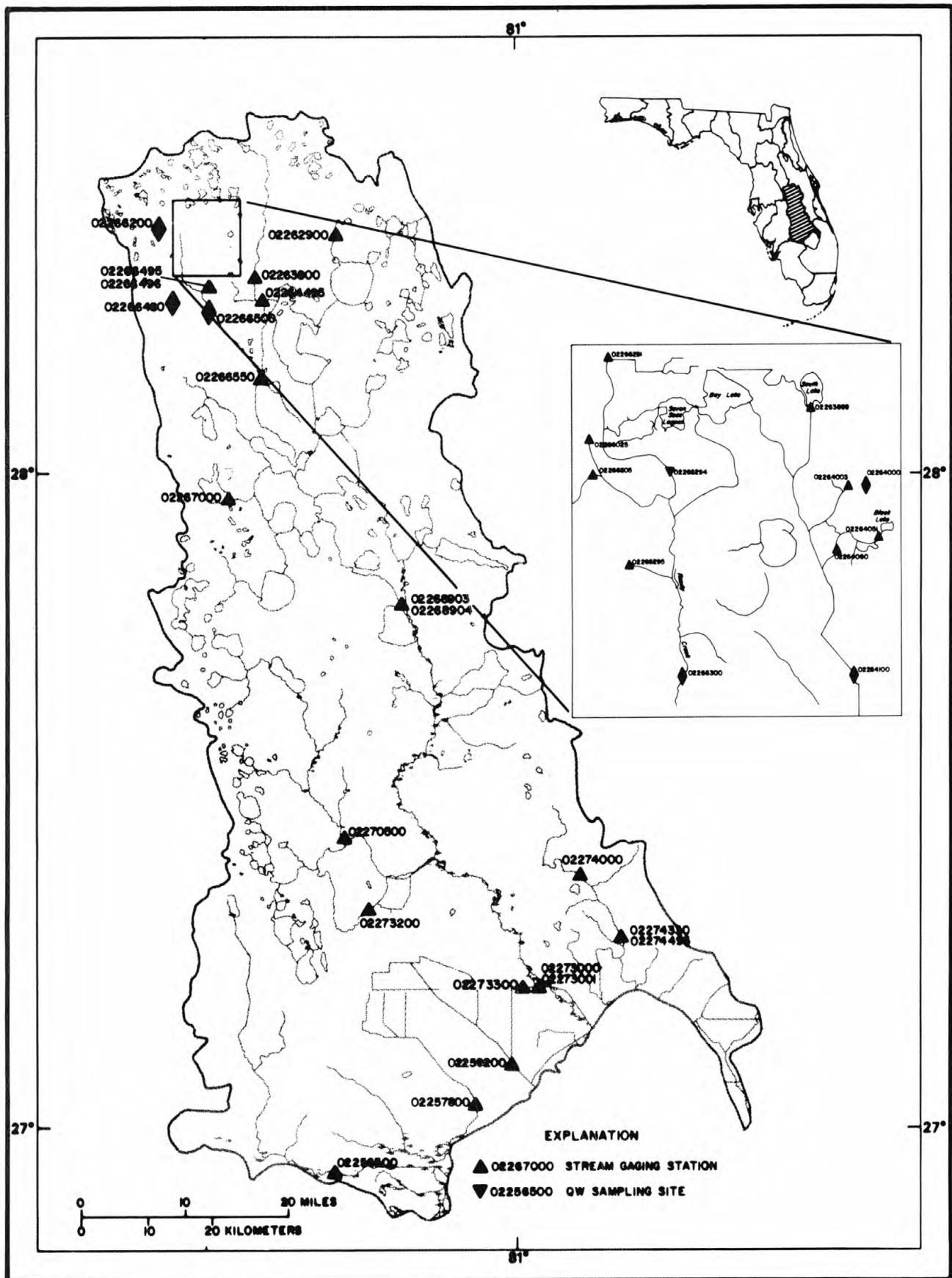


Figure 20.--Location of stream gaging stations in the Kissimmee River basin, the Taylor Creek basin and inflow to Lake Okeechobee from the north, and Fisheating Creek basin and inflow to Lake Okeechobee from the northwest.

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.--57 years, 254 ft³/s, 11.09 in/yr, 184,000 acre-ft/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)
Oct. 15	0500	*3,230	*7.28	Nov. 21	0200	2,860	7.17

No flow June 5; minimum gage height, 0.34 ft, June 5.

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	266	154	523	50	79	63	200	14	.33	2.7	519	795
2	248	176	463	48	76	60	233	17	.18	1.8	473	801
3	218	190	412	46	71	54	233	15	.10	1.5	416	750
4	182	238	369	44	66	47	207	12	.04	1.2	357	674
5	150	235	330	43	60	43	172	11	.00	3.2	301	608
6	129	243	291	42	54	44	138	11	.04	5.0	250	564
7	112	248	258	40	49	49	105	12	.09	7.7	220	513
8	99	252	232	39	64	48	79	14	.17	9.9	203	458
9	86	273	211	38	87	46	61	13	.63	10	266	405
10	83	295	201	38	90	47	49	12	1.1	10	258	357
11	99	295	186	47	87	51	40	10	2.2	16	217	306
12	332	276	166	53	85	57	32	8.8	3.2	24	182	260
13	1160	250	149	53	92	68	28	7.2	3.0	31	192	240
14	2520	224	136	54	114	89	24	6.9	2.1	38	259	272
15	3130	198	125	53	148	101	21	7.8	1.2	46	332	320
16	2350	173	127	52	184	91	18	8.1	.71	54	414	333
17	1740	152	121	51	181	79	16	7.4	.55	60	582	314
18	1320	374	114	50	155	68	14	7.7	.30	66	725	278
19	1040	1420	109	48	127	97	13	7.0	.15	74	791	237
20	843	2690	104	45	103	137	13	5.4	.84	81	821	193
21	698	2860	99	44	95	152	12	4.4	3.8	81	786	153
22	586	2390	94	59	96	156	11	4.9	4.4	75	718	123
23	499	1960	89	66	97	238	9.1	4.3	4.4	77	643	100
24	433	1560	84	66	97	558	7.8	3.9	3.9	73	567	83
25	379	1250	80	69	87	590	7.1	3.7	2.9	87	509	68
26	331	1070	74	79	75	525	8.0	3.6	4.9	118	487	56
27	287	953	70	87	66	470	9.6	2.6	6.5	139	460	46
28	245	810	66	90	62	405	11	1.6	6.5	181	464	38
29	209	691	62	88	63	325	10	.82	6.6	267	571	31
30	177	597	58	84	---	247	9.6	.63	4.3	379	685	26
31	151	---	53	81	---	198	---	.47	---	507	771	---
TOTAL	20102	22497	5456	1747	2710	5203	1791.2	238.22	65.13	2527.0	14439	9402
MEAN	648	750	176	56.4	93.4	168	59.7	7.68	2.17	81.5	466	313
MAX	3130	2860	523	90	184	590	233	17	6.6	507	821	801
MIN	83	152	53	38	49	43	7.1	.47	.00	1.2	182	26
AC-FT	39870	44620	10820	3470	5380	10320	3550	473	129	5010	28640	18650
CFSM	2.09	2.41	.57	.18	.30	.54	.19	.02	.01	.26	1.50	1.01
IN.	2.40	2.69	.65	.21	.32	.62	.21	.03	.01	.30	1.73	1.12

CAL YR 1987 TOTAL 76814.80 MEAN 210 MAX 3130 MIN .03 AC-FT 152400 CFSM .68 IN. 9.19
WTR YR 1988 TOTAL 86177.55 MEAN 235 MAX 3130 MIN .00 AC-FT 170900 CFSM .76 IN. 10.31

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, 544 microsiemens, July 14; minimum daily mean, 64 microsiemens, Nov. 21.

WATER TEMPERATURE: Maximum daily mean, 31.8°C, July 1; minimum daily mean, 13.1°C, Jan. 28.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	129	103	185	247	245	147	213	291	265	140	78
2	107	132	108	186	243	233	137	225	295	274	132	87
3	109	134	113	197	227	234	126	230	297	291	128	93
4	118	137	118	188	214	231	121	232	306	287	127	94
5	128	133	118	191	183	223	115	234	303	295	127	94
6	138	137	128	201	---	224	116	240	298	298	129	94
7	153	140	130	202	242	219	128	253	290	311	129	95
8	167	145	132	197	229	214	129	264	291	346	128	96
9	183	153	137	196	262	205	125	273	292	400	123	98
10	183	162	136	198	304	214	146	258	294	428	101	100
11	164	167	133	197	387	215	135	249	295	443	104	102
12	177	169	144	201	220	223	145	252	293	464	113	106
13	142	169	138	203	231	217	150	245	294	530	114	109
14	100	172	147	209	259	228	166	250	289	544	109	112
15	103	178	148	206	269	228	186	244	289	496	103	114
16	69	167	147	218	247	233	185	253	288	438	103	113
17	70	166	154	224	230	233	190	244	287	395	106	114
18	74	166	157	245	230	234	195	242	290	345	106	116
19	80	164	160	245	230	209	194	264	292	299	103	121
20	87	108	158	260	225	197	196	253	286	275	106	124
21	92	64	161	274	217	201	194	264	272	265	103	125
22	95	66	166	248	219	192	195	268	273	264	97	132
23	98	77	162	229	225	198	197	277	264	250	95	139
24	100	83	174	236	230	211	197	277	261	244	95	154
25	103	86	174	226	226	190	204	273	253	238	95	146
26	107	92	189	219	235	140	207	283	247	222	94	150
27	110	97	184	231	227	135	206	283	250	204	91	152
28	114	100	190	257	231	126	204	295	251	197	92	150
29	119	99	185	277	245	130	206	305	250	190	82	150
30	134	101	176	260	---	134	211	300	259	173	79	151
31	126	---	185	258	---	135	---	290	---	157	74	---
MEAN	118	130	150	221	---	202	168	259	281	317	107	117
MAX	183	178	190	277	---	245	211	305	306	544	140	154
MIN	69	64	103	185	---	126	115	213	247	157	74	78

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.9	21.6	20.9	18.4	19.3	18.5	23.6	25.6	27.7	31.8	27.5	27.0
2	26.6	22.3	19.9	19.8	20.9	18.7	22.6	25.6	28.9	31.3	26.9	27.1
3	26.2	22.9	18.2	20.5	21.7	20.1	22.9	25.5	30.1	30.9	27.3	27.4
4	25.6	23.7	17.5	20.9	21.7	21.1	23.2	25.5	30.1	31.1	27.8	27.6
5	24.6	24.4	17.7	19.3	21.7	20.4	24.1	26.7	31.1	30.7	28.0	27.6
6	24.2	25.3	15.4	18.6	18.7	20.6	25.0	25.8	30.0	30.1	28.2	---
7	24.1	25.4	16.2	19.1	16.6	21.1	25.1	25.8	28.8	28.5	27.4	26.3
8	24.3	23.8	18.0	20.2	16.8	21.0	22.0	26.0	28.6	28.6	27.2	25.9
9	23.5	22.8	20.0	20.2	17.5	20.6	21.0	26.5	28.6	29.4	26.3	26.7
10	23.7	23.1	21.0	18.8	18.1	21.3	20.6	27.7	29.6	29.1	26.7	27.9
11	24.2	24.3	21.7	17.3	18.7	20.8	21.1	27.7	29.9	29.2	26.6	28.1
12	24.1	24.8	20.4	16.4	18.7	20.8	20.9	27.8	28.7	30.3	27.9	28.1
13	22.8	21.2	20.0	16.6	16.7	20.9	21.1	27.5	27.5	30.6	34.0	28.1
14	22.1	19.3	20.3	17.0	15.1	21.8	20.8	27.4	27.9	29.6	32.2	28.2
15	22.3	19.6	21.1	17.2	16.2	20.2	20.9	28.8	28.5	28.5	30.6	28.1
16	22.8	21.0	21.7	16.8	18.0	16.1	21.8	29.6	28.5	28.0	28.9	28.5
17	23.5	22.5	17.9	16.9	17.2	16.3	22.8	27.9	28.9	28.5	27.5	28.4
18	24.5	23.5	15.4	18.2	18.3	16.9	24.5	27.0	29.6	28.8	27.1	28.0
19	25.3	24.0	15.9	19.8	20.0	19.8	25.3	27.9	29.3	28.3	27.0	27.9
20	25.8	23.4	17.6	20.7	21.8	17.0	25.7	28.7	28.2	27.6	27.7	27.9
21	26.0	23.2	18.9	21.9	21.8	16.1	25.8	29.4	27.9	27.4	27.4	28.1
22	25.6	21.7	20.7	20.9	19.1	17.8	25.9	29.7	28.6	27.7	28.4	27.9
23	23.9	18.8	21.9	17.8	18.6	19.8	26.0	29.1	29.1	27.8	28.5	27.9
24	23.6	18.1	22.7	15.7	20.1	20.8	27.0	28.3	30.7	27.4	28.5	27.9
25	23.8	19.1	23.0	15.8	20.1	22.3	27.3	27.0	30.9	27.2	28.3	27.8
26	24.3	20.2	22.9	15.1	18.3	22.6	27.5	27.5	31.3	26.6	27.9	27.6
27	23.7	21.4	22.7	13.8	16.9	22.9	28.5	28.0	31.0	27.0	27.5	---
28	23.4	22.3	22.3	13.1	17.4	23.8	27.1	28.9	30.5	27.0	27.9	27.1
29	23.1	23.2	21.2	13.2	18.0	23.0	26.9	28.6	30.5	27.0	---	26.8
30	21.5	23.3	18.4	15.0	---	23.6	26.1	27.5	31.2	27.4	27.7	26.6
31	21.4	---	17.6	17.6	---	24.0	---	27.4	---	27.8	27.6	---
MEAN	24.1	22.3	19.6	17.8	18.8	20.3	24.1	27.5	29.4	28.7	---	---
MAX	26.9	25.4	23.0	21.9	21.8	24.0	28.5	29.7	31.3	31.8	---	---
MIN	21.4	18.1	15.4	13.1	15.1	16.1	20.6	25.5	27.5	26.6	---	---

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV										
10...	0902	4.63	294	155	6.0	24.0	0.40	4.4	1400	28
JAN										
05...	0920	2.35	43	158	7.0	19.0	1.4	4.8	50	E45
MAR										
01...	1711	2.85	63	211	6.9	21.5	0.50	7.7	2800	82
MAY										
03...	1100	1.35	7.2	215	6.8	24.5	0.60	5.8	60	2000
JUL										
06...	1201	0.85	1.9	360	7.5	30.5	0.90	6.4	E50	E11
SEP										
06...	1210	5.27	729	110	6.0	26.0	1.2	2.4	E98	490

DATE	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)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG C DIS- SOLVED (MG/L)
NOV										
10...	7.5	3.6	16	2.6	6	17	27	0.10	2.6	136
JAN										
05...	8.2	4.2	19	2.9	15	20	37	0.10	1.4	141
MAR										
01...	11	5.9	23	3.4	9	23	46	0.20	0.82	163
MAY										
03...	9.8	5.1	22	3.7	17	29	44	0.10	0.89	174
JUL										
06...	13	7.7	32	4.4	15	32	70	0.30	0.77	211
SEP										
06...	6.4	3.0	10	1.7	9	25	20	0.10	6.2	136

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDEED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV										
10...	<0.010	<0.100	0.020	0.030	1.1	0.090	0.090	0.060	4	50
JAN										
05...	0.010	<0.100	0.050	0.050	1.1	0.100	0.090	0.050	5	60
MAR										
01...	0.010	<0.100	0.060	0.090	1.4	0.060	0.050	0.030	17	94
MAY										
03...	<0.010	<0.100	0.060	0.080	1.2	0.210	0.200	0.130	7	71
JUL										
06...	<0.010	<0.100	0.020	0.050	1.0	0.180	0.120	0.100	5	40
SEP										
06...	0.010	<0.100	0.060	0.050	1.6	0.280	0.250	0.210	6	100

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 1987 TO SEPTEMBER 1988

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
MAR										
01...	100	<1	17	<0.5	2	2	<3	3	260	<5
MAY										
03...	80	<1	20	<0.5	2	<1	<3	2	360	<5
JUL										
06...	30	<1	26	<0.5	<1	<1	<3	1	110	<5
SEP										
06...	200	<1	15	<0.5	2	1	<3	3	980	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR										
01...	<4	5	<0.1	<10	7	2	<1.0	650	<6	13
MAY										
03...	<4	16	<0.1	<10	2	<1	<1.0	570	<6	68
JUL										
06...	<4	10	2.3	<10	2	<1	<1.0	990	<6	10
SEP										
06...	<4	13	<0.1	<10	2	<1	<1.0	330	<6	42

SOUTH FLORIDA

FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST

02257800 HARNEY POND CANAL AT S-71, NEAR LAKEPORT, FL

LOCATION.--27°02'00", long 81°84'15", in NE¼ sec.1, T.40 S., R.32 E., Glades County, Hydrologic Unit 03090103, near left bank 220 ft upstream from control structure 71, 0.1 mi west of State Highway 721, 2.3 mi upstream from bridge on State Highway 78, and 5.2 mi northeast of Lakeport.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage and deflection-meter recorders. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records fair. Flow regulated by operation of structure 71; by storage releases upstream of structures 68, 70, and 82. Flow may be diverted to Indian Prairie Canal by the combined operation of structures 70 and 75 upstream.

COOPERATION.--Gate-operation record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--26 years, 206 ft³/s, 149,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,670 ft³/s, Mar. 27, 1970; maximum gage height, 25.90 ft, June 8, 1968; no flow for many days each year; minimum gage height, 12.97 ft, Feb. 9, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,480 ft³/s, Oct. 13; maximum gage height, 20.65 ft, Nov. 29; no flow for many days; minimum gage height, 15.76 ft, Aug. 16.

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	129	324	457	.00	.00	227	185	245	.00	.00	130	390
2	179	999	202	.00	.00	.00	151	544	.00	.00	148	375
3	.00	1090	92	.00	238	.00	223	678	.00	.00	112	325
4	.00	2260	356	.00	.00	.00	135	441	.00	.00	.00	342
5	.00	1770	112	.00	.00	.00	90	324	.00	.00	.00	390
6	.00	1170	104	117	.00	.00	61	302	136	.00	105	281
7	.00	934	115	.00	.00	314	114	259	222	.00	.00	446
8	.00	642	115	.00	449	.00	45	230	652	.00	481	359
9	.00	529	104	.00	410	153	57	245	419	.00	257	544
10	.00	411	72	82	388	343	14	227	187	.00	319	279
11	106	.00	.00	186	133	140	94	12	97	400	432	358
12	2100	423	130	89	324	246	72	103	85	49	155	446
13	3480	.00	.00	.00	.00	.00	.00	205	93	.00	121	325
14	2750	106	.00	.00	136	315	113	464	99	.00	109	324
15	2300	103	102	.00	120	.00	177	706	.00	.00	443	195
16	1830	265	.00	.00	217	.00	58	601	.00	.00	379	437
17	1330	140	.00	.00	.00	.00	82	959	102	.00	.00	244
18	915	1730	362	.00	.00	.00	184	683	.00	76	128	384
19	674	2430	.00	.00	466	730	46	449	.00	.00	131	228
20	475	3200	.00	94	.00	575	156	375	.00	.00	.00	.00
21	495	2830	.00	.00	.00	618	465	358	116	.00	.00	.00
22	620	2220	.00	228	412	231	135	332	146	94	384	.00
23	603	1510	.00	.00	548	151	281	212	.00	228	329	.00
24	492	1240	.00	209	402	140	354	213	207	222	277	.00
25	474	970	106	73	821	131	455	165	.00	638	328	.00
26	244	773	212	.00	835	97	567	218	.00	659	792	.00
27	87	995	212	.00	964	1350	256	239	.00	326	610	.00
28	280	1110	.00	73	945	1050	191	136	.00	85	838	.00
29	.00	942	244	224	470	1090	.00	227	.00	228	700	.00
30	.00	857	248	.00	---	646	459	232	106	66	725	.00
31	76	---	.00	131	---	415	---	133	---	.00	652	---
TOTAL	19639.00	31973.00	3345.00	1506.00	8278.00	8962.00	5220.00	10517	2667.00	3071.00	9085.00	6672.00
MEAN	634	1066	108	48.6	285	289	174	339	88.9	99.1	293	222
MAX	3480	3200	457	228	964	1350	567	959	652	659	838	544
MIN	.00	.00	.00	.00	.00	.00	.00	12	.00	.00	.00	.00

CAL YR 1987 TOTAL 95753.00 MEAN 262 MAX 3480 MIN .00
WTR YR 1988 TOTAL 110935.00 MEAN 303 MAX 3480 MIN .00

02257800 HARNEY POND CANAL AT S-71, NEAR LAKEPORT, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.47	19.69	19.72	19.48	19.69	19.56	19.59	19.71	19.66	19.93	19.73	19.81
2	19.72	19.82	19.79	19.44	19.93	19.47	19.83	19.85	19.67	19.98	19.83	19.75
3	19.75	19.79	19.79	19.40	19.76	19.56	19.69	19.86	19.69	20.02	19.64	19.68
4	19.72	19.81	19.68	19.53	19.88	19.62	19.75	19.84	19.67	20.00	19.76	19.60
5	19.64	19.83	19.72	19.67	19.93	19.72	19.67	19.79	19.65	19.94	20.00	19.89
6	19.59	19.83	19.76	19.92	19.93	19.86	19.64	19.70	19.66	19.88	19.84	19.54
7	19.64	19.82	19.73	20.02	19.90	19.79	19.61	19.77	19.78	19.87	19.66	19.78
8	19.69	19.83	19.79	20.11	19.88	19.65	19.57	19.79	19.79	19.85	19.63	19.78
9	19.68	19.82	19.73	20.07	19.72	19.80	19.42	19.73	19.74	19.86	19.71	19.77
10	19.77	19.84	19.80	20.06	19.80	19.56	20.11	19.61	19.77	19.98	19.58	19.80
11	19.97	19.96	19.96	19.77	19.77	19.59	19.70	19.35	19.71	19.48	19.68	19.73
12	19.74	19.90	19.63	19.66	19.64	19.68	19.84	19.75	19.75	17.53	19.59	19.75
13	19.78	19.78	19.63	19.87	19.67	19.56	19.62	19.66	19.74	17.80	19.69	19.67
14	19.83	19.81	19.92	19.95	19.84	19.67	19.87	19.79	19.94	18.13	19.75	19.73
15	19.82	19.81	20.03	19.96	19.37	19.44	19.87	19.81	19.42	19.58	19.68	19.82
16	19.82	19.78	19.54	19.93	19.64	19.51	19.87	19.80	19.82	20.07	16.81	19.64
17	19.87	19.64	19.91	19.92	19.58	19.56	19.49	19.81	20.00	20.13	18.48	19.65
18	19.81	19.87	18.98	20.00	19.78	19.61	19.72	19.77	19.51	19.91	19.36	19.75
19	19.82	19.83	18.53	20.07	19.54	19.87	19.62	19.76	19.70	19.59	19.49	19.52
20	19.80	19.81	18.95	19.96	19.78	19.82	19.89	19.76	19.90	19.72	19.58	19.12
21	19.92	19.83	19.33	19.51	20.08	19.78	19.77	19.80	19.82	19.94	19.79	19.16
22	19.84	19.87	19.65	19.92	19.92	19.72	19.77	19.72	19.63	19.70	19.81	19.15
23	19.76	19.80	19.89	20.12	19.85	20.02	19.97	19.63	19.87	19.61	19.58	19.03
24	19.77	19.81	19.96	19.85	19.62	19.72	20.03	19.60	19.76	19.78	19.68	18.94
25	19.75	19.80	19.80	19.81	19.82	19.83	20.08	19.72	19.24	19.22	19.68	18.87
26	19.78	19.80	19.57	19.69	19.85	19.63	20.07	19.68	19.39	18.60	19.82	18.79
27	19.84	19.77	19.55	19.92	19.81	19.78	20.05	19.64	19.52	19.81	19.80	18.68
28	19.68	19.84	19.31	19.84	19.88	19.83	19.93	19.74	19.58	19.66	19.76	18.62
29	19.62	19.75	19.56	19.87	19.60	19.82	20.23	19.70	19.57	19.63	19.77	18.56
30	19.95	19.74	19.62	19.84	---	19.82	20.02	19.70	19.75	19.72	19.84	18.55
31	19.92	---	19.33	19.94	---	19.77	---	19.70	---	19.90	19.	

SOUTH FLORIDA

FISHEATING CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTHWEST

02259200 INDIAN PRAIRIE CANAL AT S-72, NEAR OKEECHOBEE, FL

LOCATION.--Lat 27°05'35", long 81°00'25", in SE¼ sec.10, T.39 S., R.33 E., Glades County, Hydrologic Unit 03090103, near left bank 230 ft upstream from control structure 72, 2.6 mi upstream from bridge on State Highway 78, and 15 mi southwest of Okeechobee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage and deflection-meter recorders. Datum of gage is 9.0 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records fair. Flow regulated by operation of structure 72, by storage releases upstream at structures 68, 75, and 82, and several small diversions for irrigation. Flow may be diverted to Harney Pond Canal by the combined operation of structures 70 and 75.

COOPERATION.--Gate-operation record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--26 years, 42.8 ft³/s, 31,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,130 ft³/s, Oct. 3, 1969; maximum gage height, 14.71 ft, Oct. 13, 1987; no flow for many days each year; minimum gage height, 6.55 ft, Oct. 11, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 918 ft³/s, Nov. 20; maximum gage height, 14.71 ft, Oct. 13; no flow for many days; minimum gage height, 9.90 ft, Dec. 3.

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	.00	83	94	.00	.00	.00	.00	84	.00	.00	56	42
2	.00	316	133	.00	.00	.00	.00	191	91	.00	.00	45
3	.00	564	121	.00	.00	.00	.00	115	.00	73	.00	39
4	.00	797	114	.00	.00	.00	64	78	.00	.00	47	39
5	.00	605	.00	.00	.00	.00	.00	67	.00	.00	.00	39
6	.00	387	92	.00	.00	.00	.00	60	86	.00	.00	39
7	.00	322	114	.00	.00	.00	.00	71	105	.00	.00	45
8	.00	216	.00	.00	96	.00	.00	125	339	.00	61	87
9	.00	210	119	.00	204	.00	.00	.00	375	.00	.00	38
10	.00	124	115	.00	102	73	.00	44	274	.00	.00	39
11	.00	238	.00	99	.00	.00	.00	80	165	.00	.00	48
12	130	131	112	115	102	.00	.00	75	172	.00	46	37
13	717	119	.00	132	.00	.00	.00	47	85	.00	.00	39
14	678	116	96	67	.00	63	64	131	76	.00	.00	46
15	173	78	.00	65	110	.00	.00	83	.00	.00	.00	54
16	282	92	107	.00	.00	.00	70	126	.00	.00	35	.00
17	121	99	.00	.00	.00	.00	74	34	.00	.00	.00	54
18	169	769	108	.00	.00	.00	70	120	.00	.00	.00	46
19	70	862	109	.00	.00	64	60	39	.00	42	.00	46
20	149	918	.00	.00	.00	66	.00	53	.00	.00	.00	.00
21	145	800	104	57	.00	64	.00	51	.00	.00	.00	.00
22	273	611	.00	.00	.00	69	60	33	.00	.00	.00	.00
23	128	550	91	.00	.00	.00	69	40	.00	.00	75	.00
24	80	375	95	.00	.00	.00	76	42	.00	59	53	.00
25	82	296	.00	54	299	.00	67	5.0	.00	57	49	.00
26	.00	263	87	.00	251	59	.00	93	.00	88	96	.00
27	.00	197	87	.00	233	69	.00	64	.00	.00	53	.00
28	.00	295	83	.00	209	73	.00	41	.00	45	47	.00
29	97	124	.00	.00	104	64	.00	.00	.00	45	47	.00
30	.00	116	80	.00	---	.00	.00	66	.00	40	55	.00
31	.00	---	.00	.00	---	64	---	44	---	.00	48	---
TOTAL	3294.00	10673	2061.00	589.00	1710.00	728.00	674.00	2102.00	1768.00	449.00	768.00	822.00
MEAN	106	356	66.5	19.0	59.0	23.5	22.5	67.8	58.9	14.5	24.8	27.4
MAX	717	918	133	132	299	73	76	191	375	88	96	87
MIN	.00	78	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	6530	21170	4090	1170	3390	1440	1340	4170	3510	891	1520	1630
CAL YR 1987	TOTAL 17550.00											
WTR YR 1988	TOTAL 25638.00											
	MEAN	48.1	MAX	918	MIN	.00	AC-FT	34810				
	MEAN	70.0	MAX	918	MIN	.00	AC-FT	50850				

02259200 INDIAN PRAIRIE CANAL AT S-72, NEAR OKEECHOBEE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.32	11.73	11.46	11.78	11.91	11.51	11.79	11.80	11.78	11.82	11.78	11.73
2	11.37	11.64	11.41	11.82	11.91	11.65	11.93	11.78	11.60	12.01	11.79	11.71
3	11.32	11.58	11.46	11.84	11.90	11.71	11.97	11.74	11.80	11.83	11.97	11.65
4	11.23	11.55	11.44	11.87	11.90	11.76	11.69	11.75	11.87	11.52	11.87	11.70
5	11.12	11.57	11.63	11.90	11.91	11.80	11.74	11.79	11.89	11.78	11.58	11.67
6	11.07	11.57	11.42	11.88	11.90	11.88	11.87	11.76	11.68	11.88	11.83	11.69
7	11.03	11.55	11.64	11.86	11.87	11.92	11.97	11.79	11.49	11.94	11.95	11.70
8	11.00	11.54	11.55	11.88	11.65	11.91	11.92	11.67	11.60	11.95	11.79	11.58
9	10.98	11.54	11.45	11.90	11.58	11.91	11.42	11.73	11.62	11.97	11.67	11.67
10	11.03	11.61	11.75	11.93	11.63	11.58	11.17	11.68	11.61	12.01	11.87	11.68
11	11.26	11.55	11.48	11.69	11.78	11.75	11.43	11.72	11.61	11.99	11.97	11.66
12	12.42	11.56	11.62	11.61	11.53	11.89	11.68	11.78	11.63	11.97	11.72	11.65
13	13.33	11.61	11.65	11.65	11.93	11.94	11.79	11.69	11.56	11.90	11.69	11.67
14	11.65	11.63	11.68	11.69	12.00	11.72	11.84	11.73	11.68	11.80	11.89	11.67
15	11.74	11.65	11.72	11.58	11.76	11.57	11.78	11.66	11.65	11.70	11.98	11.70
16	11.73	11.66	11.54	11.75	11.59	11.75	11.73	11.62	11.49	11.97	11.98	11.70
17	11.75	11.68	11.90	11.87	11.84	11.80	11.77	11.70	11.35	12.02	11.58	11.55
18	11.72	11.53	11.55	11.93	11.91	11.83	11.68	11.65	11.23	11.96	11.82	11.62
19	11.74	11.51	11.87	11.94	11.94	11.76	11.83	11.74	11.14	11.57	11.93	11.61
20	11.76	11.48	11.59	11.95	11.93	11.75	11.79	11.74	11.11	11.62	12.03	11.55
21	11.66	11.49	11.79	11.90	11.95	11.70	11.71	11.70	11.31	11.80	12.12	11.69
22	11.70	11.47	11.69	11.46	11.94	11.94	11.77	11.71	11.68	11.87	12.21	11.34
23	11.75	11.43	11.63	11.76	11.94	11.57	11.78	11.78	11.82	11.93	11.80	11.34
24	11.78	11.50	11.75	11.88	11.96	11.87	11.75	11.82	11.78	11.57	11.73	11.42
25	11.82	11.38	11.71	11.68	11.64	11.99	11.58	11.74	11.67	11.67	11.73	11.45
26	11.70	11.43	11.66	11.63	11.56	11.68	11.39	11.64	11.54	11.67	11.70	11.45
27	11.88	11.48	11.68	11.84	11.60	11.81	11.58	11.71	11.42	11.66	11.68	11.29
28	11.91	11.35	11.77	11.90	11.60	11.75	11.74	11.76	11.34	11.74	11.70	10.78
29	11.72	11.45	11.72	11.94	11.60	11.66	11.72	11.71	11.38	11.73	11.70	10.47
30	11.72	11.47	11.65	11.93	---	11.95	11.79	11.63	11.43	11.64	11.69	10.25
31	11.82	---	11.73	11.92	---	11.71	---	11.56	---	11.83	11.73	---
MEAN	11.61	11.54	11.63	11.81	11.80	11.77	11.72	11.72	11.56	11.82	11.82	11.49
MAX	13.33	11.73	11.90	11.95	12.00	11.99	11.97	11.82	11.89	12.02	12.21	11.73
MIN	10.98	11.35	11.41	11.46	11.53	11.51	11.17	11.56	11.11	11.52	11.58	10.25
CAL YR 1987	MEAN	11.28	MAX	13.33	MIN	9.20						
WTR YR 1988	MEAN	11.69	MAX	13.33	MIN	10.25						

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02252900 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.--Estimated daily discharges: Nov. 3-12, Nov. 17 to Dec. 4. Records good except for estimated daily discharges, which are fair. Some diversion to ground water through drainage wells in lakes upstream from station.

AVERAGE DISCHARGE.--29 years, 47.7 ft³/s, 7.75 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, 707 ft³/s, Sept. 9, gage height, 9.57 ft; minimum 5.5 ft³/s, May 23,24, gage height, 2.28 ft.

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	53	33	255	37	79	34	65	30	12	17	72	175
2	72	38	230	36	73	32	59	28	9.6	28	79	155
3	76	110	220	36	67	29	56	28	8.3	26	86	137
4	63	200	195	35	60	27	51	25	8.2	23	101	135
5	54	270	165	34	54	30	47	21	8.1	21	91	172
6	47	440	140	33	49	65	42	19	20	37	90	258
7	43	520	127	33	47	74	38	17	30	29	94	419
8	36	450	116	33	53	71	34	15	49	25	99	545
9	31	340	109	37	51	64	32	13	48	21	108	683
10	27	275	104	43	49	111	34	12	43	24	127	623
11	35	230	99	44	48	102	38	11	40	37	101	483
12	83	200	91	43	45	96	34	11	33	31	90	358
13	118	169	84	41	42	177	32	16	27	35	83	287
14	121	149	77	41	40	279	31	18	28	61	74	243
15	108	130	76	40	42	284	31	16	29	88	75	209
16	96	112	81	39	48	272	30	14	27	105	85	182
17	83	120	78	37	51	233	28	13	25	99	88	157
18	74	155	75	35	52	210	25	11	20	84	72	139
19	68	230	71	34	54	293	23	9.0	17	75	76	126
20	80	270	66	32	51	291	22	7.5	16	70	81	114
21	66	290	62	35	50	268	20	6.4	15	61	79	99
22	56	320	59	44	49	234	17	6.5	14	55	92	87
23	51	315	56	45	47	205	15	6.3	12	67	135	78
24	47	310	54	46	45	181	14	10	10	123	123	72
25	44	290	52	76	42	159	13	28	8.9	196	112	67
26	42	275	51	101	38	140	20	26	8.2	193	120	72
27	39	270	49	115	36	126	18	34	9.6	173	212	84
28	36	270	47	106	36	112	14	25	11	148	234	73
29	32	280	43	98	35	97	11	18	16	127	269	69
30	29	275	41	92	---	82	12	14	18	101	247	62
31	27	---	40	86	---	72	---	12	---	82	205	---
TOTAL	1837	7336	3013	1587	1433	4450	906	520.7	620.9	2262	3600	6363
MEAN	59.3	245	97.2	51.2	49.4	144	30.2	16.8	20.7	73.0	116	212
MAX	121	520	255	115	79	293	65	34	49	196	269	683
MIN	27	33	40	32	35	27	11	6.3	8.1	17	72	62
CFSM	.71	2.93	1.16	.61	.59	1.72	.36	.20	.25	.87	1.39	2.54
IN.	.82	3.26	1.34	.71	.64	1.98	.40	.23	.28	1.01	1.60	2.83

CAL YR 1987 TOTAL 27460.6 MEAN 75.2 MAX 796 MIN 3.4 CFSM .90 IN. 12.22
WTR YR 1988 TOTAL 33928.6 MEAN 92.7 MAX 683 MIN 6.3 CFSM 1.11 IN. 15.10

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, 3.0 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.--Estimated daily discharges: Jan. 4 to Feb. 11, Mar. 12 to Apr. 11. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--30 years, 72.3 ft³/s, 11.01 in/yr, 52,380 acre-ft/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, 882 ft³/s, Nov. 6, gage height, 8.74 ft; minimum, 5.9 ft³/s, May 23, gage height, 3.94 ft.

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	60	28	292	34	80	31	38	23	22	28	83	177
2	71	33	270	34	71	28	33	28	18	32	64	150
3	77	86	237	36	65	26	29	36	14	34	52	127
4	73	356	200	36	61	25	26	36	10	36	48	110
5	61	579	163	35	58	29	24	31	8.1	36	59	110
6	50	856	131	32	55	69	22	25	13	44	62	202
7	43	767	109	30	54	101	21	19	20	40	78	361
8	38	585	93	33	52	119	20	15	52	35	102	442
9	33	471	82	38	56	127	19	12	66	34	103	549
10	30	401	76	39	61	165	20	9.2	65	33	114	571
11	34	348	70	39	62	132	21	9.4	57	35	124	514
12	59	309	66	37	62	112	25	12	50	32	117	444
13	92	283	63	36	55	246	33	21	49	31	117	379
14	112	256	59	34	50	680	34	19	46	33	120	320
15	129	226	59	32	47	610	32	25	40	48	127	265
16	136	188	66	31	51	530	28	24	39	71	128	213
17	123	157	66	30	60	470	24	21	41	85	119	164
18	100	182	66	30	70	440	20	18	38	87	117	123
19	77	200	64	31	68	510	18	14	31	87	125	98
20	61	258	60	35	60	557	17	11	25	89	138	82
21	50	288	55	42	56	425	16	8.1	21	89	163	74
22	42	322	52	44	55	360	16	7.5	23	83	169	71
23	38	345	49	47	55	295	14	6.4	33	78	139	61
24	34	336	47	68	54	220	13	15	23	83	118	55
25	31	305	46	99	49	175	12	47	19	99	100	49
26	29	269	44	149	44	135	12	42	18	115	117	42
27	28	323	43	160	39	102	10	49	17	131	267	38
28	26	322	41	150	36	80	8.8	52	21	141	288	38
29	24	309	39	133	33	66	7.8	45	22	154	265	37
30	22	303	36	109	---	55	9.0	36	21	137	232	35
31	21	---	35	90	---	45	---	28	---	109	205	---
TOTAL	1804	9691	2779	1773	1619	6965	622.6	744.6	922.1	2169	4060	5901
MEAN	58.2	323	89.6	57.2	55.8	225	20.8	24.0	30.7	70.0	131	197
MAX	136	856	292	160	80	680	38	52	66	154	288	571
MIN	21	28	35	30	33	25	7.8	6.4	8.1	28	48	35
AC-FT	3580	19220	5510	3520	3210	13820	1230	1480	1830	4300	8050	11700
CFSM	.65	3.62	1.00	.64	.63	2.52	.23	.27	.34	.78	1.47	2.21
IN.	.75	4.04	1.16	.74	.68	2.90	.26	.31	.38	.90	1.69	2.46

CAL YR 1987 TOTAL 39164.7 MEAN 107 MAX 1620 MIN 5.8 AC-FT 77680 CFSM 1.20 IN. 16.33
WTR YR 1988 TOTAL 39050.3 MEAN 107 MAX 856 MIN 6.4 AC-FT 77460 CFSM 1.20 IN. 16.29

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 SW $\frac{1}{4}$ 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.--Records fair. 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.--12 years, 0.37 ft³/s, 268 acre-ft/yr.

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, 90.59 ft, July 17, 1981.

EXTREMES FOR CURRENT PERIOD.--

Water year 1987: Maximum daily discharge, 17 ft³/s, Mar. 31; maximum gage height, 94.85 ft, Apr. 6; no flow for many days; minimum gage height, 92.95 ft, Sept. 2,3.

Water year 1988: Maximum daily discharge, 14 ft³/s, Mar. 14; maximum gage height, 94.54 ft, Mar. 14; no flow for many days; minimum gage height 93.03 ft, Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	16	2.0	.10	.10	.00	.00
2	.00	.00	.00	.00	.00	.00	15	2.0	.10	.10	.00	.00
3	.00	.00	.00	.00	.00	.00	14	2.0	.10	.10	.00	.00
4	.00	.00	.00	.00	.00	.00	13	1.9	.10	.10	.00	.00
5	.00	.00	.00	.00	.00	.00	12	2.0	.10	.10	.00	.00
6	.00	.00	.00	.00	.00	.00	10	2.0	.10	.10	.00	.00
7	.00	.00	.00	.00	.00	.00	9.7	1.7	.10	.10	.00	.00
8	.00	.00	.00	.00	.00	.00	9.6	1.4	.10	.10	.00	.00
9	.00	.00	.00	.00	.00	.00	9.2	1.1	.10	.10	.00	.00
10	.00	.00	.00	.00	.00	.00	8.5	1.2	.10	.10	.00	.00
11	.00	.00	.00	.00	.00	.00	7.8	.57	.10	.10	.00	.00
12	.00	.00	.00	.00	.00	.00	7.6	.10	.10	.10	.00	.00
13	.00	.00	.00	.00	.00	.00	6.9	.10	.10	.06	.00	.00
14	.00	.00	.00	.00	.00	.00	6.9	.10	.10	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	6.7	.10	.10	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	6.4	.10	.10	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	6.0	.10	.10	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	6.0	.10	.10	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	5.8	.10	.10	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	5.3	.10	.10	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	4.8	.10	.10	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	4.4	.10	.10	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	4.0	.10	.10	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	3.0	.10	.10	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	2.8	.10	.10	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	2.4	.10	.10	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	2.9	.10	.10	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	2.8	.10	.10	.00	.00	.00
29	.00	.00	.00	.00	---	.42	2.0	.10	.10	.00	.00	.00
30	.00	.00	.00	.00	---	8.9	2.0	.10	.10	.00	.00	.00
31	.00	---	.00	.00	---	17	---	.10	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	26.32	213.5	19.87	3.00	1.26	0.00	0.00
MEAN	.00	.00	.00	.00	.00	.85	7.12	.64	.10	.041	.00	.00
MAX	.00	.00	.00	.00	.00	17	16	2.0	.10	.10	.00	.00
MIN	.00	.00	.00	.00	.00	.00	2.0	.10	.10	.00	.00	.00
AC-FT	.0	.0	.0	.0	.0	52	423	39	6.0	2.5	.0	.0

WTR YR 1987 TOTAL 263.95 MEAN .72 MAX 17 MIN .00 AC-FT 524

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.

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.--Estimated daily discharges: Mar. 2 to Apr. 4. Records fair. Some diversions by pumping above station for irrigation.

AVERAGE DISCHARGE.--43 years, 5.68 ft³/s, 2.55 in/yr, 4,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 354 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)
Nov. 4	0343	60	3.31	Mar. 15	Unknown	Unknown	Unknown
Nov. 20	0326	40	3.12	Sept. 9	0200	51	3.23
Nov. 27	0018	*63	*3.33				

Minimum discharge, 0.06 ft³/s, July 12,13; gage height, 1.40 ft.

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	3.5	.68	39	11	16	10	22	9.0	1.9	.18	1.3	5.6
2	2.8	.81	35	11	15	9.5	20	8.0	1.5	.17	1.1	4.9
3	2.4	10	32	11	15	9.0	19	6.8	1.2	.15	1.1	4.3
4	2.0	56	30	10	14	8.4	18	5.9	.99	.12	1.8	3.7
5	1.6	40	28	10	14	9.8	18	5.2	.90	.10	1.5	7.0
6	1.4	29	25	9.7	15	18	17	4.6	1.6	.20	1.3	25
7	1.1	23	24	9.4	15	27	16	4.1	1.4	.19	1.2	31
8	.91	19	22	9.2	17	25	15	3.5	1.3	.15	1.0	34
9	.78	17	21	9.4	17	23	13	3.0	1.0	.12	.86	48
10	1.0	16	20	11	16	24	13	2.6	1.1	.09	.78	40
11	4.0	16	20	11	15	21	17	2.4	1.2	.09	.73	35
12	6.8	15	19	10	15	21	16	2.5	.91	.08	.67	32
13	5.8	14	19	9.6	14	30	15	4.0	.75	.07	.59	30
14	4.9	14	18	9.2	13	41	13	3.3	.78	.35	.56	28
15	4.1	13	19	8.9	13	50	12	2.8	.73	.67	.70	26
16	3.2	13	20	8.5	16	49	11	2.5	.60	.49	.66	24
17	2.9	14	19	8.2	15	45	10	2.2	.51	.36	2.0	23
18	2.5	26	18	7.8	14	41	9.4	1.9	.43	.37	8.2	23
19	2.2	29	17	7.3	14	43	8.8	1.6	.36	.55	7.1	21
20	2.0	39	16	7.0	13	47	8.2	1.4	.31	.57	5.5	20
21	1.7	35	15	8.2	14	46	7.6	1.1	.28	.46	4.8	20
22	1.4	31	15	11	14	42	7.2	2.7	.36	.47	4.4	27
23	1.2	28	15	10	13	39	6.7	2.2	.57	1.1	3.6	23
24	1.1	26	14	9.9	13	37	6.2	2.1	.42	3.0	2.8	19
25	.95	24	14	20	12	35	5.7	3.9	.33	3.9	2.5	17
26	.84	26	14	23	12	32	5.4	4.2	.27	3.1	4.0	16
27	.79	59	14	21	11	30	5.0	4.6	.23	2.7	14	15
28	.71	53	13	19	11	26	4.6	3.8	.26	2.9	13	14
29	.64	47	13	18	10	26	4.2	3.0	.25	2.5	10	12
30	.56	43	13	17	---	25	4.7	2.5	.22	2.1	7.9	11
31	.48	---	12	16	---	23	---	2.1	---	1.6	6.5	---
TOTAL	66.26	776.49	613	362.3	406	912.7	348.7	109.5	22.66	28.90	112.15	639.5
MEAN	2.14	25.9	19.8	11.7	14.0	29.4	11.6	3.53	.76	.93	3.62	21.3
MAX	6.8	59	39	23	17	50	22	9.0	1.9	3.9	14	48
MIN	.48	.68	12	7.0	10	8.4	4.2	1.1	.22	.07	.56	3.7
AC-FT	131	1540	1220	719	805	1810	692	217	45	57	222	1270
CFSM	.07	.85	.65	.39	.46	.97	.38	.12	.02	.03	.12	.70
IN.	.08	.95	.75	.44	.50	1.12	.43	.13	.03	.04	.14	.79

CAL YR 1987 TOTAL 2895.28 MEAN 7.93 MAX 66 MIN .14 AC-FT 5740 CFSM .26 IN. 3.55
WTR YR 1988 TOTAL 4398.16 MEAN 12.0 MAX 59 MIN .07 AC-FT 8720 CFSM .40 IN. 5.40

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 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
FEB 29...	1000	146	4.1	13.0	120	0.60	3.2	3.4	2.8	8.3	2.9
JUN 20...	0830	153	3.4	22.5	400	0.40	3.0	1.6	2.2	8.5	2.7
SEP 19...	0930	100	4.0	25.5	320	0.41	1.4	--	--	--	--
DATE	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 29...	<0.1	--	--	0.010	<0.020	0.030	0.75	0.78	0.020	0.010	--
JUN 20...	<0.1	1.4	24	0.020	<0.020	0.070	1.5	1.6	0.030	0.030	41
SEP 19...	--	--	--	0.020	<0.020	0.030	1.6	1.7	0.020	0.020	31

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 and sharp-crested weir. Datum of gage is National Geodetic Vertical Datum of 1929 (Reedy Creek Improvement District bench mark).

REMARKS.--Records good except for those below 5.0 ft³/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 98 ft³/s, Nov. 3, 1987, gage height 95.55 ft; minimum, 0.05 ft³/s, July 3-5, 17, 1988, gage height 94.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 98 ft³/s, Nov. 3, gage height 95.55 ft; minimum 0.05 ft³/s, July 3-5, 17, gage height 94.47 ft.

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	6.8	1.7	2.8	1.0	1.2	.70	.99	3.7	.49	.20	.59	.86
2	2.1	1.5	2.5	1.2	1.2	.60	1.0	1.3	.49	.16	.68	.65
3	1.4	25	1.8	1.2	1.2	.50	1.0	.65	.41	.10	1.5	.51
4	1.3	49	1.9	1.1	1.2	.55	1.0	.50	.15	.09	1.8	.50
5	1.3	19	2.0	.46	1.2	1.5	1.0	.46	.21	.24	1.1	8.3
6	1.2	9.2	1.8	.41	1.3	10	.89	.40	.93	1.1	1.1	16
7	1.2	3.5	1.8	.46	1.2	2.6	.70	.42	1.4	.29	.99	10
8	1.2	3.3	1.7	.63	1.8	1.3	.56	.35	.56	.14	.59	11
9	1.0	3.4	2.0	1.2	1.6	1.1	.51	.31	.55	.10	.96	11
10	1.1	3.0	2.3	1.6	1.4	3.6	1.3	.32	1.2	.11	.61	4.6
11	3.7	2.3	2.2	1.0	1.3	1.6	2.0	.40	1.4	.42	.70	2.4
12	15	1.9	1.8	.75	1.2	1.2	1.0	1.4	.72	.40	.55	1.6
13	6.0	1.7	1.8	.76	1.0	16	.85	2.2	.42	.22	.79	2.2
14	2.2	1.6	1.7	.69	1.0	13	.76	1.1	.50	.82	1.2	1.3
15	1.8	1.7	1.8	.64	1.9	5.4	.75	1.2	.47	.76	1.3	.94
16	1.6	1.5	2.2	.54	3.0	2.6	.74	.80	.39	.23	.82	.74
17	1.5	3.9	1.5	.50	1.4	1.9	.75	.74	.56	.23	10	.76
18	1.5	12	1.3	.57	1.3	2.2	.64	.55	1.3	.80	10	.75
19	1.5	6.9	1.4	.75	1.1	10	.46	.37	1.3	.66	2.8	.76
20	1.5	7.1	1.2	.65	.86	3.8	.45	.27	.84	.62	1.2	.74
21	1.5	3.0	1.2	2.2	1.4	2.1	.40	.32	1.4	.46	.98	2.0
22	1.3	2.8	1.3	2.4	1.1	1.8	.36	2.1	3.0	.35	.91	2.0
23	1.1	2.4	1.3	1.1	.98	1.6	.36	.45	3.0	2.7	.75	.88
24	1.0	2.3	1.3	.91	1.2	1.1	.40	.48	.69	4.3	.75	.65
25	1.4	2.2	1.4	11	.77	1.6	.40	2.4	.40	1.6	.94	.50
26	1.3	3.4	1.5	5.0	.71	1.4	.39	1.7	.37	.45	10	1.0
27	1.2	21	1.5	2.0	.76	1.2	.42	1.0	.38	.76	16	1.2
28	1.2	6.9	1.4	1.6	.81	1.2	.38	.85	.56	.90	4.7	.67
29	.98	4.2	1.3	1.4	.75	1.0	.31	.65	1.1	.96	2.1	.58
30	.77	3.1	1.2	1.3	---	1.2	1.7	.56	.37	.78	1.6	.50
31	.73	---	1.1	1.3	---	1.0	---	.54	---	.70	1.5	---
TOTAL	67.38	210.5	52.0	46.32	35.84	95.35	22.47	28.49	25.56	21.65	79.51	85.59
MEAN	2.17	7.02	1.68	1.49	1.24	3.08	.75	.92	.85	.70	2.56	2.85
MAX	15	49	2.8	11	3.0	16	2.0	3.7	3.0	4.3	16	16
MIN	.73	1.5	1.1	.41	.71	.50	.31	.27	.15	.09	.55	.50

CAL YR 1987 TOTAL 1073.27 MEAN 2.94 MAX 49 MIN .42
WTR YR 1988 TOTAL 770.66 MEAN 2.11 MAX 49 MIN .09

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.--

Water year 1987: Estimated daily discharges: Oct. 1-22, Sept. 23-30. Records fair except for estimated daily discharges, which are poor. Flow regulated by operation of structure 101. Discharge computed from relation between discharge and gate openings.

Water year 1988: Records fair. Flow regulated by operation of structure 101. Discharge computed from relation between discharge and gate openings.

EXTREMES FOR CURRENT PERIOD.--

Water year 1987: Maximum daily discharge, 175 ft³/s, Mar. 29; maximum gage height, 90.20 ft, Sept. 4; no flow for many days; minimum gage height, 89.36 ft, June 18.

Water year 1988: Maximum daily discharge, 198 ft³/s, Nov. 4, gage height, 90.30 ft; no flow Aug. 10; minimum gage height, 89.42 ft, July 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.5	8.9	9.1	1.8	.50	88	.00	3.0	3.0	11	1.5
2	.00	2.9	6.0	3.1	1.6	1.5	69	1.2	3.0	1.4	3.0	1.5
3	.00	3.0	3.0	2.3	1.5	2.4	61	1.5	2.9	5.8	2.3	11
4	.00	3.0	3.0	1.5	1.6	3.0	50	1.5	1.6	12	2.4	37
5	.00	3.0	2.2	2.9	1.5	2.0	46	1.8	1.5	.94	3.0	22
6	.00	3.0	1.5	3.0	1.5	.62	37	6.5	1.5	.00	2.4	6.4
7	.00	2.3	1.5	3.0	1.5	52	35	6.5	1.5	.62	1.5	8.6
8	.00	1.5	1.5	3.4	2.6	10	33	7.0	1.5	.81	1.5	10
9	.00	1.5	1.5	3.4	3.0	5.7	30	6.3	1.5	.00	1.5	7.1
10	.00	1.5	1.5	3.3	3.0	2.1	29	4.1	1.5	.00	1.5	4.9
11	.00	1.5	1.5	3.4	3.0	3.7	24	3.0	1.5	.00	1.5	4.8
12	.00	1.5	1.5	3.0	3.0	6.1	23	3.0	1.5	.00	1.5	4.8
13	.00	1.5	1.5	3.0	3.0	5.7	22	3.0	1.5	.75	1.5	4.8
14	.00	1.5	1.2	3.0	3.0	.00	21	3.0	1.3	1.5	1.5	4.8
15	.00	1.5	.88	3.0	2.8	.69	20	3.9	.69	1.5	1.5	4.8
16	.00	1.5	.38	3.0	2.8	1.2	18	4.8	.31	1.5	1.5	4.8
17	.00	1.5	.00	3.0	2.7	1.5	18	4.8	.00	1.5	1.5	4.8
18	.00	1.5	.00	3.0	2.7	1.5	10	4.8	.00	1.5	1.5	6.6
19	.00	1.5	.00	3.0	2.7	2.1	9.1	4.8	1.4	1.9	8.1	4.9
20	.00	1.5	.00	3.0	4.5	2.8	22	4.8	1.5	8.0	24	3.0
21	.00	1.5	.00	3.0	.00	3.0	4.6	4.8	1.5	7.0	17	3.6
22	.00	1.5	.00	3.0	.00	2.9	15	4.8	7.1	3.0	9.7	4.0
23	.00	1.5	.00	3.0	.00	2.8	6.1	4.8	12	2.7	4.6	3.5
24	.00	1.5	1.2	3.0	.00	2.1	15	4.8	3.0	.81	3.4	3.0
25	.00	1.5	1.5	3.0	.06	1.6	3.9	4.4	2.2	1.5	2.1	2.0
26	.00	1.5	1.5	3.0	.06	57	14	3.0	5.9	1.5	1.6	1.7
27	.62	1.5	1.5	3.0	.44	34	8.0	3.0	6.8	1.5	1.7	1.5
28	1.5	1.5	1.5	3.0	.50	22	7.8	3.0	1.8	10	1.6	3.0
29	1.5	1.5	1.5	3.0	---	175	6.1	3.0	3.0	6.2	1.5	10
30	1.5	1.5	1.5	3.0	---	166	2.5	3.0	3.0	3.0	1.5	13
31	1.5	---	3.6	2.7	---	161	---	3.0	---	4.3	1.5	---
TOTAL	6.62	53.2	51.36	98.1	50.86	732.51	748.1	117.90	75.50	84.23	120.4	203.4
MEAN	.21	1.77	1.66	3.16	1.82	23.6	24.9	3.80	2.52	2.72	3.88	6.78
MAX	1.5	3.0	8.9	9.1	4.5	175	88	7.0	12	12	24	37
MIN	.00	1.5	.00	1.5	.00	.00	2.5	.00	.00	.00	1.5	1.5

WTR YR 1987 TOTAL 2342.18 MEAN 6.42 MAX 175 MIN .00

ST. JOHNS RIVER
KISSIMMEE RIVER BASIN

02264060 LATERAL 101 AT S-101 NEAR, BUENA VISTA, 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	12	1.5	35	8.0	12	4.8	13	12	1.5	1.5	1.5	7.4
2	4.1	4.9	30	8.0	12	4.8	21	3.5	1.5	1.5	1.1	2.4
3	2.5	151	28	8.0	11	4.8	9.6	2.5	1.5	1.5	.25	1.2
4	1.5	198	24	8.0	10	4.8	20	3.0	1.5	1.5	2.4	2.2
5	1.5	67	21	6.8	8.5	13	7.2	3.0	1.5	1.5	2.6	43
6	1.5	42	19	6.4	14	35	10	2.9	1.5	1.5	1.9	69
7	1.5	26	19	6.4	6.6	22	12	2.2	1.5	1.5	1.5	53
8	1.5	22	18	3.7	19	14	9.8	1.5	1.5	1.5	1.4	91
9	1.3	18	15	8.6	9.1	12	15	1.5	1.5	1.5	.44	73
10	1.1	19	17	9.2	10	21	19	1.5	1.5	1.5	.00	46
11	.56	13	15	7.1	11	14	15	1.5	2.4	1.5	.06	33
12	44	16	15	7.1	10	21	7.0	1.9	3.0	1.5	.94	27
13	10	17	15	6.4	9.1	104	13	6.4	2.3	1.5	1.5	24
14	3.6	14	8.8	6.4	8.2	75	6.4	5.2	1.5	1.5	1.5	22
15	6.3	14	20	5.7	9.9	52	5.0	4.8	1.5	1.5	2.6	19
16	4.8	13	16	4.8	21	43	7.1	3.5	1.5	1.5	3.0	12
17	4.8	16	15	4.8	9.3	38	6.2	2.8	1.5	1.5	36	21
18	4.8	38	12	4.8	7.7	48	5.3	1.5	1.5	1.5	22	11
19	4.8	41	10	4.8	8.0	69	4.8	1.5	1.5	1.5	9.6	14
20	4.6	44	12	4.8	8.0	53	4.2	1.5	1.5	1.5	4.8	17
21	3.8	32	12	5.9	9.4	45	3.0	1.4	1.5	1.5	4.8	25
22	3.0	27	11	15	9.8	41	3.0	2.4	1.5	1.5	4.8	33
23	3.0	24	10	8.0	5.4	37	3.0	3.0	2.8	2.8	3.2	20
24	3.0	21	10	6.3	19	34	2.5	2.6	3.0	16	1.5	15
25	3.0	21	14	41	3.9	31	1.5	10	3.0	6.2	1.5	13
26	2.4	37	13	24	8.6	29	1.5	6.8	2.4	3.0	47	8.5
27	1.5	109	8.0	19	4.8	26	1.5	4.9	1.5	2.2	47	10
28	1.5	60	8.0	13	4.9	24	1.5	4.6	1.5	2.4	20	10
29	1.5	46	8.0	16	4.9	23	1.5	3.1	1.5	3.0	13	10
30	1.5	40	8.0	11	---	20	7.0	2.5	1.5	2.9	8.0	5.2
31	1.5	---	8.0	12	---	19	---	1.5	---	2.1	8.0	---
TOTAL MEAN MAX MIN	142.46 4.60 44 .56	1192.4 39.7 198 1.5	474.8 15.3 35 8.0	301.0 9.71 41 3.7	285.1 9.83 21 3.9	982.2 31.7 104 4.8	236.6 7.89 21 1.5	107.0 3.45 12 1.4	53.4 1.78 3.0 1.5	73.6 2.37 16 1.5	253.89 8.19 47 .00	737.9 24.6 91 1.2
CAL YR 1987 WTR YR 1988	TOTAL 4040.66 TOTAL 4840.35	MEAN 11.1 MEAN 13.2	MAX 198 MAX 198	MIN .00 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.--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 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.--22 years, 23.2 ft³/s, 16,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 894 ft³/s, Mar. 29, 1987, gage height, 75.75 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 daily discharge, 610 ft³/s, Nov. 4; maximum gage height, 76.56 ft, Nov. 3; minimum discharge, 5.7 ft³/s July 20, 21; minimum gage height, 72.48 ft, Nov. 11.

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	32	8.8	67	25	24	16	28	25	9.0	8.5	10	17
2	18	8.1	57	24	24	15	33	10	8.8	7.0	7.9	14
3	14	337	54	24	23	15	25	7.6	8.9	7.3	7.9	8.9
4	12	610	50	22	23	14	31	7.8	9.1	7.4	9.3	9.6
5	11	179	46	18	21	19	102	9.7	9.0	7.0	9.7	54
6	11	128	43	14	22	51	23	9.5	9.3	8.1	10	104
7	10	107	42	11	18	34	96	8.2	9.2	7.0	9.8	78
8	10	98	40	10	28	30	15	8.3	9.0	7.0	11	142
9	10	91	36	12	20	26	13	8.5	8.6	7.0	9.8	137
10	9.6	90	41	18	20	40	18	8.7	8.5	7.1	9.2	70
11	11	81	37	13	21	29	25	8.7	8.8	7.0	9.3	54
12	59	75	36	13	20	33	16	8.8	9.8	7.0	8.0	45
13	15	92	35	14	19	153	19	15	10	6.6	6.3	41
14	10	33	29	14	18	98	16	13	11	7.2	8.4	38
15	16	30	38	13	22	52	11	12	11	7.0	8.0	33
16	14	29	35	13	32	38	14	11	11	7.2	9.4	27
17	12	35	34	13	22	43	13	10	11	7.9	46	32
18	12	67	30	13	22	68	13	9.1	12	7.6	38	25
19	12	83	30	13	21	128	12	8.6	12	7.2	18	25
20	11	98	32	13	19	89	11	7.4	9.5	6.0	13	27
21	11	68	32	18	21	74	10	6.8	6.3	6.3	15	50
22	12	57	30	23	19	66	10	8.0	7.3	6.4	14	64
23	11	52	29	17	14	60	10	7.3	9.3	6.7	11	40
24	9.6	47	28	15	24	55	11	8.0	8.1	21	9.6	32
25	10	46	30	66	15	56	9.6	19	6.7	16	9.6	28
26	12	65	29	43	17	63	9.2	16	7.7	9.7	49	24
27	12	221	30	32	13	57	8.7	14	8.4	10	68	23
28	11	118	98	26	14	43	8.5	10	7.9	16	37	22
29	9.1	90	18	27	16	41	7.8	9.7	8.6	20	28	19
30	7.8	78	24	23	---	38	11	9.3	8.7	14	21	15
31	7.6	---	24	24	---	36	---	9.2	---	13	18	---
TOTAL	422.7	3121.9	1184	624	592	1580	629.8	324.2	274.5	283.2	539.2	1298.5
MEAN	13.6	104	38.2	20.1	20.4	51.0	21.0	10.5	9.15	9.14	17.4	43.3
MAX	59	610	98	66	32	153	102	25	12	21	68	142
MIN	7.6	8.1	18	10	13	14	7.8	6.8	6.3	6.0	6.3	8.9
AC-FT	838	6190	2350	1240	1170	3130	1250	643	544	562	1070	2580

CAL YR 1987 TOTAL 12870.60 MEAN 35.3 MAX 610 MIN .00 AC-FT 25530
WTR YR 1988 TOTAL 10874.0 MEAN 29.7 MAX 610 MIN 6.0 AC-FT 21570

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02264100 BONNET CREEK NEAR VINELAND, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971, 1973, 1976, 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)
NOV 02...	1100	126	6.1	21.5	150	1.5	5.6	13	3.1	6.6	2.3	27
FEB 29...	1145	130	6.4	18.0	200	2.1	4.8	8.0	3.0	6.8	2.3	24
APR 06...	1130	119	5.9	23.0	240	2.2	4.2	--	--	--	--	--
20...	1030	119	6.5	21.5	160	3.0	4.9	--	--	--	--	--
JUN 20...	0900	138	5.8	27.5	120	0.30	3.9	13	3.2	5.6	2.6	17
AUG 31...	1300	98	6.8	29.0	240	0.80	2.4	--	--	--	--	--
SEP 19...	0955	91	5.8	27.0	400	1.1	2.4	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 02...	8.8	15	0.060	0.010	0.070	0.010	0.75	0.76	0.050	0.040	19
FEB 29...	11	19	0.060	0.010	0.070	0.020	0.81	0.83	0.060	0.020	18
APR 06...	--	--	0.100	0.010	0.110	0.030	0.97	1.0	0.040	0.040	28
20...	--	--	0.020	0.010	0.030	0.010	0.90	0.91	0.050	0.030	2.6
JUN 20...	20	15	0.010	0.010	0.020	<0.010	--	0.65	0.030	0.020	17
AUG 31...	--	--	0.030	0.020	0.050	0.050	1.5	1.5	0.200	0.180	19
SEP 19...	--	--	0.040	0.020	0.060	0.060	1.6	1.6	0.050	0.050	36

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 20...	0900	200	<1	<10	1	<10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL RECOVERABLE (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 20...	380	<5	10	0.70	2	<1	30

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 for Lake Tohopekaliga at Kissimmee (station 02264900) 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.--20 years, 139 ft³/s, 100,700 acre-ft/yr.

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, 1,150 ft³/s, Nov. 6; maximum gage height, 58.30 ft, Mar. 13; minimum daily discharge, 33 ft³/s, June 26; minimum gage height, 51.23 ft, Oct. 10.

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	122	64	718	115	236	91	110	82	50	42	150	414
2	109	84	655	116	193	84	104	71	44	48	118	333
3	103	267	578	119	151	79	95	65	36	47	103	267
4	97	963	487	119	138	76	88	61	37	50	113	213
5	89	993	397	120	141	95	87	57	41	55	105	243
6	81	1120	321	115	136	182	79	54	56	74	106	613
7	74	1090	268	107	128	208	73	53	56	71	142	874
8	64	931	230	113	146	204	72	49	69	56	207	953
9	58	773	208	121	137	195	65	44	77	48	158	1060
10	54	680	190	135	133	528	67	41	79	47	186	1080
11	71	606	172	136	129	394	71	40	81	53	217	1000
12	171	549	151	133	126	277	61	42	71	49	184	879
13	209	521	146	130	119	776	71	49	66	41	174	766
14	185	507	145	131	115	1050	71	49	67	48	161	683
15	181	489	144	126	112	929	69	54	62	65	223	619
16	186	441	171	123	127	840	65	47	52	80	271	562
17	180	387	160	118	122	805	61	43	48	101	232	456
18	163	593	144	119	125	777	49	40	45	123	285	347
19	143	604	143	114	123	949	43	38	42	155	274	276
20	123	683	139	110	112	906	53	37	36	164	267	232
21	103	667	138	114	125	824	49	36	36	140	291	214
22	92	682	135	135	119	726	44	39	36	134	372	319
23	82	709	137	134	116	638	41	35	45	123	292	274
24	72	723	131	140	117	553	40	39	40	171	229	207
25	68	695	127	243	113	462	43	127	36	212	199	168
26	62	642	126	333	109	367	38	115	33	207	270	145
27	59	920	125	320	95	288	46	88	35	220	677	129
28	59	919	120	327	97	237	47	80	39	235	690	131
29	56	867	123	336	92	189	45	72	61	298	640	112
30	52	794	119	327	---	153	53	63	46	268	576	108
31	52	---	114	290	---	121	---	56	---	204	505	---
TOTAL	3220	19963	6962	5119	3732	14003	1900	1766	1522	3629	8417	13677
MEAN	104	665	225	165	129	452	63.3	57.0	50.7	117	272	456
MAX	209	1120	718	336	236	1050	110	127	81	298	690	1080
MIN	52	64	114	107	92	76	38	35	33	41	103	108
AC-FT	6390	39600	13810	10150	7400	27770	3770	3500	3020	7200	16700	27130

CAL YR 1987 TOTAL 72052 MEAN 197 MAX 1980 MIN 13 AC-FT 142900
WTR YR 1988 TOTAL 83910 MEAN 229 MAX 1120 MIN 33 AC-FT 166400

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 13, 1969 to Sept. 7, 1972 (gage heights only). Oct. 1, 1986 to current year. Records prior to Oct. 1, 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 S-46.

REMARKS.--

Water year 1987: Estimated daily discharges: Oct. 1-21, Apr. 21 to Sept. 20, leakage through gates. Records good except for estimated daily discharges, which are fair. Flow regulated by operation of structure 46. Discharge computed from relation between discharge and gate openings.

Water year 1988: Estimated daily discharges: Nov. 4-16, Dec. 4 to Feb. 9, Mar. 16,17, Mar. 31 to Sept. 30, leakage through gates. Records good except those for estimated daily discharges, which are fair. Flow regulated by operation of structure 46. Discharge computed from relation between discharge and gate openings.

EXTREMES FOR CURRENT PERIOD.--

Water year 1987: Maximum discharge 72 ft³/s, Apr. 10; maximum gage height, 96.51 ft, Mar. 31; no flow for many days; minimum gage height, 93.95 ft, Feb. 5.

Water year 1988: Maximum discharge, 54 ft³/s, Mar. 13-15; maximum gage height, 96.32 ft, Mar. 18; no flow for many days; minimum gage height, 93.80 ft, Oct. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	25	.02	.02	.02	.02	.01
2	.00	.00	.00	.00	.00	.00	20	.02	.02	.02	.02	.01
3	.00	.00	.00	.00	.00	.00	16	.02	.02	.02	.02	.01
4	.00	.00	.00	.00	.00	.00	15	.02	.02	.02	.02	.01
5	.00	.00	.00	.00	.00	.00	14	.02	.02	.02	.02	.01
6	.00	.00	.00	.00	.00	.00	13	.02	.02	.02	.02	.01
7	.00	.00	.00	.00	.00	.00	12	.02	.02	.02	.02	.01
8	.00	.00	.00	.00	.00	.00	11	.02	.02	.02	.02	.01
9	.00	.00	.00	.00	.00	.00	7.2	.02	.02	.02	.02	.01
10	.00	.00	.00	.00	.00	.00	8.5	.02	.02	.02	.02	.01
11	.00	.00	.00	.00	.00	.00	1.6	.02	.02	.02	.02	.01
12	.00	.00	.00	.00	.00	.00	1.6	.02	.02	.02	.02	.01
13	.00	.00	.00	.00	.00	.00	1.4	.02	.02	.02	.02	.01
14	.00	.00	.00	.00	.00	.00	3.1	.02	.02	.02	.02	.01
15	.00	.00	.00	.00	.00	.00	1.1	.02	.02	.02	.02	.01
16	.00	.00	.00	.00	.00	.00	1.1	.02	.02	.02	.02	.01
17	.00	.00	.00	.00	.00	.00	15	.02	.02	.02	.02	.01
18	.00	.00	.00	.00	.00	.00	21	.02	.02	.02	.02	.01
19	.00	.00	.00	.00	.00	.00	21	.02	.02	.02	.02	.01
20	.00	.00	.00	.00	.00	.00	12	.02	.02	.02	.02	.01
21	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
22	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
23	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
24	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
25	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
26	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
27	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
28	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00
29	.00	.00	.00	.00	---	4.4	.02	.02	.02	.02	.02	.00
30	.00	.00	.00	.00	---	26	.02	.02	.02	.02	.02	.00
31	.00	---	.00	.00	---	33	---	.02	---	.02	.02	---
TOTAL	0.00	0.00	0.00	0.00	0.00	63.40	220.80	0.62	0.60	0.62	0.62	0.20
MEAN	.00	.00	.00	.00	.00	2.05	7.36	.020	.020	.020	.020	.007
MAX	.00	.00	.00	.00	.00	33	25	.02	.02	.02	.02	.01
MIN	.00	.00	.00	.00	.00	.00	.02	.02	.02	.02	.02	.00

WTR YR 1987 TOTAL 286.86 MEAN .79 MAX 33 MIN .00

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266025 REEDY CREEK AT S-46 NEAR VINELAND, 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	.00	.00	1.0	.03	.01	.00	.25	.06	.02	.01	.01	.01
2	.00	.00	.87	.03	.01	.00	.19	.06	.02	.01	.01	.01
3	.00	.00	.76	.03	.01	.00	.18	.06	.02	.01	.01	.01
4	.00	.05	.05	.03	.01	.00	.18	.06	.02	.01	.01	.01
5	.00	.05	.05	.03	.01	.00	.15	.06	.02	.01	.01	.01
6	.00	.05	.05	.03	.01	.00	.08	.06	.01	.01	.01	.04
7	.00	.05	.05	.03	.01	.00	.08	.05	.01	.01	.01	.04
8	.00	.05	.05	.03	.01	.00	.08	.05	.01	.01	.01	.04
9	.00	.05	.05	.03	.01	.00	.08	.05	.01	.01	.01	.04
10	.00	.05	.05	.02	.00	.00	.08	.05	.01	.01	.01	.04
11	.00	.05	.05	.02	.00	.00	.08	.05	.01	.01	.01	.03
12	.00	.05	.05	.02	.00	.00	.08	.05	.01	.01	.01	.03
13	.00	.05	.04	.02	.00	36	.08	.05	.01	.01	.01	.03
14	.00	.05	.04	.02	.00	54	.08	.04	.01	.01	.01	.03
15	.00	.05	.04	.02	.00	18	.08	.04	.01	.01	.01	.03
16	.00	.05	.04	.02	.00	.05	.08	.04	.01	.01	.01	.03
17	.00	.52	.04	.02	.00	.05	.08	.04	.01	.01	.01	.03
18	.00	2.6	.04	.02	.00	2.8	.08	.04	.01	.01	.01	.03
19	.00	1.2	.04	.02	.00	9.5	.08	.04	.01	.01	.01	.03
20	.00	2.7	.04	.02	.00	2.0	.08	.04	.01	.01	.01	.02
21	.00	1.7	.04	.02	.00	1.4	.08	.04	.01	.01	.01	.02
22	.00	1.1	.04	.02	.00	1.2	.07	.03	.01	.01	.01	.02
23	.00	.78	.04	.02	.00	.97	.07	.03	.01	.01	.01	.02
24	.00	.65	.04	.02	.00	.85	.07	.03	.01	.01	.01	.02
25	.00	.57	.04	.01	.00	.79	.07	.03	.01	.01	.01	.02
26	.00	.71	.03	.01	.00	.76	.07	.03	.01	.01	.01	.02
27	.00	5.1	.03	.01	.00	.67	.07	.03	.01	.01	.01	.02
28	.00	3.1	.03	.01	.00	.60	.07	.03	.01	.01	.01	.02
29	.00	1.7	.03	.01	.00	.53	.07	.02	.01	.01	.01	.01
30	.00	1.3	.03	.01	---	.43	.06	.02	.01	.01	.01	.01
31	.00	---	.03	.01	---	.31	---	.02	---	.01	.01	---
TOTAL	0.0	24.38	3.78	0.64	0.09	130.91	2.85	1.30	0.35	0.31	0.31	0.72
MEAN	.00	.81	.12	.021	.003	4.22	.095	.042	.012	.010	.010	.024
MAX	.00	5.1	1.0	.03	.01	54	.25	.06	.02	.01	.01	.04
MIN	.00	.00	.03	.01	.00	.00	.06	.02	.01	.01	.01	.01
CAL YR 1987	TOTAL	315.02	MEAN .86	MAX 33	MIN .00							
WTR YR 1988	TOTAL	165.64	MEAN .45	MAX 54	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.--Estimated daily discharges: Oct. 24 to Dec. 16, June 19 to July 3. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--22 years, 3.15 ft³/s, 3.45 in/yr, 2,280 acre-ft/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, 38 ft³/s, Mar. 19-20, gage height, 94.59 ft; no flow May 12-24, May 30 to June 5; minimum gage height, 92.47 ft, May 21.

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	.14	.14	23	5.8	9.6	4.3	15	1.2	.00	1.1	17	7.6
2	.09	.42	20	5.5	9.4	4.1	13	1.1	.00	.93	15	7.2
3	.09	1.0	19	5.4	8.9	3.8	12	.90	.00	.81	14	6.7
4	.22	22	18	5.2	8.6	3.6	11	.68	.00	.68	17	6.1
5	.14	20	17	5.0	8.2	4.1	10	.51	.00	.56	16	5.8
6	.09	18	17	4.8	8.1	7.4	8.9	.40	.20	.69	15	8.6
7	.09	16	16	4.6	8.0	7.6	7.9	.30	.29	.58	14	18
8	.07	14	15	4.5	8.3	7.9	7.2	.23	.60	.47	12	25
9	.06	12	14	4.6	8.2	8.0	6.5	.17	.64	.34	12	29
10	.06	11	13	4.9	8.0	10	5.9	.09	.82	.28	11	32
11	.03	11	12	5.0	7.7	11	6.0	.02	1.1	.30	10	31
12	.21	10	11	4.8	7.5	10	5.7	.00	1.1	.15	9.6	30
13	.29	9.8	11	4.7	7.2	18	5.2	.00	1.0	.02	8.6	28
14	.18	9.5	10	4.5	6.9	29	4.7	.00	1.0	.29	8.9	26
15	.14	9.2	12	4.3	6.9	31	4.3	.00	.98	.69	8.5	24
16	.11	8.8	12	4.1	7.6	31	3.9	.00	.88	.72	8.0	22
17	.09	9.0	11	4.0	7.4	30	3.6	.00	.76	.61	8.5	20
18	.09	9.4	10	3.9	7.2	30	3.2	.00	.63	1.1	8.2	17
19	.07	12	10	3.8	7.1	38	2.8	.00	.47	1.2	7.7	16
20	.06	26	9.5	3.7	6.8	37	2.5	.00	.41	1.4	7.2	14
21	.06	25	9.0	4.4	6.8	36	2.2	.00	.36	1.6	6.7	12
22	.06	24	8.7	5.1	6.7	34	1.9	.00	.90	2.6	6.6	12
23	.06	22	8.4	4.9	6.4	32	1.6	.00	1.5	3.3	6.1	11
24	.06	20	8.1	4.8	6.1	30	1.4	.00	1.2	5.2	5.8	9.8
25	.05	19	7.8	8.4	5.8	28	1.2	.09	1.0	7.0	5.2	8.8
26	.05	21	7.6	9.6	5.4	26	1.0	.17	.90	7.5	4.6	7.8
27	.05	35	7.4	9.9	5.1	24	.84	.31	.80	8.3	4.9	7.3
28	.05	33	7.2	10	4.9	22	.62	.24	1.4	12	7.5	6.7
29	.04	28	6.9	10	4.5	20	.43	.12	1.3	20	8.4	6.0
30	.04	25	6.4	9.9	---	19	.46	.00	1.2	20	8.3	5.6
31	.04	---	6.0	9.9	---	17	---	.00	---	19	7.9	---
TOTAL	2.88	481.26	364.0	180.0	209.3	613.8	150.95	6.53	21.44	119.42	300.2	461.0
MEAN	.093	16.0	11.7	5.81	7.22	19.8	5.03	.21	.71	3.85	9.68	15.4
MAX	.29	35	23	10	9.6	38	15	1.2	1.5	20	17	32
MIN	.03	.14	6.0	3.7	4.5	3.6	.43	.00	.00	.02	4.6	5.6
AC-FT	5.7	955	722	357	415	1220	299	13	43	237	595	914
CFSM	.01	1.29	.95	.47	.58	1.60	.41	.02	.06	.31	.78	1.24
IN.	.01	1.44	1.09	.54	.63	1.84	.45	.02	.06	.36	.90	1.38

CAL YR 1987 TOTAL 2157.29 MEAN 5.91 MAX 62 MIN .00 AC-FT 4280 CFSM .48 IN. 6.47
WTR YR 1988 TOTAL 2910.78 MEAN 7.95 MAX 38 MIN .00 AC-FT 5770 CFSM .64 IN. 8.73

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 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	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)	ALKA- LITY LAB (MG/L AS CACO3)
NOV 02...	1400	104	4.9	21.0	400	2.0	4.6	6.0	2.7	8.3	1.0	<0.1
FEB 29...	1000	88	4.5	13.5	320	0.90	5.5	5.0	1.9	5.6	0.40	<0.1
JUN 20...	1100	98	3.7	24.0	320	--	2.3	3.8	1.8	4.8	0.90	<0.1
SEP 14...	1200	--	--	--	640	0.63	--	2.9	1.4	3.6	1.1	<0.1
19...	0845	69	4.0	--	480	0.38	--	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 02...	1.1	23	0.00	0.020	0.020	0.020	1.7	1.7	0.040	0.030	52
FEB 29...	1.4	16	--	0.010	<0.020	0.010	1.2	1.2	0.020	0.010	40
JUN 20...	0.30	15	--	0.010	<0.020	<0.010	--	2.6	0.150	0.040	40
SEP 14...	0.40	9.0	--	0.020	<0.020	<0.010	--	1.9	0.030	0.030	50
19...	--	--	--	0.020	<0.020	0.010	2.2	2.2	0.030	0.030	44

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
SEP 14...	1200	200	<1	<10	<1	<10	3

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
SEP 14...	600	<5	10	0.40	3	<1	10

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.--

Water year 1987: Estimated daily discharges: Oct. 1-21, Nov. 6 to Mar. 28, Apr. 21 to Sept. 30, leakage through gates. Records fair except those below 3 ft³/s and estimated daily discharges, which are poor. Flow regulated by operation of structure 411. Daily discharge computed from relation between discharge and gate openings.

Water year 1988: Estimated daily discharges: Oct. 1 to Nov. 3, Dec. 4 to Jan. 31, Feb. 4-15, 20, 21, Apr. 23 to Sept. 5, leakage through gates. Records fair except those below 3 ft³/s and estimated daily discharges, which are poor. Flow regulated by operation of structure 411. Daily discharge computed from relation between discharge and gate openings.

EXTREMES FOR CURRENT PERIOD.--

Water year 1987: Maximum daily discharge 26 ft³/s, Apr. 1; maximum gage height, 96.97 ft, Mar. 31; minimum daily discharge, 0.25 ft³/s, Feb. 24 to Mar. 25; minimum gage height, 94.26 ft, Sept. 1

Water year 1988: Maximum daily discharge 35 ft³/s, Mar. 19; maximum gage height, 96.87 ft, Mar. 18; minimum daily discharge, 0.50 ft³/s, Apr. 23 to July 28; minimum gage height, 93.92 ft, July 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.2	.50	.43	.32	.25	26	.50	.50	.50	.50	.50
2	1.3	3.2	.50	.42	.32	.25	25	.50	.50	.50	.50	.50
3	1.2	3.2	.50	.42	.32	.25	22	.50	.50	.50	.50	.50
4	1.1	3.1	.50	.42	.32	.25	19	.50	.50	.50	.50	.50
5	1.0	1.8	.50	.41	.31	.25	16	.50	.50	.50	.50	.50
6	2.0	.50	.50	.41	.31	.25	14	.50	.50	.50	.50	.50
7	2.5	.50	.50	.40	.31	.25	12	.50	.50	.50	.50	.50
8	3.0	.50	.50	.40	.30	.25	10	.50	.50	.50	.50	.50
9	3.1	.50	.50	.40	.30	.25	8.0	.50	.50	.50	.50	.50
10	3.3	.50	.50	.39	.30	.25	6.9	.50	.50	.50	.50	.50
11	3.4	.50	.50	.39	.29	.25	6.4	.50	.50	.50	.50	.50
12	3.5	.50	.50	.39	.29	.25	6.0	.50	.50	.50	.50	.50
13	3.6	.50	.50	.38	.29	.25	5.7	.50	.50	.50	.50	1.2
14	3.7	.50	.50	.38	.28	.25	8.5	.50	.50	.50	.50	1.2
15	3.7	.50	.50	.38	.28	.25	1.0	.50	.50	.50	.50	1.2
16	3.6	.50	.50	.38	.28	.25	6.6	.50	.50	.50	.50	1.2
17	3.6	.50	.49	.37	.28	.25	18	.50	.50	.50	.50	1.2
18	3.5	.50	.49	.37	.27	.25	20	.50	.50	.50	.50	1.2
19	3.4	.50	.48	.37	.27	.25	20	.50	.50	.50	.50	1.2
20	3.3	.50	.48	.36	.27	.25	10	.50	.50	.50	.50	1.2
21	3.2	.50	.48	.36	.26	.25	.50	.50	.50	.50	.50	1.2
22	3.1	.50	.47	.36	.26	.25	.50	.50	.50	.50	.50	1.2
23	3.1	.50	.47	.35	.26	.25	.50	.50	.50	.50	.50	1.2
24	3.1	.50	.46	.35	.25	.25	.50	.50	.50	.50	.50	1.2
25	3.1	.50	.46	.35	.25	.25	.50	.50	.50	.50	.50	1.2
26	3.1	.50	.45	.34	.25	.50	.50	.50	.50	.50	.50	1.2
27	3.2	.50	.45	.34	.25	1.0	.50	.50	.50	.50	.50	1.2
28	3.2	.50	.44	.34	.25	1.0	.50	.50	.50	.50	.50	1.2
29	3.2	.50	.44	.33	---	3.7	.50	.50	.50	.50	.50	1.2
30	3.2	.50	.44	.33	---	7.0	.50	.50	.50	.50	.50	1.2
31	3.2	---	.43	.33	---	22	---	.50	---	.50	.50	---
TOTAL	89.9	27.00	14.93	11.65	7.94	41.45	266.10	15.50	15.00	15.50	15.50	27.60
MEAN	2.90	.90	.48	.38	.28	1.34	8.87	.50	.50	.50	.50	.92
MAX	3.7	3.2	.50	.43	.32	.22	26	.50	.50	.50	.50	1.2
MIN	1.0	.50	.43	.33	.25	.25	.50	.50	.50	.50	.50	.50

WTR YR 1987 TOTAL 548.07 MEAN 1.50 MAX 26 MIN .25

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266205 WHITTENHORSE CREEK AT S-411, NEAR VINELAND, FL--Continued

DISCHARGE, 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	1.2	1.2	8.0	1.6	6.6	2.9	.86	.50	.50	.50	1.0	1.0
2	1.2	1.2	4.4	1.5	10	2.8	.84	.50	.50	.50	1.0	1.0
3	1.2	1.2	4.6	1.4	6.2	2.9	.84	.50	.50	.50	1.0	1.0
4	1.2	1.4	4.3	1.4	1.0	3.0	.86	.50	.50	.50	1.0	1.0
5	1.2	1.4	4.1	1.3	1.0	2.9	.84	.50	.50	.50	1.0	1.0
6	1.2	2.7	3.8	1.2	1.0	3.1	.77	.50	.50	.50	1.0	1.8
7	1.2	5.6	3.6	1.2	1.0	3.0	.61	.50	.50	.50	1.0	3.7
8	1.2	6.0	3.4	1.1	1.0	3.0	.51	.50	.50	.50	1.0	12
9	1.2	6.0	3.2	1.3	1.0	3.1	.55	.50	.50	.50	1.0	15
10	1.2	6.4	3.0	1.5	1.0	3.1	.55	.50	.50	.50	1.0	15
11	1.2	5.8	2.8	1.6	1.0	3.1	.57	.50	.50	.50	1.0	14
12	1.2	5.1	2.7	1.5	1.0	3.1	.54	.50	.50	.50	1.0	11
13	1.2	4.5	2.5	1.4	1.0	13	.56	.50	.50	.50	1.0	7.7
14	1.2	4.1	3.0	1.4	1.0	20	.60	.50	.50	.50	1.0	5.7
15	1.2	3.8	3.5	1.3	1.0	13	.60	.50	.50	.50	1.0	4.2
16	1.2	3.6	3.9	1.3	7.0	12	.59	.50	.50	.50	1.0	3.6
17	1.2	3.7	3.6	1.2	10	13	.60	.50	.50	.50	1.0	3.2
18	1.2	5.3	3.4	1.2	9.9	20	.59	.50	.50	.50	1.0	2.9
19	1.2	6.8	3.2	1.1	4.0	35	.52	.50	.50	.50	1.0	2.7
20	1.2	7.1	3.1	1.1	1.0	28	.74	.50	.50	.50	1.0	2.4
21	1.2	5.9	2.9	1.0	1.0	26	.53	.50	.50	.50	1.0	2.1
22	1.2	5.8	2.8	1.0	4.7	24	.53	.50	.50	.50	1.0	2.0
23	1.2	5.6	2.6	1.0	9.0	21	.50	.50	.50	.50	1.0	1.9
24	1.2	5.4	2.5	1.0	9.0	19	.50	.50	.50	.50	1.0	1.8
25	1.2	5.3	2.4	1.0	8.8	18	.50	.50	.50	.50	1.0	1.7
26	1.2	5.6	2.2	1.0	5.1	17	.50	.50	.50	.50	1.0	1.5
27	1.2	19	2.1	1.0	2.9	15	.50	.50	.50	.50	1.0	1.5
28	1.2	17	2.0	1.0	2.8	14	.50	.50	.50	.50	1.0	1.5
29	1.2	16	1.9	1.0	2.8	14	.50	.50	.50	1.0	1.0	1.3
30	1.2	14	1.8	1.0	---	13	.50	.50	.50	1.0	1.0	1.2
31	1.2	---	1.7	1.0	---	5.9	---	.50	---	1.0	1.0	---
TOTAL	37.2	182.5	99.0	37.6	112.8	376.9	18.20	15.50	15.00	17.00	31.0	126.4
MEAN	1.20	6.08	3.19	1.21	3.89	12.2	.61	.50	.50	.55	1.00	4.21
MAX	1.2	19	8.0	1.6	10	35	.86	.50	.50	1.0	1.0	15
MIN	1.2	1.2	1.7	1.0	1.0	2.8	.50	.50	.50	.50	1.0	1.0

CAL YR 1987 TOTAL 734.94 MEAN 2.01 MAX 26 MIN .25

WTR YR 1988 TOTAL 1069.10 MEAN 2.92 MAX 35 MIN .50

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 13, 1969 to Sept. 7, 1972 (gage heights and periodic discharge measurements only), Oct. 1, 1986 to current year. Records prior to Oct. 1, 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.--

Water year 1987: Estimated daily discharges: Oct. 1 to Mar. 28, Apr. 23 to June 2, June 5-17, June 20 to July 14, July 17 to Sept. 30, leakage through gates. Records fair except for estimated daily discharges, which are poor. Flow regulated by operation of structure 405A. Discharge computed from relation between discharge and gate openings.

Water year 1988: Estimated daily discharges: Oct. 1-6, 10-28, Nov. 1-7, Jan. 19-24, Jan. 31 to Feb. 8, Feb. 10-15, Feb. 18 to Mar. 5, Apr. 9 to May 15, May 21 to Sept. 4, Sept. 7-30, leakage through gates. Records fair except for estimated daily discharges, which are poor. Flow regulated by operation of structure 405A. Discharge computed from relation between discharge and gate openings.

EXTREMES FOR CURRENT PERIOD.--

Water year 1987: Maximum daily discharge, 51 ft³/s, Mar. 31; maximum gage height, 96.45 ft, Mar. 31; minimum daily discharge, 0.5 ft³/s for many days; minimum gage height 93.94 ft, Feb. 5.

Water year 1988: Maximum daily discharge, 57 ft³/s, Mar. 19; maximum gage height, 96.23 ft, Mar. 13; minimum daily discharge, 0.10 ft³/s, Aug. 7 to Sept. 4; minimum gage height, 93.49 ft, Oct. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.5	1.5	1.5	1.5	1.5	39	1.5	1.5	.50	.50	.50
2	1.5	1.5	1.5	1.5	1.5	1.5	32	1.5	1.5	.50	.50	.50
3	1.5	1.5	1.5	1.5	1.5	1.5	28	1.5	9.6	.50	.50	.50
4	1.5	1.5	1.5	1.5	1.5	1.5	24	1.5	4.1	.50	.50	.50
5	1.5	1.5	1.5	1.5	1.5	1.5	21	1.5	.50	.50	.50	.50
6	1.5	1.5	1.5	1.5	1.5	1.5	19	1.5	.50	.50	.50	.50
7	1.5	1.5	1.5	1.5	1.5	1.5	19	1.5	.50	.50	.50	.50
8	1.5	1.5	1.5	1.5	1.5	1.5	17	1.5	.50	.50	.50	.50
9	1.5	1.5	1.5	1.5	1.5	1.5	15	1.5	.50	.50	.50	.50
10	1.5	1.5	1.5	1.5	1.5	1.5	14	1.5	.50	.50	.50	.50
11	1.5	1.5	1.5	1.5	1.5	1.5	13	1.5	.50	.50	.50	.50
12	1.5	1.5	1.5	1.5	1.5	1.5	12	1.5	.50	.50	.50	.50
13	1.5	1.5	1.5	1.5	1.5	1.5	11	1.5	.50	.50	.50	.50
14	1.5	1.5	1.5	1.5	1.5	1.5	10	1.5	.50	.50	.50	.50
15	1.5	1.5	1.5	1.5	1.5	1.5	10	1.5	.50	7.8	.50	.50
16	1.5	1.5	1.5	1.5	1.5	1.5	10	1.5	.50	11	.50	.50
17	1.5	1.5	1.5	1.5	1.5	1.5	17	1.5	.50	.50	.50	.50
18	1.5	1.5	1.5	1.5	1.5	1.5	20	1.5	13	.50	.50	.50
19	1.5	1.5	1.5	1.5	1.5	1.5	20	1.5	11	.50	.50	.50
20	1.5	1.5	1.5	1.5	1.5	1.5	19	1.5	.50	.50	.50	.50
21	1.5	1.5	1.5	1.5	1.5	1.5	19	1.5	.50	.50	.50	.50
22	1.5	1.5	1.5	1.5	1.5	1.5	11	1.5	.50	.50	.50	.50
23	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	.50	.50	.50	.50
24	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	.50	.50	.50	.50
25	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	.50	.50	.50	.50
26	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	.50	.50	.50	.50
27	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	.50	.50	.50	.50
28	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	.50	.50	.50	.50
29	1.5	1.5	1.5	1.5	---	8.3	1.5	1.5	.50	.50	.50	.50
30	1.5	1.5	1.5	1.5	---	30	1.5	1.5	.50	.50	.50	.50
31	1.5	---	1.5	1.5	---	51	---	1.5	---	.50	.50	---
TOTAL	46.5	45.0	46.5	46.5	42.0	131.3	412.0	46.5	52.70	33.30	15.50	15.00
MEAN	1.50	1.50	1.50	1.50	1.50	4.24	13.7	1.50	1.76	1.07	.50	.50
MAX	1.5	1.5	1.5	1.5	1.5	51	39	1.5	13	11	.50	.50
MIN	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	.50	.50	.50	.50

WTR YR 1987 TOTAL 932.80 MEAN 2.56 MAX 51 MIN .50

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 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	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)	ALKA- LITY LAB (MG/L AS CACO3)
NOV 02...	0845	155	6.3	21.0	280	0.80	5.8	16	4.3	8.0	3.2	26
JUN 20...	0730	107	5.9	26.5	200	0.50	3.5	16	4.1	6.3	3.7	30
SEP 14...	1315	--	--	--	160	0.56	--	18	3.9	6.3	3.0	36
FEB 29...	0900	145	6.3	16.0	320	1.3	4.8	12	3.9	7.5	2.7	32
SEP 19...	0850	167	6.7	28.0	200	0.40	3.4	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 02...	12	20	0.370	0.050	0.420	0.370	1.4	1.8	0.100	0.080	37
JUN 20...	15	18	0.020	0.010	0.030	0.080	1.6	1.7	0.130	0.060	31
SEP 14...	8.4	15	0.030	0.010	0.040	0.250	1.2	1.5	0.120	0.080	28
FEB 29...	10	20	0.320	0.020	0.340	0.180	1.5	1.7	0.090	0.050	43
SEP 19...	--	--	0.040	0.020	0.060	0.160	1.7	1.9	0.110	0.040	28

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
SEP 14...	1315	200	4	<10	<1	<10	5

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
SEP 14...	370	<5	10	<0.10	2	<1	10

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.--

Water year 1987: Estimated daily discharges: Apr. 21 to May 19, June 3-16, June 18 to July 26, July 28 to Aug. 7, Aug. 10-24, Aug. 26 to Sept. 30, leakage through gates. Records fair except those below 3.0 ft³/s and estimated daily discharges, which are poor. Flow regulated by operation of structure 410. Discharge computed from relation between discharge and gate openings.

Water year 1988: Estimated daily discharges: Oct. 1 to Nov. 3, Apr. 9 to Aug. 5, leakage through gates. Records fair except those below 3.0 ft³/s, which are poor. Flow regulated by operation of structure 410. Discharge computed from relation between discharge and gate openings.

EXTREMES FOR CURRENT PERIOD.--

Water year 1987: Maximum daily discharge, 114 ft³/s Apr. 1; maximum gage height, 96.71 ft, Mar. 29; no flow Oct. 1 to Mar. 28; minimum gage height, 93.36 ft, Aug. 9.

Water year 1988: Maximum daily discharge, 51 ft³/s, Nov. 5; maximum gage height 96.55 ft, Mar. 18; minimum daily discharge 2.7 ft³/s, Apr. 9 to Aug. 5; minimum gage height, 93.60 ft, July 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	114	3.0	3.6	3.4	3.4	2.5
2	.00	.00	.00	.00	.00	.00	78	3.0	3.4	3.4	3.4	2.5
3	.00	.00	.00	.00	.00	.00	26	3.0	3.4	3.4	3.4	2.5
4	.00	.00	.00	.00	.00	.00	26	3.0	3.4	3.4	3.4	2.5
5	.00	.00	.00	.00	.00	.00	25	3.0	3.4	3.4	3.4	2.6
6	.00	.00	.00	.00	.00	.00	24	3.0	3.4	3.4	3.4	2.6
7	.00	.00	.00	.00	.00	.00	23	3.0	3.4	3.4	3.4	2.6
8	.00	.00	.00	.00	.00	.00	23	3.0	3.4	3.4	4.0	2.6
9	.00	.00	.00	.00	.00	.00	23	3.0	3.4	3.4	4.4	2.6
10	.00	.00	.00	.00	.00	.00	19	3.0	3.4	3.4	2.4	2.6
11	.00	.00	.00	.00	.00	.00	19	3.0	3.4	3.4	2.4	2.6
12	.00	.00	.00	.00	.00	.00	18	3.0	3.4	3.4	2.4	2.6
13	.00	.00	.00	.00	.00	.00	17	3.0	3.4	3.4	2.4	2.7
14	.00	.00	.00	.00	.00	.00	13	3.0	3.4	3.4	2.4	2.7
15	.00	.00	.00	.00	.00	.00	6.8	3.0	3.4	3.4	2.4	2.7
16	.00	.00	.00	.00	.00	.00	7.1	3.0	3.4	3.4	2.4	2.7
17	.00	.00	.00	.00	.00	.00	13	3.0	3.4	3.4	2.4	2.7
18	.00	.00	.00	.00	.00	.00	15	3.0	3.4	3.4	2.4	2.7
19	.00	.00	.00	.00	.00	.00	15	3.0	3.4	3.4	2.4	2.7
20	.00	.00	.00	.00	.00	.00	8.8	3.1	3.4	3.4	2.4	2.8
21	.00	.00	.00	.00	.00	.00	3.0	11	3.4	3.4	2.4	2.8
22	.00	.00	.00	.00	.00	.00	3.0	15	3.4	3.4	2.4	2.8
23	.00	.00	.00	.00	.00	.00	3.0	9.7	3.4	3.4	2.4	2.8
24	.00	.00	.00	.00	.00	.00	3.0	6.6	3.4	3.4	2.4	2.8
25	.00	.00	.00	.00	.00	.00	3.0	5.5	3.4	3.4	2.4	2.8
26	.00	.00	.00	.00	.00	.00	3.0	4.4	3.4	3.4	2.4	2.8
27	.00	.00	.00	.00	.00	.00	3.0	3.9	3.4	3.4	2.4	2.9
28	.00	.00	.00	.00	.00	.00	3.0	3.8	3.4	3.4	2.4	2.9
29	.00	.00	.00	.00	---	47	3.0	3.8	3.4	3.4	2.5	2.9
30	.00	.00	.00	.00	---	89	3.0	3.8	3.4	3.4	2.5	2.9
31	.00	---	.00	.00	---	110	---	3.7	---	3.4	2.5	---
TOTAL	0.00	0.00	0.00	0.00	0.00	246.00	543.7	131.3	102.2	105.4	121.3	80.9
MEAN	.00	.00	.00	.00	.00	7.94	18.1	4.24	3.41	3.40	3.91	2.70
MAX	.00	.00	.00	.00	.00	110	114	15	3.6	3.4	4.0	2.9
MIN	.00	.00	.00	.00	.00	.00	3.0	3.0	3.4	3.4	2.4	2.5

WTR YR 1987 TOTAL 1330.80 MEAN 3.65 MAX 114 MIN .00

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02266295 LATERAL 410 AT S-410 NEAR VINELAND, FL

DISCHARGE, 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	2.9	2.9	24	8.4	12	3.9	14	2.7	2.7	2.7	2.7	4.8
2	2.9	2.9	27	8.1	6.8	3.8	14	2.7	2.7	2.7	2.7	4.3
3	2.9	2.9	24	8.0	4.4	3.6	14	2.7	2.7	2.7	2.7	3.9
4	2.9	32	27	7.9	4.8	3.5	14	2.7	2.7	2.7	2.7	3.8
5	2.9	51	23	8.0	7.5	3.6	14	2.7	2.7	2.7	2.7	5.5
6	2.9	23	22	7.8	9.4	3.7	14	2.7	2.7	2.7	7.0	30
7	2.9	33	21	7.5	9.0	6.1	18	2.7	2.7	2.7	12	34
8	2.9	32	21	7.3	11	8.9	12	2.7	2.7	2.7	11	28
9	2.9	30	21	7.4	10	9.4	2.7	2.7	2.7	2.7	10	22
10	2.9	29	20	7.5	9.2	18	2.7	2.7	2.7	2.7	9.4	23
11	2.9	27	19	7.4	8.3	18	2.7	2.7	2.7	2.7	9.1	23
12	2.9	25	18	7.3	8.0	17	2.7	2.7	2.7	2.7	8.9	22
13	2.9	23	18	7.3	7.6	28	2.7	2.7	2.7	2.7	5.6	21
14	2.9	22	15	7.4	7.1	31	2.7	2.7	2.7	2.7	4.4	21
15	2.9	20	17	7.4	7.8	28	2.7	2.7	2.7	2.7	3.9	20
16	2.9	19	18	7.2	9.2	24	2.7	2.7	2.7	2.7	4.9	19
17	2.9	27	17	7.1	7.5	21	2.7	2.7	2.7	2.7	4.7	18
18	2.9	20	16	6.8	5.0	22	2.7	2.7	2.7	2.7	4.5	17
19	2.9	31	15	6.7	3.5	26	2.7	2.7	2.7	2.7	4.5	15
20	2.9	27	14	6.5	3.7	23	2.7	2.7	2.7	2.7	4.4	13
21	2.9	27	13	6.4	4.2	21	2.7	2.7	2.7	2.7	4.3	13
22	2.9	24	13	6.8	4.3	18	2.7	2.7	2.7	2.7	4.2	16
23	2.9	23	12	7.1	4.3	18	2.7	2.7	2.7	2.7	4.1	13
24	2.9	23	11	7.1	4.0	18	2.7	2.7	2.7	2.7	4.1	11
25	2.9	22	11	9.6	4.3	18	2.7	2.7	2.7	2.7	3.2	9.8
26	2.9	27	10	14	4.2	18	2.7	2.7	2.7	2.7	4.7	8.8
27	2.9	32	10	14	4.0	18	2.7	2.7	2.7	2.7	3.6	8.4
28	2.9	29	9.8	14	3.8	18	2.7	2.7	2.7	2.7	3.8	8.0
29	2.9	27	9.6	13	3.9	18	2.7	2.7	2.7	2.7	5.7	7.7
30	2.9	27	9.2	13	---	18	2.7	2.7	2.7	2.7	5.9	7.4
31	2.9	---	8.6	13	---	16	---	2.7	---	2.7	4.9	---
TOTAL	89.9	740.7	514.2	267.0	188.8	501.5	173.4	83.7	81.0	83.7	166.3	451.4
MEAN	2.90	24.7	16.6	8.61	6.51	16.2	5.78	2.70	2.70	2.70	5.36	15.0
MAX	2.9	51	27	14	12	31	18	2.7	2.7	2.7	12	34
MIN	2.9	2.9	8.6	6.4	3.5	3.5	2.7	2.7	2.7	2.7	2.7	3.8
CAL YR 1987	TOTAL	2675.60	MEAN	7.33	MAX	114	MIN	.00				
WTR YR 1988	TOTAL	3341.6	MEAN	9.13	MAX	51	MIN	2.7				

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, 391 microsiemens, May 12, 1985; 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, 28.5°C, July 14, 1980; minimum daily mean, 6.5°C, Dec. 26, 1983, Jan. 22, 1985.

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, 310 microsiemens, Aug. 12; minimum daily mean, 50 microsiemens, Nov. 4.

WATER TEMPERATURE: Maximum daily mean, 26.7°C, July 1, Sept. 16; minimum daily mean, 9.4°C, Jan. 28.

DISSOLVED OXYGEN: Maximum daily mean, 8.5 mg/L, Jan. 24; minimum daily mean, 3.1 mg/L, Oct. 1.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	187	97	180	154	196	146	203	224	202	189	152
2	201	179	101	175	156	209	156	197	209	208	196	155
3	184	111	107	180	154	207	162	208	227	221	204	162
4	206	50	110	179	151	208	163	213	233	229	207	173
5	200	58	112	173	169	196	158	225	241	223	210	156
6	211	75	118	167	178	139	151	227	250	213	234	122
7	222	90	119	167	172	140	165	234	240	220	221	107
8	213	93	116	176	154	150	158	233	209	220	213	109
9	212	92	119	163	160	149	195	232	182	217	241	107
10	223	92	119	166	168	146	206	239	184	211	268	111
11	208	93	118	147	174	144	188	253	184	196	297	113
12	189	98	124	161	174	153	164	237	183	207	310	117
13	166	106	127	157	172	126	185	248	188	218	298	121
14	164	111	122	163	175	110	192	229	194	216	262	125
15	181	112	117	161	182	103	208	230	207	208	246	130
16	199	109	125	158	170	110	201	236	203	206	251	133
17	223	109	127	163	157	117	204	251	204	207	259	137
18	229	98	130	178	164	122	213	276	206	199	---	139
19	223	88	138	196	163	113	220	278	211	198	---	142
20	229	82	137	179	167	107	216	275	213	180	---	145
21	218	86	144	158	172	110	214	251	212	199	---	142
22	---	94	140	159	182	114	223	237	227	194	---	111
23	---	99	137	158	182	117	219	235	221	182	---	111
24	---	103	145	169	170	119	222	218	212	168	---	118
25	---	106	156	137	167	121	213	197	214	156	---	127
26	---	109	146	125	172	125	213	183	218	153	---	134
27	---	88	159	129	179	128	214	174	218	172	---	141
28	---	82	158	135	183	129	218	172	223	182	---	156
29	---	89	154	134	192	128	218	175	192	173	---	153
30	---	94	169	152	---	137	214	183	200	165	---	151
31	229	---	165	154	---	141	---	192	---	182	---	---
MEAN	---	99	131	161	169	139	194	224	211	198	---	133
MAX	---	187	169	196	192	209	223	278	250	229	---	173
MIN	---	50	97	125	151	103	146	172	182	153	---	107

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

TEMPERATURE, WATER (DEG C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.4	20.5	17.0	16.3	16.8	16.3	20.1	19.5	24.4	26.7	26.1	24.9
2	23.6	21.0	16.0	17.5	17.8	16.2	20.0	20.1	24.2	26.4	25.9	25.5
3	23.3	21.3	14.7	18.0	18.6	17.2	20.4	20.1	24.5	25.8	25.6	25.7
4	22.5	21.5	15.9	17.4	18.6	18.3	21.2	20.3	24.8	25.7	25.7	26.1
5	21.5	22.1	13.5	14.6	17.2	17.4	21.6	21.3	25.4	25.8	26.3	24.8
6	20.6	21.0	12.3	14.1	13.1	16.4	20.6	20.5	24.8	25.4	26.3	23.6
7	20.7	19.6	15.2	15.4	12.1	17.0	19.2	20.4	24.8	25.1	25.8	23.8
8	19.5	19.9	17.0	17.6	13.6	17.6	18.1	20.8	25.6	25.2	26.0	24.2
9	19.6	20.7	18.2	15.7	13.8	19.0	18.4	20.8	25.2	25.4	26.0	24.5
10	21.4	22.0	18.4	14.0	14.5	18.7	19.5	21.5	25.4	25.5	25.8	25.6
11	22.2	20.6	18.3	13.3	15.8	16.3	19.3	22.2	25.2	25.1	25.6	26.0
12	21.5	16.7	16.3	12.6	15.4	17.3	17.8	22.7	24.5	26.0	25.8	26.1
13	20.3	16.2	16.7	14.4	12.8	18.0	16.9	22.8	24.2	26.5	25.8	26.0
14	18.6	17.3	17.8	13.9	12.9	18.3	17.6	23.4	24.8	25.7	25.9	26.2
15	18.6	18.9	18.9	13.0	14.5	15.6	18.5	23.4	24.9	25.0	25.6	26.6
16	19.9	20.4	16.6	12.7	14.2	13.7	18.8	23.4	25.1	25.3	25.9	26.7
17	21.0	21.0	12.6	14.5	13.4	14.1	19.8	24.0	25.0	25.8	25.4	26.4
18	22.0	20.7	11.9	16.1	15.3	15.0	20.5	24.0	25.2	24.9	---	25.8
19	22.4	21.0	14.2	17.4	18.1	16.5	21.4	24.1	25.3	24.8	---	25.6
20	23.0	19.4	16.0	18.4	19.1	15.3	20.9	24.7	25.5	25.0	---	25.7
21	23.1	16.0	17.5	18.8	16.5	15.2	21.5	24.2	25.3	25.0	---	25.3
22	---	14.8	18.6	15.8	14.9	16.2	21.4	24.1	25.5	25.0	---	24.4
23	---	16.7	18.5	12.6	15.4	17.3	21.9	24.0	25.6	24.9	---	25.3
24	---	17.6	18.6	11.7	17.0	18.6	23.2	24.5	26.4	23.9	---	24.9
25	---	18.8	19.4	13.2	14.8	19.5	23.6	22.6	26.4	24.2	---	24.9
26	---	19.6	19.5	11.9	12.7	20.2	23.4	22.6	25.9	24.7	---	25.0
27	---	19.7	19.4	10.1	12.8	20.6	24.1	22.7	26.1	24.7	---	25.0
28	---	19.8	19.2	9.4	14.8	20.5	23.2	23.0	26.1	24.7	---	24.8
29	---	19.6	16.9	10.8	15.0	20.0	21.2	23.5	25.9	24.9	---	24.2
30	---	17.7	14.1	13.7	---	20.4	19.7	23.4	26.4	25.8	---	24.9
31	19.3	---	15.4	15.5	---	20.3	---	24.3	---	25.8	---	---
MEAN	---	19.4	16.6	14.5	15.2	17.5	20.5	22.5	25.3	25.3	---	25.3
MAX	---	22.1	19.5	18.8	19.1	20.6	24.1	24.7	26.4	26.7	---	26.7
MIN	---	14.8	11.9	9.4	12.1	13.7	16.9	19.5	24.2	23.9	---	23.6

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	4.4	4.3	4.7	5.9	6.0	5.0	5.3	4.9	3.8	3.9	4.0
2	3.3	4.3	4.4	4.8	6.0	5.8	5.0	5.5	4.8	3.6	3.8	4.0
3	3.4	5.0	4.8	5.3	6.1	5.7	4.9	5.5	4.8	3.5	3.8	3.9
4	3.6	4.7	4.9	5.8	6.1	5.2	4.8	5.5	4.9	3.8	3.5	3.7
5	4.4	3.7	5.7	6.8	6.3	5.2	4.8	5.4	4.8	3.6	3.4	4.3
6	5.2	3.8	6.3	7.1	6.4	6.1	4.7	5.5	4.7	3.7	3.5	4.5
7	5.2	4.2	5.2	5.4	6.4	5.8	4.7	5.6	4.7	3.8	3.7	4.1
8	5.4	4.2	4.3	5.1	6.5	5.9	5.0	5.6	4.7	3.8	3.9	3.8
9	5.1	3.9	3.9	5.0	6.6	5.4	4.5	5.6	4.9	3.8	4.0	3.9
10	4.6	3.5	3.6	5.0	6.6	5.5	4.2	5.5	4.5	3.9	3.9	3.9
11	4.2	3.7	3.5	5.1	6.8	6.0	4.2	5.4	4.6	4.1	3.8	3.9
12	4.5	4.4	4.1	5.0	6.9	6.0	4.9	5.2	4.9	3.8	4.0	3.8
13	4.7	4.9	4.1	5.1	7.0	5.9	5.1	5.0	5.0	3.5	4.0	3.7
14	5.0	4.6	4.0	5.1	7.0	4.9	5.1	5.1	4.7	3.9	4.0	3.7
15	5.0	4.2	3.6	5.3	7.1	5.4	4.9	5.1	4.7	4.5	3.9	3.5
16	4.7	3.7	3.9	5.3	7.2	6.6	4.9	5.2	4.8	4.3	3.6	3.5
17	4.3	3.7	5.4	5.3	6.9	7.2	4.8	5.0	4.8	4.0	3.3	3.7
18	4.0	3.5	5.8	5.3	5.7	6.9	4.5	4.8	4.8	3.9	---	3.7
19	3.7	3.5	4.9	5.5	5.0	6.2	4.3	4.5	4.8	3.9	---	3.8
20	3.5	3.7	4.6	6.0	4.8	6.2	4.4	4.3	4.5	4.3	---	3.8
21	3.9	4.4	4.4	6.0	5.8	6.6	4.4	4.8	4.6	3.7	---	4.2
22	---	4.9	4.1	6.8	5.5	6.5	4.5	4.4	4.2	3.7	---	3.7
23	---	4.5	4.1	8.0	5.2	6.2	4.6	4.6	4.0	3.9	---	3.9
24	---	4.4	4.1	8.5	6.5	5.8	4.3	4.8	3.8	4.6	---	4.0
25	---	4.1	4.1	6.1	7.3	5.5	4.3	5.3	3.9	4.6	---	4.0
26	---	4.1	4.1	5.4	7.3	5.3	4.4	5.2	3.6	4.5	---	3.9
27	---	4.1	4.3	5.4	7.0	4.9	4.4	5.1	3.5	4.4	---	3.7
28	---	3.8	4.3	5.4	6.4	4.8	4.6	4.9	3.5	4.2	---	3.9
29	---	3.8	4.6	5.5	6.4	4.9	5.0	4.8	4.0	4.3	---	4.0
30	---	4.1	4.9	5.6	---	4.9	5.3	4.9	3.9	4.3	---	3.8
31	5.2	---	4.8	5.8	---	5.1	---	4.9	---	4.0	---	---
MEAN	---	4.1	4.5	5.7	6.4	5.8	4.7	5.1	4.5	4.0	---	3.9
MAX	---	5.0	6.3	8.5	7.3	7.2	5.3	5.6	5.0	4.6	---	4.5
MIN	---	3.5	3.5	4.7	4.8	4.8	4.2	4.3	3.5	3.5	---	3.5

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02266300 REEDY CREEK NEAR VINELAND, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM DIS-SOLVED (MG/L AS MG)	SODIUM DIS-SOLVED (MG/L AS NA)	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)
NOV 02...	1120	217	6.5	21.0	180	0.90	5.7	16	4.5	22	4.4	47
FEB 29...	0845	171	6.1	13.5	280	1.2	7.7	13	3.6	15	3.7	73
APR 06...	1300	154	6.5	20.0	360	0.57	5.3	--	--	--	--	--
19...	1100	203	6.9	21.5	280	0.60	4.7	--	--	--	--	--
JUN 20...	0930	173	6.3	25.5	400	0.40	4.4	18	5.5	13	4.1	26
JUL 26...	1100	174	--	24.0	320	0.90	4.6	11	3.1	12	3.3	18
AUG 17...	1030	267	--	25.0	800	--	3.2	--	--	--	--	29
31...	1200	140	6.5	25.5	480	0.55	4.3	--	--	--	--	--
SEP 14...	1130	124	--	25.5	560	0.67	3.6	10	3.0	11	3.6	11
19...	1035	156	5.6	27.0	560	0.45	3.6	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 02...	10	30	0.600	0.020	0.620	0.040	1.1	1.1	0.560	0.530	25
FEB 29...	9.2	28	0.560	0.010	0.570	0.020	1.1	1.1	0.270	0.280	35
APR 06...	--	--	0.310	0.020	0.330	0.020	1.4	1.4	0.280	0.250	35
19...	--	--	0.530	0.010	0.540	0.030	1.3	1.3	0.260	0.250	27
JUN 20...	23	29	0.650	0.020	0.670	0.020	2.1	2.1	0.300	0.280	55
JUL 26...	9.5	20	0.190	0.010	0.200	0.040	1.6	1.6	0.220	0.210	51
AUG 17...	--	--	0.550	0.030	0.580	0.050	1.8	1.8	0.400	0.390	46
31...	--	--	0.150	0.020	0.170	0.070	2.5	2.6	0.570	0.550	47
SEP 14...	1.0	17	0.220	0.020	0.240	<0.010	--	2.2	0.380	0.380	52
19...	--	--	0.270	0.030	0.300	0.020	2.3	2.3	0.280	0.280	46

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
NOV 02...	1120	200	<1	<10	1	<10	4
FEB 29...	0845	300	<1	<10	<1	<10	5
JUN 20...	0930	400	1	<10	<1	<10	6
SEP 14...	1130	500	<1	<10	<1	<10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV 02...	250	<5	10	<0.10	8	<1	10
FEB 29...	300	5	<10	<0.10	<1	<1	20
JUN 20...	510	<5	30	1.6	4	<1	30
SEP 14...	610	<5	20	<0.10	2	<1	20

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. (revised), 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.--19 years, 10.8 ft³/s, 6.38 in/yr, 7,820 acre-ft/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)
Sept. 7	2200	*113	*7.75	Mar. 14	2216	99	7.62

Minimum discharge, 1.9 ft³/s, July 5,12,13; minimum gage height. 4.43 ft, July 4,5,12,13.

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	14	3.4	38	9.2	16	6.4	13	9.2	4.8	2.7	3.8	15
2	12	4.2	32	9.0	15	6.1	11	8.4	4.2	2.5	3.8	13
3	9.4	20	27	8.9	13	5.8	9.1	6.5	3.9	2.2	4.2	11
4	6.8	73	23	8.9	12	5.5	7.9	5.8	3.6	2.1	5.0	8.8
5	5.4	79	22	8.7	11	6.2	8.2	4.6	3.6	2.0	7.5	12
6	3.3	62	20	8.5	12	24	7.7	3.4	8.3	3.2	6.8	51
7	3.3	44	19	8.1	12	40	7.1	3.2	12	2.8	7.6	103
8	3.3	30	17	8.2	14	38	6.7	3.4	11	2.3	8.0	111
9	3.1	22	17	8.9	16	30	6.0	3.1	8.3	2.2	5.7	97
10	2.9	21	17	11	15	33	6.4	3.0	7.0	2.3	5.6	75
11	3.3	20	16	13	13	32	9.5	2.8	5.9	2.2	5.2	54
12	13	17	15	12	12	26	8.9	2.6	4.9	2.0	4.6	37
13	18	15	15	12	11	48	8.5	2.6	3.9	2.0	5.1	26
14	18	13	13	11	10	93	8.0	2.7	3.3	3.0	13	20
15	13	12	14	10	9.3	94	7.3	2.6	3.2	3.4	42	17
16	9.5	11	18	9.5	12	78	6.7	2.7	3.1	3.0	43	16
17	8.3	12	19	9.1	13	61	6.1	2.7	2.9	2.8	32	13
18	7.1	30	16	8.8	12	50	5.6	2.6	2.7	4.4	27	12
19	6.1	40	14	8.3	11	58	5.1	2.5	2.6	4.9	21	11
20	4.8	51	14	7.2	11	66	5.1	2.4	2.9	4.9	16	9.6
21	3.5	51	14	9.7	11	61	4.7	3.1	2.9	7.2	13	9.2
22	3.9	42	14	16	10	53	4.4	4.1	2.6	6.0	11	11
23	3.9	31	13	13	10	43	4.0	3.3	2.6	4.9	11	11
24	3.7	26	13	12	10	36	3.7	2.1	2.5	5.5	10	11
25	3.6	21	12	26	8.6	30	3.6	2.3	2.4	11	8.6	8.9
26	3.5	22	11	40	8.4	26	3.5	24	2.4	11	9.3	8.0
27	3.5	54	11	39	7.7	23	3.0	18	3.1	8.1	17	7.9
28	3.4	70	11	30	7.2	19	2.9	13	3.4	6.3	29	8.2
29	3.2	61	11	23	6.9	17	2.8	9.3	3.1	5.6	31	8.5
30	3.1	49	10	18	---	16	3.4	6.6	3.1	5.0	24	8.1
31	2.9	---	9.6	17	---	14	---	5.5	---	4.2	18	---
TOTAL	202.8	1006.6	515.6	434.0	330.1	1139.0	189.9	274.3	130.2	131.7	448.8	804.2
MEAN	6.54	33.6	16.6	14.0	11.4	36.7	6.33	8.85	4.34	4.25	14.5	26.8
MAX	18	79	38	40	16	94	13	41	12	11	43	111
MIN	2.9	3.4	9.6	7.2	6.9	5.5	2.8	2.4	2.4	2.0	3.8	7.9
AC-FT	402	2000	1020	861	655	2260	377	544	258	261	890	1600
CFSM	.28	1.46	.72	.61	.49	1.60	.28	.38	.19	.18	.63	1.17
IN.	.33	1.63	.83	.70	.53	1.84	.31	.44	.21	.21	.73	1.30

CAL YR 1987	TOTAL 4454.7	MEAN 12.2	MAX 130	MIN 2.3	AC-FT 8840	CFSM .53	IN. 7.20
WTR YR 1988	TOTAL 5607.2	MEAN 15.3	MAX 111	MIN 2.0	AC-FT 11120	CFSM .67	IN. 9.07

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 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)
NOV 02...	1230	145	7.0	22.0	150	0.70	6.9	17	5.3	4.3	2.4	40
FEB 29...	0930	111	6.7	13.5	280	0.60	8.7	14	4.1	4.9	1.2	54
APR 07...	1230	129	6.9	18.5	400	0.45	6.8	--	--	--	--	--
20...	1200	156	6.9	20.0	200	0.37	6.7	--	--	--	--	--
JUN 20...	1030	148	6.7	23.5	70	0.20	6.2	17	5.5	2.4	2.6	37
SEP 01...	1330	127	6.8	25.0	400	0.43	5.4	--	--	--	--	--
14...	1415	--	--	--	560	0.80	--	15	3.9	5.2	1.9	19
19...	0955	124	5.6	--	480	0.36	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 02...	9.5	12	1.19	0.010	1.20	0.020	0.71	0.73	0.030	0.020	23
FEB 29...	6.1	25	0.910	0.010	0.920	0.020	1.2	1.2	0.040	0.030	38
APR 07...	--	--	0.980	0.020	1.00	0.010	1.4	1.4	0.060	0.060	42
20...	--	--	1.39	0.010	1.40	0.010	0.92	0.93	0.060	0.030	22
JUN 20...	14	9.0	2.39	0.010	2.40	<0.010	--	0.52	0.060	0.040	14
SEP 01...	--	--	0.290	0.020	0.310	<0.010	--	2.3	0.080	0.060	49
14...	5.4	12	0.250	0.020	0.270	<0.010	--	2.4	0.080	0.070	63
19...	--	--	0.530	0.020	0.550	0.010	2.5	2.5	0.080	0.070	55

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP 14...	1415	300	<1	<10	<1	<10	7

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL RECOVERABLE (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
SEP 14...	650	<5	20	<0.10	2	<1	10

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, 70.36 ft, Nov. 29-30, 1987; minimum daily, 67.25 ft, June 19, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 70.36 ft, Nov. 29-30; minimum daily 67.25 ft, June 19.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68.16	68.46	70.31	68.97	69.13	67.87	69.13	68.22	68.57	67.95	68.24	68.92
2	68.19	68.49	70.25	68.94	69.06	67.81	69.02	68.28	68.54	67.91	68.16	68.85
3	68.17	68.72	70.16	68.91	69.00	67.75	68.90	68.29	68.50	67.87	68.09	68.75
4	68.12	69.73	70.06	68.88	68.94	67.71	68.76	68.26	68.47	67.83	68.01	68.65
5	68.05	---	69.96	68.84	68.87	67.75	68.69	68.24	68.45	67.78	67.93	68.62
6	67.95	---	69.86	68.80	68.81	68.12	68.59	68.21	68.51	67.93	67.87	68.95
7	67.82	---	69.78	68.76	68.76	68.30	68.54	68.19	68.52	67.94	67.91	69.32
8	67.70	---	69.71	68.75	68.72	68.45	68.46	68.17	68.55	67.91	67.94	69.69
9	67.67	---	69.65	68.81	68.69	68.49	68.36	68.14	68.55	67.88	67.87	70.12
10	67.86	---	69.60	68.88	68.65	68.59	68.26	68.11	68.51	67.88	67.80	70.22
11	67.94	70.18	69.54	68.91	68.60	68.63	68.24	68.08	68.39	67.92	67.74	70.19
12	68.23	70.08	69.49	68.97	68.56	68.68	68.17	68.06	68.27	67.93	67.70	70.11
13	68.45	69.99	69.44	69.02	68.54	69.01	68.12	68.09	68.11	67.92	67.69	70.01
14	68.55	69.90	69.39	69.05	68.50	69.52	68.06	68.12	67.94	67.94	67.74	69.90
15	68.62	69.80	69.35	69.07	68.47	69.80	67.94	68.16	67.79	68.06	68.16	69.78
16	68.64	69.72	69.36	69.09	68.43	69.98	67.85	68.13	67.62	68.07	68.24	69.67
17	68.64	69.68	69.33	69.12	68.38	70.02	67.76	68.11	67.47	68.09	68.30	69.56
18	68.64	69.79	69.30	69.14	68.39	70.01	67.67	68.09	67.34	68.12	68.48	69.46
19	68.64	69.84	69.27	69.15	68.36	70.14	67.60	68.06	67.25	68.13	68.49	69.34
20	68.64	69.98	69.24	69.15	68.31	70.17	67.56	68.03	67.31	68.16	68.45	69.22
21	68.63	70.03	69.21	69.18	68.28	70.19	67.50	68.00	67.60	68.23	68.40	69.12
22	68.62	70.04	69.18	69.21	68.22	70.16	67.59	68.24	67.69	68.26	68.39	69.21
23	68.60	70.00	69.15	69.12	68.15	70.10	67.86	68.32	67.76	68.24	68.45	69.19
24	68.58	69.95	69.13	69.04	68.10	70.00	67.90	68.38	67.77	68.28	68.45	69.15
25	68.56	69.89	69.11	69.11	68.06	69.90	67.93	68.57	67.77	68.30	68.42	69.08
26	68.54	69.86	69.09	69.21	68.03	69.81	67.95	68.62	67.80	68.26	68.41	69.00
27	68.53	70.11	69.06	69.26	68.05	69.71	67.95	68.65	67.85	68.30	68.65	68.91
28	68.51	70.27	69.08	69.29	68.01	69.59	67.93	68.65	67.88	68.31	68.81	68.82
29	68.49	70.36	69.06	69.27	67.94	69.46	67.91	68.65	67.91	68.32	68.96	68.71
30	68.46	70.36	69.03	69.24	---	69.35	67.94	68.63	67.96	68.29	68.99	68.61
31	68.44	---	69.00	69.18	---	69.25	---	68.60	---	68.29	68.97	---
MEAN	68.34	---	69.46	69.04	68.48	69.17	68.14	68.27	68.02	68.07	68.25	69.30
MAX	68.64	---	70.31	69.29	69.13	70.19	69.13	68.65	68.57	68.32	68.99	70.22
MIN	67.67	---	69.00	68.75	67.94	67.71	67.50	68.00	67.25	67.78	67.69	68.61

SOUTH FLORIDA

KISSIMMEE 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, 65.46 ft, June 22, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 68.93 ft, Nov. 7; minimum daily 65.49 ft, July 13, 17, 22-23.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67.42	65.62	68.85	67.75	68.09	66.62	---	66.05	65.70	65.55	67.36	68.02
2	67.41	65.66	68.81	67.74	68.06	66.58	---	66.00	65.68	65.53	67.34	67.98
3	67.41	66.16	68.75	67.72	68.04	66.55	---	65.89	65.66	65.53	67.32	67.94
4	67.39	67.87	68.68	67.71	68.02	66.52	---	65.81	65.65	65.52	67.29	67.90
5	67.36	68.57	68.62	67.69	68.00	66.53	---	65.76	65.65	65.51	67.26	67.91
6	67.33	68.87	68.54	67.70	67.98	66.71	---	65.72	65.68	65.55	67.23	68.10
7	67.29	68.93	68.48	67.69	67.97	---	68.13	65.69	65.67	65.53	67.26	68.21
8	67.23	68.89	68.42	67.51	68.01	---	68.10	65.69	65.69	65.52	67.28	68.30
9	67.04	68.81	68.37	67.06	68.03	---	68.05	65.67	65.67	65.50	67.24	68.57
10	66.61	68.71	68.32	66.90	68.01	---	68.00	65.67	66.47	65.52	67.21	68.64
11	66.54	68.63	68.28	66.77	68.00	---	67.99	65.66	67.58	65.52	67.19	68.64
12	66.78	68.54	68.23	66.68	67.89	---	67.95	65.65	67.57	65.51	67.18	68.59
13	66.69	68.46	68.19	66.62	67.69	---	67.92	65.69	67.53	65.49	67.18	68.52
14	66.51	68.36	68.14	66.56	67.66	---	67.87	65.68	67.48	65.50	67.21	68.43
15	66.35	68.29	68.09	66.50	67.61	---	67.79	65.71	67.41	65.51	67.39	68.34
16	66.23	68.21	68.09	66.46	67.56	---	67.72	65.68	67.33	65.50	67.39	68.28
17	66.12	68.18	68.06	66.43	67.53	---	67.65	65.65	67.24	65.49	67.40	68.24
18	66.02	68.29	68.03	66.41	67.53	---	67.58	65.64	67.16	65.50	67.44	68.21
19	65.93	68.31	68.00	66.39	67.51	---	67.52	65.62	67.10	65.50	67.45	68.18
20	65.87	68.48	67.97	66.35	67.28	---	67.48	65.62	66.88	65.50	67.43	68.14
21	65.82	68.59	67.94	66.34	67.02	---	67.43	65.60	66.40	65.50	67.42	68.12
22	65.77	68.61	67.90	67.08	66.97	---	67.21	65.72	66.12	65.49	67.44	68.15
23	65.74	68.60	67.85	68.02	66.91	---	66.74	65.70	65.93	65.49	67.49	68.13
24	65.70	68.56	67.81	68.03	66.88	---	66.49	65.71	65.76	65.56	67.47	68.11
25	65.67	68.52	67.79	68.08	66.85	---	66.30	66.19	65.64	66.49	67.45	68.09
26	65.65	68.52	67.78	68.13	66.79	---	66.14	66.28	65.60	67.33	67.44	68.07
27	65.63	68.71	67.77	68.16	66.72	---	66.00	66.16	65.61	67.37	67.53	68.05
28	65.63	68.78	67.76	68.18	66.70	---	65.88	66.01	65.60	67.39	67.57	68.01
29	65.61	68.85	67.78	68.19	66.66	---	65.79	65.89	65.59	67.40	67.58	67.97
30	65.59	68.86	67.78	68.17	---	---	65.77	65.79	65.58	67.38	67.76	67.94
31	65.58	---	67.77	68.13	---	---	---	65.74	---	67.37	68.02	---
MEAN	66.38	68.28	68.16	67.33	67.52	---	---	65.79	66.29	65.90	67.39	68.19
MAX	67.42	68.93	68.85	68.19	68.09	---	---	66.28	67.58	67.40	68.02	68.64
MIN	65.58	65.62	67.76	66.34	66.66	---	---	65.60	65.58	65.49	67.18	67.90

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.--40 years (water years 1940-59, 1969-88), 670 ft³/s, 48,540 acre-ft/yr.

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, 338 ft³/s, Nov. 7, gage height, 3.38 ft; no flow Oct. 26 to Nov. 1; minimum gage height, 0.60 ft, July 5,9,10, 12-17, 22-24.

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	38	.00	333	71	118	68	186	9.9	4.0	1.3	44	110
2	36	.26	326	71	113	64	177	8.8	3.5	1.0	44	108
3	36	8.6	308	69	109	62	168	6.9	3.5	.80	43	102
4	35	49	287	68	105	59	159	5.6	2.7	.68	42	96
5	35	143	264	67	105	59	149	4.6	2.4	.55	41	102
6	34	266	244	66	103	74	140	3.9	3.6	1.0	40	146
7	33	332	224	65	102	81	131	3.2	3.0	.92	42	170
8	32	336	205	65	105	84	126	2.9	3.4	.71	44	178
9	28	320	188	52	109	85	118	2.7	2.7	.61	42	224
10	15	293	175	44	108	103	113	2.6	8.7	.69	40	239
11	12	265	164	37	105	108	109	2.4	39	.95	39	241
12	19	243	153	31	103	105	104	2.2	47	.67	39	238
13	17	225	145	28	90	133	97	3.4	51	.53	39	224
14	12	205	134	25	85	199	93	3.2	50	.55	42	206
15	9.3	187	125	22	84	218	86	3.8	48	.64	51	187
16	7.4	172	120	20	85	235	79	2.9	45	.59	49	171
17	5.9	163	112	19	90	251	73	2.5	42	.51	49	162
18	4.6	191	106	18	91	263	67	2.2	38	.60	52	155
19	3.5	185	102	17	93	316	62	2.1	36	.62	51	149
20	2.7	198	96	16	92	320	58	1.7	32	.70	51	142
21	2.0	228	92	15	91	309	55	1.4	18	.67	51	139
22	1.3	243	88	23	90	303	51	3.9	11	.61	54	144
23	.76	248	84	61	89	292	36	3.6	7.8	.50	61	140
24	.41	244	80	77	87	277	25	3.7	5.2	1.8	55	137
25	.08	240	77	94	84	261	15	11	3.4	11	53	133
26	.00	243	75	106	81	245	12	13	2.5	32	53	129
27	.00	316	74	113	77	237	9.1	12	2.6	38	60	126
28	.00	319	72	122	73	226	7.1	10	2.4	42	64	122
29	.00	324	71	128	70	216	5.6	7.5	2.3	45	65	115
30	.00	331	71	129	---	204	5.0	6.0	2.0	44	68	107
31	.00	---	71	125	---	195	---	4.6	---	44	100	---
TOTAL	419.95	6517.86	4666	1864	2737	5652	2515.8	154.2	522.7	274.20	1568	4642
MEAN	13.5	217	151	60.1	94.4	182	83.9	4.97	17.4	8.85	50.6	155
MAX	38	336	333	129	118	320	186	13	51	45	100	241
MIN	.00	.00	71	15	70	59	5.0	1.4	2.0	.50	39	96
AC-FT	833	12930	9260	3700	5430	11210	4990	306	1040	544	3110	9210

CAL YR 1987 TOTAL 26999.55 MEAN 74.0 MAX 776 MIN .00 AC-FT 53550
WTR YR 1988 TOTAL 31533.71 MEAN 86.2 MAX 336 MIN .00 AC-FT 62550

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 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- IDITY (FTU)	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)	ALKA- LITY LAB (MG/L AS CACO3)
FEB												
29...	0900	148	6.5	14.0	240	0.50	6.4	13	3.8	11	2.6	66
APR												
07...	1330	139	6.4	19.0	280	0.43	1.8	--	--	--	--	--
20...	1245	187	6.8	20.0	220	0.70	2.3	--	--	--	--	--
JUN												
20...	1000	166	6.3	24.5	200	0.30	3.7	16	4.8	10	3.6	35
JUL												
26...	1200	170	6.8	25.0	320	0.90	--	16	3.9	13	3.2	25
SEP												
01...	1415	130	6.5	25.0	400	0.30	1.8	--	--	--	--	--
14...	1445	--	--	--	480	0.41	--	12	3.1	7.0	2.8	18
19...	0920	128	6.0	--	560	0.37	--	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB											
29...	7.9	20	0.340	0.010	0.350	0.030	1.1	1.1	0.150	0.130	33
APR											
07...	--	--	0.120	0.020	0.140	0.010	1.3	1.3	0.170	0.160	34
20...	--	--	0.430	0.010	0.440	0.020	1.2	1.2	0.200	0.170	24
JUN											
20...	17	20	0.680	0.010	0.690	0.020	1.2	1.2	0.150	0.130	25
JUL											
26...	16	20	0.300	0.010	0.310	0.050	1.5	1.6	0.180	0.180	--
SEP											
01...	--	--	0.030	0.020	0.050	0.040	2.2	2.2	0.260	0.240	42
14...	5.9	13	0.00	0.020	0.020	0.020	2.1	2.1	0.410	0.400	48
19...	--	--	--	0.020	<0.020	0.010	2.5	2.5	0.330	0.310	38

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
SEP							
14...	1445	300	<1	<10	<1	<10	5

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
SEP							
14...	520	<5	30	0.20	2	<1	10

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.

WATER-DISCHARGE RECORDS

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
OCT 30...	1345	7.8	JUN 08...	1416	0.16
DEC 22...	0840	195	AUG 02...	1020	14
FEB 11...	1340	202	SEP 23...	0915	289
APR 06...	1217	275			

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978-83, 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
APR 07...	1430	128	6.4	19.5	320	0.36	2.6	0.030
20...	1330	123	6.6	20.0	400	0.43	2.5	0.040

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 07...	0.020	0.050	0.010	1.8	1.8	0.110	0.110	43
20...	0.010	0.050	0.010	1.6	1.6	0.080	0.070	33

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.--Records good.

AVERAGE DISCHARGE.--41 years, 43.7 ft³/s, 10.08 in/yr, 31,660 acre-ft/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, 61 ft³/s, Nov. 27-30; maximum gage height, 4.20 ft, Nov. 29; minimum discharge, 4.2 ft³/s, July 12,13, gage height 2.74 ft.

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	41	35	60	41	38	32	40	28	13	7.1	11	22
2	40	36	58	41	38	31	39	27	12	6.3	11	23
3	40	41	58	41	37	31	39	26	12	5.9	12	22
4	38	46	58	41	37	31	39	26	12	5.4	11	23
5	37	47	56	40	37	32	39	26	11	5.0	11	24
6	36	47	55	39	37	36	39	25	11	5.9	11	27
7	36	45	54	38	35	36	39	24	11	5.6	11	34
8	35	45	54	39	37	36	36	23	12	5.3	12	37
9	33	44	54	39	37	35	35	22	11	5.1	13	42
10	33	45	54	40	37	39	35	22	11	5.0	14	43
11	35	45	54	40	37	36	35	22	11	5.0	14	43
12	42	43	54	39	38	36	35	21	9.8	4.6	14	43
13	45	42	53	39	36	39	35	21	9.2	4.6	14	43
14	44	42	53	38	35	44	33	20	8.8	5.7	14	42
15	43	41	52	38	35	43	33	20	8.8	5.5	13	41
16	43	40	53	37	36	41	32	20	8.4	5.4	13	41
17	43	41	51	36	35	40	32	19	8.1	5.6	14	41
18	42	49	50	37	35	40	31	20	7.6	7.3	14	40
19	42	51	49	36	35	45	31	19	7.3	6.8	14	40
20	42	57	49	36	35	44	31	19	7.3	6.7	14	39
21	41	55	48	38	36	44	31	18	7.6	7.0	15	39
22	40	54	48	42	35	43	30	18	7.6	7.7	15	40
23	39	54	47	41	34	43	30	18	7.3	8.7	15	39
24	38	53	47	40	35	43	29	17	7.1	8.9	14	38
25	38	53	46	42	35	42	29	17	6.8	9.1	14	38
26	38	55	46	41	34	43	29	17	6.9	9.4	14	37
27	37	60	46	40	33	43	28	17	7.3	10	20	36
28	37	61	45	40	33	43	27	16	6.9	11	22	35
29	36	61	46	38	32	42	26	15	7.2	11	22	35
30	34	60	43	38	---	42	26	14	7.3	11	23	34
31	34	---	42	38	---	41	---	14	---	11	22	---
TOTAL	1202	1448	1583	1213	1034	1216	993	631	274.3	218.6	451	1081
MEAN	38.8	48.3	51.1	39.1	35.7	39.2	33.1	20.4	9.14	7.05	14.5	36.0
MAX	45	61	60	42	38	45	40	28	13	11	23	43
MIN	33	35	42	36	32	31	26	14	6.8	4.6	11	22
AC-FT	2380	2870	3140	2410	2050	2410	1970	1250	544	434	895	2140
CFSM	.66	.82	.87	.66	.61	.67	.56	.35	.16	.12	.25	.61
IN.	.76	.91	1.00	.77	.65	.77	.63	.40	.17	.14	.28	.68

CAL YR 1987 TOTAL 14727 MEAN 40.3 MAX 74 MIN 22 AC-FT 29210 CFSM .69 IN. 9.30
WTR YR 1988 TOTAL 11344.9 MEAN 31.0 MAX 61 MIN 4.6 AC-FT 22500 CFSM .53 IN. 7.17

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.--55 years, 1,042 ft³/s, 754,900 acre-ft/yr.

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, 13,700 ft³/s, Feb. 23; maximum gage height, 53.09 ft, Nov. 21; no flow for many days; minimum gage height, 44.81 ft, May 31.

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	.00	.00	3400	702	706	3160	4780	1820	746	.00	.00	.00
2	.00	.00	2900	219	708	3120	4720	1800	.00	.00	.00	.00
3	.00	.00	2820	.00	1150	3090	4680	1750	.00	.00	.00	.00
4	.00	.00	2840	.00	1420	1090	4020	1530	.00	.00	.00	.00
5	.00	.00	2850	.00	1880	.00	4020	1420	.00	.00	.00	.00
6	.00	.00	2840	.00	2160	1530	4130	1640	.00	.00	.00	.00
7	.00	.00	2850	.00	2110	2230	4160	1740	.00	.00	.00	1460
8	.00	.00	2850	.00	2120	2860	2930	1730	.00	.00	.00	2490
9	.00	.00	2830	.00	2120	3210	2400	1710	.00	.00	.00	3220
10	.00	.00	3270	.00	1690	3920	2370	1700	.00	.00	.00	3710
11	.00	.00	3080	432	1410	4250	2360	1700	.00	.00	.00	4540
12	.00	.00	2350	712	988	2850	2340	1680	.00	.00	.00	4890
13	.00	.00	2130	709	706	2980	2350	1670	.00	.00	.00	4820
14	.00	.00	2130	715	701	5050	2300	1660	.00	.00	.00	4830
15	.00	.00	2120	714	219	5440	2080	1640	.00	.00	.00	3300
16	.00	.00	2140	713	.00	5390	1900	1610	.00	.00	.00	4850
17	.00	.00	2130	706	.00	5360	1890	641	.00	.00	.00	4860
18	.00	1350	1690	708	.00	3540	1630	.00	.00	.00	.00	4830
19	.00	2810	927	704	.00	3310	1270	.00	.00	.00	.00	3420
20	.00	3850	709	699	.00	3700	1150	.00	.00	.00	.00	1380
21	.00	4610	890	704	282	3730	1630	.00	.00	.00	.00	223
22	.00	5320	990	1160	1410	3770	1890	.00	.00	.00	.00	607
23	.00	5740	1250	1440	7980	4470	1880	434	.00	.00	.00	838
24	.00	6140	1420	1440	12100	4480	1880	653	.00	.00	.00	258
25	.00	6070	1410	2300	11100	4340	1870	1050	.00	.00	.00	254
26	.00	6030	1410	2840	3830	4360	1870	1500	.00	.00	.00	264
27	.00	5730	1410	2820	1060	4370	1860	1990	.00	.00	.00	113
28	.00	5600	1240	2820	1070	4360	1850	2170	.00	.00	.00	.00
29	.00	5620	1150	2810	2340	4360	1830	2130	.00	.00	.00	.00
30	.00	4830	871	1850	---	4700	1800	2130	.00	.00	.00	.00
31	.00	---	702	922	---	4820	---	2110	---	.00	.00	---
TOTAL	0.00	63700.00	61599	28839.00	61260.00	113840.00	75840	41608.00	746.00	0.00	0.00	55157.00
MEAN	.00	2123	1987	930	2112	3672	2528	1342	24.9	.00	.00	1839
MAX	.00	6140	3400	2840	12100	5440	4780	2170	746	.00	.00	4890
MIN	.00	.00	702	.00	.00	.00	1150	.00	.00	.00	.00	.00
AC-FT	.0	126300	122200	57200	121500	225800	150400	82530	1480	.0	.0	109400
CAL YR 1987	TOTAL	466896.00	MEAN	1279	MAX	6140	MIN	.00	AC-FT	926100		
WTR YR 1988	TOTAL	502589.00	MEAN	1373	MAX	12100	MIN	.00	AC-FT	996900		

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 Weehyakapka 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, 1977 (result of drawdown of Lake Kissimmee).

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.42	46.45	45.99	46.37	46.37	48.00	46.54	46.30	46.32	46.13	46.36	46.19
2	46.35	46.31	45.96	46.39	46.36	47.94	46.54	46.32	46.25	46.12	46.32	46.43
3	46.38	46.56	46.38	46.43	46.29	47.87	46.53	46.33	46.19	46.08	46.27	46.32
4	46.29	46.92	46.39	46.32	46.28	47.75	46.40	46.33	46.11	46.03	46.52	46.38
5	46.38	46.50	46.42	46.24	46.33	47.73	46.39	46.36	46.08	45.99	46.50	46.48
6	46.48	46.35	46.43	46.26	46.31	47.65	46.49	46.36	46.08	46.10	46.40	46.42
7	46.51	46.25	46.34	46.33	46.38	47.57	46.49	46.39	46.11	46.19	46.40	46.55
8	46.27	46.19	46.31	46.36	46.41	47.50	46.36	46.30	46.20	46.19	46.36	46.45
9	45.81	46.27	46.38	46.30	46.37	47.51	46.34	46.34	46.19	46.19	46.51	46.55
10	45.90	46.30	46.45	46.25	46.37	47.47	46.36	46.35	46.18	46.27	46.43	46.61
11	46.05	46.29	46.42	46.34	46.33	47.39	46.38	46.34	46.14	46.46	46.44	46.47
12	46.20	46.29	46.27	46.40	46.33	47.22	46.40	46.34	46.10	46.36	46.50	46.69
13	46.35	46.40	46.28	46.43	46.36	47.07	46.38	46.31	46.06	46.49	46.32	46.76
14	46.27	46.42	46.24	46.36	46.37	47.19	46.36	46.30	46.04	46.73	46.38	46.67
15	46.09	46.29	46.31	46.38	46.37	47.23	46.35	46.36	46.01	46.59	46.43	46.54
16	46.10	46.34	46.34	46.32	46.57	47.09	46.38	46.39	45.96	46.47	46.40	46.65
17	46.15	46.40	46.38	46.40	46.31	46.98	46.37	46.30	45.93	46.45	46.38	46.61
18	46.19	46.62	46.40	46.37	46.43	46.78	46.38	46.25	45.89	46.56	46.51	46.61
19	46.23	46.60	46.36	46.40	46.38	46.64	46.38	46.22	45.84	46.32	46.30	46.50
20	46.26	46.96	46.35	46.49	46.39	46.61	46.32	46.18	45.91	46.57	46.39	46.39
21	46.28	46.74	46.38	46.42	46.29	46.52	46.34	46.15	46.15	46.70	46.37	46.33
22	46.23	47.03	46.38	46.36	47.31	46.45	46.37	46.11	46.17	46.41	46.37	46.20
23	46.35	47.19	46.32	46.35	48.13	46.53	46.38	46.16	46.17	46.43	46.38	46.29
24	46.36	47.41	46.29	46.32	48.44	46.59	46.33	46.36	46.15	46.40	46.34	46.36
25	46.25	47.41	46.38	46.33	48.54	46.51	46.35	46.36	46.12	46.39	46.54	46.55
26	46.25	47.37	46.37	46.40	48.26	46.49	46.35	46.45	46.08	46.38	46.47	46.20
27	46.32	47.27	46.34	46.41	48.19	46.51	46.33	46.36	46.07	46.38	46.30	46.37
28	46.35	47.12	46.36	46.36	48.13	46.49	46.35	46.40	46.08	46.37	46.46	46.30
29	46.26	47.04	46.34	46.36	48.07	46.48	46.32	46.45	46.16	46.26	46.41	46.34
30	46.32	46.78	46.28	46.33	---	46.49	46.32	46.38	46.16	46.40	46.43	46.37
31	46.34	---	46.40	46.39	---	46.56	---	46.37	---	46.34	46.22	---
MEAN	46.26	46.67	46.33	46.36	46.85	47.06	46.39	46.32	46.10	46.35	46.40	46.45
MAX	46.51	47.41	46.45	46.49	48.54	48.00	46.54	46.45	46.32	46.73	46.54	46.76
MIN	45.81	46.19	45.96	46.24	46.28	46.45	46.32	46.11	45.84	45.99	46.22	46.19

CAL YR 1987 MEAN 46.25 MAX 47.41 MIN 45.59
WTR YR 1988 MEAN 46.46 MAX 48.54 MIN 45.81

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 fair. Records include small diversions into Lake Arbuckle from Lake Weohyakapka through Blue Jordan Swamp.

AVERAGE DISCHARGE.--49 years, 319 ft³/s, 231,100 acre-ft/yr.

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, 1,070 ft³/s, Oct. 16, gage height, 5.56 ft; minimum, 12 ft³/s, May 11; minimum gage height, 1.67 ft, June 4.

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	167	335	605	181	351	312	330	108	23	47	445	795
2	148	381	581	176	328	282	307	99	20	43	446	762
3	138	385	551	175	331	269	281	118	19	41	479	711
4	139	483	520	191	299	255	281	111	18	37	487	668
5	132	519	476	168	276	257	261	106	22	31	476	651
6	121	507	441	159	260	342	245	107	34	47	432	635
7	114	473	406	161	250	400	238	97	44	53	404	666
8	112	438	384	163	366	404	225	47	56	50	400	723
9	99	430	370	154	430	369	215	22	55	52	393	790
10	94	417	378	163	464	420	212	22	52	51	397	827
11	178	399	379	210	473	431	207	20	43	48	442	788
12	440	376	379	193	439	424	197	17	37	52	441	752
13	775	341	340	182	409	422	183	26	34	54	407	721
14	964	316	331	177	388	429	189	86	36	56	405	699
15	1020	296	334	174	414	438	170	125	31	55	403	676
16	1030	283	321	167	451	407	161	118	30	48	413	650
17	987	261	301	170	422	369	158	113	29	49	427	620
18	937	408	300	168	406	359	157	74	27	47	417	592
19	903	419	273	180	423	554	151	56	28	39	411	570
20	848	664	265	170	404	684	122	56	32	40	405	552
21	795	779	254	217	423	632	133	55	41	184	399	539
22	729	766	247	350	477	627	126	53	53	322	419	522
23	668	751	238	320	528	589	127	52	49	370	417	512
24	618	727	235	319	527	545	122	47	43	417	412	492
25	564	725	232	369	473	524	115	55	37	453	417	470
26	521	698	223	424	421	496	114	45	35	453	432	459
27	458	682	210	470	384	473	102	36	44	476	447	446
28	415	661	213	503	355	460	101	32	53	491	615	432
29	364	639	196	466	351	424	107	29	53	508	606	413
30	324	617	185	412	---	385	122	25	55	484	634	395
31	288	---	196	379	---	342	---	25	---	463	669	---
TOTAL	15090	15176	10364	7711	11523	13324	5459	1982	1133	5561	13997	18528
MEAN	487	506	334	249	397	430	182	63.9	37.8	179	452	618
MAX	1030	779	605	503	528	684	330	125	56	508	669	827
MIN	94	261	185	154	250	255	101	17	18	31	393	395

CAL YR 1987 TOTAL 79274 MEAN 217 MAX 1030 MIN 37
WTR YR 1988 TOTAL 119848 MEAN 327 MAX 1030 MIN 17

02273000 KISSIMMEE RIVER AT S-65E, NEAR OKEECHOBEE, FL
(National stream-quality accounting network station)

DRAINAGE AREA.--Indeterminate.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	486	1340	5690	636	1090	2660	4460	2050	1250	.00	403	836
2	561	1990	4460	537	771	3220	4780	1740	80	.00	397	574
3	410	1660	3860	319	842	3130	4770	1310	.00	.00	198	823
4	587	3430	3870	236	1240	2690	4570	1340	.00	.00	341	543
5	362	4040	3060	.00	1560	1820	4250	1340	.00	.00	506	623
6	89	3570	3190	29	1660	1570	4020	1190	.00	.00	724	731
7	233	3720	3220	77	1810	2520	4080	1310	.00	.00	391	1110
8	801	2750	3190	223	2760	3950	4040	1430	63	.00	613	2270
9	162	2480	2730	117	2080	3710	2960	1440	227	.00	469	3440
10	134	1540	3130	111	2270	3770	2880	1390	.00	.00	675	3870
11	798	1870	3200	703	2080	4220	2680	1390	15	.00	1040	4390
12	4830	1290	2950	822	1430	4450	2410	1440	22	.00	800	4760
13	6120	966	2520	625	1010	3870	2370	1220	.00	.00	763	4580
14	6020	904	2480	850	911	3990	2230	1230	.00	.00	698	5100
15	4800	863	2190	878	596	4840	2170	1650	.00	86	656	5210
16	3890	814	2380	778	362	5610	2040	1360	.00	249	1170	4370
17	3850	546	2090	840	411	5800	1900	1320	.00	135	1260	5100
18	3090	3590	1900	761	290	5550	1480	1030	.00	177	958	5040
19	2250	4710	1510	727	323	5640	1360	53	.00	455	992	4990
20	1640	5640	1110	652	395	4800	1120	24	.00	210	1090	3610
21	1570	8040	727	963	380	5380	1160	.00	.00	598	500	1660
22	1020	8070	976	1310	619	4760	1780	.00	.00	769	822	645
23	961	7970	1210	1610	2220	4920	1570	.00	.00	726	744	794
24	472	7760	1350	1530	6400	4860	1590	159	.00	908	442	653
25	766	7600	1260	2020	8070	4810	1720	713	.00	578	512	433
26	765	7480	1400	2600	7140	4900	1680	1020	.00	525	777	275
27	594	7700	1430	2480	3210	4960	1570	1450	.00	602	793	302
28	369	7200	1310	2730	1850	4950	1580	1720	.00	348	1050	37
29	257	6950	1110	2780	2070	4450	1350	2040	.00	299	1030	61
30	257	6480	1010	2660	---	4640	1640	1770	.00	371	828	77
31	295	---	731	1970	---	4710	---	2230	---	255	1160	---
TOTAL	48433	122963	71244	32574.00	55850	131150	76210	36359.00	1657.00	7291.00	22802	66907
MEAN	1563	4099	2298	1051	1926	4231	2540	1173	55.2	235	736	2230
MAX	6120	8070	5690	2780	8070	5800	4780	2230	1250	908	1260	5210
MIN	89	546	727	.00	290	1570	1120	.00	.00	.00	198	37
AC-FT	96080	243900	141300	64610	110800	260100	151200	72120	3290	14460	45230	132700
CAL YR 1987	TOTAL 622042.00 MEAN 1704											
WTR YR 1988	TOTAL 673446.00 MEAN 1840											
	MAX 8070 MIN .00											
	AC-FT 1234000											
	AC-FT 1336000											

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02273000 KISSIMMEE RIVER AT S-65E, NEAR OKEECHOBEE, FL--Continued
(National stream-quality accounting network station)

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.97	21.07	21.05	21.04	21.01	21.05	21.08	20.94	21.07	21.04	21.15	20.95
2	21.12	20.94	21.06	21.15	21.06	21.08	21.17	20.89	21.03	21.08	21.03	21.25
3	20.96	21.09	21.12	21.20	21.08	21.02	21.11	21.04	20.97	21.02	21.20	21.10
4	21.04	21.14	21.08	21.01	21.08	21.14	20.99	21.11	20.91	21.00	21.23	21.04
5	20.99	20.84	20.96	21.07	21.15	21.12	21.09	21.01	20.87	20.97	21.20	21.09
6	21.08	21.01	21.01	21.07	20.96	21.00	20.98	20.98	20.85	20.97	20.99	21.14
7	21.14	21.05	21.11	21.08	21.08	21.13	21.10	21.03	20.93	21.00	20.97	21.16
8	20.99	20.96	21.04	21.12	21.15	21.08	21.08	21.15	21.12	21.00	20.98	21.19
9	20.97	21.00	21.00	21.10	21.04	21.15	21.06	21.04	21.11	20.98	20.99	21.19
10	21.06	20.98	21.09	21.12	21.16	21.08	21.13	21.11	21.10	20.99	21.15	21.23
11	21.05	21.11	21.05	21.22	21.12	21.16	21.02	21.05	21.12	21.06	21.12	21.18
12	20.91	20.89	21.07	21.01	21.01	21.10	21.04	21.11	21.09	21.03	21.15	21.13
13	21.14	21.01	21.04	21.14	21.04	21.02	21.10	21.06	21.08	21.02	21.02	21.15
14	21.03	21.04	21.10	21.16	21.04	21.13	21.15	21.06	21.01	21.06	21.03	21.19
15	20.93	20.95	21.07	21.06	21.14	21.13	21.04	21.26	20.96	21.17	21.08	21.12
16	20.94	21.01	21.03	21.17	21.13	21.13	21.16	21.07	20.91	21.23	21.22	21.19
17	21.06	21.00	21.01	21.11	21.19	21.06	20.97	21.14	20.86	21.26	21.15	21.27
18	20.98	21.29	21.03	21.10	21.19	21.12	21.00	21.17	20.79	21.24	21.11	21.22
19	20.94	21.12	21.01	21.02	21.16	21.11	21.09	21.17	20.75	21.21	21.18	21.19
20	20.93	21.12	21.07	21.08	21.18	21.11	21.03	21.08	20.72	21.24	21.16	21.09
21	20.97	21.04	21.05	21.14	21.09	21.14	21.06	21.04	20.82	21.26	21.10	21.11
22	21.03	21.04	21.09	21.13	21.11	21.01	21.06	20.99	20.88	21.16	21.14	21.11
23	21.17	21.08	21.05	21.08	21.11	21.09	21.01	20.95	20.87	21.16	21.12	21.14
24	21.12	21.03	21.07	21.12	21.15	21.00	21.11	21.07	20.83	21.32	21.13	21.16
25	21.11	21.04	21.01	21.11	21.12	21.11	21.16	21.09	20.79	21.17	21.15	21.13
26	20.95	21.04	21.03	21.11	21.04	21.09	20.98	21.06	20.77	21.16	21.17	21.20
27	21.09	21.12	21.05	21.04	20.95	21.09	21.14	20.97	20.74	21.13	21.11	21.13
28	21.03	21.14	21.11	21.07	20.95	21.07	20.85	21.00	20.71	21.12	21.16	21.10
29	20.97	21.15	21.06	21.08	21.06	21.06	20.88	21.07	20.71	21.15	20.81	21.18
30	21.04	21.08	21.07	21.14	---	21.12	21.13	21.12	20.82	21.12	21.67	21.09
31	21.08	---	21.10	21.07	---	21.05	---	21.17	---	21.10	21.10	---
MEAN	21.03	21.05	21.05	21.10	21.09	21.09	21.06	21.06	20.91	21.11	21.12	21.15
MAX	21.17	21.29	21.12	21.22	21.19	21.16	21.17	21.26	21.12	21.32	21.67	21.27
MIN	20.91	20.84	20.96	21.01	20.95	21.00	20.85	20.89	20.71	20.97	20.81	20.95
CAL YR 1987	MEAN 21.04	MAX 21.35	MIN 20.84									
WTR YR 1988	MEAN 21.07	MAX 21.67	MIN 20.71									

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 10...	1234	20.86	803	109	6.4	23.5	0.60	5.0	2900	--
JAN 07...	1700	21.06	35	143	7.0	18.0	1.7	6.7	75	140
MAR 01...	1407	21.02	2380	130	7.3	19.5	2.2	8.7	16	17
MAY 03...	1444	21.06	1210	157	7.3	25.0	0.80	5.3	150	330
AUG 01...	1810	21.20	607	205	7.0	28.5	0.50	1.1	--	--
SEP 06...	1546	21.01	731	132	7.1	29.0	0.90	2.1	E120	E11
DATE	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)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 10...	11	2.3	9.0	2.9	21	18	16	0.10	4.7	113
JAN 07...	12	3.2	11	1.6	31	16	18	0.20	2.0	100
MAR 01...	13	3.3	11	1.9	29	15	19	0.20	0.77	112
MAY 03...	13	3.3	11	2.2	27	19	18	0.10	1.1	111
AUG 01...	17	4.0	14	2.8	35	17	24	0.20	3.7	145
SEP 06...	14	3.2	11	1.6	29	17	19	0.10	6.4	132
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 10...	<0.010	<0.100	0.110	0.140	1.2	0.180	0.190	0.160	4	50
JAN 07...	0.020	<0.100	0.110	0.110	1.3	0.090	0.050	0.030	9	78
MAR 01...	0.010	<0.100	0.050	0.060	1.3	0.040	0.020	0.010	17	88
MAY 03...	0.010	0.120	0.080	0.090	1.4	0.050	0.040	0.020	4	75
AUG 01...	<0.010	<0.100	0.090	0.090	1.1	0.150	0.140	0.120	1	100
SEP 06...	0.010	<0.100	0.070	0.170	1.4	0.110	0.090	0.080	1	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 1987 TO SEPTEMBER 1988

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
MAR 01...	30	<1	12	<0.5	2	2	<3	1	140	<5
MAY 03...	20	<1	13	<0.5	<1	1	<3	1	210	<5
AUG 01...	30	1	13	<0.5	<1	1	<3	6	160	<5
SEP 06...	80	<1	13	<0.5	<1	<1	<3	1	320	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 01...	<4	4	<0.1	<10	3	<1	<1.0	110	<6	9
MAY 03...	<4	7	<0.1	<10	1	<1	<1.0	100	<6	6
AUG 01...	<4	12	<0.1	<10	3	<1	<1.0	260	<6	11
SEP 06...	<4	21	<0.1	<10	<1	<1	<1.0	230	<6	18

02273001 KISSIMMEE RIVER BELOW S-65E, NEAR OKEECHOBEE, FL

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.29	13.95	15.73	15.87	15.92	16.02	16.13	15.53	15.00	14.95	15.26	15.86
2	13.29	14.05	15.67	15.82	15.92	16.10	16.09	15.28	14.98	14.89	15.26	15.84
3	13.25	14.36	15.74	15.86	15.91	16.10	16.08	15.42	15.04	14.87	15.24	15.87
4	13.14	14.61	15.72	15.80	15.90	16.09	16.04	15.41	14.96	14.82	15.24	15.91
5	13.16	14.65	15.60	15.51	15.82	16.01	15.96	15.32	15.03	14.67	15.26	15.97
6	13.26	14.55	15.68	15.70	15.39	16.00	15.93	15.23	15.00	14.76	15.27	15.99
7	13.25	14.68	15.78	15.87	15.74	16.02	15.70	15.26	15.11	14.77	15.26	15.89
8	12.97	14.78	15.78	15.82	15.89	16.13	15.79	15.24	15.40	14.91	15.27	15.96
9	13.13	14.83	15.79	15.68	15.92	16.18	15.80	15.29	15.27	15.01	15.23	15.94
10	13.16	14.84	15.81	15.70	15.96	16.03	15.85	15.28	15.26	15.01	15.35	15.89
11	13.38	14.65	15.81	15.65	16.02	16.00	15.83	15.26	15.22	15.05	15.39	15.83
12	13.26	14.55	15.86	15.76	15.97	16.12	15.87	15.24	15.14	15.05	15.38	15.85
13	13.30	14.73	15.83	15.84	15.91	16.11	15.62	15.18	15.13	15.07	15.31	15.86
14	13.54	14.76	15.88	15.67	16.00	15.92	15.71	15.24	15.19	14.98	15.49	15.95
15	13.71	14.75	15.94	15.70	16.11	15.76	15.71	15.23	15.12	15.01	15.49	15.97
16	13.74	14.88	15.71	15.79	15.98	15.81	15.66	15.28	15.11	15.05	15.45	15.97
17	13.84	14.87	15.62	15.87	16.03	15.93	15.66	15.29	15.14	15.02	15.46	15.94
18	13.88	14.86	15.76	15.88	16.08	16.09	15.70	15.25	15.14	15.03	15.51	15.93
19	14.02	15.04	15.87	15.90	16.09	15.93	15.79	15.28	15.12	15.06	15.58	15.96
20	14.02	14.95	15.86	15.93	16.15	16.02	15.60	15.23	15.05	15.12	15.63	15.94
21	13.97	14.94	15.86	15.96	15.84	16.13	15.60	15.23	15.09	15.08	15.61	15.93
22	13.83	15.19	15.87	15.70	15.98	16.14	15.57	15.22	15.08	15.17	15.70	15.94
23	13.93	15.31	15.84	15.75	16.08	16.18	15.55	15.20	15.15	15.20	15.68	15.93
24	14.02	15.34	15.90	15.76	16.11	16.17	15.56	15.18	15.10	15.23	15.73	15.92
25	13.94	15.44	15.92	15.84	15.92	16.12	15.60	15.11	15.08	15.21	15.68	15.86
26	14.00	15.52	15.90	15.81	15.90	16.14	15.50	15.05	15.08	15.27	15.75	15.79
27	14.02	15.59	15.91	15.67	16.05	16.13	15.48	15.00	14.99	15.28	15.71	15.72
28	13.90	15.62	15.92	15.58	16.08	16.13	15.38	15.05	15.05	15.24	15.81	15.68
29	13.71	15.64	15.59	15.80	16.04	16.08	15.28	15.03	14.99	15.23	15.80	15.67
30	13.82	15.67	15.63	15.91	---	16.11	15.37	15.02	15.01	15.27	15.78	15.66
31	13.83	---	15.87	15.92	---	16.15	---	15.05	---	15.28	15.	

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02273200 CANAL 41A AT S-68 AT LAKE ISTOKPOGA, NEAR LAKE PLACID, FL

LOCATION.--Lat 27°19'55", long 81°15'05", in sec.19 or 20, T.36 S., R.31 E., Highlands County, Hydrologic Unit 03090101, 33 ft from right bank, 350 ft upstream from control structure 68 at Lake Istokpoga, and 7.5 mi northeast of town of Lake Placid.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1963 to current year. Prior to October 1968, published as "above S-68."

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. 28, 1973, at same site at datum 30.00 ft higher.

REMARKS.--Records good. Flow completely regulated by operation of control structure 68. Records do not include diversions through stoplog control structure on Istokpoga Canal. Gage heights are published as elevations for Lake Istokpoga (station 02271700) in the section of this report entitled "LAKE ELEVATIONS."

COOPERATION.--Gate-operation record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--24 years (water years 1965-88, corrected), 254 ft³/s, 184,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s, Sept. 6, 1965; maximum gage height, 40.23 ft, present datum, Dec. 10, 1969, Sept. 3, 1979, affected by wind; no flow for many days each year; minimum gage height, 35.82 ft, present datum, June 17, 1971, affected by wind.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,250 ft³/s, Feb. 26-28; maximum gage height, 39.77 ft, Nov. 17, affected by wind, no flow for many days; minimum gage height, 37.16 ft, June 5, affected by wind.

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	.00	.00	619	.00	.00	298	1350	300	.00	.00	450	1350
2	.00	1150	450	.00	.00	.00	1350	683	.00	.00	450	1060
3	.00	1800	450	.00	.00	.00	1350	900	.00	.00	450	900
4	.00	1800	156	.00	94	.00	1350	611	.00	.00	450	900
5	.00	928	.00	.00	346	.00	1350	450	.00	.00	450	900
6	.00	585	.00	.00	450	.00	1350	450	.00	.00	450	613
7	.00	900	.00	.00	450	.00	1350	450	.00	.00	450	739
8	.00	590	.00	.00	450	.00	1350	450	.00	.00	450	900
9	.00	165	289	.00	450	.00	1350	450	.00	.00	450	900
10	.00	.00	450	.00	450	.00	1350	354	.00	.00	450	900
11	.00	.00	450	287	450	.00	1350	300	.00	.00	450	900
12	.00	.00	450	450	156	.00	672	300	.00	.00	450	900
13	.00	.00	450	450	.00	.00	300	300	.00	.00	450	900
14	.00	.00	450	450	.00	.00	300	300	.00	.00	450	900
15	.00	.00	450	161	.00	.00	300	300	.00	.00	450	900
16	.00	.00	450	.00	289	.00	300	687	.00	.00	450	900
17	.00	.00	450	.00	450	.00	300	900	.00	.00	450	900
18	.00	861	154	.00	156	.00	300	900	.00	.00	561	330
19	96	1350	.00	.00	.00	.00	300	622	.00	.00	630	.00
20	345	1350	.00	.00	.00	.00	300	450	.00	.00	630	.00
21	735	1060	.00	.00	.00	.00	300	450	.00	.00	630	.00
22	1480	900	.00	291	574	.00	300	450	.00	.00	801	.00
23	1220	330	296	450	900	.00	300	450	.00	.00	900	.00
24	300	.00	450	450	900	.00	300	450	.00	.00	900	.00
25	300	.00	450	163	1770	91	300	450	.00	292	900	.00
26	322	.00	450	.00	2250	150	300	450	.00	450	1190	.00
27	.00	525	450	.00	2250	150	300	450	.00	450	1350	.00
28	.00	900	450	.00	2250	910	300	450	.00	450	1350	.00
29	62	900	450	.00	862	1350	300	450	.00	450	1350	.00
30	.00	900	450	.00	---	1350	300	450	.00	450	1350	.00
31	.00	---	159	.00	---	1350	---	163	---	450	1350	---
TOTAL	4860.00	16994.00	9323.00	3152.00	15947.00	5649.00	20922	14820	0.00	2992.00	21542	15792.00
MEAN	157	566	301	102	550	182	697	478	.00	96.5	695	526
MAX	1480	1800	619	450	2250	1350	1350	900	.00	450	1350	1350
MIN	.00	.00	.00	.00	.00	.00	300	163	.00	.00	450	.00
AC-FT	9640	33710	18490	6250	31630	11200	41500	29400	.0	5930	42730	31320
CAL YR 1987	TOTAL	60943.00	MEAN	167	MAX	1800	MIN	.00	AC-FT	120900		
WTR YR 1988	TOTAL	131993.00	MEAN	361	MAX	2250	MIN	.00	AC-FT	261800		

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02273300 CANAL 41A AT S-84, NEAR OKEECHOBEE, FL

LOCATION.--Lat 27°12'55", long 80°58'55", in SW¼ sec.36, T.37 S., R.33 E., Highlands County, Hydrologic Unit 03090101, 40 ft from left bank, 500 ft upstream from control structure 84, and 9.5 mi west of Okeechobee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1963 to current year. Prior to October 1968, published as "above S-84."

GAGE.--Water-stage and deflection-meter recorder. Datum of gage is 10.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records fair. Flow regulated by operation of structure 84, by storage releases upstream at structure 68 at outlet of Lake Istokpoga and several small diversions above station for irrigation. Flow may be diverted into either Indian Prairie Canal or Harney Pond Canal by combined operation of structures 70, 75, 82, and 83.

COOPERATION.--Gate-operation record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--24 years (water years 1965-88), 187 ft³/s, 135,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,080 ft³/s, Oct. 3, 1969; maximum gage height, 17.39 ft, July 9, 1984; no flow for many days each year; minimum gage height, 6.78 ft, Oct. 16, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 1,820 ft³/s, Nov. 4; maximum gage height, 15.82 ft, Sept. 18; no flow for many days; minimum gage height, 12.46 ft, Sept. 19.

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	.00	236	414	.00	.00	369	293	.00	.00	.00	608	839
2	.00	1600	701	.00	.00	.00	223	466	.00	.00	542	512
3	.00	1780	581	.00	.00	.00	281	415	.00	.00	466	507
4	.00	1820	235	.00	238	.00	168	178	.00	.00	444	527
5	.00	1550	.00	.00	535	.00	291	181	.00	.00	495	446
6	.00	1330	.00	.00	364	.00	286	182	.00	.00	430	251
7	.00	1470	.00	.00	649	.00	322	218	.00	.00	418	265
8	.00	1060	136	.00	755	.00	252	146	.00	.00	461	638
9	.00	627	231	.00	827	.00	119	186	.00	.00	454	559
10	.00	212	557	65	560	610	363	.00	.00	.00	770	356
11	215	176	653	589	732	.00	202	.00	.00	.00	518	447
12	522	166	365	517	341	.00	212	180	.00	.00	529	548
13	1180	163	263	696	.00	.00	270	.00	.00	159	625	498
14	1140	148	506	601	.00	.00	246	147	.00	.00	450	268
15	561	.00	350	292	.00	.00	.00	.00	.00	.00	661	674
16	498	155	627	.00	520	.00	185	255	.00	.00	566	273
17	410	.00	451	.00	667	.00	94	347	.00	.00	428	537
18	188	1080	124	.00	250	91	64	332	.00	.00	617	636
19	223	1500	.00	.00	488	221	227	206	.00	.00	652	274
20	404	1670	.00	8.0	.00	185	.00	.00	.00	.00	675	.00
21	636	1200	100	144	.00	314	.00	203	.00	.00	767	.00
22	1200	1010	.00	766	239	219	152	187	.00	.00	765	.00
23	1220	614	284	1570	788	.00	.00	177	.00	.00	745	.00
24	715	314	384	1520	789	222	98	66	.00	175	655	.00
25	863	144	251	623	1200	.00	.00	135	.00	55	621	.00
26	422	204	371	.00	517	542	.00	192	.00	456	840	.00
27	.00	537	455	.00	576	144	138	212	.00	538	882	.00
28	.00	769	216	.00	1520	456	.00	.00	.00	563	852	.00
29	232	882	447	285	453	288	.00	214	.00	441	866	.00
30	144	632	378	.00	---	503	139	.00	.00	484	669	.00
31	.00	---	217	.00	---	405	---	147	---	332	979	---
TOTAL	10773.00	23049.00	9297.00	7676.00	13008.00	4569.00	4625.00	4972.00	0.00	3203.00	19450	9055.00
MEAN	348	768	300	248	449	147	154	160	.00	103	627	302
MAX	1220	1820	701	1570	1520	610	363	466	.00	563	979	839
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	418	.00
AC-FT	21370	45720	18440	15230	25800	9060	9170	9860	.0	6350	38580	17960
CAL YR 1987	TOTAL	59165.00	MEAN	162	MAX	1820	MIN	.00	AC-FT	117400		
WTR YR 1988	TOTAL	109677.00	MEAN	300	MAX	1820	MIN	.00	AC-FT	217500		

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02273300 CANAL 41A AT S-84, NEAR OKEECHOBEE, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.59	14.39	14.53	14.05	14.45	14.20	14.41	15.10	13.91	14.76	14.48	14.26
2	14.70	14.43	14.45	14.10	14.56	13.97	14.42	14.52	13.90	14.83	14.40	14.23
3	14.78	14.43	14.47	14.12	14.65	14.02	14.35	14.38	13.91	14.87	14.39	14.26
4	14.82	14.42	14.18	14.26	14.38	14.10	14.47	14.17	13.92	14.89	14.51	14.14
5	14.83	14.57	14.20	14.34	14.42	14.19	14.31	14.37	13.90	14.90	14.42	14.14
6	14.84	14.48	14.39	14.37	14.44	14.35	14.33	14.35	13.92	14.91	14.37	13.88
7	14.85	14.47	14.57	14.38	14.43	14.50	14.44	14.40	14.06	14.92	14.36	14.24
8	14.84	14.53	14.65	14.46	14.43	14.62	14.38	14.32	14.36	14.93	14.38	14.03
9	14.82	14.40	14.26	14.53	14.47	14.76	14.41	14.33	14.49	14.97	14.44	14.24
10	14.82	14.68	14.44	14.72	14.34	14.05	14.33	14.11	14.53	14.98	14.42	14.14
11	14.33	14.52	14.36	14.33	14.45	13.84	14.31	14.62	14.55	14.99	14.33	13.99
12	14.43	14.41	14.49	14.40	14.04	14.08	14.45	14.32	14.55	14.98	14.42	13.95
13	14.40	14.37	14.03	14.42	14.05	14.28	14.29	13.99	14.54	14.72	14.37	13.98
14	14.46	14.32	14.08	14.32	14.23	14.45	14.14	14.53	14.53	13.93	14.34	14.09
15	14.44	14.51	14.04	14.29	14.41	14.56	14.42	14.26	14.53	14.04	14.41	13.87
16	14.46	14.24	14.11	14.34	14.45	14.60	14.01	14.44	14.52	14.09	14.34	14.08
17	14.42	14.39	13.98	14.53	14.33	14.65	14.43	14.38	14.50	14.12	14.32	14.00
18	14.32	14.47	14.26	14.68	14.26	14.73	14.02	14.30	14.45	14.21	14.44	14.62
19	14.38	14.48	14.44	14.82	13.99	14.29	14.47	14.27	14.44	14.32	14.42	13.47
20	14.43	14.40	14.52	14.92	13.59	14.44	14.01	14.45	14.47	14.39	14.45	12.87
21	14.43	14.36	13.97	13.96	13.78	14.26	14.58	14.20	14.53	14.44	14.27	12.96
22	14.42	14.39	13.75	14.35	14.26	14.23	14.26	14.25	14.53	14.48	14.28	13.03
23	14.50	14.46	13.90	14.50	14.38	14.29	14.16	14.29	14.53	14.57	14.25	13.08
24	14.52	14.37	13.94	14.53	14.50	14.46	14.23	14.35	14.53	14.77	14.26	13.12
25	14.46	14.49	14.00	14.15	14.46	14.16	14.07	14.13	14.53	14.10	14.34	13.17
26	14.41	14.33	13.99	14.35	14.41	14.25	14.51	14.15	14.53	14.48	14.36	13.21
27	14.62	14.47	14.09	14.65	14.58	14.35	14.10	14.61	14.53	14.43	14.23	13.25
28	14.78	14.41	13.97	14.86	14.45	14.28	14.30	14.10	14.54	14.38	14.26	13.27
29	14.58	14.44	13.95	14.27	14.35	14.39	14.67	14.52	14.55	14.43	14.23	13.28
30	14.59	14.41	13.91	14.18	---	14.36	14.03	14.23	14.59	14.54	14.24	13.30
31	14.77	---	13.81	14.33	---	14.29	---	14.03	---	14.38	14.17	---
MEAN	14.58	14.43	14.18	14.40	14.33	14.32	14.31	14.34	14.38	14.57	14.35	13.74
MAX	14.85	14.68	14.65	14.92	14.65	14.76	14.67	15.10	14.59	14.99	14.51	14.62
MIN	14.32	14.24	13.75	13.96	13.59	13.84	14.01	13.99	13.90	13.93	14.17	12.87

SOUTH FLORIDA

TAYLOR CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTH

02274000 TAYLOR CREEK NEAR BASINGER, FL

LOCATION.--Lat 27°23'39", long 80°53'44", in SE¼ sec.26, T.35 S., R.34 E., Okeechobee County, Hydrologic Unit 03090102, near center of channel on downstream side of bridge on State Highway 68, 800 ft upstream from control structure 3, 0.8 mi downstream from small tributary, 8.5 mi east of Basinger, and 17 mi upstream from mouth.

DRAINAGE AREA.--15.7 mi².

PERIOD OF RECORD.--June 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 25.00 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 13, 1960 at present site, at datum 4.10 ft higher. Apr. 14, 1960, to Sept. 30, 1962, at site about 500 ft downstream, and Oct. 1, 1962, to Sept. 30, 1966, at present site, at datum 4.10 ft higher.

REMARKS.--Estimated daily discharges: Oct. 18 to Dec. 9, May 13-17, May 26 to July 19. Records fair except for estimated daily discharges, which are poor. Some diversion during low flow for irrigation. Flow regulated at station by operation of control structure 3 since February 1965.

AVERAGE DISCHARGE.--33 years, 14.2 ft³/s, 10,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,540 ft³/s, Oct. 15, 1956, gage height, 11.98 ft, present datum, from rating curve extended above 1,100 ft³/s; no flow at times in most years; minimum gage height recorded, 2.62 ft, Oct. 6-10, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 244 ft³/s, Aug. 6, gage height, 6.76 ft; no flow for many days; minimum gage height, 2.62 ft, Oct. 6-10.

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	.60	1.5	9.2	1.1	4.5	2.1	2.3	.96	.00	2.5	30	5.8
2	.42	6.0	8.4	1.1	4.3	1.9	2.1	.96	.00	1.7	53	5.8
3	.24	30	7.4	1.1	3.5	1.7	1.6	.78	.00	1.1	53	5.1
4	.12	31	6.8	1.2	3.2	1.4	1.3	.66	.00	.70	67	4.3
5	.06	32	6.0	1.3	2.7	2.7	1.1	.60	.00	.50	63	4.7
6	.00	33	5.4	1.3	2.3	10	1.1	.54	.00	.50	166	6.2
7	.00	27	4.9	1.2	2.3	14	.96	.48	.00	2.0	106	7.5
8	.00	22	4.5	1.4	7.3	10	.84	.48	.06	1.5	72	14
9	.00	19	4.0	1.7	13	8.1	.84	.48	1.5	1.1	71	18
10	.00	16	3.7	2.7	12	8.1	.84	.48	2.0	.95	31	13
11	.30	13	3.5	7.9	9.9	8.1	.84	.42	2.2	.95	39	9.5
12	10	11	3.2	6.6	8.5	6.6	.84	.48	2.0	1.0	34	7.2
13	34	9.5	3.0	5.4	7.0	5.4	.78	.43	1.5	1.5	59	5.4
14	36	8.0	3.0	4.5	5.6	4.9	.72	.42	1.7	9.5	51	5.1
15	38	7.0	2.5	4.0	5.1	4.1	.72	.42	1.5	7.0	33	5.1
16	29	5.6	2.5	3.4	9.9	3.5	.66	.43	1.0	5.0	24	4.0
17	20	5.0	2.5	3.0	9.5	3.0	.66	.43	.80	4.2	18	3.0
18	15	5.0	2.3	3.0	7.7	3.7	.66	.48	.67	6.0	16	2.3
19	12	7.0	1.9	2.5	6.6	105	.60	.48	.56	1.1	12	2.1
20	9.6	50	1.9	2.3	5.8	96	.60	.54	.66	20	9.9	1.9
21	7.2	52	1.7	2.5	5.4	60	.60	.48	.86	30	9.7	1.4
22	6.0	50	1.7	9.9	5.8	39	.60	.48	.90	36	14	1.1
23	5.0	40	1.6	8.5	5.4	25	.48	.54	.84	28	32	1.1
24	4.3	33	1.6	7.0	5.2	17	.48	.60	.60	26	41	.90
25	3.7	25	1.4	10	4.7	12	.48	.66	.35	21	40	.84
26	3.2	20	1.3	15	4.0	8.5	.48	.70	.19	19	62	.84
27	2.6	16	1.2	12	3.2	7.2	.48	.66	.22	17	20	.84
28	2.3	13	1.2	9.1	3.0	6.0	.48	.06	1.0	17	12	.84
29	2.0	11	1.1	7.3	2.5	4.9	.48	.00	2.3	28	8.9	.84
30	1.7	10	1.1	6.0	---	4.1	.72	.00	2.6	52	6.8	.84
31	1.5	---	1.1	5.1	---	3.2	---	.00	---	32	5.4	---
TOTAL	244.84	608.6	101.6	149.1	169.9	487.2	25.34	15.13	26.01	374.80	1259.7	139.54
MEAN	7.90	20.3	3.28	4.81	5.86	15.7	.84	.49	.87	12.1	40.6	4.65
MAX	38	52	9.2	15	13	105	2.3	.96	2.6	52	166	18
MIN	.00	1.5	1.1	1.1	2.3	1.4	.48	.00	.00	.50	5.4	.84
AC-FT	486	1210	202	296	337	966	50	30	52	743	2500	277

CAL YR 1987 TOTAL 2960.09 MEAN 8.11 MAX 177 MIN .00 AC-FT 5870
WTR YR 1988 TOTAL 3601.76 MEAN 9.84 MAX 166 MIN .00 AC-FT 7140

SOUTH FLORIDA

TAYLOR CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTH

02274000 TAYLOR CREEK NEAR BASINGER, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.73	---	---	2.73	2.94	2.81	2.82	2.74	---	---	3.98	3.05
2	2.70	---	---	2.73	2.92	2.80	2.81	2.74	---	---	4.52	3.05
3	2.67	---	---	2.74	2.88	2.79	2.79	2.72	---	---	4.52	3.01
4	2.65	---	---	2.75	2.86	2.77	2.77	2.70	---	---	4.78	2.97
5	2.64	---	---	2.76	2.84	2.84	2.75	2.69	---	---	4.71	2.99
6	2.63	---	---	2.76	2.82	3.28	2.74	2.68	---	---	6.07	3.07
7	2.62	---	---	2.75	2.82	3.43	2.71	2.67	---	---	5.35	3.14
8	2.62	---	---	2.77	3.11	3.29	2.70	2.67	---	---	4.85	3.46
9	2.62	---	---	2.79	3.42	3.15	2.70	2.67	---	---	4.84	3.62
10	2.63	---	2.89	2.84	3.34	3.15	2.70	2.67	---	---	3.99	3.40
11	2.68	---	2.88	3.14	3.26	3.15	2.70	2.66	---	---	4.21	3.24
12	3.56	---	2.86	3.06	3.18	3.06	2.70	2.67	---	---	4.08	3.12
13	4.37	---	2.85	2.99	3.08	2.99	2.70	---	---	---	4.63	3.03
14	4.42	---	2.85	2.93	3.00	2.96	2.69	---	---	---	4.48	3.01
15	4.46	---	2.83	2.90	2.97	2.91	2.69	---	---	---	4.05	3.01
16	4.23	---	2.83	2.88	3.26	2.87	2.68	---	---	---	3.80	2.95
17	3.95	---	2.83	2.85	3.23	2.85	2.68	---	---	---	3.61	2.90
18	---	---	2.82	2.85	3.13	2.89	2.68	2.68	---	---	3.52	2.87
19	---	---	2.80	2.83	3.06	5.33	2.67	2.68	---	---	3.36	2.86
20	---	---	2.80	2.82	3.01	5.21	2.67	2.69	---	3.68	3.26	2.85
21	---	---	2.79	2.83	2.99	4.66	2.67	2.68	---	3.98	3.25	2.82
22	---	---	2.79	3.25	3.01	4.20	2.67	2.68	---	4.12	3.44	2.79
23	---	---	2.78	3.18	2.99	3.85	2.66	2.68	---	3.92	4.03	2.78
24	---	---	2.78	3.08	2.98	3.55	2.66	2.70	---	3.87	4.26	2.75
25	---	---	2.77	3.27	2.95	3.34	2.66	2.71	---	3.71	4.22	2.74
26	---	---	2.76	3.47	2.90	3.17	2.66	---	---	3.65	4.69	2.74
27	---	---	2.75	3.35	2.86	3.10	2.66	---	---	3.56	3.68	2.74
28	---	---	2.75	3.21	2.85	3.03	2.66	---	---	3.57	3.35	2.74
29	---	---	2.74	3.11	2.83	2.96	2.66	---	---	3.98	3.21	2.74
30	---	---	2.74	3.03	---	2.91	2.70	---	---	4.50	3.10	2.74
31	---	---	2.73	2.97	---	2.86	---	---	---	4.02	3.03	---
MEAN	---	---	---	2.96	3.02	3.30	2.70	---	---	---	4.09	2.97
MAX	---	---	---	3.47	3.42	5.33	2.82	---	---	---	6.07	3.62
MIN	---	---	---	2.73	2.82	2.77	2.66	---	---	---	3.03	2.74

SOUTH FLORIDA

TAYLOR CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTH

02274330 TAYLOR CREEK ABOVE S-1, NEAR OKEECHOBEE, FL

LOCATION.--Lat 27°17'47", long 80°49'44", in NE¼ sec.33, T.36 S., R.35 E., Okeechobee County, Hydrologic Unit 03090102, near left bank on upstream side of wingwall of abandoned control structure 1,800 ft upstream from U.S. Highway 441, 0.3 mi upstream from Williamson Ditch, 3.7 mi north of Okeechobee, and 9.7 mi upstream from mouth at control structure 191.

DRAINAGE AREA.--62.2 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to June 25, 1964, reference point at present site and June 25, 1964 to May 31, 1976 at site 150 ft upstream at same datum.

REMARKS.--Flow regulated by control structure 191 beginning July 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 24.69 ft, June 23, 1973, result of coffer dam; minimum, 12.87 ft, estimated, Sept. 7, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 20.77 ft, Nov. 20; minimum, 18.61 ft, Feb. 21.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.22	19.25	19.21	19.14	19.19	19.19	19.18	19.26	19.29	19.24	19.30	19.29
2	19.14	19.27	19.21	19.16	19.26	19.36	19.23	19.23	19.28	19.24	19.45	19.28
3	19.21	19.37	19.26	19.31	19.20	19.17	19.36	19.28	19.25	19.19	19.44	19.27
4	19.25	19.56	19.19	19.19	19.32	19.26	19.28	19.19	19.21	19.28	19.35	19.30
5	19.26	19.58	19.22	19.11	19.09	19.26	19.17	19.24	19.21	19.32	19.33	19.24
6	19.27	19.48	19.23	19.25	19.23	19.23	19.27	19.20	19.22	19.29	19.41	19.29
7	19.28	19.38	19.19	19.38	19.28	19.19	19.33	19.29	19.30	19.18	19.38	19.28
8	19.26	19.33	19.20	19.10	19.20	19.23	19.22	19.34	19.13	19.31	19.31	19.23
9	19.26	19.29	19.23	19.16	19.21	19.26	19.12	19.37	19.30	19.40	19.28	19.26
10	19.28	19.25	19.25	19.27	19.24	19.16	19.23	19.11	19.37	19.21	19.39	19.29
11	19.40	19.23	19.18	19.18	19.21	19.21	19.35	19.17	19.11	19.21	19.74	19.19
12	19.31	19.22	19.19	19.21	19.24	19.28	19.21	19.22	19.19	19.34	19.63	19.22
13	19.34	19.23	19.31	19.23	19.14	19.30	19.05	19.25	19.24	19.31	19.48	19.24
14	19.25	19.22	19.15	19.13	19.23	19.14	19.14	19.26	19.28	19.17	19.65	19.26
15	19.28	19.25	19.28	19.18	19.27	19.31	19.20	19.26	19.31	19.30	19.49	19.27
16	19.24	19.23	19.26	19.23	19.22	19.09	19.25	19.28	19.33	19.21	19.36	19.19
17	19.22	19.21	19.11	19.22	19.22	19.24	19.29	---	19.37	---	19.31	19.33
18	19.25	19.69	19.27	19.24	19.51	19.38	19.34	---	19.42	---	19.29	19.14
19	19.22	20.00	19.16	19.29	19.51	19.29	19.37	---	19.30	---	19.31	19.37
20	19.26	20.46	19.29	19.19	19.30	19.31	19.40	---	19.28	---	19.25	19.10
21	19.20	20.07	19.14	19.29	19.14	19.28	19.42	---	19.19	---	19.30	19.29
22	19.17	19.58	19.26	19.18	19.20	19.26	19.43	---	19.27	---	19.36	19.25
23	19.28	19.40	19.10	19.18	19.22	19.26	19.39	---	19.06	---	19.34	19.15
24	19.14	19.33	19.29	19.20	19.21	19.25	19.05	---	19.28	---	19.72	19.28
25	19.27	19.30	19.27	19.19	19.16	19.24	19.09	---	19.41	---	19.45	19.39
26	19.21	19.30	19.12	19.18	19.23	19.22	19.10	---	19.17	---	19.52	19.10
27	19.19	19.24	19.30	19.15	19.16	19.22	19.12	---	19.09	---	19.34	19.13
28	19.35	19.22	19.22	19.18	19.27	19.24	19.14	---	19.15	---	19.31	19.25
29	19.10	19.23	19.09	19.24	19.15	19.33	19.16	---	19.30	---	19.29	19.34
30	19.21	19.24	19.23	19.16	---	19.14	19.14	---	---	---	19.25	19.32
31	19.33	---	19.35	19.26	---	19.35	---	19.28	---	---	19.27	---
MEAN	19.25	19.41	19.22	19.21	19.23	19.25	19.23	---	---	---	19.40	19.25
MAX	19.40	20.46	19.35	19.38	19.51	19.38	19.43	---	---	---	19.74	19.39
MIN	19.10	19.21	19.09	19.10	19.09	19.09	19.05	---	---	---	19.25	19.10

CAL YR 1987 MEAN 19.26 MAX 20.46 MIN 18.96

SOUTH FLORIDA

TAYLOR CREEK BASIN AND INFLOW TO LAKE OKEECHOBEE FROM NORTH

02274495 WILLIAMSON DITCH AT S-7, NEAR OKEECHOBEE, FL

LOCATION.--Lat 27°17'45", long 80°49'35", in NW¼ sec.34, T.36 S., R.35 E., Okeechobee County, Hydrologic Unit 03090102, near right bank 125 ft upstream from control structure 7, 450 ft upstream from mouth, and 3.6 mi north of Okeechobee.

DRAINAGE AREA.--35.4 mi².

PERIOD OF RECORD.--March 1964 to current year. Prior to October 1968, published as "above S-7."

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to June 23, 1964, nonrecording gage at site 125 ft downstream at same datum.

REMARKS.--Records good above 30 ft³/s and poor below. Flow regulated at times by stoplog control 1 mi upstream.

AVERAGE DISCHARGE.--24 years (water years 1965-88), 29.5 ft³/s, 11.28 in/yr, 21,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s, Aug. 28, 1964, gage height, 23.12 ft; maximum gage height, 23.62 ft, July 18, 1974, backwater from Taylor Creek; no flow for several days in 1981, 1985, 1986, 1987; minimum gage height after completion of weir in April 1964, 19.24 ft, June 2, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 402 ft³/s, Aug. 11; maximum gage height, 21.65 ft, Nov. 20, affected by backwater. No flow Apr. 25, 27-29; minimum gage height, 19.26 ft, June 20.

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	2.7	30	6.1	1.6	3.9	1.6	.54	1.4	.13	13	37	34
2	2.1	126	5.8	2.1	4.3	2.1	.17	4.6	.17	6.1	198	65
3	1.6	117	6.9	3.0	3.0	2.1	1.2	2.7	.17	3.0	182	38
4	1.2	329	6.1	3.0	3.6	1.8	1.8	1.8	.17	1.6	108	21
5	.54	303	4.6	1.2	2.4	2.7	.94	1.2	.17	1.4	68	13
6	.54	235	3.9	1.6	2.1	5.4	1.2	.35	.17	2.4	52	11
7	.74	144	3.6	2.1	2.4	8.6	.94	.17	.74	2.7	38	8.6
8	.74	87	3.6	1.8	26	5.8	.94	.13	2.4	2.4	27	10
9	.74	55	3.6	1.6	34	5.0	.74	.10	2.1	2.7	20	32
10	1.2	26	3.9	2.4	20	6.5	.94	.11	2.1	2.1	87	20
11	2.7	45	3.9	8.6	12	6.9	1.8	.09	2.4	1.2	371	12
12	148	30	3.6	9.5	9.1	5.0	1.6	.05	1.2	1.4	345	7.7
13	157	20	3.6	7.7	6.9	3.6	.54	.94	.74	1.8	293	5.8
14	62	15	3.3	5.8	5.8	3.9	.35	5.0	.35	1.8	346	5.4
15	45	13	3.9	5.0	5.0	3.0	.17	30	.54	5.8	215	3.6
16	36	10	2.7	3.9	5.8	2.4	.17	56	.74	3.9	128	3.0
17	34	8.6	3.9	3.6	5.0	1.6	.54	32	.74	2.7	113	3.3
18	21	28	3.9	2.7	6.9	3.0	.94	17	.94	3.9	83	2.7
19	12	97	2.7	3.0	14	63	1.4	9.1	.09	18	63	3.0
20	8.2	332	3.0	1.8	4.3	98	1.8	5.4	2.5	109	52	2.1
21	6.1	206	2.4	2.7	4.3	48	1.8	2.7	14	48	71	1.4
22	5.0	98	2.7	5.0	5.0	25	1.8	1.2	9.1	23	72	1.2
23	3.3	55	1.8	5.8	5.0	14	1.4	1.6	6.5	12	52	.74
24	3.0	41	1.2	4.6	6.1	9.5	.10	2.1	3.9	7.7	85	1.6
25	2.4	32	1.8	5.0	5.0	6.9	.00	1.8	2.7	6.1	55	2.4
26	3.0	26	1.6	7.3	3.3	5.8	.17	1.4	1.6	5.8	49	1.8
27	2.1	25	2.1	6.9	2.7	6.1	.00	.17	.54	3.6	34	1.4
28	2.7	18	2.1	5.8	2.1	3.0	.00	.17	.54	3.0	26	1.6
29	2.7	13	1.8	5.0	2.1	3.3	.00	.17	.94	9.5	17	2.1
30	2.7	10	2.1	3.6	---	2.7	.16	.17	16	55	8.6	2.4
31	2.1	---	2.4	3.6	---	2.1	---	.17	---	37	8.6	---
TOTAL	573.10	2574.6	104.6	127.3	212.1	358.4	24.15	179.79	74.38	397.6	3304.2	317.84
MEAN	18.5	85.8	3.37	4.11	7.31	11.6	.80	5.80	2.48	12.8	107	10.6
MAX	157	332	6.9	9.5	34	98	1.8	56	16	109	371	65
MIN	.54	8.6	1.2	1.2	2.1	1.6	.00	.05	.09	1.2	8.6	.74
AC-FT	1140	5110	207	252	421	711	48	357	148	789	6550	630
CFSM	.52	2.42	.10	.12	.21	.33	.02	.16	.07	.36	3.01	.30
IN.	.60	2.71	.11	.13	.22	.38	.03	.19	.08	.42	3.47	.33

CAL YR 1987 TOTAL 5276.41 MEAN 14.5 MAX 332 MIN .00 AC-FT 10470 CFSM .41 IN. 5.54
WTR YR 1988 TOTAL 8248.06 MEAN 22.5 MAX 371 MIN .00 AC-FT 16360 CFSM .64 IN. 8.67

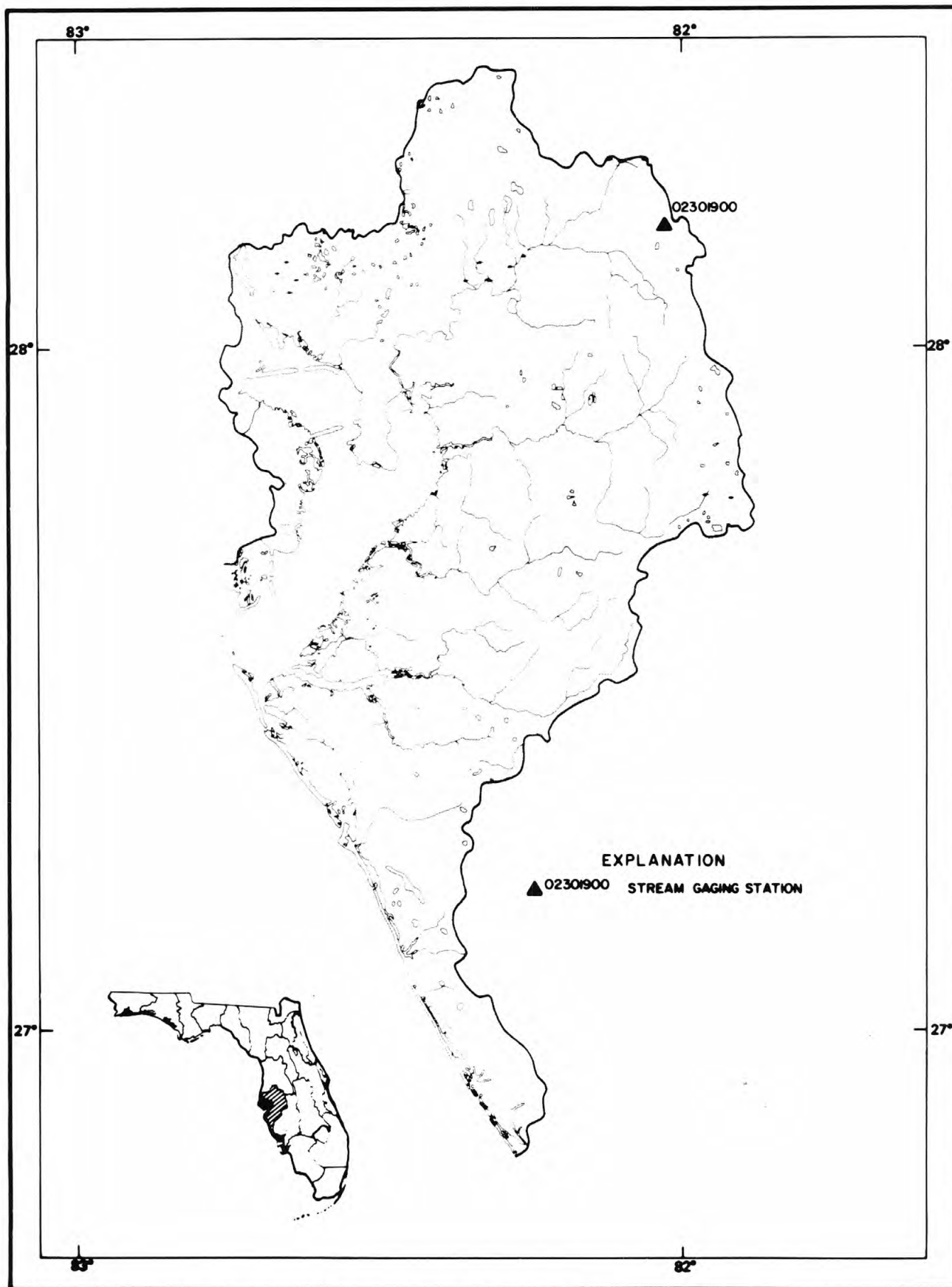


Figure 21.--Location of stream gaging stations in the Manatee, Little Manatee, Alafia, and Hillsborough River basins, and Tampa Bay and coastal areas.

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.--Estimated daily discharges: June 23 to Aug. 5, Aug. 23 to Sept. 6, Sept. 26-30. Records fair above 10 ft³/s and poor below. Some diversion at times by pumpage for irrigation.

AVERAGE DISCHARGE.--24 years (water years 1965-88), 8.39 ft³/s, 11.99 in/yr, 6,080 acre-ft/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)
Aug. 18	1015	757	7.50	Sept. 7	1515	*886	*7.67

Minimum discharge, 0.23 ft³/s, July 5, minimum gage height, 3.06 ft, Dec. 30; minimum may have been lower during period of missing record, June 23 to Aug. 5.

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	38	2.7	4.6	2.1	5.4	2.6	2.4	2.7	1.5	.54	7.7	37
2	36	3.0	4.0	2.1	4.9	2.5	2.2	3.4	1.2	.47	9.8	30
3	15	3.8	3.7	2.1	4.6	2.4	2.1	2.7	1.1	.36	12	21
4	9.3	14	3.4	2.2	4.4	2.4	2.1	2.3	1.0	.29	11	45
5	6.4	16	3.1	2.3	4.1	3.5	2.1	2.0	.91	.23	9.4	100
6	4.9	10	2.8	2.4	3.9	17	2.0	1.7	1.0	.36	7.5	280
7	4.1	7.1	2.7	2.4	4.2	24	1.9	1.5	1.3	.32	12	859
8	3.6	5.3	2.9	2.8	5.2	16	1.7	1.4	1.6	.26	19	459
9	3.3	4.4	2.9	3.0	7.0	9.4	1.6	1.3	1.5	.25	12	196
10	2.9	4.3	2.8	3.7	6.9	18	1.6	1.2	1.4	1.5	13	116
11	2.8	4.2	2.8	4.1	5.8	22	1.7	1.2	1.3	1.7	13	62
12	5.6	3.8	2.7	3.8	5.0	13	1.7	1.2	1.2	1.3	11	32
13	17	3.5	2.5	3.4	4.3	17	1.8	1.2	1.0	1.1	8.2	17
14	12	3.4	2.5	3.2	3.7	34	1.6	1.3	.97	1.0	6.3	12
15	7.5	3.4	2.5	3.0	3.6	29	1.6	1.3	.93	3.4	5.5	10
16	5.8	3.1	3.0	2.9	6.0	13	1.5	1.2	.89	6.0	7.5	9.2
17	4.6	3.4	3.1	2.8	6.7	8.5	1.4	1.2	.89	10	29	8.8
18	4.1	18	2.8	2.7	5.4	7.5	1.4	1.5	.81	18	500	8.7
19	3.8	29	2.7	2.7	4.7	25	1.5	1.5	.76	12	270	8.5
20	3.7	27	2.6	2.7	4.3	38	2.1	1.3	.72	8.5	141	8.5
21	3.6	21	2.5	3.2	4.1	24	2.2	1.2	.79	6.2	77	8.4
22	3.4	12	2.5	8.5	4.5	12	1.9	1.1	.82	6.0	55	8.0
23	3.2	8.7	2.4	8.2	4.5	8.1	1.8	1.0	.85	10	28	7.8
24	3.0	6.9	2.3	5.8	4.2	6.5	1.7	.98	.73	25	18	7.7
25	2.8	5.8	2.4	19	3.8	5.6	1.6	4.2	.64	16	17	7.6
26	2.8	5.1	2.3	36	3.3	4.6	1.6	8.7	.61	15	34	7.5
27	2.8	5.5	2.3	25	3.0	4.0	1.5	6.7	.56	16	81	7.4
28	2.8	7.2	2.4	13	2.9	3.5	1.4	4.5	.52	32	47	7.3
29	2.7	6.8	2.3	9.2	2.7	3.2	1.3	3.1	1.0	20	26	7.2
30	2.6	5.6	1.9	7.4	---	2.8	1.4	2.3	.79	14	24	7.0
31	2.6	---	2.0	6.2	---	2.5	---	1.8	---	11	37	---
TOTAL	222.7	254.0	85.4	197.9	133.1	381.6	52.4	68.68	29.29	238.78	1548.9	2395.6
MEAN	7.18	8.47	2.75	6.38	4.59	12.3	1.75	2.22	.98	7.70	50.0	79.9
MAX	38	29	4.6	36	7.0	38	2.4	8.7	1.6	32	500	859
MIN	2.6	2.7	1.9	2.1	2.7	2.4	1.3	.98	.52	.23	5.5	7.0
AC-FT	442	504	169	393	264	757	104	136	58	474	3070	4750
CFSM	.76	.89	.29	.67	.48	1.30	.18	.23	.10	.81	5.26	8.41
IN.	.87	.99	.33	.77	.52	1.49	.21	.27	.11	.94	6.07	9.38

CAL YR 1987 TOTAL 3231.40 MEAN 8.85 MAX 280 MIN .92 AC-FT 6410 CFSM .93 IN. 12.65
WTR YR 1988 TOTAL 5608.35 MEAN 15.3 MAX 859 MIN .23 AC-FT 11120 CFSM 1.61 IN. 21.96

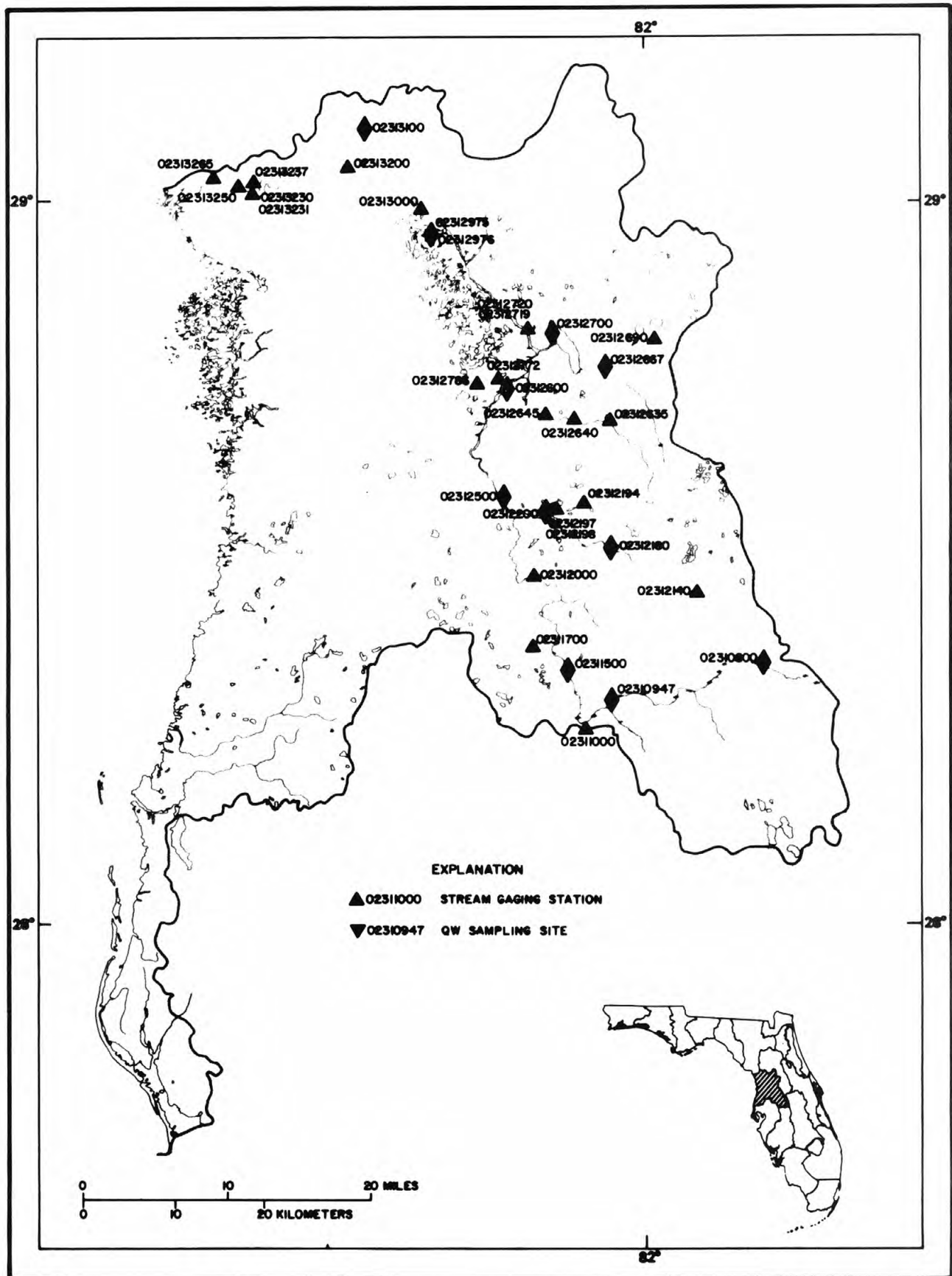


Figure 22.--Location of stream gaging stations in the Withlacoochee River basin and coastal areas.

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310800 WITHLACOCHEE RIVER NEAR EVA, FL
(National stream-quality accounting network station)

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.--30 years (water years 1959-88), 47.3 ft³/s, 4.94 in/yr, 34,270 acre-ft/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, 112 ft³/s, Mar. 20,21, gage height, 5.24 ft; no flow part of each day July 9,10; gage height, 2.60 ft, July 9,10.

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	2.3	.37	19	10	26	13	60	6.8	.83	.55	4.7	6.4
2	2.5	.71	18	9.4	25	12	56	6.3	.79	.42	4.4	5.6
3	2.1	6.7	19	9.0	24	12	53	6.5	.70	.30	5.4	4.4
4	1.6	21	19	8.7	24	11	50	5.7	.57	.22	5.0	3.8
5	1.2	19	17	8.4	23	12	48	4.6	.55	.15	3.7	7.5
6	1.3	18	15	8.0	25	24	43	3.6	1.1	.23	6.3	36
7	1.6	15	15	8.7	27	26	41	2.7	1.3	.21	4.9	52
8	1.1	13	15	14	29	28	38	2.2	3.0	.12	3.5	50
9	.74	11	16	14	29	27	35	1.8	3.1	.05	3.7	47
10	.57	10	17	16	27	33	32	1.8	4.4	.40	7.8	50
11	.52	9.1	17	16	25	33	30	2.1	3.4	1.1	6.7	41
12	1.6	7.8	16	15	24	31	29	1.6	2.0	.90	5.9	36
13	3.2	6.9	16	14	22	52	29	1.3	1.3	.62	6.7	34
14	3.4	6.3	16	13	22	78	27	1.4	1.0	1.1	4.8	32
15	2.4	6.0	17	12	22	86	24	2.8	.87	3.0	3.7	30
16	2.0	5.3	20	11	22	84	23	2.1	.71	3.1	3.5	29
17	2.1	7.2	20	9.9	24	81	21	1.6	.59	6.0	4.2	28
18	1.6	16	20	9.3	23	83	20	1.2	.59	14	6.0	27
19	1.2	17	18	8.6	21	109	20	.87	.84	7.7	5.8	27
20	1.0	21	17	8.0	22	111	19	.65	.66	5.6	5.1	27
21	.96	19	16	10	22	111	18	.50	.80	4.5	3.8	27
22	.72	17	15	14	21	107	15	.44	.77	4.4	3.7	28
23	.58	15	15	13	21	101	12	.37	.84	7.5	2.9	28
24	.49	14	14	14	20	97	10	.28	.69	12	2.3	27
25	.43	13	14	38	19	92	8.1	3.3	.57	9.6	1.9	26
26	.38	13	13	40	18	89	6.9	3.7	.66	9.2	2.2	25
27	.37	17	13	38	18	85	5.8	3.2	.54	10	2.3	25
28	.39	20	13	35	16	78	4.6	2.3	.50	15	2.2	24
29	.35	20	12	32	15	73	3.7	1.6	.92	12	1.8	23
30	.31	19	11	29	---	68	3.6	1.2	.79	9.8	1.5	22
31	.28	---	11	28	---	64	---	.96	---	6.8	2.4	---
TOTAL	39.29	384.38	494	514.0	656	1911	785.7	75.47	35.38	146.57	128.8	828.7
MEAN	1.27	12.8	15.9	16.6	22.6	61.6	26.2	2.43	1.18	4.73	4.15	27.6
MAX	3.4	21	20	40	29	111	60	6.8	4.4	15	7.8	52
MIN	.28	.37	11	8.0	15	11	3.6	.28	.50	.05	1.5	3.8
AC-FT	78	762	980	1020	1300	3790	1560	150	70	291	255	1640
CFSM	.01	.10	.12	.13	.17	.47	.20	.02	.01	.04	.03	.21
IN.	.01	.11	.14	.15	.19	.55	.22	.02	.01	.04	.04	.24
CAL YR 1987	TOTAL 8432.18	MEAN 23.1	MAX 379	MIN .28	AC-FT 16730	CFSM .18	IN. 2.41					
WTR YR 1988	TOTAL 5999.29	MEAN 16.4	MAX 111	MIN .05	AC-FT 11900	CFSM .13	IN. 1.72					

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310800 WITHLACOCHEE RIVER NEAR EVA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1958-61, 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1987.

WATER TEMPERATURE: October 1964 to September 1987.

INSTRUMENTATION.--Specific conductance and water temperature recorder since Nov. 3, 1976.

REMARKS.--Interruptions of record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
30...	0848	2.82	0.31	--	4.6	15.0	2.3
NOV							
03...	1500	3.36	6.5	67	4.4	22.0	4.7
30...	1350	4.14	19	74	--	18.0	5.3
DEC							
30...	1030	3.92	11	--	--	--	--
JAN							
28...	1500	4.48	35	--	--	--	--
FEB							
22...	1010	4.23	21	98	3.8	13.0	5.7
MAR							
01...	1535	4.02	12	--	--	--	--
30...	1510	4.90	68	--	--	--	--
APR							
14...	1405	4.38	26	90	4.3	18.0	4.7
28...	1615	3.59	4.5	96	3.5	24.5	2.0
JUN							
01...	1330	2.97	0.83	68	4.3	24.5	0.3
09...	0910	3.36	2.8	16	4.7	25.0	1.5
29...	1237	2.99	0.96	73	6.7	27.5	2.2
AUG							
04...	1320	3.74	5.1	62	4.6	27.0	3.0
30...	1100	3.34	1.6	72	5.0	27.0	1.6

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
OCT						
30...	0.010	<0.020	0.050	1.1	0.060	0.030
NOV						
03...	0.010	<0.020	0.010	0.98	0.050	0.040
30...	0.010	<0.020	<0.010	1.0	0.030	0.020
DEC						
30...	0.010	<0.020	0.010	1.4	0.030	0.010
JAN						
28...	0.010	<0.020	0.020	2.2	0.020	0.020
FEB						
22...	0.010	<0.020	0.020	1.3	0.040	0.020
MAR						
01...	0.010	<0.020	0.020	1.1	0.030	0.020
30...	0.010	<0.020	0.010	1.3	0.030	0.020
APR						
14...	0.020	0.020	0.010	1.2	0.030	0.020
28...	0.010	<0.020	0.010	1.2	0.040	0.030
JUN						
01...	0.010	0.020	0.020	0.98	0.050	0.040
09...	0.010	<0.020	0.020	0.59	0.040	0.020
29...	<0.010	<0.020	0.020	0.86	0.060	0.040
AUG						
04...	0.010	<0.020	0.010	1.1	0.040	0.030
30...	0.010	<0.020	0.010	1.2	0.050	0.020

PEACE. WITHLACOOCHEE. HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02310800 WITHLACOOCHEE RIVER NEAR EVA, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
APR 14...	1405	--	--	--	--	<0.1	0.50	14	0.40	0.90	156	400
AUG 04...	1320	3.4	1.0	4.9	0.20	<0.1	1.0	9.5	0.20	4.7	92	--

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 14...	<1	<1	1000	1000	<5	20	20	<1	--	50	40
AUG 04...	--	--	--	--	--	--	--	--	50	--	30

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310947 WITHLACOCHEE RIVER NEAR CUMPRESSCO, 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 Cumpressco, 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.--21 years (water years 1968-88), 145 ft³/s, 105,050 acre-ft/yr.

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, 1,820 ft³/s, Sept. 9; gage height, 13.09 ft; minimum 0.49 ft³/s July 20,21; gage height, 5.14 ft.

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	11	2.9	100	26	301	51	295	14	3.8	1.6	4.3	90
2	9.2	3.0	95	25	255	48	259	14	3.0	1.3	7.1	78
3	7.5	7.0	92	24	216	45	229	12	2.1	1.1	15	66
4	6.3	28	89	23	184	42	206	12	1.4	1.0	19	64
5	5.4	28	85	22	159	40	184	11	2.0	.98	22	160
6	4.7	35	78	20	140	68	165	9.4	16	1.2	22	821
7	3.9	36	73	20	127	103	145	7.9	12	1.3	22	1390
8	3.2	35	67	20	122	139	127	6.4	16	1.3	23	1710
9	3.1	41	64	21	119	156	113	5.1	9.6	1.1	29	1810
10	4.4	51	60	24	111	220	103	4.2	6.8	1.2	27	1800
11	5.2	57	57	26	103	311	95	3.5	4.8	1.4	21	1720
12	9.0	58	53	27	96	351	90	3.0	3.7	1.1	18	1640
13	14	55	49	28	90	443	83	2.5	3.5	.80	17	1550
14	13	52	47	28	84	679	75	2.5	3.9	.74	15	1470
15	13	49	45	28	84	791	68	2.7	3.4	1.2	14	1370
16	12	46	44	27	92	838	62	2.6	2.7	1.9	17	1260
17	10	49	41	26	92	845	56	2.3	2.6	2.0	64	1160
18	8.7	72	39	26	88	828	51	2.3	2.4	1.6	119	1060
19	7.8	91	37	25	83	874	46	2.1	1.9	.76	67	972
20	8.3	113	36	25	78	893	41	1.8	3.5	.54	51	898
21	9.6	117	35	30	78	887	37	1.5	19	.53	52	801
22	9.7	119	35	41	77	858	32	1.3	12	.80	75	719
23	8.7	125	35	48	74	814	29	1.1	18	3.6	84	653
24	7.8	130	35	52	72	761	25	1.0	9.9	4.3	95	589
25	6.9	129	34	134	69	702	22	5.4	6.0	4.6	101	528
26	6.0	123	33	238	65	639	19	8.7	4.3	7.6	96	465
27	5.3	129	32	337	61	579	18	8.8	3.5	9.6	96	427
28	4.7	130	31	395	57	515	15	6.9	3.1	10	110	385
29	4.0	123	30	410	54	449	12	5.8	2.8	9.6	116	346
30	3.5	111	28	394	---	390	10	5.3	2.3	7.7	112	312
31	3.0	---	27	349	---	339	---	4.6	---	5.7	99	---
TOTAL	228.9	2144.9	1606	2919	3231	14698	2712	171.7	186.0	88.15	1629.4	26314
MEAN	7.38	71.5	51.8	94.2	111	474	90.4	5.54	6.20	2.84	52.6	877
MAX	14	130	100	410	301	893	295	14	19	10	119	1810
MIN	3.0	2.9	27	20	54	40	10	1.0	1.4	.53	4.3	64
AC-FT	454	4250	3190	5790	6410	29150	5380	341	369	175	3230	52190

CAL YR 1987 TOTAL 44668.87 MEAN 122 MAX 2260 MIN .08 AC-FT 88600
WTR YR 1988 TOTAL 55929.05 MEAN 153 MAX 1810 MIN .53 AC-FT 110900

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310947 WITHLACOCHEE RIVER NEAR CUMPRESSCO, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1965, 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988.

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
30...	1110	5.68	3.5	--	7.0	16.0	6.2
NOV							
03...	1300	5.75	4.2	144	5.3	22.0	6.0
DEC							
30...	1210	6.73	28	--	--	--	--
JAN							
28...	1355	9.08	398	--	--	--	--
FEB							
22...	1250	7.43	77	128	6.7	15.0	7.0
MAR							
01...	1410	7.11	51	--	--	--	--
30...	1320	9.04	386	--	--	--	--
APR							
14...	0950	7.40	77	98	6.5	16.0	5.8
28...	1440	6.33	15	140	7.2	25.0	5.5
JUN							
01...	1220	5.76	3.8	148	6.7	25.0	5.0
09...	1210	6.12	9.8	195	7.4	26.0	4.7
30...	1200	5.59	2.3	286	7.6	27.0	3.5
AUG							
04...	1000	6.50	20	132	6.5	26.5	4.4
30...	1448	7.74	112	112	6.7	26.5	4.4

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
OCT						
30...	0.010	<0.020	0.010	1.3	0.040	0.020
NOV						
03...	0.010	<0.020	0.020	1.3	0.060	0.030
DEC						
30...	0.010	<0.020	<0.010	1.3	0.030	0.010
JAN						
28...	0.010	<0.020	0.020	0.69	0.020	0.020
FEB						
22...	0.010	<0.020	0.020	1.1	0.020	0.020
MAR						
01...	0.010	<0.020	0.020	1.0	0.020	0.010
30...	0.010	<0.020	0.010	1.4	0.060	0.050
APR						
14...	0.020	0.020	0.060	1.5	0.070	0.050
28...	0.010	0.020	0.010	1.3	0.070	0.050
JUN						
01...	0.010	0.020	0.020	2.1	0.040	0.020
09...	0.010	0.020	0.030	1.1	0.050	0.030
30...	<0.010	0.020	0.040	0.56	0.030	0.030
AUG						
04...	0.010	0.020	0.010	1.8	0.060	0.040
30...	0.010	<0.020	0.010	1.8	0.050	0.030

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310947 WITHLACOCHEE RIVER NEAR CUMPRESCO, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
APR 14...	0950	--	--	--	--	28	1.1	17	0.50	3.2	159	400
AUG 04...	1000	16	2.5	8.2	1.2	24	5.0	16	0.50	7.6	167	--

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 14...	<1	1	860	840	<5	20	10	<1	--	30	--
AUG 04...	--	--	--	--	--	--	--	--	110	--	43

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.--29 years (water years 1931, 1961-88), 21.6 ft³/s, 15,650 acre-ft/yr.

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 each year; channel dry at gage for many days in 1975, 1977, 1979, 1981, 1982, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft³/s, Sept. 9-10, gage height, 5.88 ft; no flow for many days; minimum gage height 0.48 ft, July 8, 9.

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	.00	.00	6.2	.00	41	.00	33	.00	.00	.00	.00	5.7
2	.00	.00	5.9	.00	29	.00	24	.00	.00	.00	.00	6.1
3	.00	.00	5.3	.00	20	.00	17	.00	.00	.00	.00	4.0
4	.00	.00	5.1	.00	14	.00	12	.00	.00	.00	.00	2.9
5	.00	.00	4.7	.00	9.2	.00	9.4	.00	.00	.00	.00	8.1
6	.00	.00	4.3	.00	6.5	.92	7.0	.00	.00	.00	.00	122
7	.00	.00	3.8	.00	4.6	1.9	5.1	.00	.00	.00	.00	504
8	.00	.00	3.2	.00	3.6	3.6	3.3	.00	.00	.00	.00	884
9	.00	.00	2.9	.00	2.8	5.8	2.4	.00	.00	.00	.00	970
10	.00	.00	2.4	.00	2.3	12	1.8	.00	.00	.00	.00	1020
11	.00	.00	2.1	.00	1.8	24	1.5	.00	.00	.00	.00	962
12	.00	.00	1.8	.00	1.3	37	1.3	.00	.00	.00	.00	879
13	.00	.00	1.5	.00	.69	57	.71	.00	.00	.00	.00	794
14	.00	.00	1.3	.00	.17	105	.24	.00	.00	.00	.00	714
15	.00	.00	1.2	.00	.24	157	.00	.00	.00	.00	.00	631
16	.00	.00	1.2	.00	.25	194	.00	.00	.00	.00	.00	555
17	.00	.54	.95	.00	.02	208	.00	.00	.00	.00	.00	461
18	.00	2.0	.70	.00	.00	209	.00	.00	.00	.00	1.1	379
19	.00	2.3	.52	.00	.00	233	.00	.00	.00	.00	4.1	308
20	.00	3.2	.35	.00	.00	242	.00	.00	.00	.00	1.7	261
21	.00	4.0	.22	.26	.08	248	.00	.00	.00	.00	.76	210
22	.00	5.0	.00	.45	.00	240	.00	.00	.00	.00	.57	162
23	.00	5.4	.00	.02	.00	221	.00	.00	.00	.00	1.2	124
24	.00	5.9	.00	.38	.00	195	.00	.00	.00	.00	1.7	93
25	.00	6.3	.00	8.2	.00	169	.00	.00	.00	.00	2.1	69
26	.00	6.5	.00	15	.00	143	.00	.00	.00	.00	2.2	50
27	.00	7.7	.00	32	.00	118	.00	.00	.00	.00	3.2	39
28	.00	7.4	.00	50	.00	94	.00	.00	.00	.00	4.1	e28
29	.00	7.3	.00	58	.00	72	.00	.00	.00	.00	4.5	e20
30	.00	6.7	.00	57	---	57	.00	.00	.00	.00	5.8	e13
31	.00	---	.00	51	---	44	---	.00	---	.00	5.6	---
TOTAL	0.00	70.24	55.64	272.31	137.55	3091.22	118.75	0.00	0.00	0.00	38.63	10278.8
MEAN	.00	2.34	1.79	8.78	4.74	99.7	3.96	.00	.00	.00	1.25	343
MAX	.00	7.7	6.2	58	41	248	33	.00	.00	.00	5.8	1020
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.9
AC-FT	.0	139	110	540	273	6130	236	.0	.0	.0	77	20390

CAL YR 1987 TOTAL 7818.73 MEAN 21.4 MAX 772 MIN .00 AC-FT 15510
WTR YR 1988 TOTAL 14063.14 MEAN 38.4 MAX 1020 MIN .00 AC-FT 27890

e Estimated

02311000 WITHLACOOCHEE-HILLSBOROUGH OVERFLOW NEAR RICHLAND, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

CAL YR 1987 MEAN 2.64 MAX 5.78 MIN .99

PEACE, WITHLACOOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02311500 WITHLACOOCHEE 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. Discharge computed from graph based on once-daily observer readings, Oct. 1-8, Jan. 9 to Feb. 18. High-water diversion above station into Hillsborough River basin through Withlacoochee-Hillsborough Overflow near Richland (station 02311000).

AVERAGE DISCHARGE.--7 years (water years 1931-32, 1984-88), 182 ft³/s, 131,900 acre-ft/yr.

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, 3,020 ft³/s, Sept. 10, gage height, 77.08 ft; minimum, 5.8 ft³/s, May 24; gage height, 69.17 ft.

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	24	10	193	40	409	96	402	32	12	18	21	199
2	21	11	184	39	395	90	362	32	10	17	18	229
3	19	17	174	37	378	83	326	29	9.0	16	17	222
4	19	60	164	35	347	78	295	25	8.0	14	17	211
5	18	55	155	33	302	79	267	22	7.9	12	15	245
6	17	52	146	32	270	106	240	19	30	13	14	523
7	17	52	140	31	249	110	215	17	34	13	15	1020
8	16	53	134	31	229	127	192	15	29	11	17	1570
9	15	55	128	32	210	164	172	14	25	13	19	2400
10	14	59	122	37	198	218	156	13	22	34	37	2980
11	13	61	116	36	188	248	147	11	21	29	44	2930
12	22	64	108	34	177	289	134	11	19	23	45	2710
13	31	68	101	35	166	385	123	10	17	20	44	2480
14	29	75	95	36	161	483	114	11	15	20	37	2260
15	28	79	90	37	156	562	105	13	14	22	31	2020
16	27	79	86	37	153	668	96	13	12	20	42	1810
17	26	92	80	38	148	761	88	13	11	22	112	1620
18	25	131	73	38	144	826	79	12	10	35	318	1460
19	23	132	70	37	144	924	71	11	9.4	29	347	1310
20	22	147	67	37	142	924	65	9.6	14	25	310	1230
21	20	154	65	42	141	925	58	8.4	42	31	255	1100
22	19	163	63	50	137	928	51	7.6	44	29	212	963
23	17	173	60	50	132	912	45	6.8	59	43	187	837
24	16	181	57	52	128	875	40	6.2	54	61	175	725
25	15	186	56	110	124	821	35	8.7	45	71	171	635
26	15	190	54	145	118	756	32	12	37	79	169	556
27	15	200	53	192	113	691	28	16	30	66	175	492
28	14	206	51	266	107	625	25	17	26	58	182	436
29	13	205	47	337	101	560	22	16	22	44	181	391
30	11	201	44	385	---	500	21	15	20	34	182	356
31	11	---	41	416	---	449	---	13	---	26	186	---
TOTAL	592	3211	3017	2757	5667	15263	4006	459.3	708.3	948	3595	35920
MEAN	19.1	107	97.3	88.9	195	492	134	14.8	23.6	30.6	116	1197
MAX	31	206	193	416	409	928	402	32	59	79	347	2980
MIN	11	10	41	31	101	78	21	6.2	7.9	11	14	199
AC-FT	1170	6370	5980	5470	11240	30270	7950	911	1400	1880	7130	71250

CAL YR 1987 TOTAL 59218 MEAN 162 MAX 2940 MIN 10 AC-FT 117500
WTR YR 1988 TOTAL 76143.6 MEAN 208 MAX 2980 MIN 6.2 AC-FT 151000

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.83	69.33	71.68	70.23	72.80	70.84	72.84	70.13	69.53	69.64	69.98	71.86
2	69.74	69.33	71.61	70.21	72.74	70.78	72.67	70.15	69.46	69.61	---	72.05
3	69.69	69.53	71.54	70.18	72.67	70.71	72.51	70.09	69.38	69.57	69.88	72.01
4	69.67	70.43	71.47	70.14	72.53	70.66	72.36	70.01	69.32	69.50	69.86	71.94
5	69.65	70.37	71.40	70.10	72.31	70.66	72.21	69.92	69.31	69.43	69.78	72.12
6	69.63	70.33	71.33	70.08	72.14	70.95	72.07	69.83	70.01	69.45	69.76	73.29
7	69.62	70.34	71.28	70.07	72.02	70.98	71.92	69.75	70.06	69.44	69.81	74.62
8	69.57	70.34	71.23	70.06	71.90	71.15	71.77	69.69	69.94	69.38	69.87	75.66
9	69.53	70.38	71.18	70.08	71.78	71.45	71.64	69.63	69.85	69.44	69.94	76.58
10	69.49	70.43	71.13	70.17	71.70	71.83	71.52	69.58	69.79	70.04	70.33	77.05
11	69.47	70.45	71.07	70.15	71.63	72.02	71.45	69.53	69.76	69.95	70.45	77.02
12	69.76	70.48	71.00	70.13	71.55	72.24	71.35	69.48	69.70	69.82	70.46	76.86
13	69.98	70.54	70.93	70.14	71.47	72.69	71.25	69.45	69.62	69.70	70.44	76.67
14	69.94	70.63	70.87	70.16	71.43	73.09	71.16	69.49	69.54	69.73	70.33	76.46
15	69.92	70.66	70.83	70.18	71.39	73.37	71.07	69.58	69.48	69.80	70.23	76.23
16	69.90	70.67	70.79	70.18	71.37	73.70	70.99	69.59	69.42	69.73	70.39	76.01
17	69.88	70.80	70.72	70.19	71.38	73.97	70.90	69.59	69.37	69.77	71.14	75.78
18	69.85	71.18	70.65	70.19	71.29	74.14	70.81	69.55	69.32	70.05	72.51	75.52
19	69.82	71.19	70.61	70.18	71.29	74.38	70.72	69.48	69.27	69.94	72.65	75.24
20	69.78	71.32	70.58	70.17	71.27	74.39	70.64	69.41	69.41	69.85	72.48	75.07
21	69.73	71.37	70.56	70.26	71.27	74.39	70.55	69.35	70.18	69.99	72.20	74.80
22	69.67	71.44	70.53	70.38	71.23	74.39	70.46	69.30	70.21	69.95	71.95	74.51
23	69.61	71.53	70.50	70.36	71.19	74.37	70.37	69.24	70.43	70.19	71.79	74.21
24	69.56	71.58	70.48	70.23	71.16	74.28	70.29	69.20	70.37	70.45	71.70	73.92
25	69.55	71.61	70.46	71.02	71.11	74.15	70.21	69.37	70.22	70.57	71.67	73.67
26	69.53	71.64	70.44	71.33	71.06	73.98	70.14	69.53	70.09	70.68	71.66	73.43
27	69.52	71.72	70.42	71.68	71.01	73.80	70.07	69.69	69.97	70.56	71.71	73.21
28	69.49	71.75	70.40	72.13	70.96	73.61	69.99	69.74	69.89	70.50	71.76	73.01
29	69.44	71.75	70.35	72.48	70.90	73.41	69.92	69.72	69.80	70.33	71.75	72.83
30	69.38	71.72	70.29	72.70	---	73.20	69.90	69.67	69.72	70.19	71.76	72.69
31	69.34	---	70.25	72.83	---	73.02	---	69.60	---	70.08	71.78	---
MEAN	69.66	70.83	70.86	70.59	71.61	72.79	71.12	69.62	69.75	69.91	---	74.48
MAX	69.98	71.75	71.68	72.83	72.80	74.39	72.84	70.15	70.43	70.68	---	77.05
MIN	69.34	69.33	70.25	70.06	70.90	70.66	69.90	69.20	69.27	69.38	---	71.86

CAL YR 1987 MEAN 70.69 MAX 77.02 MIN 69.20

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, 273 microsiemens, Aug. 8, 9; minimum observed, 52 microsiemens, Sept. 10.

WATER TEMPERATURE: Maximum observed, 29.0°C, June 17, and many days in July and August; minimum observed, 10.0°C, Jan. 28.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	---	152	191	122	165	103	---	249	234	244	139
2	221	219	153	191	122	167	105	179	248	241	240	127
3	221	187	152	---	124	169	---	175	252	258	249	128
4	229	189	154	192	126	170	108	178	255	243	254	---
5	229	175	157	192	128	---	111	182	---	245	256	118
6	231	187	---	191	---	160	112	186	269	243	262	93
7	232	195	157	196	---	159	115	189	192	246	---	83
8	234	---	157	190	134	163	116	---	230	252	273	71
9	236	207	159	193	135	170	118	204	208	262	273	57
10	236	203	160	---	137	157	---	204	214	---	248	52
11	---	197	162	202	139	149	122	198	223	243	206	53
12	226	194	---	196	142	145	133	211	---	234	200	55
13	218	---	---	197	146	---	126	214	242	266	201	58
14	206	183	167	205	---	124	131	217	242	242	---	60
15	209	181	169	211	---	119	133	---	248	255	202	62
16	211	179	173	206	148	112	137	221	249	253	200	65
17	214	179	173	201	148	107	---	226	250	---	133	67
18	---	---	175	195	151	105	141	220	254	246	86	---
19	217	---	175	195	152	98	144	223	---	224	99	71
20	217	151	177	196	---	---	147	229	236	217	132	72
21	212	157	178	---	155	95	151	225	251	238	119	74
22	215	---	180	---	155	94	152	---	187	226	125	79
23	210	158	183	188	154	93	160	227	198	199	137	79
24	210	157	184	---	156	93	---	227	189	202	144	79
25	---	155	186	172	160	94	163	224	204	177	150	---
26	210	---	188	160	161	94	167	225	---	173	146	83
27	---	150	188	155	161	96	176	235	225	176	144	84
28	213	148	189	146	165	99	173	236	232	189	---	86
29	215	147	190	131	164	98	175	---	241	186	141	89
30	215	150	---	124	---	99	176	240	232	208	139	90
31	223	---	190	121	---	102	---	242	---	---	139	---

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311500 WITHLACOCHEE RIVER NEAR DADE CITY, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	---	18.0	16.0	17.0	17.0	21.0	---	26.0	28.0	29.0	27.0
2	25.0	21.0	17.0	17.0	19.0	19.0	22.0	22.0	27.0	29.0	27.0	27.0
3	26.0	21.0	16.0	---	19.0	19.0	---	21.0	27.0	29.0	28.0	28.0
4	23.0	23.0	16.0	17.0	21.0	19.0	24.0	22.0	27.0	28.0	29.0	---
5	22.0	22.0	13.0	15.0	17.0	---	23.0	22.0	---	28.0	28.0	25.0
6	22.0	21.0	---	14.0	---	19.0	22.0	21.0	25.0	27.0	29.0	25.0
7	21.0	21.0	15.0	18.0	---	20.0	20.0	23.0	25.0	28.0	---	25.0
8	21.0	---	17.0	16.0	13.0	20.0	20.0	---	26.0	29.0	28.0	---
9	22.0	22.0	19.0	15.0	14.0	21.0	20.0	24.0	26.0	29.0	28.0	26.0
10	22.0	23.0	20.0	---	15.0	19.0	---	24.0	27.0	---	29.0	27.0
11	---	20.0	19.0	13.0	17.0	18.0	20.0	24.0	27.0	27.0	27.0	27.0
12	22.0	18.0	---	13.0	15.0	19.0	19.0	24.0	---	29.0	28.0	27.0
13	21.0	18.0	---	14.0	14.0	---	18.0	24.0	27.0	28.0	28.0	28.0
14	20.0	18.0	19.0	13.0	---	19.0	19.0	24.0	27.0	27.0	---	28.0
15	20.0	19.0	20.0	13.0	---	16.0	20.0	---	28.0	28.0	27.0	28.0
16	21.0	21.0	17.0	13.0	15.0	14.0	20.0	25.0	28.0	28.0	27.0	28.0
17	22.0	22.0	15.0	13.0	15.0	15.0	---	25.0	29.0	---	26.0	28.0
18	---	21.0	14.0	16.0	17.0	15.0	27.0	25.0	28.0	27.0	28.0	---
19	23.0	---	19.0	17.0	19.0	16.0	27.0	26.0	---	27.0	28.0	28.0
20	23.0	19.0	17.0	18.0	20.0	---	23.0	26.0	27.0	25.0	28.0	28.0
21	24.0	16.0	18.0	---	18.0	15.0	23.0	26.0	26.0	27.0	28.0	27.0
22	22.0	---	19.0	---	17.0	16.0	23.0	---	26.0	26.0	28.0	28.0
23	22.0	17.0	22.0	15.0	17.0	17.0	23.0	28.0	28.0	27.0	29.0	28.0
24	22.0	18.0	22.0	---	18.0	19.0	---	28.0	28.0	27.0	28.0	27.0
25	---	19.0	24.0	13.0	16.0	19.0	24.0	26.0	28.0	26.0	28.0	---
26	22.0	---	24.0	12.0	15.0	20.0	24.0	30.0	---	27.0	27.0	27.0
27	22.0	22.0	24.0	12.0	15.0	22.0	24.0	25.0	28.0	24.0	26.0	26.0
28	21.0	20.0	22.0	10.0	16.0	22.0	24.0	25.0	28.0	29.0	---	26.0
29	20.0	21.0	16.0	12.0	17.0	22.0	22.0	---	28.0	28.0	27.0	26.0
30	20.0	19.0	---	13.0	---	22.0	21.0	26.0	28.0	29.0	28.0	27.0
31	21.0	---	16.0	15.0	---	22.0	---	25.0	---	---	27.0	---

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02311500 WITHLACOCHEE RIVER NEAR DADE CITY, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
NOV 03...	0900	69.36	11	187	5.8	21.0	5.4
FEB 18...	1105	71.29	144	118	5.4	13.5	--
APR 12...	1050	71.36	136	122	6.8	18.0	4.5
JUN 07...	1025	70.05	33	198	6.8	24.5	2.4
AUG 02...	1120	69.88	17	234	7.3	27.0	3.0

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
NOV 03...	<0.010	<0.020	0.020	0.85	0.030	0.020
FEB 18...	0.010	<0.020	0.020	1.1	0.020	0.010
APR 12...	0.020	0.020	0.020	1.2	0.070	0.050
JUN 07...	0.010	<0.020	0.040	0.85	0.100	0.030
AUG 02...	0.010	<0.020	0.020	0.90	0.040	0.030

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
APR 12...	1050	17	2.2	6.9	0.60	--	2.0
AUG 02...	1120	37	3.1	8.6	1.1	96	6.7

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 12...	16	0.50	3.5	--	80	34
AUG 02...	13	0.30	5.4	163	160	15

PEACE, WITHLACOOCHIE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHIE 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 1987 TO SEPTEMBER 1988

DATE	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)
NOV 04...	68.38	9.1	237	--	24.5	1.5
DEC 29...	67.98	25	--	--	25.5	--
FEB 23...	68.86	22	372	6.50	25.0	--
APR 12...	68.67	18	--	--	23.5	--
JUN 07...	69.30	20	--	--	--	--
AUG 02...	68.73	8.3	--	--	--	--

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312000 WITHLACOCHEE RIVER AT TRILBY, FL

LOCATION.--Lat 28°28'47", long 82°10'40", in SE¼ sec.14, T.23 S., R.21 E., Hernando County, Hydrologic Unit 03100208, on right bank at downstream side of bridge on U.S. Highway 301, 1.6 mi northeast of Trilby, 10 mi upstream from Little Withlacoochee River, and 93 mi upstream from mouth.

DRAINAGE AREA.--570 mi², approximately.

PERIOD OF RECORD.--August 1928 to February 1929, February 1930 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 49.27 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1938, nonrecording gage at site 1.5 mi downstream at datum 0.12 ft lower.

REMARKS.--Records good. High-water diversion above station into Hillsborough River basin through Withlacoochee-Hillsborough Overflow near Richland (station 02311000). Records include water diverted from ground-water supplies through Dade City Canal (station 02311700) by citrus processing plants, in SW¼ sec.23, T.24 S., R.21 E., 5 mi upstream from Withlacoochee River.

AVERAGE DISCHARGE.--58 years (water years 1931-88), 349 ft³/s, 252,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,840 ft³/s June 21, 1934, gage height, 20.5 ft, site and datum then in use; minimum daily discharge, 6.2 ft³/s, June 6, 1985; minimum gage height observed, 0.54 ft, June 27, 1977, June 5,6,7,9,12, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,670 ft³/s, Sept. 16,17, gage height, 14.37 ft; minimum discharge, 23 ft³/s, June 20; gage height, 1.06 ft.

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	73	28	204	83	259	129	838	73	35	55	107	358
2	73	28	202	82	297	124	771	74	38	52	90	342
3	67	32	199	81	330	122	708	67	41	45	79	333
4	62	72	197	77	352	121	656	65	41	38	73	331
5	58	90	191	70	364	124	606	65	40	32	69	365
6	54	89	184	69	368	164	558	65	44	28	65	559
7	52	85	176	71	365	179	514	62	69	28	59	865
8	50	81	169	73	359	178	467	60	68	27	53	1070
9	46	77	162	72	345	175	421	54	63	26	57	1260
10	44	75	156	72	323	192	378	47	61	25	95	1530
11	42	73	151	68	299	217	345	46	57	30	86	1810
12	47	73	145	63	278	237	315	48	52	36	82	2070
13	56	73	140	66	259	332	284	50	43	40	83	2290
14	57	74	134	68	242	514	257	51	34	41	88	2480
15	56	73	128	68	229	655	235	50	33	45	97	2600
16	55	74	125	68	217	711	215	47	34	42	117	2660
17	55	79	124	69	204	737	195	40	34	40	204	2660
18	53	105	122	68	197	766	174	42	30	42	285	2610
19	52	126	118	64	189	897	154	47	27	42	387	2530
20	50	148	113	65	183	1040	138	48	28	45	405	2500
21	49	168	105	71	186	1100	128	47	69	44	428	2430
22	46	176	98	80	186	1130	120	46	105	43	450	2310
23	43	176	98	78	179	1140	114	41	113	44	464	2160
24	41	175	99	77	174	1140	107	34	107	57	464	2000
25	39	178	98	118	169	1130	96	39	96	88	448	1840
26	36	184	92	146	164	1110	81	47	86	106	425	1680
27	35	192	82	156	157	1080	74	50	79	116	407	1520
28	34	198	78	164	152	1050	73	47	71	136	402	1360
29	32	202	76	173	142	1000	71	46	63	141	395	1210
30	30	204	78	193	---	954	69	43	58	137	392	1080
31	29	---	81	224	---	901	---	35	---	125	376	---
TOTAL	1516	3408	4125	2897	7168	19349	9162	1576	1719	1796	7232	48813
MEAN	48.9	114	133	93.5	247	624	305	50.8	57.3	57.9	233	1627
MAX	73	204	204	224	368	1140	838	74	113	141	464	2660
MIN	29	28	76	63	142	121	69	34	27	25	53	331
AC-FT	3010	6760	8180	5750	14220	38380	18170	3130	3410	3560	14340	96820
CAL YR 1987	TOTAL 103488	MEAN 284	MAX 3280	MIN 28	AC-FT 205300							
WTR YR 1988	TOTAL 108761	MEAN 297	MAX 2660	MIN 25	AC-FT 215700							

PEACE, WITHLACOOCHIE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHIE RIVER BASIN

02312000 WITHLACOOCHIE RIVER AT TRILBY, FL--(Continued)

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.35	1.62	4.14	2.25	4.56	2.99	8.94	2.10	1.15	1.81	3.02	5.61
2	2.35	1.61	4.11	2.23	4.96	2.92	8.61	2.11	1.23	1.75	2.75	5.43
3	2.26	1.70	4.07	2.20	5.29	2.90	8.28	1.94	1.27	1.63	2.57	5.33
4	2.18	2.46	4.04	2.14	5.51	2.88	7.97	1.89	1.27	1.51	2.46	5.28
5	2.09	2.75	3.97	1.99	5.63	2.92	7.65	1.91	1.25	1.40	2.39	5.60
6	2.02	2.73	3.87	1.99	5.67	3.47	7.32	1.89	1.33	1.34	2.33	7.23
7	1.99	2.66	3.78	2.03	5.64	3.67	6.97	1.83	1.81	1.34	2.21	9.01
8	1.94	2.58	3.68	2.08	5.58	3.66	6.59	1.78	1.80	1.34	2.10	10.03
9	1.89	2.51	3.58	2.07	5.44	3.61	6.18	1.62	1.73	1.32	2.17	10.75
10	1.85	2.47	3.50	2.07	5.22	3.81	5.77	1.43	1.69	1.32	2.83	11.65
11	1.82	2.43	3.42	1.97	4.98	4.10	5.44	1.40	1.63	1.44	2.69	12.45
12	1.91	2.42	3.34	1.85	4.77	4.32	5.14	1.45	1.55	1.56	2.62	13.08
13	2.09	2.42	3.27	1.91	4.56	5.29	4.83	1.50	1.39	1.65	2.64	13.61
14	2.11	2.42	3.17	1.98	4.38	6.96	4.54	1.53	1.23	1.68	2.72	14.02
15	2.09	2.41	3.07	1.97	4.23	7.96	4.29	1.51	1.21	1.77	2.85	14.26
16	2.09	2.42	3.03	1.97	4.10	8.30	4.07	1.41	1.25	1.72	3.14	14.36
17	2.08	2.50	3.01	1.99	3.95	8.43	3.86	1.26	1.26	1.69	4.26	14.35
18	2.06	2.90	2.96	1.98	3.87	8.58	3.61	1.29	1.18	1.75	5.13	14.26
19	2.02	3.23	2.89	1.86	3.79	9.23	3.35	1.41	1.12	1.75	6.14	14.12
20	1.99	3.52	2.81	1.90	3.71	9.96	3.13	1.44	1.16	1.83	6.29	14.06
21	1.98	3.79	2.68	2.05	3.75	10.27	2.98	1.42	1.95	1.82	6.48	13.93
22	1.93	3.88	2.57	2.22	3.75	10.40	2.86	1.40	2.56	1.81	6.66	13.67
23	1.88	3.87	2.55	2.18	3.67	10.44	2.76	1.28	2.69	1.83	6.76	13.34
24	1.85	3.85	2.56	2.17	3.61	10.43	2.66	1.13	2.61	2.08	6.74	12.97
25	1.80	3.88	2.54	2.82	3.55	10.38	2.48	1.24	2.44	2.64	6.59	12.56
26	1.76	3.94	2.44	3.23	3.48	10.29	2.23	1.44	2.30	2.93	6.36	12.12
27	1.73	4.03	2.27	3.37	3.40	10.17	2.12	1.51	2.20	3.10	6.19	11.65
28	1.72	4.09	2.20	3.47	3.32	10.00	2.09	1.43	2.07	3.41	6.12	11.16
29	1.69	4.13	2.16	3.59	3.18	9.78	2.04	1.40	1.94	3.50	6.03	10.64
30	1.65	4.15	2.18	3.83	---	9.52	2.00	1.33	1.85	3.45	5.99	10.11
31	1.63	---	2.23	4.17	---	9.25	---	1.16	---	3.28	5.81	---
MEAN	1.96	2.98	3.10	2.37	4.40	7.00	4.69	1.53	1.67	1.98	4.29	11.22
MAX	2.35	4.15	4.14	4.17	5.67	10.44	8.94	2.11	2.69	3.50	6.76	14.36
MIN	1.63	1.61	2.16	1.85	3.18	2.88	2.00	1.13	1.12	1.32	2.10	5.28

WTR YR 1988 MEAN 3.92 MAX 14.36 MIN 1.12

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
NOV			APR		
03...	1300	0.0	14...	1205	0.0
DEC			JUN		
31...	1300	0.0	09...	1010	0.0
FEB			AUG		
14...	1410	4.0	04...	1120	0.0

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.

WATER-DISCHARGE RECORDS

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: Nov. 4-30. 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.--22 years, 43.2 ft³/s, 6.90 in/yr, 31,300 acre-ft/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, 526 ft³/s, Sept. 10,11, gage height, 5.90 ft; no flow for many days; minimum gage height, 1.68 ft, Nov. 1.

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	.00	.00	.70	.00	9.0	5.9	132	2.8	.00	1.7	19	37
2	.00	.00	.62	.00	8.2	5.4	120	2.7	.00	1.4	14	36
3	.00	.00	.54	.00	7.4	5.0	108	2.3	.00	.99	11	33
4	.00	.00	.50	.00	6.8	4.7	98	1.9	.00	.55	9.3	28
5	.00	.00	.37	.00	6.2	7.2	89	1.5	.00	.16	6.8	62
6	.00	.00	.31	.00	6.3	32	77	1.2	.15	.00	5.2	210
7	.00	.00	.32	.00	6.1	32	67	.88	.15	.00	4.1	303
8	.00	.00	.34	.00	6.7	31	56	.64	.00	.00	3.3	344
9	.00	.00	.37	.00	6.9	33	49	.40	.00	.00	2.6	385
10	.00	.00	.44	.00	6.6	57	44	.20	.00	.00	3.2	501
11	.00	.00	.49	.00	6.6	55	46	.00	.52	.00	6.9	519
12	.00	.00	.44	.00	6.4	56	39	.03	.80	.00	5.6	517
13	.00	.00	.41	.00	6.0	143	34	.02	.79	.00	4.8	493
14	.00	.00	.41	.00	5.8	301	29	.00	.73	.00	4.0	459
15	.00	.00	.51	.00	6.4	362	25	.00	.66	.00	7.0	426
16	.00	.00	.79	.00	8.0	400	21	.00	.41	.00	18	396
17	.00	.00	.69	.00	7.5	384	18	.00	.16	.00	46	369
18	.00	.00	.56	.00	7.2	373	15	.00	.00	.09	130	343
19	.00	.00	.50	.00	7.0	484	12	.00	.00	.31	151	323
20	.00	.00	.45	.00	7.0	460	11	.00	.12	.99	159	304
21	.00	.00	.38	.14	11	434	8.7	.00	1.3	1.3	149	276
22	.00	.00	.36	.27	10	398	7.1	.00	1.7	1.1	130	253
23	.00	.00	.32	.14	9.4	356	5.9	.00	2.2	3.3	113	229
24	.00	.00	.27	.12	9.4	317	4.9	.00	2.3	5.8	92	203
25	.00	.00	.25	12	8.7	285	4.2	.00	2.5	7.2	71	183
26	.00	.04	.22	14	7.8	255	3.6	.00	3.4	13	56	164
27	.00	.15	.13	11	7.2	231	3.0	.00	3.5	26	63	148
28	.00	.40	.06	10	6.7	208	2.4	.00	3.2	33	88	139
29	.00	.88	.00	10	6.2	187	1.8	.00	2.8	33	72	129
30	.00	.80	.00	10	---	166	1.8	.00	2.2	30	56	118
31	.00	---	.00	9.6	---	149	---	.00	---	25	44	---
TOTAL	0.00	2.27	11.75	77.27	214.5	6217.2	1133.4	14.57	29.59	184.89	1544.8	7930
MEAN	.00	.076	.38	2.49	7.40	201	37.8	.47	.99	5.96	49.8	264
MAX	.00	.88	.79	14	11	484	132	2.8	3.5	33	159	519
MIN	.00	.00	.00	.00	5.8	4.7	1.8	.00	.00	.00	2.6	28
AC-FT	.00	4.5	23	153	425	12330	2250	29	59	367	3060	15730
CFSM	.00	.00	.00	.03	.09	2.36	.44	.01	.01	.07	.59	3.11
IN.	.00	.00	.01	.03	.09	2.72	.50	.01	.01	.08	.68	3.47

CAL YR 1987 TOTAL 15838.18 MEAN 43.4 MAX 1180 MIN .00 AC-FT 31420 CFSM .51 IN. 6.93
WTR YR 1988 TOTAL 17360.24 MEAN 47.4 MAX 519 MIN .00 AC-FT 34430 CFSM .56 IN. 7.60

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312180 LITTLE WITHLACOCHEE RIVER NEAR TARRYTOWN, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-71, 1973, 1984, 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
NOV 30...	1530	3.50	0.80	102	--	17.0	5.1
FEB 22...	1350	4.08	10	960	6.0	13.5	7.0
APR 13...	1540	4.48	33	76	5.4	16.5	5.6
AUG 03...	1335	4.12	10	59	5.6	25.0	4.4

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
NOV 30...	0.010	0.020	0.010	2.0	0.030	0.020
FEB 22...	0.010	<0.020	0.020	1.4	0.020	0.010
APR 13...	0.020	0.020	0.010	1.6	0.030	0.020
AUG 03...	0.010	<0.020	0.010	1.7	0.030	0.020

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
APR 13...	1540	--	--	--	--	2.6	0.20
AUG 03...	1335	7.9	1.1	4.1	0.10	2.0	0.90

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 13...	17	0.40	2.4	146	--	39
AUG 03...	15	0.40	1.7	134	50	45

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE 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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)
NOV				APR			
05...	0805	75.74	e1.8	13...	1220	75.94	<3.0
DEC				JUN			
31...	0815	75.70	0.0	08...	0845	75.53	0.0
FEB				AUG			
19...	0825	75.92	0.0	03...	1110	75.83	0.0

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 Rerdel.

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; minimum gage height observed, 64.48 ft, May 30, 1985.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)
NOV				APR			
05...	0900	65.78	4.8	13...	1045	65.70	13
DEC				JUN			
31...	0840	65.62	2.1	08...	0905	65.66	2.5
FEB				AUG			
19...	0850	65.66	6.2	03...	0945	65.71	7.6

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 Rerdell.

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET ABOVE DATUM)	DATE	TIME	GAGE HEIGHT (FEET ABOVE DATUM)
NOV			APR		
05...	0845	63.48	13...	1045	64.48
DEC			JUN		
31...	0840	63.27	08...	0915	63.29
FEB			AUG		
19...	0850	63.70	03...	0945	63.86

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. 4 to Dec. 31. 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.--30 years, 82.8 ft³/s, 7.75 in/yr, 59,990 acre-ft/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; river dry at gage for many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 696 ft³/s, Sept. 12, gage height, 7.95 ft; minimum, 0.27 ft³/s, July 9, gage height, 1.08 ft.

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	12	4.7	6.7	3.5	9.3	14	200	15	4.1	2.4	28	94		
2	11	4.9	6.6	3.3	9.6	14	176	14	4.0	2.4	27	82		
3	9.7	6.7	6.5	3.4	11	13	154	12	3.8	1.9	26	73		
4	9.0	9.2	6.4	3.3	14	13	137	11	3.7	1.5	27	64		
5	8.6	9.6	6.4	3.1	15	16	124	10	3.9	.99	33	73		
6	8.1	8.7	6.0	3.0	17	34	112	9.5	4.9	1.3	33	153		
7	7.8	7.7	5.8	3.1	17	33	102	8.9	4.5	1.3	29	289		
8	7.3	7.0	5.6	3.2	18	34	93	8.2	4.4	.48	26	413		
9	7.1	6.5	5.5	3.4	18	39	84	7.6	4.1	.61	25	535		
10	7.2	6.2	5.6	3.4	17	66	78	7.2	3.7	3.7	27	648		
11	7.2	6.0	5.6	3.1	16	64	75	7.0	3.8	3.0	26	684		
12	8.7	5.8	5.6	3.0	15	64	71	7.0	3.4	2.1	25	693		
13	8.3	5.7	5.5	2.9	14	97	67	7.0	3.2	2.9	22	672		
14	7.3	5.7	5.3	2.8	14	138	62	6.7	3.5	5.6	18	635		
15	7.1	5.8	5.2	2.7	15	181	56	6.3	3.5	6.0	16	591		
16	6.8	9.0	6.4	2.6	17	255	50	5.9	3.2	5.1	15	547		
17	6.6	9.6	5.6	2.8	16	300	45	5.6	3.0	5.1	18	506		
18	6.2	9.2	5.0	2.9	16	328	40	5.2	2.9	5.6	35	471		
19	6.1	8.2	4.9	2.8	16	378	43	5.1	2.7	7.1	69	439		
20	6.1	7.9	4.9	2.8	15	394	45	4.8	3.2	8.2	130	448		
21	5.9	7.3	4.8	3.5	19	406	38	4.6	5.0	7.5	158	446		
22	5.5	7.0	4.8	3.2	18	405	33	4.4	3.9	7.8	163	424		
23	5.4	6.9	4.7	2.9	18	396	30	4.2	3.8	9.6	153	391		
24	5.5	6.7	4.7	3.7	18	387	25	4.3	3.6	12	142	356		
25	5.4	6.6	4.6	12	18	372	22	5.7	3.4	11	129	324		
26	5.2	9.0	4.5	11	17	351	20	6.3	3.2	11	114	296		
27	5.2	8.3	4.5	10	16	327	18	6.1	3.0	15	116	275		
28	5.0	7.7	4.4	9.8	16	299	16	5.4	2.9	19	115	258		
29	4.7	7.2	4.2	9.6	15	274	14	5.1	2.8	20	113	239		
30	4.6	6.9	4.1	9.4	---	249	14	4.7	2.5	24	118	221		
31	4.6	---	4.0	9.3	---	225	---	4.4	---	27	108	---		
TOTAL	215.2	217.7	164.4	145.5	454.9	6166	2044	219.2	107.6	231.18	2084	11340		
MEAN	6.94	7.26	5.30	4.69	15.7	199	68.1	7.07	3.59	7.46	67.2	378		
MAX	12	9.6	6.7	12	19	406	200	15	5.0	27	163	693		
MIN	4.6	4.7	4.0	2.6	9.3	13	14	4.2	2.5	.48	15	64		
AC-FT	427	432	326	289	902	12230	4050	435	213	459	4130	22490		
CFSM	.05	.05	.04	.03	.11	1.37	.47	.05	.02	.05	.46	2.61		
IN.	.06	.06	.04	.04	.12	1.58	.52	.06	.03	.06	.53	2.91		
CAL YR 1987	TOTAL	22800.5	MEAN	62.5	MAX	1080	MIN	3.7	AC-FT	45220	CFSM	.43	IN.	5.85
WTR YR 1988	TOTAL	23389.68	MEAN	63.9	MAX	693	MIN	.48	AC-FT	46390	CFSM	.44	IN.	6.00

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
NOV 03...	1150	1.91	6.1	304	5.6	20.5	3.2
FEB 24...	1305	2.46	18	262	6.7	18.0	3.4
APR 13...	0950	3.55	68	130	6.8	16.0	3.7
JUN 08...	1250	1.70	4.7	270	7.6	28.0	4.8
AUG 03...	0825	2.70	26	155	7.3	24.0	3.4

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
NOV 03...	<0.010	0.050	0.050	0.48	0.050	0.020
FEB 24...	<0.010	<0.020	0.030	1.1	0.030	0.010
APR 13...	0.020	0.040	0.060	1.4	0.050	0.030
JUN 08...	<0.010	0.090	0.040	<0.20	0.020	0.020
AUG 03...	0.010	0.070	0.020	1.9	0.060	0.030

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 03...	1150	63	2.1	5.5	0.30	166	1.1
FEB 24...	1305	42	2.1	6.6	0.90	89	7.7
APR 13...	0950	23	1.5	5.3	0.30	--	1.3
JUN 08...	1250	49	1.9	4.3	<0.10	124	1.2
AUG 03...	0825	27	1.6	4.6	0.40	55	6.9

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312200 LITTLE WITHLACOCHEE RIVER AT RERDELL, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 03...	11	0.10	7.5	208	60	--
FEB 24...	15	0.40	2.8	189	80	--
APR 13...	12	0.60	10	--	50	32
JUN 08...	10	0.20	5.1	166	80	--
AUG 03...	11	0.40	4.7	--	80	35

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.--Estimated daily discharges: June 23 to Aug. 1. Records good except for estimated daily discharges, which are fair. Records include water diverted from ground-water supplies (see station 02311700). High-water diversion in headwaters (station 02311000).

AVERAGE DISCHARGE.--49 years, 457 ft³/s, 331,100 acre-ft/yr.

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, 2,740 ft³/s, Sept. 18, gage height, 9.74 ft; minimum daily discharge, 36 ft³/s, July 10, minimum gage height, 2.04 ft, June 20, but may have been less during period of no gage height record.

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	131	144	291	186	296	245	961	160	83	72	181	573
2	136	145	292	185	319	237	900	159	78	66	172	553
3	138	153	292	184	344	229	846	156	76	61	161	527
4	136	178	291	182	370	225	796	150	76	55	146	502
5	135	196	290	178	392	229	746	145	76	53	133	487
6	133	213	288	171	406	252	696	141	85	51	137	562
7	130	216	284	168	413	265	644	138	87	48	135	685
8	129	215	280	169	414	273	596	134	93	44	127	916
9	128	214	275	170	406	278	547	129	94	40	119	1250
10	127	222	271	171	392	307	501	124	92	36	114	1510
11	128	224	268	169	373	316	461	118	89	37	119	1710
12	135	222	263	164	355	325	422	116	85	44	134	1890
13	143	220	258	158	337	369	387	116	79	50	135	2030
14	146	218	254	156	326	474	353	116	73	53	133	2160
15	147	216	251	156	321	598	321	115	67	54	130	2340
16	148	215	249	155	310	736	292	112	61	53	128	2520
17	148	216	244	154	301	834	275	108	59	53	140	2660
18	149	227	240	154	293	897	262	103	56	52	171	2720
19	149	234	237	151	286	972	255	100	52	51	242	2730
20	149	244	233	147	289	1070	247	99	49	52	344	2700
21	149	253	229	163	286	1190	234	98	55	52	443	2670
22	148	263	223	170	283	1270	222	96	65	51	531	2630
23	147	269	218	173	280	1310	212	94	129	50	594	2530
24	146	272	214	179	279	1320	204	90	134	62	628	2390
25	146	273	212	214	274	1320	197	93	131	75	640	2230
26	146	276	209	227	269	1310	188	94	122	103	636	2080
27	144	281	205	237	264	1280	179	97	108	130	650	1930
28	145	284	199	244	259	1230	171	97	97	159	644	1780
29	143	288	193	250	253	1170	165	95	87	180	615	1640
30	143	289	189	258	---	1100	161	92	79	183	594	1500
31	143	---	186	276	---	1030	---	88	---	184	586	---
TOTAL	4365	6880	7623	5719	9390	22661	12441	3573	2517	2254	9662	52405
MEAN	141	229	246	184	324	731	415	115	83.9	72.7	312	1747
MAX	149	289	292	276	414	1320	961	160	134	184	650	2730
MIN	127	144	186	147	253	225	161	88	49	36	114	487
AC-FT	8660	13650	15130	11340	18630	44950	24680	7090	4990	4470	19160	103900

CAL YR 1987 TOTAL 136985 MEAN 375 MAX 3770 MIN 76 AC-FT 271700
WTR YR 1988 TOTAL 139495 MEAN 381 MAX 2730 MIN 36 AC-FT 276700

PEACE, WITHLACOCHEE, 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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.13	2.65	4.16	3.17	4.26	3.80	7.54	3.63	2.48	---	---	5.68
2	3.15	2.63	4.17	3.17	4.46	3.71	7.40	3.61	2.43	---	3.27	5.59
3	3.15	2.69	4.17	3.16	4.65	3.64	7.26	3.57	2.41	---	3.18	5.46
4	3.12	2.88	4.16	3.15	4.81	3.60	7.10	3.49	2.40	---	3.06	5.33
5	3.08	3.01	4.15	3.11	4.93	3.64	6.95	3.42	2.41	---	2.96	5.26
6	3.04	3.13	4.13	3.06	5.01	3.86	6.79	3.37	2.51	---	2.99	5.63
7	3.00	3.18	4.10	3.03	5.06	3.98	6.61	3.32	2.55	---	2.97	6.18
8	2.97	3.18	4.06	3.04	5.06	4.06	6.44	3.27	2.63	---	2.90	7.04
9	2.94	3.16	4.02	3.05	5.02	4.10	6.26	3.21	2.65	---	2.83	7.77
10	2.92	3.27	3.98	3.06	4.94	4.35	6.08	3.13	2.62	---	2.78	8.20
11	2.90	3.30	3.95	3.04	4.82	4.43	5.92	3.03	2.58	---	2.83	8.50
12	2.95	3.28	3.90	2.99	4.71	4.50	5.75	3.00	2.52	---	2.96	8.75
13	3.00	3.27	3.85	2.95	4.60	4.79	5.59	3.00	2.44	---	2.97	8.93
14	3.01	3.25	3.81	2.93	4.51	5.38	5.44	3.01	2.37	---	2.95	9.09
15	3.00	3.24	3.79	2.93	4.47	6.00	5.28	2.99	2.30	---	2.92	9.30
16	2.99	3.22	3.76	2.92	4.38	6.59	5.13	2.94	2.22	---	2.91	9.51
17	2.98	3.25	3.71	2.91	4.30	6.99	4.99	2.88	2.19	---	3.01	9.66
18	2.96	3.39	3.68	2.91	4.24	7.21	4.86	2.79	2.15	---	3.26	9.72
19	2.94	3.48	3.65	2.89	4.18	7.43	4.77	2.75	2.09	---	3.77	9.72
20	2.92	3.59	3.62	2.85	4.20	7.65	4.69	2.74	2.07	---	4.44	9.69
21	2.90	3.71	3.58	2.99	4.18	7.87	4.54	2.72	2.16	---	5.02	9.66
22	2.87	3.83	3.52	3.05	4.15	8.01	4.40	2.69	2.37	---	5.48	9.62
23	2.85	3.90	3.47	3.07	4.12	8.07	4.29	2.65	---	---	5.79	9.52
24	2.82	3.93	3.44	3.14	4.11	8.10	4.19	2.59	---	---	5.94	9.37
25	2.80	3.96	3.42	3.49	4.06	8.10	4.10	2.63	---	---	5.99	9.18
26	2.78	3.99	3.40	3.62	4.02	8.07	3.99	2.65	---	---	5.97	8.99
27	2.74	4.05	3.36	3.71	3.97	8.03	3.88	2.71	---	---	6.04	8.80
28	2.73	4.08	3.30	3.78	3.92	7.97	3.77	2.70	---	---	6.01	8.60
29	2.70	4.12	3.24	3.84	3.87	7.88	3.69	2.67	---	---	5.88	8.39
30	2.67	4.14	3.20	3.92	---	7.78	3.64	2.62	---	---	5.79	8.18
31	2.66	---	3.18	4.09	---	7.67	---	2.56	---	---	5.75	---
MEAN	2.92	3.43	3.74	3.19	4.45	6.04	5.38	2.98	---	---	---	8.18
MAX	3.15	4.14	4.17	4.09	5.06	8.10	7.54	3.63	---	---	---	9.72
MIN	2.66	2.63	3.18	2.85	3.87	3.60	3.64	2.56	---	---	---	5.26

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
NOV 03...	1035	2.62	144	253	6.5	22.0	4.8
FEB 24...	0950	4.11	279	216	7.0	18.0	6.1
APR 11...	1350	5.90	455	146	6.7	21.0	4.1
JUN 06...	1250	2.51	85	296	7.8	28.5	5.4
AUG 01...	1220	3.28	174	211	7.9	29.0	3.8

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
NOV 03...	<0.010	<0.020	0.010	0.30	0.040	0.020
FEB 24...	0.010	0.030	0.050	0.95	0.060	0.040
APR 11...	0.020	0.060	0.040	1.9	0.270	0.090
JUN 06...	<0.010	0.020	0.030	0.55	0.120	0.030
AUG 01...	0.010	0.040	0.020	0.95	0.100	0.070

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 03...	1035	50	3.3	5.7	0.40	131	6.0
FEB 24...	0950	31	2.7	8.2	1.2	74	5.3
APR 11...	1350	20	1.9	6.2	0.80	--	2.1
JUN 06...	1250	48	3.6	6.0	1.4	126	7.3
AUG 01...	1220	35	2.3	5.4	0.70	84	5.0

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 03...	10	<0.10	4.3	186	150	--
FEB 24...	16	0.30	1.3	156	120	--
APR 11...	14	0.50	3.1	--	80	28
JUN 06...	8.0	0.20	3.2	166	200	--
AUG 01...	11	0.30	4.8	152	150	13

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.--5 years, 457 ft³/s, 331,100 acre-ft/yr.

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, 3,170 ft³/s, Sept. 21-23, gage height, 43.58 ft; minimum discharge, 80 ft³/s, July 11; gage height, 39.07 ft.

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	188	149	252	199	405	314	1520	357	154	111	158	555
2	183	149	251	196	405	294	1490	332	150	108	162	559
3	181	151	250	194	403	273	1440	296	147	104	164	549
4	179	157	249	193	397	266	1400	270	143	99	169	535
5	178	158	248	191	397	289	1350	253	141	94	182	572
6	177	157	246	188	412	356	1300	237	152	91	184	668
7	176	157	244	186	434	353	1240	223	163	89	184	744
8	174	158	242	186	474	346	1180	211	161	86	185	884
9	171	178	241	185	501	367	1130	210	158	83	185	1100
10	169	327	240	185	510	581	1080	205	155	81	187	1300
11	168	304	240	184	510	584	1050	201	151	81	188	1500
12	169	282	238	182	510	592	1010	197	146	84	191	1700
13	170	265	236	181	510	640	968	194	141	84	194	1910
14	169	249	234	178	510	673	926	193	137	87	197	2100
15	168	234	232	174	508	682	889	192	134	99	199	2270
16	167	224	232	172	524	708	854	188	130	104	209	2430
17	165	224	231	172	524	760	822	185	125	106	228	2600
18	165	248	229	171	509	836	790	184	120	106	242	2750
19	164	248	227	170	465	949	775	179	116	108	271	2900
20	163	240	225	170	460	1030	764	174	114	111	290	3090
21	162	233	223	217	502	1110	738	169	117	114	317	3130
22	160	230	221	243	510	1210	709	165	117	119	358	3170
23	159	229	220	243	488	1310	679	162	119	126	405	3160
24	158	231	218	242	461	1390	654	159	121	137	438	3110
25	157	233	216	416	426	1460	608	162	122	143	458	3030
26	157	238	214	445	405	1520	568	164	121	146	476	2940
27	156	244	211	445	379	1560	523	168	119	147	512	2840
28	155	248	210	445	356	1580	463	165	117	148	552	2660
29	153	251	208	441	337	1580	408	162	116	150	553	2490
30	152	254	204	428	---	1580	366	159	114	153	553	2320
31	150	---	201	405	---	1560	---	156	---	155	551	---
TOTAL	5163	6650	7133	7627	13232	26753	27694	6272	4021	3454	9142	59566
MEAN	167	222	230	246	456	863	923	202	134	111	295	1986
MAX	188	327	252	445	524	1580	1520	357	163	155	553	3170
MIN	150	149	201	170	337	266	366	156	114	81	158	535

CAL YR 1987 TOTAL 183896 MEAN 504 MAX 4440 MIN 111
WTR YR 1988 TOTAL 176707 MEAN 483 MAX 3170 MIN 81

02312600 WITHLACOOCHEE RIVER NEAR FLORAL CITY, FL--Continued

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.07	40.64	41.23	40.97	41.30	41.20	42.56	41.25	40.22	39.56	39.84	41.24
2	41.06	40.63	41.23	40.95	41.30	41.17	42.53	41.22	40.17	39.51	39.87	41.25
3	41.05	40.66	41.23	40.93	41.30	41.13	42.49	41.17	40.13	39.44	39.88	41.23
4	41.03	40.75	41.23	40.92	41.29	41.12	42.46	41.13	40.07	39.37	39.92	41.20
5	41.01	40.76	41.23	40.91	41.29	41.16	42.41	41.09	40.03	39.30	40.06	41.30
6	41.01	40.75	41.22	40.88	41.31	41.25	42.36	41.04	40.19	39.24	40.06	41.52
7	40.99	40.75	41.22	40.87	41.33	41.24	42.30	40.99	40.35	39.20	40.04	41.67
8	40.97	40.76	41.21	40.87	41.37	41.24	42.24	40.94	40.32	39.16	40.03	41.88
9	40.94	40.84	41.21	40.87	41.39	41.26	42.18	40.90	40.28	39.12	40.01	42.16
10	40.91	41.31	41.21	40.87	41.40	41.46	42.14	40.85	40.23	39.09	40.01	42.36
11	40.89	41.29	41.21	40.87	41.40	41.46	42.10	40.81	40.17	39.09	40.00	42.54
12	40.91	41.27	41.20	40.86	41.40	41.46	42.05	40.77	40.10	39.13	40.02	42.70
13	40.93	41.25	41.19	40.85	41.40	41.51	41.99	40.73	40.03	39.11	40.03	42.85
14	40.91	41.22	41.18	40.82	41.40	41.56	41.94	40.73	39.97	39.13	40.04	42.98
15	40.89	41.19	41.18	40.79	41.40	41.57	41.89	40.70	39.92	39.29	40.05	43.09
16	40.88	41.17	41.19	40.77	41.41	41.61	41.84	40.66	39.85	39.36	40.12	43.19
17	40.87	41.17	41.18	40.77	41.41	41.70	41.79	40.63	39.78	39.36	40.30	43.29
18	40.85	41.22	41.17	40.78	41.40	41.81	41.75	40.61	39.71	39.34	40.39	43.37
19	40.84	41.22	41.16	40.76	41.36	41.97	41.72	40.56	39.63	39.36	40.55	43.45
20	40.83	41.21	41.15	40.76	41.35	42.07	41.70	40.50	39.61	39.38	40.61	43.54
21	40.82	41.19	41.13	40.95	41.39	42.17	41.66	40.45	39.66	39.40	40.69	43.56
22	40.79	41.18	41.12	41.06	41.40	42.27	41.61	40.40	39.65	39.46	40.79	43.58
23	40.77	41.18	41.11	41.06	41.38	42.37	41.56	40.35	39.68	39.55	40.90	43.58
24	40.76	41.19	41.10	41.05	41.35	42.45	41.52	40.31	39.70	39.70	40.98	43.55
25	40.75	41.19	41.09	41.31	41.32	42.51	41.48	40.34	39.72	39.77	41.03	43.51
26	40.74	41.20	41.07	41.34	41.30	42.56	41.45	40.38	39.71	39.79	41.08	43.47
27	40.73	41.21	41.05	41.34	41.27	42.59	41.41	40.42	39.68	39.79	41.15	43.41
28	40.71	41.22	41.05	41.34	41.25	42.61	41.36	40.38	39.64	39.78	41.24	43.32
29	40.69	41.23	41.03	41.34	41.23	42.61	41.30	40.34	39.62	39.79	41.24	43.22
30	40.67	41.23	41.00	41.32	---	42.61	41.26	40.30	39.59	39.81	41.24	43.12
31	40.65	---	40.98	41.30	---							

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
MAY 09...	1550	40.89	210	285	7.3	25.0	3.4
JUN 30...	1545	39.59	122	320	7.5	29.5	3.3
AUG 23...	1510	40.93	417	240	7.3	29.0	5.0

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
MAY 09...	<0.010	<0.020	0.010	0.57	0.060	0.040
JUN 30...	<0.010	<0.020	0.010	0.70	0.130	0.060
AUG 23...	<0.010	0.030	0.020	0.80	0.100	0.060

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAY 09...	1550	41	2.8	6.7	0.40	73	7.6
JUN 30...	1545	49	3.6	6.2	3.1	--	4.2
AUG 23...	1510	37	2.4	4.8	0.60	93	4.8

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 09...	12	0.20	2.8	163	170	14
JUN 30...	11	0.10	5.0	171	210	--
AUG 23...	9.3	0.20	5.8	148	170	14

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.--Estimated daily discharges: Jan. 24 to Mar. 1. Records poor. Flow affected by pumpage into and out of canal upstream and downstream from station.

AVERAGE DISCHARGE.--10 years (water years 1977, 1980-88), 23.1 ft³/s, 16,740 acre-ft/yr.

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, 50 ft³/s, Sept. 28; maximum gage height, 7.02 ft, Sept. 19; minimum daily discharge, 3.8 ft³/s, July 16; minimum gage height, 4.31 ft, Oct. 29.

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	13	16	14	29	13	21	29	12	23	21	12	12
2	12	17	22	29	14	20	28	19	22	22	17	27
3	14	21	20	29	14	20	28	21	20	22	17	17
4	12	24	20	28	14	21	28	24	17	19	17	20
5	13	20	20	25	15	22	25	24	12	20	18	27
6	13	19	19	9.7	14	22	24	24	21	14	18	30
7	13	16	19	9.1	15	21	18	23	23	14	18	37
8	13	18	19	9.1	15	21	26	23	23	15	17	42
9	12	17	18	10	16	22	26	23	22	14	16	44
10	13	17	17	9.3	15	24	22	23	22	21	9.1	39
11	14	17	18	8.3	16	23	25	23	20	20	20	36
12	13	17	18	10	16	24	23	23	17	13	20	34
13	13	16	17	10	15	26	23	23	21	14	9.7	34
14	14	20	19	9.5	15	25	25	23	23	18	19	33
15	14	27	18	9.3	15	18	23	16	22	20	19	36
16	14	28	17	9.7	14	25	25	19	22	3.8	10	35
17	15	29	16	9.7	16	25	25	24	21	14	20	34
18	14	26	16	9.8	16	27	25	24	14	15	11	27
19	15	25	16	11	19	27	26	24	21	14	18	35
20	16	26	17	11	20	26	25	20	21	15	20	34
21	15	24	17	12	20	26	25	24	22	14	21	30
22	15	21	18	11	20	26	32	17	22	14	10	37
23	16	21	31	11	20	26	32	23	22	15	7.3	35
24	14	20	30	11	16	26	25	24	20	15	19	26
25	15	19	32	11	18	26	24	26	14	15	20	35
26	15	21	32	12	19	26	16	25	8.8	18	20	38
27	16	21	32	13	20	27	24	23	19	17	17	36
28	18	22	32	13	20	25	23	24	21	18	22	50
29	13	20	31	13	21	26	22	24	21	19	23	49
30	13	21	30	13	---	26	23	24	17	17	21	30
31	16	---	29	13	---	29	---	24	---	14	27	---
TOTAL	436	626	674	418.5	481	749	745	693	593.8	504.8	533.1	999
MEAN	14.1	20.9	21.7	13.5	16.6	24.2	24.8	22.4	19.8	16.3	17.2	33.3
MAX	18	29	32	29	21	29	32	26	23	22	27	50
MIN	12	16	14	8.3	13	18	16	12	8.8	3.8	7.3	12
AC-FT	865	1240	1340	830	954	1490	1480	1370	1180	1000	1060	1980

CAL YR 1987 TOTAL 7794.4 MEAN 21.4 MAX 145 MIN 5.1 AC-FT 15460
WTR YR 1988 TOTAL 7453.2 MEAN 20.4 MAX 50 MIN 3.8 AC-FT 14780

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.--25 years, 27.6 ft³/s, 20,000 acre-ft/yr.

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, 42 ft³/s, Sept. 29, 30, gage height, 4.77 ft, Apr. 22; minimum, 6.2 ft³/s, July 17, gage height, 2.48 ft.

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	27	26	20	32	19	25	35	26	29	17	15	19
2	26	24	25	32	19	25	35	23	28	21	21	24
3	26	28	26	31	20	25	35	28	27	21	21	23
4	26	37	25	31	20	26	36	29	23	21	22	18
5	26	31	25	31	19	27	35	30	22	19	22	27
6	26	31	24	17	20	30	34	29	23	18	23	30
7	25	27	24	14	20	28	31	28	29	16	22	33
8	25	26	24	14	20	28	33	28	28	16	22	36
9	23	28	24	16	20	28	34	28	26	16	23	39
10	24	27	21	15	19	34	33	28	24	20	15	38
11	24	26	23	13	19	31	33	28	23	21	22	36
12	25	25	22	15	18	32	34	28	21	17	24	35
13	24	25	23	15	17	35	31	29	20	16	18	35
14	25	25	23	14	18	34	33	29	23	20	22	34
15	25	31	25	14	20	28	33	28	23	22	24	34
16	25	33	23	14	20	32	33	19	22	14	19	34
17	25	33	22	14	25	32	33	28	22	12	24	33
18	25	35	21	14	25	33	33	28	18	19	19	33
19	26	30	21	16	24	35	34	29	19	18	22	29
20	25	32	22	16	26	33	34	26	20	20	25	38
21	25	32	21	17	28	33	33	28	21	19	24	36
22	25	28	21	16	27	33	36	28	22	18	18	32
23	25	27	30	16	26	33	36	22	23	19	13	36
24	23	27	33	16	19	33	34	29	20	20	20	33
25	24	26	33	22	25	33	32	31	19	20	22	31
26	24	26	34	17	25	33	28	30	12	21	22	36
27	23	28	34	19	24	33	30	31	15	21	21	35
28	27	27	34	19	25	33	31	28	20	22	23	41
29	24	26	34	19	24	33	29	29	20	23	24	42
30	21	27	33	18	---	33	30	29	20	23	22	37
31	21	---	32	19	---	34	---	29	---	21	25	---
TOTAL	765	854	802	576	631	965	991	863	662	591	659	987
MEAN	24.7	28.5	25.9	18.6	21.8	31.1	33.0	27.8	22.1	19.1	21.3	32.9
MAX	27	37	34	32	28	35	36	31	29	23	25	42
MIN	21	24	20	13	17	25	28	19	12	12	13	18
AC-FT	1520	1690	1590	1140	1250	1910	1970	1710	1310	1170	1310	1960

CAL YR 1987 TOTAL 11329 MEAN 31.0 MAX 162 MIN 12 AC-FT 22470
WTR YR 1988 TOTAL 9346 MEAN 25.5 MAX 42 MIN 12 AC-FT 18540

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.--Estimated daily discharges: Aug. 16 to Sept. 30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--9 years, 39.4 ft³/s, 28,540 acre-ft/yr.

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, Dec. 22-25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft³/s, Mar. 10, gage height, 47.86 ft; minimum, 24 ft³/s, July 17,18; minimum gage height, 46.92 ft, Jan. 12,16,19.

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	40	34	44	43	35	39	42	34	30	29	31	41
2	36	35	41	42	35	39	42	30	30	30	29	50
3	34	38	43	41	35	39	42	30	30	30	31	43
4	34	52	43	41	35	39	42	31	29	30	32	38
5	33	50	42	41	35	43	41	32	28	30	33	46
6	33	46	42	37	35	57	40	32	31	30	34	51
7	33	43	41	30	36	53	39	32	34	28	33	55
8	32	41	41	28	37	46	36	31	34	26	33	58
9	31	42	41	28	38	45	37	31	33	27	34	58
10	31	59	40	29	36	68	38	31	31	30	34	54
11	31	52	39	27	36	61	38	32	31	33	30	52
12	34	45	39	26	35	52	38	31	30	32	33	51
13	37	43	39	27	34	55	38	32	29	29	34	50
14	34	42	39	27	32	58	37	32	30	33	30	48
15	34	43	40	26	35	52	37	31	32	36	33	48
16	33	46	41	26	41	46	35	28	31	34	34	47
17	33	48	39	26	39	47	36	28	30	26	35	47
18	33	55	38	27	41	48	36	30	30	27	34	47
19	33	53	37	27	40	54	37	31	27	31	35	48
20	33	50	37	28	41	53	39	31	30	30	36	46
21	33	49	37	34	47	49	37	29	36	31	35	45
22	33	47	36	39	47	48	36	30	34	31	31	46
23	32	46	37	33	44	47	38	28	36	32	31	45
24	33	45	42	31	41	46	38	28	34	36	35	47
25	33	45	44	54	37	45	36	32	31	36	40	44
26	33	44	44	51	39	44	35	34	29	33	39	43
27	33	46	45	41	40	43	32	34	26	33	39	44
28	34	47	45	38	39	44	33	32	28	33	40	45
29	35	46	45	37	39	43	33	31	30	33	42	54
30	32	45	44	36	---	42	33	31	30	33	43	56
31	32	---	43	35	---	42	---	31	---	33	45	---
TOTAL	1035	1377	1268	1056	1104	1487	1121	960	924	965	1078	1447
MEAN	33.4	45.9	40.9	34.1	38.1	48.0	37.4	31.0	30.8	31.1	34.8	48.2
MAX	40	59	45	54	47	68	42	34	36	36	45	58
MIN	31	34	36	26	32	39	32	28	26	26	29	38
AC-FT	2050	2730	2520	2090	2190	2950	2220	1900	1830	1910	2140	2870

CAL YR 1987 TOTAL 15315 MEAN 42.0 MAX 205 MIN 23 AC-FT 30380
WTR YR 1988 TOTAL 13822 MEAN 37.8 MAX 68 MIN 26 AC-FT 27420

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.--Estimated daily discharges: Nov. 13 to Jan 6, Feb. 9 to Feb. 28. Records good except for estimated daily discharges, which are fair. Records include wastewater of ground-water origin from mining operations upstream.

AVERAGE DISCHARGE.--6 years, 52.4 ft³/s, 37,960 acre-ft/yr.

CORRECTIONS.--The acre-ft/yr figure for water year 1987 has been corrected to 40,060 acre-ft/yr. This supersedes the figure published in the report for 1987.

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, 107 ft³/s, Mar. 20, 21, maximum gage height, 49.48 ft, Mar. 19-21; minimum, 11.0 ft³/s, June 3-5, minimum gage height, 47.52 ft, Oct. 31, Nov. 1.

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	26	12	53	30	51	55	69	24	12	17	17	23
2	24	13	52	28	50	54	64	24	12	17	17	23
3	22	14	51	27	49	53	55	21	12	17	17	22
4	20	34	51	25	49	52	52	20	11	16	19	21
5	19	35	52	24	51	52	50	19	11	15	20	30
6	19	34	49	22	52	57	50	19	26	15	23	54
7	18	36	47	23	54	62	48	18	31	16	18	71
8	17	42	46	24	55	63	46	17	31	15	18	85
9	17	48	45	25	55	65	45	17	28	14	16	102
10	16	76	44	25	54	79	44	16	26	14	15	99
11	16	77	44	25	52	90	42	16	27	13	16	92
12	18	68	42	24	51	92	38	16	28	13	16	90
13	19	64	39	24	48	95	37	16	29	13	16	93
14	18	62	38	25	47	100	35	16	29	16	16	95
15	17	65	37	23	45	103	33	16	29	18	18	95
16	16	72	37	22	45	104	32	16	29	18	28	92
17	15	81	38	21	46	104	30	15	27	18	34	85
18	15	84	38	23	49	105	29	15	26	19	30	77
19	15	78	37	22	50	106	28	14	24	21	29	69
20	15	75	36	22	52	107	28	14	21	22	27	65
21	14	71	34	25	53	106	28	13	23	21	26	61
22	14	68	34	31	55	103	27	13	23	21	24	57
23	14	66	33	31	58	101	27	12	23	22	23	53
24	13	62	32	30	59	99	27	12	21	24	22	50
25	13	60	32	42	58	96	26	15	20	24	21	47
26	13	59	31	50	56	93	25	15	19	24	22	44
27	13	58	31	51	55	90	25	16	19	23	35	42
28	13	57	30	49	55	87	24	15	18	22	38	40
29	13	55	31	48	55	82	24	14	18	20	32	38
30	13	54	31	50	---	78	22	13	18	19	27	37
31	12	---	31	51	---	73	---	13	---	18	24	---
TOTAL	507	1680	1226	942	1509	2606	1110	500	671	565	704	1852
MEAN	16.4	56.0	39.5	30.4	52.0	84.1	37.0	16.1	22.4	18.2	22.7	61.7
MAX	26	84	53	51	59	107	69	24	31	24	38	102
MIN	12	12	30	21	45	52	22	12	11	13	15	21
AC-FT	1010	3330	2430	1870	2990	5170	2200	992	1330	1120	1400	3670
CAL YR 1987	TOTAL 17988	MEAN 49.3	MAX 172	MIN 12	AC-FT 35680							
WTR YR 1988	TOTAL 13872	MEAN 37.9	MAX 107	MIN 11	AC-FT 27520							

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 1987 TO SEPTEMBER 1987

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
MAY 11...	1833	47.79	19	295	7.7	23.0	20	6.1	56	2.8
AUG 26...	1730	47.74	19	320	7.8	26.0	45	6.6	53	3.0
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
MAY 11...	4.7	0.50	141	4.9	8.1	0.10	8.6	183	<0.010	0.110
AUG 26...	4.6	0.60	137	4.4	10	0.20	14	205	<0.010	0.070
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
MAY 11...	<0.010	0.25	0.100	0.060	10	<1	2	<1	110	50
AUG 26...	0.020	0.45	0.100	0.080	30	<1	<1	3	250	170
DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	
MAY 11...	<5	<5	<10	<10	<0.10	1	190	<10	4.8	
AUG 26...	<5	<5	10	10	0.50	3	200	10	8.4	

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 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	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)
MAY 11...	1420	340	7.6	25.0	30	7.7	55	5.1	4.4	0.20
AUG 29...	1640	360	8.8	35.5	50	8.1	57	6.5	4.8	1.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY 11...	138	14	7.5	0.20	8.1	185	<0.010	<0.020	<0.010
AUG 29...	125	38	9.9	0.30	24	251	<0.010	0.070	0.050

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
MAY 11...	0.76	0.100	0.020	30	--	<1	1	90	20
AUG 29...	1.4	0.100	0.040	30	<1	<1	<1	60	20

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 11...	<5	<5	<10	<10	0.10	<1	310	<10	4.5
AUG 29...	10	<5	10	<10	<0.10	2	410	<10	10

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.--9 years (water years 1980-88), 13.1 ft³/s, 4.68 in/yr, 9,490 acre-ft/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, 100 ft³/s, Mar. 10, 11, gage height, 6.65 ft; no flow for many days; minimum gage height, 4.22 ft, June 5.

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	10	.00	9.9	4.5	38	20	9.9	.59	.00	6.5	3.0	4.1
2	7.5	.00	9.3	3.9	30	18	10	.75	.00	5.5	2.5	4.3
3	5.1	4.0	8.6	3.6	23	17	9.9	.22	.00	4.7	2.5	4.1
4	3.2	87	8.2	3.3	21	16	9.9	.00	.00	4.0	2.6	3.6
5	2.2	86	7.6	2.8	18	21	9.8	.00	.35	3.3	2.2	4.6
6	1.6	68	7.3	2.3	17	49	11	.00	7.1	3.4	1.6	29
7	1.0	55	6.9	2.0	17	52	9.4	.00	28	3.9	4.2	45
8	.57	44	6.5	2.3	19	41	7.4	.00	35	3.6	8.6	48
9	.05	37	6.3	2.5	20	36	6.1	.00	29	2.9	7.1	65
10	.00	50	6.2	2.8	18	89	5.4	.00	21	2.5	6.4	64
11	.00	49	7.0	2.6	18	92	7.5	.00	17	2.7	5.7	48
12	.98	43	6.5	2.4	17	73	7.1	.00	14	2.0	5.4	39
13	3.2	33	5.9	2.2	15	63	6.3	.00	12	2.2	6.6	30
14	2.5	25	5.7	2.2	14	56	5.7	.00	9.3	15	5.3	23
15	2.3	21	6.3	8.9	18	46	5.0	.00	8.5	30	4.6	19
16	1.9	17	8.2	12	42	39	4.4	.00	7.2	21	4.7	17
17	1.4	16	7.1	8.5	39	35	3.7	.00	5.6	14	4.5	14
18	.69	26	6.2	8.4	31	32	3.3	.00	4.0	12	4.2	12
19	.32	23	5.6	6.7	26	37	3.4	.00	2.5	14	3.9	14
20	.02	20	5.6	5.7	26	35	4.3	.00	1.8	12	3.2	13
21	.00	17	9.0	9.5	39	31	3.7	.00	4.0	14	2.8	11
22	.00	15	8.5	16	43	27	3.3	.00	4.0	11	2.1	10
23	.00	13	7.4	13	37	24	2.9	.00	5.5	12	1.6	8.9
24	.00	12	6.7	11	32	21	2.3	.00	4.9	14	.99	7.8
25	.00	11	6.2	54	28	19	1.7	.00	3.5	12	.32	7.2
26	.00	12	5.7	61	25	17	1.6	.00	2.9	9.3	.19	7.7
27	.00	20	5.3	38	23	16	1.6	.00	2.3	7.6	1.3	20
28	.00	17	5.3	26	22	15	.79	.00	1.9	6.8	4.7	21
29	.00	13	5.9	20	21	13	.05	.00	4.5	6.0	5.5	15
30	.00	11	5.8	25	---	12	.01	.00	9.6	5.1	4.5	13
31	.00	---	5.0	38	---	10	---	.00	---	4.0	3.9	---
TOTAL	44.53	845.00	211.7	401.1	737	1072	157.45	1.56	245.45	267.0	116.70	622.3
MEAN	1.44	28.2	6.83	12.9	25.4	34.6	5.25	.050	8.18	8.61	3.76	20.7
MAX	10	87	9.9	61	43	92	11	.75	35	30	8.6	65
MIN	.00	.00	5.0	2.0	14	10	.01	.00	.00	2.0	.19	3.6
AC-FT	88	1680	420	796	1460	2130	312	3.1	487	530	231	1230
CFSM	.04	.74	.18	.34	.67	.91	.14	.00	.22	.23	.10	.55
IN.	.04	.83	.21	.39	.72	1.05	.15	.00	.24	.26	.11	.61

CAL YR 1987 TOTAL 6789.74 MEAN 18.6 MAX 209 MIN .00 AC-FT 13470 CFSM .49 IN. 6.65
WTR YR 1988 TOTAL 4721.79 MEAN 12.9 MAX 92 MIN .00 AC-FT 9370 CFSM .34 IN. 4.62

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.--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.--26 years, 197 ft³/s, 6.37 in/yr, 142,700 acre-ft/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 gage height observed, 37.81 ft, July 16, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 558 ft³/s, Sept. 29; maximum gage height, 41.35 ft, Apr. 10; minimum daily discharge, 78 ft³/s, Aug. 14; minimum gage height, 38.72 ft, Aug. 5.

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	233	138	284	165	322	300	417	322	191	159	93	168
2	229	140	279	162	318	299	418	317	187	160	89	177
3	225	148	273	160	314	297	420	312	182	162	85	183
4	221	183	262	155	308	294	421	301	178	163	81	183
5	217	191	257	149	301	300	422	287	177	161	82	206
6	213	197	255	146	295	318	423	277	221	158	105	265
7	207	200	252	145	298	322	414	271	234	159	104	308
8	202	204	246	147	297	323	421	266	234	153	104	352
9	195	211	240	148	300	325	420	254	231	146	99	388
10	191	302	236	152	298	359	420	242	226	139	98	404
11	185	316	230	151	296	377	418	234	225	135	94	416
12	189	328	225	153	287	384	412	232	220	128	89	424
13	191	337	222	152	287	394	410	231	212	129	83	428
14	189	342	219	150	288	392	411	230	205	129	78	434
15	186	346	218	148	290	393	405	228	201	124	80	439
16	184	350	216	152	294	396	401	225	197	121	88	445
17	181	351	211	155	296	397	396	221	195	118	92	448
18	179	358	210	159	296	399	390	218	194	116	94	455
19	176	354	209	163	296	396	391	215	188	124	100	466
20	174	346	206	164	296	399	392	211	184	122	99	489
21	170	341	202	192	307	399	385	207	187	115	95	501
22	164	339	198	225	314	399	380	202	186	112	93	515
23	161	335	195	233	316	402	374	198	186	117	90	525
24	157	329	193	239	313	400	364	195	184	126	87	533
25	155	322	190	288	310	399	361	205	178	128	85	540
26	153	317	187	309	309	398	355	207	172	126	88	546
27	153	313	183	317	307	402	351	206	169	121	103	551
28	146	306	179	322	306	407	341	206	165	116	121	552
29	144	298	167	325	304	409	333	204	162	110	129	553
30	141	290	168	326	---	411	326	200	160	104	148	552
31	139	---	167	324	---	415	---	197	---	98	157	---
TOTAL	5650	8532	6779	6176	8763	11505	11792	7321	5831	4079	3033	12446
MEAN	182	284	219	199	302	371	393	236	194	132	97.8	415
MAX	233	358	284	326	322	415	423	322	234	163	157	553
MIN	139	138	167	145	287	294	326	195	160	98	78	168
AC-FT	11210	16920	13450	12250	17380	22820	23390	14520	11570	8090	6020	24690
CFSM	.43	.68	.52	.47	.72	.88	.94	.56	.46	.31	.23	.99
IN.	.50	.76	.60	.55	.78	1.02	1.04	.65	.52	.36	.27	1.10

CAL YR 1987 TOTAL 87931 MEAN 241 MAX 654 MIN 120 AC-FT 174400 CFSM .57 IN. 7.79
WTR YR 1988 TOTAL 91907 MEAN 251 MAX 553 MIN 78 AC-FT 182300 CFSM .60 IN. 8.14

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312700 OUTLET RIVER AT PANACOCHEE RETREATS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1908, 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
MAY 11...	1210	40.58	231	260	8.5	23.5	30	8.6	41	3.7
AUG 29...	1400	39.31	120	252	8.6	--	10	7.6	36	4.3
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
MAY 11...	4.5	<0.10	95	13	8.7	0.20	4.9	151	<0.010	<0.020
AUG 29...	5.0	1.1	83	20	9.7	0.20	15	154	<0.010	<0.020
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
MAY 11...	0.010	0.48	0.020	0.010	10	<1	<1	2	90	30
AUG 29...	0.020	0.60	0.030	0.020	<10	<1	<1	2	50	20
DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	
MAY 11...	<5	<5	<10	<10	0.10	<1	250	<10	8.8	
AUG 29...	20	<5	<10	<10	<0.10	<1	320	20	6.2	

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312719 WITHLACOCHEE RIVER ABOVE WYSONG DAM, AT CARLSON, FL

LOCATION.--Lat 28°49'22", long 82°10'58", in NW¼ sec.23, T.19 S., R.21 E., Sumter County, Hydrologic Unit 03100208, near right bank at upstream end 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.--April 1957 to November 1962 (gage heights only, about weekly), December 1962 to February 1963 (gage heights only), March 1963 to July 1965 (discharge measurements and gage heights only), August 1965 to June 1988 (gage heights only), (discontinued). 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 "at Carlson's Landing, near Lake Panasoffkee (auxiliary)."

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). April 1957 to May 23, 1970, at site 200 feet upstream at datum 34.2 ft higher prior to Dec. 17, 1962, and at present datum thereafter.

REMARKS.--August 1965 to June 26, 1988, stage affected by manipulation of inflatable fabri-dam. Since removal of the dam, gage heights equivalent to Withlacoochee River at Wysong Dam, at Carlson.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 43.6 ft in April 1960, from floodmark; minimum observed, about 35.2 ft, Apr. 14, May 5, 1962.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.71	38.14	38.76	38.38	39.05	38.90	39.97	39.44	38.55	---	---	---
2	38.69	38.14	38.74	38.36	39.03	38.87	39.98	39.41	38.47	---	---	---
3	38.67	38.18	38.72	38.36	38.99	38.85	40.00	39.37	38.43	---	---	---
4	38.65	38.32	38.70	38.37	38.97	38.90	40.01	39.34	38.39	---	---	---
5	38.63	38.34	38.67	38.35	38.94	38.96	40.02	39.29	38.34	---	---	---
6	38.59	38.36	38.65	38.33	38.94	39.05	40.01	39.25	38.56	---	---	---
7	38.56	38.36	38.64	38.69	38.91	39.06	39.99	39.19	38.57	---	---	---
8	38.53	38.38	38.62	39.13	38.97	39.06	39.96	39.17	38.56	---	---	---
9	38.49	38.38	38.60	39.14	38.96	39.06	39.96	39.13	38.53	---	---	---
10	38.47	38.89	38.59	39.17	38.96	39.41	39.94	39.09	38.49	---	---	---
11	38.46	39.01	38.57	39.15	38.96	39.40	39.94	39.05	38.44	---	---	---
12	38.47	39.02	38.55	39.16	38.95	39.40	39.91	39.01	38.36	---	---	---
13	38.49	39.04	38.54	39.17	38.93	39.44	39.88	38.98	38.29	---	---	---
14	38.46	39.04	38.52	39.17	38.90	39.49	39.86	38.99	38.23	---	---	---
15	38.44	39.04	38.55	39.16	38.89	39.48	39.84	38.95	38.19	---	---	---
16	38.44	39.02	38.57	39.15	38.96	39.48	39.81	38.92	38.14	---	---	---
17	38.43	39.02	38.54	39.16	38.96	39.47	39.78	38.89	38.08	---	---	---
18	38.41	39.06	38.52	39.16	38.94	39.48	39.75	38.87	38.03	---	---	---
19	38.40	39.05	38.51	39.16	38.94	39.56	39.78	38.81	37.96	---	---	---
20	38.37	39.03	38.50	39.14	38.96	39.56	39.77	38.79	37.92	---	---	---
21	38.35	38.99	38.50	39.20	39.06	39.59	39.72	38.73	37.91	---	---	---
22	38.32	38.97	38.50	38.82	39.06	39.63	39.68	38.69	37.94	---	---	---
23	38.29	38.96	38.48	38.74	39.04	39.66	39.63	38.66	37.93	---	---	---
24	38.28	38.93	38.46	38.75	39.04	39.69	39.61	38.63	37.91	---	---	---
25	38.27	38.89	38.45	39.13	39.01	39.73	39.59	38.69	37.90	---	---	---
26	38.25	38.87	38.44	39.14	38.99	39.79	39.57	38.67	37.89	---	---	---
27	38.24	38.86	38.44	39.14	38.97	39.85	39.55	38.66	---	---	---	---
28	38.23	38.83	38.44	39.14	38.95	39.87	39.51	38.65	---	---	---	---
29	38.19	38.81	38.41	39.12	38.92	39.91	39.45	38.64	---	---	---	---
30	38.17	38.79	38.39	39.10	---	39.93	39.42	38.61	---	---	---	---
31	38.16	---	38.38	39.08	---	39.95	---	38.57	---	---	---	---
MEAN	38.42	38.76	38.55	38.94	38.97	39.43	39.80	38.94	---	---	---	---
MAX	38.71	39.06	38.76	39.20	39.06	39.95	40.02	39.44	---	---	---	---
MIN	38.16	38.14	38.38	38.33	38.89	38.85	39.42	38.57	---	---	---	---

CAL YR 1987 MEAN 39.03 MAX 40.94 MIN 37.89

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). Auxiliary nonrecording gage at upstream side of lock and dam (station 02312719).

REMARKS.--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.--23 years, 670 ft³/s, 485,400 acre-ft/yr.

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, 2,200 ft³/s, Sept. 27-29; maximum gage height, 40.63 ft, Sept. 27; minimum daily discharge, 258 ft³/s, July 14; minimum gage height, 37.29 ft, July 14.

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	512	361	558	402	699	766	1400	1060	610	361	322	656
2	506	361	546	398	691	757	1410	1050	594	353	320	669
3	502	369	539	396	682	752	1420	1020	578	342	320	673
4	492	410	531	396	678	752	1430	999	562	330	317	669
5	485	419	520	393	669	784	1430	976	554	317	325	721
6	475	422	509	387	673	845	1430	947	631	302	356	879
7	465	425	506	337	673	850	1410	925	639	292	367	1040
8	453	432	499	315	686	850	1400	905	639	282	369	1160
9	447	441	488	325	699	869	1390	889	631	272	358	1300
10	438	602	485	330	699	1040	1390	874	610	268	364	1360
11	432	665	478	332	699	1030	1390	850	586	268	361	1410
12	441	665	472	330	699	1040	1370	830	558	265	345	1460
13	444	669	465	332	699	1060	1360	816	531	263	340	1500
14	441	673	462	322	695	1080	1340	812	509	258	335	1530
15	441	678	465	322	708	1080	1320	798	491	265	335	1580
16	434	673	472	325	730	1080	1300	788	475	275	361	1630
17	432	673	462	327	730	1080	1280	770	459	277	393	1680
18	425	686	459	335	730	1080	1260	761	438	275	410	1740
19	425	682	456	335	734	1110	1290	743	419	282	438	1810
20	422	673	447	337	748	1130	1270	721	404	280	450	1920
21	416	660	444	459	788	1140	1240	699	402	280	453	1980
22	407	652	444	550	793	1170	1220	686	407	300	459	2040
23	402	644	441	531	793	1190	1190	673	404	317	468	2090
24	393	631	435	535	793	1210	1170	656	398	345	475	2120
25	393	614	432	682	784	1240	1150	682	398	367	485	2160
26	387	606	428	708	784	1290	1140	678	398	367	499	2180
27	384	602	422	712	779	1310	1130	673	390	356	535	2200
28	378	594	419	712	770	1340	1100	669	393	353	590	2200
29	369	578	416	712	770	1360	1060	660	387	342	614	2200
30	367	566	410	708	---	1370	1050	648	372	330	635	2170
31	361	---	404	704	---	1390	---	631	---	327	644	---
TOTAL	13369	17126	14514	13989	21075	33045	38740	24889	14867	9511	13043	46727
MEAN	431	571	468	451	727	1066	1291	803	496	307	421	1558
MAX	512	686	558	712	793	1390	1430	1060	639	367	644	2200
MIN	361	361	404	315	669	752	1050	631	372	258	317	656
AC-FT	26520	33970	28790	27750	41800	65540	76840	49370	29490	18870	25870	92680

CAL YR 1987 TOTAL 247102 MEAN 677 MAX 3120 MIN 300 AC-FT 490100
WTR YR 1988 TOTAL 260895 MEAN 713 MAX 2200 MIN 258 AC-FT 517500

PEACE, WITHLACOOCHIE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02312720 WITHLACOOCHEE RIVER AT WYSONG DAM AT CARLSON, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.65	38.10	38.69	38.31	38.99	38.84	39.88	39.37	38.45	37.71	37.62	38.72
2	38.63	38.10	38.67	38.30	38.96	38.81	39.90	39.35	38.41	37.68	37.62	38.75
3	38.61	38.13	38.65	38.30	38.93	38.79	39.91	39.31	38.37	37.64	37.62	38.76
4	38.58	38.27	38.63	38.30	38.91	38.78	39.92	39.27	38.33	37.59	37.61	38.75
5	38.56	38.29	38.60	38.29	38.88	38.85	39.92	39.23	38.31	37.54	37.65	38.85
6	38.53	38.30	38.58	38.27	38.88	38.98	39.92	39.18	38.50	37.48	37.77	39.17
7	38.50	38.31	38.57	38.10	38.87	38.99	39.90	39.14	38.52	37.44	37.81	39.43
8	38.46	38.33	38.55	38.01	38.89	38.99	39.88	39.10	38.52	37.40	37.82	39.62
9	38.43	38.36	38.53	38.05	38.90	39.03	39.87	39.07	38.50	37.36	37.79	39.80
10	38.40	38.80	38.52	38.08	38.89	39.33	39.86	39.04	38.45	37.34	37.81	39.88
11	38.38	38.95	38.50	38.09	38.88	39.32	39.86	38.99	38.39	37.34	37.80	39.93
12	38.41	38.95	38.48	38.08	38.87	39.33	39.84	38.95	38.32	37.33	37.75	39.97
13	38.42	38.96	38.47	38.09	38.86	39.38	39.82	38.92	38.25	37.32	37.73	40.01
14	38.40	38.97	38.46	38.06	38.84	39.41	39.79	38.91	38.19	37.30	37.71	40.05
15	38.40	38.97	38.47	38.06	38.86	39.40	39.77	38.88	38.14	37.34	37.72	40.10
16	38.38	38.96	38.50	38.06	38.90	39.40	39.74	38.86	38.09	37.38	37.82	40.14
17	38.37	38.96	38.47	38.06	38.89	39.40	39.71	38.82	38.04	37.39	37.93	40.18
18	38.35	38.99	38.46	38.08	38.88	39.41	39.68	38.80	37.97	37.39	38.00	40.24
19	38.34	38.98	38.45	38.07	38.88	39.46	39.72	38.76	37.91	37.42	38.09	40.31
20	38.33	38.96	38.43	38.07	38.90	39.48	39.69	38.71	37.86	37.41	38.13	40.43
21	38.31	38.92	38.42	38.48	38.98	39.51	39.65	38.66	37.85	37.42	38.15	40.48
22	38.28	38.90	38.42	38.73	38.98	39.55	39.62	38.63	37.87	37.50	38.17	40.55
23	38.26	38.88	38.41	38.67	38.97	39.58	39.58	38.60	37.86	37.57	38.20	40.58
24	38.23	38.85	38.40	38.67	38.96	39.61	39.55	38.56	37.84	37.69	38.23	40.60
25	38.22	38.82	38.39	39.02	38.93	39.65	39.52	38.62	37.84	37.77	38.26	40.62
26	38.20	38.80	38.38	39.07	38.92	39.72	39.50	38.61	37.84	37.77	38.30	40.62
27	38.19	38.79	38.37	39.07	38.90	39.75	39.48	38.60	37.81	37.74	38.41	40.63
28	38.17	38.77	38.36	39.06	38.87	39.79	39.43	38.59	37.82	37.73	38.55	40.62
29	38.14	38.74	38.35	39.05	38.86	39.82	39.38	38.57	37.80	37.69	38.61	40.59
30	38.12	38.71	38.33	39.03	---	39.84	39.36	38.54	37.75	37.65	38.67	40.54
31	38.10	---	38.32	39.01	---	39.86	---	38.50	---	37.64	38.69	---
MEAN	38.37	38.69	38.48	38.41	38.90	39.36	39.72	38.88	38.13	37.52	38.00	39.96
MAX	38.65	38.99	38.69	39.07	38.99	39.86	39.92	39.37	38.52	37.77	38.69	40.63
MIN	38.10	38.10	38.32	38.01	38.84	38.78	39.36	38.50	37.75	37.30	37.61	38.72
CAL YR 1987	MEAN 38.05	MAX 40.77	MIN 36.81									
WTR YR 1988	MEAN 38.70	MAX 40.63	MIN 37.30									

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 1984 To September 1987 (discharge measurements and gage heights only); gage height record for November 1983 to September 1984 and October 1987 to November 1987 are unpublished and available in files of the Orlando Subdistrict Office; October 1982 to September 1984 and October 1987 to current year (discharge measurements only).

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
NOV			JUN		
17...	1434	34	30...	1415	-2.6
JAN			AUG		
14...	1432	10	19...	1320	18
MAR					
02...	1440	13			

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. Dec. 1, 1987 to current year, nonrecording gage. 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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
NOV			MAY		
17...	1230	39	09...	1033	1.7
JAN			AUG		
14...	1230	15	19...	1120	17
MAR					
02...	1236	19			

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 Mar. 9, Apr. 9-21, Apr. 29 to June 8, July 6 to Sept. 5, Sept. 23-30, leakage through gates. Records good except for estimated daily discharges, which are poor. Flow regulated by manipulation of gates in spillway. Discharge computed from relation between discharge, head, and gate openings.

COOPERATION.--Gate-opening record provided by Southwest Florida Water Management District.

AVERAGE DISCHARGE.--20 years, 21.7 ft³/s, 15,720 acre-ft/yr.

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, 330 ft³/s, Sept. 9; maximum gage height, 38.86 ft, Sept. 6; minimum daily discharge, 0.05 ft³/s, July 7 to Sept. 5; minimum gage height, 37.17 ft, Jan. 7.

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	.10	.10	.10	.10	.10	.10	118	.10	.10	87	.05	.05
2	.10	.10	.10	.10	.10	.10	118	.10	.10	59	.05	.05
3	.10	.10	.10	.10	.10	.10	118	.10	.10	59	.05	.05
4	.10	.10	.10	.10	.10	.10	118	.10	.10	52	.05	.05
5	.10	.10	.10	.10	.10	.10	118	.10	.10	41	.05	.05
6	.10	.10	.10	.10	.10	.10	118	.10	.10	20	.05	47
7	.10	.10	.10	.10	.10	.10	91	.10	.10	.05	.05	165
8	.10	.10	.10	.10	.10	.10	26	.10	.10	.05	.05	327
9	.10	.10	.10	.10	.10	.10	.10	.10	59	.05	.05	330
10	.10	.10	.10	.10	.10	69	.10	.10	118	.05	.05	316
11	.10	.10	.10	.10	.10	118	.10	.10	118	.05	.05	297
12	.10	.10	.10	.10	.10	118	.10	.10	118	.05	.05	289
13	.10	.10	.10	.10	.10	118	.10	.10	118	.05	.05	278
14	.10	.10	.10	.10	.10	182	.10	.10	118	.05	.05	270
15	.10	.10	.10	.10	.10	236	.10	.10	118	.05	.05	265
16	.10	.10	.10	.10	.10	182	.10	.10	118	.05	.05	257
17	.10	.10	.10	.10	.10	118	.10	.10	91	.05	.05	250
18	.10	.10	.10	.10	.10	118	.10	.10	59	.05	.05	244
19	.10	.10	.10	.10	.10	118	.10	.10	59	.05	.05	239
20	.10	.10	.10	.10	.10	118	.10	.10	59	.05	.05	232
21	.10	.10	.10	.10	.10	118	.10	.10	59	.05	.05	232
22	.10	.10	.10	.10	.10	118	44	.10	49	.05	.05	118
23	.10	.10	.10	.10	.10	118	82	.10	41	.05	.05	.40
24	.10	.10	.10	.10	.10	118	82	.10	41	.05	.05	.40
25	.10	.10	.10	.10	.10	118	60	.10	41	.05	.05	.40
26	.10	.10	.10	.10	.10	118	41	.10	41	.05	.05	.40
27	.10	.10	.10	.10	.10	118	41	.10	41	.05	.05	.40
28	.10	.10	.10	.10	.10	118	17	.10	88	.05	.05	.40
29	.10	.10	.10	.10	.10	118	.10	.10	118	.05	.05	.40
30	.10	.10	.10	.10	---	118	.10	.10	118	.05	.05	.40
31	.10	---	.10	.10	---	118	---	.10	---	.05	.05	---
TOTAL	3.10	3.00	3.10	3.10	2.90	2793.90	1193.50	3.10	1790.80	319.25	1.55	4159.45
MEAN	.10	.10	.10	.10	.10	90.1	39.8	.10	59.7	10.3	.050	139
MAX	.10	.10	.10	.10	.10	236	118	.10	118	87	.05	330
MIN	.10	.10	.10	.10	.10	.10	.10	.10	.10	.05	.05	.05
AC-FT	6.1	6.0	6.1	6.1	5.8	5540	2370	6.1	3550	633	3.1	8250

CAL YR 1987 TOTAL 8674.17 MEAN 23.8 MAX 360 MIN .10 AC-FT 17210
WTR YR 1988 TOTAL 10276.75 MEAN 28.1 MAX 330 MIN .05 AC-FT 20380

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02312975 TSALA APOPKA OUTFALL CANAL AT S-353, NEAR HERNANDO, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.03	37.51	37.52	37.27	37.58	38.12	38.41	38.52	38.27	37.86	38.11	38.28
2	38.02	37.53	37.49	37.25	37.58	38.16	38.40	38.54	38.25	37.88	38.12	38.41
3	38.00	37.62	37.48	37.23	37.58	38.18	38.39	38.55	38.23	37.86	38.10	38.40
4	37.95	37.61	37.47	37.22	37.58	38.23	38.39	38.56	38.18	37.83	38.11	38.39
5	37.95	37.58	37.44	37.20	37.53	38.29	38.36	38.55	38.19	37.79	38.15	38.51
6	37.93	37.57	37.42	37.18	37.53	38.35	38.37	38.53	38.40	37.78	38.13	38.76
7	37.90	37.57	37.41	37.19	37.53	38.35	38.36	38.50	38.52	37.80	38.13	38.45
8	37.88	37.57	37.40	37.24	37.56	38.35	38.40	38.50	38.52	37.80	38.13	38.26
9	37.84	37.58	37.40	37.25	37.57	38.40	38.46	38.50	38.45	37.80	38.13	38.27
10	37.82	37.56	37.39	37.26	37.56	38.57	38.50	38.48	38.32	37.80	38.17	38.22
11	37.82	37.52	37.38	37.25	37.57	38.49	38.56	38.48	38.24	37.83	38.20	38.15
12	37.84	37.51	37.38	37.25	37.58	38.50	38.60	38.48	38.16	37.91	38.21	38.12
13	37.84	37.50	37.36	37.25	37.55	38.55	38.58	38.49	38.10	37.89	38.19	38.08
14	37.82	37.48	37.35	37.21	37.53	38.48	38.57	38.52	38.04	37.88	38.18	38.05
15	37.80	37.46	37.39	37.20	37.58	38.36	38.57	38.53	38.00	37.88	38.18	38.03
16	37.79	37.45	37.42	37.19	37.59	38.36	38.56	38.52	37.96	37.89	38.17	38.00
17	37.77	37.52	37.40	37.21	37.60	38.43	38.56	38.51	37.97	37.87	38.17	37.97
18	37.76	37.56	37.39	37.21	37.60	38.47	38.58	38.52	37.98	37.85	38.17	37.95
19	37.75	37.56	37.38	37.21	37.67	38.52	38.62	38.50	37.95	37.86	38.17	37.93
20	37.72	37.56	37.38	37.22	37.73	38.51	38.63	38.48	37.88	37.91	38.16	37.90
21	37.68	37.52	37.37	37.40	37.81	38.52	38.62	38.46	37.89	37.92	38.16	37.90
22	37.66	37.52	37.38	37.44	37.83	38.52	38.58	38.45	37.88	38.00	38.16	38.10
23	37.65	37.50	37.35	37.43	37.87	38.50	38.51	38.45	37.90	38.07	38.18	38.40
24	37.64	37.48	37.35	37.45	37.89	38.50	38.48	38.43	37.90	38.13	38.18	38.49
25	37.63	37.47	37.35	37.60	37.92	38.50	38.46	38.47	37.90	38.16	38.18	38.55
26	37.63	37.50	37.35	37.61	37.94	38.49	38.49	38.43	37.95	38.18	38.19	38.58
27	37.61	37.57	37.33	37.59	38.00	38.48	38.49	38.40	37.93	38.18	38.23	38.60
28	37.59	37.55	37.34	37.58	38.03	38.46	38.48	38.38	37.94	38.16	38.28	38.62
29	37.56	37.55	37.29	37.58	38.09	38.45	38.49	38.36	37.92	38.14	38.28	38.61
30	37.54	37.53	37.27	37.58	---	38.44	38.50	38.33	37.87	38.13	38.27	38.59
31	37.52	---	37.27	37.58	---	38.43	---	38.29	---	38.13	38.25	---
MEAN	37.77	37.53	37.38	37.33	37.69	38.42	38.50	38.47	38.09	37.94	38.18	38.29
MAX	38.03	37.62	37.52	37.61	38.09	38.57	38.63	38.56	38.52	38.18	38.28	38.76
MIN	37.52	37.45	37.27	37.18	37.53	38.12	38.36	38.29	37.87	37.78	38.10	37.90

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 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
MAR 11...	1400	38.49	118	100	6.2	18.5	7.9
APR 26...	1400	38.50	46	140	7.5	27.0	5.3
JUN 30...	0922	37.89	118	122	7.4	31.0	6.5
AUG 24...	1350	38.18	EO.05	122	7.2	32.0	6.9

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
MAR 11...	<0.010	<0.020	0.020	0.72	<0.020	0.010
APR 26...	<0.010	<0.020	0.010	1.0	0.020	0.010
JUN 30...	<0.010	<0.020	0.020	0.65	0.020	0.010
AUG 24...	<0.010	<0.020	0.020	0.75	0.020	0.010

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR 11...	1400	13	1.1	5.2	<0.10	30	1.0
APR 26...	1400	19	1.6	6.2	0.30	42	0.70
AUG 24...	1350	13	1.2	4.3	<0.10	31	1.1

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR 11...	7.5	0.10	0.20	77	90	14
APR 26...	10	0.20	0.20	100	100	12
AUG 24...	9.2	0.10	0.20	64	80	12

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.--57 years (water years 1932-88), 1,077 ft³/s, 8.01 in/yr, 780,300 acre-ft/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, 2,940 ft³/s, Sept. 29, 30; gage height, 8.15 ft, Sept. 30; stage rising, peak occurred Oct. 1, 1988; maximum peak discharge, 1,500 ft³/s, Mar. 14, gage height, 4.68 ft; minimum discharge 401 ft³/s, July 18; minimum gage height, 1.24 ft, Oct. 30, Nov. 1.

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	804	441	691	524	1010	912	1440	968	532	626	501	834
2	703	445	680	525	1010	887	1450	958	530	579	501	903
3	634	447	678	523	1010	870	1460	938	528	551	486	902
4	586	516	681	525	998	875	1460	920	525	534	475	894
5	561	525	666	519	977	958	1450	903	537	512	507	994
6	548	510	655	512	961	1060	1430	881	647	479	512	1390
7	551	493	646	513	947	1080	1400	858	708	451	516	1870
8	554	486	636	551	950	1060	1330	840	709	434	532	2150
9	557	482	631	524	951	1070	1270	828	717	417	538	2360
10	558	501	625	522	942	1340	1260	813	758	426	667	2430
11	557	550	611	497	931	1420	1250	801	746	459	685	2420
12	566	606	596	478	927	1420	1240	786	737	482	661	2410
13	582	655	591	467	914	1440	1230	777	725	446	610	2400
14	560	690	591	457	904	1470	1210	787	714	444	570	2400
15	535	714	615	447	921	1490	1190	788	712	458	552	2400
16	514	733	666	450	958	1440	1180	758	702	448	537	2410
17	502	775	646	466	952	1350	1160	730	676	427	585	2440
18	501	851	622	489	945	1340	1150	703	634	411	611	2470
19	505	810	606	492	946	1370	1140	678	622	426	603	2510
20	510	774	599	490	988	1370	1140	658	639	452	610	2570
21	506	765	592	725	1070	1370	1140	644	667	436	621	2660
22	487	764	588	857	1070	1360	1150	642	648	493	627	2730
23	467	766	579	832	1060	1360	1180	635	609	539	633	2690
24	455	758	570	804	1050	1370	1170	625	589	602	624	2720
25	454	745	564	942	1030	1370	1140	660	588	610	629	2760
26	457	747	557	993	1000	1380	1120	660	604	589	642	2810
27	462	781	551	1000	978	1390	1100	632	592	589	669	2850
28	458	737	549	1010	957	1400	1070	600	643	637	770	2890
29	450	720	545	1010	935	1410	1010	577	713	592	796	2920
30	443	706	530	1010	---	1420	969	560	680	547	807	2930
31	441	---	525	1010	---	1430	---	543	---	533	815	---
TOTAL	16468	19493	18882	20164	28292	39482	36889	23151	19431	15629	18892	67117
MEAN	531	650	609	650	976	1274	1230	747	648	504	609	2237
MAX	804	851	691	1010	1070	1490	1460	968	758	637	815	2930
MIN	441	441	525	447	904	870	969	543	525	411	475	834
AC-FT	32660	38660	37450	40000	56120	78310	73170	45920	38540	31000	37470	133100
CFSM	.29	.36	.33	.36	.53	.70	.67	.41	.35	.28	.33	1.23
IN.	.34	.40	.38	.41	.58	.80	.75	.47	.40	.32	.39	1.37

CAL YR 1987 TOTAL 331416 MEAN 908 MAX 3080 MIN 389 AC-FT 657400 CFSM .50 IN. 6.76
WTR YR 1988 TOTAL 323890 MEAN 885 MAX 2930 MIN 411 AC-FT 642400 CFSM .48 IN. 6.60

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313000 WITHLACOCHEE RIVER NEAR HOLDER, FL--Continued

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.48	1.25	2.10	1.54	3.17	2.84	4.53	3.03	1.67	2.11	1.84	3.05
2	2.15	1.27	2.07	1.55	3.17	2.76	4.56	2.99	1.66	1.95	1.84	3.27
3	1.91	1.28	2.06	1.54	3.16	2.70	4.57	2.93	1.66	1.87	1.80	3.26
4	1.75	1.51	2.07	1.55	3.13	2.72	4.57	2.87	1.66	1.81	1.77	3.23
5	1.67	1.55	2.02	1.52	3.06	2.99	4.54	2.81	1.70	1.74	1.88	3.56
6	1.62	1.49	1.98	1.50	3.00	3.35	4.50	2.74	2.08	1.63	1.90	4.82
7	1.63	1.43	1.95	1.50	2.96	3.39	4.43	2.67	2.28	1.54	1.92	6.04
8	1.65	1.41	1.92	1.63	2.97	3.35	4.22	2.61	2.29	1.48	1.98	6.72
9	1.65	1.40	1.90	1.54	2.97	3.38	4.05	2.57	2.32	1.43	2.01	7.17
10	1.66	1.46	1.88	1.53	2.94	4.27	3.99	2.54	2.46	1.46	2.45	7.29
11	1.66	1.63	1.84	1.45	2.90	4.47	3.96	2.49	2.43	1.59	2.51	7.28
12	1.68	1.82	1.79	1.38	2.89	4.49	3.94	2.45	2.40	1.67	2.44	7.25
13	1.74	1.98	1.77	1.34	2.85	4.53	3.89	2.43	2.36	1.55	2.27	7.22
14	1.66	2.10	1.77	1.31	2.82	4.61	3.83	2.46	2.33	1.55	2.15	7.21
15	1.58	2.18	1.85	1.27	2.87	4.65	3.78	2.47	2.32	1.60	2.09	7.21
16	1.51	2.25	2.02	1.29	2.99	4.52	3.73	2.37	2.30	1.58	2.04	7.23
17	1.47	2.39	1.95	1.34	2.97	4.30	3.68	2.28	2.22	1.50	2.21	7.27
18	1.46	2.64	1.87	1.42	2.95	4.25	3.63	2.20	2.08	1.45	2.30	7.34
19	1.48	2.51	1.82	1.43	2.96	4.34	3.59	2.11	2.04	1.51	2.28	7.42
20	1.49	2.38	1.80	1.43	3.09	4.36	3.61	2.05	2.10	1.61	2.31	7.53
21	1.48	2.36	1.77	2.22	3.35	4.34	3.59	2.01	2.20	1.56	2.35	7.69
22	1.42	2.35	1.76	2.66	3.38	4.33	3.63	2.00	2.14	1.76	2.38	7.82
23	1.35	2.36	1.73	2.58	3.35	4.34	3.72	1.99	2.01	1.92	2.40	7.75
24	1.30	2.33	1.70	2.49	3.31	4.35	3.70	1.95	1.95	2.14	2.38	7.80
25	1.30	2.29	1.68	2.94	3.23	4.36	3.62	2.07	1.95	2.17	2.40	7.87
26	1.31	2.29	1.65	3.11	3.14	4.38	3.53	2.08	2.01	2.11	2.43	7.94
27	1.33	2.41	1.63	3.14	3.06	4.40	3.48	1.99	1.97	2.11	2.52	8.01
28	1.31	2.26	1.63	3.15	2.99	4.42	3.36	1.89	2.14	2.28	2.85	8.07
29	1.28	2.20	1.61	3.15	2.92	4.45	3.16	1.81	2.39	2.13	2.94	8.11
30	1.26	2.15	1.56	3.15	---	4.48	3.03	1.75	2.28	1.99	2.97	8.13
31	1.25	---	1.55	3.16	---	4.50	---	1.70	---	1.94	2.99	---
MEAN	1.56	1.96	1.83	1.96	3.05	4.02	3.88	2.33	2.11	1.77	2.28	6.69
MAX	2.48	2.64	2.10	3.16	3.38	4.65	4.57	3.03	2.46	2.28	2.99	8.13
MIN	1.25	1.25	1.55	1.27	2.82	2.70	3.03	1.70	1.66	1.43	1.77	3.05

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, 335 microsiemens, Aug. 24,25; minimum daily mean, 152 microsiemens, Sept. 27,28.

WATER TEMPERATURE: Maximum daily mean, 29.8°C, Aug. 1; minimum daily mean, 12.0°C, Jan. 28.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	287	302	315	291	292	221	256	271	289	332	294
2	292	285	303	314	292	293	216	258	273	291	326	284
3	287	284	302	314	293	294	212	260	274	291	324	281
4	283	279	302	314	292	292	210	262	275	292	321	279
5	282	281	301	313	292	285	208	263	273	292	308	262
6	283	285	301	314	292	278	208	266	271	292	306	226
7	283	285	300	315	292	281	207	266	272	291	304	213
8	282	286	301	315	291	285	208	267	275	292	300	211
9	281	285	302	321	291	284	209	268	271	292	297	210
10	282	284	303	325	290	258	209	270	268	292	279	213
11	282	282	305	326	291	259	209	270	267	284	278	219
12	282	279	306	325	292	265	---	271	268	284	282	226
13	281	273	307	324	293	266	---	270	271	293	295	226
14	283	269	309	323	293	266	---	270	274	295	300	227
15	284	273	308	321	292	269	---	269	276	295	299	225
16	286	273	309	320	290	273	220	271	275	297	302	217
17	288	273	311	319	290	276	223	273	276	298	298	207
18	288	276	311	319	290	277	226	274	278	297	296	198
19	289	283	311	320	289	274	229	276	278	295	298	190
20	288	289	312	320	286	275	231	275	278	290	296	181
21	288	293	312	314	281	277	233	276	276	296	301	173
22	287	295	312	324	284	278	236	276	279	293	310	166
23	288	293	313	314	287	277	238	275	283	304	324	164
24	288	291	314	304	289	275	242	276	284	305	335	155
25	289	291	316	293	289	271	246	271	284	307	335	153
26	287	290	317	292	289	266	248	268	282	306	330	153
27	287	293	317	291	290	260	250	268	283	299	321	152
28	287	295	318	289	291	251	253	270	282	297	303	152
29	287	298	317	288	291	242	254	270	284	313	306	153
30	288	300	316	288	---	234	255	271	287	324	303	154
31	288	---	315	289	---	226	---	271	---	329	298	---
MEAN	286	285	309	312	290	271	---	269	276	297	307	205
MAX	292	300	318	326	293	294	---	276	287	329	335	294
MIN	281	269	300	288	281	226	---	256	267	284	278	152

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313000 WITHLACOCHEE RIVER NEAR HOLDER, FL--Continued

TEMPERATURE, (DEG C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.5	22.1	19.0	17.9	16.9	18.5	22.2	20.9	26.3	28.9	29.8	28.1
2	25.2	22.6	18.2	18.4	18.3	18.8	22.2	21.1	26.5	28.6	29.6	27.4
3	25.1	22.3	17.6	18.7	19.4	19.4	22.4	21.6	27.0	28.6	29.1	27.6
4	24.1	22.6	17.8	18.3	20.1	20.0	22.8	22.2	26.9	28.6	29.6	28.0
5	23.4	23.0	16.6	16.8	19.7	19.9	23.3	22.8	26.3	28.3	29.4	27.2
6	23.5	21.9	15.8	15.7	16.9	19.4	23.3	22.6	26.1	27.8	29.2	25.7
7	23.5	20.5	16.4	16.0	14.8	19.4	22.1	22.5	26.5	27.2	29.2	25.3
8	22.5	20.8	17.4	17.0	14.7	19.7	20.9	22.7	26.7	27.2	29.4	24.9
9	22.1	21.8	18.1	16.2	15.0	20.2	20.5	22.9	27.0	28.1	29.6	25.1
10	22.6	22.9	18.9	15.2	15.6	19.7	20.7	23.4	27.4	28.6	28.9	25.8
11	23.0	22.3	19.4	15.2	16.6	18.4	20.8	23.7	27.2	28.7	28.3	26.5
12	22.7	20.0	19.0	14.9	17.2	18.7	19.8	24.2	26.6	28.5	28.1	27.0
13	21.9	18.6	19.1	15.8	15.8	19.6	18.7	23.9	26.1	29.4	28.0	27.2
14	21.0	18.6	19.5	15.6	14.9	19.9	19.0	23.9	25.8	29.2	28.1	27.2
15	20.6	19.3	20.1	15.0	15.5	17.5	19.8	24.4	25.8	28.7	28.5	27.4
16	21.1	20.2	19.1	14.7	15.5	15.7	20.4	24.9	26.3	28.7	28.4	27.6
17	21.9	21.2	16.9	15.8	15.1	15.4	21.0	25.6	27.1	29.3	28.5	27.7
18	22.5	21.3	15.8	17.1	15.7	15.7	21.6	26.0	27.7	29.3	28.6	27.7
19	23.1	21.2	16.2	18.3	17.4	16.6	22.1	26.2	28.0	29.2	29.1	27.6
20	23.9	20.5	17.4	19.5	18.7	16.3	22.1	26.5	27.8	28.9	29.1	27.6
21	23.9	18.5	18.4	20.1	17.8	16.4	22.2	26.3	27.1	28.5	29.1	27.4
22	20.7	17.2	19.0	18.7	16.7	17.1	22.3	26.0	27.4	27.6	29.2	27.1
23	20.1	17.5	19.3	16.6	16.8	18.1	23.1	26.0	28.0	26.8	29.3	27.1
24	21.7	18.2	19.7	15.2	17.9	19.4	24.2	26.7	28.6	26.4	29.3	27.1
25	21.7	19.2	20.7	14.8	17.4	20.5	24.6	26.3	28.6	27.0	28.8	26.8
26	21.1	20.0	21.1	13.9	16.3	21.4	24.6	25.6	28.4	27.5	28.1	26.6
27	22.1	20.8	21.3	12.7	15.9	21.9	24.8	24.8	28.8	27.8	27.4	26.1
28	19.6	21.1	21.4	12.0	16.9	22.0	24.5	25.2	28.7	27.7	26.6	25.8
29	17.3	21.4	20.3	12.1	17.5	21.9	23.3	25.5	28.3	28.6	27.5	25.8
30	18.5	20.3	17.8	13.6	---	22.1	21.8	25.6	29.0	29.0	27.9	25.9
31	20.1	---	17.6	15.2	---	22.3	---	25.9	---	29.4	28.1	---
MEAN	22.1	20.6	18.5	16.0	16.8	19.1	22.0	24.4	27.3	28.3	28.7	26.8
MAX	25.5	23.0	21.4	20.1	20.1	22.3	24.8	26.7	29.0	29.4	29.8	28.1
MIN	17.3	17.2	15.8	12.0	14.7	15.4	18.7	20.9	25.8	26.4	26.6	24.9

WTR YR 1988 MEAN 22.6 MAX 29.8 MIN 12.0

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313000 WITHLACOCHEE RIVER NEAR HOLDER, FL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 12...	0915	1.81	603	270	7.6	18.0	0.40	6.8	15	70
JAN 07...	0920	1.47	509	267	8.0	15.0	0.60	7.8	E17	E15
MAY 05...	0905	2.82	905	247	7.8	21.5	0.70	4.4	100	50
SEP 08...	1025	6.68	2340	173	7.6	24.0	1.4	3.6	390	200
DATE	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)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 12...	49	4.8	5.0	0.50	151	20	12	0.10	5.1	173
JAN 07...	55	4.7	5.9	0.60	131	21	9.4	0.20	4.1	206
MAY 05...	44	3.9	5.7	0.30	123	17	11	0.20	4.5	179
SEP 08...	36	3.1	4.0	0.80	78	18	8.3	0.10	7.5	158
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 12...	<0.010	0.130	0.020	0.040	0.70	0.010	0.010	<0.010	5	40
JAN 07...	0.010	0.160	0.020	0.030	0.50	0.020	0.020	<0.010	6	33
MAY 05...	<0.010	0.120	0.020	0.020	0.70	0.040	0.030	<0.010	5	60
SEP 08...	<0.010	0.110	<0.010	0.040	0.90	0.050	0.040	0.030	2	50
DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 12...	<10	<1	6	<0.5	<1	<1	<3	<1	38	<5
SEP 08...	30	<1	6	<0.5	2	<1	<3	1	320	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 12...	5	7	24	<10	1	<1	<1.0	270	<6	8
SEP 08...	<4	3	0.6	<10	<1	<1	<1.0	180	<6	15

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313100 RAINBOW SPRINGS NEAR DUNNELLO, 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-88-1B.

AVERAGE DISCHARGE.--23 years (water years 1966-88), 728 ft³/s, 527,400 acre-ft/yr, 471 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 discharge, 1,060 ft³/s, Sept. 19-26; maximum gage height observed, 3.32 ft, June 29; minimum discharge, 688 ft³/s, Jan. 17-21; minimum gage height observed, 2.22 ft, Jan. 12.

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	744	726	715	697	691	695	760	763	726	715	703	730
2	744	726	714	697	691	693	764	763	724	715	703	735
3	742	726	713	697	691	693	768	763	724	713	703	738
4	739	728	713	696	691	693	770	762	723	711	704	738
5	738	729	713	696	691	693	770	761	722	709	707	740
6	736	729	713	696	692	696	770	759	725	708	709	756
7	736	727	713	696	692	700	774	757	729	707	709	784
8	736	727	713	696	692	702	775	755	730	705	709	821
9	736	725	712	695	693	703	774	753	732	704	710	858
10	736	725	711	694	694	710	773	753	731	703	710	893
11	738	724	711	694	694	711	773	752	729	703	710	910
12	741	722	710	694	694	713	776	751	726	703	711	949
13	742	722	707	693	694	717	777	750	723	702	711	981
14	741	722	706	691	694	722	776	751	720	702	711	1000
15	739	722	706	690	695	724	775	751	718	702	712	1020
16	737	722	706	689	696	725	774	751	718	703	716	1030
17	735	722	707	689	695	728	774	749	717	703	718	1040
18	734	725	707	688	695	734	774	745	717	703	719	1050
19	734	725	707	688	695	738	773	743	716	701	719	1060
20	734	724	707	688	695	740	773	741	715	701	719	1060
21	734	722	706	691	695	743	772	740	715	701	719	1060
22	732	722	706	696	695	746	771	738	715	701	719	1060
23	731	722	704	697	695	746	770	738	715	701	719	1060
24	731	722	704	696	696	749	770	736	715	701	719	1060
25	731	722	704	695	696	750	771	739	715	704	719	1060
26	731	721	703	694	696	751	773	740	715	705	725	1060
27	731	721	702	692	696	751	772	738	714	705	728	1050
28	729	721	702	691	696	751	769	735	713	705	728	1050
29	728	720	701	691	696	752	768	732	715	705	729	1050
30	727	718	699	691	---	756	764	730	716	704	729	1040
31	726	---	697	691	---	758	---	728	---	703	730	---
TOTAL	22793	21709	21932	21489	20126	22483	23143	23167	21613	21848	22177	28443
MEAN	735	724	707	693	694	725	771	747	720	705	715	948
MAX	744	729	715	697	696	758	777	763	732	715	730	1060
MIN	726	718	697	688	691	693	760	728	713	701	703	730
AC-FT	45210	43060	43500	42620	39920	44600	45900	45950	42870	43340	43990	56420

CAL YR 1987 TOTAL 277232 MEAN 760 MAX 877 MIN 697 AC-FT 549900
WTR YR 1988 TOTAL 270923 MEAN 740 MAX 1060 MIN 688 AC-FT 537400

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313100 RAINBOW SPRINGS NEAR DUNNELLO, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1961, 1963 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
APR 28...	1620	31.79	769	208	8.1	23.0	6.7
AUG 26...	1450	31.38	728	220	7.9	23.0	6.8

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 28...	<0.010	0.970	0.010	<0.20	0.050	0.040
AUG 26...	<0.010	0.930	0.020	<0.20	0.060	0.040

DATE	TIME	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)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
APR 28...	1620	34	4.1	2.5	0.20	91	3.3	3.5	0.10	5.8	109	40
AUG 26...	1450	33	4.3	2.1	0.10	91	4.1	3.3	0.10	6.0	115	<10

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 28...	<1	1	10	<10	<5	<10	<10	2	110	<10	0.7
AUG 26...	<1	<1	40	10	10	<10	<10	2	170	<10	0.8

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313200 WITHLACOCHEE RIVER AT DUNNELLON, 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, 29.10 ft, Sept. 7; minimum, 27.50 ft., Mar. 2, 11.

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 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.28	27.90	28.00	27.90	27.65	27.65	28.40	28.35	27.70	27.90	27.85	28.00
2	27.95	27.90	28.00	27.90	27.70	27.50	28.40	28.40	27.85	27.85	27.85	28.00
3	27.86	27.95	28.00	27.90	27.80	27.55	28.60	28.40	27.80	27.80	27.90	28.00
4	27.70	27.95	28.05	27.90	27.80	27.60	28.40	28.05	27.90	27.85	27.95	28.25
5	27.70	27.90	28.05	27.90	27.80	27.80	28.50	28.05	27.95	27.85	28.00	28.25
6	27.68	27.90	28.05	27.90	27.80	28.05	28.45	28.10	27.95	27.85	28.05	29.00
7	27.84	27.85	28.05	27.90	27.80	28.05	28.40	28.05	27.90	27.85	28.00	29.10
8	27.88	27.85	28.00	27.90	27.80	28.02	28.40	28.05	27.95	27.85	27.95	29.00
9	28.04	27.85	---	27.90	27.80	28.00	28.35	28.05	27.95	27.85	27.95	28.95
10	28.06	27.85	27.80	27.90	27.80	27.90	28.40	28.05	28.00	27.80	28.00	28.70
11	28.08	27.90	27.85	27.90	27.80	27.50	28.40	28.05	28.00	27.80	27.95	28.60
12	28.10	27.90	27.85	27.85	27.75	---	28.40	28.05	27.95	27.80	27.90	28.70
13	28.10	28.00	27.85	27.85	27.75	28.10	28.35	28.10	27.90	27.80	27.95	28.80
14	28.08	28.00	27.80	27.85	27.75	28.10	28.35	28.10	27.90	28.00	27.95	28.75
15	28.09	28.00	27.80	27.85	27.75	28.05	28.35	28.10	27.90	28.00	27.95	28.85
16	28.08	28.10	27.90	27.80	27.70	28.05	28.30	28.05	27.90	28.00	28.00	28.90
17	28.08	28.20	27.90	27.80	27.70	28.10	28.30	28.00	27.90	27.90	28.00	28.90
18	27.88	28.20	28.00	28.00	27.70	28.15	28.30	27.90	27.95	27.90	28.00	28.90
19	27.93	28.10	28.00	28.00	27.70	28.20	28.25	27.90	27.95	27.85	28.00	28.90
20	27.98	27.90	28.00	---	27.75	28.30	28.25	27.85	27.95	27.85	27.95	28.92
21	27.84	27.90	28.00	28.00	27.80	28.30	28.25	28.00	28.00	27.80	28.00	28.95
22	27.86	27.90	27.90	28.40	27.80	28.25	28.25	28.00	28.00	27.85	28.00	29.05
23	27.82	27.80	27.90	28.00	27.80	28.20	28.30	28.00	28.00	27.90	28.00	29.00
24	27.80	27.80	27.90	28.00	27.80	28.10	28.40	28.05	28.00	27.95	28.00	28.90
25	27.80	---	27.90	27.90	27.80	28.10	28.40	28.00	28.00	27.95	28.00	28.82
26	27.75	27.80	27.90	27.85	27.80	28.00	28.40	28.00	28.00	27.95	28.00	28.80
27	27.80	28.00	27.90	27.80	27.70	28.00	28.40	27.95	27.95	27.90	28.00	29.00
28	27.90	28.00	27.90	27.75	27.70	28.00	28.40	27.90	28.05	27.90	28.00	29.05
29	27.90	28.00	27.90	27.70	27.80	28.10	28.40	27.80	28.00	27.90	28.00	29.00
30	27.95	28.00	27.90	27.65	---	28.10	28.40	27.75	28.00	27.80	28.00	29.00
31	27.90	---	27.90	27.60	---	28.10	---	27.70	---	27.80	---	---
MEAN	27.93	---	---	---	27.76	---	28.37	28.03	27.94	27.87	---	28.77
MAX	28.28	---	---	---	27.80	---	28.60	28.40	28.05	28.00	---	29.10
MIN	27.68	---	---	---	27.65	---	28.25	27.70	27.70	27.80	---	28.00

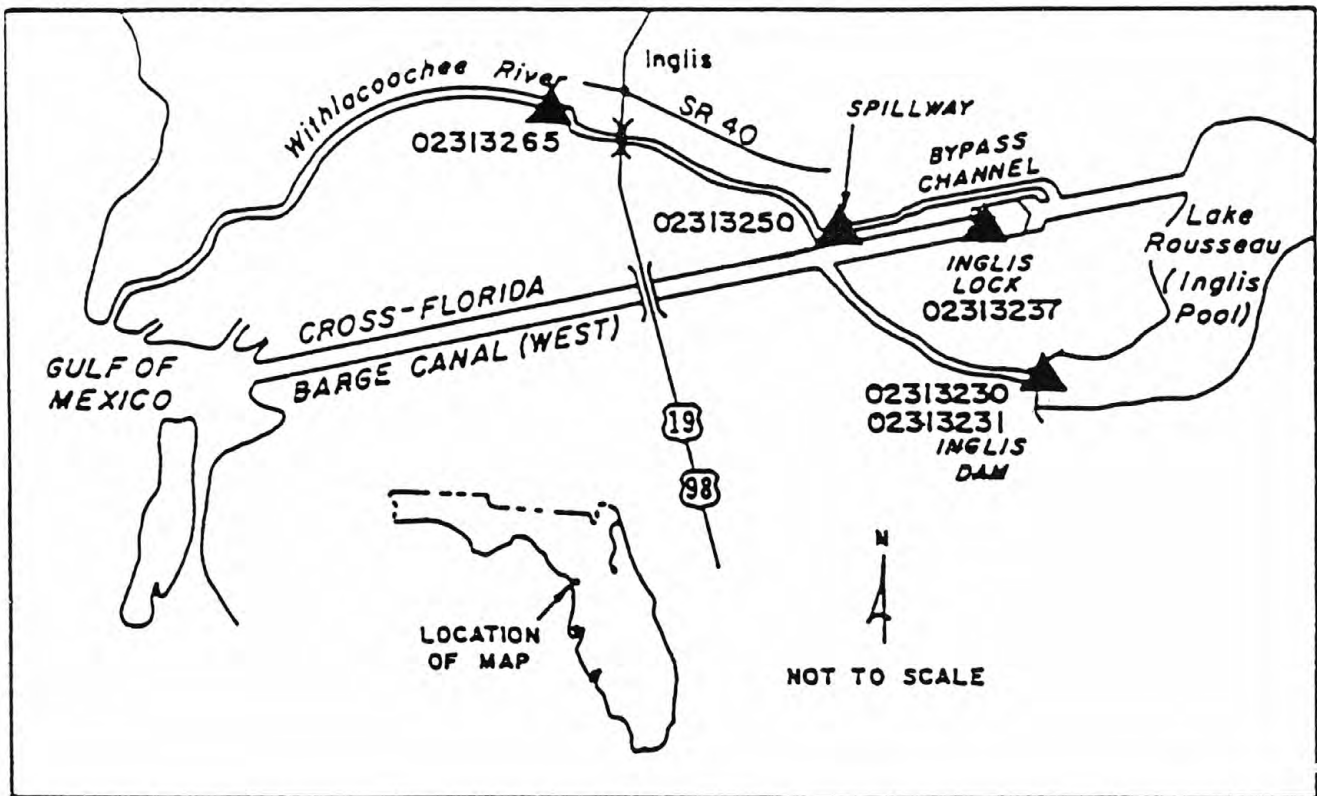


Figure 23.--Location of stream gaging stations in the lower Withlacoochee River basin.

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313230 WITHLACOCHEE RIVER AT INGLIS DAM, NEAR DUNNELLO, 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.--19 years, 423 ft³/s, 306,500 acre-ft/yr.

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, 4,190 ft³/s, Sept. 7; maximum gage height, 27.94 ft, Nov. 17; gates closed and flow consists of leakage, about 70 ft³/s for many days; minimum gage height, 25.78 ft, Sept. 26.

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	569	460	756	70	70	1020	127	70	70	206	70	314
2	220	557	467	70	70	900	290	70	70	70	70	460
3	70	612	70	70	70	815	493	70	70	70	70	352
4	70	612	70	70	208	756	612	70	70	70	310	151
5	70	612	70	70	290	847	612	301	70	70	213	246
6	70	612	70	70	290	1080	612	220	70	70	70	2930
7	70	612	70	70	290	1190	518	70	70	70	70	4190
8	310	612	70	70	290	1370	351	70	70	70	70	3530
9	221	612	70	70	290	1480	290	70	70	70	70	3350
10	70	612	314	70	290	1660	290	70	70	70	70	2770
11	70	612	211	70	160	1770	290	70	70	70	307	1970
12	70	612	70	70	70	1770	290	70	70	70	221	1800
13	70	612	70	70	70	1770	290	298	70	70	70	1910
14	70	612	70	328	70	1770	290	228	70	317	70	1910
15	310	612	70	221	211	1600	290	70	70	213	70	1910
16	226	612	70	70	290	1480	290	70	307	70	70	2090
17	70	844	307	70	290	1480	290	70	220	70	70	2200
18	70	1850	220	70	290	798	290	70	70	70	317	2200
19	70	1410	70	70	290	566	290	310	70	70	215	2200
20	442	666	70	70	290	900	290	215	70	70	70	2290
21	756	612	70	328	290	900	153	70	70	319	70	2350
22	756	612	70	460	290	677	70	70	70	213	70	2560
23	673	740	70	460	290	1040	70	70	298	70	70	2790
24	514	900	70	356	290	1040	70	70	231	70	70	2790
25	460	900	70	393	290	918	70	70	70	70	317	2790
26	460	900	70	460	290	960	70	325	70	70	460	2610
27	460	900	70	460	290	812	70	202	70	70	223	2500
28	460	816	70	352	290	756	409	70	70	314	70	2640
29	460	756	70	290	822	756	408	70	70	239	70	2790
30	460	756	70	290	---	756	150	70	317	70	70	2790
31	460	---	70	154	---	313	---	70	---	70	70	---
TOTAL	9127	22247	4025	5812	7331	33950	8635	3709	3123	3501	4123	65383
MEAN	294	742	130	187	253	1095	288	120	104	113	133	2179
MAX	756	1850	756	460	822	1770	612	325	317	319	460	4190
MIN	70	460	70	70	70	313	70	70	70	70	70	151
AC-FT	18100	44130	7980	11530	14540	67340	17130	7360	6190	6940	8180	129700
CAL YR 1987	TOTAL 166279	MEAN 456	MAX 3420	MIN 70	AC-FT 329800							
WTR YR 1988	TOTAL 170966	MEAN 467	MAX 4190	MIN 70	AC-FT 339100							

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	.00	.00	.00	.00	.00	16	.00	.00	.00	.00
2	17	16	.00	.00	.00	.00	.00	14	.00	34	.00	16
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	32	.00	18
4	.00	.00	.00	.00	23	.00	.00	.00	.00	.00	.00	70
5	.00	15	19	.00	.00	.00	.00	17	.00	.00	.00	.00
6	.00	.00	17	.00	17	.00	.00	16	.00	.00	44	.00
7	.00	20	.00	.00	17	.00	.00	58	.00	4.8	18	.00
8	16	39	.00	.00	.00	.00	.00	18	.00	19	.00	.00
9	.00	.00	.00	.00	.00	34	.00	18	.00	52	.00	.00
10	17	.00	.00	17	.00	35	.00	.00	.00	55	.00	15
11	19	.00	.00	17	.00	28	.00	.00	.00	.00	.00	20
12	.00	.00	17	18	.00	.00	.00	.00	.00	.00	18	15
13	.00	.00	17	.00	.00	.00	13	18	.00	.00	18	.00
14	.00	16	.00	17	16	.00	.00	33	.00	.00	32	.00
15	18	16	.00	18	.00	.00	.00	81	22	.00	30	16
16	17	17	.00	18	.00	.00	.00	16	21	62	.00	17
17	17	.00	16	18	.00	.00	.00	16	.00	.00	.00	16
18	17	.00	16	.00	.00	.00	.00	.00	34	27	17	16
19	.00	17	18	.00	.00	.00	.00	.00	23	.00	16	.00
20	.00	.00	19	.00	15	.00	.00	17	17	.00	.00	.00
21	.00	.00	.00	.00	19	.00	.00	34	.00	.00	23	.00
22	.00	.00	.00	17	.00	.00	.00	35	.00	.00	.00	.00
23	.00	.00	.00	17	.00	.00	.00	.00	17	32	.00	.00
24	34	.00	.00	17	17	.00	.00	.00	17	16	.00	54
25	17	.00	.00	16	10	.00	.00	16	17	.00	17	15
26	17	.00	.00	.00	.00	.00	.00	17	16	.00	16	.00
27	.00	.00	.00	.00	20	.00	.00	.00	17	.00	16	.00
28	24	28	.00	.00	16	.00	6.4	.00	.00	.00	.00	.00
29	18	16	.00	.00	.00	.00	.00	18	.00	.00	.00	17
30	18	.00	.00	17	---	.00	17	.00	.00	31	.00	16
31	17	---	.00	17	---	.00	---	.00	---	33	.00	---
TOTAL	300.00	217.00	139.00	224.00	170.00	97.00	36.40	458.00	201.00	397.80	265.00	321.00
MEAN	9.68	7.23	4.48	7.23	5.86	3.13	1.21	14.8	6.70	12.8	8.55	10.7
MAX	34	39	19	18	23	35	17	81	34	62	44	70
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	595	430	276	444	337	192	72	908	399	789	526	637

CAL YR 1987 TOTAL 3037.00 MEAN 8.32 MAX 45 MIN .00 AC-FT 6020
WTR YR 1988 TOTAL 2826.20 MEAN 7.72 MAX 81 MIN .00 AC-FT 5610

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.--18 years, 1,131 ft³/s, 819,400 acre-ft/yr.

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, 1,840 ft³/s, Oct. 1; maximum gage height, 28.12 ft, Sept. 6; minimum daily discharge, 383 ft³/s, Oct. 21; minimum gage height, 25.29 ft, Apr. 26.

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	1840	528	489	1030	1380	580	1440	1530	996	1280	1040	1320
2	1760	531	706	1030	1410	580	1610	1530	924	1250	993	1400
3	1730	523	1050	1030	1420	580	1610	1520	924	1090	993	1460
4	1390	525	1160	1030	1430	491	1560	1510	924	1030	819	1430
5	1160	520	1200	1030	1410	442	1550	1230	924	1030	984	1510
6	875	517	1260	1030	1400	442	1520	1240	1140	1030	1220	747
7	710	503	1300	1030	1380	442	1480	1340	1450	1030	1270	625
8	558	494	1300	1050	1370	442	1520	1340	1510	986	1270	1180
9	717	483	1300	1090	1350	442	1550	1340	1510	958	1270	1040
10	939	483	1130	1130	1350	442	1560	1360	1510	958	1270	975
11	1060	475	1120	1130	1340	442	1550	1370	1450	958	1090	1040
12	1100	480	1100	1130	1350	442	1530	1370	1410	958	1170	1140
13	1160	486	1060	1060	1380	442	1560	1210	1330	958	1270	1180
14	1190	500	1060	769	1400	442	1560	1330	1270	779	1270	1200
15	1020	514	1060	735	1400	442	1560	1470	1270	950	1270	1220
16	957	459	1110	786	1400	442	1550	1430	1030	1100	1270	1230
17	921	404	993	786	1390	442	1540	1390	1010	1100	1300	1190
18	890	562	1060	895	1390	1020	1520	1390	1100	1120	1160	1170
19	890	439	1160	1020	1370	1300	1520	1080	1100	1270	1240	1160
20	607	450	1160	1060	1380	1300	1530	934	1140	1270	1340	1150
21	383	478	1160	1120	1390	1300	1520	958	1160	1040	1340	1130
22	385	511	1160	1490	1400	1300	1550	1050	1160	1060	1290	1130
23	475	531	1160	1540	1400	1300	1560	1100	999	1190	1270	1060
24	467	514	1160	1470	1400	1300	1580	1100	1120	1350	1270	997
25	478	492	1160	1430	1390	1300	1590	1260	1270	1370	1090	961
26	492	475	1120	1390	1380	1300	1610	1190	1270	1370	1140	957
27	500	478	1060	1370	1350	1300	1620	1280	1270	1370	1230	1020
28	508	469	1040	1350	1350	1300	1600	1370	1340	1130	1320	1050
29	511	475	1030	1340	882	1300	1520	1310	1440	1140	1370	1030
30	517	475	1030	1340	---	1300	1510	1270	1260	1230	1410	1020
31	523	---	1030	1340	---	1300	---	1220	---	1170	1500	---
TOTAL	26713	14774	33888	35031	39642	25897	46480	40022	36211	34525	37739	33722
MEAN	862	492	1093	1130	1367	835	1549	1291	1207	1114	1217	1124
MAX	1840	562	1300	1540	1430	1300	1620	1530	1510	1370	1500	1510
MIN	383	404	489	735	882	442	1440	934	924	779	819	625
AC-FT	52990	29300	67220	69480	78630	51370	92190	79380	71820	68480	74860	66890

CAL YR 1987 TOTAL 402796 MEAN 1104 MAX 1840 MIN 383 AC-FT 798900
WTR YR 1988 TOTAL 404644 MEAN 1106 MAX 1840 MIN 383 AC-FT 802600

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, 3.96 ft below NGVD, Dec. 17, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.90 ft, Sept. 6; minimum, -2.82 ft below NGVD, Nov. 6,7.

GAGE HEIGHT, IN FEET ABOVE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.05	1.88	2.62	3.01	2.77	2.58	3.08	2.36	3.51	3.51	3.22	3.12
2	2.08	1.72	2.86	1.94	2.98	2.48	2.85	2.67	3.78	3.36	2.94	3.23
3	2.76	2.70	2.25	2.33	2.98	2.92	3.27	3.51	3.53	3.34	2.70	2.72
4	1.61	3.52	3.56	2.97	2.93	3.13	3.35	3.72	3.07	2.90	2.80	2.96
5	2.78	3.75	1.82	1.86	2.97	2.35	3.13	3.18	2.81	2.14	2.59	4.39
6	3.40	3.43	2.76	1.47	.74	2.39	3.29	2.46	2.67	1.40	2.62	4.90
7	3.44	1.55	3.02	2.30	1.57	2.45	3.18	2.33	2.78	1.90	2.46	2.65
8	2.45	2.53	3.17	2.83	1.68	2.65	2.47	2.12	3.07	2.57	2.59	3.56
9	1.56	2.94	3.27	2.10	2.09	3.44	2.11	2.61	3.36	2.89	3.26	3.51
10	1.47	3.36	3.01	1.46	2.27	3.43	2.27	2.80	3.23	2.79	3.20	3.03
11	1.71	3.21	2.54	1.32	2.70	1.99	4.42	2.65	2.51	3.02	3.08	2.99
12	1.78	.70	2.37	2.18	2.38	2.34	3.83	2.81	2.93	3.13	3.09	2.68
13	.85	1.52	2.32	2.10	1.87	2.55	1.84	2.50	2.87	3.60	2.69	2.55
14	.61	1.95	2.48	1.01	3.01	1.86	2.71	2.98	2.89	3.23	2.94	3.26
15	1.05	2.05	2.56	1.35	3.59	.70	3.06	3.23	3.14	3.10	2.72	3.74
16	1.58	2.76	1.29	2.70	4.13	1.94	3.33	3.39	3.29	3.19	2.69	3.25
17	1.82	3.15	1.70	2.17	2.96	2.31	3.29	3.61	3.13	3.01	2.63	2.75
18	2.32	2.35	2.36	3.70	3.07	2.81	3.91	3.37	2.93	2.76	2.63	2.91
19	2.85	2.86	2.22	3.70	4.12	3.56	3.61	3.17	2.67	2.36	2.60	2.93
20	3.18	3.22	3.70	4.31	3.47	2.07	3.11	2.77	2.02	2.42	2.47	2.93
21	3.18	1.61	3.65	3.95	2.28	2.27	2.91	2.35	1.97	2.34	2.61	2.88
22	1.88	2.43	3.62	2.59	2.49	2.46	2.42	2.35	2.50	2.42	2.43	3.22
23	2.24	3.18	3.31	2.08	2.73	2.63	2.31	2.26	2.47	2.88	2.57	3.47
24	2.37	2.98	3.03	2.08	2.17	2.23	2.38	2.07	2.58	2.71	2.96	3.72
25	2.86	2.97	3.03	2.67	1.41	1.86	2.39	3.35	2.67	2.55	3.65	3.75
26	2.97	3.27	2.61	1.59	1.01	1.87	2.69	1.89	2.95	2.94	3.84	3.51
27	3.42	2.98	2.27	1.18	2.39	1.61	2.42	2.02	3.44	3.42	3.77	3.01
28	2.52	2.68	2.69	.96	2.51	1.63	2.61	2.50	3.45	3.72	3.75	2.77
29	1.24	2.65	.57	1.53	1.88	1.97	2.27	2.89	3.58	3.74	3.33	3.13
30	1.32	2.88	1.39	2.40	---	2.40	2.39	2.98	3.84	3.71	2.99	2.78
31	1.56	---	2.41	1.87	---	2.76	---	3.02	---	3.64	2.97	---
MEAN	2.13	2.63	2.60	2.25	2.52	2.38	2.90	2.77	2.99	2.93	2.93	3.21
MAX	3.44	3.75	3.70	4.31	4.13	3.56	4.42	3.72	3.84	3.74	3.84	4.90
MIN	.61	.70	.57	.96	.74	.70	1.84	1.89	1.97	1.40	2.43	2.55

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02313265 WITHLACOCHEE RIVER AT CRACKERTOWN, 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	-1.01	---	-.95	-1.50	-1.39	-1.70	-.77	-1.24	-1.81	-1.30	-1.25	-.64
2	-.82	---	-1.84	-1.61	-1.23	-2.02	-.78	-1.30	.22	-1.26	-.95	-.30
3	-1.04	---	-1.62	-1.78	-1.12	-1.45	-.64	-1.12	-1.65	-1.48	-.88	-.02
4	-1.44	---	-.92	-1.67	-1.02	-1.17	-.67	.70	-1.21	-1.36	-1.07	.56
5	-1.11	---	-1.82	-2.51	-1.52	-2.06	-.06	-.79	-2.01	-1.31	-.83	1.21
6	-1.23	---	-1.49	-2.47	-1.69	-2.01	-.97	-1.07	-1.67	-1.52	-.88	.60
7	-1.60	---	-1.26	-1.30	-1.97	-2.15	-.19	-1.17	-.56	-1.20	-.95	-.10
8	-2.64	---	-.82	-1.21	-1.14	-1.37	-.70	-1.43	.24	-1.22	-1.01	.78
9	-2.40	---	-1.04	-1.47	-1.21	-2.04	-.85	-1.19	.14	-1.16	-.92	.15
10	-2.04	---	-.87	-1.42	-.97	-1.27	-.87	-.84	-.43	-1.41	-1.10	-.62
11	-1.74	---	-.79	-1.21	-1.03	-2.19	-.60	-.59	-1.55	-1.38	-1.41	-.77
12	-1.45	---	-.37	-1.50	-.63	-1.71	.55	-.87	-1.48	-1.54	-1.21	-.80
13	-1.14	---	-.42	-1.07	-1.51	-1.41	-.82	-1.93	-1.79	-1.34	-1.24	-.79
14	-1.24	---	-.24	-2.18	-1.51	-1.99	-.62	-1.36	-1.68	-1.75	-.94	-.73
15	-1.20	---	.07	-2.32	-1.18	-2.80	-.70	-1.29	.10	-1.12	-.58	.32
16	-1.02	-1.09	-.94	-2.66	-1.44	-2.80	-.88	-1.24	-1.59	-.09	-.75	-.13
17	-.81	-.92	-2.01	-1.89	-1.43	-2.69	-1.09	.10	-1.61	-1.09	-.67	-.36
18	-.90	-1.41	-2.01	-1.72	-1.47	-.97	-.50	-1.05	-1.32	-1.07	-.84	-.58
19	-.78	-1.94	-1.82	-1.65	-.64	-1.30	1.92	-.97	-1.19	-.65	-.65	-.26
20	-.96	-2.18	-1.58	-1.23	-1.06	-1.69	-.57	-1.26	-1.10	-.57	-.60	-.46
21	-1.52	-2.82	-1.76	-.99	-1.07	-.89	-.84	-1.28	-.82	-.63	-.60	-.94
22	-2.81	-2.64	-1.64	-1.15	-1.43	-1.60	-.47	-1.19	-.48	-.44	-.90	-.94
23	-2.20	-2.14	-1.92	-1.05	-1.16	-1.63	-.19	-.59	-.55	-.72	-1.10	-1.01
24	-2.18	-2.09	-1.39	-.85	-.77	-1.36	.00	-.20	-.48	-.84	-1.14	-.97
25	-2.14	-1.86	-1.10	-1.04	-1.69	-1.14	.10	-.34	-.93	-1.15	-1.43	-.90
26	-2.03	-1.20	-.89	-1.05	-1.49	-1.13	.66	-1.14	-.91	-1.21	-1.24	-1.20
27	-1.50	-1.11	-.51	-1.08	-1.27	-.75	-.07	-.86	-.99	-1.27	-1.28	-1.50
28	-1.93	-.77	-.78	-1.73	-.96	-1.43	-.22	-1.12	-1.15	-1.70	-.72	-1.42
29	-2.14	-.50	-1.29	-1.83	-.97	-1.40	-.85	-1.33	-1.17	-1.46	-.79	-1.34
30	-1.94	-.89	-2.52	-1.57	---	-1.21	-1.10	-1.64	.54	-.32	-.88	-1.26
31	-1.86	---	-1.73	-1.31	---	-1.22	---	-1.79	---	-1.31	-.65	---
MEAN	-1.57	---	-1.23	-1.55	-1.24	-1.63	-.43	-1.01	-.96	-1.12	-.95	-.48
MAX	-.78	---	.07	-.85	-.63	-.75	1.92	.70	.54	-.09	-.58	1.21
MIN	-2.81	---	-2.52	-2.66	-1.97	-2.80	-1.10	-1.93	-2.01	-1.75	-1.43	-1.50

MISCELLANEOUS WATER-QUALITY DATA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

The following data were collected in conjunction with an Apopka-Beauclair Canal investigative study.

STATION NUMBER	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	GAGE HEIGHT (FEET)	TEMPER- ATURE WATER (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
02232000	02-24-88	0915	501	3.54	18.0	347	6.8	--
02232400	02-25-88	0830	857	12.62	17.0	494	7.4	--
02235500	11-24-87	1640	169	3.15	23.5	1750	--	400
	01-19-88	1120	139	2.78	23.5	1580	--	450
	03-22-88	1610	119	2.54	23.5	2000	--	480
	05-09-88	1545	151	1.60	23.0	1750	--	390
	07-05-88	1510	140	1.72	23.5	1700	--	380
	09-01-88	1120	139	2.05	23.5	1670	--	430
02236095	09-28-88	1222	105	2.75	23.5	1240	--	--
02236110	05-25-88	1615	25	4.42	22.5	660	--	110
	09-29-88	0958	30	--	22.5	860	--	150
02236147	09-30-88	1150	14	4.94	23.0	4250	--	--
02236205	09-29-88	1330	81	2.15	24.0	6000	--	--

281240081405900 - APOPKA-BEAUCLAIR CANAL 1 MI ABOVE LOCK NEAR ASTATULA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY 04...	1330	--	388	7.1	26.0	50	11	34	15	30
SEP 09...	0950	--	--	--	--	--	--	--	--	--
12...	0905	7.8	365	--	28.5	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY 04...	8.7	123	19	36	--	0.010	<0.010	<0.020	<0.020	0.010
SEP 09...	--	--	--	--	3.30	0.100	--	3.40	--	0.260
12...	--	--	--	--	0.270	0.030	--	0.300	--	0.020

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS, ORTHOPHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHOPHOS- PHOROUS DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 04...	0.010	6.0	6.0	1.7	0.330	0.030	0.070	0.010	19
SEP 09...	--	4.6	4.9	--	0.770	--	0.440	--	--
12...	--	4.4	4.4	--	0.420	--	0.150	--	--

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)
MAY 04...	1330	3.0	<0.4	2000	120	14	0.1

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

283400081405100 - APOKA SPRING NEAR OAKLAND

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY 09...	1130	224	25	6.9	11

283730081373000 - LAKE APOKA NEAR CENTER NR WINTER GARDEN

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY 05...	0955	366	7.1	24.0	50	15	32	17	16

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY 05...	10	305	22	39	0.010	0.010	<0.020	0.040	0.010

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 05...	0.010	6.4	6.4	2.5	0.350	0.030	0.080	0.010	19

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)
MAY 05...	0955	<2.0	<0.4	2100	560	340	2.9

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

284021081404400 - APOPKA-BEAUCLAIR CANAL INLET AT LAKE APOPKA NEAR ASTATULA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (FTU)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
MAY 05...	1045	372	7.1	25.0	50	15	31	16	31	8.8
SEP 09...	1300	--	--	--	--	--	--	--	--	--
12...	0945	350	--	29.0	--	--	--	--	--	--

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
MAY 05...	149	24	41	--	0.010	<0.010	<0.020	<0.020	0.010
SEP 09...	--	--	--	0.010	0.010	--	0.020	--	0.010
12...	--	--	--	0.010	0.010	--	0.020	--	0.010

DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DIS-SOLVED (MG/L AS P)	PHOSPHOROUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHOROUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 05...	0.010	6.8	6.8	1.8	0.350	0.020	0.080	0.010	19
SEP 09...	--	4.3	4.3	--	0.160	--	0.100	--	--
12...	--	4.0	4.0	--	0.160	--	0.100	--	--

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INCR-GANIC, TOT IN BOT MAT (G/KG AS C)
MAY 05...	1045	11	<0.4	23000	11000	320	15

284026081404400 - APOPKA BEAUCLAIR CANAL-PUMP NEAR LAKE APOPKA

DATE	TIME	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHOROUS, ORTHO, DIS-SOLVED (MG/L AS P)
SEP 09...	1250	3.92	0.080	4.00	0.360	1.9	2.3	0.580	0.430

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

284046081404600 - APOPKA-BEAUCLAIR CANAL 0.5 MI BELOW LAKE APOPKA NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	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)
OCT										
06...	1000	380	7.5	E22.5	15	20	--	26	17	16
28...	0830	370	7.4	22.0	--	9.5	5.7	30	18	16
NOV										
16...	1000	420	7.3	M20.5	70	8.8	6.4	39	17	15
DEC										
21...	0900	390	7.7	17.5	40	10	9.2	37	18	15
JAN										
26...	1230	450	7.3	13.0	70	8.5	8.2	42	17	13
27...	1300	--	--	--	--	--	--	--	--	--
29...	0830	--	--	--	--	--	--	--	--	--
FEB										
02...	1125	510	--	16.0	50	6.5	7.1	--	--	--
29...	1015	400	7.9	16.0	100	0.60	8.5	34	17	15
MAR										
22...	1000	460	--	17.0	--	--	9.1	--	--	--
APR										
18...	0950	400	7.5	23.0	50	11	7.8	31	17	15
MAY										
05...	1130	374	7.1	25.0	50	14	--	32	16	25
17...	1000	380	--	28.0	60	28	2.5	--	--	--
JUN										
02...	1015	390	7.2	25.5	25	2.1	5.4	30	17	27
24...	0955	368	--	30.0	--	12	--	--	--	--
JUL										
14...	1110	391	7.3	29.0	60	6.9	1.9	32	17	33

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
06...	13	109	10	41	--	<0.010	<0.010	<0.020	<0.020	0.010
28...	11	119	19	40	--	<0.010	<0.010	<0.020	<0.020	0.010
NOV										
16...	11	125	26	33	0.140	0.030	--	0.170	--	0.200
DEC										
21...	11	123	22	38	--	<0.010	<0.010	<0.020	<0.020	0.010
JAN										
26...	11	125	34	35	1.68	0.020	0.020	1.70	1.80	0.040
27...	--	--	--	--	0.910	0.030	0.020	0.940	0.940	0.060
29...	--	--	--	--	--	<0.010	0.010	0.120	0.180	0.020
FEB										
02...	--	--	--	--	0.940	0.060	0.060	1.00	1.00	0.020
29...	11	119	20	37	--	<0.010	<0.010	<0.020	<0.020	0.030
MAR										
22...	--	--	--	--	0.060	0.010	0.010	0.070	0.090	0.020
APR										
18...	10	121	22	37	--	0.010	0.010	<0.020	0.040	0.030
MAY										
05...	9.0	121	23	40	--	0.010	<0.010	<0.020	<0.020	0.010
17...	--	--	--	--	--	0.010	0.010	<0.020	0.020	0.020
JUN										
02...	10	129	24	41	--	<0.010	0.020	<0.020	0.070	0.020
24...	--	--	--	--	--	0.010	0.010	<0.020	<0.020	0.020
JUL										
14...	10	125	20	42	--	<0.010	<0.010	<0.020	<0.020	0.040

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

284046081404600 - APOPKA-BEADCLAIR CANAL 0.5 MI BELOW LAKE APOPKA NEAR ASTATULA--Continued

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
06...	0.010	3.7	3.7	2.9	0.040	0.040	0.010	0.010	34
28...	0.010	5.6	5.6	2.7	0.210	0.030	0.050	0.020	28
NOV									
16...	--	4.3	4.5	--	0.320	--	0.050	--	32
DEC									
21...	0.010	3.5	3.5	1.9	0.130	0.030	0.030	0.010	57
JAN									
26...	0.060	5.0	5.0	2.5	0.350	0.090	0.160	0.090	--
27...	0.080	3.9	4.0	2.4	0.260	0.040	0.100	0.050	--
29...	0.030	4.0	4.0	2.1	0.130	0.020	0.040	0.010	--
FEB									
02...	0.030	4.0	4.0	2.0	0.230	0.040	0.060	0.030	25
29...	0.040	4.5	4.5	2.5	0.200	0.020	0.040	0.010	25
MAR									
22...	0.050	4.7	4.7	2.3	0.300	0.020	0.060	0.010	--
APR									
18...	0.060	4.8	4.8	2.6	0.270	0.020	0.080	0.010	18
MAY									
05...	0.010	5.6	5.6	1.7	0.320	0.020	0.090	0.010	18
17...	0.010	6.8	6.8	2.2	0.340	0.020	0.070	0.010	--
JUN									
02...	0.020	6.9	6.9	2.8	0.260	0.040	0.060	0.020	27
24...	0.020	4.1	4.1	2.0	0.220	0.020	0.100	0.010	--
JUL									
14...	0.040	4.2	4.2	2.2	0.160	0.040	0.140	0.030	29

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)
MAY							
05...	1130	5.0	<0.4	32000	6500	310	3.5

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

284046081404601 - APOPKA-BEAUCLAIR CANAL AT CONSTRICTION

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 19...	1245	--	428	7.3	31.0	40	1.5	5.0	37	18
SEP 09...	1025	379	400	--	25.0	--	--	3.0	--	--
12...	1006	366	348	--	29.5	--	--	--	--	--
30...	1130	--	360	--	27.0	--	--	3.5	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 19...	31	12	137	21	42	--	<0.010	<0.010	<0.020	<0.020
SEP 09...	--	--	--	--	--	1.85	0.050	--	1.90	--
12...	--	--	--	--	--	0.010	0.010	--	0.020	--
30...	--	--	--	--	--	0.270	0.020	--	0.290	--

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 19...	0.040	0.040	3.7	3.7	2.0	0.300	0.040	0.090	0.020	30
SEP 09...	0.090	--	4.4	4.5	--	0.400	--	0.140	--	--
12...	0.010	--	4.4	4.4	--	0.180	--	0.090	--	--
30...	0.010	--	3.1	3.1	--	0.170	--	0.060	--	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

284140081405401 - APOPKA-BEAUCLAIR CANAL AT DUDA BR S. POND NR ASTATULA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
SEP												
09...	1002	--	--	--	3.66	0.140	3.80	0.630	3.6	4.2	0.550	0.400
12...	0932	5.4	638	29.0	1.10	0.200	1.30	0.600	3.2	3.8	0.440	0.290

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 TOTAL TOT IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)
MAY							
05...	1215	9.0	<0.4	21000	6800	280	36

284140081405402 - APOPKA-BEAUCLAIR CANAL AT DUDA BR N. POND NEAR ASTATULA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY										
05...	1255	--	415	7.2	25.5	50	11	37	17	30
SEP										
09...	0957	--	--	--	--	--	--	--	--	--
12...	0925	4.4	627	--	28.5	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY										
05...	9.2	154	23	40	--	0.010	0.010	<0.020	0.020	0.010
SEP										
09...	--	--	--	--	4.66	0.240	--	4.90	--	0.670
12...	--	--	--	--	1.20	0.200	--	1.40	--	0.120

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY									
05...	0.010	5.7	5.7	2.1	0.300	0.030	0.080	0.010	19
SEP									
09...	--	3.5	4.2	--	0.780	--	0.610	--	--
12...	--	4.2	4.3	--	0.450	--	0.190	--	--

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 TOTAL TOT IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)
MAY							
05...	1255	25	<0.4	<20	2200	260	2.3

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

284419081412100 - APOPKA-BEAUCLAIR CANAL AT SR448 BRIDGE NEAR ASTATULA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY 04...	1200	402	7.1	24.0	50	12	37	16	19
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY 04...	10	126	22	40	0.010	<0.010	<0.020	<0.020	0.010
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED TOTAL (MG/L AS P)	PHOS- PHOROUS ORTH, DIS- SOLVED TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 04...	0.010	6.1	6.1	1.8	0.360	0.050	0.090	0.010	19
DATE	TIME			NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)
MAY 04...	1200		2.0	72	1500	<40	9.5	0.1	

284557081403300 - APOPKA-BEAUCLAIR CANAL OUTLET AT LAKE BEAUCLAIR NEAR MOUNT DORA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY 04...	1100	433	7.2	24.0	70	8.5	41	17	27
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY 04...	11	133	23	40	0.010	<0.010	<0.020	<0.020	0.010

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

284557081403300 - APOPKA-BEAUCLAIR CANAL OUTLET AT LAKE BEAUCLAIR NEAR MOUNT DORA--Continued

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 04...	0.010	4.8	4.8	2.0	0.320	0.030	0.070	0.010	20
DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)		
MAY 04...	1100	7.0	8.4	14000	1600	230	0.2		

284623081394700 - LAKE BEAUCLAIR AT CENTER NEAR MOUNT DORA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
MAY 04...	0955	400	7.1	24.0	50	13	37	17	15	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY 04...	11	121	26	40	0.010	<0.010	<0.020	<0.020	0.010	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 04...	0.010	5.8	5.8	1.9	0.330	0.020	0.080	0.010	20	
DATE	TIME		NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOS- PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)		
MAY 04...	0955		<2.0	<0.4	390	700	3.1	0.1		

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

The following data were collected in conjunction with an investigative project in Reedy Creek Improvement District

02264140 - BONNET CREEK NEAR KISSIMMEE

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
SEP 01...	1300	87	6.6	27.0	240	0.50	1.7	0.010

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
SEP 01...	0.020	0.030	0.060	1.6	1.7	0.150	0.130

022662947 - CANAL 405 AT FORCE MAIN NEAR VINELAND

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
APR 19...	1230	147	6.3	22.0	360	0.57	3.8	0.520
AUG 30...	1200	187	6.1	26.0	640	0.49	1.5	0.210

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 19...	0.020	0.540	0.140	1.7	1.8	0.100	0.080	11
AUG 30...	0.030	0.240	0.390	3.0	3.4	1.33	1.32	48

02266295 - 10B LATERAL 410 AT S-410 NEAR VINELAND

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
AUG 30...	1345	125	5.0	25.0	480	0.40	4.9	0.090

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
AUG 30...	0.020	0.110	0.130	1.7	1.8	0.100	0.080

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

02266296 - 10B LATERAL 410 BELOW S-410 NEAR VINELAND

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	
		(US/CM)							
AUG 30...	1330	E394	7.0	24.5	160	0.26	4.2	0.200	
DATE		NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 30...	0.010	0.210	0.030	1.4	1.4	2.24	2.16	22	

02266298 - REEDY CREEK ABOVE HWY192 NEAR VINELAND

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER-	COLOR	TUR-	OXYGEN,	NITRO-
		(US/CM)	(STAND- ARD UNITS)	ATURE WATER (DEG C)	(PLAT- INUM- COBALT UNITS)	BID- ITY (FTU)	DIS- SOLVED (MG/L)	GEN, NITRATE TOTAL (MG/L AS N)
APR								
19...	1130	212	6.9	21.5	280	0.66	4.9	0.390
06...	1400	170	6.4	21.0	360	0.34	5.0	0.240
AUG								
17...	0645	214	--	26.5	560	0.49	3.8	0.379
30...	1430	158	6.4	26.0	560	0.56	3.8	0.240
DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR								
19...	0.010	0.400	0.020	1.2	1.2	0.300	0.280	17
06...	0.020	0.260	0.030	1.2	1.2	0.260	0.260	34
AUG								
17...	0.041	0.420	0.100	2.1	2.2	0.371	0.360	51
30...	0.020	0.260	0.110	2.4	2.5	0.570	0.550	45

02266320 - REEDY CREEK AT INTERSTATE HIGHWAY 4 NEAR LOUGHMAN

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER-	COLOR	TUR- BID- ITY	OXYGEN, DIS- SOLVED	NITRO- GEN,
		(US/CM)	(STAND- ARD UNITS)	ATURE WATER	(PLAT- INUM- COBALT			(MG/L AS N)
APR								
20...	1115	218	6.9	19.5	280	0.60	4.4	0.360
07...	1130	165	6.7	18.0	360	0.35	5.2	0.180

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
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282135081345500 - LATERAL 405 BELOW L-410 NEAR VINELAND

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	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)	ALKA- LITY LAB (MG/L AS CACO3)
NOV												
02...	0830	217	6.5	20.5	160	1.0	4.2	17	5.0	21	5.2	49
JUN												
20...	1130	168	5.7	26.5	560	0.70	3.0	18	5.7	10	3.7	18
APR												
19...	1200	258	6.8	21.5	260	0.38	4.5	--	--	--	--	--
06...	1430	162	6.4	22.0	400	0.47	5.1	--	--	--	--	--
FEB												
29...	0830	150	6.5	15.0	280	1.0	4.5	13	3.8	16	4.4	77
AUG												
17...	0400	178	--	26.5	800	0.57	1.5	--	--	--	--	--
30...	1400	175	6.1	26.5	560	0.49	2.1	--	--	--	--	--
SEP												
14...	1245	120	5.5	--	560	0.47	--	10	3.1	8.8	3.0	5.6
19...	0815	138	5.9	26.0	560	0.61	2.6	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV											
02...	11	32	0.590	0.020	0.610	0.110	0.89	1.0	0.520	0.490	25
JUN											
20...	21	29	0.190	0.020	0.210	0.330	2.6	2.9	0.330	0.290	63
APR											
19...	--	--	0.360	0.010	0.370	0.050	1.2	1.2	0.430	0.390	9.3
06...	--	--	0.250	0.020	0.270	0.120	1.3	1.4	0.260	0.260	35
FEB											
29...	9.3	19	0.520	0.010	0.530	0.070	1.3	1.4	0.350	0.310	39
AUG											
17...	--	--	0.110	0.030	0.140	0.530	2.2	2.7	0.400	0.400	54
30...	--	--	0.230	0.030	0.260	0.240	2.4	2.6	0.800	0.780	50
SEP											
14...	1.8	16	0.130	0.030	0.160	0.210	2.5	2.7	0.350	0.330	56
19...	--	--	0.100	0.030	0.130	0.260	2.7	3.0	0.270	0.260	53

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
SEP							
14...	1245	500	1	<10	<1	<10	3

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
SEP							
14...	580	<5	20	<0.10	4	<1	<10

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

The following data were collected in conjunction with a drainage-well study in Orlando.

02262550 - 10B LAKE UNDERHILL AT ORLANDO

	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (FTU)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
	NOV 20...	1300	--	--	--	--	13	4.4	20	2.2	5.4	
	MAY 24...	1200	1.0	172	9.1	29.0	--	--	21	2.3	5.5	
	SEP 08...	1230	12.8	146	7.4	27.0	--	--	19	2.3	5.5	
	DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	
	NOV 20...	2.0	48	16	12	--	--	<0.010	<0.100	0.020	0.80	
	MAY 24...	1.9	--	16	9.4	0.10	96	<0.010	<0.020	0.020	1.6	
	SEP 08...	1.8	43	14	9.0	0.10	97	<0.010	<0.100	0.040	0.90	
	DATE	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	
	NOV 20...	0.100	<0.010	<1	100	<1	1	--	4	40	--	
	MAY 24...	0.070	0.020	--	--	--	<10	<10	--	110	10	
	SEP 08...	0.040	<0.010	--	--	--	<1	2	--	40	4	
	DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	
	NOV 20...	<5	--	20	--	<0.10	<1	<1	10	--	9.2	
	MAY 24...	<5	<5	20	<10	--	--	--	20	10	6.7	
	SEP 08...	<5	<5	20	2	--	--	--	10	6	6.9	
DATE	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)
NOV 20...	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.20
DATE	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	BROMO- FORM TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- FORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)
NOV 20...	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1987 TO SEPTEMBER 1988

02262550 - 10B LAKE UNDERHILL AT ORLANDO--Continued

DATE	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,2- TRANS DI CHLORO- ETHENE TOTAL (UG/L)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)
NOV 20...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

DATE	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,2- DIBROMO ETHYL- ENE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)
NOV 20...	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2

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 1988

Annual Maximum Discharge at Crest Stage Partial Record Stations during water year 1988					Annual Maximum		
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	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‡ 1968-88	2-22-88	14.69	834
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.	7.90	1983-88	8-06-86 10-12-87	7.84 7.03	200 128
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	1985-88	1988	<5.76	<125
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	1966-88	9-08-88	23.30	292
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 1974-88	9-09-88	13.40	225

‡ 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 1988--Continued

Annual maximum discharge at cross stage partial record stations during water year 1999 continued					Annual Maximum		
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (ft)	Dis-charge (ft ³ /s)
ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER							
02246460	Williamson Creek at Cedar Hills, FL	Lat 30°16'19", long 81°45'05", in land grant 37, T.3 S., R.25 E., Duval County, Hydrologic Unit 03080103, at culvert on Hugh Edwards Drive at Cedar Hills, and 0.9 mi upstream from mouth. Datum of gage not determined.	0.92	1971-88	2-21-88	10.74	111
02246497	McCoy Creek at Jacksonville, FL	Lat 30°19'35", long 81°41'56", land grant 41, T.2 S., R.26 E., Duval County, Hydrologic Unit 03080103, near left bank on downstream side of bridge on Leland Street, 2.0 mi upstream from mouth and 2.7 mi west of Duval County Courthouse. Datum of gage is 14.89 ft below National Geodetic Vertical Datum of 1929.	3.51	1975-88	2-21-88	22.56	652
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	1962-88	3-10-88	3.54	59
KISSIMEE 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	1971-88	1-22-88	4.59	187

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1988

Discharge measurements made at low-flow partial-record stations during water year 1988						
Station No.	Station name	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Dis-charge (ft ³ /s)
ST. MARYS RIVER BASIN						
02231284	Thomas Creek near Callahan, FL	Lat 30°31'00", long 81°45'50", in Land Grant 37, T.1 N., R.25 E., Nassau County, Hydrologic Unit 03070205, at bridge on State Highway 115, 4.7 mi southeast of Callahan.		1965 1985	11-02-87	0.00
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 1985 1987	5-19-88	0.44
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 1965-67 1972 1986-87	6-20-88 8-10-88	0.00 6.76
*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 1985-87	11-13-87 1-11-88 5-03-88 6-29-88	0.38 8.14 0.57 0.00
ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER						
02245280	Moccasin Branch at Armstrong, FL	Lat 29°46'30", long 81°27'10", in SW¼ sec.26, T.8 S., R.28 E., at culvert on State Highway 207, 1.0 mi north of Armstrong, St. Johns County.		1984	11-03-87	0.22
02245325	Mill Creek near Bakersville, FL	Lat 29°57'00", long 81°29'40", in land grant 38, T.6 S., R.28 E., St. Johns County, Hydrologic unit 03080103, at culvert on State Highway 16, 4.0 mi north of Bakersville.		1958 1985	11-03-87	0.30
02245800	North Fork Black Creek near Highlands, FL	Lat 30°06'48", long 81°59'00", in SE¼ sec.27, T.4 S., R.23 E., Clay County, Hydrologic Unit 03080103, at bridge on State Highway 218, 3.9 mi east of Highland, and 7.6 mi northwest of Middleburg.	48.9	1957-60‡ 1965 1967 1985	11-02-87	4.06
02245850	Long Branch at Maxville, FL	Lat 30°12'13", long 82°01'06", in SE¼ sec.29, T.3 S., R.23 E., Duval County, Hydrologic Unit 03080103, at culvert on State Highway 228, 5.5 mi upstream from mouth, and 0.3 mi west of Maxville.	2.98	1965-67 1985	11-02-87	0.00
02245900	Yellow Water Creek near Maxville, FL	Lat 30°13'45", long 81°55'18", in NE¼ sec.20, T.3 S., R.24 E., Duval County, Hydrologic Unit 03080103, on right downstream wing wall of bridge on State Highway 228, 5.8 mi northeast of Maxville, 7.1 mi upstream from mouth, and 7.2 mi southeast of Jacksonville.	25.7	1958-82 1985	11-02-87	0.48
*02246100	Julington Creek near Greenland, FL	Lat 30°11'19", long 81°33'45", in land grant 50, T.4 S., R.27 E., Duval County, Hydrologic Unit 03080103, at culvert on U.S. Highway 1, 11.0 mi upstream from mouth, and 1.5 mi northeast of Greenland.	8.9	1965-66‡ 1967	11-02-87	2.07

* Also a crest-stage partial-record station.

‡ Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1988--Continued

Discharge measurements made at low-flow partial-record stations during water year 1986--Continued						
Station No.	Station name	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Dis-charge (ft ³ /s)
ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER--Continued						
	Strawberry Creek at Jacksonville, FL	Lat 30°20'15", long 81°33'37", in SW¼ sec.12, T.2 S., R.27 E., Duval County, Hydrologic Unit 03080103, at culvert along Lone Star Road in Jacksonville.		1985	11-03-87	0.53
02246199	Durbin Creek at U.S. Hwy 1, at Durbin, FL	Lat 30°05'54", long 81°28'22", in NE¼ sec.3, T.5 S., R.28 E., St. Johns County, Hydrologic Unit 03080103, near right bank on downstream side of downstream bridge on U.S. Highway 1, and 1.0 mi northwest of Durbin.		1974-75 1985	11-02-87	Dry
*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.	36.7	1961	11-02-87	10.1
02246202	Cormorant Branch near Mandarin, FL	Lat 30°08'56", long 81°37'43", in NE¼ sec.20, T.3 S., R.27 E., Duval County, Hydrologic Unit 03080103, near right bank on downstream side of bridge on Marbon Road, 1.1 mi upstream from mouth, and 2.1 mi southeast of Mandarin.	1.62	1975-81 1985	11-02-87	0.23
	Fishing Creek at Jacksonville, FL	Lat 30°14'40", long 81°43'57", in NE¼ sec.18, T.3 S., R.26 E., Duval County, Hydrologic Unit 03080103, on Wesconnett Avenue in Jacksonville.		1985	11-03-87	2.68
	Butcher Pen Creek near Jacksonville, FL	Lat 30°15'34", long 81°44'29", in NE¼ sec.21, T.3 S., R.26 E., Duval County, Hydrologic Unit 03080103, at bridge along Blanding Boulevard in Jacksonville.		1985	11-03-87	0.10
*02246360	Cedar River near Marietta, FL	Lat 30°17'55", long 81°45'20", in land grant 39, T.2 S., R.25 E., Duval County, Hydrologic Unit 03080103, at bridge on State Highway 213, and 2.5 mi southeast of Marietta.		1964 1985	11-03-87	0.10
02246450	North Fork Wills Branch near Marietta, FL	Lat 30°17'27", long 81°45'56", in SW¼ sec.40, T.2 S., R.25 E., Duval County, Hydrologic Unit 03080103, at bridge on Old Middleburg Road in Jacksonville.	7.04	1965-67 1985	11-03-87	2.41
02246455	South Fork Wills Branch near Marietta, FL	Lat 30°17'05", long 81°46'05", in NE¼ sec.35, T.2 S., R.25 E., Duval County, Hydrologic Unit 03080103, at culvert on State Highway 213, 0.7 mi upstream from mouth, and 2.5 mi southeast of Marietta.		1964 1977 1985	11-03-87	0.96

* Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1988--Continued

Discharge measurements made at low-flow partial record stations during water year 1988--Continued						
Station No.	Station name	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Dis-charge (ft ³ /s)
ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER--Continued						
*02246460	Williamson Creek at Cedar Hills, FL	Lat 30°16'19", long 81°45'05", in land grant 37, T.3 S., R.25 E., Duval County, Hydrologic Unit 03080103, at culvert on Hugh Edwards Drive at Cedar Hills, and 0.9 mi upstream from mouth.	0.92	1971	11-02-87	0.30
02246515	Pottsburg Creek near South Jacksonville, FL	Lat 30°15'50", long 81°35'25", in land grant 56, T.3 S., R.27 E., Duval County, Hydrologic Unit 03080103, on downstream side of bridge on Bowden Road, 0.14 mi downstream from Bennet Branch, 5.7 mi upstream from Silversmith Creek, and 6.4 mi southeast of Union Station in Jacksonville.	9.89	1964-65	11-03-87	1.47
*02246522	Red Bay Branch tributary at Jacksonville, FL	Lat 30°20'40", long 81°35'22", in SW¼ sec.10, T.2 S., R.27 E., Duval County, Hydrologic Unit 03080103, on right of drainage ditch 35 ft upstream from culvert on Rogero Road, 200 ft south of Pine Summit Drive, in Arlington area of Jacksonville.	0.57	1975	11-02-87	0.43
02246750	Cedar Creek near Panama Park, FL	Lat 30°27'30", long 81°40'49", in SW¼ sec.35, T.1 N., R.26 E., Duval County, Hydrologic Unit 03080103, 1.2 mi upstream from Pickett Branch, 3.6 mi upstream from Broward River and confluence of Cedar Creek and Little Cedar Creek, 5.2 mi north of Panama Park and 9.1 mi north of Union Station in Jacksonville.	12.0	1964-68 1985	11-02-87	0.11
02246754	Pickett Branch near Eastport, FL	Lat 30°27'59", long 81°40'05", in NE¼ sec.35, T.1 N., R.26 E., Duval County, Hydrologic Unit 03080103, at bridge on State Highway 111, 5.3 mi northwest of Eastport.		1964 1985	11-02-87	0.12
02246760	Little Cedar near Eastport, FL	Lat 30°28'05", long 81°39'23", in land grant 38, T.1 N., R.26 E., Duval County, Hydrologic Unit 03080103, at bridge on State Highway 111, 5 miles northwest of Eastport.		1964 1985	11-02-87	0.09
*02246820	Jones Creek near Arlington, FL	Lat 30°19'21", long 81°32'23", in NW¼ sec.19, T.2 S., R.28 E., at culvert on State Highway 10, 3.9 mi east of Arlington, Duval County.		1985	11-03-87	1.44
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 1984-87	11-17-87 1-12-88 3-15-88 5-04-88 6-29-88 8-24-88	2.16 3.13 12.4 0.89 0.07 2.36

* Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1988

Discharge measurements made at miscellaneous sites during water year 2000				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	5-26-88	67
				1936	9-29-88	72
				1945-46		
				1956		
				1960-62		
				1969-80†		
				1981-87		
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	5-26-88	58
				1935-36	9-29-88	59
				1945-46		
				1956		
				1960-62		
				1965-67		
				1969-87		
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	5-26-88	4.9
				1973-87	8-29-88	5.4
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	5-25-88	19
				1954,1956	9-28-88	20
				1958,1961		
				1972-87		
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	5-25-88	47
				1982	9-28-88	39
				1984-87		
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	5-29-88	6.1
				1956,1961	9-28-88	6.4
				1972-87		
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	5-25-88	15
				1972-87	9-29-88	14
02235020 Wekiva River	St. Johns River	Lat 28°50'59", long 81°23'09", in land grant 38, T.19 S, R.29 E., Seminole County, Hydrologic Unit 03080101, 1.7 mi upstream from Black Water Creek, 2.8 mi upstream from mouth, and 5.5 mi southwest of De Bary, FL.	198	1987	10-20-87	240
					1-06-88	245
					3-09-88	347
					4-20-88	258
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	5-25-88	39
				1946,1974		
				1981-83		
				1985-87		
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	5-25-88	14
				1972		
				1981-83		
				1985-87		

‡ 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 1988--Continued

Discharge measurements made at miscellaneous sites during water year 1988--Continued						
Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Dis- charge (ft ³ /s)
ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER--Continued						
02235300 Black Water Creek	Wekiva River	Lat 28°51'48", long 81°23'33", in land grant 37, T.19 S., R.29 E., Lake County, Hydrologic Unit 03080101, 1.6 mi upstream from mouth, and 5.5 mi southwest of De Bary, FL.	195	1987	10-20-87 1-06-88 3-09-88 4-20-88	88 101 155 98
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 1981-87	5-26-88 9-28-88	105 105
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‡ 1981-87	5-25-88 9-29-88	25 30
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 1981-87	5-26-88 9-30-88	11 12
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 1981-87	5-26-88 9-30-88	14 14
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.		1981-87	5-27-88 9-30-88	13 14
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 1984-87	5-25-88 9-30-88	102 110
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 1981-87	5-25-88 9-29-88	75 81

‡ 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 1988.

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 1988							
Station No.	Station name	Location	Miles above mouth	Drainage area (mi ²)	Period of record (calendar years)	Date	Annual Maximum 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	1954-88	1988	<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 near residence of A. T. Anderson, 12.5 mi west of Malabar. Datum of gage is National Geodetic Vertical Datum of 1929.	269	674	1953-88	1988	<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	1953-88	1988	<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	1953-88	1988	<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	1961-88	1988	<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 1988--Continued

Annual maximum flood-profile data during calendar year 1988--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	1953-88	1988	<14.60	
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	1953-88	1988	<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	1953-88	1988	<8.19	

< Actual value is known to be less than the value shown

ELEVATION AND WATER QUALITY OF LAKES

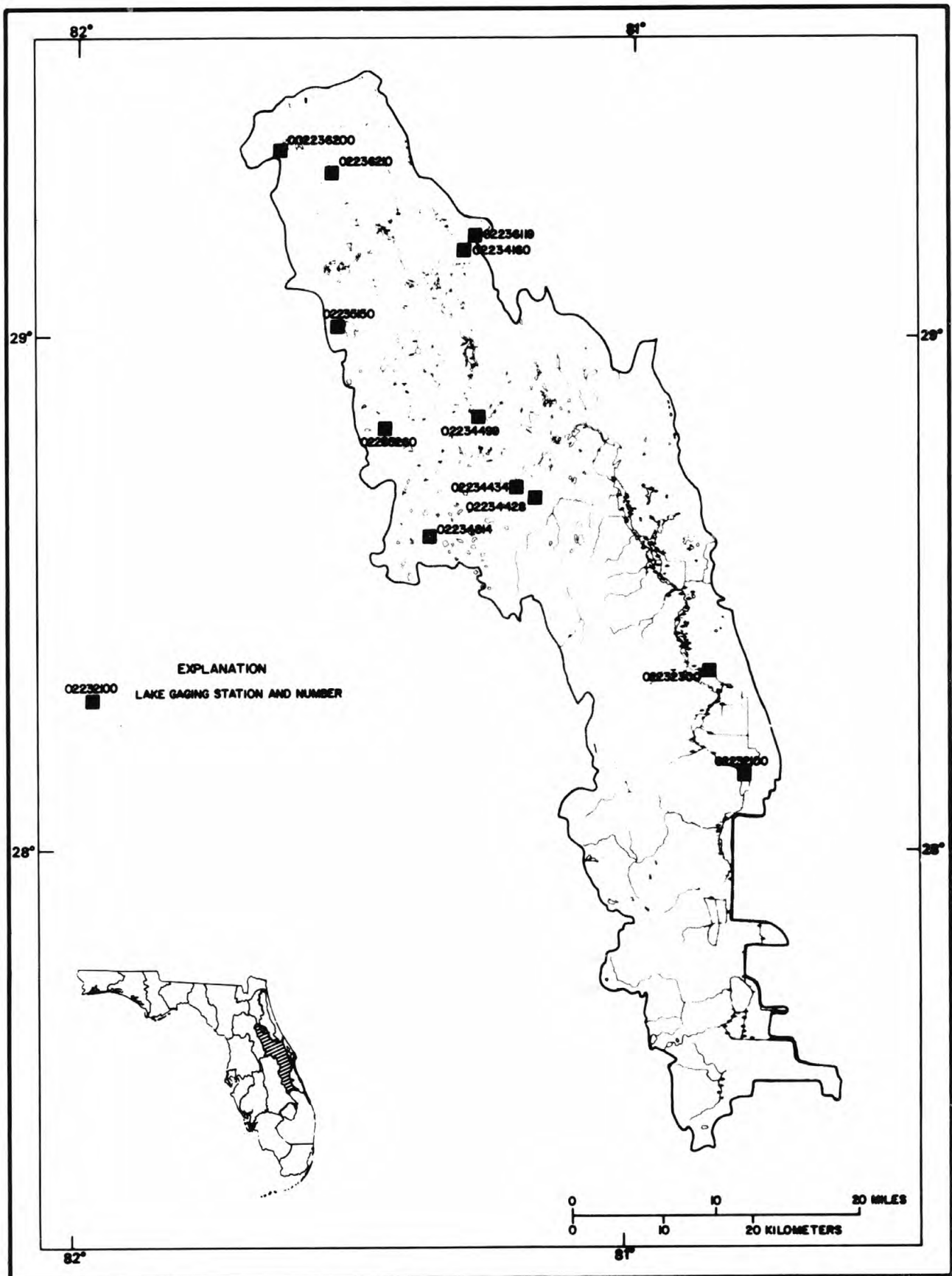


Figure 24.--Location of lake gaging stations in the St. Johns River basin above the Oklawaha River.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02232100 LAKE WASHINGTON NEAR EAU GALLIE, FL

LOCATION.--Lat 28°09'00", long 80°44'21", in NW¼ sec.9, T.27 S., R.36 E., Brevard County, Hydrologic Unit 03080101, on east shore of lake, at Melbourne Waterworks intake crib, 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 southeast 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.

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.93	15.24	17.73	15.77	14.71	14.51	15.75	14.39	13.62	13.73	14.00	14.29
2	14.91	15.24	17.69	15.71	14.70	14.49	15.72	14.34	13.63	13.68	13.97	14.25
3	14.86	15.43	17.65	15.66	14.68	14.49	15.68	14.31	13.65	13.65	13.94	14.20
4	14.83	15.65	17.59	15.61	14.67	14.48	15.65	14.27	13.64	13.62	13.90	14.17
5	14.81	15.69	17.52	15.54	14.63	14.45	15.60	14.23	13.61	13.57	13.88	14.16
6	14.79	15.72	17.45	15.49	14.58	14.54	15.56	14.16	13.63	13.58	13.87	14.17
7	14.74	15.76	17.36	15.45	14.58	14.56	15.53	14.07	13.67	13.59	13.88	14.18
8	14.70	15.84	17.30	15.39	14.64	14.58	15.47	13.99	13.81	13.61	13.88	14.25
9	14.65	15.93	17.25	15.34	14.65	14.61	15.43	13.95	13.80	13.63	13.89	14.30
10	14.70	16.03	17.19	15.29	14.64	14.67	15.38	13.90	13.77	13.64	13.95	14.30
11	14.82	16.10	17.12	15.25	14.65	14.66	15.37	13.84	13.70	13.66	14.02	14.28
12	14.90	16.14	17.06	15.21	14.65	14.67	15.35	13.80	13.66	13.64	14.05	14.28
13	14.93	16.17	16.99	15.18	14.63	14.83	15.29	13.75	13.64	13.66	14.07	14.31
14	14.96	16.19	16.92	15.12	14.60	14.98	15.22	13.75	13.65	13.78	14.10	14.35
15	15.00	16.21	16.86	15.08	14.62	15.03	15.17	13.75	13.66	13.83	14.11	14.39
16	15.08	16.22	16.81	15.04	14.62	15.10	15.12	13.72	13.66	13.83	14.13	14.42
17	15.17	16.22	16.73	15.01	14.60	15.19	15.08	13.71	13.67	13.84	14.20	14.43
18	15.27	16.30	16.67	14.97	14.58	15.32	15.04	13.69	13.66	13.85	14.21	14.44
19	15.36	16.43	16.61	14.94	14.59	15.50	15.01	13.66	13.66	13.85	14.16	14.45
20	15.42	16.78	16.55	14.91	14.60	15.59	14.94	13.65	13.67	13.86	14.13	14.43
21	15.46	16.86	16.49	14.91	14.56	15.66	14.89	13.64	13.70	13.87	14.09	14.41
22	15.47	16.99	16.42	14.91	14.57	15.71	14.85	13.64	13.71	13.93	14.07	14.39
23	15.47	17.16	16.34	14.88	14.57	15.74	14.80	13.64	13.72	14.07	14.06	14.36
24	15.47	17.32	16.28	14.83	14.57	15.79	14.77	13.62	13.72	14.16	14.10	14.32
25	15.46	17.47	16.22	14.87	14.56	15.81	14.70	13.63	13.71	14.14	14.32	14.28
26	15.44	17.60	16.16	14.86	14.54	15.82	14.65	13.62	13.71	14.16	14.36	14.23
27	15.42	17.74	16.10	14.82	14.55	15.86	14.58	13.61	13.72	14.16	14.35	14.19
28	15.39	17.79	16.04	14.78	14.53	15.84	14.52	13.61	13.72	14.13	14.37	14.15
29	15.34	17.80	15.97	14.75	14.52	15.82	14.45	13.62	13.73	14.10	14.39	14.12
30	15.30	17.77	15.88	14.74	---	15.82	14.38	13.61	13.74	14.07	14.36	14.07
31	15.24	---	15.83	14.73	---	15.79	---	13.61	---	14.03	14.33	---
MEAN	15.11	16.46	16.80	15.13	14.61	15.16	15.13	13.83	13.69	13.84	14.10	14.29
MAX	15.47	17.80	17.73	15.77	14.71	15.86	15.75	14.39	13.81	14.16	14.39	14.45
MIN	14.65	15.24	15.83	14.73	14.52	14.45	14.38	13.61	13.61	13.57	13.87	14.07

CAL YR 1987 MEAN 14.57 MAX 17.80 MIN 13.20
WTR YR 1988 MEAN 14.85 MAX 17.80 MIN 13.57

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 on northeast side of lake at Poinsett Lodge at datum 9.34 ft higher and Feb. 23, 1943, to Sept. 30, 1963, at datum 5.06 ft higher.

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.25	13.74	15.88	14.52	13.31	12.50	13.74	12.66	11.22	10.62	11.79	12.11
2	13.27	13.79	15.88	14.48	13.28	12.49	13.72	12.65	11.14	10.64	11.80	12.11
3	13.26	14.04	15.89	14.42	13.25	12.48	13.70	12.65	11.07	10.63	11.80	12.12
4	13.23	14.46	15.84	14.36	13.22	12.43	13.67	12.59	11.00	10.59	11.79	12.12
5	13.22	14.68	15.82	14.27	13.15	12.39	13.64	12.48	11.01	10.53	11.77	12.13
6	13.21	14.77	15.81	14.22	13.07	12.44	13.61	12.41	10.92	10.63	11.79	12.15
7	13.20	14.83	15.81	14.24	13.14	12.49	13.51	12.39	10.93	10.61	11.92	12.19
8	13.15	14.84	15.78	14.17	13.16	12.56	13.53	12.39	11.07	10.55	11.97	12.25
9	13.15	14.82	15.74	14.09	13.14	12.56	13.52	12.35	11.07	10.54	11.97	12.35
10	13.13	14.78	15.72	14.04	13.10	12.46	13.52	12.31	11.06	10.53	11.98	12.36
11	13.17	14.71	15.67	13.99	13.08	12.54	13.47	12.26	11.03	10.60	11.98	12.40
12	13.37	14.68	15.63	13.96	13.00	12.58	13.42	12.22	11.04	10.60	11.98	12.43
13	13.50	14.67	15.60	13.93	12.97	12.60	13.38	12.15	11.01	10.59	11.91	12.44
14	13.62	14.65	15.56	13.85	12.96	12.61	13.40	12.11	11.03	10.61	11.93	12.47
15	13.71	14.61	15.52	13.79	12.94	12.73	13.36	12.05	10.96	10.71	11.94	12.48
16	13.76	14.64	15.44	13.78	12.88	12.87	13.32	12.02	10.92	10.79	11.92	12.50
17	13.77	14.64	15.36	13.74	12.87	13.02	13.29	11.96	10.90	10.81	11.90	12.49
18	13.78	14.69	15.31	13.70	12.85	13.18	13.25	11.88	10.86	10.84	11.91	12.50
19	13.80	14.76	15.27	13.65	12.82	13.30	13.19	11.83	10.80	10.89	11.91	12.51
20	13.80	14.99	15.22	13.61	12.78	13.43	13.16	11.75	10.76	10.89	11.91	12.51
21	13.79	15.19	15.16	13.59	12.71	13.53	13.12	11.70	10.74	10.91	11.90	12.51
22	13.77	15.33	15.11	13.57	12.72	13.60	13.07	11.61	10.73	10.98	11.91	12.51
23	13.77	15.40	15.04	13.53	12.71	13.67	13.02	11.53	10.71	11.04	11.93	12.51
24	13.77	15.45	15.00	13.48	12.70	13.69	12.97	11.49	10.69	11.16	11.98	12.50
25	13.74	15.50	14.96	13.46	12.63	13.68	12.93	11.50	10.66	11.25	11.97	12.49
26	13.75	15.57	14.89	13.44	12.59	13.67	12.87	11.44	10.63	11.37	12.00	12.49
27	13.76	15.68	14.83	13.42	12.58	13.70	12.84	11.37	10.61	11.47	12.03	12.53
28	13.73	15.76	14.78	13.37	12.54	13.71	12.77	11.35	10.63	11.57	12.05	12.52
29	13.69	15.83	14.63	13.37	12.52	13.71	12.72	11.32	10.67	11.64	12.07	12.52
30	13.70	15.84	14.61	13.36	---	13.72	12.71	11.31	10.64	11.72	12.08	12.54
31	13.70	---	14.59	13.34	---	13.75	---	11.28	---	11.76	12.08	---
MEAN	13.53	14.91	15.37	13.83	12.92	13.04	13.28	11.97	10.88	10.91	11.93	12.39
MAX	13.80	15.84	15.89	14.52	13.31	13.75	13.74	12.66	11.22	11.76	12.08	12.54
MIN	13.13	13.74	14.59	13.34	12.52	12.39	12.71	11.28	10.61	10.53	11.77	12.11
CAL YR 1987	MEAN 12.95		MAX 15.89		MIN 11.14							
WTR YR 1988	MEAN 12.91		MAX 15.89		MIN 10.53							

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234160 LAKE WINNEMISSETT NEAR DE LAND, FL

SURFACE AREA.---169 acres (0.26 mi²).

DRAINAGE AREA.--1.10 mi².

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

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

REMARKS.--Lake is landlocked except possibly at high elevations.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 61.01 ft, Feb. 23, 1984; minimum daily, 53.93 ft, Dec. 25, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.32	60.00	60.29	60.02	60.24	60.14	60.25	59.91	59.50	59.18	59.04	58.77
2	60.30	60.01	60.27	60.01	60.24	60.13	60.24	59.90	59.48	59.21	59.04	58.79
3	60.28	60.05	60.26	60.02	60.24	60.12	60.23	59.88	59.46	59.19	59.03	58.81
4	60.25	60.29	60.25	60.01	60.24	60.11	60.22	59.86	59.43	59.16	59.01	58.80
5	60.22	60.30	60.23	59.99	60.23	60.14	60.21	59.84	59.41	59.14	58.99	58.82
6	60.20	60.29	60.21	59.97	60.24	60.28	60.19	59.81	59.51	59.18	58.97	58.92
7	60.18	60.27	60.20	59.96	60.24	60.28	60.15	59.78	59.54	59.17	58.97	58.94
8	60.15	60.26	60.19	60.01	60.25	60.28	60.12	59.76	59.53	59.14	58.95	59.01
9	60.12	60.26	60.18	60.01	60.25	60.28	60.10	59.73	59.51	59.12	58.93	59.09
10	60.11	60.26	60.18	60.02	60.24	60.38	60.09	59.72	59.50	59.13	58.91	59.13
11	60.12	60.25	60.18	60.02	60.24	60.37	60.09	59.75	59.51	59.18	58.89	59.12
12	60.22	60.22	60.16	60.00	60.24	60.36	60.07	59.81	59.48	59.16	58.88	59.11
13	60.27	60.20	60.16	59.99	60.22	60.36	60.05	59.81	59.45	59.14	58.87	59.10
14	60.24	60.19	60.15	59.98	60.20	60.36	60.03	59.80	59.43	59.16	58.87	59.09
15	60.23	60.19	60.16	59.97	60.21	60.32	60.01	59.79	59.41	59.17	58.91	59.08
16	60.22	60.18	60.19	59.95	60.23	60.30	60.00	59.77	59.39	59.16	58.89	59.08
17	60.21	60.19	60.16	59.95	60.22	60.28	59.98	59.76	59.36	59.14	58.90	59.07
18	60.20	60.29	60.14	59.95	60.21	60.30	59.97	59.74	59.34	59.13	58.92	59.06
19	60.19	60.30	60.13	59.95	60.21	60.40	59.98	59.72	59.32	59.11	58.90	59.04
20	60.18	60.30	60.13	59.94	60.21	60.39	60.00	59.70	59.30	59.10	58.88	59.03
21	60.17	60.27	60.12	59.97	60.25	60.38	59.99	59.68	59.32	59.08	58.89	59.02
22	60.15	60.25	60.12	60.01	60.25	60.37	59.97	59.66	59.34	59.07	58.87	59.02
23	60.13	60.24	60.11	59.99	60.24	60.36	59.95	59.64	59.32	59.06	58.86	59.00
24	60.11	60.23	60.10	59.99	60.23	60.35	59.94	59.61	59.30	59.06	58.85	58.98
25	60.10	60.24	60.10	60.24	60.21	60.34	59.92	59.65	59.28	59.07	58.83	58.97
26	60.09	60.26	60.10	60.28	60.19	60.33	59.91	59.65	59.26	59.06	58.81	58.98
27	60.08	60.32	60.09	60.27	60.18	60.33	59.91	59.63	59.23	59.07	58.81	58.97
28	60.07	60.33	60.09	60.26	60.16	60.32	59.89	59.60	59.21	59.11	58.82	58.95
29	60.04	60.32	60.07	60.25	60.15	60.30	59.85	59.58	59.19	59.10	58.81	58.95
30	60.02	60.31	60.04	60.24	---	60.29	59.84	59.55	59.17	59.08	58.80	58.99
31	60.01	---	60.03	60.24	---	60.27	---	59.53	---	59.06	58.78	---
MEAN	60.17	60.24	60.15	60.05	60.22	60.30	60.04	59.73	59.38	59.13	58.90	58.99
MAX	60.32	60.33	60.29	60.28	60.25	60.40	60.25	59.91	59.54	59.21	59.04	59.13
MIN	60.01	60.00	60.03	59.94	60.15	60.11	59.84	59.53	59.17	59.06	58.78	58.77

WTR YR 1988 MEAN 59.77 MAX 60.40 MIN 58.77

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, 47.28 ft, Jan. 12, 1986; minimum observed, 40.24 ft, July 14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 46.98 ft, Sept. 11; minimum observed, 45.34 ft, Oct. 11.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	45.36	---	---	---	---	---	46.16	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	45.96	---	---	46.22	---	---	45.90	---	---
4	45.46	---	---	---	---	---	---	---	---	---	---	46.70
5	---	---	---	---	---	---	---	---	45.86	---	---	---
6	---	---	46.10	45.94	---	46.23	---	---	---	---	---	---
7	---	---	---	---	46.30	---	---	---	---	---	45.96	---
8	---	45.80	---	---	---	---	---	46.02	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	45.96	---	---	46.20	---	---	45.80	---	---
11	45.34	---	---	---	---	---	---	---	---	---	45.90	46.98
12	---	---	---	---	---	---	---	---	46.04	---	---	---
13	---	---	46.00	---	---	46.31	---	---	---	---	---	---
14	45.54	---	---	---	46.20	---	---	---	---	---	45.90	---
15	---	45.75	---	---	---	---	---	46.14	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	45.94	---	---	46.14	---	---	45.80	---	---
18	45.52	---	---	---	---	---	46.14	---	---	---	---	46.96
19	---	---	---	---	---	---	---	---	45.96	---	---	---
20	---	---	46.06	---	---	46.50	---	---	---	---	---	---
21	---	---	---	---	46.23	---	---	---	---	---	46.16	---
22	---	46.06	---	---	46.22	---	---	46.00	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	46.00	---	---	46.16	---	---	45.96	---	---
25	45.46	---	---	---	---	---	---	---	---	---	---	46.90
26	45.44	---	---	---	---	---	---	---	45.82	---	---	---
27	---	---	46.05	---	---	46.40	---	---	45.79	---	---	---
28	---	---	---	---	46.14	---	---	---	---	---	46.40	---
29	---	46.16	---	---	---	---	---	46.02	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	46.22	---	---	---	---	---	46.00	---	---

02234434 LAKE JESSUP NEAR SANFORD. FL

SURFACE AREA.--7.792 acres (12.2 mi²).

DRAINAGE AREA.--156 mi².

REVISED RECORDS.--WDR FL-81-1: Surface area.

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 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, 3.80 ft, Nov. 29; minimum observed, 0.70 ft, June 23, 30.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2.74	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	3.60	---	---	2.10	---	---	---	---	2.58
4	1.60	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	2.20	---	---	---	---	1.00	---
7	---	---	---	---	2.98	---	---	---	---	---	---	---
8	---	3.28	---	---	---	---	---	---	---	1.51	---	---
9	---	---	---	---	---	---	---	---	---	1.36	---	---
10	---	---	---	3.34	---	---	2.06	---	---	---	---	2.70
11	1.85	---	---	---	---	---	---	1.31	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	1.36	---
14	---	---	---	---	2.75	---	---	---	---	---	---	---
15	---	3.50	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	3.28	---	---	1.98	---	---	.80	---	3.20
18	2.60	---	---	---	---	---	---	---	.98	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	1.38	---
21	---	---	---	---	2.56	---	---	---	---	---	---	---
22	---	3.72	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	.70	---	---
24	---	---	---	3.28	---	2.74	1.60	---	---	---	---	2.79
25	2.68	3.60	---	---	---	---	---	---	.98	---	1.35	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	1.90	---
28	---	---	---	---	2.20	---	---	---	---	---	---	---
29	---	3.80	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	1.00	.70	---	2.44
31	---	---	---	3.25	---	---	---	---	---	---	---	---

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.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.35	2.24	3.25	2.79	2.72	1.76	1.97	1.27	.93	.98	.54	1.71
2	1.37	2.25	3.28	2.77	2.67	1.75	1.92	1.38	.91	1.05	.62	1.81
3	1.35	2.31	3.29	2.74	2.62	1.71	1.87	1.43	.85	1.04	.74	1.86
4	1.35	2.54	3.26	2.71	2.55	1.68	1.81	1.38	.83	1.02	.74	1.87
5	1.37	2.55	3.28	2.69	2.48	1.66	1.78	1.28	.97	1.05	.78	1.91
6	1.37	2.56	3.29	2.68	2.42	1.79	1.71	1.22	1.09	1.28	.80	2.08
7	1.34	2.62	3.30	2.69	2.46	1.85	1.58	1.20	1.17	1.32	.82	2.16
8	1.32	2.67	3.29	2.69	2.47	1.88	1.62	1.18	1.20	1.31	.82	2.28
9	1.33	2.71	3.28	2.68	2.48	1.85	1.60	1.13	1.13	1.27	.81	2.56
10	1.32	2.78	3.27	2.68	2.47	1.88	1.60	1.07	1.05	1.18	.79	2.72
11	1.37	2.76	3.26	2.68	2.47	2.01	1.59	1.03	.98	1.08	.85	2.79
12	1.52	2.77	3.25	2.67	2.41	2.04	1.56	1.03	.96	.97	.84	2.84
13	1.66	2.76	3.24	2.66	2.40	2.06	1.57	1.08	.95	.89	.83	2.85
14	1.84	2.75	3.22	2.62	2.39	2.05	1.60	1.11	.99	.83	.91	2.87
15	1.97	2.75	3.21	2.59	2.34	2.08	1.60	1.11	1.00	.79	1.11	2.87
16	2.09	2.76	3.19	2.60	2.29	2.12	1.60	1.10	1.00	.72	1.08	2.88
17	2.17	2.77	3.16	2.59	2.25	2.14	1.62	1.07	.98	.63	1.06	2.84
18	2.25	2.87	3.15	2.57	2.20	2.15	1.60	1.01	.94	.58	1.06	2.81
19	2.29	2.88	3.14	2.54	2.13	2.19	1.59	.96	.89	.53	1.05	2.78
20	2.30	2.90	3.11	2.50	2.07	2.26	1.56	.91	.83	.46	1.02	2.73
21	2.28	2.93	3.09	2.49	2.06	2.29	1.50	.87	.84	.40	.99	2.67
22	2.27	2.97	3.06	2.48	2.08	2.30	1.46	.80	.85	.36	.96	2.62
23	2.28	2.99	3.04	2.47	2.06	2.30	1.40	.74	.84	.32	.93	2.56
24	2.31	3.01	3.02	2.46	2.03	2.28	1.33	.71	.81	.34	.97	2.49
25	2.30	3.02	3.01	2.71	1.97	2.25	1.27	.65	.77	.33	1.03	2.41
26	2.31	3.05	2.98	2.79	1.95	2.20	1.16	.62	.78	.30	1.11	2.36
27	2.31	3.17	2.96	2.83	1.90	2.16	1.16	.72	.78	.31	1.27	2.30
28	2.29	3.20	2.92	2.83	1.86	2.14	1.13	.92	.95	.37	1.44	2.26
29	2.27	3.22	2.82	2.81	1.80	2.08	1.16	.99	1.01	.41	1.54	2.24
30	2.27	3.22	2.82	2.80	---	2.03	1.20	.98	.98	.46	1.61	2.24
31	2.25	---	2.81	2.77	---	2.01	---	.97	---	.50	1.65	---
MEAN	1.87	2.80	3.14	2.66	2.28	2.03	1.54	1.03	.94	.74	.99	2.45
MAX	2.31	3.22	3.30	2.83	2.72	2.30	1.97	1.43	1.20	1.32	1.65	2.88
MIN	1.32	2.24	2.81	2.46	1.80	1.66	1.13	.62	.77	.30	.54	1.71

WTR YR 1988 MEAN 1.87 MAX 3.30 MIN .30

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02234814 LAKE WEKIVA NEAR MAITLAND, FL

LOCATION.--Lat 28°36'09", long 81°25'38", in SW¼ sec.4, T.22 S., R.29 E., Orange County, Hydrologic Unit 03080101, near right bank on downstream side of bridge at Lake Wekiva outlet, 110 ft upstream from concrete control structure, 0.4 mi upstream from culvert on U.S. Highway 441, and 4.2 mi southwest of Maitland.

SURFACE AREA.--190 acres (0.30 mi²).

DRAINAGE AREA.--13.4 mi².

PERIOD OF RECORD.--August 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Dec. 10, 1975, at datum 81.93 ft higher.

REMARKS.--Lake level controlled by concrete control structure with removable boards. Since Aug. 11, 1972, undetermined amount of water diverted through drop culvert and underground pipe line to Horseshoe Lake, 2 mi west, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 87.04 ft, June 30, 1974; minimum daily, 82.09 ft, July 18, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83.56	83.44	84.03	83.75	83.88	83.44	83.58	83.33	83.29	83.35	83.65	83.98
2	83.53	83.47	83.97	83.75	83.86	83.40	83.55	83.35	83.25	83.71	83.65	84.02
3	83.49	83.74	83.92	83.76	83.84	83.37	83.51	83.36	83.22	83.74	83.75	83.96
4	83.44	84.81	83.89	83.76	83.81	83.35	83.47	83.34	83.19	83.74	84.09	83.90
5	83.40	84.61	83.85	83.75	83.78	83.39	83.44	83.32	83.16	83.71	84.02	84.00
6	83.36	84.32	83.83	83.74	83.77	83.92	83.40	83.28	83.19	83.76	83.95	84.49
7	83.33	84.15	83.82	83.75	83.77	84.05	83.35	83.24	83.20	83.74	83.93	84.51
8	83.28	84.04	83.82	83.77	83.80	84.00	83.28	83.21	83.32	83.72	83.87	84.44
9	83.24	84.06	83.82	83.78	83.82	83.92	83.25	83.19	83.33	83.69	83.82	84.51
10	83.20	84.32	83.82	83.82	83.81	84.22	83.26	83.17	83.32	83.72	83.82	84.34
11	83.23	84.23	83.82	83.85	83.80	84.20	83.41	83.16	83.29	83.81	83.87	84.21
12	83.52	84.11	83.81	83.84	83.79	84.10	83.43	83.26	83.26	83.76	83.82	84.11
13	83.90	84.01	83.81	83.83	83.75	84.12	83.42	83.70	83.23	83.75	83.78	84.02
14	83.92	83.95	83.81	83.82	83.73	84.30	83.39	83.82	83.33	83.78	83.81	83.95
15	83.89	83.90	83.83	83.81	83.74	84.17	83.37	83.80	83.45	83.79	84.08	83.89
16	83.84	83.88	83.86	83.80	83.80	84.04	83.35	83.73	83.51	83.79	84.04	83.84
17	83.82	83.91	83.84	83.79	83.80	83.95	83.33	83.67	83.56	83.79	84.13	83.79
18	83.79	84.35	83.83	83.79	83.80	83.95	83.31	83.60	83.60	83.84	84.17	83.75
19	83.77	84.36	83.83	83.80	83.80	84.42	83.34	83.53	83.62	83.88	84.19	83.72
20	83.75	84.39	83.82	83.80	83.80	84.32	83.35	83.49	83.60	84.08	84.09	83.68
21	83.73	84.24	83.82	83.87	83.83	84.17	83.33	83.43	83.56	83.88	83.98	83.65
22	83.70	84.12	83.83	83.98	83.85	84.06	83.31	83.45	83.52	83.74	83.90	83.62
23	83.66	84.04	83.82	83.95	83.84	83.96	83.28	83.44	83.48	83.66	83.85	83.58
24	83.63	83.98	83.82	83.92	83.82	83.90	83.26	83.40	83.43	83.65	83.83	83.54
25	83.61	83.95	83.82	84.43	83.78	83.85	83.25	83.54	83.38	83.62	83.78	83.50
26	83.59	83.96	83.82	84.46	83.69	83.80	83.23	83.55	83.36	83.57	83.76	83.46
27	83.57	84.29	83.81	84.28	83.62	83.77	83.21	83.52	83.31	83.52	83.93	83.43
28	83.54	84.29	83.81	84.15	83.56	83.74	83.18	83.48	83.32	83.55	84.20	83.39
29	83.50	84.20	83.79	84.03	83.50	83.71	83.15	83.43	83.32	83.77	84.14	83.35
30	83.46	84.11	83.76	83.95	---	83.67	83.16	83.38	83.35	83.76	84.05	83.31
31	83.43	---	83.75	83.90	---	83.63	---	83.33	---	83.70	83.96	---
MEAN	83.57	84.11	83.83	83.89	83.77	83.90	83.34	83.44	83.36	83.73	83.93	83.86
MAX	83.92	84.81	84.03	84.46	83.88	84.42	83.58	83.82	83.62	84.08	84.20	84.51
MIN	83.20	83.44	83.75	83.74	83.50	83.35	83.15	83.16	83.16	83.35	83.65	83.31

WTR YR 1988 MEAN 83.73 MAX 84.81 MIN 83.15

ST. JOHNS RIVER BASIN ABOVE OKLAWAHA RIVER

02235260 MOUNT PLYMOUTH LAKE AT MOUNT PLYMOUTH, FL

LOCATION.--Lat 28°48'39", long 81°31'23", in NW¼ sec.28, T.19 S., R.28 E., Lake County, Hydrologic Unit 03080101, on west shore of northeast bay of lake, 0.7 mi east of Mount Plymouth.

SURFACE AREA.--86 acres (0.13 mi²).

DRAINAGE AREA.--1.30 mi².

PERIOD OF RECORD.--April 1983 to current year (weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is 50.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 56.00 ft, Feb. 27, 1984; minimum observed, 52.17 ft, May 26, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 53.48 ft, Jan. 25; minimum observed, 52.48 ft, May 23.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	53.21	---	53.27	---	---	---	---	---	53.10	---
2	---	52.84	---	---	---	---	---	52.68	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	53.08	---	---	---	---	---	---	---	---
5	52.76	---	---	---	---	---	---	---	---	---	---	53.32
6	52.76	---	---	---	---	---	---	---	52.98	---	---	53.42
7	---	---	53.17	---	---	53.35	---	---	---	---	---	---
8	---	---	---	---	53.26	---	---	---	---	---	53.10	---
9	---	52.84	---	---	---	---	---	52.52	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	53.10	---	---	---	---	---	52.70	---	---
12	52.88	---	---	---	---	---	---	---	---	---	---	53.26
13	---	---	---	---	---	---	---	---	53.10	---	---	---
14	---	---	53.15	---	---	53.38	---	---	---	---	---	---
15	---	---	---	---	53.26	---	---	---	---	---	53.15	---
16	---	52.84	---	---	---	---	---	52.50	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	53.06	---	---	52.90	---	---	52.70	---	---
19	52.86	---	---	---	---	---	---	---	---	---	---	53.26
20	---	---	---	---	---	---	---	---	53.10	52.57	---	---
21	---	---	53.17	---	---	53.35	---	---	---	---	---	---
22	---	---	---	---	53.26	---	---	---	---	---	53.20	---
23	---	53.15	---	---	---	---	---	52.48	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	53.48	---	---	52.79	---	---	52.70	---	---
26	52.84	---	---	53.36	---	---	---	---	---	---	---	53.26
27	---	---	---	---	---	---	---	---	52.95	---	---	---
28	---	---	53.15	---	---	53.35	---	---	---	---	---	---
29	---	---	---	---	53.18	---	---	---	---	---	53.20	---
30	---	53.21	---	---	---	53.24	---	---	---	---	---	---
31	---	---	---	---	---	---	---	53.10	---	---	---	---

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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV			MAY		
19...	1400	26.35	05...	1555	27.74
JAN			JUL		
14...	1630	26.38	01...	1340	27.01
MAR			SEP		
18...	1455	28.06	02...	1330	26.56

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02236200 LAKE KERR NEAR EUREKA. FL

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-state 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.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.63	22.22	22.49	22.39	22.74	22.92	23.19	22.86	22.56	22.27	22.24	22.45
2	22.60	22.23	22.47	22.39	22.76	22.91	23.17	22.85	22.55	22.25	22.22	22.51
3	22.58	22.25	22.46	22.39	22.79	22.90	23.16	22.83	22.53	22.22	22.22	22.52
4	22.54	22.46	22.44	22.38	22.80	22.92	23.16	22.81	22.51	22.19	22.21	22.53
5	22.52	22.53	22.41	22.36	22.78	23.00	23.15	22.79	22.47	22.16	22.20	22.54
6	22.51	22.53	22.40	22.34	22.73	23.10	23.14	22.76	22.51	22.13	22.19	22.59
7	22.50	22.51	22.40	22.36	22.72	23.10	23.10	22.74	22.56	22.11	22.19	22.72
8	22.46	22.50	22.40	22.44	22.73	23.09	23.07	22.72	22.59	22.09	22.20	22.70
9	22.43	22.50	22.40	22.45	22.74	23.15	23.05	22.71	22.57	22.08	22.19	22.69
10	22.42	22.50	22.40	22.47	22.75	23.33	23.05	22.70	22.55	22.06	22.19	22.68
11	22.42	22.48	22.40	22.44	22.77	23.32	23.04	22.69	22.52	22.05	22.19	22.68
12	22.46	22.44	22.39	22.43	22.78	23.32	23.02	22.71	22.50	22.05	22.20	22.67
13	22.46	22.43	22.38	22.45	22.73	23.32	23.01	22.76	22.47	22.04	22.19	22.69
14	22.44	22.43	22.38	22.41	22.73	23.32	23.00	22.76	22.44	22.09	22.18	22.72
15	22.42	22.42	22.43	22.40	22.79	23.28	22.99	22.76	22.42	22.20	22.20	22.72
16	22.41	22.42	22.51	22.39	22.78	23.25	22.98	22.76	22.41	22.20	22.20	22.70
17	22.40	22.45	22.49	22.41	22.74	23.23	22.97	22.74	22.40	22.20	22.20	22.70
18	22.40	22.53	22.48	22.43	22.75	23.25	22.96	22.73	22.38	22.20	22.25	22.72
19	22.39	22.54	22.47	22.43	22.81	23.30	22.95	22.72	22.36	22.26	22.30	22.71
20	22.39	22.53	22.47	22.44	22.93	23.28	22.95	22.70	22.37	22.31	22.29	22.71
21	22.38	22.51	22.47	22.65	22.99	23.28	22.94	22.68	22.38	22.29	22.28	22.71
22	22.35	22.49	22.48	22.71	22.99	23.26	22.92	22.67	22.38	22.28	22.27	22.71
23	22.33	22.20	22.47	22.69	22.99	23.26	22.90	22.65	22.37	22.31	22.26	22.72
24	22.32	21.98	22.46	22.70	22.99	23.25	22.89	22.62	22.36	22.35	22.24	22.72
25	22.32	21.98	22.46	22.79	22.96	23.25	22.88	22.66	22.35	22.36	22.21	22.71
26	22.30	22.24	22.46	22.75	22.95	23.25	22.89	22.67	22.35	22.34	22.19	22.70
27	22.29	22.52	22.46	22.71	22.94	23.25	22.89	22.66	22.33	22.32	22.19	22.64
28	22.28	22.53	22.46	22.64	22.94	23.24	22.86	22.64	22.32	22.30	22.25	22.61
29	22.25	22.52	22.43	22.65	22.93	23.23	22.82	22.62	22.31	22.29	22.45	22.59
30	22.23	22.51	22.40	22.71	---	23.22	22.80	22.60	22.29	22.28	22.45	22.50
31	22.22	---	22.39	22.72	---	23.20	---	22.58	---	22.26	22.44	---
MEAN	22.41	22.41	22.44	22.51	22.83	23.19	23.00	22.71	22.44	22.21	22.24	22.65
MAX	22.63	22.54	22.51	22.79	22.99	23.33	23.19	22.86	22.59	22.36	22.45	22.72
MIN	22.22	21.98	22.38	22.34	22.72	22.90	22.80	22.58	22.29	22.04	22.18	22.45
CAL YR 1987	MEAN	22.74	MAX	23.69	MIN	21.98						
WTR YR 1988	MEAN	22.59	MAX	23.33	MIN	21.98						

02236210 LAKE GEORGE NEAR SALT SPRINGS. FL

DRAINAGE AREA.--3,721 mi².

REVISED RECORDS.--WDR FL-75-1: Surface area, drainage area.

GAGE.--Water-state recorder. Datum of gage is National Geodetic Vertical Datum of 1929. May 1936 to April 1950, nonrecording gage on east side of lake at datum 2.91 ft lower. Aug. 1972, to Feb. 1981, at site 300 ft north at present datum.

REMARKS.--Elevation at gage subject to fluctuations caused by wind action and tide.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 4.3 ft, occurred sometime during October 1948; minimum daily, -0.49 ft, Feb. 7, 1976.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.81	1.45	1.31	.85	.56	.87	.52	.76	.64	.62	.23	.81
2	.88	1.53	1.22	.81	.56	.92	.52	.95	.60	.71	.25	.91
3	.81	1.64	1.11	.99	.55	.90	.50	.96	.50	.75	.30	.93
4	.85	1.82	.90	1.16	.53	.83	.47	.80	.55	.77	.36	.84
5	.90	1.82	.84	1.19	.63	.83	.48	.60	.82	.85	.44	.69
6	.89	1.84	.84	1.18	.92	.92	.46	.50	.96	1.02	.47	.58
7	.83	1.91	.87	1.20	1.17	1.01	.32	.52	.91	1.11	.44	.72
8	.79	1.81	.93	1.34	1.29	1.03	.39	.56	.75	1.06	.39	1.32
9	.79	1.65	.96	1.29	1.29	.96	.56	.55	.58	.89	.34	1.59
10	.85	1.44	.95	1.25	1.29	.96	.71	.52	.38	.67	.37	1.68
11	.97	1.20	.86	1.29	1.35	.94	.75	.52	.43	.49	.42	1.70
12	1.11	1.12	.74	1.32	1.24	1.03	.65	.52	.57	.41	.41	1.73
13	1.33	1.12	.63	1.26	1.03	.99	.72	.56	.65	.27	.43	1.74
14	1.57	1.15	.65	1.20	.84	.86	.82	.61	.69	.17	.48	1.72
15	1.71	1.24	.66	1.33	.72	.90	.86	.64	.67	.13	.50	1.64
16	1.80	1.30	.59	1.39	.71	.92	.89	.61	.65	.05	.44	1.60
17	1.85	1.29	.57	1.34	.65	.96	.95	.53	.61	.0	.39	1.62
18	1.88	1.35	.59	1.21	.66	.97	.90	.44	.54	-.03	.36	1.57
19	1.83	1.35	.67	1.10	.68	.98	.73	.43	.47	-.04	.30	1.47
20	1.77	1.38	.70	.98	.82	.99	.64	.38	.46	-.04	.18	1.41
21	1.70	1.41	.68	1.05	1.04	.90	.64	.33	.50	-.07	.13	1.36
22	1.71	1.41	.68	1.12	1.10	.76	.57	.26	.53	-.12	.13	1.33
23	1.76	1.40	.77	1.07	1.06	.77	.43	.20	.53	-.16	.25	1.38
24	1.76	1.40	.85	.99	.98	.78	.32	.11	.50	-.18	.43	1.43
25	1.73	1.36	.87	1.07	.92	.67	.19	-.05	.48	-.21	.51	1.41
26	1.72	1.32	.83	1.03	.90	.55	.21	.01	.52	-.18	.56	1.37
27	1.73	1.30	.75	.90	.85	.47	.46	.45	.56	-.08	.68	1.45
28	1.67	1.32	.66	.80	.74	.44	.56	.71	.66	-.01	.80	1.55
29	1.60	1.38	.62	.74	.82	.47	.57	.71	.81	.07	.78	1.60
30	1.53	1.37	.76	.67	---	.52	.58	.65	.73	.15	.73	1.68
31	1.46	---	.88	.60	---	.55	---	.66	---	.19	.71	---
MEAN	1.37	1.44	.80	1.09	.89	.83	.58	.52	.61	.30	.43	1.36
MAX	1.88	1.91	1.31	1.39	1.35	1.03	.95	.96	.96	1.11	.80	1.74
MIN	.79	1.12	.57	.60	.53	.44	.19	-.05	.38	-.21	.13	.55

CAL YR 1987	MEAN	.93	MAX	1.98	MIN	-.04
WTR YR 1988	MEAN	.85	MAX	1.91	MIN	-.21

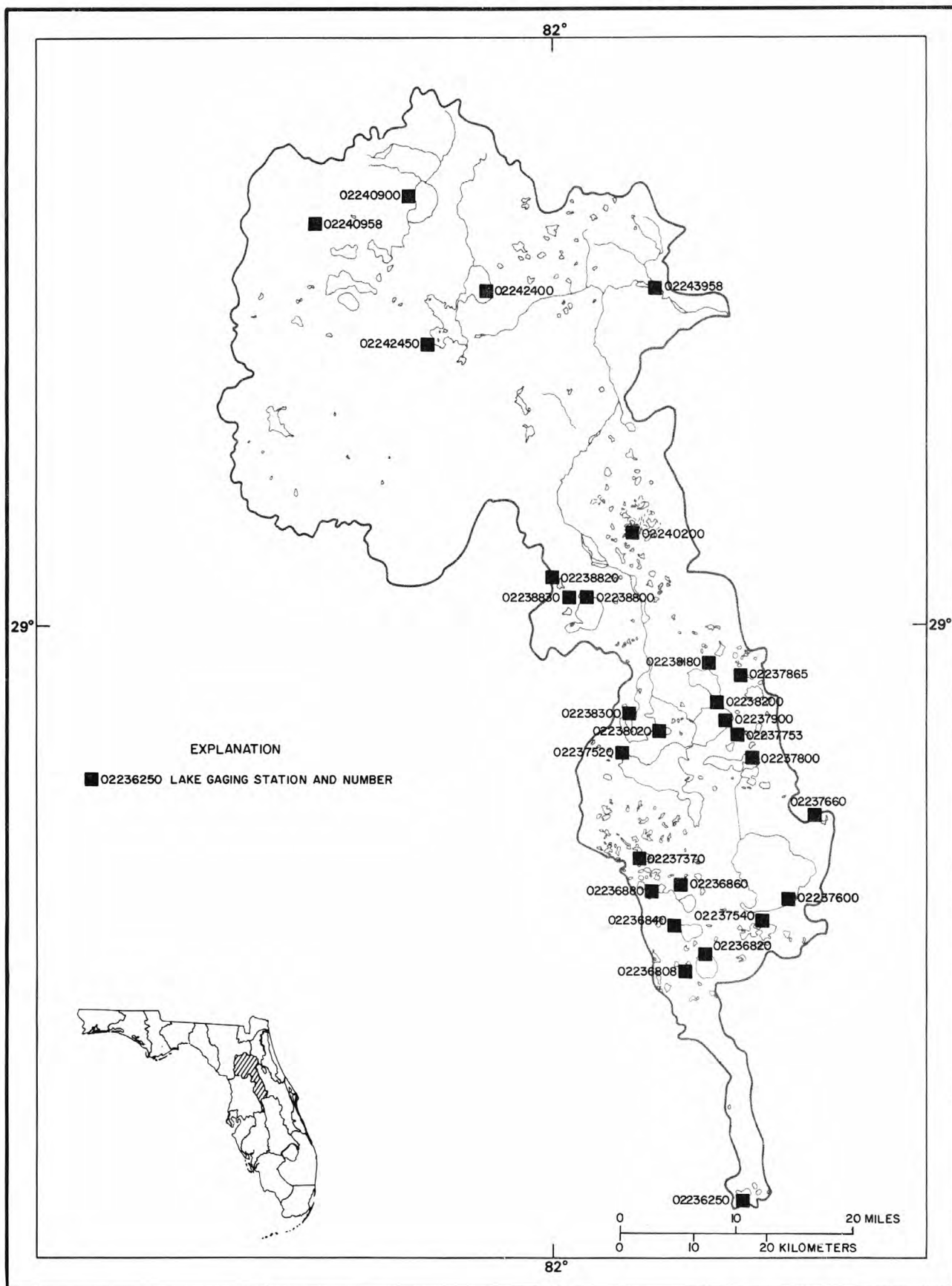


Figure 25.--Location of lake gaging stations in the Oklawaha River basin.

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236250 LAKE LOWERY NEAR HAINES CITY, FL

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.

SURFACE AREA.--897 acres (1.40 mi²).

DRAINAGE AREA.--5.4 mi², approximately.

PERIOD OF RECORD.--June 1960 to September 1975, October 1975 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 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.

REMARKS.--Lake is one of a group of lakes in the southern part of an extensive area of swampy flatlands and sandy ridges at 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, 133.32 ft, Sept. 11, 1960, from floodmark; minimum observed, 125.12 ft, May 27, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 129.66 ft, Mar. 13,20,27; minimum observed, 127.16 ft, July 31.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	127.86	---	---	---	---	---	128.66	---	---	---	---
2	---	127.92	---	---	---	---	---	---	---	---	---	---
3	---	---	---	128.64	---	---	128.96	---	---	127.86	---	---
4	128.04	---	---	---	---	---	---	---	---	---	---	127.66
5	---	---	---	---	---	---	---	---	128.26	---	127.66	---
6	---	---	128.70	---	---	128.74	---	---	---	---	---	---
7	---	---	---	---	128.66	---	---	---	---	---	127.66	---
8	---	128.26	---	---	---	---	---	128.54	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	128.66	---	---	128.66	---	127.87	127.66	---	---
11	127.86	---	---	---	---	---	---	---	---	---	---	128.16
12	---	---	---	---	---	---	---	---	128.10	---	---	---
13	---	---	128.66	---	---	129.66	---	---	---	---	---	---
14	---	---	---	---	128.68	---	---	---	---	---	127.66	---
15	---	128.16	---	---	---	---	128.87	128.48	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	128.56	128.80	---	128.76	---	---	127.56	---	---
18	128.04	---	---	---	---	---	---	---	---	---	---	128.16
19	---	---	---	---	---	---	---	---	127.96	---	---	---
20	---	---	128.66	---	---	129.66	---	---	---	---	---	---
21	---	---	---	---	128.72	---	---	128.36	---	---	127.56	---
22	---	128.56	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	128.66	---	---	128.76	---	---	127.66	---	---
25	127.96	---	---	---	---	---	---	---	---	---	---	128.06
26	---	---	---	---	---	---	---	---	127.86	---	---	---
27	---	---	128.66	---	---	129.66	---	---	---	---	---	---
28	---	---	128.66	---	---	---	---	---	---	---	127.66	---
29	---	128.76	---	128.66	---	---	---	128.36	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	127.16	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02236808 LAKE NELLIE NEAR CLERMONT, FL

LOCATION.--Lat 28°27'53", long 81°45'57", in SW¼ sec.24, T.23 S., R.25 E., Lake County, Hydrologic Unit 03080102, on private pier on southeast shore of lake, 1.8 mi east of State Highway 561, and 5.6 mi south of Clermont.

SURFACE AREA.--704 acres (1.1 mi²).

DRAINAGE AREA.--13.3 mi².

PERIOD OF RECORD.--July 1979 to September 1985 (weekly), incomplete; October 1985 to current year (fragmentary).

REVISED RECORDS.--WDR FL-81-1: 1979,1980.

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. July 18, 1979, to Dec. 3, 1980, at site 0.4 mi north at datum 5.00 ft higher, and Dec. 3, 1980 to July 16, 1981, at present site at datum 5.00 ft higher.

REMARKS.--Lake is one of the Palatlakaha River headwaters chain of lakes. Lake is landlocked except above an elevation of about 98.5 ft, when there is flow through Lake Nellie Outlet into Lake Louisa. There is some pumpage from the lake for irrigation purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 100.82 ft, Mar. 28,31, Apr. 2, 1983, Feb. 5, 1986; minimum observed, 95.72 ft, June 20, 1981.

ELEVATION, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			JUN		
08...	1300	99.21	02...	1130	99.47
DEC			JUL		
04...	1430	99.76	19...	1350	99.52
JAN			SEP		
28...	1540	99.95	07...	1348	100.2
MAR					
21...	0958	100.6			

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02236820 LAKE LOUISA NEAR CLERMONT. FL

LOCATION.--Lat 28°29'49", long 81°44'02", in SW¹/₄ 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 Jenson, Inc.). Prior to Aug. 30, 1974, at site 0.2 mi northwest at same datum.

REMARKS.--Lake is the most upstream of the Palatilahka 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, 97.40 ft, Mar. 19, minimum observed, 95.42 ft, Oct. 31.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

[illegible]

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02236840 LAKE MINNEHAHA AT CLERMONT, FL

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.

SURFACE AREA.--2,410 acres (3.77 mi²).

DRAINAGE AREA.--131 mi².

PERIOD OF RECORD.--May 1945 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-72-3: Drainage area, surface area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to June 5, 1946, nonrecording gage, and June 5, 1946, to Dec. 8, 1969, water-stage recorder, at site 1.8 mi east on north shore of lake. Gage at datum 91.32 ft higher May 31, 1945 to Aug. 20, 1955.

REMARKS.--Lake is one of the Palatlahaha 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.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95.79	95.42	96.29	96.17	96.50	96.57	96.87	96.57	96.12	96.30	96.32	96.52
2	95.77	95.43	96.28	96.17	96.52	96.57	96.83	96.56	96.10	96.29	96.30	96.53
3	95.75	95.59	96.28	96.17	96.53	96.56	96.79	96.54	96.07	96.26	96.29	96.52
4	95.71	96.04	96.26	96.16	96.53	96.56	96.77	96.52	96.05	96.24	96.29	96.50
5	95.69	96.04	96.25	96.14	96.53	96.60	96.75	96.49	96.05	96.21	96.27	96.60
6	95.67	96.05	96.24	96.13	96.54	96.74	96.74	96.47	96.19	96.19	96.31	96.86
7	95.64	96.05	96.25	96.13	96.54	96.75	96.71	96.45	96.24	96.17	96.33	96.93
8	95.62	96.06	96.24	96.15	96.57	96.76	96.70	96.44	96.28	96.15	96.34	96.97
9	95.60	96.07	96.25	96.15	96.58	96.76	96.69	96.42	96.27	96.13	96.35	96.99
10	95.57	96.09	96.25	96.16	96.58	96.83	96.70	96.40	96.26	96.12	96.34	97.01
11	95.57	96.09	96.25	96.16	96.59	96.84	96.69	96.38	96.25	96.11	96.34	97.00
12	95.66	96.08	96.24	96.15	96.58	96.84	96.68	96.37	96.22	96.10	96.35	96.99
13	95.68	96.08	96.25	96.15	96.57	96.98	96.66	96.36	96.19	96.08	96.35	96.97
14	95.66	96.08	96.25	96.13	96.57	97.12	96.66	96.37	96.19	96.13	96.33	96.95
15	95.64	96.08	96.26	96.12	96.58	97.10	96.65	96.35	96.19	96.20	96.34	96.92
16	95.63	96.09	96.26	96.12	96.60	97.10	96.64	96.34	96.17	96.19	96.36	96.90
17	95.62	96.11	96.25	96.11	96.60	97.10	96.63	96.32	96.16	96.17	96.38	96.87
18	95.61	96.21	96.24	96.11	96.61	97.11	96.63	96.30	96.14	96.18	96.39	96.83
19	95.60	96.23	96.23	96.12	96.61	97.20	96.63	96.28	96.12	96.18	96.38	96.80
20	95.60	96.24	96.23	96.12	96.61	97.18	96.64	96.26	96.15	96.20	96.37	96.76
21	95.59	96.22	96.23	96.17	96.63	97.16	96.63	96.24	96.25	96.20	96.37	96.72
22	95.56	96.22	96.23	96.20	96.63	97.15	96.62	96.22	96.24	96.21	96.36	96.69
23	95.54	96.22	96.23	96.19	96.63	97.13	96.61	96.20	96.32	96.22	96.34	96.66
24	95.52	96.22	96.23	96.20	96.63	97.11	96.60	96.18	96.31	96.24	96.33	96.63
25	95.51	96.23	96.23	96.43	96.61	97.09	96.59	96.26	96.31	96.24	96.32	96.62
26	95.50	96.24	96.24	96.46	96.60	97.06	96.58	96.26	96.36	96.24	96.33	96.60
27	95.49	96.29	96.23	96.46	96.59	97.04	96.57	96.24	96.35	96.28	96.43	96.60
28	95.47	96.30	96.23	96.46	96.58	97.01	96.54	96.22	96.35	96.40	96.53	96.59
29	95.45	96.30	96.20	96.47	96.58	96.98	96.52	96.20	96.33	96.37	96.53	96.58
30	95.43	96.29	96.18	96.48	---	96.94	96.52	96.18	96.32	96.35	96.52	96.56
31	95.41	---	96.18	96.49	---	96.91	---	96.15	---	96.34	96.51	---
MEAN	95.60	96.09	96.24	96.22	96.58	96.93	96.66	96.34	96.22	96.22	96.36	96.76
MAX	95.79	96.30	96.29	96.49	96.63	97.20	96.87	96.57	96.36	96.40	96.53	97.01
MIN	95.41	95.42	96.18	96.11	96.50	96.56	96.52	96.15	96.05	96.08	96.27	96.50

CAL YR 1987 MEAN 96.18 MAX 97.08 MIN 95.41
WTR YR 1988 MEAN 96.35 MAX 97.20 MIN 95.41

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, nonrecording 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 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85.52	85.12	85.58	85.37	85.60	85.51	85.92	85.68	85.31	85.37	85.11	85.29
2	85.50	85.14	85.57	85.36	85.60	85.50	85.90	85.68	85.29	85.35	85.09	85.30
3	85.48	85.29	85.57	85.36	85.60	85.49	85.89	85.66	85.27	85.32	85.07	85.29
4	85.46	85.60	85.56	85.35	85.60	85.53	85.88	85.64	85.25	85.30	85.07	85.28
5	85.43	85.62	85.54	85.34	85.58	85.64	85.87	85.63	85.26	85.28	85.08	85.34
6	85.40	85.60	85.53	85.32	85.59	85.67	85.87	85.60	85.37	85.25	85.15	85.62
7	85.39	85.59	85.51	85.31	85.58	85.67	85.84	85.58	85.46	85.22	85.16	85.72
8	85.36	85.59	85.51	85.34	85.60	85.68	85.80	85.56	85.48	85.20	85.14	85.75
9	85.31	85.59	85.51	85.33	85.60	85.76	85.79	85.54	85.48	85.18	85.12	85.77
10	85.30	85.57	85.50	85.34	85.60	85.79	85.78	85.53	85.46	85.17	85.09	85.83
11	85.32	85.55	85.50	85.34	85.60	85.78	85.78	85.51	85.44	85.16	85.07	85.83
12	85.38	85.54	85.49	85.33	85.59	85.80	85.77	85.50	85.41	85.14	85.06	85.83
13	85.41	85.53	85.49	85.32	85.57	85.89	85.76	85.49	85.38	85.12	85.05	85.82
14	85.40	85.53	85.48	85.31	85.57	85.88	85.74	85.48	85.37	85.14	85.03	85.81
15	85.38	85.51	85.49	85.30	85.59	85.86	85.73	85.48	85.37	85.23	85.02	85.80
16	85.37	85.53	85.51	85.29	85.59	85.84	85.72	85.47	85.36	85.23	85.06	85.80
17	85.35	85.61	85.50	85.28	85.58	85.86	85.71	85.45	85.35	85.22	85.17	85.79
18	85.33	85.62	85.48	85.28	85.58	85.95	85.70	85.44	85.34	85.20	85.17	85.79
19	85.31	85.62	85.47	85.28	85.58	85.96	85.70	85.42	85.32	85.19	85.16	85.81
20	85.31	85.60	85.47	85.27	85.59	85.95	85.75	85.40	85.32	85.17	85.15	85.81
21	85.30	85.58	85.46	85.30	85.61	85.95	85.75	85.38	85.37	85.15	85.16	85.80
22	85.29	85.57	85.46	85.35	85.60	85.95	85.74	85.36	85.37	85.14	85.16	85.80
23	85.27	85.56	85.46	85.35	85.59	85.94	85.73	85.34	85.38	85.14	85.17	85.79
24	85.25	85.56	85.46	85.39	85.58	85.94	85.71	85.34	85.37	85.15	85.16	85.78
25	85.23	85.58	85.46	85.60	85.56	85.94	85.70	85.40	85.36	85.15	85.14	85.77
26	85.21	85.63	85.45	85.62	85.55	85.94	85.70	85.44	85.40	85.13	85.14	85.75
27	85.20	85.63	85.45	85.62	85.53	85.96	85.68	85.42	85.40	85.13	85.19	85.75
28	85.20	85.62	85.44	85.61	85.53	85.96	85.67	85.40	85.38	85.17	85.31	85.74
29	85.18	85.61	85.42	85.60	85.51	85.95	85.64	85.38	85.37	85.17	85.31	85.73
30	85.16	85.60	85.40	85.59	---	85.94	85.63	85.36	85.38	85.15	85.30	85.71
31	85.13	---	85.38	85.60	---	85.93	---	85.33	---	85.13	85.29	---
MEAN	85.33	85.54	85.49	85.39	85.58	85.82	85.76	85.48	85.37	85.20	85.14	85.70
MAX	85.52	85.63	85.58	85.62	85.61	85.96	85.92	85.68	85.48	85.37	85.31	85.83
MIN	85.13	85.12	85.38	85.27	85.51	85.49	85.63	85.33	85.25	85.12	85.02	85.28

CAL YR 1987 MEAN 85.63 MAX 86.23 MIN 85.05
WTR YR 1988 MEAN 85.48 MAX 85.96 MIN 85.02

02236880 CHERRY LAKE NEAR GROVELAND, FL

DRAINAGE AREA.--165 mi².

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

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, 96.81 ft, Sept. 7; minimum daily, 95.32 ft, Oct. 31, Nov. 1.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95.69	95.32	96.17	96.07	96.39	96.47	95.52	96.47	---	96.20	96.20	96.44
2	95.67	95.33	96.17	96.08	96.40	96.47	95.97	96.45	---	96.19	96.20	96.44
3	95.65	95.47	96.17	96.07	96.41	96.47	96.25	96.44	95.97	96.17	96.19	96.43
4	95.62	95.78	96.16	96.06	96.42	96.47	96.44	96.43	95.97	96.14	96.19	96.40
5	95.59	95.82	96.15	96.04	96.42	96.51	96.54	96.40	95.96	96.10	96.23	96.52
6	95.57	95.88	96.14	96.02	96.41	96.62	96.59	96.36	96.11	96.09	96.34	96.77
7	95.55	95.90	96.15	96.02	96.41	96.63	96.58	96.35	96.17	96.07	96.30	96.81
8	95.52	95.92	96.15	96.03	96.43	96.64	96.57	96.34	96.19	96.04	96.25	96.78
9	95.50	95.93	96.15	96.04	96.44	96.67	96.57	96.33	96.17	96.03	96.24	96.62
10	95.48	95.95	96.15	96.05	96.45	96.74	96.58	96.32	96.16	96.02	96.25	96.55
11	95.47	95.95	96.15	96.05	96.47	96.72	96.59	96.30	96.15	96.01	96.24	96.50
12	95.53	95.95	96.15	96.05	96.46	96.73	96.57	96.29	96.13	96.01	96.24	96.45
13	95.56	95.95	96.14	96.04	96.44	96.81	96.54	96.28	96.11	96.00	96.24	96.38
14	95.54	95.95	96.15	96.03	96.45	96.90	96.54	96.27	96.10	96.00	96.22	96.29
15	95.53	95.97	96.16	96.01	96.48	96.80	96.54	96.26	96.09	96.08	96.22	96.22
16	95.52	95.97	96.17	96.01	96.49	96.45	96.54	96.24	96.08	96.09	96.26	96.04
17	95.51	96.01	96.14	96.02	96.49	95.94	96.53	96.23	96.07	96.08	96.29	95.70
18	95.50	96.10	96.13	96.02	96.49	95.84	96.52	96.21	96.05	96.09	96.29	95.61
19	95.50	96.11	96.13	96.02	96.51	95.87	96.56	96.19	96.04	96.07	96.28	95.55
20	95.50	96.11	96.13	96.02	96.51	95.82	96.57	96.17	96.04	96.08	96.27	95.55
21	95.50	96.10	96.13	96.07	96.52	95.77	96.54	96.15	96.09	96.09	96.26	95.90
22	95.46	96.09	96.13	96.10	96.52	95.73	96.52	96.12	96.11	96.12	96.25	96.14
23	95.45	96.10	96.13	96.09	96.52	95.69	96.51	96.11	96.16	96.13	96.24	96.29
24	95.43	96.11	96.14	96.08	96.52	95.65	96.50	96.11	96.19	96.13	96.24	96.39
25	95.42	96.12	96.14	96.31	96.49	95.62	96.49	96.20	96.22	96.13	96.23	96.44
26	95.41	96.13	96.14	96.33	96.48	95.59	96.48	96.17	96.27	96.13	96.23	96.46
27	95.40	96.18	96.14	96.33	96.47	95.57	96.47	---	96.26	96.13	96.30	96.49
28	95.38	96.18	96.13	96.34	96.47	95.54	96.45	---	96.25	96.20	96.44	96.48
29	95.36	96.18	96.10	96.34	96.47	95.49	96.42	---	96.24	96.23	96.43	96.47
30	95.34	96.18	96.08	96.37	---	95.46	96.43	---	96.22	96.24	96.44	96.47
31	95.32	---	96.07	96.38	---	95.42	---	---	---	96.22	96.42	---
MEAN	95.50	95.96	96.14	96.11	96.46	96.16	96.46	---	---	96.11	96.27	96.32
MAX	95.69	96.18	96.17	96.38	96.52	96.90	96.59	---	---	96.24	96.44	96.81
MIN	95.32	95.32	96.07	96.01	96.39	95.42	95.52	---	---	96.00	96.19	95.55
CAL YR 1987	MEAN 96.03	MAX 96.66	MIN 95.32									

ST. JOHNS RIVER
OKLAWAHA RIVER BASIN

02237370 CHURCH LAKE NEAR GROVELAND, FL

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.

SURFACE AREA.--155 acres (0.24 mi²).

DRAINAGE AREA.--1.66 mi².

PERIOD OF RECORD.--March 1970 to current year (weekly).

REVISED RECORD.--WDR FL-72-3: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Lake is one of the Oklawaha River headwaters chain of lakes. There is some pumpage from lake for irrigation purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 87.66 ft, Aug. 26, 1970; minimum observed, 80.72 ft, May 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 85.04 ft, Mar. 23; minimum observed, 83.86 ft, June 22.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

[illegible]

02237520 LAKE HARRIS AT LEESBURG. FL

SURFACE AREA.--17,650 acres (27.6 mi²). includes Little Lake Harris.

DRAINAGE AREA.--357 mi². includes Little Lake Harris.

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

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.52	62.36	62.48	62.56	62.82	63.10	63.08	62.62	62.68	62.78	62.88	62.68
2	62.52	62.36	62.46	62.56	62.82	63.10	63.08	62.60	62.66	62.76	62.90	62.70
3	62.52	62.36	62.46	62.56	62.82	63.12	63.06	62.58	62.66	62.76	62.90	62.72
4	62.52	62.36	62.46	62.56	62.80	63.18	63.06	62.56	62.64	62.74	62.90	62.76
5	62.52	62.36	62.46	62.56	62.80	63.22	63.04	62.54	62.64	62.74	62.92	62.78
6	62.52	62.36	62.48	62.54	62.80	63.24	63.04	62.52	62.70	62.72	62.92	62.84
7	62.52	62.36	62.48	62.54	62.84	63.24	63.02	62.50	62.70	62.72	62.90	63.00
8	62.50	62.38	62.50	62.54	62.88	63.24	63.02	62.48	62.72	62.70	62.86	63.10
9	62.50	62.40	62.50	62.54	62.90	63.26	63.02	62.46	62.72	62.70	62.82	63.08
10	62.50	62.42	62.52	62.56	62.90	63.28	62.98	62.44	62.72	62.70	62.80	63.08
11	62.50	62.44	62.52	62.56	62.90	63.30	62.90	62.44	62.72	62.72	62.78	63.06
12	62.48	62.46	62.54	62.56	62.90	63.32	62.86	62.42	62.76	62.72	62.76	63.06
13	62.48	62.48	62.54	62.56	62.90	63.32	62.80	62.42	62.76	62.74	62.74	63.04
14	62.46	62.50	62.56	62.54	62.90	63.30	62.78	62.40	62.78	62.74	62.72	63.04
15	62.46	62.50	62.56	62.54	62.90	63.30	62.76	62.40	62.78	62.76	62.70	63.02
16	62.44	62.50	62.56	62.54	62.92	63.28	62.74	62.40	62.80	62.76	62.66	63.02
17	62.44	62.50	62.56	62.54	62.94	63.28	62.72	62.40	62.80	62.78	62.64	63.00
18	62.42	62.50	62.54	62.54	62.96	63.26	62.72	62.38	62.80	62.78	62.62	63.00
19	62.42	62.52	62.54	62.54	62.98	63.26	62.70	62.38	62.78	62.80	62.60	63.00
20	62.42	62.52	62.56	62.54	63.00	63.24	62.68	62.36	62.80	62.80	62.58	63.00
21	62.40	62.52	62.56	62.56	63.04	63.24	62.68	62.36	62.82	62.82	62.60	63.00
22	62.40	62.52	62.58	62.56	63.08	63.22	62.66	62.34	62.84	62.82	62.60	63.00
23	62.40	62.52	62.58	62.58	63.08	63.22	62.66	62.34	62.86	62.84	62.60	63.00
24	62.40	62.50	62.58	62.64	63.10	63.20	62.64	62.34	62.86	62.84	62.60	63.00
25	62.40	62.50	62.60	62.68	63.10	63.20	62.64	62.56	62.84	62.84	62.60	63.00
26	62.38	62.50	62.60	62.72	63.10	63.20	62.64	62.68	62.86	62.86	62.60	63.00
27	62.38	62.50	62.60	62.74	63.10	63.18	62.64	62.70	62.86	62.86	62.60	63.02
28	62.38	62.50	62.60	62.76	63.10	63.16	62.64	62.70	62.84	62.86	62.60	63.02
29	62.36	62.48	62.58	62.78	63.10	63.14	62.64	62.70	62.82	62.88	62.62	63.04
30	62.36	62.48	62.58	62.80	---	63.12	62.64	62.70	62.80	62.88	62.64	63.06
31	62.36	---	62.58	62.82	---	63.10	---	62.68	---	62.88	62.	

CAL YR 1987	MEAN 62.74	MAX 63.70	MIN 62.22
WTR YR 1988	MEAN 62.73	MAX 63.32	MIN 62.34

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, 93.45 ft, Sept. 13; minimum observed, 91.25 ft, Oct. 31.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	92.16	---	---	92.45	---	---	---	---	---	---
2	---	---	---	92.10	92.33	---	93.08	---	---	92.31	92.23	---
3	91.49	91.77	92.20	---	---	---	---	92.64	92.01	---	---	92.93
4	---	---	---	---	---	---	---	---	91.93	---	---	---
5	---	---	92.16	92.08	---	92.53	93.05	---	---	92.23	---	---
6	91.45	---	---	---	92.39	---	---	---	---	---	92.19	93.17
7	---	91.79	---	---	---	---	---	92.64	91.93	---	---	93.20
8	91.39	---	92.16	---	92.39	92.49	---	---	---	---	---	---
9	---	---	---	92.08	---	---	93.00	---	---	92.19	92.15	---
10	91.37	91.79	---	---	---	---	---	92.42	---	---	---	93.37
11	---	---	---	---	---	---	---	---	92.09	---	---	---
12	---	---	92.18	92.04	---	92.59	92.98	---	---	92.17	---	---
13	91.43	---	---	---	92.41	---	---	---	---	---	92.21	93.45
14	---	91.81	---	---	---	---	---	92.45	92.05	---	---	---
15	---	---	92.18	---	---	92.83	---	---	---	---	---	---
16	---	---	---	92.02	92.45	---	92.82	---	---	92.19	92.23	---
17	91.37	92.04	---	---	---	---	---	92.27	---	---	---	93.41
18	---	---	---	---	---	---	---	---	92.01	---	---	---
19	---	---	92.18	92.04	---	92.99	92.80	---	---	92.31	---	---
20	91.35	---	---	---	92.48	---	---	---	---	---	92.49	93.43
21	---	92.04	---	---	---	93.00	---	92.25	92.13	---	---	---
22	---	---	92.18	---	92.41	93.05	---	---	---	---	---	---
23	---	---	---	92.06	---	---	92.76	---	---	92.35	92.45	---
24	91.31	92.06	---	---	---	---	---	92.23	---	---	---	93.43
25	---	---	---	---	---	---	---	---	92.37	---	---	---
26	---	---	92.16	92.16	---	93.05	92.64	---	---	92.33	---	93.43
27	91.27	---	---	---	92.39	---	---	---	---	---	92.65	---
28	---	92.14	---	---	---	93.05	---	92.15	---	---	---	---
29	---	---	---	92.33	---	---	---	---	92.23	---	---	---
30	---	---	---	92.33	---	---	92.65	---	---	92.29	92.93	93.43
31	91.25	---	92.14	---	---	93.05	---	92.17	---	---	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02237600 LAKE APOFKA 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.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 67.59 ft, Mar. 19; minimum daily, 66.28 ft, July 12, 13.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.58	66.32	67.00	---	67.24	67.08	67.18	66.88	66.43	66.49	66.41	66.58
2	66.51	66.33	66.97	66.87	67.23	67.03	67.16	66.85	66.42	66.44	66.39	66.71
3	66.52	66.41	66.96	---	67.23	67.01	67.14	66.77	66.41	66.42	66.37	66.70
4	66.50	66.82	66.95	---	67.24	67.00	67.14	66.79	66.40	66.42	66.41	66.69
5	66.44	66.89	66.99	---	67.29	67.08	67.16	66.85	66.33	66.43	66.41	66.79
6	66.43	66.96	---	---	67.37	67.26	67.13	66.83	66.44	66.38	66.40	66.94
7	66.43	66.88	---	---	67.25	67.24	67.24	66.75	66.50	66.35	66.41	67.11
8	66.42	66.86	---	---	67.28	67.20	67.07	66.69	66.54	66.34	66.39	67.23
9	66.35	66.86	---	66.92	67.26	67.20	67.01	66.67	66.51	66.32	66.38	67.25
10	66.35	66.91	---	---	67.26	67.48	66.97	66.68	66.52	66.31	66.43	67.26
11	66.37	66.98	---	---	67.24	67.33	67.01	66.67	66.51	66.31	66.42	67.25
12	66.53	66.91	66.93	---	67.32	67.27	67.05	66.67	66.46	66.28	66.43	67.22
13	66.67	66.85	---	---	67.27	67.34	67.04	66.68	66.45	66.28	66.47	67.21
14	66.56	66.84	---	---	67.17	67.56	66.94	66.69	66.45	66.32	66.44	67.17
15	66.53	66.85	---	---	67.16	67.57	66.93	66.67	66.47	66.35	66.41	67.15
16	66.52	66.80	---	66.90	67.25	67.43	66.91	66.64	66.44	66.33	66.41	67.12
17	66.51	66.82	---	---	67.19	67.37	66.90	66.62	66.42	66.33	66.46	67.11
18	66.50	66.93	---	---	67.16	67.34	66.85	66.64	66.38	66.32	66.47	67.10
19	66.48	66.96	66.94	---	67.15	67.59	66.89	66.60	66.35	66.31	66.43	67.07
20	66.46	67.05	---	---	67.17	67.51	66.94	66.60	66.37	66.37	66.45	67.06
21	66.47	67.00	---	---	67.27	67.46	66.93	66.54	66.46	66.40	66.43	67.07
22	66.48	66.90	---	---	67.17	67.43	66.91	66.54	66.45	66.43	66.43	67.04
23	66.44	66.89	---	67.02	67.17	67.39	66.90	66.49	66.45	66.42	66.42	67.02
24	66.41	66.89	---	---	67.19	67.36	66.89	66.50	66.42	66.46	66.41	67.01
25	66.43	66.89	---	---	67.23	67.35	66.86	66.57	66.45	66.45	66.40	67.01
26	66.41	66.90	66.94	---	67.17	67.36	66.88	66.62	66.48	66.44	66.36	67.03
27	66.38	66.98	---	---	67.11	67.34	66.87	66.58	66.46	66.44	66.50	67.01
28	66.43	67.00	---	---	67.11	67.30	66.88	66.54	66.45	66.46	66.53	66.99
29	66.40	67.02	---	67.27	67.08	67.27	66.82	66.51	66.45	66.45	66.54	66.96
30	66.34	67.04	---	67.24	---	67.26	66.76	66.47	66.49	66.44	66.52	66.94
31	66.33	---	---	67.23	---	67.20	---	66.43	---	66.42	66.53	---
MEAN	66.46	66.86	---	---	67.21	67.31	66.98	66.65	66.45	66.38	66.43	67.03
MAX	66.67	67.05	---	---	67.37	67.59	67.24	66.88	66.54	66.49	66.54	67.26
MIN	66.33	66.32	---	---	67.08	67.00	66.76	66.43	66.33	66.28	66.36	66.58

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 66.22 ft, Oct. 15,17,24,29, 1960, present datum; minimum observed, 53.30 ft, June 24, 1981, present datum.

ELEVATION, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
JAN 26...	1000	58.14	JUL 20...	1122	58.46
MAR 30...	1237	57.76	SEP 06...	1224	59.96
MAY 31...	0945	56.37			

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, 63.92 ft, Sept. 28; minimum observed, 62.02 ft, May 22.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	62.62	---	---	---	---	---	---	---	---	---
2	62.78	---	---	---	---	---	---	62.40	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	63.56
4	---	62.74	---	---	---	---	---	---	---	---	---	---
5	---	---	62.58	---	---	---	---	---	---	---	---	---
6	62.70	---	---	---	---	---	62.80	---	---	---	---	63.78
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	62.80	---	62.28	---	---	63.30	---
9	---	62.60	---	---	---	---	---	---	---	62.85	---	---
10	---	---	---	---	---	---	---	---	62.75	---	---	63.90
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	62.52	---	---	---	---	---	---	---	---	---
14	---	---	---	---	62.60	---	---	62.20	---	---	---	---
15	---	---	---	---	---	---	---	---	62.70	---	---	---
16	---	62.65	---	---	62.65	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	62.54	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	62.90	---	---	---	62.94	---	---
21	---	---	62.57	---	---	---	---	---	---	62.95	---	---
22	---	---	---	62.40	---	---	---	62.02	---	---	---	---
23	---	62.60	---	---	---	---	---	---	---	---	63.35	---
24	---	---	---	---	---	---	---	---	62.75	---	---	---
25	---	---	---	62.38	62.68	---	62.45	---	---	---	---	---
26	---	62.58	---	62.64	---	---	---	---	---	---	---	---
27	---	---	62.47	---	---	---	---	62.68	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	63.48	63.92
29	---	---	---	---	---	62.88	---	---	---	---	---	---
30	---	62.60	---	---	---	---	---	---	62.90	---	---	---
31	---	---	---	62.60	---	---	---	62.64	---	63.30	---	---

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. 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, 63.50 ft, Mar. 25, 26, 27; minimum observed, 62.14 ft, Oct. 31, Nov. 1, 2.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.36	62.14	62.48	62.42	62.96	63.12	63.30	62.52	62.60	62.80	62.84	62.62
2	62.34	62.14	62.48	62.42	62.98	63.08	63.26	62.48	62.58	62.78	62.80	62.84
3	62.34	62.16	62.48	62.46	62.96	63.08	63.24	62.44	62.58	62.74	62.78	62.80
4	62.32	62.40	62.48	62.44	62.96	63.10	63.20	62.44	62.58	62.70	62.78	62.90
5	62.30	62.48	62.48	62.42	62.96	63.10	63.18	62.48	62.68	62.64	62.74	62.94
6	62.28	62.52	62.44	62.40	62.96	63.18	63.14	62.50	62.66	62.62	62.72	63.04
7	62.28	62.52	62.42	62.40	62.98	63.26	63.12	62.44	62.64	62.60	62.68	63.14
8	62.26	62.56	62.40	62.40	62.98	63.26	63.04	62.36	62.84	62.56	62.66	63.26
9	62.24	62.56	62.40	62.40	63.00	---	63.00	62.36	62.84	62.54	62.64	63.34
10	62.20	62.54	62.40	62.40	63.00	---	62.88	62.38	62.82	62.58	62.62	63.40
11	62.18	62.50	62.44	62.42	63.00	---	62.88	62.36	62.82	62.56	62.62	63.44
12	62.18	62.50	62.42	62.42	63.02	---	62.86	62.36	62.76	62.54	62.60	63.46
13	62.28	62.48	62.44	62.42	63.00	---	62.84	62.38	62.70	62.54	62.58	63.48
14	62.30	62.46	62.44	62.44	---	---	62.78	62.40	62.68	62.58	62.56	63.44
15	62.26	62.46	62.42	62.42	---	---	62.76	62.38	62.68	62.70	62.56	63.42
16	62.26	62.44	62.50	62.40	---	---	62.74	62.36	62.72	62.72	62.54	63.42
17	62.24	62.42	62.48	62.42	---	---	62.70	62.34	62.70	62.72	62.54	63.42
18	62.24	62.50	62.44	62.42	---	---	62.68	62.34	62.72	62.74	62.52	63.38
19	62.26	62.54	62.44	62.40	---	---	62.66	62.34	62.76	62.74	62.52	63.34
20	62.26	62.54	62.48	62.40	---	---	62.66	62.32	62.76	62.80	62.52	63.30
21	62.24	62.52	62.46	62.44	---	---	62.64	62.30	62.74	62.88	62.50	63.24
22	62.24	62.50	62.44	62.52	---	---	62.62	62.30	62.76	62.88	62.58	63.20
23	62.20	62.48	62.44	62.50	---	63.48	62.60	62.28	62.80	62.86	62.56	63.16
24	62.18	62.46	62.44	62.54	---	63.48	62.60	62.28	62.78	62.90	62.54	63.12
25	62.18	62.46	62.44	62.70	---	63.50	62.60	62.82	62.78	62.88	62.54	63.08
26	62.20	62.46	62.50	62.80	---	63.50	62.60	62.82	62.78	62.88	62.50	63.04
27	62.20	62.50	62.52	62.88	---	63.50	62.58	62.82	62.80	62.86	62.50	63.00
28	62.18	62.50	62.50	62.90	---	63.46	62.54	62.78	62.80	63.02	62.50	62.98
29	62.16	62.50	62.50	62.92	---	63.42	62.50	62.72	62.82	62.98	62.66	62.96
30	62.16	62.50	62.44	62.94	---	63.38	62.48	62.68	62.82	62.92	62.64	62.92
31	62.14	---	62.42	62.96	---	63.34	---	62.64	---	62.88	62.62	---
MEAN	62.24	62.46	62.45	62.53	---	---	62.82	62.47	62.73	62.75	62.61	63.17
MAX	62.36	62.56	62.52	62.96	---	---	63.30	62.82	62.84	63.02	62.84	63.48
MIN	62.14	62.14	62.40	62.40	---	---	62.48	62.28	62.58	62.54	62.50	62.62

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, 68.04 ft, Sept. 9; minimum observed, 66.75 ft, Jan. 16.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	67.08	66.83	---	67.20	---	---	---	67.12	---	---
2	---	---	---	---	---	---	67.56	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	67.70
4	67.16	---	---	---	---	---	---	---	66.84	67.08	---	---
5	---	---	---	---	---	67.22	---	---	---	---	---	---
6	67.13	---	67.04	---	---	---	---	---	---	---	67.10	---
7	---	---	---	---	67.10	---	---	67.10	---	---	---	---
8	---	67.10	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	67.48	---	---	---	---	68.04
10	---	---	---	66.85	---	---	---	---	---	---	---	68.02
11	---	---	---	---	---	---	---	---	67.16	---	---	---
12	---	---	---	---	---	67.58	---	---	---	---	---	---
13	---	67.06	---	---	67.12	---	---	---	---	---	67.18	---
14	67.10	---	---	---	---	---	---	67.04	---	---	---	---
15	---	---	---	---	---	---	---	---	---	66.95	---	---
16	---	---	---	66.75	---	---	---	---	---	---	---	---
17	67.05	---	---	---	---	---	67.34	---	---	---	---	67.96
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	67.10	66.91	---	---
20	---	67.10	66.98	---	---	67.66	---	66.98	---	---	67.28	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	67.04	---	---
23	66.95	---	---	66.85	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	67.36	---	---	---	---	67.92
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	66.94	67.12	---	67.62	---	---	67.10	---	---	---
27	---	---	---	---	---	---	---	---	---	---	67.58	---
28	---	---	---	---	---	67.64	---	---	---	---	---	---
29	---	67.10	---	---	---	---	---	66.96	---	---	---	---
30	---	---	---	67.06	---	---	67.26	---	---	67.17	---	---
31	66.86	---	66.88	---	---	---	---	66.94	---	---	---	---

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. 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.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. 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, 63.40 ft, Mar. 10; minimum observed, 62.10 ft, Nov. 2.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.40	62.14	62.52	62.44	62.80	63.06	62.96	62.48	62.60	62.80	62.74	62.66
2	62.38	62.10	62.48	62.46	62.80	63.06	62.92	62.46	62.60	62.70	62.72	62.72
3	62.38	62.20	62.50	62.46	62.80	63.08	62.90	62.48	62.62	62.72	62.70	62.76
4	62.30	62.60	62.58	62.46	62.86	63.10	62.90	62.52	62.54	62.68	62.68	62.78
5	62.30	62.60	62.46	62.40	62.86	63.10	62.86	62.56	62.50	62.60	62.66	63.00
6	62.28	62.40	62.44	62.34	62.86	63.20	62.86	62.48	62.70	62.58	62.66	63.10
7	62.30	62.50	62.40	62.40	62.80	63.20	62.90	62.42	62.70	62.58	62.64	63.04
8	62.26	62.50	62.42	62.46	62.90	63.20	62.70	62.40	62.82	62.56	62.62	63.02
9	62.26	62.54	62.44	62.44	62.90	63.18	62.70	62.42	62.88	62.60	62.60	63.00
10	62.26	62.62	62.46	62.42	62.90	63.40	62.68	62.40	62.84	62.60	62.60	63.00
11	62.26	62.54	62.46	62.42	62.90	63.20	62.68	62.40	62.76	62.60	62.60	63.00
12	62.28	62.50	62.46	62.44	63.00	63.20	62.92	62.38	62.70	62.60	---	62.90
13	62.28	62.50	62.46	62.46	62.94	63.24	62.64	62.40	62.68	62.60	---	62.90
14	62.26	62.48	62.44	62.42	62.90	63.20	62.60	62.40	62.70	62.64	62.80	62.90
15	62.28	62.46	62.50	62.42	62.94	63.20	62.60	62.40	62.76	62.76	62.56	62.90
16	62.26	62.44	62.46	62.42	63.00	63.16	62.60	62.38	62.76	62.78	62.56	62.90
17	62.30	62.48	62.46	62.44	63.00	63.08	62.60	62.38	62.76	62.74	62.58	62.90
18	62.28	62.56	62.46	62.46	62.98	63.06	62.64	62.40	62.76	62.72	62.58	62.92
19	62.28	62.56	62.46	62.46	63.08	63.20	62.68	62.36	62.70	62.78	62.56	62.94
20	62.30	62.56	62.48	62.50	63.06	63.06	62.60	62.36	62.68	62.78	62.56	62.96
21	62.28	62.50	62.48	62.50	63.06	63.16	62.60	62.34	62.80	62.78	62.56	62.98
22	62.26	62.46	62.50	62.52	63.10	63.12	62.60	62.36	62.80	62.82	62.60	62.98
23	62.26	62.46	62.46	62.50	63.10	63.04	62.60	62.34	62.84	62.88	62.58	62.96
24	62.20	62.46	62.46	62.50	63.10	63.06	62.64	62.30	62.80	62.96	62.58	62.94
25	62.20	62.58	62.50	62.70	63.06	63.06	62.64	62.74	62.80	62.86	62.58	62.96
26	62.26	62.54	62.50	62.76	63.06	63.06	62.62	62.64	62.80	62.86	62.54	62.98
27	62.30	62.54	62.50	62.76	63.10	63.06	62.60	62.60	62.80	62.86	62.54	62.98
28	62.26	62.50	62.52	62.74	63.06	63.00	62.56	62.44	62.80	62.86	62.70	62.98
29	62.20	62.52	62.48	62.74	63.06	62.98	62.50	62.46	62.80	62.80	62.66	62.96
30	62.14	62.54	62.38	62.77	---	63.00	62.56	62.44	62.80	62.82	62.66	62.98
31	62.16	---	62.44	62.78	---	62.96	---	62.58	---	62.80	62.66	---
MEAN	62.27	62.48	62.47	62.52	62.96	63.12	62.70	62.44	62.74	62.73	---	62.93
MAX	62.40	62.62	62.58	62.78	63.10	63.40	62.96	62.74	62.88	62.96	---	63.10
MIN	62.14	62.10	62.38	62.34	62.80	62.96	62.50	62.30	62.50	62.56	---	62.66

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, 65.28 ft, June 10, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 66.00 ft, Sept. 12; minimum observed, 65.25 ft, Oct. 26.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	65.27	---	---	---
2	---	65.26	65.44	---	65.54	---	---	65.46	---	---	65.65	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	65.36	---	---	---	---	---	65.46	---	---
5	65.43	---	---	---	---	---	65.76	---	---	---	---	---
6	65.42	---	---	---	---	---	---	---	---	---	---	65.88
7	---	---	65.40	---	---	---	---	---	65.57	---	---	65.93
8	---	---	---	---	---	65.76	---	---	---	---	65.62	---
9	---	65.30	---	---	65.56	---	---	65.35	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	65.35	---	---	65.78	---	---	65.48	---	---
12	---	---	---	---	---	---	---	---	---	---	---	66.00
13	65.40	---	---	---	---	---	---	---	65.50	---	---	---
14	---	---	65.38	---	---	65.90	---	---	---	---	---	---
15	---	---	---	---	65.55	---	---	---	---	---	---	---
16	---	65.40	---	---	---	---	---	65.28	---	---	65.60	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	65.37	---	---	65.60	---	---	65.55	---	---
19	65.35	---	---	---	---	---	---	---	---	65.56	---	---
20	---	---	---	---	---	---	---	---	65.50	---	---	---
21	---	---	65.40	---	---	---	---	---	---	---	---	---
22	---	---	---	---	65.58	65.88	---	---	---	---	---	---
23	---	---	---	---	---	---	---	65.26	---	---	65.59	---
24	---	65.45	---	---	---	---	---	---	---	---	---	---
25	---	---	---	65.56	---	65.88	65.50	---	---	65.60	---	---
26	65.25	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	65.56	---	---	---	---	65.48	---	---	65.88
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	65.37	---	65.60	65.76	---	---	---	---	65.62	---
30	---	65.46	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	65.30	---	---	---	---

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238180 HOLLY LAKE NEAR UMATILLA, FL

LOCATION.--Lat 28°56'11", long 81°43'04", in SW¼ sec.9, T.18 S., R.26 E., Lake County, Hydrologic Unit 03080102, on south shore of lake, at county boat ramp on State Highway 450, and 3.1 mi west of Umatilla.

SURFACE AREA.--96 acres (0.15 mi²).

DRAINAGE AREA.--0.78 mi².

PERIOD OF RECORD.--October 1967 to October 1968 (thrice weekly), November 1968 to February 1970 (weekly), August 1982 to March 1983 (fragmentary), April 1983 to current year (weekly), incomplete.

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

REMARKS.--At high stages Holly, Ella, and Yale Lakes are interconnected and some natural diversion occurs northward to Nicotoon Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 61.43 ft, July 31, 1984; minimum observed, 57.24 ft, Nov. 23, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 58.11 ft, Mar. 28; minimum observed, 57.36 ft, July 19.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	57.48	57.80	---	---	---	---	57.72	---	---	---	---
2	---	---	---	---	---	---	---	57.72	---	57.46	---	---
3	---	---	---	57.56	---	---	58.10	---	---	---	---	---
4	57.82	---	---	---	---	---	---	---	---	---	---	57.58
5	---	---	---	---	---	---	---	---	57.42	---	---	---
6	---	---	57.78	---	---	57.82	---	---	---	---	57.57	---
7	---	---	---	---	57.52	---	---	---	---	---	---	---
8	---	57.72	---	---	---	---	---	57.63	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	57.52	---	---	57.88	---	---	57.38	---	---
11	57.68	---	---	---	---	---	---	---	---	---	---	57.90
12	---	---	---	---	---	---	---	---	57.46	---	---	---
13	---	---	57.74	---	---	57.88	---	---	---	---	---	---
14	---	---	---	---	57.68	---	---	---	---	---	57.54	---
15	---	57.74	---	---	---	---	---	57.50	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	57.48	---	---	57.80	---	---	57.40	---	---
18	57.56	---	---	---	---	---	---	---	---	---	---	57.92
19	---	---	---	---	---	---	---	---	57.50	57.36	---	---
20	---	---	57.70	---	---	58.06	---	---	---	---	---	---
21	---	---	---	---	57.70	---	---	---	---	---	57.52	---
22	---	57.77	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	57.40	---	---	---	---
24	---	---	---	57.46	---	---	57.70	---	---	57.58	---	---
25	57.46	---	---	---	---	---	---	---	---	---	---	57.89
26	---	---	---	57.76	---	---	---	---	57.48	---	---	---
27	---	---	57.68	---	---	58.10	---	---	---	---	---	---
28	---	---	---	---	57.74	58.11	---	---	---	---	57.56	---
29	---	57.80	---	---	---	---	---	57.45	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	57.45	---	---	---	57.39	---	57.56	---	---

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.

DRAINAGE AREA.--67.6 mi².

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.85	58.39	58.68	58.62	58.85	59.04	59.38	59.12	58.79	59.14	59.44	59.57
2	58.82	58.39	58.67	58.61	58.86	59.02	59.38	59.09	58.77	59.13	59.44	59.66
3	58.80	58.45	58.66	58.61	58.87	59.02	59.36	59.06	58.75	59.10	59.43	59.65
4	58.78	58.71	58.66	58.61	58.88	59.03	59.36	59.05	58.74	59.08	59.46	59.64
5	58.74	58.70	58.65	58.60	58.89	59.08	59.36	59.05	58.78	59.06	59.53	59.68
6	58.71	58.70	58.64	58.59	58.92	59.22	59.35	59.03	59.04	59.05	59.52	59.82
7	58.70	58.69	58.63	58.59	58.89	59.23	59.36	58.99	59.11	59.02	59.51	59.89
8	58.69	58.68	58.63	58.60	58.92	59.22	59.29	58.96	59.17	59.00	59.50	59.94
9	58.65	58.67	58.62	58.60	58.92	59.24	59.27	58.94	59.16	58.99	59.48	59.96
10	58.63	58.68	58.62	58.62	58.93	59.45	59.25	58.93	59.16	58.98	59.47	59.97
11	58.63	58.68	58.63	58.63	58.93	59.41	59.25	58.92	59.14	58.97	59.46	59.97
12	58.69	58.67	58.62	58.62	58.95	59.40	59.24	58.93	59.11	58.96	59.46	59.96
13	58.73	58.66	58.62	58.62	58.92	59.43	59.22	58.93	59.09	58.97	59.47	59.95
14	58.70	58.65	58.62	58.61	58.89	59.49	59.18	58.93	59.08	59.04	59.45	59.93
15	58.67	58.64	58.63	58.60	58.92	59.46	59.17	58.92	59.10	59.10	59.44	59.92
16	58.65	58.63	58.67	58.60	58.98	59.41	59.16	58.90	59.08	59.09	59.45	59.91
17	58.64	58.64	58.66	58.60	58.96	59.39	59.15	58.89	59.07	59.07	59.45	59.90
18	58.63	58.72	58.65	58.61	58.96	59.39	59.13	58.89	59.06	59.10	59.45	59.89
19	58.61	58.73	58.64	58.60	58.97	59.49	59.18	58.87	59.04	59.27	59.45	59.89
20	58.60	58.75	58.64	58.59	59.00	59.46	59.23	58.86	59.05	59.35	59.43	59.88
21	58.59	58.72	58.63	58.63	59.09	59.45	59.22	58.83	59.09	59.35	59.43	59.88
22	58.57	58.69	58.63	58.67	59.08	59.44	59.21	58.82	59.11	59.36	59.43	59.87
23	58.55	58.68	58.63	58.66	59.08	59.43	59.20	58.79	59.10	59.39	59.42	59.85
24	58.53	58.67	58.63	58.65	59.09	59.42	59.20	58.83	59.09	59.43	59.40	59.84
25	58.52	58.67	58.63	58.86	59.09	59.43	59.18	58.96	59.10	59.47	59.39	59.85
26	58.50	58.68	58.62	58.88	59.07	59.44	59.18	58.91	59.08	59.50	59.38	59.88
27	58.48	58.72	58.62	58.86	59.05	59.44	59.17	58.91	59.07	59.49	59.49	59.89
28	58.46	58.72	58.62	58.85	59.04	59.43	59.16	58.88	59.10	59.50	59.56	59.87
29	58.44	58.71	58.65	58.84	59.04	59.42	59.12	58.86	59.12	59.48	59.56	59.85
30	58.42	58.71	58.64	58.84	---	59.42	59.10	58.83	59.15	59.47	59.56	59.83
31	58.40	---	58.63	58.85	---	59.40	---	58.81	---	59.45	59.	

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02238300 LAKE GRIFFIN AT LEESBURG, FL

LOCATION.--Lat 28°51'48", long 81°51'31", in SE¼ sec.1, T.19 S., R.24 E., Lake County, Hydrologic Unit 03080102, on western portion of lake, on private boat pier at Twin Palms Marina, 3.7 mi north of Leesburg.

SURFACE AREA.--10,660 acres (16.7 mi²).

DRAINAGE AREA.--775 mi²

PERIOD OF RECORD.--May 1936 to September 1944 (monthly), October 1944 to October 1952 (weekly), November 1952 to May 1955 (twice weekly), June 1955 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: Drainage area, surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Since November 1978 at present site and datum. For history of changes prior to November 1978, see WDR FL-80-1.

REMARKS.--Lake is the most downstream of the Oklawaha River headwaters chain of lakes. Lake levels are partially controlled by earthen dam and concrete control with vertical lift gates on Oklawaha River at Moss Bluff.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 60.74 ft, Oct. 11,12, 1960; minimum observed, 52.14 ft, June 29, July 2, 1984, result of drawdown.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 59.32 ft, Feb. 25,26, Mar. 10-12; minimum observed, 58.02, Oct. 31, Nov. 1-3.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.38	58.02	58.84	58.80	59.20	59.28	---	---	58.12	58.76	58.65	58.64
2	58.36	58.02	58.84	58.80	59.20	59.26	---	---	58.10	58.80	58.68	58.70
3	58.34	58.02	58.84	58.80	59.18	59.26	---	---	58.06	58.78	58.68	58.72
4	58.32	58.26	58.82	58.80	59.18	59.26	---	---	58.04	58.78	58.68	58.75
5	58.30	58.32	58.82	58.80	59.18	59.26	---	---	58.05	58.76	58.74	58.90
6	58.28	58.36	58.82	58.80	59.18	59.28	---	---	58.40	58.76	58.74	59.00
7	58.26	58.38	58.82	58.82	59.20	59.28	---	---	58.58	58.76	58.77	59.11
8	58.26	58.36	58.82	58.82	59.20	59.30	---	---	58.40	58.74	58.78	59.18
9	58.26	58.36	58.84	58.82	59.18	59.30	---	---	58.50	58.70	58.77	59.20
10	58.26	58.50	58.84	58.82	59.18	59.32	---	---	58.48	58.67	58.76	59.22
11	58.26	58.52	58.84	58.82	59.16	59.32	---	---	58.52	58.65	58.78	59.20
12	58.26	58.54	58.84	58.82	59.14	59.32	---	---	58.53	58.58	58.76	59.18
13	58.26	58.54	58.86	58.84	59.14	59.20	---	---	58.48	58.56	58.70	59.15
14	58.24	58.54	58.86	58.84	59.16	59.20	---	---	58.50	58.55	58.64	59.08
15	58.24	58.58	58.86	58.84	59.16	59.10	---	---	58.53	58.68	58.58	59.05
16	58.24	58.58	58.88	58.84	59.18	59.10	---	---	58.52	58.62	58.58	59.00
17	58.24	58.58	58.88	58.84	59.18	59.00	---	---	58.50	58.60	58.56	58.96
18	58.22	58.68	58.88	58.84	59.18	---	---	---	58.48	58.56	58.54	59.02
19	58.22	58.70	58.88	58.86	59.18	---	---	---	58.48	58.60	58.54	58.90
20	58.22	58.70	58.88	58.86	59.18	---	---	---	58.46	58.64	58.50	58.86
21	58.20	58.70	58.88	58.86	59.28	---	---	---	58.58	58.64	58.48	58.84
22	58.20	58.68	58.88	59.00	59.28	---	---	---	58.56	58.62	58.46	58.82
23	58.20	58.68	58.88	59.00	59.30	---	---	---	58.68	58.62	58.44	58.80
24	58.20	58.66	58.86	59.10	59.30	---	---	---	58.70	58.66	58.44	58.77
25	58.16	58.66	58.86	59.24	59.32	---	---	---	58.68	58.72	58.42	58.76
26	58.12	58.66	58.86	59.24	59.32	58.74	---	---	58.74	58.72	58.42	58.76
27	58.10	58.86	58.86	59.24	59.30	58.74	---	---	58.72	58.70	58.44	58.80
28	58.08	58.86	58.84	59.24	59.30	58.74	---	---	58.74	58.72	58.56	58.82
29	58.06	58.86	58.84	59.20	59.28	58.74	---	---	58.76	58.70	58.56	58.82
30	58.04	58.86	58.82	59.20	---	58.64	---	---	58.78	58.68	58.58	58.80
31	58.02	---	58.82	59.20	---	58.64	---	58.19	---	58.68	58.58	---
MEAN	58.22	58.53	58.85	58.94	59.21	---	---	---	58.49	58.68	58.61	58.93
MAX	58.38	58.86	58.88	59.24	59.32	---	---	---	58.78	58.80	58.78	59.22
MIN	58.02	58.02	58.82	58.80	59.14	---	---	---	58.04	58.55	58.42	58.64

CAL YR 1987 MEAN 58.70 MAX 59.68 MIN 58.02

OKLAWAHA RIVER BASIN

02238800 LAKE WEIR AT OKLAWAHA, FL

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56.20	55.73	55.84	55.68	56.28	56.44	56.71	56.47	56.27	56.23	55.98	56.17
2	56.17	55.73	55.83	55.67	56.28	56.43	56.71	56.46	56.26	56.21	56.04	56.22
3	56.16	55.76	55.82	55.67	56.28	56.43	56.70	56.45	56.25	56.19	56.04	56.21
4	56.11	55.91	55.81	55.67	56.29	56.45	56.71	56.44	56.22	56.16	56.05	56.26
5	56.09	55.93	55.78	55.64	56.28	56.53	56.71	56.42	56.20	56.13	56.05	56.32
6	56.07	55.91	55.76	55.62	56.28	56.63	56.70	56.40	56.30	56.12	56.05	56.47
7	56.07	55.90	55.75	55.63	56.27	56.64	56.68	56.36	56.32	56.10	56.06	56.55
8	56.04	55.89	55.75	55.69	56.30	56.63	56.63	56.35	56.37	56.09	56.05	56.64
9	56.01	55.88	55.75	55.70	56.31	56.66	56.62	56.34	56.38	56.08	56.05	56.72
10	55.98	55.92	55.75	55.71	56.30	56.83	56.61	56.33	56.37	56.08	56.14	56.73
11	55.96	55.92	55.75	55.70	56.31	56.80	56.61	56.31	56.36	56.07	56.13	56.72
12	55.96	55.89	55.74	55.70	56.31	56.80	56.59	56.31	56.32	56.08	56.12	56.71
13	56.00	55.87	55.74	55.69	56.28	56.83	56.56	56.31	56.29	56.06	56.12	56.69
14	55.97	55.86	55.74	55.67	56.27	56.83	56.54	56.31	56.30	56.05	56.11	56.68
15	55.95	55.85	55.76	55.66	56.30	56.79	56.54	56.30	56.31	56.05	56.11	56.67
16	55.93	55.85	55.79	55.65	56.33	56.76	56.53	56.29	56.30	56.03	56.14	56.66
17	55.92	55.88	55.76	55.66	56.32	56.75	56.53	56.30	56.29	56.02	56.13	56.65
18	55.91	55.93	55.75	55.66	56.32	56.75	56.54	56.32	56.28	56.00	56.13	56.66
19	55.90	55.93	55.74	55.67	56.35	56.79	56.54	56.31	56.26	55.99	56.12	56.70
20	55.90	55.92	55.73	55.68	56.40	56.77	56.54	56.29	56.27	55.98	56.10	56.70
21	55.90	55.89	55.74	55.94	56.49	56.76	56.53	56.28	56.30	55.99	56.09	56.69
22	55.88	55.87	55.73	56.07	56.49	56.75	56.52	56.26	56.29	56.04	56.08	56.69
23	55.85	55.86	55.73	56.06	56.49	56.74	56.52	56.25	56.29	56.04	56.07	56.68
24	55.83	55.85	55.73	56.07	56.49	56.74	56.52	56.24	56.27	56.04	56.06	56.66
25	55.82	55.86	55.74	56.29	56.48	56.74	56.50	56.39	56.28	56.05	56.03	56.66
26	55.82	55.86	55.74	56.31	56.46	56.75	56.52	56.38	56.28	56.05	56.02	56.65
27	55.81	55.87	55.74	56.29	56.45	56.76	56.52	56.37	56.28	56.04	56.07	56.64
28	55.80	55.87	55.74	56.28	56.45	56.75	56.50	56.35	56.25	56.02	56.16	56.62
29	55.78	55.88	55.72	56.27	56.44	56.74	56.47	56.33	56.25	56.01	56.14	56.60
30	55.75	55.86	55.69	56.27	---	56.74	56.45	56.30	56.25	55.99	56.15	56.58
31	55.74	---	55.69	56.27	---	56.73	---	56.29	---	55.98	56.13	---
MEAN	55.94	55.87	55.75	55.86	56.36	56.70	56.58	56.34	56.29	56.06	56.09	56.59
MAX	56.20	55.93	55.84	56.31	56.49	56.83	56.71	56.47	56.38	56.23	56.16	56.73
MIN	55.74	55.73	55.69	55.62	56.27	56.43	56.45	56.24	56.20	55.98	55.98	56.17
CAL YR 1987	MEAN	55.94	MAX	56.52	MIN	55.47						
WTR YR 1988	MEAN	56.20	MAX	56.83	MIN	55.62						

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, on north side of private pier, 1.1 mi west of Candler.

SURFACE AREA.--482 acres (0.75 mi²).

DRAINAGE AREA.--5.01 mi².

PERIOD OF RECORD.--July 1972 to current year (monthly).

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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
05...	0910	52.76	25...	1300	53.30
22...	1000	52.60	MAY		
NOV			02...	1145	53.26
23...	1000	52.59	23...	1030	53.25
30...	0945	52.55	JUN		
DEC			20...	1055	52.88
11...	1000	52.50	21...	1000	53.10
JAN			JUL		
04...	1110	52.30	22...	1100	52.55
25...	0900	52.28	AUG		
FEB			15...	1420	52.94
22...	1030	52.25	23...	1000	53.07
MAR			SEP		
07...	1430	53.48	11...	1000	53.90
21...	1000	53.70			

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 current year (monthly).

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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
05...	0930	55.62	22...	0805	56.36
22...	0750	55.45	MAY		
NOV			02...	1135	56.28
21...	0830	55.50	21...	0810	56.10
30...	1000	55.48	JUN		
DEC			20...	1040	56.04
23...	0710	55.40	22...	0710	56.05
JAN			JUL		
04...	1055	55.30	22...	0740	55.90
22...	0830	55.75	AUG		
FEB			15...	1405	55.92
24...	0800	56.30	22...	0830	55.95
MAR			SEP		
07...	1410	56.44	23...	0830	56.60
23...	0755	56.60			

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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAY		
05...	1105	51.98	02...	0905	51.90
31...	0900	51.90	JUN		
NOV			01...	1630	51.60
30...	1135	51.95	20...	0905	51.58
JAN			JUL		
04...	0915	51.85	29...	0900	52.00
14...	0930	51.90	AUG		
FEB			15...	0915	52.24
29...	1800	52.30	SEP		
MAR			19...	1530	52.88
07...	0935	52.40			
30...	1830	52.30			

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 current year (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, 68.10 ft, Mar. 19; minimum observed, 65.19 ft, Jan. 6.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	65.20	---	---	67.90	66.64	---	---	---	66.30
2	65.50	---	65.28	---	---	---	---	---	---	---	---	---
3	---	---	---	---	65.72	66.74	---	---	---	---	---	---
4	---	65.30	---	---	---	---	---	---	---	---	65.60	---
5	---	---	---	---	---	---	---	66.49	66.10	---	---	---
6	---	---	---	65.19	---	---	---	---	---	---	---	---
7	---	---	---	---	65.84	---	---	---	---	---	---	---
8	65.42	---	---	65.26	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	65.62	---	---
10	---	---	---	---	---	67.62	67.34	---	---	---	---	---
11	---	---	---	---	---	67.94	---	---	66.06	---	---	---
12	---	---	65.22	---	---	---	---	---	---	---	---	---
13	---	65.20	---	---	---	---	---	---	---	---	65.63	---
14	---	---	---	---	---	---	---	66.50	---	65.62	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	65.26	---	---	---	---	---	---	---	---
17	---	---	---	---	66.00	---	67.06	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	65.90	---
19	---	65.30	65.26	---	---	68.10	---	---	65.96	---	---	---
20	---	---	---	---	---	---	---	66.40	---	65.62	65.92	---
21	---	---	---	65.50	---	---	---	---	---	---	---	---
22	---	---	---	---	66.48	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	65.78	---	---	---
24	---	---	---	---	---	---	66.86	---	---	---	---	---
25	---	---	---	---	---	---	---	66.36	65.76	---	---	---
26	---	---	65.26	---	---	---	---	---	---	---	---	---
27	---	---	---	---	66.72	68.08	---	---	---	65.65	---	---
28	---	---	---	---	---	---	---	---	---	---	66.10	---
29	---	65.36	---	65.70	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	65.82	---	---	---
31	---	---	65.20	---	---	---	---	66.22	---	---	---	---

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, 60.02 ft, Sept. 8; minimum observed, 51.10 ft, Aug. 5.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.25	---	---	---	---	---	---	---	---	---	---	---
2	---	---	52.00	---	---	---	---	---	51.70	---	---	---
3	---	---	---	---	---	52.75	---	---	---	---	---	---
4	---	---	---	---	52.07	---	---	---	---	---	---	---
5	---	51.90	---	51.87	---	---	---	52.06	---	---	51.10	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	52.03	---	---	51.95	---	---	52.70	---	---	51.30	---	---
8	52.00	---	---	---	---	---	---	---	---	---	---	60.02
9	---	---	51.95	---	---	---	---	---	51.70	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	52.05	53.96	---	---	---	---	---	---
12	---	52.00	---	---	---	---	---	51.90	---	---	51.38	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	51.90	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	52.40	---	---	51.20	---	---
16	51.90	---	52.00	---	---	---	---	---	51.50	---	---	---
17	---	---	---	---	51.90	53.60	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	51.72	---
19	---	---	---	51.95	---	---	---	51.90	---	---	---	---
20	---	52.18	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	52.30	---	---	51.25	51.90	---
22	51.90	---	---	---	---	---	---	---	51.43	---	---	---
23	---	---	51.95	---	---	---	---	---	51.43	---	---	---
24	---	---	---	---	---	53.40	---	---	---	---	---	---
25	---	52.10	---	---	52.40	---	---	---	---	---	51.86	---
26	---	---	---	---	---	---	---	51.90	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	51.80	---	---	52.20	---	---	---	---	---	51.16	---	---
29	---	---	---	---	---	---	52.20	---	51.40	---	---	---
30	---	---	---	---	---	---	---	---	---	---	52.55	---
31	---	---	51.85	---	---	52.80	---	---	---	---	---	---

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 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 current year (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-80-1: Drainage area. WDR FL-74-3: Surface area.

GAGE.--Nonrecording gage. 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 July 8, 1981, 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 July 7, 1981 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.

WATER LEVEL DATA, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
07...	1145	57.20	09...	0855	57.23
DEC			12...	0845	57.63
02...	1045	56.84	MAY		
JAN			04...	0740	57.41
05...	1245	56.53	JUN		
14...	1325	56.63	22...	1135	56.59
23...	0900	56.83	AUG		
			17...	1005	56.23

LOCATION.--Lat 29°25'37", long 82°12'26", in SE¼, sec.21, T. 12 S., R.21 E., Alachua County, Hydrologic Unit 03080102, on south shore of southwest bay of lake, at public boat landing in town of Orange Lake.

DRAINAGE AREA.--1,012 mi², includes drainage area of Paynes Prairie, a diked sinkhole area of 650 mi², approximately, which is noncontributing except by pumpage.

REVISED RECORDS.--WDR FL-74-1: Surface area. WDR FL-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 2, 1942, nonrecording gage at approximately present site at datum 56.24 ft higher. July 2, 1942, to June 27, 1943, nonrecording gage at lake outlet at datum 55.41 ft higher. June 28, 1943, to Mar. 28, 1947, nonrecording gage and Mar. 28, 1947, to May 31, 1955, water-stage recorder, at lake outlet at datum 53.41 ft higher. July 8, 1955, to Sept. 30, 1957, nonrecording gages at several sites between Boardman and present site at various datums.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 61.95 ft, Mar. 19, 1948 (near Boardman); minimum observed, 50.38 ft, Aug. 11, 1956.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57.39	56.87	56.83	56.60	56.73	56.88	57.76	57.47	56.98	56.53	56.10	56.19
2	57.35	56.88	56.82	56.62	56.73	56.87	57.75	57.44	56.94	56.53	56.07	56.18
3	57.33	56.90	56.80	56.62	56.72	56.86	57.74	57.40	56.90	56.50	56.06	56.17
4	57.32	56.97	56.77	56.59	56.70	56.92	57.72	57.36	56.91	56.49	56.04	56.14
5	57.27	56.97	56.77	56.60	56.75	57.05	57.73	57.33	56.90	56.48	56.03	56.21
6	57.24	56.99	56.76	56.58	56.77	57.13	57.69	57.30	56.88	56.47	56.02	56.77
7	57.22	56.95	56.76	56.56	56.77	57.13	57.64	57.30	56.87	56.42	56.01	57.34
8	57.21	56.93	56.75	56.62	56.76	57.14	57.65	57.28	56.83	56.37	56.00	57.67
9	57.20	56.91	56.74	56.64	56.75	57.20	57.65	57.26	56.78	56.33	55.99	57.92
10	57.18	56.92	56.73	56.66	56.75	57.33	57.65	57.22	56.77	56.31	56.07	58.15
11	57.17	56.90	56.72	56.63	56.73	57.41	57.62	57.20	56.79	56.28	56.05	58.32
12	57.16	56.90	56.70	56.62	56.68	57.43	57.59	57.21	56.77	56.27	56.05	58.46
13	57.19	56.87	56.71	56.60	56.67	57.45	57.62	57.22	56.75	56.24	56.05	58.56
14	57.15	56.86	56.70	56.65	56.66	57.49	57.61	57.31	56.72	56.24	56.04	58.63
15	57.12	56.85	56.71	56.61	56.68	57.49	57.60	57.31	56.69	56.26	56.07	58.70
16	57.10	56.85	56.77	56.59	56.74	57.52	57.59	57.29	56.66	56.24	56.15	58.77
17	57.08	56.87	56.75	56.56	56.74	57.53	57.59	57.27	56.62	56.22	56.17	58.78
18	57.07	56.95	56.74	56.55	56.75	57.59	57.55	57.23	56.60	56.20	56.16	58.79
19	57.05	56.97	56.73	56.54	56.72	57.66	57.54	57.21	56.58	56.19	56.14	58.80
20	57.04	56.96	56.71	56.52	56.83	57.68	57.57	57.19	56.56	56.19	56.14	58.80
21	57.03	56.94	56.70	56.70	56.90	57.69	57.55	57.17	56.54	56.16	56.10	58.85
22	57.03	56.92	56.69	56.72	56.91	57.72	57.53	57.15	56.52	56.17	56.08	58.92
23	57.00	56.91	56.71	56.71	56.91	57.75	57.49	57.11	56.50	56.22	56.07	58.92
24	56.97	56.91	56.69	56.72	56.92	57.75	57.46	57.09	56.48	56.22	56.06	58.91
25	56.96	56.91	56.68	56.76	56.92	57.75	57.46	57.10	56.47	56.21	56.06	58.89
26	56.94	56.91	56.68	56.74	56.91	57.74	57.43	57.14	56.48	56.20	56.05	58.99
27	56.92	56.91	56.67	56.75	56.88	57.76	57.46	57.11	56.44	56.18	56.08	59.04
28	56.91	56.91	56.65	56.74	56.89	57.78	57.44	57.08	56.53	56.17	56.14	59.01
29	56.88	56.88	56.65	56.74	56.88	57.78	57.41	57.05	56.59	56.15	56.13	58.99
30	56.86	56.85	56.64	56.74	---	57.77	57.42	57.03	56.54	56.13	56.15	58.99
31	56.86	---	56.61	56.73	---	57.77	---	57.02	---	56.11	56.	

ST. JOHNS RIVER

OKLAWAHA RIVER BASIN

02243958 LAKE OKLAWAHA 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.

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.11	18.18	17.97	18.07	18.07	18.04	17.95	17.90	17.99	18.16	18.07	19.01
2	18.12	18.18	17.92	18.07	18.07	18.03	17.88	17.94	18.02	18.11	18.12	19.12
3	18.13	18.21	17.85	18.05	18.09	18.07	17.91	18.02	18.02	18.12	18.15	19.14
4	18.13	18.38	17.95	18.04	18.07	18.12	17.90	18.13	17.95	18.12	18.18	19.15
5	18.11	18.30	18.01	18.00	18.04	18.30	17.93	18.11	17.92	18.13	18.25	19.20
6	18.12	18.07	18.03	17.96	18.04	18.32	18.02	18.11	18.05	18.15	18.28	19.39
7	18.12	18.01	18.07	18.01	18.04	18.24	18.11	17.97	18.20	18.20	18.32	19.29
8	18.10	18.02	18.11	18.10	18.05	18.14	17.93	17.93	18.34	18.24	18.32	19.00
9	18.02	18.05	18.13	18.13	18.05	18.15	17.90	17.97	18.45	18.27	18.34	19.20
10	18.03	18.15	18.15	18.17	18.05	18.46	17.83	18.02	18.45	18.34	18.35	19.41
11	18.04	18.09	18.13	18.14	18.03	18.34	17.95	18.00	18.40	18.37	18.37	19.58
12	18.08	17.92	18.09	18.07	18.05	18.42	18.03	18.01	18.39	18.45	18.35	19.59
13	18.11	17.80	18.03	18.05	18.00	18.38	18.00	18.09	18.41	18.41	18.35	19.45
14	18.10	17.80	17.99	18.00	17.95	18.35	17.94	18.11	18.41	18.27	18.53	19.35
15	18.10	17.78	18.02	17.97	17.96	18.16	17.94	18.09	18.39	18.19	18.54	19.28
16	18.09	17.80	18.08	17.96	18.15	18.08	17.74	18.07	18.35	18.06	18.59	19.26
17	18.06	17.85	18.05	17.98	18.20	18.12	17.86	18.12	18.30	18.07	18.75	19.38
18	18.05	18.05	18.03	18.00	18.23	18.10	17.95	18.17	18.19	18.05	18.74	19.42
19	18.03	18.12	18.02	18.03	18.33	18.17	18.08	18.08	18.02	18.03	18.71	19.51
20	18.01	18.05	17.99	18.07	18.25	17.95	18.07	17.95	18.03	18.04	18.64	19.80
21	17.98	17.90	18.00	18.24	18.24	17.92	18.15	17.86	18.06	18.03	18.55	19.87
22	17.91	17.81	17.98	18.30	18.04	18.07	18.18	17.81	18.01	18.03	18.48	19.95
23	17.92	17.86	17.99	18.12	18.07	18.10	18.15	17.93	18.02	18.06	18.46	19.80
24	17.96	17.95	17.98	17.97	18.18	18.10	18.10	17.95	18.01	18.06	18.47	19.76
25	18.00	18.02	17.99	18.17	18.14	18.04	18.03	18.12	17.97	17.99	18.47	19.84
26	18.06	18.06	18.00	18.15	18.12	18.03	18.04	18.11	18.00	17.94	18.45	19.87
27	18.11	18.02	18.01	18.11	18.09	17.92	17.94	18.10	18.05	17.94	18.52	19.86
28	18.16	18.05	17.99	18.06	18.04	17.89	17.92	18.09	17.99	17.92	18.72	19.88
29	18.18	18.07	18.00	18.08	17.97	17.93	17.87	18.00	18.02	17.91	18.82	19.86
30	18.18	18.00	18.05	18.08	---	17.95	17.84	17.89	18.14	17.96	18.90	19.81
31	18.18	---	18.05	18.09	---	17.94	---	17.95	---	18.06	18.93	---
MEAN	18.07	18.02	18.02	18.07	18.09	18.12	17.97	18.02	18.15	18.12	18.47	19.50
MAX	18.18	18.38	18.15	18.30	18.33	18.46	18.18	18.17	18.45	18.45	18.93	19.95
MIN	17.91	17.78	17.85	17.96	17.95	17.89	17.74	17.81	17.92	17.91	18.07	19.00

CAL YR 1987 MEAN 18.13 MAX 19.05 MIN 17.78
WTR YR 1988 MEAN 18.22 MAX 19.95 MIN 17.74

WATER RESOURCES DATA - FLORIDA, 1988
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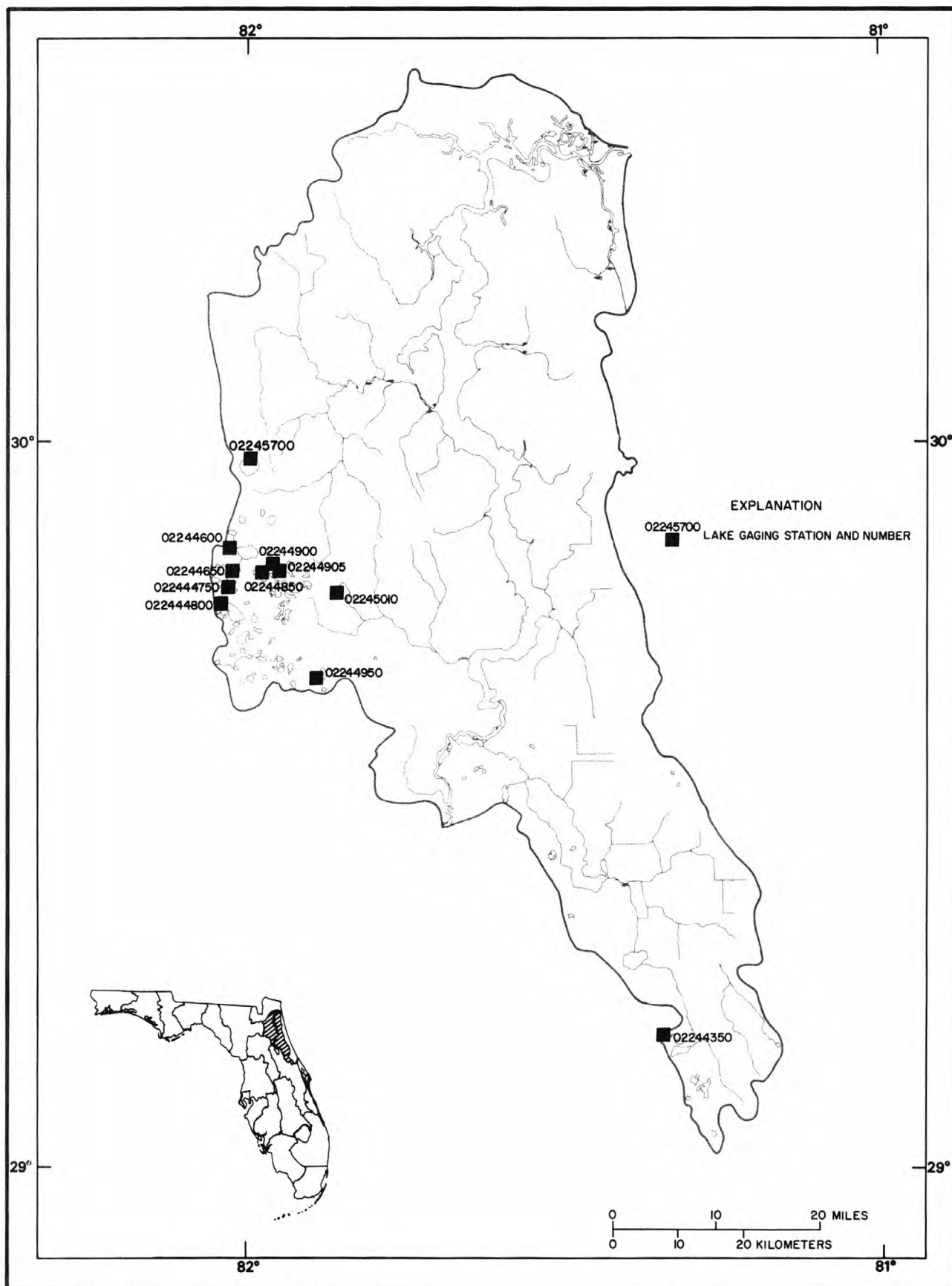


Figure 26.--Location of lake gaging stations in the St. Johns River basin below the Oklawaha River.

ST. JOHNS RIVER

ST. JOHNS RIVER BASIN BELOW 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 are 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, 130.74 ft, May 26, 1968.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
02...	1300	131.70	01...	1530	132.18
09...	0915	131.50	MAY		
NOV			02...	1530	131.84
02...	1030	131.30	JUN		
DEC			02...	1530	131.80
02...	0930	131.68	23...	1050	131.52
04...	1215	131.63	JUL		
JAN			01...	0900	131.44
05...	0930	131.62	AUG		
15...	1220	131.63	02...	0830	131.32
FEB			16...	1000	131.62
02...	1530	131.88	SEP		
MAR			02...	0930	131.72
02...	1530	132.04			
10...	1430	132.33			

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244650 MAGNOLIA LAKE NEAR KEYSTONE HEIGHTS, FL

SURFACE AREA.--201 acres (0.31 mi²).

DRAINAGE AREA.--14.4 mi².

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.

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, 122.30 ft, Nov. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 125.54 ft, Sept. 10; minimum observed, 123.82 ft, Aug. 6.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

[illegible]

ST. JOHNS RIVER BASIN BELOW OKLAWAHA RIVER

02244750 BROOKLYN LAKE AT KEYSTONE HEIGHTS. FL

SURFACE AREA.--635 acres (0.99 mi²).

DRAINAGE AREA.--17.4 mi².

PERIOD OF RECORD.--July 1957 to September 1959, October 1959 to September 1960 (thrice weekly), October 1960 to March 1961 (weekly), April 1961 to July 1965 (fragmentary), August 1965 to current year (weekly). 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 93.06 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, 117.43 ft, Oct. 1, 1960; minimum observed, 97.23 ft, Feb. 24, 25, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--An elevation of 118.2 ft was reached in 1948, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 108.81 ft, Oct. 5; minimum observed, 105.23 ft, Aug. 8.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

[illegible]

02244800 LAKE GENEVA AT KEYSTONE HEIGHTS. FL

SURFACE AREA.--1,746 acres (2.73 mi²).

DRAINAGE AREA.--35.5 mi².

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, 97.13 ft, Aug. 10, 1988.

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, 98.70 ft. Mar. 10; minimum observed, 97.13 ft. Aug. 10.

[illegible]

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 are 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, 97.32 ft, Sept. 27; minimum observed, 91.90 ft, Feb. 17.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	93.64	---	---	91.98	---	---	---	---	---	---
2	---	---	---	---	92.20	---	---	---	---	---	---	---
3	---	94.16	---	---	---	---	---	93.18	---	---	93.22	---
4	---	---	93.52	---	---	---	---	---	---	---	---	---
5	---	---	---	92.62	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	92.74	---	---	93.42	---	---
7	95.00	---	---	---	---	---	---	---	93.86	---	---	95.06
8	---	---	93.36	---	---	92.16	---	---	---	---	---	---
9	94.86	---	---	---	---	---	---	---	---	---	93.16	---
10	---	94.06	---	---	---	94.35	---	93.18	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	92.46	91.96	---	92.88	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	93.38	---	94.90
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	93.18	92.36	---	92.36	---	---	93.84	---	---	---
16	---	---	---	---	---	---	---	---	---	---	93.62	---
17	---	93.80	---	---	91.90	---	---	93.62	---	---	---	---
18	---	---	---	---	---	---	---	93.62	---	---	---	---
19	---	---	---	92.22	---	92.48	92.98	---	---	93.36	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	96.74
22	---	---	93.12	---	---	92.52	---	---	93.62	---	---	---
23	---	---	---	---	92.14	---	---	---	93.58	---	93.54	---
24	---	93.82	---	---	---	---	---	93.62	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	92.38	---	---	93.08	---	---	---	---	---
27	94.24	---	---	---	---	---	---	---	---	93.38	---	97.32
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	92.88	---	---	92.62	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	93.48	---	93.60	---
31	---	---	---	---	---	---	---	93.88	---	---	---	---

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 are 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, 95.65 ft, Sept. 7; minimum observed, 95.19 ft, Apr. 6 and May 10.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	95.39	---	---	95.21	---	---	---	---	---	---
2	---	---	---	---	95.25	---	---	---	---	---	---	---
3	---	95.31	---	---	---	---	---	95.21	---	---	95.23	---
4	---	---	95.36	---	---	---	---	---	---	---	---	---
5	---	---	---	95.33	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	95.19	---	---	95.21	---	---
7	95.31	---	---	---	---	---	---	---	95.27	---	---	95.65
8	---	---	95.37	---	---	95.27	---	---	---	---	---	---
9	95.31	---	---	---	---	---	---	---	---	---	95.27	---
10	---	95.39	---	---	---	95.32	---	95.19	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	95.33	95.23	---	95.27	---	---	---	---	---
13	95.31	---	---	---	---	---	---	---	---	95.31	---	95.45
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	95.37	95.31	---	95.21	---	---	95.25	---	---	---
16	---	---	---	---	---	---	---	---	---	---	95.37	---
17	---	95.39	---	---	95.25	---	---	95.25	---	---	---	---
18	---	---	---	---	---	---	---	95.21	---	---	---	---
19	---	---	---	95.31	---	95.30	95.23	---	---	95.25	---	---
20	95.31	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	95.47
22	---	---	95.37	---	---	95.23	---	---	95.23	---	---	---
23	---	---	---	---	95.27	---	---	---	95.23	---	95.27	---
24	---	95.39	---	---	---	---	---	95.21	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	95.39	---	---	95.21	---	---	---	---	---
27	95.29	---	---	---	---	---	---	---	---	95.29	---	95.49
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	95.33	---	---	95.21	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	95.21	---	95.33	---
31	---	---	---	---	---	---	---	95.23	---	---	---	---

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 are 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.

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, 87.48 ft, Nov. 20, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 90.69 ft, Sept. 27; minimum observed, 88.37 ft, Aug. 9.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	89.21	---	---	89.31	---	---	---	---	---	---
2	---	---	---	---	89.13	---	---	---	---	---	---	---
3	---	88.97	---	---	---	---	---	89.39	---	---	88.39	---
4	---	---	89.25	---	---	---	---	---	---	---	---	---
5	---	---	---	88.91	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	89.65	---	---	88.69	---	---
7	89.57	---	---	---	---	---	---	---	89.39	---	---	90.17
8	---	---	89.07	---	---	89.57	---	---	---	---	---	---
9	89.51	---	---	---	---	---	---	---	---	---	88.37	---
10	---	89.19	---	---	---	89.72	---	89.19	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	88.95	88.99	---	89.59	---	---	---	---	---
13	89.41	---	---	---	---	---	---	---	---	88.64	---	90.67
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	88.99	88.92	---	88.97	---	---	89.09	---	---	---
16	---	---	---	---	---	---	---	---	---	---	88.83	---
17	---	89.07	---	---	89.08	---	---	89.39	---	---	---	---
18	---	---	---	---	---	---	---	89.38	---	---	---	---
19	---	---	---	88.89	---	88.81	89.53	---	---	88.54	---	---
20	89.27	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	90.63
22	---	---	89.13	---	---	88.91	---	---	88.89	---	---	---
23	---	---	---	---	89.39	---	---	---	88.83	---	88.67	---
24	---	89.29	---	---	---	---	---	89.37	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	89.19	---	---	89.43	---	---	---	---	---
27	89.09	---	---	---	---	---	---	---	---	88.44	---	90.69
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	89.03	---	---	89.75	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	88.69	---	88.77	---
31	---	---	---	---	---	---	---	89.39	---	---	---	---

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 (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, 79.81 ft, about July 31, 1961.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAY		
09...	1325	80.86	18...	1340	80.88
DEC			JUN		
04...	0900	80.97	23...	0800	80.44
JAN			AUG		
15...	0845	80.81	16...	1140	80.70
MAR					
09...	1530	81.41			

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, 99.41 ft, Sept. 13,20; minimum observed, 96.76 ft, Oct. 27.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	96.91	---	---	97.43	---	---	---	---	---	---
2	---	---	---	---	97.11	---	---	---	---	---	97.31	---
3	---	96.85	---	---	---	---	---	97.45	---	---	---	---
4	---	---	96.90	---	---	---	---	---	---	---	---	---
5	---	---	---	96.77	---	---	97.75	---	---	96.89	---	---
6	96.99	---	---	---	---	---	---	---	---	---	---	99.05
7	---	---	---	---	97.13	---	---	---	97.29	---	---	---
8	---	---	96.87	---	---	97.65	---	---	---	---	---	---
9	96.98	---	---	---	---	97.70	---	---	---	---	97.37	---
10	---	96.89	---	---	---	---	---	97.35	---	---	---	---
11	---	---	---	---	---	97.77	97.67	---	---	---	---	---
12	---	---	---	96.85	---	---	---	---	---	---	---	---
13	96.91	---	---	---	---	---	---	---	---	97.33	---	99.41
14	---	---	96.83	---	---	---	---	---	97.11	---	---	---
15	---	---	---	96.85	---	---	---	---	---	---	---	---
16	---	---	---	---	97.15	---	---	---	---	---	97.55	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	96.97	---	---	---	---	---	97.37	---	---	---	---
19	---	---	---	96.81	---	---	97.61	---	---	97.37	---	---
20	96.81	---	---	---	---	---	---	---	---	---	---	99.41
21	---	---	---	---	---	---	---	---	96.91	---	---	---
22	---	---	96.78	---	---	97.87	---	---	96.97	---	---	---
23	---	---	---	---	97.49	---	---	---	---	---	97.81	---
24	---	96.97	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	97.45	---	---	---	---
26	---	---	---	97.11	---	---	97.51	---	---	97.35	---	---
27	96.76	---	---	---	---	---	---	---	---	---	---	99.31
28	---	---	---	---	---	---	---	---	97.05	---	---	---
29	---	---	96.77	---	---	97.81	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	97.93	---
31	---	---	---	---	---	---	---	97.37	---	---	---	---

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, 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, 177.16 ft, Sept. 10; minimum observed, 175.50 ft, Nov. 3.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	175.96	---	---	176.30	176.50	---	---	175.74	---	---
2	---	---	---	175.80	176.08	---	---	---	---	---	---	---
3	175.98	175.50	---	---	---	---	---	176.08	---	---	176.02	176.60
4	---	---	175.87	---	---	---	---	---	175.86	---	---	---
5	---	---	175.92	175.80	---	176.30	176.42	---	---	175.74	---	---
6	175.90	---	---	---	176.06	---	---	---	---	---	176.02	176.92
7	---	175.70	---	---	---	---	---	176.06	175.82	---	---	---
8	---	---	175.90	---	---	176.52	---	---	---	---	---	---
9	175.80	---	---	175.82	176.10	---	176.34	---	---	175.72	176.02	---
10	175.82	175.70	---	---	---	176.69	---	176.02	---	---	---	177.16
11	---	---	---	---	---	---	---	---	176.00	---	---	---
12	---	---	175.88	175.82	---	176.68	176.32	---	---	175.70	---	---
13	175.74	---	---	---	176.08	---	---	---	---	---	176.10	177.02
14	---	175.68	---	---	---	---	---	176.02	175.74	---	---	---
15	---	---	175.92	175.80	---	176.60	---	---	---	175.86	---	---
16	---	---	---	175.80	176.10	---	176.30	---	---	---	176.44	---
17	175.66	175.72	---	---	---	---	---	176.02	---	---	---	176.98
18	---	---	---	---	---	---	---	175.98	175.70	---	---	---
19	---	---	175.96	175.78	---	176.52	176.26	---	---	175.94	---	---
20	175.64	---	---	---	176.16	---	---	---	---	---	176.46	176.88
21	---	176.00	---	---	---	---	---	175.90	175.64	---	---	---
22	---	---	175.90	---	---	176.58	---	---	---	---	---	---
23	---	---	---	176.02	176.38	---	176.22	---	175.75	175.92	176.42	---
24	175.60	175.96	---	---	---	---	---	175.96	---	---	---	176.80
25	---	---	---	---	---	---	---	---	175.74	---	---	---
26	---	---	175.86	176.10	---	176.54	176.16	---	---	---	---	---
27	175.56	---	---	---	176.34	---	---	---	---	---	176.40	176.70
28	---	175.98	175.84	---	---	---	---	175.94	175.76	---	---	---
29	---	---	---	---	---	176.52	---	---	---	---	---	---
30	---	---	---	176.08	---	---	176.10	---	---	---	176.46	---
31	175.52	---	175.82	---	---	---	---	175.90	---	---	---	---

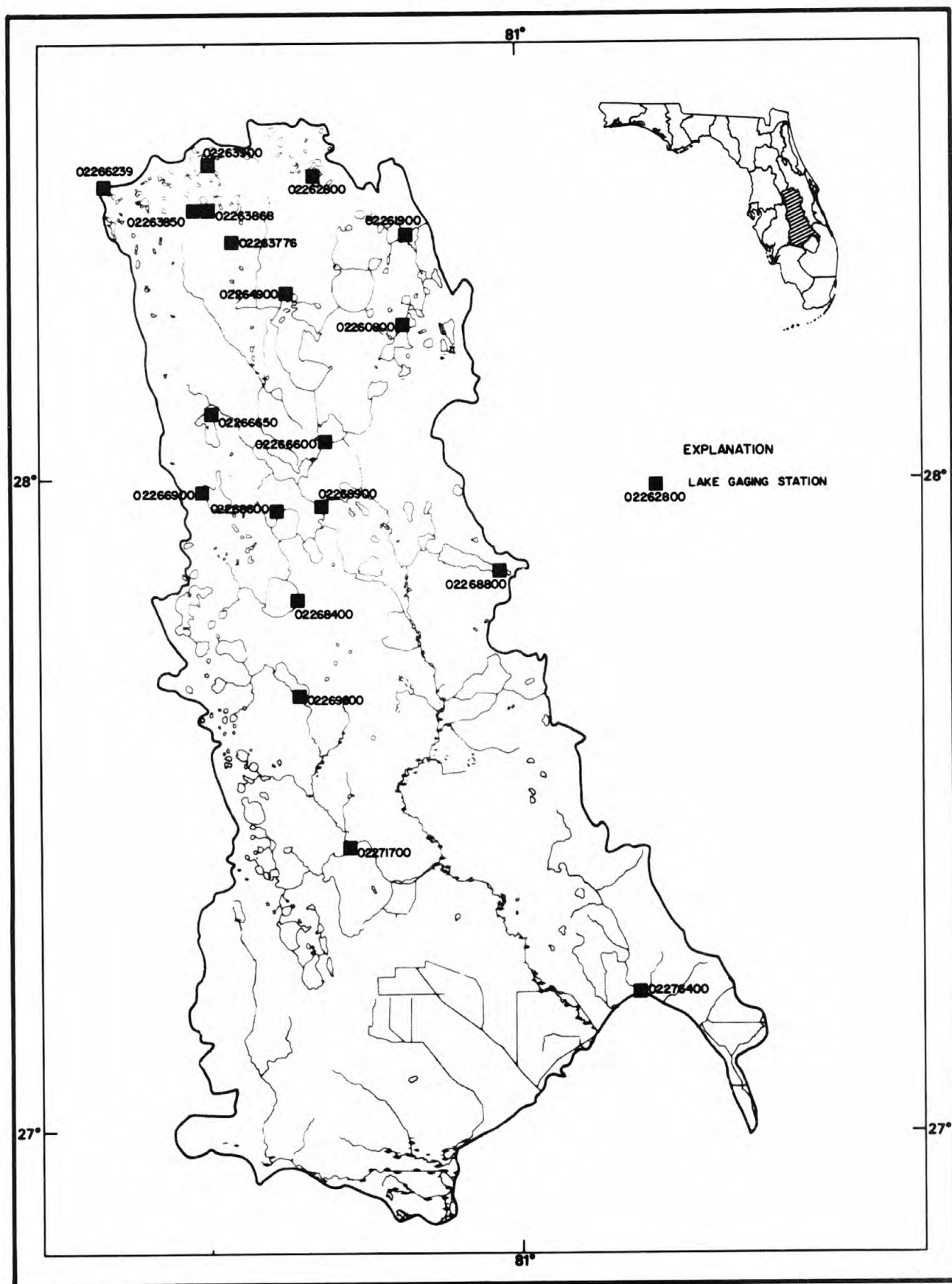


Figure 27.--Location of lake gaging stations in the Kissimmee River basin, the Taylor Creek basin and inflow to Lake Okeechobee from the north, and Fisheating Creek basin and inflow to Lake Okeechobee from the northwest.

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02260800 ALLIGATOR LAKE NEAR ASHTON, FL

LOCATION.--Lat 28°15'15", long 81°12'15", in SW¼ sec.10, T.26 S., R.31 E., Osceola County, Hydrologic Unit 03090101, on north shore of lake, 0.2 mi south of U.S. Highway 441 and State Road 15, and 2.5 east of Ashton.

SURFACE AREA.--3,401 acres (5.31 mi²).

DRAINAGE AREA.--26.6 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.

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 within about 700 ft of present site at datum 60.74 ft higher. Feb. 19, 1975 to Apr. 24, 1986, at several sites on the north side 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, 64.54 ft, Mar. 14; minimum observed, 61.98 ft, June 5.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.41	---	---	---	---	64.10	63.72	62.90	62.06	62.25	62.79	63.37
2	63.42	---	---	---	---	64.10	63.67	62.88	62.05	62.22	62.82	63.38
3	63.42	---	---	---	---	64.10	63.63	62.85	62.03	62.20	62.84	63.34
4	63.41	---	---	---	---	64.10	63.54	62.80	62.00	62.18	62.86	63.37
5	63.40	---	---	---	---	64.10	63.54	62.76	61.98	62.15	62.88	63.40
6	63.39	---	---	---	---	64.16	63.42	62.70	62.06	---	62.90	63.45
7	63.36	---	---	---	---	64.19	63.36	62.68	62.06	---	62.90	63.50
8	63.34	---	---	---	---	64.19	63.36	62.66	62.27	---	62.94	63.66
9	63.32	---	---	---	---	64.20	63.36	62.64	62.25	---	62.96	63.64
10	63.30	---	---	---	---	64.18	63.38	62.60	62.25	---	62.96	63.60
11	63.32	---	---	64.18	---	64.17	63.39	62.56	62.24	---	62.98	63.56
12	63.35	---	---	---	---	64.16	63.44	62.54	62.22	---	62.98	63.52
13	63.37	---	---	---	---	64.48	63.40	62.52	62.20	---	63.00	63.46
14	63.39	---	---	---	---	64.54	63.39	62.50	62.22	---	63.00	63.42
15	63.42	---	---	---	---	64.38	63.38	62.48	62.20	---	63.04	63.34
16	63.46	---	---	---	---	64.25	63.38	62.47	62.18	---	63.14	63.30
17	63.53	---	---	---	---	64.14	63.37	62.45	62.16	---	63.18	63.27
18	63.56	---	---	---	---	64.05	63.36	62.42	62.14	---	63.22	63.22
19	63.57	---	---	---	---	64.05	63.34	62.38	62.12	---	63.24	63.24
20	63.68	---	---	---	---	63.95	63.30	62.37	62.11	62.50	63.24	63.22
21	63.73	---	---	---	---	63.88	---	62.36	62.10	62.52	63.28	63.36
22	63.78	---	---	---	---	63.80	63.25	62.34	62.08	62.55	63.30	63.38
23	63.78	---	---	---	64.14	63.70	63.20	62.32	62.18	62.58	63.30	63.36
24	63.81	---	---	---	---	63.67	63.16	62.30	62.18	62.58	63.32	63.35
25	63.78	---	---	---	---	63.72	63.14	62.32	62.16	62.60	63.32	63.34
26	63.79	---	---	---	---	63.76	63.08	62.30	62.14	62.64	63.36	63.36
27	63.80	---	---	---	---	63.84	63.00	62.27	62.12	62.64	63.37	63.35
28	63.80	---	---	---	64.10	63.88	62.94	62.22	62.11	62.66	63.38	63.34
29	63.80	---	---	---	64.10	63.86	62.90	62.18	62.12	62.68	63.38	63.34
30	63.79	---	---	---	---	63.81	62.90	62.14	62.27	62.78	63.42	63.32
31	63.76	---	---	---	---	63.77	---	62.10	---	62.80	63.40	---
MEAN	63.55	---	---	---	---	64.04	---	62.48	62.14	---	63.12	63.39
MAX	63.81	---	---	---	---	64.54	---	62.90	62.27	---	63.42	63.66
MIN	63.30	---	---	---	---	63.67	---	62.10	61.98	---	62.79	63.22

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. 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, water-stage recorder 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.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 61.61 ft, Nov. 28, 1987; minimum daily, 59.19 ft, June 21, 1988.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.05	60.51	61.43	60.92	61.11	60.72	60.59	---	---	---	---	60.02
2	60.05	60.56	61.39	60.92	61.11	60.73	60.59	---	---	---	---	59.96
3	60.05	60.78	61.35	60.94	61.10	60.74	60.60	---	---	---	---	59.89
4	60.04	61.27	61.37	60.96	61.09	60.75	60.61	---	---	---	---	59.82
5	60.03	61.43	61.37	60.97	61.07	60.78	60.61	---	---	---	---	59.81
6	60.03	61.46	61.38	60.98	61.05	60.89	60.60	---	---	---	---	59.81
7	60.01	61.46	61.38	60.99	61.05	60.92	60.57	---	---	---	---	59.90
8	60.01	61.45	61.38	60.99	61.08	60.95	60.52	---	---	---	---	60.06
9	59.99	61.44	61.38	61.02	61.05	60.97	60.49	---	---	---	---	60.30
10	59.98	61.44	61.37	61.06	61.00	61.10	60.48	---	---	---	59.32	60.42
11	60.03	61.41	61.35	61.07	60.95	61.07	60.54	---	---	---	59.33	60.49
12	60.19	61.35	61.33	61.08	60.90	61.04	60.52	---	---	---	---	60.52
13	60.23	61.27	61.31	61.09	60.85	61.10	60.47	---	---	---	---	60.45
14	60.22	61.20	61.29	61.10	60.82	61.15	60.44	---	---	---	---	60.35
15	60.25	61.14	61.28	61.10	60.82	61.04	---	---	---	---	59.35	60.24
16	60.29	61.10	61.28	61.10	60.82	60.91	---	---	---	---	59.38	60.14
17	60.39	61.10	61.24	61.09	60.80	60.80	---	---	---	---	59.40	60.08
18	60.46	61.28	61.20	61.09	60.75	60.77	---	---	---	---	59.43	60.04
19	60.51	61.39	61.17	61.09	60.76	60.93	---	---	---	---	59.49	60.00
20	60.51	61.47	61.15	61.08	60.78	60.97	---	---	59.20	---	59.50	59.97
21	60.52	61.46	61.10	61.11	60.79	60.99	---	---	59.19	---	59.52	59.94
22	60.50	61.45	61.00	61.15	60.80	60.99	---	---	59.20	---	59.53	59.90
23	60.50	61.43	60.97	61.14	60.80	60.98	---	---	---	---	59.55	59.86
24	60.50	61.42	60.96	61.13	60.81	60.96	---	---	---	---	59.61	59.86
25	60.50	61.41	60.96	61.23	60.79	60.93	---	---	---	---	59.63	59.86
26	60.50	61.42	60.95	61.26	60.78	60.90	---	---	---	---	59.67	59.86
27	60.51	61.58	60.95	61.25	60.76	60.86	---	---	---	---	59.83	59.90
28	60.50	61.61	60.95	61.21	60.74	60.82	---	---	---	---	59.88	59.97
29	60.49	61.53	60.93	61.17	60.73	60.77	---	---	---	---	59.92	59.97
30	60.48	61.48	60.93	61.14	---	60.71	---	---	---	---	59.99	59.98
31	60.47	---	60.94	61.12	---	60.65	---	---	---	---	60.05	---
MEAN	60.28	61.31	61.19	61.08	60.90	60.90	---	---	---	---	---	60.05
MAX	60.52	61.61	61.43	61.26	61.11	61.15	---	---	---	---	---	60.52
MIN	59.98	60.51	60.93	60.92	60.73	60.65	---	---	---	---	---	59.81

CAL YR 1987 MEAN 60.29 MAX 61.61 MIN 59.14

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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			JUN		
21...	0715	99.04	06...	1458	99.03
DEC			JUL		
14...	1440	99.70	28...	0815	99.01
FEB			SEP		
09...	1555	99.45	28...	0911	99.74
APR					
04...	1452	99.55			

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.

DRAINAGE AREA.--14.8 mi².

PERIOD OF RECORD.--February 1967 to September 1969, October 1970 to current year.

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.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.24	94.02	94.51	94.03	94.19	94.17	94.42	93.90	93.78	93.83	94.23	94.33
2	94.22	94.03	94.49	94.03	94.20	94.17	94.40	93.89	93.78	93.83	94.22	94.31
3	94.20	94.29	94.48	94.03	94.20	94.16	94.40	93.87	93.77	93.81	94.22	94.30
4	94.17	94.55	94.47	94.03	94.20	94.16	94.39	93.86	93.75	93.79	94.25	94.30
5	94.14	94.50	94.44	94.02	94.20	94.20	94.12	93.85	93.75	93.77	94.24	94.34
6	93.95	94.48	94.42	94.00	94.20	94.33	94.05	93.82	93.85	93.78	94.23	94.49
7	94.11	94.46	94.41	94.00	94.18	94.34	93.77	93.79	93.87	93.76	94.23	94.56
8	94.08	94.45	94.41	94.01	94.21	94.33	93.68	93.77	93.93	93.74	94.22	94.57
9	94.04	94.45	94.41	94.02	94.20	94.34	93.68	93.76	93.92	93.72	94.21	94.56
10	94.03	94.46	94.41	94.03	94.20	94.42	93.71	93.75	93.93	93.76	94.20	94.54
11	94.06	94.45	94.41	94.03	94.20	94.39	93.79	93.75	93.97	93.81	94.19	94.52
12	94.18	94.42	94.40	94.02	94.20	94.39	93.81	93.74	93.94	93.81	94.18	94.50
13	94.21	94.40	94.40	94.02	94.17	94.55	93.81	93.75	93.91	93.80	94.18	94.48
14	94.18	94.39	94.40	94.02	94.16	94.67	93.82	93.74	93.91	93.82	94.17	94.46
15	94.17	94.38	94.41	94.01	94.18	94.63	93.84	93.73	93.92	93.85	94.17	94.45
16	94.16	94.37	94.42	94.00	94.22	94.59	93.86	93.72	93.91	93.85	94.15	94.43
17	94.15	94.39	94.40	94.00	94.22	94.58	93.87	93.71	93.89	93.85	94.16	94.42
18	94.14	94.50	94.39	94.00	94.22	94.59	93.89	93.70	93.88	93.87	94.19	94.40
19	94.14	94.53	94.39	94.00	94.22	94.70	93.91	93.68	93.87	93.91	94.19	94.39
20	94.13	94.56	94.39	94.01	94.23	94.66	93.92	93.67	93.85	93.91	94.18	94.38
21	94.13	94.52	94.39	94.05	94.24	94.64	93.93	93.66	93.85	93.91	94.18	94.37
22	94.11	94.50	94.40	94.10	94.24	94.63	93.93	93.78	93.85	93.93	94.18	94.39
23	94.09	94.49	94.40	94.08	94.24	94.61	93.92	93.77	93.86	93.95	94.19	94.37
24	94.08	94.48	94.40	94.08	94.24	94.61	93.92	93.76	93.85	94.01	94.18	94.36
25	94.07	94.49	94.40	94.22	94.22	94.60	93.91	93.84	93.85	94.07	94.19	94.34
26	94.06	94.52	94.40	94.24	94.20	94.54	93.90	93.86	93.85	94.06	94.25	94.34
27	94.05	94.60	94.39	94.22	94.19	94.49	93.89	93.87	93.84	94.08	94.35	94.34
28	94.04	94.56	94.12	94.21	94.18	94.47	93.87	93.86	93.83	94.18	94.37	94.32
29	94.02	94.55	94.07	94.20	94.18	94.45	93.84	93.84	93.86	94.25	94.36	94.30
30	93.99	94.53	94.04	94.19	---	94.44	93.84	93.82	93.84	94.25	94.36	94.27
31	93.98	---	94.03	94.19	---	94.43	---	93.80	---	94.24	94.34	---
MEAN	94.11	94.44	94.37	94.07	94.20	94.46	93.94	93.78	93.86	93.91	94.22	94.40
MAX	94.24	94.60	94.51	94.24	94.24	94.70	94.42	93.90	93.97	94.25	94.37	94.57
MIN	93.95	94.02	94.03	94.00	94.16	94.16	93.68	93.66	93.75	93.72	94.15	94.27
CAL YR 1987	MEAN	94.26	MAX	94.87	MIN	93.76						
WTR YR 1988	MEAN	94.15	MAX	94.70	MIN	93.66						

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02263868 SOUTH LAKE 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 in Canal No. 1, 300 ft south of lake shoreline, 1,600 ft west of State Highway 535, and 2.4 mi northwest of Vineland.

SURFACE AREA.--128 acres (0.20 mi²).

DRAINAGE AREA.--4.0 mi², approximately.

PERIOD OF RECORD.--April 1969 to current year. Records for South Lake Outlet at S-15, near Vineland (station 02263869).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Walt Disney World bench mark).

REMARKS.--Since January 1969, lake controlled by structure 15. Outflow is to Bonnet Creek through Canal No. 1.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 94.50 ft, Apr. 6, 1987; minimum daily, 90.62 ft, July 16, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93.34	93.22	94.34	93.97	94.07	94.03	94.19	93.87	93.57	93.41	93.56	93.65
2	93.32	93.24	94.33	93.96	94.07	94.01	94.18	93.83	93.55	93.42	93.54	93.64
3	93.28	93.46	94.31	93.95	94.06	94.00	94.16	93.83	93.48	93.39	93.54	93.68
4	93.28	94.11	94.30	93.95	94.05	94.00	94.14	93.79	93.41	93.33	93.65	93.74
5	93.31	94.12	94.30	93.93	94.05	94.06	94.13	93.78	93.39	93.26	93.63	93.78
6	93.24	94.11	94.26	93.91	94.05	94.20	94.09	93.79	93.44	93.33	93.60	93.92
7	93.24	94.06	94.21	93.90	94.04	94.20	94.01	93.71	93.44	93.33	93.60	93.98
8	93.30	94.06	94.19	93.90	94.06	94.21	93.98	93.71	93.54	93.28	93.59	94.05
9	93.47	94.10	94.18	93.91	94.07	94.20	93.99	93.72	93.52	93.27	93.58	94.16
10	93.11	94.12	94.18	93.92	94.06	94.26	94.02	93.73	93.53	93.27	93.58	94.15
11	93.05	94.14	94.17	93.93	94.06	94.25	94.11	93.69	93.58	93.27	93.58	94.14
12	93.17	94.03	94.16	93.91	94.06	94.23	94.09	93.66	93.57	93.28	93.57	94.13
13	93.22	94.03	94.15	93.90	94.09	94.39	94.07	93.66	93.57	93.28	93.57	94.12
14	93.20	94.04	94.14	93.90	94.09	94.49	94.06	93.66	93.59	93.28	93.56	94.12
15	93.18	94.04	94.14	93.88	94.13	94.42	94.04	93.65	93.58	93.30	93.53	94.09
16	93.17	94.07	94.15	93.87	94.15	94.38	94.03	93.64	93.57	93.28	93.53	94.05
17	93.16	94.04	94.13	93.85	94.15	94.38	94.02	93.59	93.56	93.27	93.58	94.03
18	93.16	94.13	94.11	93.85	94.13	94.39	93.97	93.59	93.55	93.33	93.71	94.02
19	93.15	94.15	94.09	93.85	94.11	94.48	93.95	93.53	93.52	93.34	93.66	94.00
20	93.14	94.27	94.08	93.84	94.09	94.44	93.93	93.48	93.52	93.26	93.65	93.99
21	93.14	94.31	94.08	93.87	94.08	94.40	93.92	93.49	93.54	93.25	93.64	93.98
22	93.22	94.23	94.07	93.92	94.07	94.38	93.93	93.59	93.53	93.24	93.61	94.03
23	93.18	94.17	94.07	93.92	94.07	94.37	93.91	93.56	93.56	93.26	93.58	94.01
24	93.18	94.16	94.06	93.92	94.09	94.37	93.90	93.56	93.52	93.35	93.59	93.99
25	93.19	94.16	94.06	94.06	94.05	94.34	93.86	93.63	93.49	93.41	93.60	93.97
26	93.13	94.18	94.05	94.10	94.09	94.33	93.82	93.63	93.44	93.40	93.62	93.97
27	93.13	94.34	94.05	94.11	94.05	94.31	93.81	93.64	93.44	93.46	93.71	94.01
28	93.16	94.35	94.04	94.14	94.03	94.27	93.80	93.64	93.41	93.53	93.79	94.01
29	93.16	94.38	94.03	94.11	94.02	94.26	93.80	93.64	93.40	93.56	93.81	93.97
30	93.19	94.37	94.00	94.08	---	94.24	93.81	93.63	93.43	93.57	93.80	93.95
31	93.16	---	93.98	94.07	---	94.21	---	93.56	---	93.57	93.73	---
MEAN	93.20	94.07	94.14	93.95	94.08	94.27	93.99	93.66	93.51	93.35	93.62	93.98
MAX	93.47	94.38	94.34	94.14	94.15	94.49	94.19	93.87	93.59	93.57	93.81	94.16
MIN	93.05	93.22	93.98	93.84	94.02	94.00	93.80	93.48	93.39	93.24	93.53	93.64
CAL YR 1987	MEAN	93.64	MAX	94.50	MIN	93.02						
WTR YR 1988	MEAN	93.82	MAX	94.49	MIN	93.05						

02263900 LAKE BUTLER AT WINDERMERE. FL

SURFACE AREA.--1,665 acres (2.60 mi²).

DRAINAGE AREA.--14.5 mi².

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, nonrecording gage at site 500 ft south at datum 10.17 ft higher. Nov. 27, 1941 to Mar. 9, 1942, nonrecording gage at site of old hotel pier about 0.4 mi northwest at datum 6.40 ft higher. Mar. 9, 1942 to Dec. 7, 1978, nonrecording gage at present site at datum 6.40 ft higher.

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, 100.28 ft, Mar. 23; minimum observed, 99.36 ft, Oct. 27.

[illegible]

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02264900 LAKE TOHOPEKALIGA AT KISSIMMEE, FL

LOCATION.--Lat 28°17'20", long 81°24'20", in NW¼ sec.27, T.25 S., R.29 E., Osceola County, Hydrologic Unit 03090101, at north end of lake, on end of public pier at Kissimmee.

SURFACE AREA.--18,790 acres (29.4 mi²).

DRAINAGE AREA.--620 mi², approximately.

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. Prior to June 15, 1950, at site 9 mi south on west shore of lake at datum 50.36 ft higher.

REMARKS.--Lake is one of the Kissimmee River headwaters chain of lakes. Since 1963, 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, 59.40 ft, Sept. 25, 1960; minimum daily, 48.37 ft, Apr. 22, 1979.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51.05	51.62	55.29	54.91	55.15	54.93	54.55	53.30	51.77	51.74	52.65	53.78
2	51.11	51.67	55.17	54.91	55.13	54.95	54.47	53.35	51.78	51.73	52.67	53.68
3	51.11	51.88	55.07	54.92	55.09	54.97	54.39	53.42	51.77	51.71	52.70	53.64
4	51.05	52.28	54.95	54.91	55.06	54.98	54.30	53.37	51.75	51.67	52.72	53.63
5	51.09	52.42	54.88	54.85	54.95	54.95	54.21	53.25	51.76	51.60	52.76	53.65
6	51.11	52.44	54.89	54.88	54.84	55.03	54.16	53.12	51.75	51.65	52.76	53.75
7	51.10	52.68	54.94	54.96	54.87	55.08	53.99	53.02	51.77	51.67	52.78	53.88
8	51.03	52.83	54.97	54.95	54.89	55.10	53.96	52.97	51.84	51.67	52.85	53.94
9	51.04	52.95	54.99	54.94	54.91	55.15	53.98	52.90	51.85	51.71	52.94	54.05
10	51.02	53.05	55.00	54.97	54.93	55.10	53.98	52.85	51.81	51.71	52.98	54.06
11	51.07	53.04	55.00	54.99	54.97	55.11	53.99	52.80	51.73	51.74	53.02	54.04
12	51.24	53.08	55.02	55.02	54.96	55.11	54.01	52.77	51.73	51.73	53.04	54.01
13	51.28	53.18	55.02	55.04	54.96	55.33	53.92	52.77	51.70	51.80	53.02	53.95
14	51.39	53.27	55.04	54.99	54.99	55.52	53.96	52.73	51.69	51.84	53.09	53.90
15	51.43	53.36	55.06	54.99	55.04	55.51	53.94	52.68	51.70	51.86	53.13	53.85
16	51.49	53.50	54.98	55.04	55.01	55.52	53.90	52.66	51.71	51.89	53.20	53.79
17	51.51	53.59	54.94	55.06	55.03	55.51	53.86	52.65	51.72	51.89	53.21	53.73
18	51.54	53.77	54.96	55.07	55.05	55.51	53.85	52.57	51.72	51.95	53.26	53.68
19	51.60	53.93	54.99	55.10	55.08	55.53	53.79	52.54	51.69	51.95	53.33	53.63
20	51.63	54.09	55.01	55.10	55.11	55.54	53.63	52.47	51.72	52.01	53.34	53.64
21	51.63	54.23	55.03	55.13	55.01	55.52	53.53	52.44	51.69	52.04	53.36	53.64
22	51.56	54.43	55.04	55.11	55.06	55.46	53.45	52.38	51.70	52.12	53.41	53.68
23	51.58	54.57	55.01	55.10	55.06	55.39	53.37	52.35	51.71	52.28	53.46	53.71
24	51.61	54.72	55.02	55.06	55.04	55.31	53.30	52.31	51.70	52.38	53.52	53.72
25	51.59	54.85	55.02	55.12	54.98	55.20	53.23	52.34	51.67	52.48	53.53	53.70
26	51.63	54.99	55.00	55.14	54.96	55.09	53.25	52.22	51.67	52.53	53.52	53.69
27	51.65	55.25	54.99	55.13	54.98	54.98	53.24	52.14	51.68	52.56	53.62	53.69
28	51.59	55.38	54.98	55.12	54.95	54.85	53.23	52.07	51.69	52.57	53.77	53.67
29	51.55	55.39	54.83	55.15	54.95	54.73	53.25	51.98	51.78	52.59	53.81	53.69
30	51.57	55.35	54.83	55.16	---	54.61	53.29	51.89	51.77	52.61	53.86	53.68
31	51.56	---	54.90	55.16	---	54.51	---	51.80	---	52.63	53.85	---
MEAN	51.37	53.59	54.99	55.03	55.00	55.16	53.80	52.65	51.73	52.01	53.20	53.77
MAX	51.65	55.39	55.29	55.16	55.15	55.54	54.55	53.42	51.85	52.63	53.86	54.06
MIN	51.02	51.62	54.83	54.85	54.84	54.51	53.23	51.80	51.67	51.60	52.65	53.63

CAL YR 1987 MEAN 50.73 MAX 55.39 MIN 48.57
WTR YR 1988 MEAN 53.52 MAX 55.54 MIN 51.02

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, 96.32 ft, Sept. 7; minimum observed, 93.45 ft, Oct. 8.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

[illegible]

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

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. Overflow 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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49.83	51.03	53.08	52.54	52.65	51.64	51.79	50.10	49.26	49.26	49.85	51.03
2	49.85	51.08	53.16	52.53	52.66	51.56	51.89	49.96	49.15	49.15	49.90	51.08
3	49.88	51.36	53.21	52.53	52.67	51.52	51.88	50.01	49.19	49.14	49.93	51.08
4	49.83	51.76	53.23	52.54	52.69	51.47	51.82	50.09	49.15	49.09	50.02	51.15
5	49.83	51.89	53.04	52.47	52.64	51.40	51.67	50.16	49.08	49.00	50.04	51.26
6	49.88	51.92	52.95	52.48	52.55	51.49	51.59	50.11	49.24	48.98	50.05	51.40
7	49.90	52.00	52.86	52.58	52.54	51.52	51.50	50.03	49.24	49.10	50.07	51.61
8	49.80	52.14	52.81	52.61	52.62	51.51	51.17	49.99	49.40	49.13	50.08	51.80
9	49.78	52.22	52.79	52.59	52.57	51.58	51.01	49.98	49.42	49.20	50.10	52.03
10	49.78	52.31	52.80	52.60	52.53	51.69	50.96	49.89	49.41	49.22	50.09	52.19
11	49.84	52.36	52.78	52.62	52.53	51.51	51.00	49.80	49.23	49.26	50.11	52.24
12	50.21	52.31	52.75	52.64	52.57	51.47	51.01	49.72	49.19	49.25	50.08	52.25
13	50.47	52.38	52.72	52.67	52.48	51.61	50.79	49.70	49.17	49.31	50.06	52.25
14	50.55	52.42	52.70	52.60	52.48	52.02	50.67	49.66	49.16	49.45	50.12	52.23
15	50.65	52.45	52.77	52.59	52.56	52.13	50.64	49.58	49.18	49.47	50.15	52.29
16	50.72	52.50	52.75	52.59	52.55	52.09	50.62	49.54	49.18	49.47	50.16	52.26
17	50.80	52.59	52.66	52.65	52.55	52.07	50.57	49.54	49.20	49.48	50.17	52.11
18	50.83	52.79	52.63	52.64	52.56	52.05	50.62	49.54	49.20	49.49	50.24	52.02
19	50.90	52.88	52.62	52.67	52.64	52.28	50.74	49.50	49.17	49.48	50.29	51.87
20	50.95	53.11	52.63	52.68	52.71	52.28	50.74	49.52	49.17	49.52	50.34	51.62
21	50.97	53.08	52.63	52.77	52.62	52.32	50.72	49.49	49.19	49.55	50.35	51.60
22	50.91	53.08	52.66	52.77	52.64	52.41	50.71	49.58	49.20	49.59	50.35	51.64
23	50.93	53.07	52.63	52.73	52.63	52.45	50.69	49.56	49.20	49.64	50.34	51.65
24	50.97	53.00	52.64	52.72	52.46	52.46	50.70	49.55	49.19	49.63	50.38	51.65
25	50.99	52.92	52.65	52.82	52.15	52.43	50.59	49.66	49.17	49.64	50.43	51.66
26	51.02	52.84	52.64	52.81	51.85	52.42	50.50	49.66	49.19	49.65	50.46	51.64
27	51.04	52.83	52.63	52.73	51.75	52.40	50.36	49.62	49.22	49.67	50.49	51.62
28	51.02	52.84	52.64	52.68	51.73	52.35	50.27	49.61	49.22	49.75	50.54	51.62
29	50.98	52.92	52.59	52.64	51.72	52.31	50.15	49.59	49.27	49.80	50.58	51.64
30	50.99	52.96	52.46	52.62	---	52.25	50.11	49.53	49.28	49.82	50.70	51.65
31	51.00	---	52.53	52.63	---	52.14	---	49.45	---	49.83	50.86	---
MEAN	50.49	52.43	52.76	52.64	52.46	51.96	50.92	49.73	49.22	49.42	50.24	51.74
MAX	51.04	53.11	53.23	52.82	52.71	52.46	51.89	50.16	49.42	49.83	50.86	52.29
MIN	49.78	51.03	52.46	52.47	51.72	51.40	50.11	49.45	49.08	48.98	49.85	51.03

WTR YR 1988 MEAN 51.16 MAX 53.23 MIN 48.98

02266650 LAKE MARION NEAR HAINES CITY, FL

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 67.52 ft, Sept. 12,15, 1960; minimum observed, 64.86 ft, June 1, 1967.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.20	66.14	66.76	66.30	66.26	66.08	66.26	65.86	65.64	65.50	66.08	66.20
2	66.20	66.18	66.74	66.28	66.24	66.06	66.24	65.84	65.62	65.48	66.10	66.18
3	66.18	66.38	66.72	66.28	66.24	66.06	66.22	65.82	65.60	65.46	66.10	66.16
4	66.16	66.46	66.70	66.28	66.22	66.04	66.20	65.80	65.58	65.44	66.12	66.18
5	66.14	66.46	66.68	66.26	66.20	66.08	66.18	65.78	65.62	65.42	66.12	66.26
6	66.12	66.46	66.66	66.26	66.22	66.18	66.16	65.78	65.62	65.44	66.14	66.40
7	66.10	66.44	66.64	66.24	66.22	66.18	66.14	65.76	65.60	65.44	66.14	66.52
8	66.08	66.44	66.64	66.22	66.22	66.16	66.12	65.74	65.60	65.42	66.14	66.70
9	66.06	66.44	66.62	66.24	66.24	66.16	66.10	65.74	65.58	65.42	66.16	66.76
10	66.04	66.42	66.60	66.26	66.24	66.20	66.08	65.72	65.56	65.52	66.16	66.76
11	66.14	66.42	66.58	66.26	66.24	66.20	66.10	65.70	65.54	65.52	66.14	66.74
12	66.32	66.40	66.56	66.24	66.22	66.18	66.08	65.68	65.52	65.56	66.14	66.74
13	66.32	66.40	66.56	66.24	66.22	66.38	66.06	65.70	65.50	65.56	66.14	66.72
14	66.32	66.38	66.54	66.22	66.22	66.38	66.04	65.70	65.50	65.56	66.12	66.72
15	66.32	66.36	66.52	66.22	66.20	66.36	66.02	65.72	65.50	65.54	66.12	66.70
16	66.30	66.36	66.50	66.22	66.20	66.36	66.00	65.70	65.48	65.54	66.14	66.68
17	66.30	66.34	66.49	66.20	66.20	66.36	65.98	65.70	65.48	65.54	66.16	66.66
18	66.30	66.58	66.48	66.20	66.18	66.34	65.98	65.70	65.46	65.70	66.16	66.64
19	66.30	66.70	66.48	66.20	66.18	66.42	65.96	65.70	65.46	65.74	66.14	66.62
20	66.28	66.70	66.46	66.18	66.16	66.40	65.94	65.70	65.46	65.80	66.14	66.60
21	66.28	66.70	66.46	66.24	66.20	66.38	65.94	65.70	65.44	65.84	66.12	66.58
22	66.26	66.68	66.44	66.28	66.18	66.38	65.92	65.68	65.44	65.96	66.10	66.60
23	66.24	66.68	66.44	66.26	66.16	66.38	65.92	65.68	65.44	65.98	66.10	66.58
24	66.22	66.66	66.42	66.26	66.16	66.36	65.92	65.66	65.42	65.98	66.10	66.56
25	66.20	66.66	66.42	66.30	66.14	66.34	65.90	65.72	65.42	66.02	66.08	66.54
26	66.20	66.70	66.40	66.30	66.12	66.32	65.88	65.72	65.40	66.04	66.12	66.52
27	66.18	66.80	66.38	66.28	66.10	66.34	65.86	65.70	65.46	66.08	66.20	66.50
28	66.16	66.82	66.36	66.28	66.10	66.34	65.84	65.70	65.46	66.10	66.18	66.48
29	66.14	66.80	66.34	66.28	66.08	66.32	65.82	65.68	65.54	66.10	66.18	66.46
30	66.12	66.78	66.32	66.26	---	66.30	65.86	65.68	65.52	66.10	66.18	66.44
31	66.10	---	66.30	66.26	---	66.28	---	65.66	---	66.10	66.	

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. 21, 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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			JUN		
22...	0950	76.66	10...	0834	75.80
DEC			JUL		
17...	1135	76.81	27...	1040	75.92
FEB			SEP		
09...	0950	76.57	27...	0913	76.68
APR					
05...	1126	76.54			

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53.90	54.51	54.92	54.45	54.29	54.06	54.51	53.86	53.06	52.62	53.16	54.72
2	53.90	54.60	54.90	54.43	54.28	54.04	54.48	53.83	53.02	52.62	53.19	54.72
3	53.88	54.74	54.84	54.41	54.27	54.03	54.46	53.80	53.00	52.59	53.34	54.71
4	53.86	55.01	54.88	54.38	54.26	54.03	54.43	53.78	52.97	52.56	53.43	54.70
5	53.84	55.05	54.74	54.36	54.25	54.01	54.42	53.74	52.95	52.54	53.42	54.71
6	53.82	55.04	54.70	54.34	54.23	54.16	54.40	53.70	52.98	52.54	53.44	54.72
7	53.79	55.02	54.70	54.34	54.20	54.20	54.31	53.66	52.98	52.60	53.45	54.84
8	53.77	54.98	54.71	54.34	54.21	54.22	54.30	53.63	52.97	52.55	53.55	54.80
9	53.75	54.96	54.72	54.36	54.25	54.24	54.29	53.60	52.96	52.52	53.74	55.04
10	53.74	54.92	54.72	54.34	54.24	54.24	54.28	53.58	52.93	52.52	53.87	55.09
11	53.75	54.90	54.73	54.34	54.24	54.25	54.27	53.56	52.92	52.51	53.96	55.04
12	53.85	54.87	54.72	54.33	54.22	54.26	54.24	53.52	52.90	52.50	54.04	55.02
13	54.21	54.83	54.72	54.31	54.20	54.54	54.19	53.50	52.87	52.48	54.10	54.98
14	54.31	54.80	54.72	54.29	54.18	54.61	54.16	53.48	52.85	52.66	54.16	54.96
15	54.39	54.77	54.72	54.27	54.17	54.62	54.13	53.46	52.82	52.65	54.21	54.92
16	54.44	54.74	54.71	54.25	54.20	54.62	54.10	53.44	52.80	52.63	54.25	54.88
17	54.48	54.72	54.68	54.24	54.18	54.62	54.08	53.42	52.78	52.63	54.34	54.86
18	54.54	54.90	54.67	54.24	54.17	54.61	54.07	53.39	52.76	52.63	54.46	54.82
19	54.60	55.14	54.66	54.22	54.16	54.70	54.04	53.36	52.72	52.63	54.54	54.78
20	54.60	55.21	54.64	54.21	54.14	54.70	54.07	53.32	52.80	52.62	54.56	54.76
21	54.63	55.21	54.65	54.25	54.17	54.70	54.05	53.30	52.79	52.62	54.58	54.72
22	54.63	55.18	54.64	54.34	54.18	54.69	54.02	53.27	52.78	52.71	54.58	54.72
23	54.62	55.13	54.61	54.34	54.16	54.67	53.98	53.26	52.76	52.77	54.59	54.68
24	54.62	55.08	54.58	54.32	54.14	54.66	53.96	53.23	52.75	52.82	54.58	54.64
25	54.60	55.06	54.56	54.31	54.12	54.66	53.94	53.23	52.73	52.82	54.58	54.62
26	54.61	55.04	54.54	54.33	54.12	54.64	53.90	53.23	52.71	52.84	54.56	54.61
27	54.61	55.07	54.52	54.33	54.10	54.62	53.88	53.21	52.68	52.84	54.59	54.59
28	54.59	55.06	54.51	54.32	54.08	54.60	53.83	53.18	52.67	52.98	54.70	54.58
29	54.58	55.02	54.50	54.32	54.06	54.57	53.82	53.15	52.69	53.02	54.72	54.57
30	54.55	54.96	54.48	54.32	---	54.55	53.79	53.12	52.64	53.10	54.72	54.53
31	54.53	---	54.46	54.29	---	54.53	---	53.08	---	53.13	54.71	---
MEAN	54.26	54.95	54.67	54.32	54.19	54.44	54.15	53.45	52.84	52.69	54.13	54.78
MAX	54.63	55.21	54.92	54.45	54.29	54.70	54.51	53.86	53.06	53.13	54.72	55.09
MIN	53.74	54.51	54.46	54.21	54.06	54.01	53.79	53.08	52.64	52.48	53.16	54.53
CAL YR 1987	MEAN 53.91	MAX 55.21	MIN 52.94									
WTR YR 1988	MEAN 54.07	MAX 55.21	MIN 52.48									

SOUTH FLORIDA

KISSIMMEE RIVER BASIN

02268900 LAKE KISSIMMEE 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.

SURFACE AREA.--34,760 acres (54.3 mi²).

DRAINAGE AREA.--1,607 mi² at State Highway 60, includes areas drained by Lake Weohyakapka and Lake Marian.

PERIOD OF RECORD.--August 1929 to current year. Records of elevations prior to October 1960 are unpublished and available in files of the Orlando Subdistrict Office. Prior to March 1942, records for Kissimmee River at outlet of Lake Kissimmee. Since June 11, 1965, records for Kissimmee River at S-65, near Lake Wales (station 02268903).

REVISED RECORDS.--WRD FL 1970: Drainage area. WDR FL-81-2: Surface area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by South Florida Water Management District). Prior to Mar. 16, 1942, nonrecording gage at bridge on State Highway 60 at datum 1.25 ft lower. Mar. 16, 1942, to May 11, 1950, water-stage recorder on southwest shore of lake, and May 11, 1950, to June 10, 1965, water-stage recorder near northwest end of lake, at datum 46.94 ft higher.

REMARKS.--Lake is located between the upper and lower reaches of the Kissimmee River and is the most downstream of the river headwater chain of lakes. Since July 1964 lake elevation partially regulated by operation of structure 65 at lake outlet and by storage releases at several control structures in the river basin upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 56.64 ft, Oct. 12,13, 1953; minimum daily, 42.87 ft, May 25, 1977.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49.93	51.15	52.26	52.44	52.50	51.41	50.93	49.97	49.00	49.19	49.74	50.65
2	49.89	51.19	52.42	52.46	52.53	51.28	50.83	49.90	49.11	49.15	49.79	50.74
3	49.90	51.33	52.49	52.51	52.55	51.13	50.75	49.74	49.11	49.13	49.84	50.81
4	49.93	51.60	52.59	52.55	52.53	51.19	50.84	49.74	49.09	49.12	49.90	50.86
5	49.91	51.80	52.68	52.65	52.57	51.37	50.85	49.82	49.04	49.19	49.90	50.95
6	49.89	52.02	52.63	52.60	52.68	51.48	50.77	49.82	49.13	49.19	49.93	51.08
7	49.87	52.05	52.60	52.49	52.49	51.39	50.83	49.73	49.12	49.15	49.94	51.21
8	49.97	52.06	52.57	52.55	52.54	51.23	50.81	49.63	49.21	49.12	49.93	51.24
9	49.87	52.14	52.55	52.62	52.52	51.04	50.77	49.59	49.19	49.08	49.97	51.30
10	49.86	52.22	52.48	52.66	52.50	51.11	50.67	49.55	49.22	49.10	49.97	51.31
11	50.05	52.39	52.48	52.70	52.47	50.88	50.66	49.55	49.26	49.12	49.96	51.37
12	50.41	52.40	52.50	52.64	52.51	50.90	50.60	49.45	49.21	49.11	49.96	51.30
13	50.79	52.37	52.51	52.61	52.50	51.04	50.63	49.39	49.20	49.15	50.02	51.23
14	50.78	52.38	52.47	52.66	52.42	50.97	50.44	49.36	49.16	49.37	49.97	51.17
15	50.82	52.42	52.44	52.66	52.39	50.88	50.40	49.35	49.17	49.40	49.98	51.25
16	50.85	52.39	52.59	52.58	52.52	50.67	50.37	49.28	49.16	49.38	50.01	51.17
17	50.89	52.45	52.61	52.54	52.50	50.52	50.33	49.28	49.12	49.38	50.07	51.14
18	50.92	52.67	52.52	52.55	52.49	50.77	50.24	49.36	49.08	49.40	50.12	51.11
19	50.92	52.65	52.51	52.50	52.48	51.30	50.27	49.37	49.08	49.41	50.12	51.21
20	50.93	52.83	52.53	52.51	52.48	51.28	50.38	49.41	49.09	49.42	50.13	51.39
21	50.97	52.72	52.54	52.52	52.59	51.28	50.37	49.36	49.11	49.47	50.19	51.47
22	51.05	52.47	52.54	52.75	52.45	51.31	50.32	49.37	49.11	49.50	50.20	51.49
23	51.01	52.31	52.55	52.70	51.47	51.18	50.29	49.35	49.10	49.52	50.22	51.46
24	51.00	52.06	52.51	52.68	50.44	51.18	50.26	49.32	49.09	49.58	50.24	51.48
25	51.04	51.95	52.50	52.66	50.23	51.25	50.24	49.34	49.08	49.58	50.26	51.51
26	51.05	51.85	52.50	52.60	51.19	51.27	50.20	49.32	49.07	49.58	50.30	51.54
27	51.03	51.91	52.50	52.55	51.65	51.30	50.17	49.22	49.09	49.61	50.39	51.57
28	51.09	51.90	52.50	52.50	51.66	51.28	50.14	49.07	49.11	49.68	50.40	51.59
29	51.15	51.84	52.68	52.44	51.54	51.25	50.05	49.03	49.17	49.73	50.43	51.57
30	51.08	51.95	52.61	52.42	---	51.16	49.90	48.96	49.18	49.72	50.48	51.55
31	51.08	---	52.46	52.46	---	51.03	---	48.89	---	49.71	50.57	---
MEAN	50.58	52.12	52.53	52.57	52.19	51.14	50.48	49.44	49.13	49.36	50.09	51.26
MAX	51.15	52.83	52.68	52.75	52.68	51.48	50.93	49.97	49.26	49.73	50.57	51.59
MIN	49.86	51.15	52.26	52.42	50.23	50.52	49.90	48.89	49.00	49.08	49.74	50.65

CAL YR 1987 MEAN 49.43 MAX 52.83 MIN 46.98

WTR YR 1988 MEAN 50.90 MAX 52.83 MIN 48.89

KISSIMMEE RIVER BASIN

02269600 LAKE ARBUCKLE NEAR AVON PARK, FL

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53.70	54.87	55.71	54.67	54.52	54.51	54.93	54.03	53.16	53.15	54.99	55.71
2	53.68	54.89	55.66	54.66	54.52	54.48	54.90	53.99	53.08	53.12	55.00	55.68
3	53.66	54.91	55.60	54.65	54.52	54.46	54.86	53.95	53.02	53.09	54.98	55.65
4	53.65	54.99	55.57	54.65	54.50	54.45	54.83	53.93	52.97	53.07	54.97	55.60
5	53.61	55.05	55.52	54.63	54.50	54.49	54.81	53.92	52.91	53.06	54.98	55.59
6	53.58	55.08	55.45	54.59	54.51	54.61	54.77	53.88	52.93	53.22	54.98	55.64
7	53.56	55.06	55.40	54.54	54.45	54.67	54.77	53.83	53.00	53.35	54.97	55.88
8	53.55	55.04	55.36	54.56	54.52	54.69	54.67	53.78	53.10	53.35	54.96	56.09
9	53.50	55.02	55.33	54.55	54.54	54.70	54.63	53.75	53.08	53.34	54.98	56.35
10	53.48	55.02	55.31	54.54	54.54	54.86	54.59	53.72	53.09	53.34	55.04	56.46
11	53.69	55.03	55.29	54.57	54.53	54.86	54.57	53.71	53.11	53.33	55.14	56.46
12	54.31	54.97	55.25	54.54	54.55	54.87	54.55	53.67	53.11	53.31	55.21	56.41
13	54.97	54.93	55.21	54.53	54.52	54.90	54.52	53.64	53.13	53.37	55.27	56.34
14	55.26	54.91	55.17	54.52	54.48	55.00	54.46	53.65	53.15	53.70	55.28	56.25
15	55.36	54.88	55.14	54.50	54.50	55.00	54.42	53.66	53.16	53.87	55.27	56.19
16	55.40	54.84	55.15	54.47	54.57	54.97	54.40	53.63	53.14	53.95	55.28	56.13
17	55.40	54.84	55.10	54.45	54.57	54.96	54.37	53.59	53.11	53.99	55.33	56.06
18	55.38	54.98	55.04	54.44	54.56	54.94	54.33	53.58	53.09	54.03	55.34	55.99
19	55.34	55.09	55.00	54.42	54.55	55.14	54.30	53.55	53.07	54.09	55.35	55.91
20	55.32	55.52	54.98	54.41	54.55	55.20	54.29	53.52	53.08	54.13	55.35	55.86
21	55.29	55.73	54.96	54.45	54.61	55.22	54.26	53.48	53.14	54.20	55.34	55.79
22	55.24	55.78	54.95	54.58	54.60	55.22	54.22	53.46	53.14	54.29	55.33	55.72
23	55.18	55.79	54.93	54.57	54.60	55.20	54.18	53.43	53.16	54.45	55.30	55.65
24	55.13	55.78	54.90	54.57	54.62	55.18	54.15	53.40	53.14	54.74	55.28	55.58
25	55.09	55.76	54.87	54.60	54.62	55.15	54.13	53.39	53.12	54.86	55.31	55.53
26	55.05	55.76	54.86	54.60	54.59	55.14	54.10	53.37	53.12	54.90	55.29	55.46
27	55.00	55.82	54.83	54.58	54.56	55.12	54.08	53.33	53.15	54.93	55.33	55.41
28	54.97	55.82	54.81	54.57	54.54	55.09	54.05	53.29	53.18	54.94	55.52	55.35
29	54.93	55.80	54.83	54.55	54.52	55.05	54.00	53.26	53.17	54.95	55.65	55.29
30	54.88	55.76	54.74	54.53	---	55.01	53.98	53.22	53.16	54.98	55.71	55.23
31	54.84	---	54.69	54.52	---	54.97	---	53.18	---	54.98	55.72	---
MEAN	54.58	55.26	55.15	54.55	54.54	54.91	54.44	53.61	53.10	53.94	55.24	55.84
MAX	55.40	55.82	55.71	54.67	54.62	55.22	54.93	54.03	53.18	54.98	55.72	56.46
MIN	53.48	54.84	54.69	54.41	54.45	54.45	53.98	53.18	52.91	53.06	54.96	55.23

CAL YR 1987	MEAN 53.90	MAX 55.82	MIN 52.81
WTR YR 1988	MEAN 54.60	MAX 56.46	MIN 52.91

SOUTH FLORIDA
KISSIMMEE RIVER BASIN

02271700 LAKE ISTOKPOGA NEAR DE SOTO CITY, FL

LOCATION.--Lat 27°19'55", long 81°15'05", in sec.19 or 20, T.36 S., R.31 E., Highlands County, Hydrologic Unit 03090101, 33 ft from right bank, 350 ft upstream from control structure 68 at Lake Istokpoga, 7.5 mi northeast of town of Lake Placid, and 12.2 mi southeast of De Soto City.

SURFACE AREA.--27,500 acres (43.0 mi²).

DRAINAGE AREA.--607 mi².

PERIOD OF RECORD.--August 1936 to current year. Since July 7, 1965, 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 present site at datum 30.00 ft higher.

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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.44	39.44	39.41	39.34	39.47	38.81	39.35	38.55	37.36	37.69	38.32	38.63
2	38.39	39.45	39.41	39.37	39.49	38.80	39.32	38.56	37.35	37.65	38.34	38.66
3	38.40	39.33	39.39	39.40	39.51	38.78	39.29	38.47	37.35	37.64	38.32	38.69
4	38.42	39.31	39.43	39.45	39.53	38.83	39.28	38.39	37.32	37.63	38.35	38.69
5	38.38	39.29	39.47	39.50	39.56	38.92	39.26	38.40	37.30	37.66	38.39	38.70
6	38.36	39.40	39.45	39.45	39.62	39.03	39.25	38.35	37.36	37.63	38.39	38.74
7	38.37	39.31	39.46	39.40	39.49	39.04	39.30	38.26	37.41	37.63	38.39	38.82
8	38.43	39.26	39.49	39.46	39.54	39.03	39.16	38.20	37.54	37.60	38.38	38.84
9	38.36	39.26	39.53	39.51	39.52	39.02	39.10	38.14	37.55	37.59	38.43	38.87
10	38.37	39.30	39.53	39.53	39.51	39.18	39.06	38.10	37.56	37.56	38.44	38.91
11	38.46	39.38	39.53	39.56	39.46	39.11	39.05	38.10	37.57	37.56	38.43	38.94
12	38.84	39.38	39.51	39.52	39.50	39.08	39.05	38.04	37.54	37.55	38.43	38.95
13	39.05	39.36	39.50	39.49	39.47	39.11	39.05	38.01	37.53	37.60	38.46	38.95
14	39.08	39.36	39.50	39.50	39.45	39.23	38.95	38.12	37.50	37.67	38.45	38.93
15	39.14	39.38	39.50	39.48	39.47	39.25	38.94	38.14	37.52	37.71	38.45	38.94
16	39.20	39.36	39.60	39.46	39.55	39.18	38.90	38.08	37.50	37.74	38.50	38.92
17	39.28	39.41	39.54	39.44	39.50	39.16	38.89	38.00	37.46	37.75	38.58	38.92
18	39.35	39.50	39.48	39.45	39.47	39.14	38.84	37.94	37.45	37.78	38.57	38.91
19	39.37	39.41	39.45	39.45	39.44	39.42	38.77	37.88	37.43	37.81	38.56	38.94
20	39.43	39.45	39.49	39.46	39.45	39.41	38.81	37.88	37.44	37.84	38.55	38.99
21	39.45	39.35	39.51	39.49	39.58	39.40	38.78	37.80	37.47	37.91	38.55	39.03
22	39.40	39.29	39.53	39.60	39.50	39.42	38.74	37.77	37.51	38.02	38.62	39.06
23	39.31	39.26	39.55	39.48	39.45	39.42	38.71	37.70	37.57	38.14	38.60	39.09
24	39.26	39.30	39.52	39.39	39.44	39.44	38.67	37.65	37.56	38.23	38.58	39.11
25	39.24	39.35	39.48	39.39	39.35	39.48	38.64	37.66	37.55	38.27	38.58	39.15
26	39.23	39.41	39.48	39.44	39.15	39.49	38.62	37.62	37.54	38.26	38.58	39.18
27	39.24	39.48	39.45	39.45	38.96	39.51	38.61	37.58	37.58	38.29	38.62	39.21
28	39.29	39.46	39.45	39.47	38.82	39.49	38.58	37.51	37.63	38.30	38.66	39.24
29	39.34	39.46	39.52	39.45	38.78	39.48	38.53	37.45	37.62	38.32	38.67	39.25
30	39.30	39.44	39.42	39.43	---	39.44	38.48	37.40	37.68	38.32	38.64	39.26
31	39.30	---	39.34	39.44	---	39.39	---	37.35	---	38.30	38.65	---
MEAN	38.95	39.37	39.48	39.46	39.41	39.21	38.93	37.97	37.49	37.86	38.50	38.95
MAX	39.45	39.50	39.60	39.60	39.62	39.51	39.35	38.56	37.68	38.32	38.67	39.26
MIN	38.36	39.26	39.34	39.34	38.78	38.78	38.48	37.35	37.30	37.55	38.32	38.63

CAL YR 1987 MEAN 38.40 MAX 39.60 MIN 37.15
WTR YR 1988 MEAN 38.80 MAX 39.62 MIN 37.30

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 1987-88 (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 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.67	14.24	15.94	16.05	16.08	16.30	16.23	15.63	15.21	15.17	15.43	15.92
2	13.61	14.33	15.95	16.05	16.09	16.28	16.20	15.62	15.20	15.15	15.43	15.91
3	13.57	14.43	15.94	16.07	16.10	16.28	16.19	15.60	15.20	15.13	15.43	15.92
4	13.55	14.57	15.90	16.06	16.10	16.27	16.18	15.60	15.19	15.08	15.44	15.93
5	13.56	14.72	15.88	16.04	16.12	16.26	16.17	15.61	15.19	15.04	15.44	15.95
6	13.57	14.85	15.90	16.03	16.13	16.26	16.16	15.58	15.22	15.00	15.44	15.95
7	13.54	14.94	15.94	16.02	16.14	16.25	16.15	15.54	15.33	15.02	15.44	15.94
8	13.46	14.99	15.98	16.02	16.15	16.25	16.13	15.49	15.40	15.08	15.45	15.95
9	13.38	15.00	16.00	16.02	16.17	16.25	16.10	15.45	15.42	15.15	15.46	15.96
10	13.40	15.00	16.02	16.03	16.19	16.26	16.07	15.44	15.43	15.19	15.47	15.96
11	13.55	14.98	16.03	16.05	16.21	16.26	16.05	15.43	15.41	15.19	15.50	15.95
12	13.78	14.97	16.03	16.06	16.22	16.26	16.03	15.41	15.39	15.19	15.52	15.94
13	13.98	14.97	16.02	16.07	16.23	16.26	16.00	15.42	15.37	15.19	15.54	15.97
14	14.08	14.98	16.01	16.06	16.24	16.27	15.96	15.43	15.37	15.19	15.56	15.99
15	14.10	15.00	16.00	16.05	16.25	16.28	15.94	15.44	15.36	15.19	15.57	15.99
16	14.10	15.01	16.02	16.04	16.25	16.29	15.91	15.44	15.34	15.20	15.60	16.01
17	14.13	15.03	16.06	16.04	16.26	16.30	15.90	15.44	15.30	15.20	15.63	16.03
18	14.17	15.06	16.09	16.05	16.26	16.31	15.87	15.45	15.26	15.21	15.65	16.04
19	14.21	15.12	16.08	16.05	16.26	16.32	15.86	15.44	15.24	15.23	15.67	16.07
20	14.23	15.19	16.06	16.06	16.26	16.32	15.83	15.42	15.26	15.24	15.70	16.06
21	14.23	15.27	16.06	16.07	16.25	16.32	15.81	15.40	15.27	15.27	15.73	16.04
22	14.22	15.35	16.08	16.09	16.26	16.32	15.78	15.38	15.27	15.33	15.75	16.03
23	14.23	15.42	16.09	16.10	16.28	16.32	15.76	15.37	15.28	15.38	15.78	15.99
24	14.24	15.51	16.09	16.12	16.29	16.31	15.75	15.35	15.29	15.41	15.80	15.92
25	14.25	15.60	16.09	16.14	16.30	16.31	15.74	15.32	15.25	15.42	15.82	15.90
26	14.26	15.70	16.09	16.12	16.31	16.31	15.73	15.31	15.23	15.43	15.84	15.91
27	14.27	15.78	16.10	16.07	16.31	16.30	15.72	15.27	15.21	15.43	15.86	15.87
28	14.26	15.84	16.12	16.05	16.30	16.29	15.68	15.25	15.21	15.43	15.88	15.85
29	14.23	15.88	16.12	16.04	16.30	16.28	15.65	15.24	15.20	15.43	15.90	15.83
30	14.19	15.92	16.11	16.05	---	16.27	15.60	15.22	15.18	15.43	15.92	15.79
31	14.14	---	16.10	16.07	---	16.25	---	15.22	---	15.43	15.93	---
MEAN	13.94	15.12	16.03	16.06	16.22	16.28	15.94	15.43	15.28	15.24	15.63	15.95
MAX	14.27	15.92	16.12	16.14	16.31	16.32	16.23	15.63	15.43	15.43	15.93	16.07
MIN	13.38	14.24	15.88	16.02	16.08	16.25	15.60	15.22	15.18	15.00	15.43	15.79

WTR YR 1988 MEAN 15.59 MAX 16.32 MIN 13.38

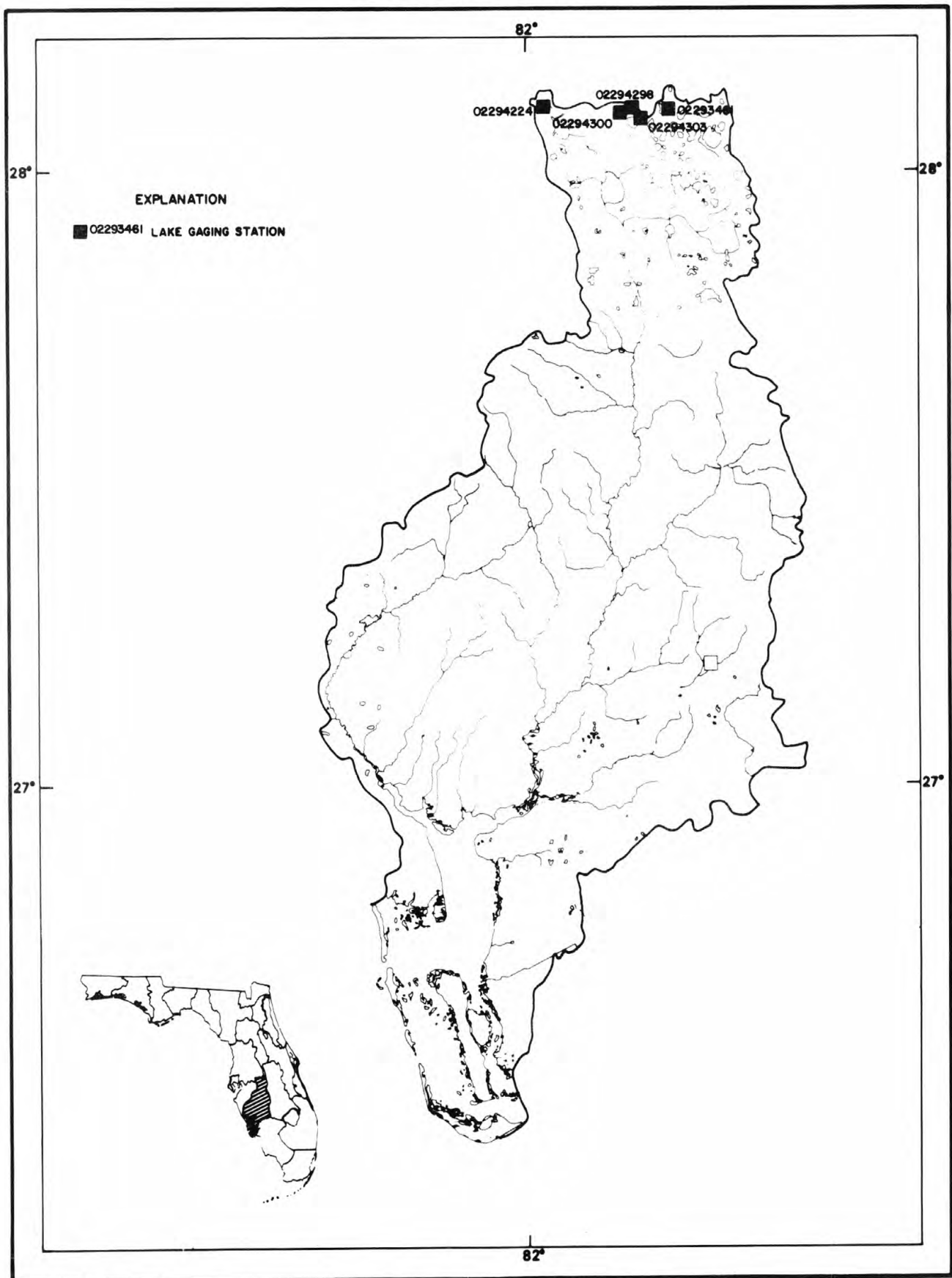


Figure 28.--Location of lake gaging stations in the Peace and Myakka River basins, Charlotte Harbor and coastal area.

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.

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 same 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.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126.35	126.25	126.85	126.78	126.84	126.85	127.35	127.04	126.73	126.37	126.17	126.17
2	126.38	126.26	126.85	126.78	126.84	126.84	127.33	127.03	126.70	126.35	126.25	126.18
3	126.37	126.31	126.84	126.78	126.84	126.83	127.32	127.01	126.69	126.33	126.24	126.16
4	126.35	126.45	126.84	126.78	126.84	126.82	127.31	126.98	126.67	126.31	126.22	126.15
5	126.33	126.46	126.83	126.78	126.85	126.84	127.32	126.97	126.64	126.28	126.21	126.14
6	126.31	126.46	126.81	126.76	126.84	126.94	127.31	126.95	126.63	126.27	126.21	126.31
7	126.30	126.44	126.81	126.75	126.83	126.94	127.29	126.92	126.63	126.27	126.20	126.51
8	126.29	126.43	126.81	126.76	126.88	126.94	127.24	126.90	126.61	126.25	126.24	126.65
9	126.26	126.43	126.81	126.76	126.88	126.93	127.23	126.88	126.59	126.23	126.23	126.67
10	126.24	126.43	126.82	126.80	126.88	127.01	127.22	126.86	126.58	126.23	126.22	126.72
11	126.24	126.44	126.83	126.79	126.88	126.99	127.21	126.85	126.56	126.24	126.21	126.72
12	126.29	126.41	126.82	126.78	126.88	126.99	127.19	126.80	126.53	126.22	126.20	126.71
13	126.29	126.40	126.82	126.78	126.86	126.98	127.19	126.86	126.51	126.20	126.18	126.70
14	126.39	126.39	126.82	126.78	126.85	127.15	127.17	126.87	126.48	126.19	126.16	126.69
15	126.39	126.39	126.82	126.77	126.84	127.13	127.16	126.86	126.46	126.25	126.15	126.68
16	126.38	126.39	126.86	126.76	126.90	127.10	127.15	126.85	126.44	126.24	126.15	126.67
17	126.38	126.39	126.83	126.76	126.89	127.08	127.14	126.83	126.43	126.22	126.15	126.66
18	126.37	126.65	126.82	126.76	126.89	127.07	127.13	126.81	126.41	126.22	126.14	126.65
19	126.37	126.66	126.81	126.76	126.89	127.26	127.11	126.80	126.39	126.20	126.13	126.65
20	126.37	126.78	126.81	126.76	126.90	127.22	127.13	126.78	126.37	126.18	126.12	126.64
21	126.37	126.76	126.81	126.76	126.90	127.22	127.11	126.76	126.37	126.21	126.11	126.63
22	126.36	126.75	126.82	126.81	126.91	127.22	127.10	126.79	126.35	126.20	126.11	126.63
23	126.34	126.75	126.82	126.80	126.90	127.21	127.09	126.77	126.45	126.18	126.10	126.62
24	126.32	126.75	126.82	126.79	126.92	127.21	127.07	126.75	126.44	126.22	126.15	126.61
25	126.32	126.75	126.82	126.83	126.91	127.20	127.06	126.85	126.42	126.25	126.14	126.59
26	126.31	126.76	126.83	126.87	126.89	127.20	127.05	126.85	126.40	126.24	126.18	126.58
27	126.30	126.84	126.83	126.85	126.87	127.37	127.04	126.83	126.39	126.23	126.17	126.57
28	126.30	126.86	126.83	126.86	126.86	127.37	127.02	126.80	126.42	126.23	126.20	126.56
29	126.29	126.87	126.82	126.84	126.85	127.37	126.99	126.80	126.40	126.22	126.20	126.54
30	126.27	126.87	126.80	126.84	---	127.36	126.96	126.77	126.39	126.21	126.19	126.53
31	126.25	---	126.79	126.84	---	127.36	---	126.75	---	126.19	126.18	---
MEAN	126.33	126.56	126.82	126.79	126.87	127.10	127.17	126.86	126.50	126.24	126.18	126.54
MAX	126.39	126.87	126.86	126.87	126.92	127.37	127.35	127.04	126.73	126.37	126.25	126.72
MIN	126.24	126.25	126.79	126.75	126.83	126.82	126.96	126.75	126.35	126.18	126.10	126.14
WTR YR 1988	MEAN	126.66	MAX	127.37	MIN	126.10						

PEACE RIVER BASIN

02294224 LAKE GIBSON NEAR LAKELAND, FL

LOCATION.--Lat 28°06'40", long 81°57'18", in NW¼ sec.30, T.27 S., R.24 E., Polk County, Hydrologic Unit 03100101, on northeast shore of lake, on private pier, and 4.6 mi north of Lakeland.

SURFACE AREA.--477 acres (0.75 mi²).

DRAINAGE AREA.--4.31 mi² .

PERIOD OF RECORD.--July 1954 to November 1959 (fragmentary); October 1969 to current year (incomplete). Records of elevations prior to October 1969 are unpublished and available in files of the Orlando Subdistrict Office.

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.

REMARKS.--Lake level is controlled by stoplogs and gate in culverts at outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 145.4 ft, Sept. 8, 1988; minimum observed, 140.40 ft, June 6-8, 12, 1985.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142.56	142.41	142.92	142.70	142.92	142.78	142.80	142.53	142.59	142.64	143.20	143.20
2	142.54	142.43	142.90	142.70	142.92	142.76	142.79	142.54	142.58	142.64	143.16	143.46
3	142.53	142.49	142.89	142.70	142.90	142.74	142.78	142.53	142.58	142.62	143.21	143.40
4	142.52	142.64	142.87	142.70	142.90	142.74	142.78	142.51	142.56	142.61	143.17	143.43
5	142.51	142.64	142.85	142.70	142.90	142.78	142.76	142.49	142.55	142.59	143.13	143.47
6	142.49	142.64	142.82	142.69	142.90	143.00	142.73	142.47	142.59	142.56	143.10	144.06
7	142.48	142.63	142.81	142.69	142.90	142.96	142.70	142.45	142.61	142.53	143.13	144.63
8	142.46	142.63	142.81	142.68	142.88	142.96	142.69	142.43	142.59	142.50	143.10	145.40
9	142.43	142.63	142.80	142.68	142.88	142.96	142.68	142.42	142.58	142.49	143.10	145.36
10	142.41	142.66	142.79	142.74	142.86	143.04	142.67	142.40	142.59	142.53	143.08	145.20
11	142.41	142.66	142.78	142.74	142.86	143.02	142.67	142.38	142.63	142.52	143.06	144.98
12	142.48	142.66	142.76	142.74	142.84	143.02	142.63	142.36	142.63	142.50	143.08	144.81
13	142.56	142.65	142.75	142.73	142.82	143.02	142.60	142.44	142.62	142.50	143.04	144.59
14	142.55	142.64	142.75	142.73	142.82	143.18	142.60	142.44	142.60	142.46	142.99	144.44
15	142.55	142.64	142.74	142.73	142.84	143.10	142.58	142.46	142.59	142.62	142.95	144.27
16	142.54	142.64	142.76	142.72	142.82	143.04	142.56	142.46	142.57	142.62	142.90	144.10
17	142.54	142.63	142.75	142.72	142.80	143.01	142.56	142.44	142.56	142.60	143.01	143.92
18	142.54	143.00	142.75	142.72	142.80	142.99	142.56	142.49	142.54	142.60	143.46	143.80
19	142.53	143.01	142.74	142.71	142.78	143.10	142.58	142.49	142.52	142.70	143.54	143.68
20	142.53	143.15	142.74	142.71	142.76	143.12	142.57	142.48	142.50	142.74	143.48	143.59
21	142.52	143.12	142.74	142.82	142.86	143.12	142.56	142.48	142.48	142.78	143.44	143.48
22	142.52	143.10	142.74	142.82	142.86	143.06	142.55	142.48	142.52	142.80	143.40	143.37
23	142.50	143.08	142.73	142.81	142.84	143.02	142.53	142.47	142.64	142.84	143.36	143.29
24	142.48	143.06	142.73	142.81	142.82	142.99	142.51	142.47	142.62	142.86	143.42	143.20
25	142.46	143.03	142.73	142.94	142.80	142.96	142.49	142.68	142.61	143.01	143.37	143.15
26	142.46	143.00	142.72	142.96	142.78	142.92	142.48	142.70	142.59	143.03	143.41	143.09
27	142.46	142.98	142.72	142.95	142.78	142.90	142.48	142.68	142.58	143.06	143.49	143.06
28	142.44	142.96	142.71	142.95	142.76	142.88	142.47	142.67	142.56	143.34	143.44	143.03
29	142.44	142.94	142.71	142.94	142.78	142.86	142.46	142.65	142.61	143.32	143.39	143.00
30	142.42	142.94	142.71	142.94	---	142.85	142.45	142.63	142.64	143.29	143.32	142.98
31	142.41	---	142.70	142.93	---	142.83	---	142.60	---	143.24	143.26	---
MEAN	142.49	142.79	142.77	142.78	142.84	142.96	142.61	142.51	142.58	142.75	143.23	143.85
MAX	142.56	143.15	142.92	142.96	142.92	143.18	142.80	142.70	142.64	143.34	143.54	145.40
MIN	142.41	142.41	142.70	142.68	142.76	142.74	142.45	142.36	142.48	142.46	142.90	142.98
CAL YR 1987	MEAN	142.67	MAX	143.60	MIN	142.24						
WTR YR 1988	MEAN	142.84	MAX	145.40	MIN	142.36						

PEACE RIVER BASIN

02294298 LAKE ARIETTA NEAR AUBURNDALE, FL

LOCATION.--Lat 28°05'43", long 81°47'43", in NE¼ sec.34, T.27 S., R.25 E., Polk County, Hydrologic Unit 03100101, on southeast shore of lake, 2.3 mi north of Auburndale.

SURFACE AREA.--764 acres (1.19 mi²).

DRAINAGE AREA.--3.70 mi².

PERIOD OF RECORD.--August 1970 to September 1976; October 1976 to September 1978 (thrice weekly), incomplete; October 1978 to current year.

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.

REMARKS.--Lake is in the Saddle Creek Branch area of Peace River headwaters and level is controlled by structure P-3.

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, 140.15 ft, Mar. 27; minimum observed 139.25 ft, Nov. 1.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139.49	139.25	139.73	139.57	139.59	139.59	140.09	139.79	---	---	---	---
2	139.53	139.27	139.71	139.57	139.59	139.57	140.07	139.77	---	---	---	---
3	139.51	139.31	139.71	139.57	139.59	139.57	140.07	139.75	---	---	---	---
4	139.49	139.47	139.69	139.55	139.61	139.57	140.05	139.73	---	---	---	---
5	139.47	139.49	139.69	139.55	139.61	139.57	140.05	139.71	---	---	139.53	---
6	139.45	139.49	139.67	139.53	139.61	139.67	140.05	139.69	---	---	---	---
7	139.43	139.47	139.65	139.51	139.57	139.67	140.03	139.67	---	---	---	---
8	139.41	139.47	139.65	139.51	139.57	139.67	140.01	139.67	---	---	---	---
9	139.39	139.45	139.65	139.51	139.61	139.65	139.99	139.65	---	---	---	---
10	139.37	139.45	139.65	139.53	139.61	139.73	139.97	139.65	139.43	---	---	---
11	139.35	139.43	139.65	139.53	139.61	139.77	139.95	139.63	---	---	---	---
12	139.37	139.43	139.65	139.53	139.61	139.77	139.93	139.61	---	---	---	---
13	139.41	139.41	139.65	139.53	139.59	139.85	139.91	139.67	---	---	---	---
14	139.45	139.39	139.65	139.51	139.59	139.87	139.87	139.67	---	---	---	---
15	139.43	139.39	139.65	139.51	139.57	139.87	139.87	139.65	---	---	---	---
16	139.43	139.39	139.65	139.51	139.61	139.87	139.87	---	---	---	---	---
17	139.41	139.37	139.63	139.49	139.63	139.87	139.87	---	---	---	---	---
18	139.41	139.55	139.63	139.49	139.63	139.87	139.85	---	---	---	---	---
19	139.41	139.57	139.61	139.49	139.63	139.89	139.85	---	---	---	---	---
20	139.41	139.61	139.61	139.49	139.61	139.97	139.83	---	---	---	---	---
21	139.39	139.63	139.61	139.49	139.65	140.03	139.83	---	---	---	---	---
22	139.39	139.63	139.61	139.51	139.65	140.03	139.81	---	---	---	---	---
23	139.37	139.63	139.61	139.51	139.65	140.03	139.81	---	---	---	---	---
24	139.37	139.63	139.61	139.53	139.65	140.03	139.79	---	---	---	---	---
25	139.35	139.63	139.61	139.67	139.63	140.03	139.79	---	---	---	---	---
26	139.35	139.63	139.61	139.65	139.63	140.03	139.77	---	---	---	---	---
27	139.33	139.73	139.61	139.63	139.61	140.15	139.77	---	---	---	---	---
28	139.33	139.75	139.61	139.61	139.61	140.13	139.77	---	---	---	---	---
29	139.31	139.75	139.59	139.59	139.59	140.13	139.75	---	---	---	---	---
30	139.29	139.73	139.59	139.57	---	140.11	139.73	---	---	---	---	---
31	139.27	---	139.57	139.57	---	140.11	---	---	---	---	---	---
MEAN	139.40	139.51	139.64	139.54	139.61	139.86	139.90	---	---	---	---	---
MAX	139.53	139.75	139.73	139.67	139.65	140.15	140.09	---	---	---	---	---
MIN	139.27	139.25	139.57	139.49	139.57	139.57	139.73	---	---	---	---	---

CAL YR 1987 MEAN 139.48 MAX 139.90 MIN 139.18

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 (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.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136.96	136.78	137.09	136.88	136.92	136.86	136.94	136.74	136.56	136.44	136.86	137.28
2	136.95	136.80	137.08	136.88	136.92	136.85	136.92	136.73	136.54	136.42	136.86	137.28
3	136.94	136.84	137.06	136.88	136.92	136.84	136.90	136.72	136.52	136.40	136.86	137.26
4	136.90	137.02	137.04	136.87	136.92	136.84	136.90	136.70	136.50	136.40	136.84	137.26
5	136.88	137.02	137.02	136.86	136.92	136.90	136.90	136.68	136.48	136.40	136.84	137.26
6	136.86	137.01	137.02	136.86	136.91	136.96	136.90	136.66	136.50	136.39	137.00	137.40
7	136.85	137.00	137.01	136.86	136.90	136.96	136.88	136.64	136.50	136.38	137.10	137.62
8	136.84	136.98	137.00	136.85	136.92	136.94	136.84	136.63	136.50	136.37	137.16	137.64
9	136.82	136.96	137.00	136.84	136.92	136.92	136.82	136.62	136.48	136.36	137.14	137.58
10	136.80	136.96	137.00	136.88	136.92	137.02	136.81	136.60	136.46	136.36	137.14	137.54
11	136.78	136.96	136.98	136.88	136.92	137.00	136.80	136.58	136.44	136.35	137.12	137.50
12	136.96	136.94	136.96	136.88	136.91	137.00	136.80	136.57	136.42	136.34	137.10	137.48
13	136.98	136.94	136.94	136.88	136.90	137.06	136.79	136.66	136.40	136.33	137.08	137.44
14	136.96	136.92	136.94	136.87	136.89	137.10	136.78	136.66	136.38	136.32	137.06	137.40
15	136.94	136.92	136.92	136.86	136.88	137.08	136.77	136.66	136.36	136.46	137.06	137.36
16	136.92	136.92	136.98	136.85	136.94	137.06	136.76	136.66	136.34	136.46	137.08	137.30
17	136.92	136.90	136.96	136.84	136.94	137.04	136.76	136.65	136.32	136.44	137.10	137.30
18	136.90	137.06	136.94	136.84	136.93	137.02	136.76	136.64	136.30	136.46	137.10	137.28
19	136.90	137.10	136.92	136.84	136.92	137.14	136.75	136.63	136.28	136.44	137.18	137.26
20	136.88	137.16	136.92	136.84	136.92	137.12	136.76	136.62	136.26	136.43	137.18	137.25
21	136.88	137.14	136.92	136.84	136.94	137.10	136.76	136.60	136.28	136.58	137.16	137.24
22	136.88	137.12	136.91	136.90	136.93	137.09	136.74	136.58	136.26	136.60	137.16	137.24
23	136.86	137.10	136.90	136.90	136.92	137.08	136.72	136.56	136.50	136.60	137.36	137.22
24	136.86	137.08	136.92	136.88	136.92	137.06	136.72	136.54	136.48	136.62	137.32	137.20
25	136.84	137.06	136.94	136.96	136.91	137.04	136.72	136.66	136.47	136.70	137.28	137.18
26	136.84	137.06	136.94	136.98	136.90	137.04	136.70	136.66	136.46	136.72	137.36	137.16
27	136.84	137.14	136.92	136.98	136.88	137.02	136.68	136.65	136.45	136.72	137.34	137.14
28	136.83	137.12	136.91	136.96	136.87	137.01	136.68	136.64	136.46	136.78	137.36	137.12
29	136.82	137.11	136.90	136.94	136.86	137.00	136.67	136.62	136.46	136.88	137.36	137.10
30	136.80	137.10	136.90	136.92	---	136.98	136.66	136.60	136.48	136.87	137.32	137.08
31	136.78	---	136.89	136.92	---	136.96	---	136.58	---	136.86	137.32	---
MEAN	136.88	137.01	136.96	136.88	136.91	137.00	136.79	136.64	136.43	136.51	137.14	137.31
MAX	136.98	137.16	137.09	136.98	136.94	137.14	136.94	136.74	136.56	136.88	137.36	137.64
MIN	136.78	136.78	136.89	136.84	136.86	136.84	136.66	136.54	136.26	136.32	136.84	137.08

WTR YR 1988 MEAN 136.87 MAX 137.64 MIN 136.26

02294303 ARIANA LAKE AT AUBURNDALE, FL

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

[illegible]

WATER RESOURCES DATA - FLORIDA, 1988
Volume 1A: Northeast Florida

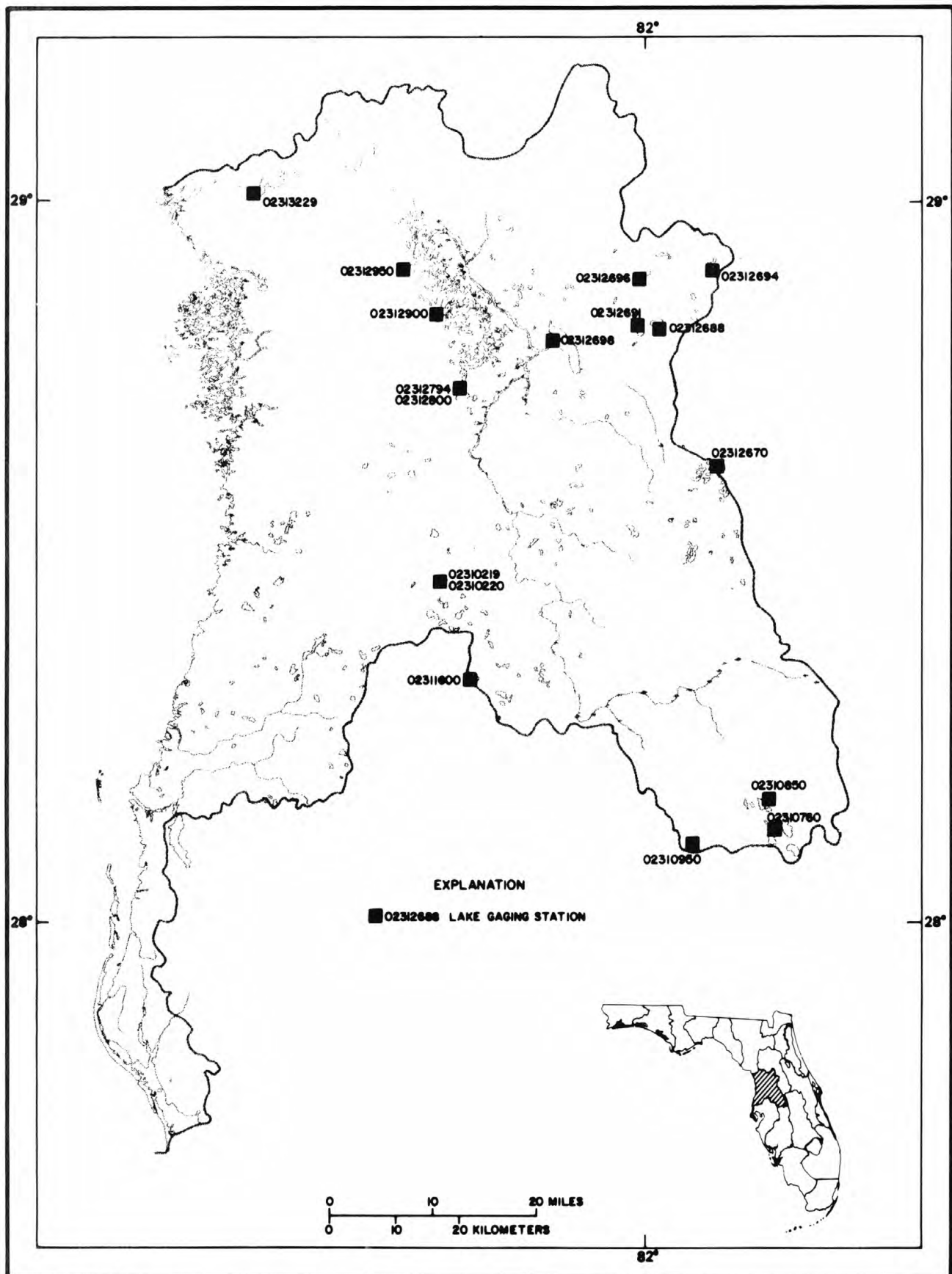


Figure 29.--Location of lake gaging stations in the Withlacoochee River basin and coastal areas.

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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	0800	96.80	APR 13...	1640	96.19

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 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	0800	96.80	APR 13...	1640	96.19

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE 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, at 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; 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, 131.72 ft, Sept. 16; minimum observed, 130.23 ft, Nov. 1.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	130.23	---	---	---	---	---	---	---	---	---	---
2	---	130.24	---	---	---	---	131.58	---	---	130.69	---	---
3	130.38	---	---	---	---	---	---	---	---	---	---	131.16
4	---	---	---	---	---	---	---	---	130.87	---	---	---
5	---	---	---	---	---	---	---	---	---	---	130.82	---
6	---	---	---	130.73	---	---	---	---	---	---	---	---
7	---	130.44	130.84	---	130.88	130.97	---	---	---	---	---	---
8	---	---	---	---	---	---	---	131.15	---	130.57	---	---
9	---	---	---	---	---	---	131.47	---	---	---	---	131.66
10	130.26	---	---	---	---	---	---	---	130.95	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	131.07	---	---	---	---	---	---
13	---	---	---	---	130.87	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	131.01	---
15	---	130.38	---	130.74	---	---	---	---	---	---	---	---
16	---	---	130.82	---	---	---	131.38	131.08	---	130.62	---	131.72
17	---	---	---	---	131.00	---	---	---	---	---	---	---
18	130.38	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	131.34	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	130.64	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	130.63	---	---
23	---	---	---	130.77	130.92	---	131.27	---	130.82	---	131.04	131.67
24	---	---	---	---	---	---	---	---	---	---	---	---
25	130.28	---	130.82	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	130.87	---	---	---	---	---	---	---
28	---	---	---	---	---	131.60	---	131.08	---	---	---	---
29	---	130.84	---	---	---	---	---	---	130.75	---	---	---
30	---	---	---	130.91	---	---	131.17	---	---	---	131.19	---
31	---	---	130.76	---	---	---	---	---	---	130.77	---	---

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE RIVER BASIN

02310850 LAKE HELENE NEAR POLK CITY, FL

LOCATION.--Lat 28°10'25", long 81°48'21", in SW¼ sec.34, T.26 S., R.25 E., Polk County, Hydrologic Unit 03100208, on west shore of lake, on private pier at Camp Gilead, 1.3 mi southeast of Polk City.

SURFACE AREA.--54.4 acres (0.08 mi²), at elevation 140.6 ft above NGVD.

DRAINAGE AREA.--0.42 mi².

PERIOD OF RECORD.--March 1961 to April 1965; May 1965 to current year (twice weekly), incomplete.

REVISED RECORDS.--WRD FL 1962: Surface 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 Oct. 19, 1961, nonrecording gage, Oct. 19, 1961 to Apr. 13, 1965, water-stage recorder and since Apr. 13, 1965, nonrecording gage at same site at different datums.

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 landlocked.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 145.86 ft, Apr. 5, 9, 1984; minimum observed, 138.54 ft, May 11, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since 1948, 148.5 ft in September 1960, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 143.17 ft, Sept. 23; minimum observed, 141.72 ft, July 13.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142.78	---	---	---	142.70	142.60	143.08	---	---	---	141.98	---
2	---	142.46	142.86	142.74	---	---	---	142.78	142.40	---	---	142.50
3	142.78	---	---	---	142.72	---	---	---	142.38	---	141.98	---
4	---	142.74	142.85	142.72	---	142.58	143.08	---	---	---	---	---
5	142.72	---	---	---	142.72	---	---	---	---	---	141.94	---
6	---	142.72	---	142.68	---	---	143.06	142.68	142.42	---	---	142.68
7	142.68	---	142.82	---	---	142.72	---	---	---	---	---	---
8	---	---	---	142.66	142.72	---	143.00	---	142.42	141.82	141.94	142.94
9	142.62	142.68	142.80	---	---	142.70	---	142.64	---	---	---	---
10	---	---	---	---	142.70	---	---	---	142.38	---	141.94	143.10
11	---	---	142.80	142.70	---	142.76	142.96	142.60	---	141.76	---	---
12	142.70	142.64	---	---	142.68	---	---	---	---	---	141.96	143.12
13	---	142.64	---	142.69	---	---	142.94	142.59	---	141.72	---	---
14	142.70	---	142.80	---	---	142.96	---	---	---	---	---	143.10
15	---	---	---	142.66	142.67	---	142.91	---	142.25	141.88	---	---
16	142.66	---	---	---	---	142.92	---	142.56	---	---	---	143.12
17	---	142.62	---	---	142.70	---	---	---	142.20	---	---	---
18	---	---	142.78	142.65	---	142.90	142.86	---	---	141.92	142.24	---
19	142.62	---	---	---	142.70	---	---	142.52	---	---	---	143.14
20	---	142.84	---	142.64	---	---	---	---	142.12	141.94	142.23	---
21	142.62	---	142.78	---	---	143.06	142.88	142.50	---	---	---	143.14
22	---	---	---	142.68	142.70	---	142.86	---	142.10	141.98	142.20	---
23	142.58	142.80	142.78	---	---	---	---	142.46	---	---	---	143.17
24	---	---	---	---	142.70	---	---	---	142.14	---	142.40	---
25	---	142.78	142.78	142.74	---	143.06	142.82	142.56	---	142.02	---	---
26	142.54	---	---	---	142.68	---	---	---	---	---	142.40	143.15
27	---	142.88	---	---	---	---	142.80	142.56	142.08	142.00	---	---
28	142.50	---	142.78	---	142.62	143.10	---	---	---	---	---	143.16
29	---	---	---	142.70	---	---	---	---	142.06	142.06	142.46	---
30	142.44	142.88	---	---	---	143.10	---	---	---	---	---	143.14
31	---	---	142.74	---	---	---	---	142.46	---	---	142.45	---

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.

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	125.09	124.80	125.23	125.05	125.14	125.07	125.47	125.06	124.74	124.38	124.94	125.62
2	125.08	124.82	125.23	125.04	125.14	125.06	125.45	125.03	124.71	124.36	124.95	125.71
3	125.06	124.88	125.22	125.04	125.14	125.05	125.44	125.01	124.69	124.33	124.95	125.71
4	125.04	125.02	125.21	125.03	125.13	125.07	125.44	125.00	124.66	124.29	124.94	125.73
5	125.01	125.03	125.20	125.02	125.13	125.21	125.43	124.98	124.64	124.26	124.93	125.86
6	125.00	125.03	125.18	125.00	125.12	125.22	125.41	124.94	124.81	124.23	124.93	126.25
7	124.98	125.01	125.18	124.99	125.11	125.23	125.38	124.91	124.82	124.21	124.95	126.62
8	124.96	125.00	125.17	125.00	125.14	125.22	125.35	124.88	124.80	124.19	124.95	126.79
9	124.92	125.00	125.17	125.02	125.15	125.30	125.33	124.86	124.78	124.19	124.94	126.86
10	124.91	125.00	125.17	125.05	125.14	125.32	125.31	124.84	124.76	124.27	124.93	126.90
11	124.90	124.99	125.17	125.04	125.14	125.31	125.30	124.81	124.74	124.27	124.92	126.92
12	125.00	124.97	125.17	125.04	125.14	125.35	125.28	124.81	124.71	124.23	124.91	126.94
13	125.05	124.96	125.16	125.03	125.12	125.45	125.25	124.85	124.68	124.22	124.89	126.95
14	125.03	124.95	125.16	125.02	125.12	125.43	125.23	124.84	124.65	124.24	124.87	126.95
15	125.02	124.94	125.16	125.01	125.12	125.41	125.22	124.87	124.62	124.27	124.86	126.96
16	125.01	124.93	125.18	124.99	125.17	125.40	125.21	124.86	124.60	124.27	124.90	126.96
17	125.00	124.98	125.16	124.99	125.17	125.39	125.20	124.84	124.58	124.26	125.09	126.97
18	124.99	125.17	125.15	124.98	125.17	125.50	125.14	124.87	124.56	124.32	125.20	126.97
19	124.98	125.19	125.14	124.98	125.17	125.55	125.16	124.84	124.53	124.30	125.21	126.98
20	124.98	125.21	125.13	124.98	125.19	125.54	125.16	124.81	124.51	124.30	125.22	127.00
21	124.97	125.20	125.13	125.01	125.18	125.54	125.14	124.79	124.50	124.37	125.21	127.01
22	124.95	125.19	125.13	125.04	125.17	125.54	125.12	124.77	124.50	124.39	125.22	127.02
23	124.93	125.19	125.13	125.02	125.17	125.53	125.10	124.73	124.52	124.50	125.24	127.03
24	124.91	125.18	125.12	125.01	125.16	125.53	125.09	124.71	124.51	124.71	125.36	127.02
25	124.90	125.18	125.12	125.13	125.14	125.53	125.07	124.89	124.49	124.73	125.38	127.02
26	124.88	125.19	125.12	125.17	125.12	125.53	125.05	124.89	124.46	124.75	125.51	127.02
27	124.87	125.24	125.11	125.16	125.11	125.53	125.02	124.87	124.43	124.79	125.54	127.01
28	124.86	125.25	125.11	125.16	125.09	125.52	125.00	124.85	124.42	124.9		

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, 127.54 ft, Mar. 19; minimum observed, 126.10 ft, June 18.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	127.02	126.70	---	---	---	---	---	---	126.20	126.16	126.18	---
3	---	---	---	126.86	---	---	127.04	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	126.64
5	---	---	126.90	---	126.90	127.06	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	126.78	---	---	---	---	---	126.56	126.29	---	126.14	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	126.92	---	---	---	---	---
10	---	---	---	126.82	---	---	---	---	---	126.18	---	127.50
11	126.80	---	---	---	---	---	---	---	126.16	---	---	---
12	---	---	126.76	---	---	---	126.89	---	---	---	---	---
13	---	---	---	---	127.04	127.52	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	126.56	---
15	---	126.76	---	126.76	---	---	126.82	126.48	---	---	---	---
16	---	---	---	---	---	---	---	---	---	126.22	---	---
17	126.92	---	---	---	---	---	---	---	---	---	---	127.32
18	---	---	---	---	127.06	---	---	---	126.10	---	---	---
19	---	---	126.90	---	---	127.54	---	---	---	---	---	---
20	---	---	---	---	127.04	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	126.38	---	---	126.66	---
22	---	127.00	---	---	---	---	126.76	---	---	---	---	---
23	---	---	---	126.90	---	---	---	---	---	---	---	---
24	126.71	---	---	---	---	---	---	---	---	126.18	---	---
25	---	---	126.92	---	---	---	---	---	126.12	---	---	127.10
26	---	---	---	---	127.08	127.22	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	127.01	---	---	---	---	---	---	---	---	126.60	---
29	---	---	126.90	127.00	---	---	---	126.34	---	---	---	---
30	---	---	---	---	---	---	126.64	---	---	---	---	---
31	126.60	---	---	---	---	---	---	---	---	126.18	---	---

02312691 LAKE OKAHUMPKA NEAR WILDWOOD, FL

REVISIONS.--Daily elevations for the water years 1986 and 1987 have been revised, as shown in the following tables. They supersede figures published in WRD FL-86-1A and WRD FL-87-1A.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	56.20	---	---	---	---	---	56.48	---	---	56.47	---
2	---	---	---	---	---	---	---	56.44	---	---	---	---
3	---	---	---	56.22	---	---	---	---	---	---	---	---
4	56.20	---	---	---	---	---	56.75	---	---	56.40	---	---
5	---	---	---	---	---	---	---	---	---	---	---	56.79
6	---	---	56.11	---	---	56.97	---	---	55.98	---	---	---
7	---	---	---	---	56.98	56.92	---	---	---	---	---	---
8	---	56.24	---	56.22	---	---	---	---	---	---	56.47	---
9	---	---	---	---	---	---	---	56.34	---	---	---	---
10	---	---	---	56.45	---	---	---	---	---	---	---	---
11	56.20	---	---	---	---	---	56.75	---	---	56.38	---	---
12	---	---	---	---	---	---	---	---	---	---	---	56.85
13	---	---	56.15	---	---	---	---	---	55.88	---	56.61	---
14	---	---	---	---	57.00	57.00	---	---	---	---	---	---
15	---	56.21	---	---	---	---	---	---	---	---	56.63	---
16	---	---	---	---	---	---	---	56.21	---	---	---	---
17	---	---	---	57.05	---	---	---	---	---	---	---	---
18	56.17	---	---	---	---	---	56.68	---	56.05	56.43	---	---
19	---	---	---	---	---	---	---	---	---	---	---	56.89
20	---	---	56.10	---	---	---	---	---	56.26	---	---	---
21	---	---	---	---	57.05	57.10	---	---	---	---	---	---
22	---	56.21	---	---	---	---	---	---	---	---	56.65	---
23	---	---	---	---	---	---	---	56.21	---	---	---	---
24	---	---	---	57.08	---	---	---	---	---	---	---	---
25	56.06	---	---	---	---	---	56.58	---	---	56.35	---	---
26	---	---	---	---	---	---	---	---	---	---	---	56.89
27	---	---	56.12	---	---	---	---	---	56.32	---	---	---
28	---	---	---	---	57.00	57.00	---	---	---	---	---	---
29	---	56.18	---	---	---	---	---	---	---	---	56.69	---
30	---	---	---	---	---	---	---	56.11	---	---	---	---
31	---	---	---	57.02	---	---	---	---	---	---	---	---

PEACE. WITHLACOOCHEE. HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOOCHEE RIVER BASIN

02312691 LAKE OKAHUMPKA NEAR WILDWOOD, FL--Continued

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANT VALUES

[illegible]

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
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, 60.70 ft, Apr. 15, 1976.

ELEVATION, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
06...	1615	61.27	28...	1315	61.94
DEC			MAY		
01...	1430	61.48	31...	1330	61.36
JAN			SEP		
20...	1415	61.60	08...	1325	62.00

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE 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, 52.52 ft, Mar. 13; minimum observed, 50.95 ft, Oct. 31.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	52.12	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	52.36	---	---	51.50	---	---
4	51.26	---	---	---	---	52.02	---	---	---	---	---	51.37
5	---	---	---	---	---	---	---	---	51.62	---	---	---
6	---	---	51.55	---	---	52.25	---	---	---	---	51.23	---
7	---	---	---	51.41	51.95	---	---	---	---	---	---	---
8	---	51.27	---	---	---	---	---	51.99	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	52.26	---	---	51.33	---	---
11	51.13	---	---	51.45	---	---	---	---	---	---	---	51.93
12	---	---	---	---	---	---	---	---	51.70	---	---	---
13	---	51.58	51.49	---	---	52.52	---	---	---	---	---	---
14	---	---	---	---	51.95	---	---	---	---	---	51.28	---
15	---	51.56	---	---	---	---	---	51.88	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	51.40	---	---	52.17	---	---	51.27	---	---
18	51.10	---	---	---	---	---	---	---	---	---	51.30	51.82
19	---	---	---	---	---	---	---	---	51.61	---	---	---
20	---	---	51.51	---	---	52.51	---	---	---	---	---	---
21	---	---	---	---	52.33	---	---	---	---	---	51.24	---
22	---	51.60	---	---	---	---	---	51.75	51.60	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	51.67	---	---	52.19	---	---	51.33	---	---
25	51.00	---	---	---	---	---	---	---	---	---	---	51.76
26	---	---	---	---	---	---	---	---	51.55	---	---	---
27	---	---	51.50	---	---	52.46	---	---	---	---	---	---
28	---	---	---	---	52.07	---	52.17	---	---	---	51.28	---
29	---	51.63	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	51.68	---	---	---	---
31	50.95	---	---	51.95	---	---	---	---	---	51.29	---	---

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 44.28 ft, Apr. 5, 1960; minimum daily, 37.65 ft, May 12, 1962.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.18	39.54	40.31	39.90	40.74	40.47	41.26	40.96	39.92	39.16	38.78	39.50
2	40.17	39.54	40.30	39.89	40.71	40.46	41.27	40.94	39.88	39.15	38.77	39.54
3	40.15	39.58	40.27	39.88	40.69	40.45	41.29	40.92	39.83	39.14	38.76	39.56
4	40.12	39.76	40.22	39.86	40.65	40.43	41.30	40.87	39.79	39.13	38.74	39.55
5	40.10	39.80	40.20	39.84	40.61	40.47	41.31	40.80	39.77	39.10	38.76	39.67
6	40.07	39.82	40.20	39.83	40.57	40.57	41.33	40.75	39.98	39.06	38.92	39.97
7	40.04	39.84	40.18	39.83	40.58	40.59	41.28	40.73	40.03	39.05	38.93	40.19
8	40.00	39.85	40.17	39.85	40.57	40.61	41.32	40.71	40.01	39.00	38.94	40.41
9	39.96	39.88	40.14	39.86	40.58	40.62	41.33	40.65	39.98	38.94	38.92	40.59
10	39.93	40.36	40.12	39.89	40.57	40.81	41.34	40.60	39.93	38.88	38.92	40.67
11	39.89	40.43	40.10	39.89	40.55	40.91	41.33	40.56	39.91	38.84	38.91	40.71
12	39.91	40.48	40.08	39.91	40.50	40.95	41.31	40.53	39.86	38.78	38.89	40.75
13	39.92	40.53	40.07	39.91	40.49	41.01	41.30	40.51	39.80	38.77	38.86	40.76
14	39.90	40.55	40.06	39.90	40.49	41.01	41.31	40.48	39.74	38.78	38.84	40.79
15	39.88	40.57	40.06	39.90	40.50	41.02	41.29	40.45	39.70	38.77	38.86	40.80
16	39.86	40.58	40.05	39.92	40.51	41.04	41.27	40.41	39.66	38.76	38.93	40.82
17	39.84	40.58	40.04	39.93	40.52	41.05	41.25	40.37	39.63	38.76	38.97	40.83
18	39.83	40.61	40.04	39.95	40.51	41.07	41.23	40.34	39.61	38.76	38.99	40.86
19	39.80	40.60	40.04	39.96	40.51	41.06	41.24	40.30	39.56	38.82	39.04	40.91
20	39.79	40.57	40.03	39.96	40.50	41.09	41.25	40.26	39.51	38.82	39.04	41.02
21	39.76	40.55	40.02	40.11	40.56	41.09	41.22	40.22	39.51	38.79	39.04	41.07
22	39.73	40.54	40.00	40.28	40.59	41.10	41.20	40.18	39.49	38.79	39.03	41.13
23	39.70	40.53	39.99	40.31	40.59	41.12	41.18	40.13	39.46	38.83	39.02	41.17
24	39.68	40.50	39.99	40.34	40.57	41.12	41.14	40.10	39.43	38.88	39.02	41.21
25	39.66	40.48	39.98	40.60	40.55	41.12	41.12	40.13	39.38	38.91	39.02	41.24
26	39.65	40.45	39.97	40.70	40.54	41.12	41.10	40.12	39.33	38.91	39.05	41.26
27	39.64	40.44	39.96	40.74	40.52	41.15	41.08	40.10	39.30	38.89	39.15	41.28
28	39.60	40.41	39.95	40.76	40.52	41.18	41.04	40.08	39.25	38.88	39.27	41.27
29	39.58	40.37	39.89	40.77	40.50	41.19	41.00	40.05	39.22	38.86	39.32	41.27
30	39.57	40.34	39.90	40.77	---	41.21	40.97	40.01	39.19	38.83	39.41	41.25
31	39.55	---	39.90	40.75	---	41.24	---	39.97	---	38.81	39.45	---
MEAN	39.85	40.27	40.07	40.13	40.56	40.91	41.23	40.43	39.66	38.90	38.99	40.67
MAX	40.18	40.61	40.31	40.77	40.74	41.24	41.34	40.96	40.03	39.16	39.45	41.28
MIN	39.55	39.54	39.89	39.83	40.49	40.43	40.97	39.97	39.19	38.76	38.74	39.50

CAL YR 1987 MEAN 40.30 MAX 42.45 MIN 39.54
WTR YR 1988 MEAN 40.13 MAX 41.34 MIN 38.74

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 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	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)
MAY 11...	1500	245	8.80	26.5	30	9.9	40	4.3	4.5	<0.10
AUG 29...	1720	242	8.20	32.0	5	6.5	35	3.5	5.1	1.3

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
MAY 11...	96	14	8.1	0.20	7.2	155	<0.010	<0.020	<0.010
AUG 29...		17	10	0.20	13	157	<0.010	<0.020	0.020

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
MAY 11...	0.40	0.020	0.010	10	<1	<1	<1	80	30
AUG 29...	0.60	0.020	0.010	<10	<1	<1	<1	40	<10

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAY 11...	<5	<5	<10	<10	<0.10	1	280	<10	5.8
AUG 29...	5	<5	<10	<10	0.50	<1	270	<10	6.6

02312794 LITTLE LAKE AT FLORAL CITY. FL

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 Lake Tsala Apopka. 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, 41.70 ft, Sept. 20,23; minimum observed, 38.14 ft, Jan. 8.

[illegible]

[illegible]

02312900 TSALA APOPKA LAKE AT INVERNESS, FL

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 40.56 ft. Sept. 9 minimum observed, 38.76 ft. Nov. 2.

[illegible]

PEACE, WITHLACOCHEE, HILLSBOROUGH RIVERS AND WESTERN COASTAL AREA

WITHLACOCHEE 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. 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 1987 TO SEPTEMBER 1988
INSTANT VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.06	37.54	37.50	37.22	37.56	38.10	38.54	38.50	38.30	37.96	38.08	38.28
2	38.04	37.54	37.50	37.22	37.54	38.16	38.54	38.56	38.28	37.94	38.10	38.38
3	38.02	37.56	37.48	37.22	37.52	38.16	38.52	38.56	38.22	37.92	38.10	38.40
4	37.98	37.62	37.46	37.22	37.54	38.18	38.52	38.56	38.20	37.90	38.08	38.38
5	37.94	37.64	37.44	37.22	37.56	38.28	38.48	38.54	38.20	37.90	38.14	38.36
6	37.92	37.62	37.42	37.20	37.56	38.36	38.46	38.52	38.40	37.88	38.12	38.80
7	37.90	37.60	37.40	37.20	37.56	38.36	38.42	38.52	38.52	37.86	38.10	38.92
8	37.88	37.58	37.40	37.24	37.60	38.36	38.42	38.54	38.54	37.84	38.10	38.88
9	37.86	37.56	37.40	37.24	37.60	38.36	38.44	38.50	38.50	37.82	38.12	38.88
10	37.84	37.56	37.38	37.26	37.58	38.62	38.46	38.48	38.44	37.80	38.16	38.88
11	37.82	37.56	37.36	37.28	37.58	38.64	38.52	38.46	38.40	37.80	38.16	38.80
12	37.80	37.54	37.36	37.26	37.56	38.68	38.56	38.56	38.36	37.90	38.20	38.70
13	37.84	37.52	37.36	37.26	37.54	38.66	38.58	38.50	38.30	37.88	38.18	38.62
14	37.82	37.50	37.34	37.24	37.52	38.64	38.58	38.56	38.22	37.86	38.16	38.56
15	37.80	37.48	37.34	37.22	37.50	38.64	38.58	38.54	38.12	37.86	38.14	38.52
16	37.80	37.46	37.38	37.20	37.60	38.60	38.56	38.52	38.10	37.88	38.14	38.48
17	37.80	37.44	37.38	37.20	37.58	38.56	38.56	38.50	38.10	37.86	38.14	38.46
18	37.78	37.56	37.40	37.20	37.56	38.52	38.56	38.48	38.04	37.84	38.16	38.42
19	37.76	37.56	37.38	37.20	37.58	38.60	38.58	38.48	38.00	37.86	38.18	38.38
20	37.74	37.56	37.38	37.18	37.70	38.58	38.58	38.46	37.98	37.92	38.16	38.34
21	37.72	37.54	37.36	37.42	37.80	38.58	38.60	38.44	38.00	37.90	38.16	38.32
22	37.70	37.52	37.34	37.42	37.82	38.58	38.60	38.44	37.98	37.98	38.18	38.36
23	37.68	37.50	37.34	37.42	37.86	38.58	38.60	38.42	37.94	38.04	38.20	38.40
24	37.66	37.48	37.34	37.44	37.90	38.56	38.56	38.40	38.00	38.08	38.19	38.48
25	37.64	37.48	37.34	37.60	37.92	38.56	38.52	38.48	37.94	38.16	38.18	38.54
26	37.62	37.50	37.32	37.60	37.94	38.56	38.48	38.46	37.96	38.14	38.20	38.58
27	37.60	37.56	37.30	37.58	37.96	38.56	38.50	38.44	37.96	38.16	38.19	38.62
28	37.60	37.58	37.28	37.58	38.00	38.56	38.50	38.42	38.06	38.16	38.30	38.64
29	37.58	37.54	37.26	37.58	38.06	38.54	38.48	38.40	38.04	38.14	38.28	38.62
30	37.56	37.52	37.26	37.56	---	38.59	38.48	38.36	38.00	38.12	38.28	38.60
31	37.56	---	37.24	37.56	---	38.50	---	38.32	---	38.06	38.28	---
MEAN	37.78	37.54	37.37	37.33	37.68	38.49	38.53	38.48	38.17	37.95	38.17	38.55
MAX	38.06	37.64	37.50	37.60	38.06	38.68	38.60	38.56	38.54	38.16	38.30	38.92
MIN	37.56	37.44	37.24	37.18	37.50	38.10	38.42	38.32	37.94	37.80	38.08	38.28

WTR YR 1988 MEAN 38.00 MAX 38.92 MIN 37.18

02313229 LAKE ROUSSEAU NEAR DUNNELLON, FL

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 28.18 ft, June 19, 1982; minimum daily, 21.70 ft, Oct. 11, 1972.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.58	27.62	27.48	27.54	27.09	26.78	27.40	27.44	27.31	27.40	27.42	27.57
2	27.39	27.64	27.56	27.54	27.15	26.81	27.61	27.45	27.38	27.41	27.49	27.57
3	27.30	27.61	27.63	27.54	27.19	26.84	27.63	27.42	27.45	27.40	27.55	27.42
4	27.23	27.61	27.63	27.54	27.14	26.94	27.55	27.38	27.53	27.45	27.57	27.36
5	27.22	27.60	27.64	27.54	27.11	27.13	27.47	27.36	27.62	27.49	27.64	27.53
6	27.25	27.60	27.62	27.54	27.07	27.30	27.42	27.39	27.84	27.52	27.62	27.61
7	27.43	27.56	27.58	27.58	27.01	27.30	27.34	27.45	27.84	27.51	27.56	27.08
8	27.59	27.51	27.56	27.60	26.98	27.25	27.36	27.48	27.73	27.49	27.55	26.53
9	27.68	27.48	27.51	27.61	26.94	27.11	27.45	27.49	27.62	27.47	27.50	26.10
10	27.73	27.48	27.42	27.57	26.91	27.11	27.48	27.50	27.50	27.45	27.50	25.90
11	27.72	27.46	27.40	27.52	26.92	27.14	27.49	27.50	27.46	27.47	27.54	26.11
12	27.68	27.49	27.45	27.48	27.00	27.10	27.43	27.51	27.42	27.50	27.54	26.47
13	27.68	27.51	27.50	27.43	27.06	26.97	27.48	27.50	27.40	27.54	27.54	26.58
14	27.61	27.55	27.52	27.44	27.08	26.93	27.49	27.55	27.42	27.58	27.51	26.66
15	27.53	27.60	27.62	27.43	27.07	26.84	27.48	27.49	27.43	27.62	27.51	26.71
16	27.42	27.67	27.64	27.51	27.05	26.83	27.46	27.44	27.41	27.56	27.56	26.71
17	27.44	27.81	27.59	27.57	27.02	26.93	27.45	27.41	27.42	27.51	27.57	26.58
18	27.49	27.70	27.58	27.63	26.99	26.99	27.41	27.37	27.48	27.50	27.56	26.53
19	27.55	27.18	27.55	27.64	26.94	27.14	27.40	27.34	27.51	27.54	27.52	26.51
20	27.59	27.31	27.53	27.64	26.98	27.29	27.41	27.37	27.53	27.47	27.50	26.48
21	27.57	27.45	27.52	27.83	27.03	27.25	27.39	27.48	27.56	27.39	27.47	26.41
22	27.54	27.56	27.52	27.62	27.06	27.17	27.46	27.54	27.58	27.44	27.45	26.38
23	27.47	27.63	27.50	27.38	27.07	27.22	27.51	27.56	27.60	27.54	27.46	26.16
24	27.44	27.56	27.48	27.24	27.06	27.15	27.56	27.59	27.56	27.61	27.46	25.97
25	27.47	27.48	27.46	27.13	27.04	27.00	27.61	27.65	27.55	27.57	27.50	25.84
26	27.51	27.43	27.46	27.03	27.02	26.95	27.64	27.59	27.51	27.52	27.48	25.87
27	27.54	27.44	27.45	26.96	26.95	26.87	27.68	27.47	27.46	27.46	27.53	26.12
28	27.57	27.42	27.48	26.94	26.93	26.92	27.60	27.40	27.54	27.41	27.60	26.17
29	27.58	27.43	27.51	26.93	26.88	27.01	27.40	27.33	27.54	27.42	27.62	26.09
30	27.60	27.45	27.51	26.91	---	27.06	27.37	27.30	27.47	27.39	27.63	26.04
31	27.61	---	27.52	27.00	---	27.11	---	27.28	---	27.37	27.62	---
MEAN	27.52	27.53	27.53	27.41	27.03	27.05	27.48	27.45	27.52	27.48	27.53	26.57
MAX	27.73	27.81	27.64	27.83	27.19	27.30	27.68	27.65	27.84	27.62	27.64	27.61
MIN	27.22	27.18	27.40	26.91	26.88	26.78	27.34	27.28	27.31	27.37	27.42	25.84
CAL YR 1987	MEAN 27.42	MAX 27.81	MIN 25.66									
WTR YR 1988	MEAN 27.34	MAX 27.84	MIN 25.84									

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Rousseau, Lake, near Dunnellon.....	435	at Crackertown.....	306
		at Croom.....	269
Sand Hill Lake near Keystone Heights.....	380	at Dunnellon.....	300
Shady Brook near Sumterville.....	278	at Inglis Dam, near Dunnellon.....	302
Shingle Creek at Airport, near Kissimmee....	191	at Trilby.....	258
Shingle Creek at Campbell.....	201	at Wysong Dam, at Carlson.....	285
Silver Lake near Leesburg.....	365	below Inglis Dam, near Dunnellon.....	303
Silver Springs near Ocala.....	117	bypass channel, near Inglis.....	305
Simms Creek near Bardin.....	145	near Cumpresso.....	247
Smith Lake near Candler.....	370	near Floral City.....	272
		near Dade City.....	252
		near Eva.....	244
		near Holder.....	293
		Wolf Creek near Deer Park.....	55
		Yale, Lake, at Grand Island.....	367

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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