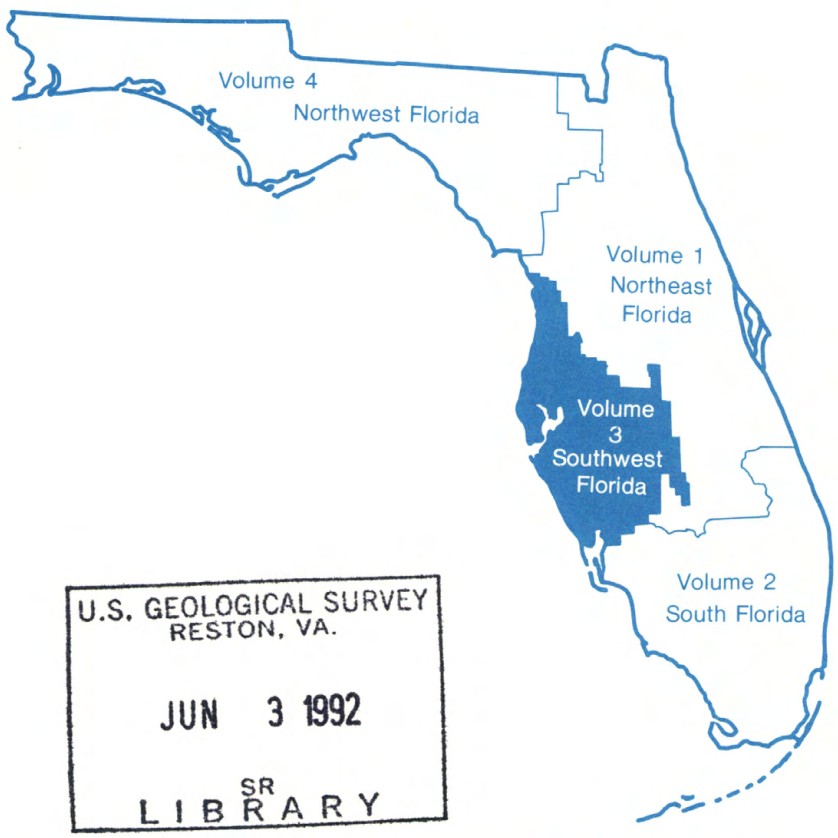
Water Resources Data Florida Water Year 1991

Volume 3A. Southwest Florida Surface Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-91-3A
Prepared in cooperation with the State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 1991

1990

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1991

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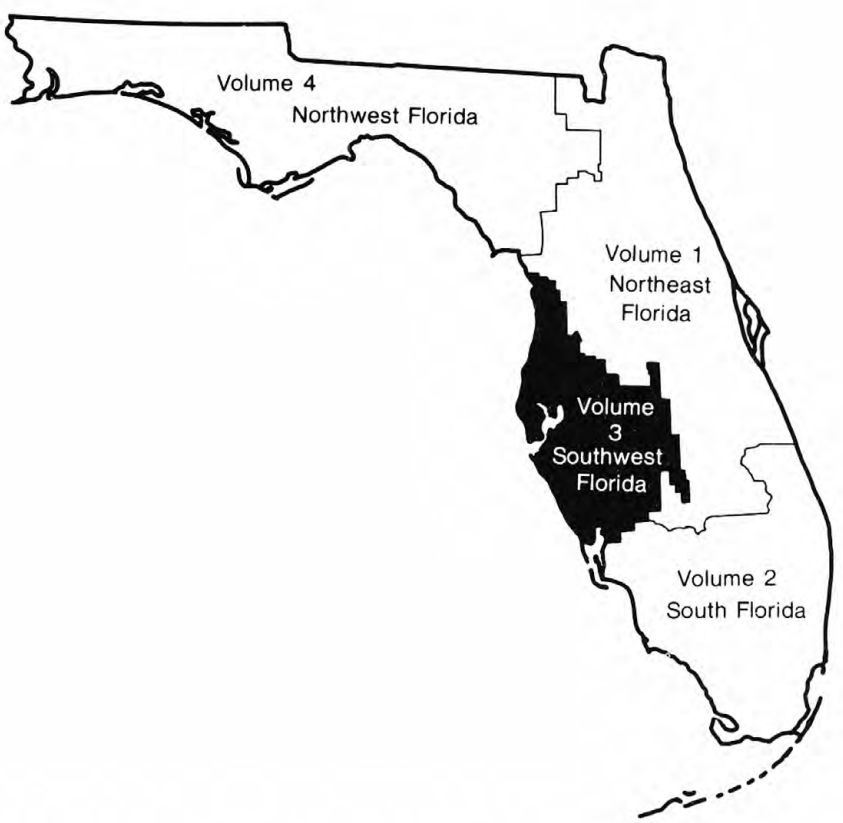
Water Resources Data
Florida
Water Year 1991

Volume 3A. Southwest Florida Surface Water

by J.E. Coffin and W.L. Fletcher



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-91-3A
Prepared in cooperation with the State of Florida
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Florida write to
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227 North Bronough Street, Suite 3015
Tallahassee, Florida 32301

1991

WATER RESOURCES DATA FOR FLORIDA, 1991
Volume 3B: Southwest 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

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data. This report was prepared for publication by J. M. Todd under the supervision of J. E. Coffin and W. L. Fletcher. The following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of Florida and with other agencies under the general supervision of I. H. Kantrowitz, District Chief, Florida.

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15. Supplementary Notes
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16. Abstract (Limit: 200 words)

Water resources data for the 1991 water year in Florida consist of continuous or daily discharge for 346 streams, periodic discharge for 27 streams, miscellaneous discharge for 50 streams, continuous or daily stage for 151 streams, continuous daily tide stage for 3 sites, periodic stage for 29 streams, peak discharge for 23 streams and peak stage for 16 streams; continuous or daily elevations for 64 lakes, periodic elevations for 67 lakes; continuous ground-water levels for 436 wells, periodic ground-water levels for 1,172 wells, and miscellaneous water-level measurements for 1,628 wells; quality-of-water data for 139 surface-water sites and 761 wells.

The data for southwest Florida include records of stage, discharge, and water quality of streams; stage, contents, water quality of lakes and reservoirs, and water levels and water quality of ground-water wells. Volume 3A contains continuous or daily discharge for 56 streams, periodic discharge for 4 streams, miscellaneous discharge for 3 streams, continuous daily stage for 20 streams, peak discharge for 13 streams, continuous elevations for 19 lakes, periodic elevations for 16 lakes, and quality-of-water for 64 surface-water sites.

These data represent the National Water Data System records collected by the U.S. Geological Survey and cooperating, local, state and federal agencies in Florida.

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WATER RESOURCES DATA FOR FLORIDA, 1991
Volume 3A: Southwest Florida

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

NOTE.--Data for partial-record stations and miscellaneous sites for both surface-water discharge and quality are published in seperate sections of the data report. See references at the end of this list for page numbers for these sections.

[Letters after station nane designate type of data collected: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation, gage heights, or contents]

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME--Continued

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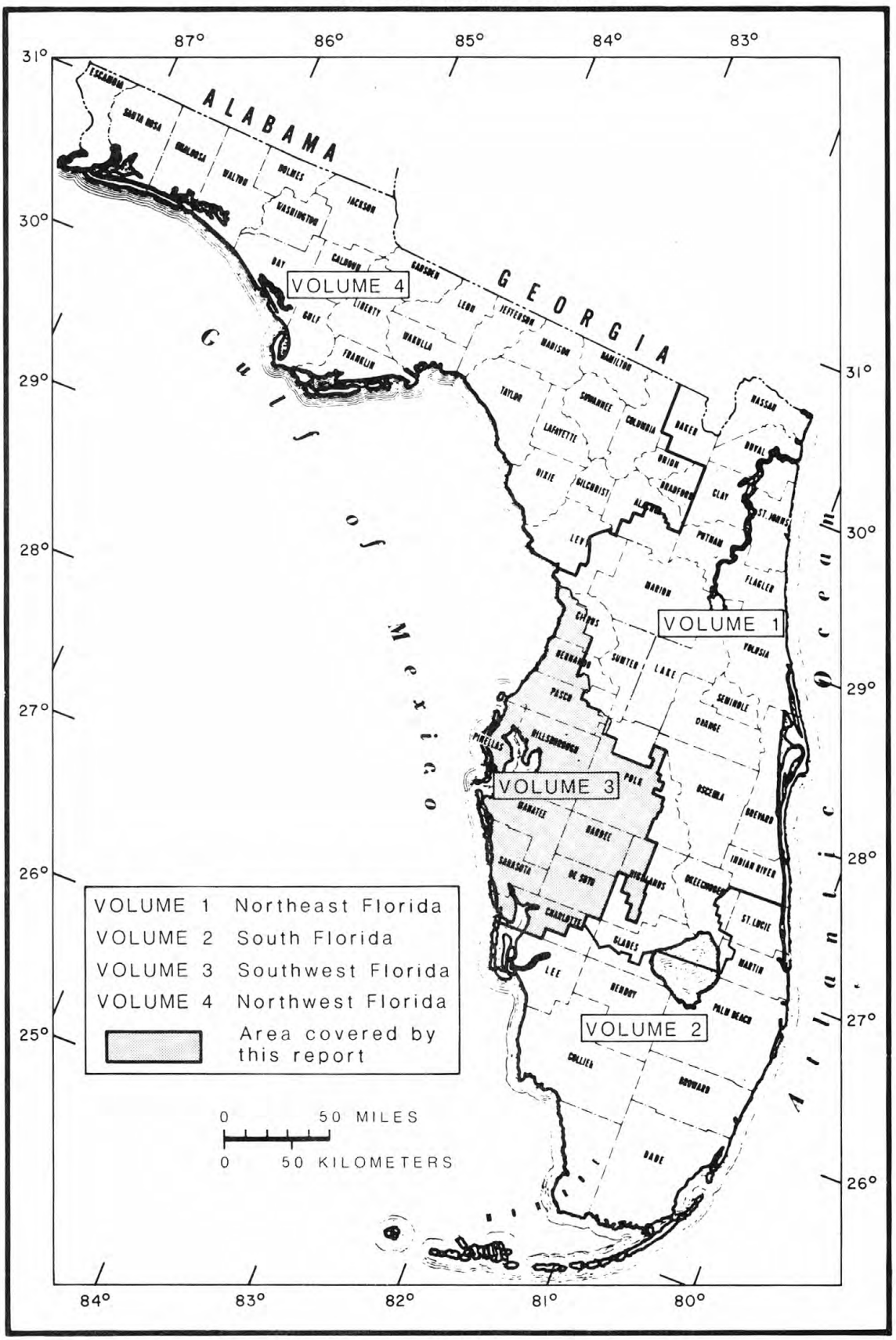

Figure 1.--Geographic area covered by this report.

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State 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. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Florida."

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs, and water levels and water quality of ground-water wells. Volume 3A contains records for continuous daily discharge at 56 gaging stations; periodic discharge at 4 stream sites; miscellaneous discharge at 3 stream sites; continuous daily stage at 20 stream sites; peak discharge at 13 stream sites; continuous daily elevations at 19 lakes; periodic elevations at 16 lakes; and water quality at 64 surface-water sites. Locations of these sites are shown on figure 1. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Florida.

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-91-3A and 3B." 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. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Office at the address given on the back of the title page or by telephone (904) 681-7620. A limited number of CD-ROM disc will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

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:

Manatee County Environmental Action Commission
Southwest Florida Water Management District
Westcoast Regional Water Supply Authority
County of Hillsborough
County of Manatee
County of Pinellas
County of Polk
County of Sarasota
City of Bradenton
City of Sarasota
City of Tampa
Englewood Water District

SUMMARY OF HYDROLOGIC CONDITIONS

During the 1991 water year, rainfall at 12 National Oceanic and Atmospheric Administration (NOAA) stations in west-central Florida (fig. 2, sites 12-23) ranged from 49.10 in. at Punta Gorda in Charlotte County (site 23) to 60.00 in. at Tarpon Springs in Pinellas County (site 15). The 1991 water year total rainfall was lower at four long-term stations and higher at three long-term stations than the 1951-80 normal. Total rainfall at seven stations ranged from 2.66 in. below normal at Archbold Biological station (site 21) to 8.21 in. above normal at Tarpon Springs.

Monthly mean discharge for the Anclote River near Elfers (fig. 2, site 1) is shown in figure 3. The 1991 water year monthly mean discharges at this site decreased through January to near record low, then increased through April to slightly above median flow. Discharge increased steadily through August, then decreased in September to near the median discharge. The 1991 water year annual mean discharge, 43.7 ft^3/s, was only 64 percent of the mean, 68 ft^3/s, for the period of record.

At Hillsborough River near Zephyrhills (fig. 2, site 2), monthly mean discharge remained at near record low through January, then increased to near median discharge through April (fig. 4). Discharge increased above median flow through August, then declined through September. The 1991 water year annual mean discharge, 164 ft^3/s, was 66 percent of the mean, 248 ft^3/s, for the period of record.

Monthly mean discharge at Alafia River at Lithia (fig. 2, site 3) was at or below the median discharge through February, then increased through April to near median discharge (fig. 5). Discharge increased above median flow through August, then decreased below median through September. The 1991 water year annual mean discharge, 236 ft^3/s, was only 69 percent of the mean, 344 ft^3/s, for the period of record.

Monthly mean discharge at Peace River at Arcadia (fig. 2, site 4) remained below the median through March, then increased above median through August (fig. 6). Discharge then decreased below median discharge through September. The 1991 water year annual mean discharge, 809 ft^3/s, was 75 percent of the mean, 1,084 ft^3/s, for the period of record.

At Myakka River near Sarasota (fig. 2, site 5), monthly mean discharge remained at or above the median discharge through February then increased above the median discharge through August (fig. 7). Discharge then decreased below median discharge through September. The 1991 water year annual mean discharge, 344 ft^3/s, exceeded the mean for the period of record, 246 ft^3/s, by almost 40 percent.

Several large springs discharge into streams along the Gulf of Mexico in Citrus and Hernando Counties. Weeki Wachee Springs near Brooksville (fig. 2, site 9) has been measured periodically since 1917 to define seasonal variation in flow. Five measurements made during the 1991 water year ranged from 120 ft^3/s on February 5 to 179 ft^3/s on July 19. The average of the 465 measurements made through the 1991 water year is 175 ft^3/s. Crystal Springs near Zephyrhills (fig. 2, site 10) flows into the Hillsborough River upstream from the gaging station near Zephyrhills. The average of the 395 measurements made through the 1991 water year is 57.3 ft^3/s. The flow of the springs is determined from the difference between measurements in the Hillsborough River above and below the springs. The flow from the springs during these measurements was from 2.8 to 5.9 times the flow of the Hillsborough River above the springs. Flow from Lithia Springs near Lithia (fig. 2, site 11) enters the Alafia River downstream from the gaging station at Lithia and is determined by measurements of flow from a major spring, a minor spring, and diversion reported by the Gardinier Phosphate Company. Three measurements of Lithia Springs made during the 1991 water year ranged from 24.0 ft^3/s on April 26 to 61.5 ft^3/s on August 16. The average of 173 measurements made since 1934 is 44.5 ft^3/s.

Lake Carroll in Hillsborough County (fig. 2, site 6), Lake Howard in Polk County (fig. 2, site 7), and Lake Placid in Highlands County (fig. 2, site 8) are long-term stations used to illustrate variation in lake levels in west-central Florida. Monthly mean lake stage in Lake Carroll (fig. 8) was at or below the median lake stage for the entire water year. The 1991 water year annual mean stage, 34.57 ft above sea level, was lower than the mean for the period of record, 35.36 ft above sea level. Lake Howard monthly mean lake stage was at or below the median for October through May, then at or above the median June through September (fig. 9). The 1991 annual mean stage, 131.15 ft above sea level, was above the mean for the period of record, 130.86 ft above sea level. Monthly mean lake stage in Lake Placid in Highlands County (fig. 10) was near or slightly above record low stages throughout the water year. The 1991 annual mean stage, 90.17 ft above sea level, was lower than the mean of 91.65 ft above sea level for the period of record.

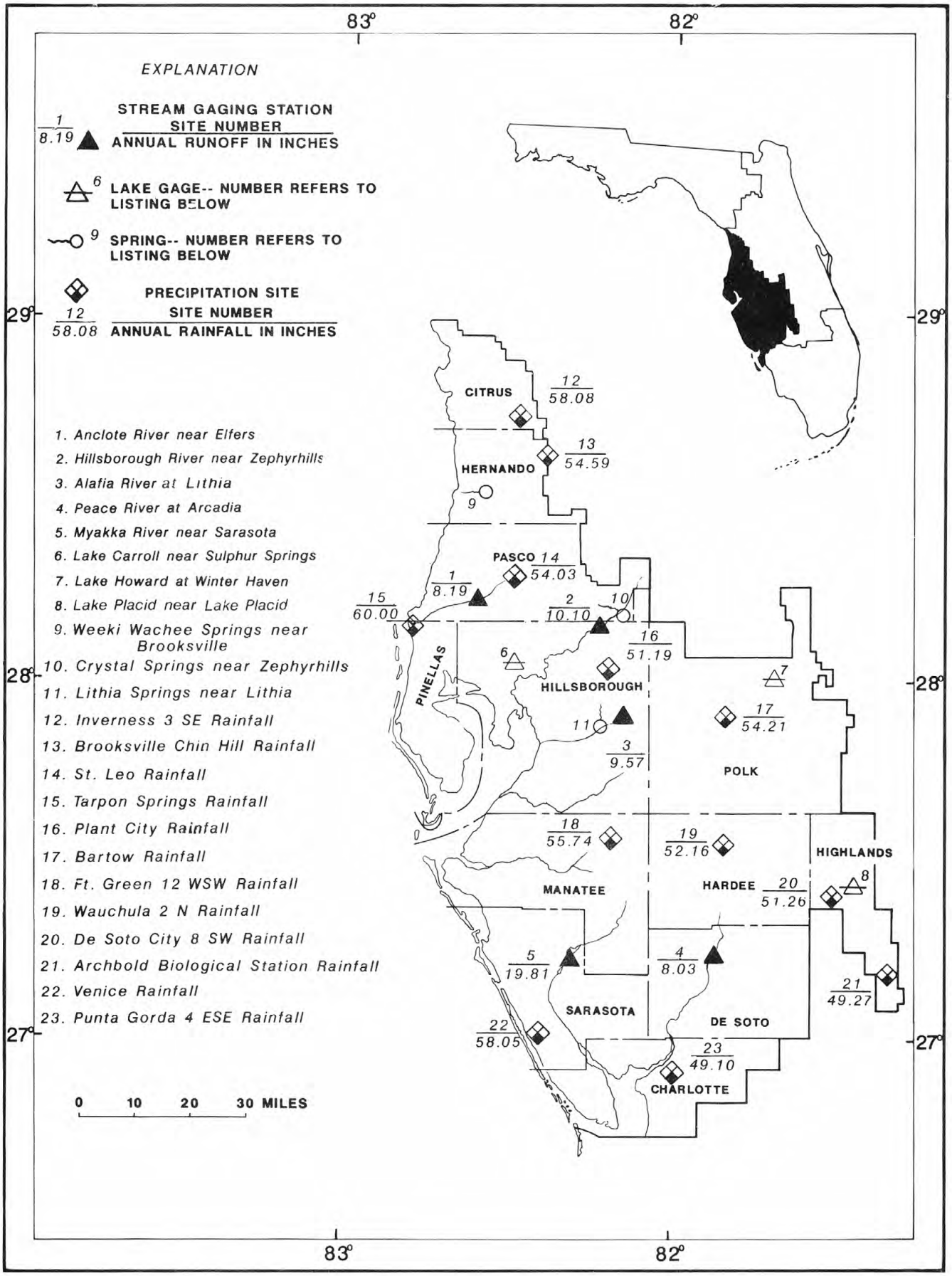

Figure 2.--Hydrologic conditions index map.

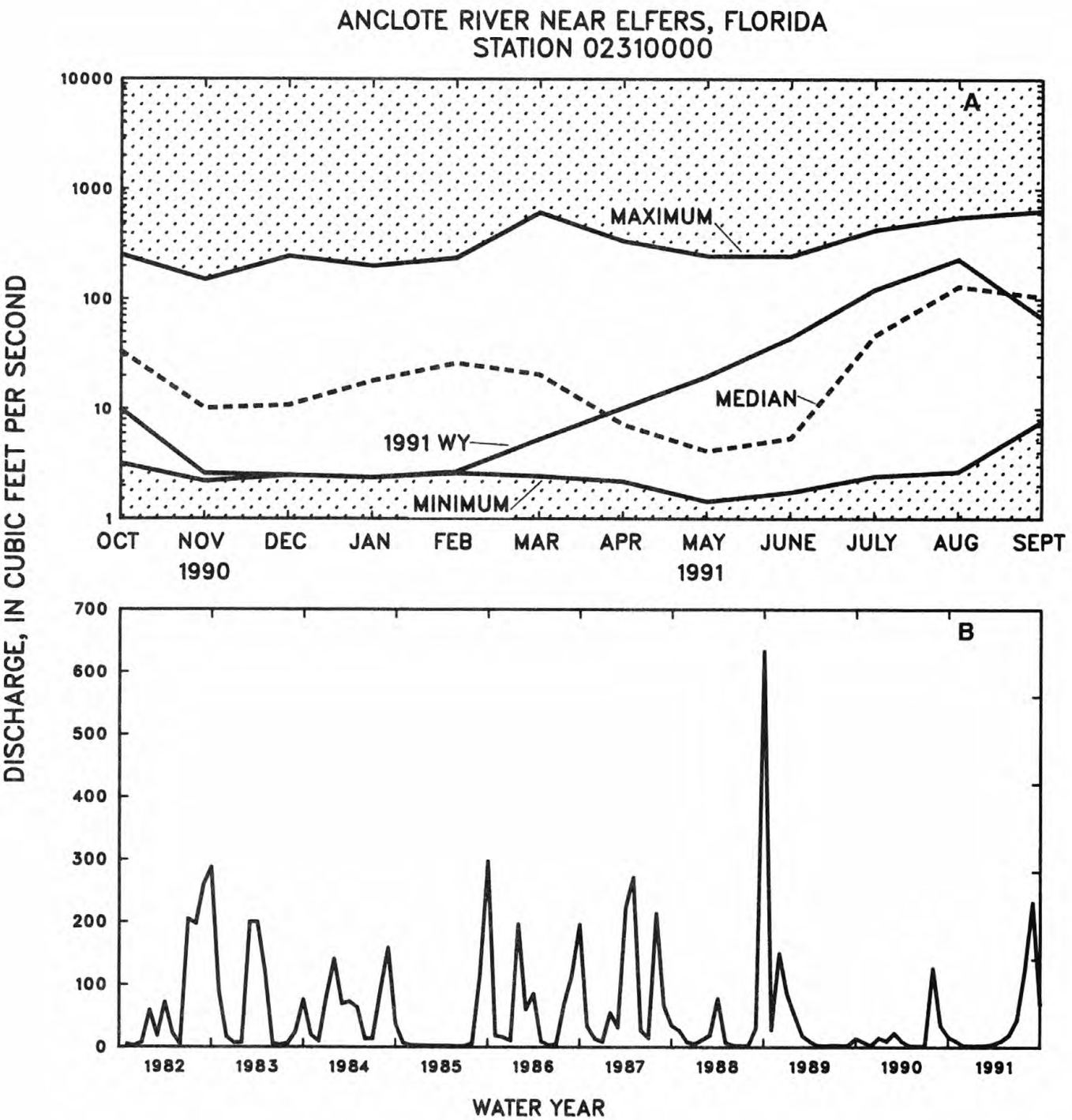

Figure 3.--Anclote River near Elfers (A) 1991 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and (B) the monthly mean discharge for the period 1982-91.

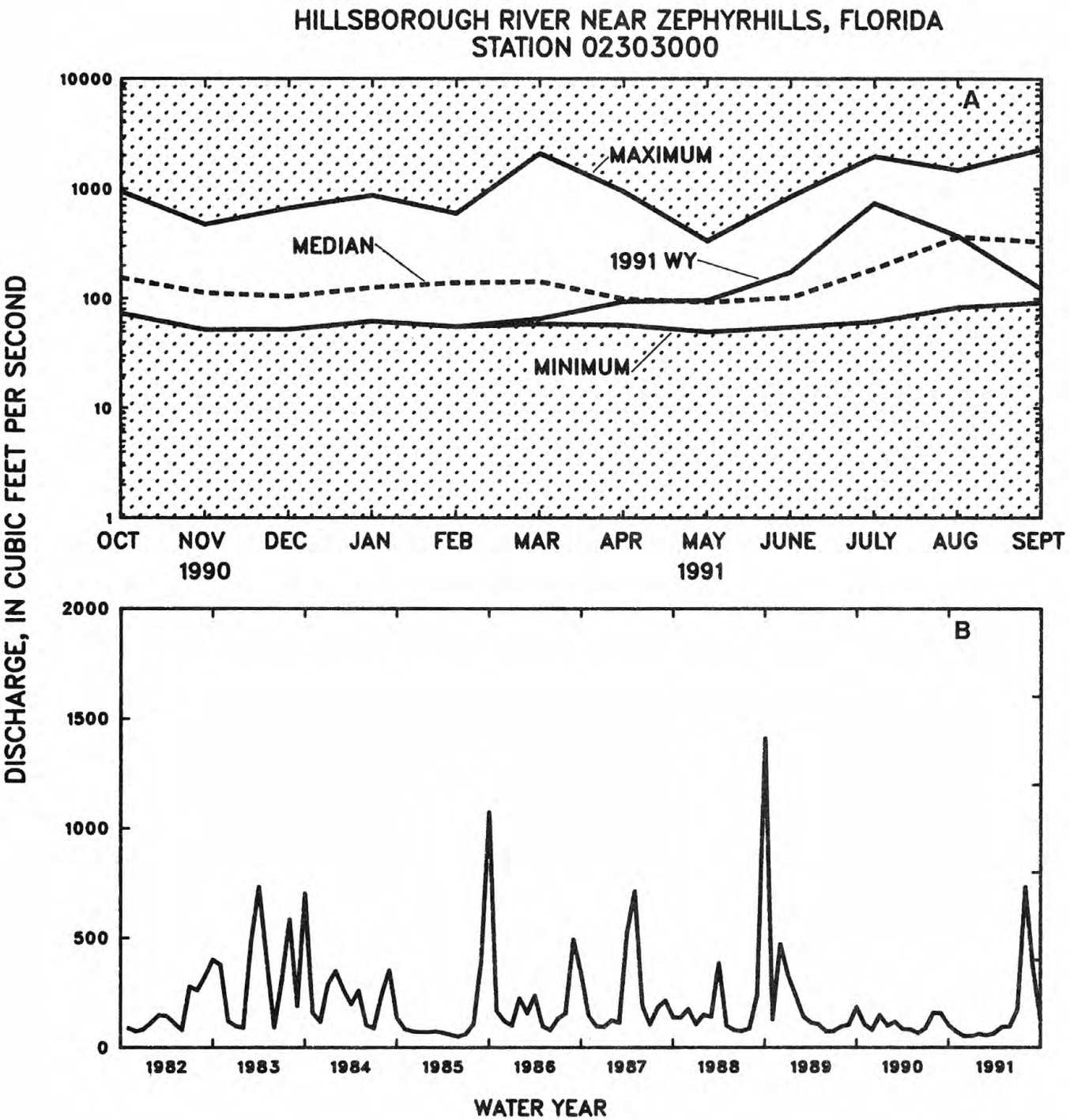

Figure 4.--Hillsborough River near Zephyrhills (A) 1991 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and (B) the monthly mean discharge for the period 1982-91.

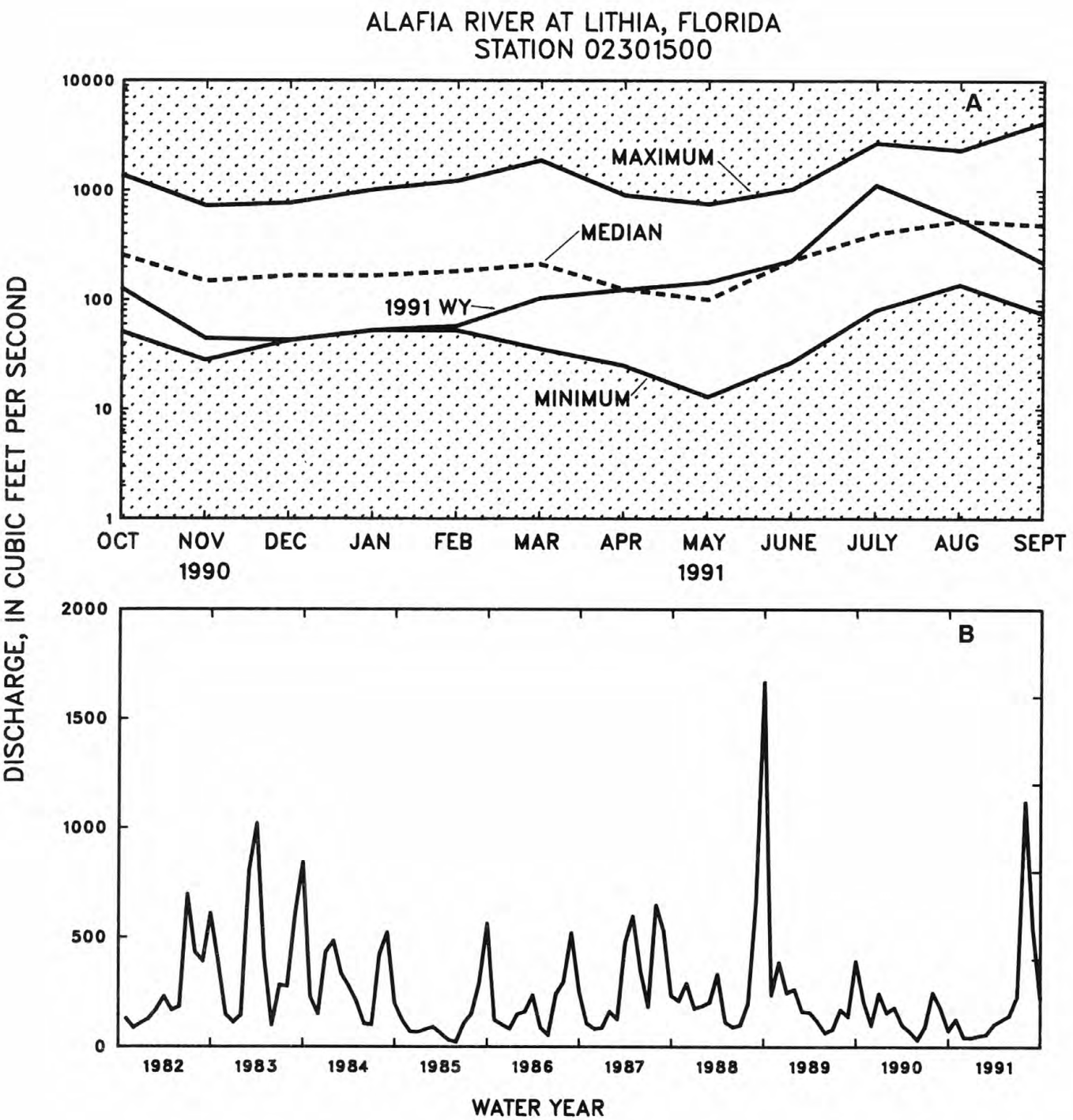

Figure 5.--Alafia River at Lithia (A) 1991 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and (B) the monthly mean discharge for the period 1982-91.

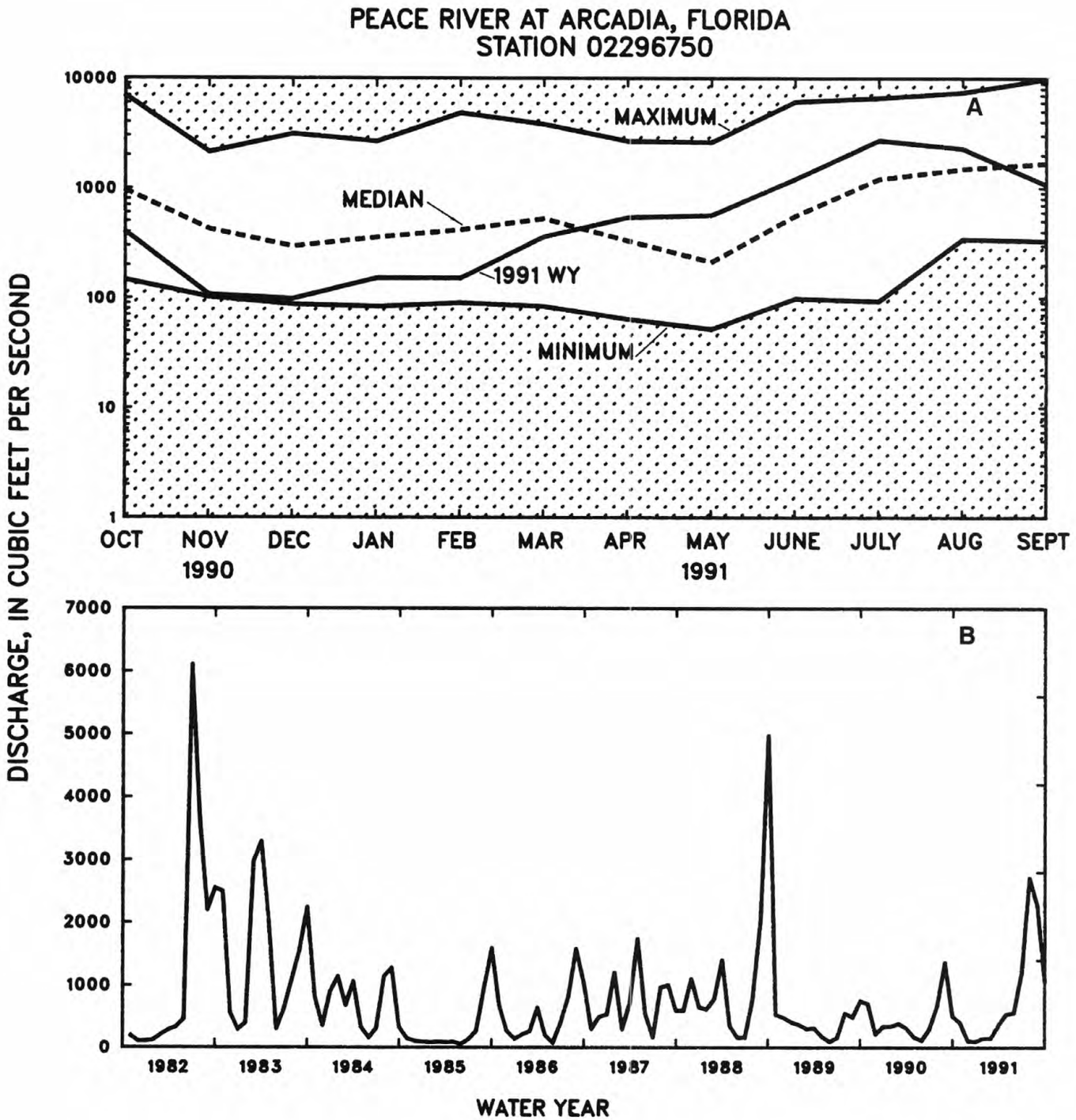

Figure 6.--Peace River at Arcadia (A) 1991 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and (B) the monthly mean discharge for the period 1982-91.

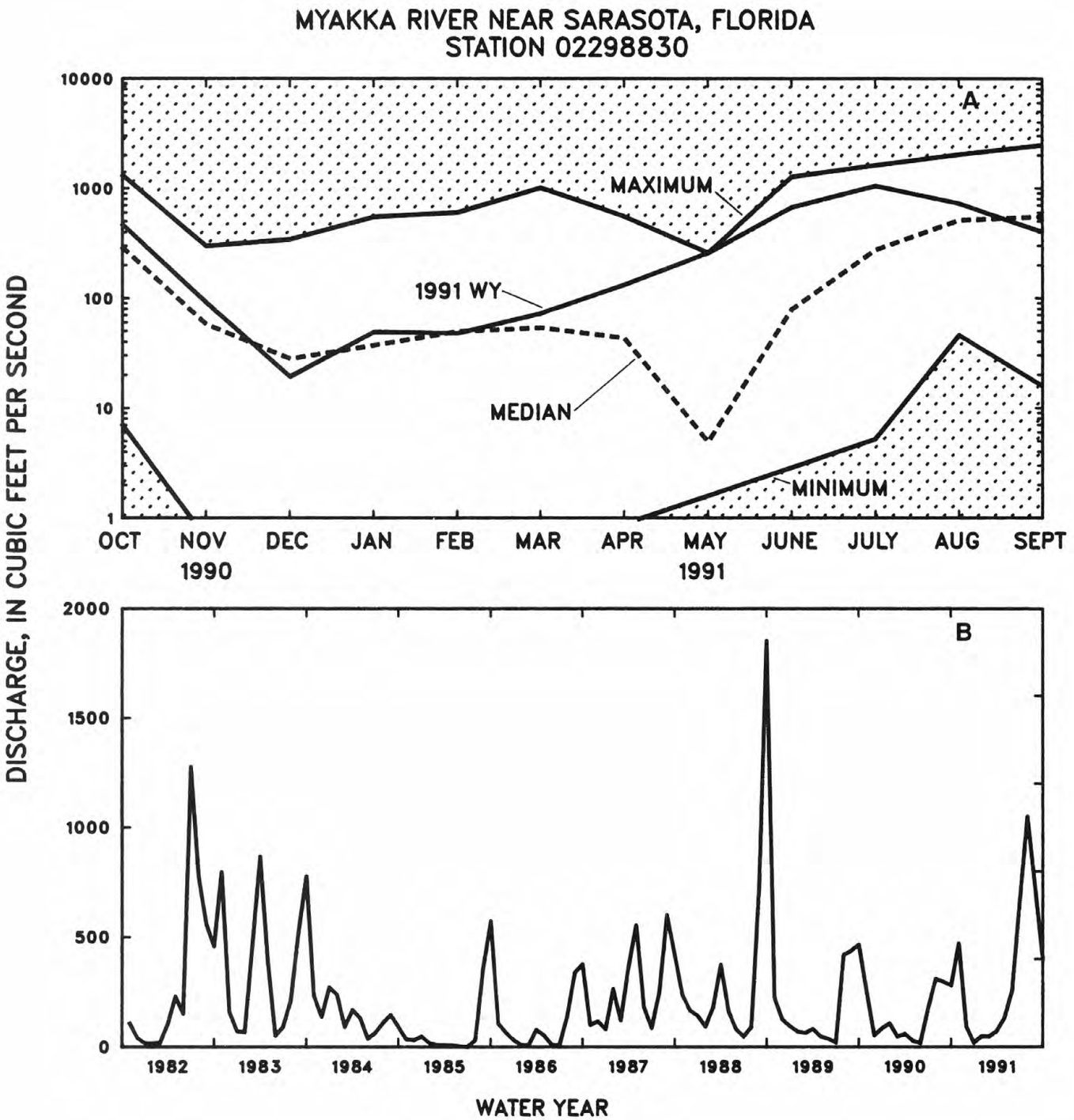

Figure 7.--Myakka River near Sarasota (A) 1991 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and (B) the monthly mean discharge for the period 1982-91.

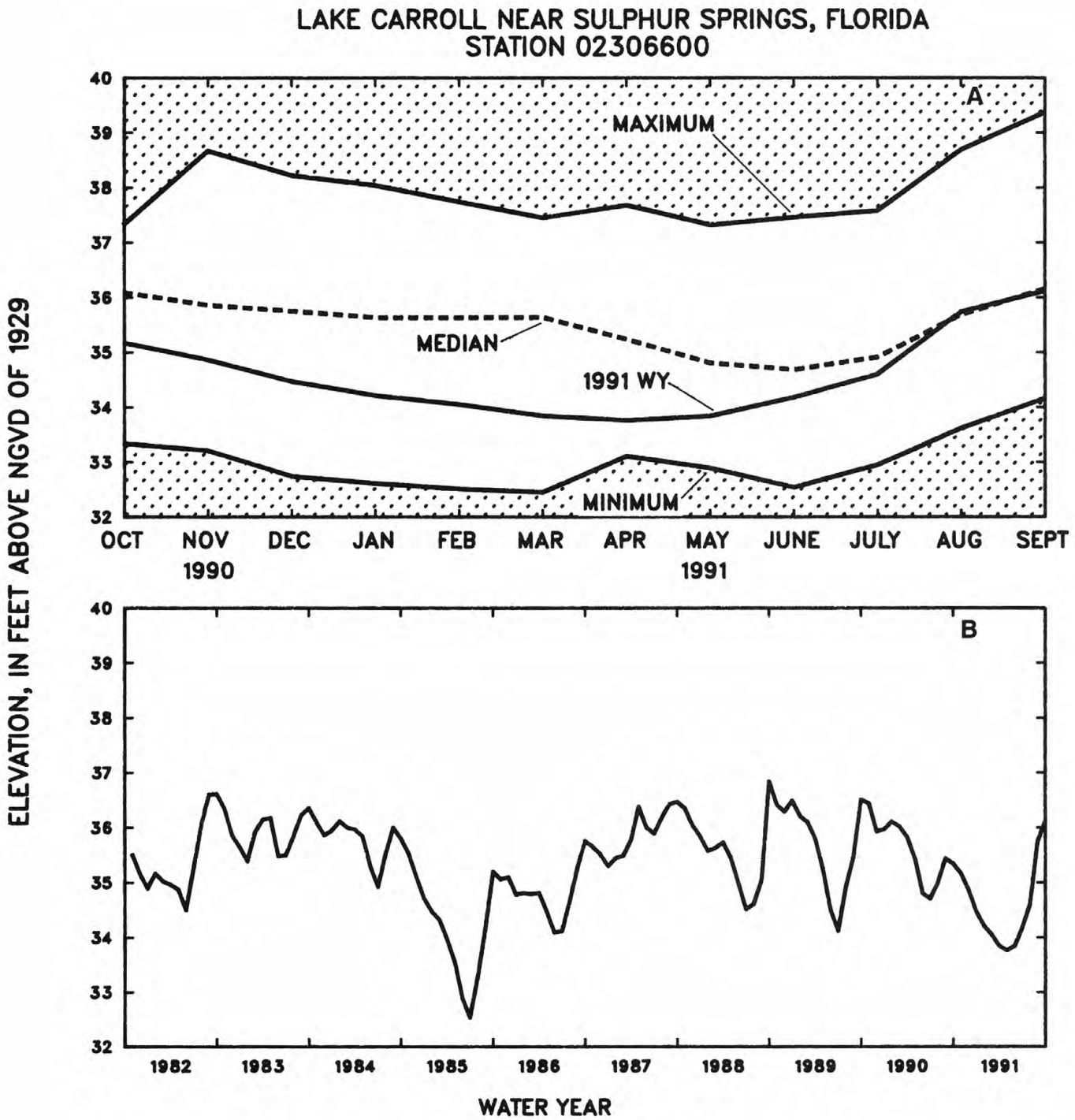

Figure 8.--Lake Carroll near Sulphur Springs (A) 1991 monthly mean stage compared to the maximum, minimum, and median monthly mean stage for the period of record, and (B) the monthly mean stage for the period 1982-91.

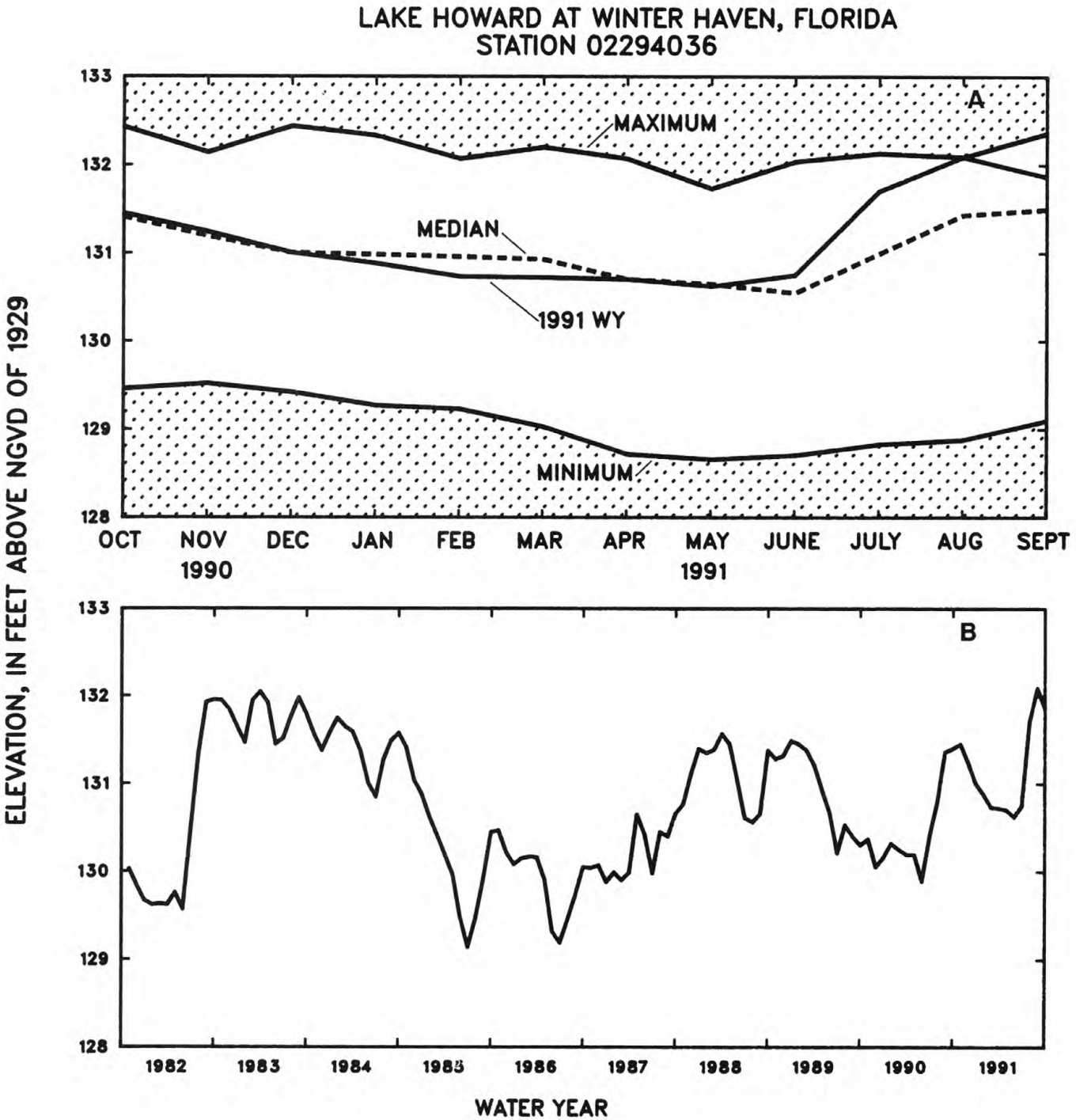

Figure 9.--Lake Howard at Winter Haven (A) 1991 monthly mean stage compared to the maximum, minimum, and median monthly mean stage for the period of record, and (B) the monthly mean stage for the period 1982-91.

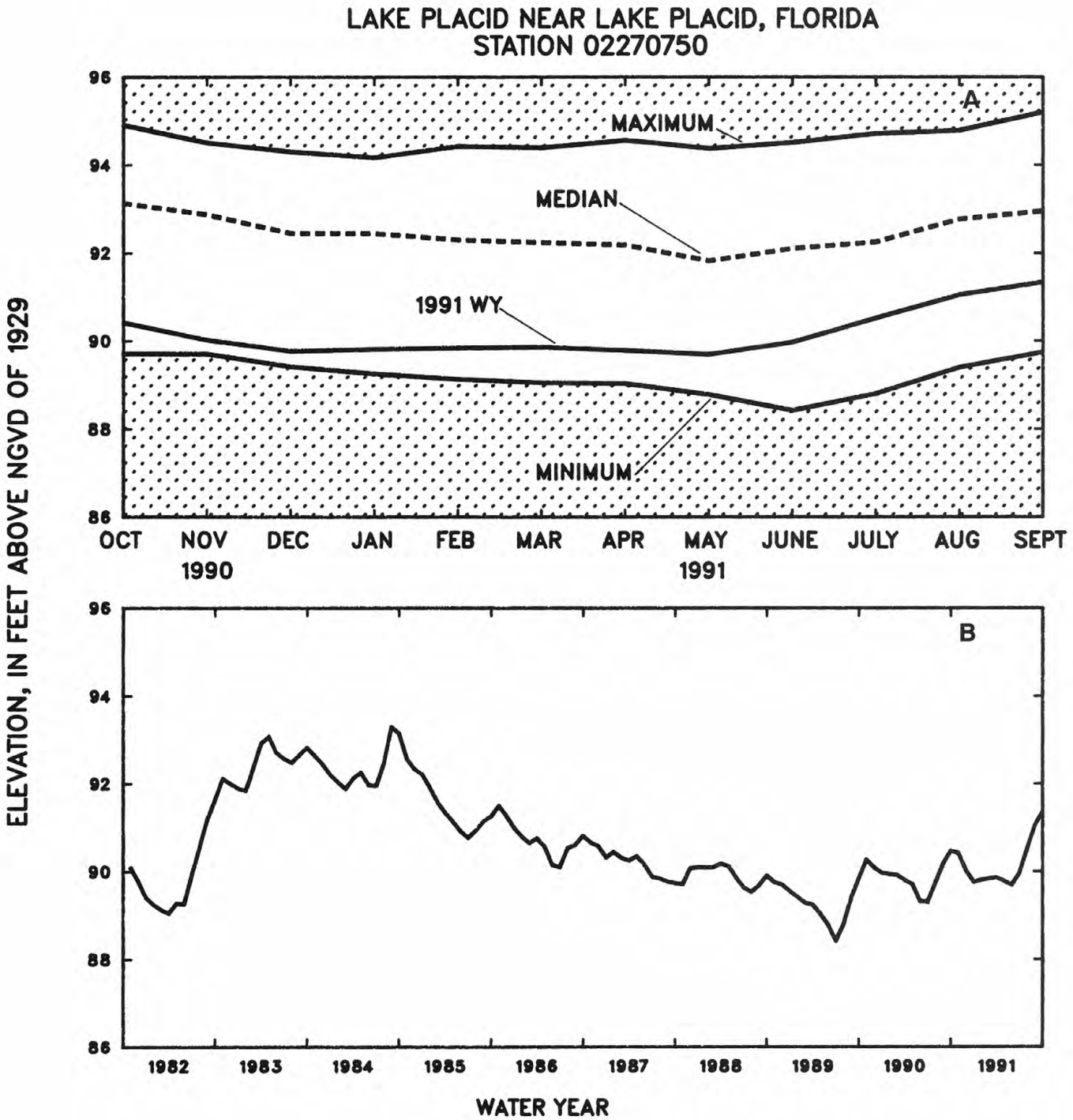

Figure 10.--Lake Placid near Lake Placid (A) 1991 monthly mean stage compared to the maximum, minimum, and median monthly mean stage for the period of record, and (B) the monthly mean stage for the period 1982-91.

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 11.

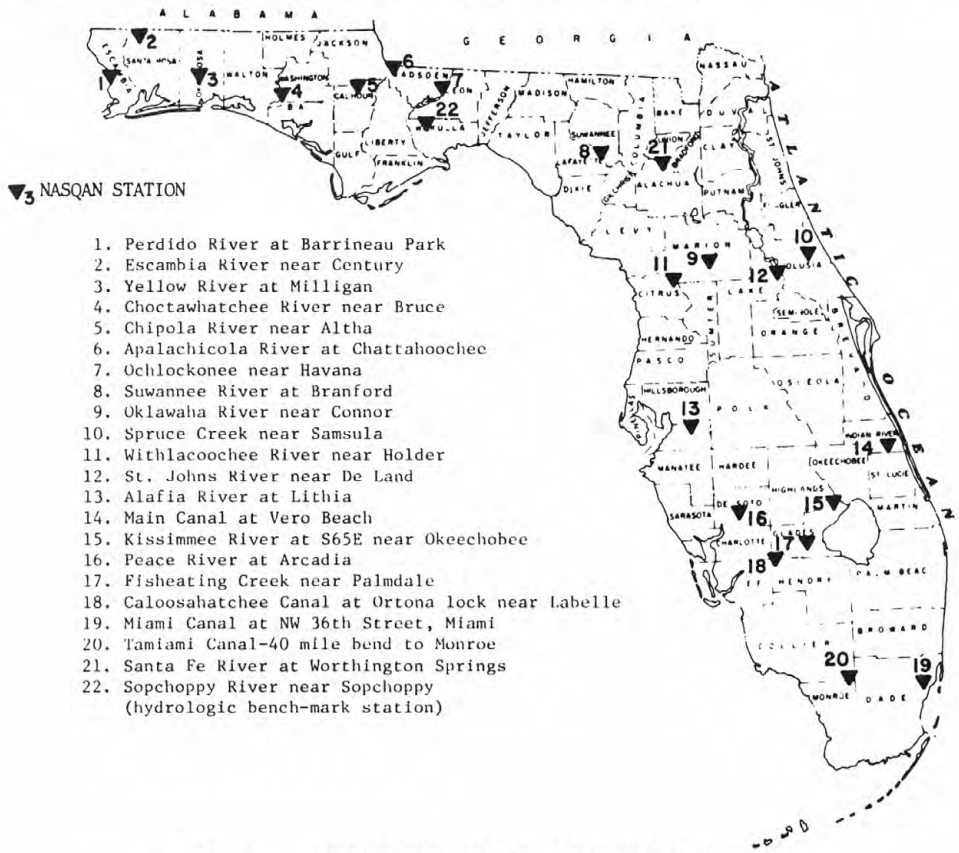

Figure 11.--NASQAN stations in the State of Florida.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

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.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1991 water year that began October 1, 1990, and ended September 30, 1991. 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, and water-quality data for surface water. 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 in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The system used by the U.S. Geological Survey to assign identification numbers for surface-water stations is based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations where only miscellaneous measurements 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 indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention 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 eight-digit number for each station, such as 02335500, which appears just to the left of the station name, includes the two-digit Part number "02" plus the six-digit downstream-order number "335500." 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 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.)

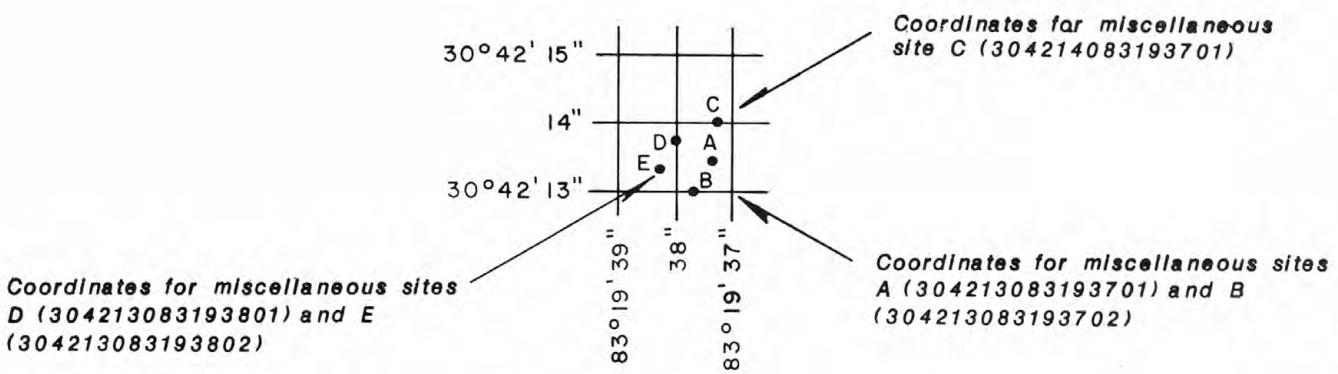

Figure 12.--System for numbering miscellaneous sites (latitude and longitude).

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 continuous 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 elevations, 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 continuous 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 continuous 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.

Continuous 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. The following comments clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate 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. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

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 be flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") The remarks paragraph is 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 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 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/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 Tampa 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 limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less 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 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.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ 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 Florida 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 chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending

at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Geological Survey Florida office whose address is given on the back of the title page of this report.

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.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Florida Office.

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.

Dissolved Trace Elements

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Present data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in the near future.

Laboratory Measurements

Samples for indicator bacteria and daily samples for specific conductance are analyzed in Tampa office. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado and Ocala, Florida. Methods used in analyzing samples are given in TWRI, Book 5, Chap. A1-A6, and C1.

In March 1989 the National Water-Quality Laboratory in Arvada, Colorado discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between October 1982 and July 1989. Sulfate values for NASQAN stations (02301500) Alafia River at Lithia, FL and (02296750) Peace River at Arcadia, FL have not been corrected for this bias. Sulfate values for other stations in this report were determined in Ocala, Florida, and the turbidimetric method was not used.

Data Presentation

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

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

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

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

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

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device 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 insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

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

NOTE: In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

Rounding Clarification

Values for some constituents analyzed by routine methods are tabulated with extraneous trailing zeros that are not significant digits. Extraneous zeros result because data obtained from low-level methods that have better (lower) detection limits are stored under the same parameter code as data obtained by routine analytical methods.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consist of related files and data bases.

* Station Header File - Contains descriptive information on more that 440,000 sites throughout the Unites States and its territories where the U.S. Geological Survey collects or has collected data.

* Daily Values File - Contains more that 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

* Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

* Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct acess. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to Watstore, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

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.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

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.

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

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

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

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

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

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

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

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

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

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

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

Bottom material: See Bed material.

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

Cubic-foot-per-second 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 2,445 cubic meters.

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

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

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate 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 salt water.

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

Cubic-feet-per-second per square mile [$(ft^3/s)/mi^2$] 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 specifically, 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 um 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).

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 activiies of man.

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.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (ug/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 (UG/L, ug/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.

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 National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

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 sedimentaiton 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.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

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 trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radio- active carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg0 /(m^2.time)] for periphyton and macrophytes and [mg0 /(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

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.

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 (ft^3/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.

7-day 10-year low flow ($7\ Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

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

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

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um 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 um 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 hierarchial 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	Hexagenia
Species	Hexagenia limbata

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.

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.

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.

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, 1991, is called the "1991 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 abbreviaton for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, 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*, by 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-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MaCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W. Scott Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS-- TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by idirect methods*, by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3. Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

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.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 41 pages.

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.

3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

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3-A19. *Levels of streamflow gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

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3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G. D. Bennett: USGS-- TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow*, by Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

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4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

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5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments,* edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS-TWRI Book 5, Chapter C1. 1969. 58 pages.

6-A1. *A modular three-dimensional finite-difference ground-water flow model,* by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. *I nstallation and service manual for U.S. Geological Survey manometers,* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

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STAGE, DISCHARGE, AND WATER QUALITY OF STREAMS

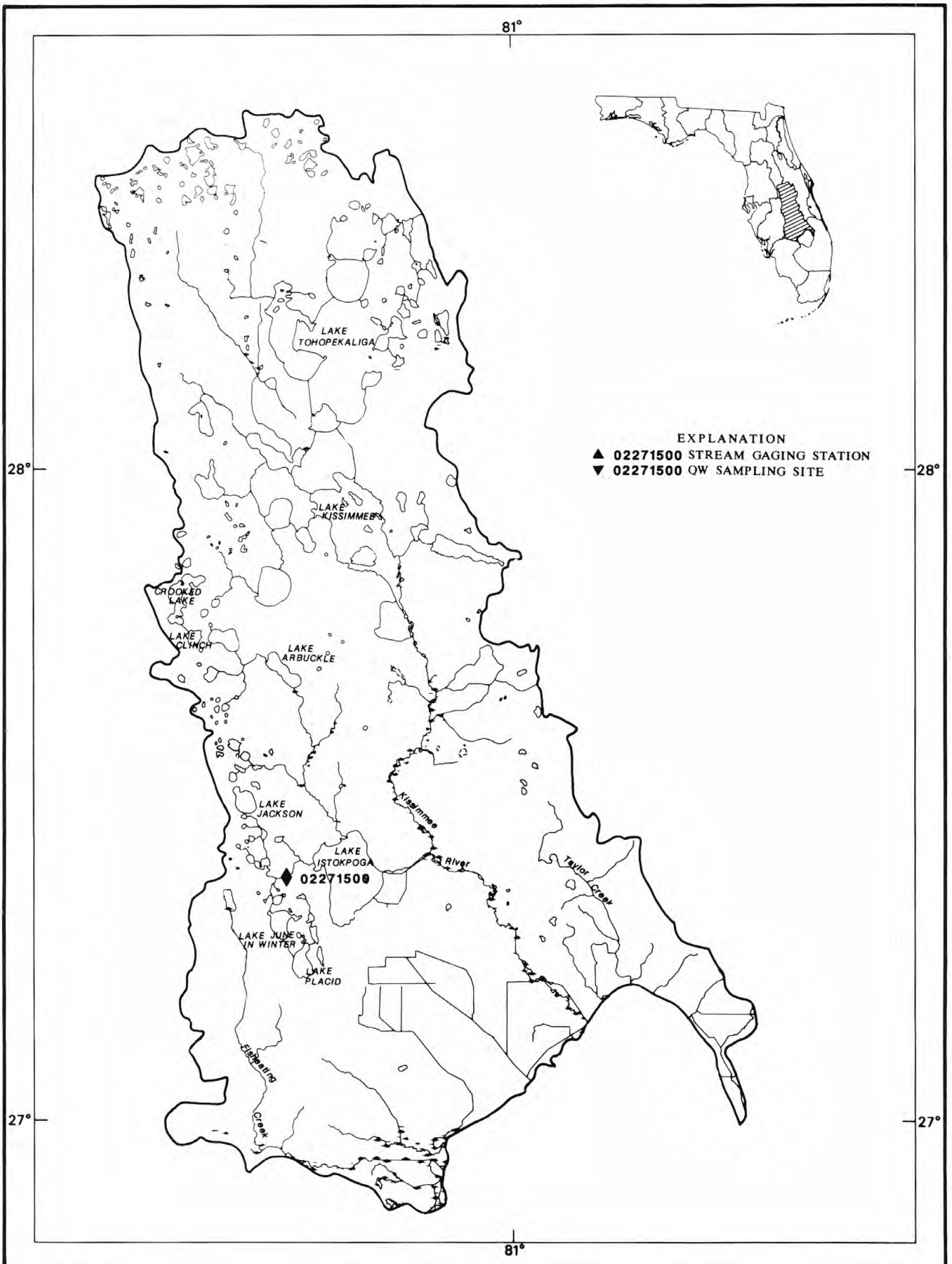

Figure 13.--Location of stream gaging stations in the Kissimmee River basin; the Taylor Creek basin and inflow to the Lake Okeechobee from the north; and Fisheating Creek basin and inflow to Lake Okeechobee from the northwest.

KISSIMMEE RIVER BASIN

02271500 JOSEPHINE CREEK NEAR DE SOTO CITY, FL

LOCATION.--Lat 27°22'26", long 81°23'37", in SE¼ sec.2, T.36 S., R.29 E., Highlands County, Hydrologic Unit 03090101, on left bank, 320 ft downstream from bridge on State Highway 17, 1.0 mi downstream from Jack Creek, 4.0 mi south of De Soto City, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--109 mi^2, includes area drained by Lake Sebring.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to September 1975, October 1978 to current year.

REVISED RECORDS.--WSP 1384: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 52.99 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to May 21, 1952, at site 0.5 mi upstream at datum 0.89 ft higher.

REMARKS.--Records fair. Some regulation by gate manipulations at structure G-90 located on Lake June-in-Winter outflow canal.

AVERAGE DISCHARGE.--42 years (water years 1947-75, 1979-91), 75.8 ft^3/s, 9.44 in/yr, 54,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft^3/s, Sept. 23, 1948, gage height, 11.56 ft, at former site and datum; minimum, 0.30 ft^3/s, May 22, 1956, affected by pumpage; minimum gage height, 1.49 ft, Apr. 8, 1956, affected by pumpage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 310 ft^3/s, Aug. 7, gage height, 6.35 ft; minimum daily discharge, 7.3 ft^3/s, May 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	19	23	14	35	30	24	14	19	134	219	79
2	104	19	21	14	33	30	21	13	17	131	250	90
3	96	19	20	13	33	32	18	15	16	121	237	92
4	91	19	20	13	34	35	18	13	13	114	234	85
5	86	19	19	13	32	32	24	11	13	104	218	78
6	81	20	16	13	31	28	e28	11	26	94	287	69
7	74	19	17	14	29	25	e31	9.6	31	91	303	64
8	67	19	27	22	29	24	e36	9.0	29	94	283	64
9	58	19	26	23	27	27	e33	8.3	23	113	259	72
10	66	28	22	21	23	35	e30	7.9	20	97	243	72
11	66	27	21	21	21	32	e28	7.6	16	87	224	69
12	66	23	19	21	20	29	26	7.3	14	76	213	67
13	63	21	18	20	19	28	24	7.6	13	85	212	63
14	59	19	17	17	18	31	21	7.6	12	105	206	59
15	55	18	16	20	21	31	21	7.4	11	101	217	56
16	51	17	17	97	19	31	19	7.5	16	97	144	52
17	47	18	16	114	15	34	18	7.6	63	91	116	49
18	44	17	16	98	14	37	17	7.4	69	107	104	48
19	43	16	15	87	15	41	16	8.0	89	108	98	48
20	39	16	15	83	15	38	18	8.5	135	109	93	46
21	42	16	15	74	14	35	18	8.1	119	119	88	49
22	40	15	15	65	14	33	16	9.8	125	114	92	52
23	38	15	15	57	14	32	15	22	116	104	120	52
24	36	15	15	50	13	31	15	35	117	91	119	57
25	32	15	15	50	14	30	15	32	136	82	110	56
26	28	16	14	49	22	27	21	31	186	95	105	55
27	23	15	14	47	26	25	20	41	184	89	100	55
28	22	15	14	45	28	23	18	35	162	87	95	52
29	21	15	15	42	---	21	17	29	152	132	93	49
30	20	23	15	40	---	21	15	25	140	169	87	46
31	19	---	15	38	---	23	---	22	---	201	83	---
TOTAL	1686	552	543	1295	628	931	641	478.2	2082	3342	5252	1845
MEAN	54.4	18.4	17.5	41.8	22.4	30.0	21.4	15.4	69.4	108	169	61.5
MAX	109	28	27	114	35	41	36	41	186	201	303	92
MIN	19	15	14	13	13	21	15	7.3	11	76	83	46
AC-FT	3340	1090	1080	2570	1250	1850	1270	949	4130	6630	10420	3660
CFSM	.50	.17	.16	.38	.21	.28	.20	.14	.64	.99	1.55	.56
IN.	.58	.19	.19	.44	.21	.32	.22	.16	.71	1.14	1.79	.63

CAL YR 1990 TOTAL 17559.6 MEAN 48.1 MAX 324 MIN 8.8 AC-FT 34830 CFSM .44 IN. 5.99
WTR YR 1991 TOTAL 19275.2 MEAN 52.8 MAX 303 MIN 7.3 AC-FT 38230 CFSM .48 IN. 6.58

e Estimated

02271500 JOSEPHINE CREEK NEAR DE SOTO CITY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-71, 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV										
02...	0928	3.83	21	158	6.1	--	22.5	70	4.6	11
FEB										
06...	0935	4.18	31	145	--	23.0	20.0	--	--	--
APR										
12...	1330	4.06	27	140	--	27.0	27.5	--	4.0	--
JUN										
05...	0930	3.56	13	158	--	--	27.5	--	--	--
07...	1135	4.20	31	152	6.1	28.0	26.5	35	3.7	10
JUL										
16...	1305	5.18	94	120	--	31.0	28.5	--	4.0	--
AUG										
19...	1345	5.17	96	130	6.3	33.0	30.0	--	3.5	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)
NOV									
02...	5.2	6.4	2.3	23	17	<0.10	7.5	104	0.490
FEB									
06...	--	--	--	--	--	--	--	--	0.080
APR									
12...	--	--	--	--	--	--	--	--	--
JUN									
05...	--	--	--	--	--	--	--	--	0.510
07...	4.6	6.6	2.8	27	13	<0.10	4.8	95	--
JUL									
16...	--	--	--	--	--	--	--	--	0.160
AUG									
19...	--	--	--	--	--	--	--	--	0.180

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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV									
02...	0.010	0.500	0.070	0.56	0.63	0.060	0.040	450	9.7
FEB									
06...	0.010	0.250	0.050	0.95	0.60	0.060	0.020	--	--
APR									
12...	<0.010	0.230	0.060	0.46	0.52	0.050	<0.010	--	--
JUN									
05...	0.010	0.520	0.090	0.51	0.60	0.040	0.040	--	--
07...	<0.010	0.160	0.040	0.66	0.70	0.070	0.030	360	8.9
JUL									
16...	0.010	0.170	0.060	0.83	0.89	0.050	0.030	--	--
AUG									
19...	0.010	0.190	0.050	0.71	0.76	0.050	0.030	--	--

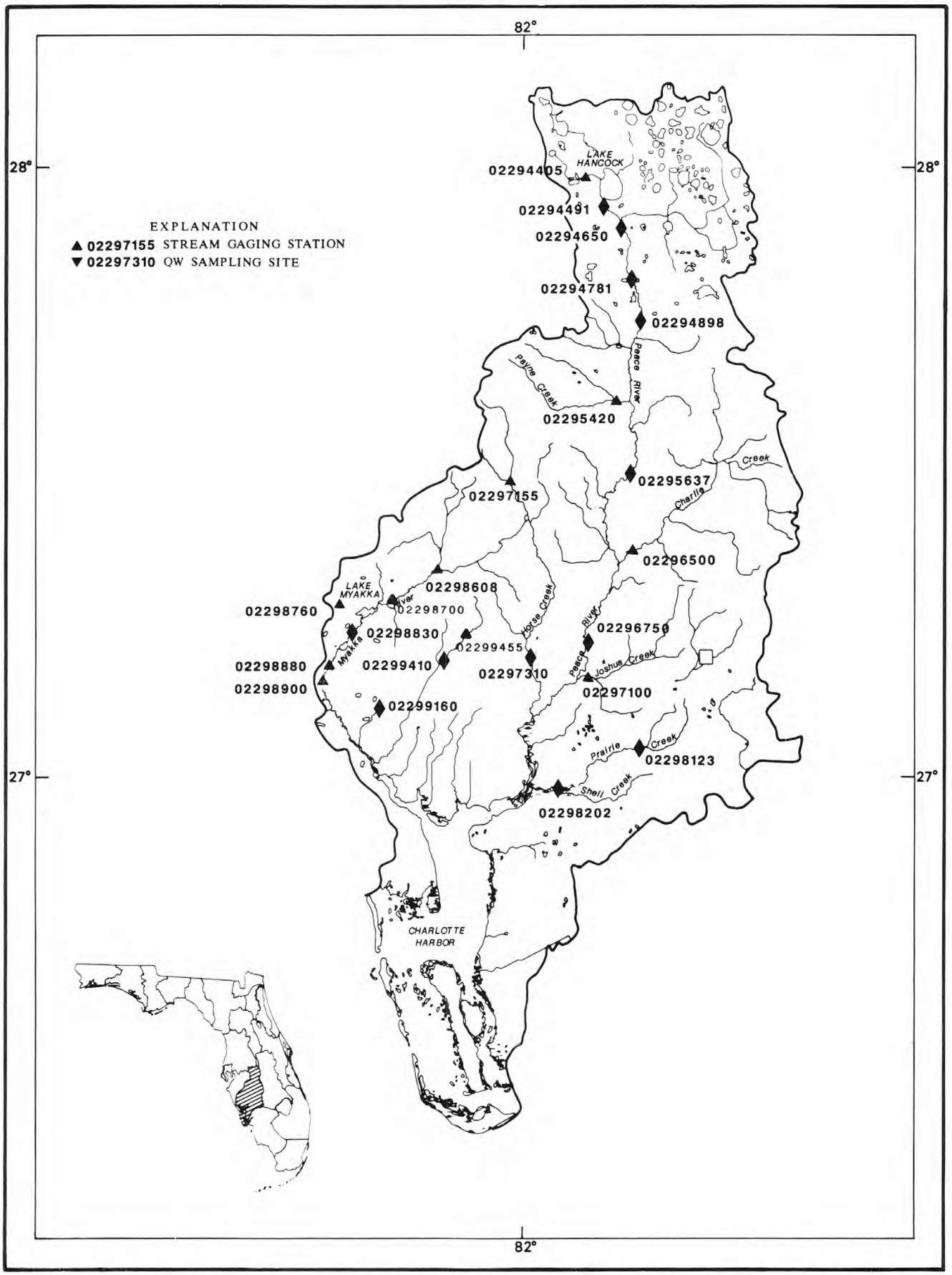

Figure 14.--Location of stream gaging stations in the Peace and Myakka River basins, Charlotte Harbor and Coastal area.

PEACE RIVER BASIN

02294405 BANANA-HANCOCK CANAL NEAR HIGHLAND CITY, FL

LOCATION.--Lat 27°58'57", long 81°53'40", in SE¼ sec.3, T.29 S., R.24 E., Polk County, Hydrologic Unit 03100101, on right bank, 900 ft below northeast shore of Banana Lake, 0.2 mi upstream from bridge on U.S. Highway 98, 1.4 mi northwest of Highland City, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--18.8 mi^2.

PERIOD OF RECORD.--July 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 99.94 ft above National Geodetic Vertical Datum of 1929 (levels by Polk County).

REMARKS.--Records good.

AVERAGE DISCHARGE.--5 years (water years 1987-91), 11.9 ft^3/s, 8.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 286 ft^3/s, July 15, 1991, gage height, 5.33 ft; no flow at times some years; canal dry at gage some days most years.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 286 ft^3/s, July 15, gage height, 5.33 ft; no flow many days; canal dry at gage some days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	.24	.00	.00	.00	.00	.00	.03	61	24	e71	39
2	3.3	.10	.00	.00	.00	.00	.00	.02	72	28	e67	33
3	3.3	.06	.00	.00	.00	.00	.00	.00	74	30	e63	29
4	3.3	.05	.00	.00	.00	.00	.00	.00	67	31	e61	27
5	3.3	.03	.00	.00	.00	.00	.00	.00	63	31	58	26
6	3.2	.02	.00	.00	.00	.00	.00	.00	62	32	55	25
7	3.1	.00	.00	.00	.00	.00	.00	.00	58	34	53	28
8	2.9	.00	.00	.00	.00	.00	.00	.00	52	34	50	29
9	2.6	.00	.00	.00	.00	.00	.00	.00	46	35	50	30
10	3.5	.00	.00	.00	.00	.00	.00	.00	42	33	49	28
11	3.6	.00	.00	.00	.00	.00	.00	.00	38	32	43	26
12	3.8	.00	.00	.00	.00	.00	.00	.00	34	37	41	25
13	3.9	.00	.00	.00	.00	.00	.00	.00	31	63	40	24
14	3.8	.00	.00	.00	.00	.00	.00	.00	27	176	36	22
15	3.8	.00	.00	.00	.00	.00	.00	.00	24	276	35	20
16	3.8	.00	.00	.00	.00	.00	.00	.00	23	241	34	19
17	3.6	.00	.00	.00	.00	.00	.00	.00	23	174	34	17
18	3.3	.00	.00	.00	.00	.00	.00	.00	25	137	33	17
19	3.0	.00	.00	.00	.00	.00	.00	.00	25	114	33	20
20	2.6	.00	.00	.00	.00	.00	.00	.31	22	94	33	20
21	2.5	.00	.00	.00	.00	.00	.00	1.6	20	83	32	19
22	2.6	.00	.00	.00	.00	.00	.00	3.3	20	72	32	18
23	2.5	.00	.00	.00	.00	.00	.00	5.6	19	64	32	16
24	2.3	.00	.00	.00	.00	.00	.00	7.0	19	63	37	15
25	2.0	.00	.00	.00	.00	.00	.00	7.3	21	63	45	15
26	1.8	.00	.00	.00	.00	.00	.00	9.4	21	61	50	16
27	1.2	.00	.00	.00	.00	.00	.00	15	21	58	52	14
28	1.0	.00	.00	.00	.00	.00	.00	20	20	59	50	12
29	.87	.00	.00	.00	---	.00	.02	23	20	59	41	11
30	.62	.00	.00	.00	---	.00	.03	27	21	e63	39	10
31	.41	---	.00	.00	---	.00	---	48	---	e67	40	---
TOTAL	84.80	0.50	0.00	0.00	0.00	0.00	0.05	167.56	1071	2368	1389	650
MEAN	2.74	.017	.000	.000	.000	.000	.002	5.41	35.7	76.4	44.8	21.7
MAX	3.9	.24	.00	.00	.00	.00	.03	48	74	276	71	39
MIN	.41	.00	.00	.00	.00	.00	.00	.00	19	24	32	10
AC-FT	168	1.0	.00	.00	.00	.00	.1	332	2120	4700	2760	1290

CAL YR 1990 TOTAL 1506.52 MEAN 4.13 MAX 16 MIN .00 AC-FT 2990
WTR YR 1991 TOTAL 5730.91 MEAN 15.7 MAX 276 MIN .00 AC-FT 11370

e Estimated

PEACE RIVER BASIN

02294491 SADDLE CREEK AT STRUCTURE P-11 NEAR BARTOW, FL

LOCATION.--Lat 27°56'17", long 81°51'05", in SW¼ sec.19, T.29 S., R.25 E., Polk County, Hydrologic Unit 03100101, near right bank, 65 ft downstream from structure P-11, 0.7 mi south of Lake Hancock, 2.3 mi upstream from mouth, and 3.0 mi north of post office in Bartow.

DRAINAGE AREA.--135 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 84.08 ft above National Geodetic Vertical Datum of 1929 (Southwest Florida Water Management District reference mark). Prior to Aug. 15, 1968, at same site at datum 10.00 ft higher.

REMARKS.--Records fair. Flow regulated by structure P-11.

AVERAGE DISCHARGE.--27 years (water years 1965-91), 52.7 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 517 ft^3/s, Sept. 12, 1988; maximum gage height, 15.66 ft, present datum, Aug. 11, 1965 (wind affected); no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 347 ft^3/s, Aug. 2, 3; maximum gage height, 15.38 ft, July 21, 24; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	.02	.01	.00	.00	.00	.00	.00	.00	.04	342	245
2	1.6	.02	.01	.00	.00	.00	.00	.00	.00	.11	347	240
3	.64	.02	.01	.00	.00	.00	.00	.00	.00	1.3	347	235
4	.49	.02	.01	.00	.00	.00	.00	.00	.00	2.0	345	225
5	.45	.02	.00	.00	.00	.00	.00	.00	.00	2.8	342	213
6	.41	.02	.00	.00	.00	.00	.00	.00	.00	3.6	338	204
7	.34	.02	.00	.00	.00	.00	.00	.00	.00	4.9	336	198
8	.32	.01	.00	.00	.00	.00	.00	.00	.00	40	329	192
9	.36	.01	.00	.00	.00	.00	.00	.00	.00	101	327	188
10	.41	.01	.00	.00	.00	.00	.00	.00	.00	102	332	180
11	.20	.01	.00	.00	.00	.00	.00	.00	.00	106	333	173
12	.15	.02	.00	.00	.00	.00	.00	.00	.00	114	333	167
13	.13	.02	.00	.00	.00	.00	.00	.00	.00	143	342	161
14	.11	.01	.00	.00	.00	.00	.00	.00	.00	181	337	154
15	.07	.01	.00	.00	.00	.00	.00	.00	.00	212	331	149
16	.07	.01	.00	.00	.00	.00	.00	.00	.00	239	324	144
17	.07	.01	.00	.00	.00	.00	.00	.00	.00	261	316	138
18	.06	.01	.00	.00	.00	.00	.00	.00	.00	308	304	102
19	.05	.01	.00	.00	.00	.00	.00	.00	.00	320	294	17
20	.06	.01	.00	.00	.00	.00	.00	.00	.00	329	285	2.0
21	.06	.01	.00	.00	.00	.00	.00	.00	.00	333	277	1.5
22	.05	.01	.00	.00	.00	.00	.00	.00	.00	336	269	1.3
23	.05	.00	.00	.00	.00	.00	.00	.00	.00	339	266	.58
24	.06	.01	.00	.00	.00	.00	.00	.00	.00	340	265	.01
25	.05	.01	.00	.00	.00	.00	.00	.00	.00	341	266	.01
26	.05	.01	.00	.00	.00	.00	.00	.00	.00	341	265	.05
27	.04	.00	.00	.00	.00	.00	.00	.00	.00	340	264	.02
28	.03	.00	.00	.00	.00	.00	.00	.00	.00	337	262	.00
29	.03	.00	.00	.00	---	.00	.00	.00	.00	339	260	.00
30	.02	.00	.00	.00	---	.00	.00	.00	.00	341	257	.00
31	.02	---	.00	.00	---	.00	---	.00	---	338	250	---
TOTAL	12.05	0.34	0.04	0.00	0.00	0.00	0.00	0.00	0.00	6195.75	9485	3330.47
MEAN	.39	.011	.001	.000	.000	.000	.000	.000	.000	200	306	111
MAX	5.6	.02	.01	.00	.00	.00	.00	.00	.00	341	347	245
MIN	.02	.00	.00	.00	.00	.00	.00	.00	.00	.04	250	.00

CAL YR 1990 TOTAL 4487.85 MEAN 12.3 MAX 331 MIN .00
WTR YR 1991 TOTAL 19023.65 MEAN 52.1 MAX 347 MIN .00

PEACE RIVER BASIN

02294491 SADDLE CREEK AT STRUCTURE P-11 NEAR BARTOW, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1967, 1969 to currrent year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV									
05...	1029	10.00	0.13	330	8.4	26.0	24.5	7.8	0.010
JUL									
11...	1125	13.48	108	290	--	33.0	31.0	7.4	--
AUG									
21...	1150	14.22	275	230	8.5	33.0	28.0	6.1	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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV								
05...	0.010	0.020	0.020	5.9	5.9	0.750	0.120	31
JUL								
11...	<0.010	<0.020	0.010	5.8	5.8	0.410	0.070	--
AUG								
21...	0.010	0.020	0.250	3.1	3.3	0.300	0.130	--

PEACE RIVER BASIN

02294650 PEACE RIVER AT BARTOW, FL

LOCATION.--Lat 27°54'07", long 81°49'03", in NE¼ sec.4, T.30 S., R.25 E., Polk County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on State Highway 60, 500 ft downstream from McKinney Branch, 0.6 mi east of Bartow, and 105 mi upstream from mouth.

DRAINAGE AREA.--390 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1304. Prior to October 1950, published as Peace Creek at Bartow.

REVISED RECORDS.--WSP 1234: Drainage area. WRD FL 1970: 1969.

GAGE.--Water-stage recorder. Datum of gage is 87.56 ft above National Geodetic Vertical Datum of 1929. Prior to July 12, 1940, nonrecording gage and July 12, 1940, to Nov. 5, 1948, water-stage recorder at site 200 ft downstream; prior to May 1, 1975, at datum 3.00 ft higher.

REMARKS.--Records good. Since 1949, records include an appreciable amount of waste water diverted from groundwater supplies into McKinney Branch by chemical plants and phosphate mines; since July 1963, considerable regulation upstream by control structure P-11 on Saddle Creek.

AVERAGE DISCHARGE.--52 years, 227 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,140 ft^3/s, Sept. 24, 1947, from rating curve extended above 2,900 ft^3/s; maximum gage height, 11.01 ft, Sept. 13, 14, 1960, present datum; minimum discharge, 1.1 ft^3/s, Apr. 27, 1968; minimum gage height, 2.47 ft, Apr. 25, 26, 29, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 945 ft^3/s, July 18, gage height, 8.07 ft; minimum daily discharge, 4.0 ft^3/s, Feb. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	11	8.7	5.9	7.7	6.6	12	13	33	74	781	563
2	14	11	8.3	7.0	7.4	5.8	12	12	35	85	795	526
3	16	11	7.6	7.2	8.1	14	13	11	34	96	796	488
4	15	10	6.6	7.5	7.2	11	12	9.5	32	103	788	439
5	14	9.4	5.8	6.7	7.2	11	12	8.6	30	107	773	383
6	14	9.9	6.4	6.9	7.0	12	12	7.7	31	114	751	353
7	14	9.6	8.1	6.9	7.1	11	15	6.6	28	126	709	341
8	12	9.4	9.3	6.6	8.4	11	29	6.2	25	126	659	309
9	11	9.5	6.9	6.6	8.4	13	15	6.2	23	168	608	294
10	18	15	7.2	6.6	7.9	11	14	6.4	21	208	592	286
11	14	10	7.0	6.9	7.8	11	12	5.8	20	221	584	274
12	18	11	6.6	6.5	7.1	11	12	4.9	19	238	558	265
13	22	11	6.6	5.9	6.2	10	11	7.4	18	415	550	256
14	25	11	6.5	5.2	6.4	10	9.9	6.3	17	682	559	246
15	28	12	6.6	11	6.5	8.9	9.4	5.1	15	763	531	237
16	32	13	6.5	13	6.1	8.6	9.6	5.6	14	788	518	228
17	33	12	6.4	7.8	6.1	9.2	16	11	14	792	527	221
18	31	11	6.2	9.7	6.5	19	10	12	15	931	502	210
19	30	11	6.0	10	6.6	15	9.2	7.6	13	904	486	132
20	30	9.6	6.0	11	6.2	21	8.9	9.0	12	860	464	79
21	28	8.5	6.2	10	6.6	24	8.8	8.0	15	834	431	63
22	27	7.9	6.1	9.7	6.4	25	8.3	8.2	19	808	413	54
23	27	9.1	5.8	9.0	6.4	25	6.8	15	13	781	414	54
24	25	11	5.4	8.6	6.3	23	7.5	13	20	756	459	50
25	23	9.6	5.3	12	6.2	21	11	13	25	727	491	46
26	19	9.0	6.3	8.8	5.6	18	12	16	16	711	494	45
27	17	8.8	6.3	8.6	4.0	15	10	24	14	694	513	43
28	16	8.8	7.0	8.9	5.6	13	12	27	13	673	528	42
29	15	8.8	6.5	8.9	---	12	13	26	19	665	565	37
30	13	8.8	6.5	8.5	---	11	13	29	53	714	598	35
31	12	---	6.4	8.2	---	15	---	33	---	741	589	---
TOTAL	627	307.7	207.1	256.1	189.0	432.1	356.4	374.1	656	15905	18026	6599
MEAN	20.2	10.3	6.68	8.26	6.75	13.9	11.9	12.1	21.9	513	581	220
MAX	33	15	9.3	13	8.4	25	29	33	53	931	796	563
MIN	11	7.9	5.3	5.2	4.0	5.8	6.8	4.9	12	74	413	35

CAL YR 1990 TOTAL 11146.1 MEAN 30.5 MAX 295 MIN 3.1
WTR YR 1991 TOTAL 43935.5 MEAN 120 MAX 931 MIN 4.0

PEACE RIVER BASIN

02294650 PEACE RIVER AT BARTOW, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.17	3.07	2.94	2.79	2.89	2.82	3.11	3.13	3.86	4.89	7.81	7.40
2	3.20	3.05	2.92	2.85	2.87	2.78	3.10	3.10	3.92	5.12	7.84	7.32
3	3.27	3.04	2.88	2.86	2.91	3.12	3.13	3.05	3.90	5.36	7.84	7.23
4	3.25	3.01	2.83	2.88	2.86	3.05	3.12	2.98	3.82	5.49	7.82	7.10
5	3.21	2.98	2.78	2.83	2.86	3.06	3.11	2.93	3.75	5.56	7.80	6.95
6	3.18	3.00	2.82	2.85	2.85	3.11	3.08	2.89	3.79	5.70	7.76	6.87
7	3.17	2.98	2.90	2.85	2.86	3.07	3.17	2.83	3.69	5.90	7.69	6.83
8	3.11	2.98	2.97	2.83	2.92	3.06	3.69	2.80	3.59	5.91	7.59	6.73
9	3.04	2.98	2.85	2.82	2.92	3.14	3.24	2.80	3.53	6.39	7.49	6.67
10	3.33	3.21	2.86	2.82	2.90	3.06	3.17	2.82	3.47	6.64	7.46	6.63
11	3.20	3.01	2.85	2.84	2.89	3.05	3.12	2.78	3.44	6.72	7.44	6.57
12	3.35	3.07	2.83	2.82	2.85	3.05	3.09	2.73	3.40	6.79	7.39	6.53
13	3.51	3.06	2.82	2.78	2.80	3.02	3.04	2.86	3.34	7.23	7.37	6.48
14	3.61	3.04	2.82	2.75	2.81	3.02	3.00	2.81	3.30	7.68	7.39	6.42
15	3.70	3.10	2.82	3.01	2.82	2.95	2.98	2.75	3.24	7.79	7.33	6.37
16	3.81	3.16	2.82	3.11	2.80	2.93	2.98	2.77	3.18	7.83	7.30	6.32
17	3.85	3.11	2.81	2.89	2.80	2.96	3.25	2.99	3.19	7.83	7.32	6.27
18	3.80	3.05	2.80	2.99	2.82	3.35	3.00	3.07	3.23	8.05	7.26	6.18
19	3.77	3.05	2.79	3.03	2.82	3.23	2.96	2.88	3.13	8.01	7.22	5.43
20	3.77	2.98	2.79	3.05	2.80	3.47	2.96	2.95	3.10	7.94	7.17	4.63
21	3.71	2.93	2.80	3.01	2.82	3.58	2.94	2.90	3.20	7.90	7.08	4.33
22	3.68	2.90	2.80	2.99	2.81	3.61	2.92	2.91	3.38	7.86	7.03	4.15
23	3.66	2.96	2.78	2.96	2.81	3.60	2.84	3.22	3.14	7.81	7.04	4.15
24	3.61	3.03	2.76	2.93	2.81	3.55	2.88	3.15	3.40	7.77	7.15	4.07
25	3.53	2.98	2.76	3.09	2.80	3.46	3.01	3.13	3.58	7.72	7.23	3.99
26	3.40	2.96	2.81	2.94	2.77	3.33	3.08	3.26	3.28	7.69	7.24	3.96
27	3.30	2.94	2.81	2.93	2.69	3.23	3.00	3.55	3.21	7.66	7.29	3.91
28	3.28	2.94	2.85	2.95	2.77	3.16	3.11	3.66	3.15	7.62	7.32	3.88
29	3.24	2.94	2.82	2.95	---	3.09	3.16	3.63	3.35	7.61	7.40	3.77
30	3.13	2.94	2.82	2.93	---	3.07	3.15	3.73	4.41	7.70	7.47	3.73
31	3.09	---	2.82	2.91	---	3.22	---	3.84	---	7.74	7.46	---
MEAN	3.42	3.01	2.83	2.91	2.83	3.17	3.08	3.06	3.47	7.03	7.42	5.70
MAX	3.85	3.21	2.97	3.11	2.92	3.61	3.69	3.84	4.41	8.05	7.84	7.40
MIN	3.04	2.90	2.76	2.75	2.69	2.78	2.84	2.73	3.10	4.89	7.03	3.73

WTR YR 1991 MEAN 4.01 MAX 8.05 MIN 2.69

PEACE RIVER BASIN

02294650 PEACE RIVER AT BARTOW, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	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)
NOV											
05...	1110	2.97	8.5	302	7.0	26.0	23.0	140	3.5	17	6.6
16...	1010	3.16	14	285	6.8	--	19.5	--	4.5	--	--
DEC											
03...	1510	2.88	7.6	360	7.2	--	22.0	--	5.6	--	--
FEB											
01...	1115	2.88	7.6	385	--	18.0	19.5	--	--	--	--
MAR											
12...	0910	3.06	10	365	7.5	13.5	15.5	--	7.0	--	--
MAY											
21...	0900	2.91	8.6	600	7.0	24.5	25.0	70	2.5	41	14
JUL											
11...	1310	6.69	221	245	--	29.0	28.0	--	--	--	--
AUG											
21...	0935	7.09	462	230	7.0	31.0	27.0	--	4.9	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
05...	35	7.7	19	46	0.20	7.4	212	0.100	0.010	0.110
16...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	--	--	--	--	<0.010	0.180
FEB										
01...	--	--	--	--	--	--	--	0.240	0.010	0.090
MAR										
12...	--	--	--	--	--	--	--	0.040	0.010	0.050
MAY										
21...	58	8.5	130	26	1.9	5.6	390	0.270	0.040	0.310
JUL										
11...	--	--	--	--	--	--	--	--	0.010	<0.020
AUG										
21...	--	--	--	--	--	--	--	0.010	0.020	0.030

DATE	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-PHORUS 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)
NOV										
05...	0.040	1.2	1.2	1.40	1.30	100	2	<1	1	260
16...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	0.020	0.78	0.80	1.90	1.80	--	--	--	--	--
FEB										
01...	0.030	0.55	0.98	2.30	1.10	--	--	--	--	--
MAR										
12...	0.020	0.98	1.0	1.60	1.60	--	--	--	--	--
MAY										
21...	0.250	0.95	1.2	11.0	11.0	100	2	<1	<1	270
JUL										
11...	0.140	2.8	2.9	1.60	1.50	--	--	--	--	--
AUG										
21...	0.670	2.1	2.8	0.430	0.310	--	--	--	--	--

PEACE RIVER BASIN

02294650 PEACE RIVER AT BARTOW, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
NOV										
05...	230	1	<1	10	<10	<0.10	<1	130	10	18
MAY										
21...	80	2	2	30	20	<0.10	12	210	<10	14

PEACE RIVER BASIN

02294781 PEACE RIVER NEAR HOMELAND, FL

LOCATION.--Lat 27°49'15", long 81°47'59", in SE¼ sec.34, T.30 S., R.25 E., Polk County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on State Highway 640, 1.6 mi east of U. S. Highway 17 in Homeland, and 97 mi upstream from mouth.

DRAINAGE AREA.--437 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1974, 1979 (miscellaneous high-water discharge measurements only); October 1980 to current year (discharge measurements only).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 1,180 ft^3/s, Apr. 2, 1987; no flow observed Apr. 30, June 4, 1985, May 30, June 3, 1986, Dec. 3, 1990, Jan. 7, Mar. 12, 1991.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1980 to current year.

DISCHARGE MEASUREMENTS AND WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV 15...	1325	81.54	5.8	760	8.4	20.5	10.4	--
JUL 18...	0850	87.16	966	--	--	--	--	--
AUG 20...	1245	86.03	503	260	7.0	27.0	3.0	0.260

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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
AUG 20...	0.040	0.300	0.280	1.8	2.1	0.800	0.610

PEACE RIVER BASIN

02294898 PEACE RIVER AT FORT MEADE, FL

LOCATION.--Lat 27°45'04", long 81°46'56", in SE¼ sec.26, T.31 S., R.25 E., Polk County, Hydrologic Unit 03100101, near right bank on downstream side of bridge on U. S. Highway 98, 0.4 mi downstream from Sink Branch, 1.2 mi east of U. S. Highway 17 in Fort Meade, and 92 mi upstream from mouth.

DRAINAGE AREA.--480 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to June 1964 (fragmentary); July 1964 to April 1967 (gage heights only); May 1967 to September 1969, February 1972 to May 1974 (gage heights and periodic discharge measurements only), incomplete; June 1974 to current year.

REVISED RECORDS.--WRD FL-84-3A: ~ Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 10, 1974, nonrecording gage at same site and datum.

REMARKS.--Records good. Water diverted into river from ground-water sources by upstream mining industries affects flow on many days. Significant loss of water to ground-water system may occur each year between 02294650 Peace River at Bartow and this station.

AVERAGE DISCHARGE.--17 years (water years 1975-91), 154 ft^3/s, 4.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft^3/s, Sept. 27, 1979, gage height, 78.12 ft; minimum daily discharge, 0.22 ft^3/s, June 6, 1985 (estimated).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 980 ft^3/s, July 20, gage height, 77.30 ft; minimum daily discharge, 0.99 ft^3/s, May 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	3.8	2.9	4.0	11	4.2	9.8	5.3	84	350	e737	573
2	17	3.4	3.3	3.9	8.9	3.9	8.6	6.0	67	424	758	601
3	13	3.2	3.6	4.0	8.9	7.2	7.0	4.5	46	235	815	610
4	17	3.3	3.6	4.0	8.6	10	6.3	2.9	34	149	761	604
5	17	2.7	3.5	4.0	8.1	7.9	6.4	2.2	35	124	721	584
6	15	4.4	3.4	3.9	4.8	6.0	6.5	1.7	102	123	733	534
7	25	9.3	4.0	4.0	4.0	5.0	6.7	1.4	67	121	775	474
8	9.4	11	12	3.6	4.2	4.5	6.2	1.6	47	137	778	407
9	6.2	20	9.7	3.3	3.9	6.5	5.9	1.9	34	158	747	373
10	20	15	6.9	3.2	3.6	10	6.0	1.5	29	130	693	325
11	16	11	5.4	3.4	3.4	8.4	6.2	1.3	30	154	635	278
12	11	9.0	e3.6	3.4	3.2	6.6	5.5	.99	26	221	583	244
13	8.3	7.8	e2.9	3.2	3.0	5.6	4.8	1.5	15	330	529	224
14	6.3	8.6	e2.4	2.8	3.1	6.8	4.2	1.7	11	414	514	217
15	4.8	9.6	e1.9	4.3	3.0	6.3	3.8	1.7	14	425	482	210
16	5.2	9.2	e1.7	15	2.5	6.2	3.5	7.7	11	660	464	202
17	41	7.5	e1.8	12	2.4	8.0	5.1	15	10	869	448	194
18	16	5.8	e1.9	7.5	2.4	13	7.9	17	9.8	921	419	190
19	11	3.7	e2.1	5.9	3.5	18	8.1	51	9.5	918	416	189
20	9.9	3.4	e2.2	5.8	2.8	14	8.7	104	7.9	968	410	162
21	9.9	4.3	e2.4	5.1	2.6	10	8.2	63	8.4	946	390	104
22	9.6	4.7	e2.6	4.5	2.8	8.8	7.0	33	10	878	511	78
23	10	4.6	e2.9	4.2	2.7	7.5	6.0	49	11	835	494	68
24	11	4.3	e3.1	4.1	2.6	6.9	6.9	85	9.6	808	662	67
25	11	4.5	4.4	4.4	2.6	6.4	8.8	61	8.4	763	547	68
26	9.0	4.2	4.3	4.8	3.3	6.0	10	41	16	723	543	85
27	8.1	4.1	4.2	4.9	3.5	5.6	10	49	24	694	508	74
28	5.1	3.9	3.9	5.2	3.5	5.9	9.0	45	34	669	514	69
29	4.4	3.6	4.3	13	---	5.8	7.7	44	61	620	525	66
30	8.3	3.1	4.2	14	---	6.0	6.5	57	233	e663	544	66
31	5.4	---	4.2	13	---	8.3	---	65	---	e700	562	---
TOTAL	392.9	193.0	119.3	178.4	118.9	235.3	207.3	822.89	1104.6	16130	18218	7940
MEAN	12.7	6.43	3.85	5.75	4.25	7.59	6.91	26.5	36.8	520	588	265
MAX	41	20	12	15	11	18	10	104	233	968	815	610
MIN	4.4	2.7	1.7	2.8	2.4	3.9	3.5	.99	7.9	121	390	66
CFSM	.03	.01	.01	.01	.01	.02	.01	.06	.08	1.08	1.22	.55
IN.	.03	.01	.01	.01	.01	.02	.02	.06	.09	1.25	1.41	.62

CAL YR 1990 TOTAL 14224.7 MEAN 39.0 MAX 182 MIN 1.7 CFSM .08 IN. 1.10
WTR YR 1991 TOTAL 45660.59 MEAN 125 MAX 968 MIN .99 CFSM .26 IN. 3.54

e Estimated

PEACE RIVER BASIN

02294898 PEACE RIVER AT FORT MEADE, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.96	70.25	70.21	70.31	70.63	70.35	70.60	70.41	72.39	75.43	---	76.22
2	70.65	70.23	70.22	70.31	70.56	70.34	70.55	70.44	72.07	75.71	76.81	76.30
3	70.53	70.22	70.24	70.31	70.56	70.48	70.48	70.37	71.62	74.64	76.94	76.32
4	70.65	70.22	70.24	70.32	70.55	70.62	70.45	70.28	71.32	73.47	76.81	76.26
5	70.63	70.19	70.23	70.32	70.53	70.52	70.46	70.20	71.34	73.08	76.72	76.16
6	70.59	70.26	70.23	70.32	70.39	70.44	70.47	70.13	72.71	73.06	76.75	75.95
7	70.81	70.43	70.25	70.33	70.35	70.40	70.47	70.08	72.07	73.03	76.85	75.69
8	70.43	70.47	70.50	70.32	70.35	70.37	70.45	70.12	71.65	73.28	76.85	75.38
9	70.34	70.71	70.45	70.31	70.34	70.46	70.44	70.17	71.34	73.61	76.78	75.18
10	70.72	70.60	70.36	70.30	70.32	70.60	70.44	70.11	71.19	73.18	76.65	74.90
11	70.62	70.49	70.32	70.31	70.31	70.54	70.45	70.05	71.24	73.54	76.50	74.59
12	70.48	70.42	---	70.31	70.30	70.47	70.42	70.01	71.11	74.53	76.33	74.33
13	70.40	70.39	---	70.30	70.29	70.43	70.39	70.10	70.77	75.35	76.14	74.13
14	70.34	70.41	---	70.28	70.29	70.48	70.36	70.13	70.64	75.68	76.08	74.00
15	70.29	70.44	---	70.36	70.29	70.46	70.33	70.14	70.74	75.72	75.96	73.86
16	70.30	70.43	---	70.78	70.25	70.45	70.31	70.48	70.62	76.46	75.89	73.71
17	71.14	70.38	---	70.68	70.22	70.53	70.40	70.78	70.60	77.02	75.83	73.57
18	70.61	70.32	---	70.51	70.23	70.70	70.52	70.84	70.60	77.15	75.71	73.46
19	70.48	70.24	---	70.44	70.31	70.87	70.52	71.51	70.58	77.14	75.70	73.39
20	70.45	70.23	---	70.43	70.27	70.73	70.55	72.74	70.52	77.27	75.68	73.02
21	70.45	70.27	---	70.41	70.26	70.62	70.53	71.97	70.54	77.23	75.58	72.22
22	70.44	70.28	---	70.37	70.28	70.56	70.49	71.31	70.62	77.08	76.02	71.81
23	70.46	70.28	---	70.36	70.26	70.51	70.44	71.66	70.63	76.99	75.94	71.62
24	70.47	70.27	---	70.35	70.25	70.48	70.48	72.41	70.59	76.92	76.48	71.57
25	70.49	70.27	70.31	70.37	70.25	70.46	70.55	71.94	70.54	76.82	76.13	71.54
26	70.42	70.27	70.31	70.39	70.31	70.44	70.61	71.49	70.82	76.72	76.12	71.75
27	70.40	70.26	70.31	70.39	70.31	70.43	70.61	71.69	71.05	76.65	76.01	71.54
28	70.30	70.25	70.30	70.41	70.32	70.44	70.57	71.59	71.32	76.59	76.03	71.44
29	70.27	70.24	70.32	70.72	---	70.44	70.51	71.57	71.86	76.45	76.06	71.35
30	70.40	70.22	70.32	70.75	---	70.44	70.46	71.86	74.57	---	76.12	71.31
31	70.31	---	70.32	70.72	---	70.53	---	72.02	---	---	76.18	---
MEAN	70.51	70.33	---	70.41	70.34	70.50	70.48	70.92	71.26	---	---	73.75
MAX	71.14	70.71	---	70.78	70.63	70.87	70.61	72.74	74.57	---	---	76.32
MIN	70.27	70.19	---	70.28	70.22	70.34	70.31	70.01	70.52	---	---	71.31

02294898 PEACE RIVER AT FORT MEADE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-69, 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV									
02...	1245	70.23	3.1	565	7.6	28.5	22.5	5.9	0.640
15...	1715	70.45	9.3	612	7.6	--	20.0	7.0	--
DEC									
03...	1235	70.24	3.4	610	7.7	28.0	22.0	7.2	--
JAN									
07...	1345	70.33	4.1	640	7.9	26.5	22.0	--	0.330
MAR									
12...	0800	70.47	6.8	630	7.6	--	12.5	7.0	0.140
JUN									
06...	1245	72.96	116	360	--	--	26.0	--	0.650
07...	1418	72.04	68	500	7.1	30.0	25.5	4.6	0.460
JUL									
02...	1500	75.76	436	370	6.9	--	21.5	5.4	0.370

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, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV								
02...	0.010	0.650	0.040	0.72	0.76	0.990	0.930	8.8
15...	--	--	--	--	--	--	--	--
DEC								
03...	<0.010	0.390	0.020	0.73	0.75	0.940	0.870	--
JAN								
07...	0.010	0.340	0.020	0.82	0.84	0.940	0.850	--
MAR								
12...	0.010	0.150	0.010	0.80	0.81	0.760	0.740	--
JUN								
06...	0.030	0.680	0.080	1.2	1.3	3.20	1.50	--
07...	0.030	0.490	0.110	0.99	1.1	1.40	1.10	14
JUL								
02...	0.040	0.410	0.470	0.73	1.2	3.30	1.70	--

PEACE RIVER BASIN

02295420 PAYNE CREEK NEAR BOWLING GREEN, FL

LOCATION.--Lat 27°37'13", long 81°49'33", in SW¼ sec.9, T.33 S., R.25 E., Hardee County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on U. S. Highway 17, 0.4 mi downstream from Little Payne Creek, 1.2 mi south of Bowling Green, and 2.1 mi upstream from mouth.

DRAINAGE AREA.--121 mi^2.

PERIOD OF RECORD.--October 1963 to September 1968; October 1979 to current year.

REVISED RECORDS.--WRD FL-81-3: 1980.

GAGE.--Water-stage recorder. Datum of gage is 51.06 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some diversion by pumping for irrigation.

AVERAGE DISCHARGE.--17 years (water years 1964-68, 1980-91), 97.2 ft^3/s, 10.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,170 ft^3/s, June 18, 1982; maximum gage height, 17.88 ft, Aug. 11, 1965; minimum discharge, 0.84 ft^3/s, May 5, 21, 1967; minimum gage height, 2.42 ft, May 21, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 685 ft^3/s, Aug. 23, gage height, 10.66 ft; minimum daily discharge, 13.0 ft^3/s, Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	35	42	23	21	49	43	90	135	506	375	148
2	115	32	34	22	21	47	43	80	154	453	423	252
3	63	32	30	22	22	61	38	73	126	339	385	406
4	50	38	27	24	22	67	34	65	100	394	324	280
5	42	36	28	25	29	60	31	66	111	282	265	191
6	36	35	31	24	31	56	30	67	179	221	231	153
7	62	35	30	26	30	54	83	70	136	250	227	140
8	61	35	43	32	30	51	109	73	107	290	232	171
9	59	33	47	35	29	58	110	55	94	364	232	214
10	71	34	46	36	28	72	106	50	87	292	268	198
11	80	34	49	32	27	64	96	52	83	245	274	203
12	99	40	53	24	26	57	86	47	74	299	240	231
13	120	41	52	18	25	56	79	58	68	328	195	199
14	108	40	46	15	25	66	75	60	65	354	164	163
15	90	35	38	20	25	62	71	58	63	363	141	140
16	78	26	34	58	26	56	69	68	64	352	120	116
17	71	20	31	61	25	56	103	80	68	318	117	110
18	70	17	35	44	25	59	144	73	67	348	109	109
19	66	15	40	40	27	65	156	71	63	347	123	113
20	58	14	43	36	27	62	179	74	55	470	157	112
21	48	13	45	33	28	58	222	76	60	485	206	110
22	51	14	46	30	28	57	232	77	80	423	235	105
23	43	19	45	27	28	53	223	98	65	357	366	102
24	37	21	44	24	45	46	170	99	72	296	584	112
25	34	20	42	24	47	37	151	85	110	372	386	144
26	32	30	40	25	47	29	174	73	81	303	303	164
27	29	42	38	25	45	26	163	88	71	273	235	129
28	28	45	31	23	47	25	142	111	64	256	185	107
29	28	49	25	22	---	23	122	117	108	261	151	97
30	30	48	25	22	---	23	106	118	386	320	137	91
31	33	---	25	22	---	32	---	165	---	352	168	---
TOTAL	1947	928	1185	894	836	1587	3390	2437	2996	10513	7558	4810
MEAN	62.8	30.9	38.2	28.8	29.9	51.2	113	78.6	99.9	339	244	160
MAX	155	49	53	61	47	72	232	165	386	506	584	406
MIN	28	13	25	15	21	23	30	47	55	221	109	91
CFSM	.52	.26	.32	.24	.25	.42	.93	.65	.83	2.80	2.01	1.33
IN.	.60	.29	.36	.27	.26	.49	1.04	.75	.92	3.23	2.32	1.48

CAL YR 1990 TOTAL 21753.3 MEAN 59.6 MAX 296 MIN 7.2 CFSM .49 IN. 6.69
WTR YR 1991 TOTAL 39081 MEAN 107 MAX 584 MIN 13 CFSM .88 IN. 12.01

PEACE RIVER BASIN

02295637 PEACE RIVER AT ZOLFO SPRINGS, FL

LOCATION.--Lat 27°30'15", long 81°48'04", in SE¼ sec.22, T.34 S., R.25 E., Hardee County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on U. S. Highway 17, 0.8 mi north of Zolfo Springs, and 69 mi upstream from mouth.

DRAINAGE AREA.--826 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1933 to current year. Prior to October 1950, published as Peace Creek at Zolfo Springs.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 30.20 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, at same site at datum 5.00 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--58 years, 629 ft^3/s, 10.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,300 ft^3/s, Sept. 6, 1933, gage height, 25.05 ft, present datum; minimum, 20 ft^3/s, June 3, 4, 1985, gage height, 3.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,750 ft^3/s, Aug. 25, gage height, 14.46 ft; minimum daily discharge, 58 ft^3/s, Nov. 22, Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	614	110	77	71	98	117	100	128	313	2160	2340	1060
2	426	139	69	71	94	103	97	131	328	2350	2350	1080
3	275	120	62	71	96	188	88	114	297	2270	2230	1230
4	308	97	60	71	93	205	81	90	214	1890	2080	1220
5	267	91	61	74	93	176	79	79	188	1450	1820	1100
6	220	94	65	63	89	149	78	80	390	1100	1580	999
7	209	96	71	61	87	127	95	84	614	977	1440	921
8	227	102	102	76	82	116	157	89	402	1340	1400	884
9	206	112	122	83	79	205	152	80	261	1470	1390	1000
10	279	145	116	95	82	269	144	65	203	1430	1560	927
11	335	122	107	89	80	217	134	70	176	1450	1490	848
12	320	110	106	75	83	190	125	69	157	1350	1370	816
13	302	106	102	65	85	162	118	70	148	1460	1340	746
14	292	95	99	58	88	209	108	88	136	1590	1190	823
15	265	88	90	63	76	207	100	84	119	1720	1080	707
16	225	86	84	191	65	181	101	86	111	1880	988	549
17	202	76	85	194	66	177	227	136	116	1880	951	500
18	222	69	85	145	70	210	275	128	120	2040	908	482
19	203	66	88	122	76	235	270	112	127	2130	925	464
20	180	65	96	117	80	211	350	178	105	2070	1010	447
21	153	60	106	107	83	176	421	243	222	2190	991	386
22	151	58	109	98	85	155	340	191	1180	2170	1310	319
23	144	63	107	90	84	141	320	229	442	1990	1600	296
24	144	67	103	83	92	127	259	350	254	1760	2410	283
25	142	69	96	86	95	119	225	361	412	1650	2620	329
26	119	71	91	94	101	112	315	250	299	1620	1990	486
27	101	88	88	101	96	101	268	286	221	1570	1470	382
28	89	90	84	99	109	95	218	342	177	1540	1230	301
29	87	99	78	106	---	90	180	318	248	1470	1110	260
30	100	93	71	119	---	82	149	263	2020	1630	1060	235
31	104	---	70	106	---	84	---	330	---	2220	1090	---
TOTAL	6911	2747	2750	2944	2407	4936	5574	5124	10000	53817	46323	20080
MEAN	223	91.6	88.7	95.0	86.0	159	186	165	333	1736	1494	669
MAX	614	145	122	194	109	269	421	361	2020	2350	2620	1230
MIN	87	58	60	58	65	82	78	65	105	977	908	235
CFSM	.27	.11	.11	.11	.10	.19	.22	.20	.40	2.10	1.81	.81
IN.	.31	.12	.12	.13	.11	.22	.25	.23	.45	2.42	2.09	.90

CAL YR 1990 TOTAL 81320 MEAN 223 MAX 1520 MIN 48 CFSM .27 IN. 3.66
WTR YR 1991 TOTAL 163613 MEAN 448 MAX 2620 MIN 58 CFSM .54 IN. 7.37

PEACE RIVER BASIN

02295637 PEACE RIVER AT ZOLFO SPRINGS, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.67	4.71	4.46	4.44	4.79	5.00	4.96	5.66	7.30	13.19	13.62	9.70
2	6.71	4.88	4.37	4.44	4.74	4.86	4.95	5.70	7.39	13.63	13.64	9.75
3	5.82	4.75	4.29	4.45	4.76	5.46	4.88	5.59	7.21	13.45	13.37	10.38
4	6.02	4.62	4.27	4.45	4.72	5.59	4.83	5.39	6.71	12.54	13.00	10.34
5	5.77	4.56	4.27	4.47	4.73	5.41	4.82	5.30	6.54	11.21	12.34	9.84
6	5.47	4.59	4.32	4.35	4.69	5.22	4.83	5.32	7.63	9.86	11.66	9.43
7	5.40	4.61	4.40	4.33	4.68	5.07	4.99	5.38	8.61	9.33	11.19	9.09
8	5.53	4.66	4.69	4.51	4.62	4.99	5.51	5.44	7.73	10.78	11.04	8.92
9	5.38	4.71	4.84	4.58	4.59	5.57	5.50	5.37	7.00	11.31	11.00	9.45
10	5.85	4.92	4.80	4.70	4.62	5.95	5.45	5.22	6.64	11.13	11.62	9.11
11	6.19	4.77	4.74	4.64	4.61	5.67	5.39	5.29	6.45	11.22	11.39	8.76
12	6.10	4.71	4.73	4.51	4.64	5.50	5.34	5.30	6.31	10.84	10.93	8.61
13	5.99	4.69	4.71	4.40	4.66	5.32	5.30	5.32	6.24	11.26	10.80	8.29
14	5.93	4.61	4.69	4.31	4.68	5.62	5.23	5.53	6.15	11.69	10.20	8.65
15	5.76	4.54	4.61	4.36	4.56	5.60	5.18	5.51	6.02	12.07	9.78	8.11
16	5.51	4.52	4.55	5.43	4.44	5.44	5.20	5.53	5.96	12.51	9.38	7.35
17	5.35	4.42	4.56	5.46	4.44	5.41	6.13	5.97	5.99	12.50	9.22	7.10
18	5.49	4.34	4.57	5.13	4.49	5.62	6.45	5.93	6.02	12.90	9.03	7.01
19	5.36	4.31	4.60	4.97	4.56	5.77	6.43	5.82	6.08	13.14	9.10	6.92
20	5.19	4.30	4.67	4.94	4.60	5.63	6.91	6.30	5.91	12.98	9.46	6.83
21	4.98	4.24	4.76	4.85	4.63	5.40	7.33	6.78	6.62	13.26	9.39	6.50
22	4.97	4.22	4.79	4.75	4.65	5.27	6.89	6.46	10.59	13.23	10.68	6.12
23	4.91	4.28	4.77	4.67	4.64	5.17	6.79	6.73	7.87	12.79	11.72	5.98
24	4.91	4.33	4.74	4.60	4.73	5.08	6.45	7.44	6.95	12.19	13.75	5.91
25	4.89	4.36	4.69	4.64	4.76	5.02	6.25	7.52	7.79	11.87	14.21	6.17
26	4.75	4.39	4.65	4.73	4.84	4.97	6.81	6.90	7.22	11.78	12.76	7.03
27	4.65	4.56	4.61	4.80	4.77	4.89	6.54	7.13	6.76	11.64	11.30	6.48
28	4.54	4.58	4.58	4.78	4.93	4.85	6.27	7.46	6.46	11.57	10.37	6.01
29	4.52	4.66	4.51	4.86	---	4.82	6.02	7.33	6.71	11.32	9.90	5.77
30	4.65	4.62	4.43	4.99	---	4.76	5.80	7.01	12.86	11.78	9.70	5.63
31	4.67	---	4.43	4.86	---	4.79	---	7.40	---	13.33	9.82	---
MEAN	5.45	4.55	4.58	4.69	4.66	5.28	5.78	6.10	7.12	12.01	11.14	7.84
MAX	7.67	4.92	4.84	5.46	4.93	5.95	7.33	7.52	12.86	13.63	14.21	10.38
MIN	4.52	4.22	4.27	4.31	4.44	4.76	4.82	5.22	5.91	9.33	9.03	5.63

CAL YR 1990 MEAN 5.41 MAX 11.47 MIN 4.15
WTR YR 1991 MEAN 6.62 MAX 14.21 MIN 4.22

PEACE RIVER BASIN

02295637 PEACE RIVER AT ZOLFO SPRINGS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-52, 1963 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV										
02...	1110	4.94	140	577	7.8	26.5	22.0	30	8.4	57
09...	1600	4.68	112	602	7.3	23.0	--	--	10.5	--
DEC										
17...	1440	4.58	85	484	7.7	21.5	18.5	--	9.7	--
MAR										
26...	1300	4.97	112	490	8.0	--	26.5	--	9.9	--
JUN										
07...	1330	8.61	614	370	7.1	29.0	25.0	45	5.7	32
AUG										
28...	1200	10.35	1230	380	7.1	--	--	--	5.2	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	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)
NOV										
02...	22	29	2.2	160	22	4.3	369	0.820	0.010	0.830
DEC										
17...	--	--	--	--	--	--	--	0.990	0.010	1.00
MAR										
26...	--	--	--	--	--	--	--	--	<0.010	0.890
JUN										
07...	14	17	4.2	64	19	5.2	236	0.800	0.010	0.810

DATE	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-PHORUS 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)
NOV										
02...	0.020	0.50	0.52	1.20	1.10	70	1	<1	1	70
DEC										
17...	0.030	0.58	0.61	1.40	1.40	--	--	--	--	--
MAR										
26...	0.010	0.65	0.66	1.40	1.30	--	--	--	--	--
JUN										
07...	0.060	1.0	1.1	1.20	1.10	210	1	<1	1	250

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
NOV										
02...	40	<1	<1	10	<10	<0.10	<1	650	<10	8.6
JUN										
07...	140	1	<1	20	20	<0.10	<1	460	10	17

PEACE RIVER BASIN

02296500 CHARLIE CREEK NEAR GARDNER, FL

LOCATION.--Lat 27°22'29", long 81°47'48", in SE¼ sec.3, T.36 S., R.25 E., Hardee County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on U. S. Highway 17, 1.6 mi north of Gardner, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--330 mi^2.

PERIOD OF RECORD.--April 1950 to current year. Prior to October 1957, published as Charlie Apopka Creek near Gardner.

REVISED RECORDS.--WSP 1234: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 21.66 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--41 years (water years 1951-91), 259 ft^3/s, 10.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,160 ft^3/s, Aug. 1, 1960, gage height, 18.77 ft; minimum, 0.13 ft^3/s, May 27, 1975; minimum gage height, 1.09 ft, July 10, 11, 1990.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 24.2 ft in 1928, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft^3/s, Aug. 27, gage height, 10.73 ft; minimum daily discharge, 4.5 ft^3/s, Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	22	7.0	5.0	27	41	25	20	74	581	1080	698
2	334	21	6.0	4.7	25	43	23	16	61	645	1020	561
3	325	19	5.7	4.7	24	53	20	13	62	924	999	448
4	292	17	5.7	4.8	22	88	19	10	60	878	966	370
5	277	16	6.0	5.5	21	86	16	8.5	52	723	939	306
6	269	15	7.5	6.1	20	73	15	7.1	117	619	841	398
7	243	14	7.8	4.5	18	62	14	17	236	599	752	637
8	206	13	9.3	5.0	17	56	13	33	285	693	697	627
9	171	12	9.1	5.4	16	55	11	26	263	650	624	547
10	160	12	8.7	7.2	16	68	9.7	22	204	578	550	612
11	169	12	8.2	7.8	15	77	8.6	19	e180	554	482	599
12	173	11	7.5	7.1	15	79	7.3	16	e170	529	417	503
13	166	11	6.7	6.5	14	80	6.3	13	e140	495	386	419
14	150	10	7.0	6.0	14	82	5.8	14	e115	519	403	361
15	135	9.3	7.4	7.8	13	81	5.7	14	e100	545	436	310
16	124	8.9	6.4	34	12	80	6.2	13	e90	563	441	257
17	110	8.5	6.6	47	14	81	32	13	77	558	412	204
18	96	8.4	6.5	44	17	86	42	11	61	607	364	163
19	84	9.6	7.2	41	15	108	34	9.9	49	592	317	141
20	75	10	6.5	39	14	114	74	17	48	582	305	127
21	67	10	7.0	38	12	106	86	24	63	572	296	125
22	60	8.4	6.5	36	12	97	56	31	86	551	280	118
23	53	7.2	6.2	34	14	88	43	41	134	521	408	131
24	48	7.3	5.8	32	14	79	36	129	317	477	677	191
25	43	7.8	4.9	32	15	69	35	221	548	435	966	220
26	39	6.8	4.8	32	21	60	59	173	813	413	1150	208
27	34	6.9	4.7	33	32	51	52	192	979	506	1230	198
28	31	6.9	5.3	33	38	43	41	179	928	613	1230	174
29	27	7.6	5.6	32	---	37	33	140	779	803	1160	145
30	25	7.3	5.5	31	---	32	26	111	626	987	1030	122
31	23	---	5.6	29	---	28	---	89	---	1120	855	---
TOTAL	4259	335.9	204.7	655.1	507	2183	854.6	1642.5	7717	19432	21713	9920
MEAN	137	11.2	6.60	21.1	18.1	70.4	28.5	53.0	257	627	700	331
MAX	334	22	9.3	47	38	114	86	221	979	1120	1230	698
MIN	23	6.8	4.7	4.5	12	28	5.7	7.1	48	413	280	118
CFSM	.42	.03	.02	.06	.05	.21	.09	.16	.78	1.90	2.12	1.00
IN.	.48	.04	.02	.07	.06	.25	.10	.19	.87	2.19	2.45	1.12

CAL YR 1990 TOTAL 39282.89 MEAN 108 MAX 1410 MIN .66 CFSM .33 IN. 4.43
WTR YR 1991 TOTAL 69423.8 MEAN 190 MAX 1230 MIN 4.5 CFSM .58 IN. 7.83

e Estimated

PEACE RIVER BASIN

02296750 PEACE RIVER AT ARCADIA, FL
(National stream quality accounting network station)

LOCATION.--Lat 27°13'19", long 81°52'34", in SE¼ sec.26, T.37 S., R.24 E., De Soto County, Hydrologic Unit 03100101, on left bank 500 ft upstream from bridge on State Highway 70, 1.0 mi west of post office in Arcadia, 6.1 mi upstream from Joshua Creek, and 36 mi upstream from mouth.

DRAINAGE AREA.--1,367 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1931 to current year. Prior to October 1950, published as Peace Creek at Arcadia.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6.00 ft above National Geodetic Vertical Datum of 1929. Prior to July 19, 1931, nonrecording gage and July 19, 1931, to Sept. 30, 1963, water-stage recorder at same site at datum 2.25 ft higher; Mar. 20, 1964, to July 11, 1967, nonrecording gage at same site at datum 6.00 ft lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--60 years, 1,080 ft^3/s, 10.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,200 ft^3/s, Sept. 9, 1933, gage height, 19.92 ft, present datum; minimum, 11 ft^3/s, May 23, 1982; mimimum gage height, 0.58 ft, May 22, 23, 26, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 20.6 ft, present datum, in 1912, from information by county engineer; discharge, 43,000 ft^3/s, from rating curve extended above 30,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,100 ft^3/s, July 4, gage height, 11.29 ft; minimum daily discharge, 79 ft^3/s, May 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	767	154	119	105	173	205	137	323	541	2680	3020	1980
2	958	156	110	102	160	209	144	272	550	3370	3250	1860
3	874	163	98	103	152	213	150	241	530	3810	3350	1800
4	680	160	90	105	149	268	138	214	496	4060	3340	1770
5	624	144	86	107	143	339	132	168	395	3960	3260	1710
6	571	138	84	107	139	316	136	130	492	3570	3090	1650
7	498	134	91	106	137	277	214	112	1240	3050	2780	1620
8	444	136	107	97	137	241	238	117	1480	2670	2440	1650
9	421	136	123	103	135	222	267	140	1210	e2900	2180	1600
10	397	144	141	122	122	238	267	130	893	e3200	2010	1660
11	472	158	141	133	114	337	244	101	672	e3000	1950	1660
12	550	150	135	140	109	324	222	81	515	e2800	1930	1560
13	535	143	132	125	113	299	e195	79	407	e2700	1860	1400
14	492	142	129	110	118	290	e180	80	328	e2600	1830	1250
15	450	136	126	116	121	298	e170	104	277	2420	1790	1190
16	399	129	122	232	111	326	e260	113	240	2450	1680	1080
17	299	124	114	303	113	325	e380	150	227	2530	1570	865
18	e270	116	109	313	112	323	e370	223	231	2700	1490	748
19	e290	105	109	270	112	373	e420	267	223	2910	1400	683
20	e275	102	109	243	106	408	e490	257	207	2970	1380	647
21	e260	101	113	227	101	378	e580	286	196	2960	1450	633
22	e230	98	123	213	101	330	682	e320	544	2910	1490	589
23	e210	92	129	197	103	292	596	e300	1510	2850	1820	524
24	e190	91	130	183	102	267	535	e470	1770	2740	2120	515
25	e200	95	127	173	118	243	481	779	1840	2560	2650	542
26	e190	96	125	170	196	220	475	807	2100	2340	3180	582
27	e180	96	121	176	178	198	601	723	2140	2230	3460	707
28	e170	106	121	180	194	178	571	749	1930	2270	3380	631
29	159	114	123	180	---	156	480	730	1640	2330	3020	518
30	149	117	118	178	---	144	393	643	1690	2400	2570	446
31	153	---	111	185	---	137	---	545	---	2690	2200	---
TOTAL	12357	3776	3616	5104	3669	8374	10148	9654	26514	88630	72940	34070
MEAN	399	126	117	165	131	270	338	311	884	2859	2353	1136
MAX	958	163	141	313	196	408	682	807	2140	4060	3460	1980
MIN	149	91	84	97	101	137	132	79	196	2230	1380	446
CFSM	.29	.09	.09	.12	.10	.20	.25	.23	.65	2.09	1.72	.83
IN.	.34	.10	.10	.14	.10	.23	.28	.26	.72	2.41	1.98	.93

CAL YR 1990 TOTAL 146888 MEAN 402 MAX 2270 MIN 70 CFSM .29 IN. 4.00
WTR YR 1991 TOTAL 278852 MEAN 764 MAX 4060 MIN 79 CFSM .56 IN. 7.59

e Estimated

PEACE RIVER BASIN

02296750 PEACE RIVER AT ARCADIA, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.97	1.37	1.14	1.04	1.60	2.02	1.97	3.24	4.45	9.16	9.64	7.42
2	4.59	1.38	1.08	1.03	1.53	2.05	2.02	3.02	4.49	10.22	10.04	7.05
3	4.32	1.43	1.00	1.03	1.50	2.08	2.06	2.88	4.43	10.89	10.19	6.84
4	3.69	1.41	.94	1.05	1.49	2.36	2.00	2.76	4.32	11.23	10.18	6.74
5	3.50	1.30	.91	1.06	1.46	2.70	1.98	2.52	3.93	11.11	10.05	6.57
6	3.32	1.26	.90	1.06	1.44	2.60	2.01	2.30	4.29	10.54	9.76	6.35
7	3.05	1.24	.95	1.05	1.44	2.44	2.46	2.19	6.62	9.69	9.19	6.27
8	2.84	1.25	1.06	.99	1.45	2.27	2.60	2.24	7.16	8.98	8.52	6.35
9	2.75	1.25	1.16	1.04	1.45	2.19	2.75	2.39	6.57	---	7.93	6.20
10	2.66	1.30	1.28	1.16	1.37	2.28	2.76	2.34	5.68	---	7.50	6.39
11	2.95	1.40	1.28	1.23	1.32	2.75	2.66	2.16	4.96	---	7.33	6.41
12	3.24	1.35	1.24	1.27	1.30	2.71	2.56	2.03	4.41	---	7.26	6.08
13	3.19	1.29	1.23	1.18	1.34	2.60	---	2.03	4.00	---	7.04	5.64
14	3.03	1.29	1.21	1.08	1.38	2.58	---	2.04	3.66	---	6.95	5.25
15	2.87	1.25	1.19	1.12	1.41	2.62	---	2.22	3.43	8.47	6.82	5.11
16	2.66	1.20	1.16	1.85	1.35	2.76	---	2.30	3.25	8.53	6.45	4.82
17	2.20	1.17	1.11	2.24	1.37	2.77	---	2.54	3.19	8.71	6.11	4.22
18	---	1.12	1.07	2.28	1.37	2.77	---	2.95	3.21	9.04	5.86	3.89
19	---	1.05	1.08	2.05	1.39	2.99	---	3.18	3.17	9.44	5.64	3.70
20	---	1.03	1.08	1.90	1.35	3.15	---	3.15	3.08	9.54	5.60	3.58
21	---	1.02	1.10	1.82	1.33	3.04	---	3.28	3.02	9.53	5.77	3.53
22	---	1.00	1.17	1.74	1.34	2.84	4.50	---	4.43	9.44	5.87	3.38
23	---	.96	1.21	1.66	1.36	2.68	4.22	---	7.21	9.33	6.92	3.15
24	---	.95	1.21	1.58	1.36	2.57	4.01	---	7.70	9.12	7.80	3.11
25	---	.98	1.19	1.53	1.47	2.47	3.82	5.18	7.84	8.77	8.93	3.21
26	---	.99	1.18	1.53	1.95	2.36	3.81	5.28	8.31	8.29	9.91	3.36
27	---	.99	1.15	1.57	1.86	2.26	4.28	5.02	8.37	8.06	10.38	3.77
28	---	1.06	1.16	1.60	1.95	2.16	4.19	5.11	8.00	8.14	10.25	3.52
29	1.40	1.11	1.17	1.61	---	2.05	3.86	5.06	7.46	8.29	9.62	3.12
30	1.34	1.13	1.13	1.61	---	1.98	3.53	4.78	7.55	8.42	8.78	2.85
31	1.36	---	1.09	1.66	---	1.95	---	4.45	---	9.01	7.99	---
MEAN	---	1.18	1.12	1.44	1.46	2.49	---	---	5.27	---	8.07	4.93
MAX	---	1.43	1.28	2.28	1.95	3.15	---	---	8.37	---	10.38	7.42
MIN	---	.95	.90	.99	1.30	1.95	---	---	3.02	---	5.60	2.85

PEACE RIVER BASIN

02296750 PEACE RIVER AT ARCADIA, FL--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1930, 1940, 1957 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	SAMPLING DEPTH (FEET)	GAGE HEIGHT (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT												
31...	1116	--	1.37	--	134	463	7.7	22.0	80	--	8.5	--
DEC												
10...	1030	--	1.28	--	144	497	8.1	14.5	--	1.2	9.2	50
10...	1031	1.00	--	--	--	498	8.0	15.0	--	--	9.2	--
10...	1032	1.00	--	--	--	497	8.1	15.0	--	--	9.3	--
10...	1033	1.00	--	--	--	497	8.1	15.0	--	--	9.1	--
MAR												
12...	1010	--	2.70	--	345	423	7.1	18.0	--	3.5	8.7	K33
12...	1011	1.00	2.70	--	--	422	7.1	18.0	--	--	8.6	--
12...	1012	1.00	2.70	--	--	424	7.2	18.0	--	--	8.8	--
JUL												
17...	1215	--	8.58	--	2600	245	6.6	26.5	--	2.5	4.3	230
SEP												
04...	1312	--	--	50.0	--	236	6.7	28.5	--	--	5.0	--
04...	1313	--	--	60.0	--	236	6.7	28.5	--	--	5.0	--
04...	1314	--	--	70.0	--	236	6.8	28.5	--	--	5.0	--
04...	1315	--	--	80.0	--	236	6.8	28.5	--	--	4.9	--
04...	1316	--	--	90.0	--	236	6.8	28.5	--	--	5.0	--
04...	1317	--	--	100	--	236	6.8	28.5	--	--	5.0	--
04...	1330	--	6.62	--	1820	236	6.8	28.5	--	3.7	5.0	120

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT											
31...	--	44	18	22	3.9	--	100	27	1.1	7.1	292
DEC											
10...	26	48	20	25	3.6	112	120	23	1.5	2.1	304
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	K7	38	17	20	8.0	66	95	31	0.80	4.4	271
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
JUL											
17...	540	19	8.4	12	4.4	56	32	17	0.70	7.4	167
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	280	19	7.7	12	4.0	30	38	17	0.50	6.3	172

PEACE RIVER BASIN

02296750 PEACE RIVER AT ARCADIA, FL--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	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)	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-PHORUS TOTAL (MG/L AS P)
OCT											
31...	0.930	0.010	--	0.940	--	0.020	--	0.71	0.73	--	1.00
DEC											
10...	0.980	0.020	<0.010	1.00	1.10	0.030	0.020	0.87	0.90	--	1.30
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	1.08	0.020	0.010	1.10	1.00	0.070	0.030	0.83	0.90	--	0.920
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
JUL											
17...	0.560	0.030	0.030	0.590	0.590	0.080	0.100	1.5	1.6	1.7	1.10
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	0.410	0.010	<0.010	0.420	0.440	0.040	0.030	1.2	1.2	--	0.870

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
OCT											
31...	--	0.980	--	90	--	1	--	--	--	<1	--
DEC											
10...	1.30	1.40	1.30	--	30	--	1	8	<0.5	--	<1.0
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	0.800	0.790	0.810	--	60	--	<1	11	<0.5	--	<1.0
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
JUL											
17...	0.930	0.980	0.940	--	140	--	<1	8	<0.5	--	2.0
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	0.740	0.660	0.680	--	1300	--	1	7	<0.5	--	<1.0

PEACE RIVER BASIN

02296750 PEACE RIVER AT ARCADIA, FL--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT											
31...	--	--	<1	190	130	<1	<1	--	10	10	0.80
DEC											
10...	1	<3	1	--	24	--	<1	<4	--	4	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	<1	<3	3	--	96	--	<1	<4	--	6	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
JUL											
17...	<1	<3	3	--	460	--	9	<4	--	19	--
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	<1	<3	2	--	360	--	<1	<4	--	17	--

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
31...	--	--	<1	--	--	--	990	10	14	--	--
DEC											
10...	1.3	<10	--	<1	1	<1.0	1100	5	--	33	0
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	<0.1	<10	--	<1	<1	<1.0	1100	12	--	19	32
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
JUL											
17...	<0.1	<10	--	3	<2	<1.0	400	44	--	9	89
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	<0.1	<10	--	<1	<1	<1.0	290	13	--	13	77

PEACE RIVER BASIN

02297100 JOSHUA CREEK AT NOCATEE, FL

LOCATION.--Lat 27°09'59", long 81°52'47", in SE¼ sec.14, T.38 S., R.24 E., De Soto County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on U. S. Highway 17, 0.5 mi north of Nocatee, and 2.2 mi upstream from mouth.

DRAINAGE AREA.--132 mi^2.

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

REVISED RECORDS.--WSP 1334: 1952(M). WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3.94 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--41 years, 103 ft^3/s, 10.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,670 ft^3/s, Oct. 10, 1953; maximum gage height, 19.05 ft, Sept. 22, 1962; no flow for many days in 1953, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1948 reached a stage of 17.7 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 26	1100	1,100	13.46	July 1	1800	*1,140	*13.62

Minimum daily discharge, 9.8 ft^3/s, Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	16	11	12	36	111	25	30	211	1060	215	101
2	88	17	10	11	33	91	23	29	178	1060	238	107
3	69	16	9.8	10	31	78	22	24	144	863	219	113
4	57	15	10	10	28	85	20	19	115	665	198	114
5	50	14	11	10	26	81	18	16	94	522	181	99
6	42	14	11	10	24	67	23	14	88	417	227	84
7	35	16	13	9.9	27	58	42	20	97	343	229	71
8	31	14	19	10	35	50	45	28	185	319	215	63
9	30	14	17	10	29	47	44	25	278	339	190	60
10	42	14	17	10	25	48	38	22	260	277	160	61
11	56	13	15	16	23	45	32	19	198	227	130	57
12	65	12	14	15	20	42	27	15	151	203	109	60
13	58	13	15	13	24	38	21	24	120	196	104	50
14	49	15	14	13	25	38	18	73	95	170	112	44
15	41	13	16	20	27	38	17	60	75	186	114	37
16	36	14	17	174	29	47	17	42	83	255	139	32
17	33	16	14	182	37	63	30	38	88	247	157	27
18	31	12	14	148	37	72	78	37	78	257	133	25
19	28	11	14	125	33	96	74	91	72	325	117	22
20	26	12	13	106	29	86	93	249	73	416	104	22
21	34	12	13	86	25	74	129	449	68	546	99	69
22	31	13	12	71	29	64	104	401	120	529	88	78
23	28	15	11	61	42	55	94	360	245	421	109	58
24	29	12	12	57	29	48	74	331	505	300	120	54
25	25	11	12	54	32	42	56	258	951	254	196	50
26	23	10	12	53	73	38	56	225	1070	219	218	51
27	27	15	12	49	73	34	47	298	856	197	230	55
28	19	16	12	44	82	30	38	332	597	182	209	47
29	18	11	11	39	---	28	32	310	461	166	183	39
30	18	11	11	36	---	26	29	255	562	153	153	35
31	17	---	11	35	---	26	---	229	---	156	123	---
TOTAL	1247	407	403.8	1499.9	963	1746	1366	4323	8118	11470	5019	1785
MEAN	40.2	13.6	13.0	48.4	34.4	56.3	45.5	139	271	370	162	59.5
MAX	111	17	19	182	82	111	129	449	1070	1060	238	114
MIN	17	10	9.8	9.9	20	26	17	14	68	153	88	22
CFSM	.30	.10	.10	.37	.26	.43	.34	1.06	2.05	2.80	1.23	.45
IN.	.35	.11	.11	.42	.27	.49	.38	1.22	2.29	3.23	1.41	.50

CAL YR 1990 TOTAL 19834.0 MEAN 54.3 MAX 604 MIN 4.2 CFSM .41 IN. 5.59
WTR YR 1991 TOTAL 38347.7 MEAN 105 MAX 1070 MIN 9.8 CFSM .80 IN. 10.81

PEACE RIVER BASIN

02297155 HORSE CREEK NEAR MYAKKA HEAD, FL

LOCATION.--Lat 27°29'13", long 82°01'25", in SE¼ sec.29, T.34 S., R.23 E., Hardee County, Hydrologic Unit 03100101, near right bank on downstream side of bridge on State Highway 64, 3.5 mi northeast of Myakka Head, and 39.5 mi upstream from mouth.

DRAINAGE AREA.--42 mi^2.

PERIOD OF RECORD.--October 1977 to current year.

REVISED RECORDS.--WRD FL-84-3A: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 58.12 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--14 years, 28.5 ft^3/s, 9.20 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft^3/s, Sept. 6, 1988, gage height, 24.34 ft; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 915 ft^3/s, June 30, gage height, 20.97 ft; minumum daily discharge, 0.39 ft^3/s, Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	4.6	.44	.82	3.6	4.3	6.5	16	36	211	334	34
2	27	4.1	.44	.67	3.3	3.4	5.0	13	29	155	323	31
3	25	3.7	.44	.60	3.3	4.2	3.6	9.9	24	125	204	30
4	16	3.1	.45	.60	4.3	11	2.7	8.1	20	113	142	46
5	11	2.9	.44	.60	3.6	6.1	2.3	7.1	18	98	102	56
6	38	2.7	.45	.74	2.9	4.4	2.5	6.0	57	79	76	46
7	28	2.7	.51	.81	2.6	4.2	6.0	5.0	39	65	60	36
8	18	2.6	3.0	.49	2.5	3.7	5.5	4.3	30	56	50	37
9	13	2.5	3.4	.44	2.4	6.9	5.3	3.6	24	50	89	45
10	11	e2.8	2.1	.40	2.0	17	4.8	2.7	20	48	116	53
11	34	e4.0	1.6	.45	1.7	9.1	5.3	2.0	17	53	62	67
12	243	e1.6	1.3	.53	1.5	8.4	4.6	1.5	14	166	51	87
13	157	e1.2	1.0	.57	1.3	8.4	3.9	1.4	12	168	104	80
14	110	e1.0	.92	.49	1.4	13	3.0	1.9	9.7	117	144	64
15	84	e.90	.82	1.5	1.5	12	2.3	1.3	8.4	96	86	51
16	65	e.90	.78	29	1.3	11	1.8	.98	8.0	80	99	40
17	50	e.80	.72	13	1.2	12	4.6	2.1	7.3	71	50	32
18	40	e.80	.63	6.2	1.3	22	11	1.8	10	66	36	27
19	32	e.70	.59	5.6	1.6	30	10	1.6	23	48	59	23
20	26	.67	.55	6.3	1.2	17	17	4.4	31	65	157	19
21	21	.60	.47	5.7	1.2	12	23	8.0	131	74	179	17
22	21	.56	.43	4.5	1.3	9.5	29	6.8	77	60	140	14
23	18	.55	.47	3.9	1.1	7.7	35	12	68	49	107	12
24	15	.53	.40	3.5	.90	6.7	32	27	114	41	101	15
25	13	.60	.39	4.1	.97	5.8	29	31	77	37	115	44
26	10	.63	.63	5.1	2.2	4.8	37	33	71	34	81	31
27	8.3	.55	.94	4.7	2.4	4.0	29	140	56	39	67	23
28	7.3	.58	1.0	4.3	3.0	3.4	27	92	48	65	57	17
29	6.7	.60	1.9	4.3	---	3.0	25	70	155	158	50	13
30	6.0	.54	1.5	4.3	---	2.8	20	57	513	281	48	11
31	5.2	---	1.1	3.9	---	4.3	---	45	---	328	40	---
TOTAL	1222.5	50.01	29.81	118.11	57.57	272.1	393.7	616.48	1747.4	3096	3329	1101
MEAN	39.4	1.67	.96	3.81	2.06	8.78	13.1	19.9	58.2	99.9	107	36.7
MAX	243	4.6	3.4	29	4.3	30	37	140	513	328	334	87
MIN	5.2	.53	.39	.40	.90	2.8	1.8	.98	7.3	34	36	11
CFSM	.94	.04	.02	.09	.05	.21	.31	.47	1.39	2.38	2.56	.87
IN.	1.08	.04	.03	.10	.05	.24	.35	.55	1.55	2.74	2.95	.98

CAL YR 1990 TOTAL 6913.48 MEAN 18.9 MAX 334 MIN .00 CFSM .45 IN. 6.12
WTR YR 1991 TOTAL 12033.68 MEAN 33.0 MAX 513 MIN .39 CFSM .78 IN. 10.66

e Estimated

PEACE RIVER BASIN

02297310 HORSE CREEK NEAR ARCADIA, FL

LOCATION.--Lat 27°11'57", long 81°59'19", in NW¼ sec.2, T.38 S., R.23 E., De Soto County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on State Highway 72, 7.9 mi west of Arcadia, and 10 mi upstream from mouth.

DRAINAGE AREA.--218 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 10.96 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--41 years, 185 ft^3/s, 11.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s, Aug. 1, 1960, gage height, 17.94 ft; no flow for many days in 1956, 1957, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 4	0800	*1,940	*13.58	Aug. 5	1500	1,020	11.34

Minimum daily discharge, 4.6 ft^3/s, Jan. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	36	7.4	5.2	29	66	26	68	395	1460	473	291
2	141	32	7.1	5.0	27	54	23	60	327	1570	598	316
3	119	29	6.9	4.9	24	62	19	53	272	1730	748	425
4	99	27	6.8	4.8	22	126	16	47	243	1920	912	377
5	92	24	6.7	4.8	20	79	16	40	219	1730	1010	282
6	89	22	6.4	4.7	20	61	16	34	245	1450	978	218
7	83	20	6.8	4.6	18	52	21	27	502	1230	856	181
8	75	19	9.6	4.6	18	49	28	22	535	1220	701	160
9	67	17	8.9	4.7	17	36	25	17	524	1330	546	170
10	93	17	8.6	5.1	16	36	20	13	545	1070	420	217
11	174	16	7.8	12	14	33	17	11	513	857	330	222
12	251	15	7.1	9.3	13	31	16	9.4	436	783	264	192
13	264	14	6.6	7.8	12	29	14	9.5	348	764	224	161
14	209	14	6.2	7.1	12	48	13	12	270	753	200	141
15	185	14	6.1	12	12	55	12	9.1	209	749	193	133
16	188	13	6.5	175	11	76	12	7.8	162	752	192	130
17	196	13	6.6	174	11	96	14	8.2	132	789	216	126
18	195	13	6.1	166	12	97	14	7.4	118	812	203	121
19	185	11	5.9	163	12	139	15	7.8	104	817	195	114
20	176	10	6.0	106	11	111	17	33	101	786	228	106
21	193	10	5.9	54	11	90	24	55	119	809	247	99
22	154	9.9	5.7	50	10	75	33	40	197	699	207	98
23	132	9.6	5.3	46	9.9	65	34	92	386	550	201	98
24	113	9.2	5.1	41	9.5	59	39	681	432	437	261	89
25	98	8.8	5.0	38	19	52	43	548	501	360	440	101
26	83	8.6	5.1	37	106	45	50	337	575	299	570	113
27	73	8.9	5.1	36	61	39	57	408	648	253	558	113
28	63	8.4	5.0	34	53	33	58	354	759	226	488	102
29	56	7.9	5.0	32	---	28	59	290	792	201	432	91
30	48	7.5	5.3	30	---	25	59	247	1050	199	385	85
31	41	---	5.5	27	---	25	---	472	---	272	337	---
TOTAL	4057	464.8	198.1	1305.6	610.4	1872	810	4020.2	11659	26877	13613	5072
MEAN	131	15.5	6.39	42.1	21.8	60.4	27.0	130	389	867	439	169
MAX	264	36	9.6	175	106	139	59	681	1050	1920	1010	425
MIN	41	7.5	5.0	4.6	9.5	25	12	7.4	101	199	192	85
CFSM	.60	.07	.03	.19	.10	.28	.12	.59	1.78	3.98	2.01	.78
IN.	.69	.08	.03	.22	.10	.32	.14	.69	1.99	4.59	2.32	.87

CAL YR 1990 TOTAL 32021.17 MEAN 87.7 MAX 726 MIN .58 CFSM .40 IN. 5.46
WTR YR 1991 TOTAL 70559.1 MEAN 193 MAX 1920 MIN 4.6 CFSM .89 IN. 12.04

PEACE RIVER BASIN

02297310 HORSE CREEK NEAR ARCADIA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	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)
OCT											
31...	1000	2.62	41	215	6.9	24.5	20.5	240	7.5	22	7.1
DEC											
13...	1045	1.56	7.0	546	7.2	25.0	14.5	--	10.0	--	--
MAR											
25...	1100	2.90	51	280	7.3	--	23.0	--	6.8	--	--
JUN											
06...	1425	5.55	245	188	6.5	22.0	25.0	240	6.1	16	6.5
AUG											
23...	1030	5.20	191	182	6.6	--	27.0	--	6.1	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
31...	8.4	3.4	23	24	0.30	7.4	160	0.820	0.010	0.830
DEC										
13...	--	--	--	--	--	--	--	1.99	0.010	2.00
MAR										
25...	--	--	--	--	--	--	--	--	<0.010	0.820
JUN										
06...	7.7	3.7	26	20	0.20	5.6	161	0.670	0.010	0.680
AUG										
23...	--	--	--	--	--	--	--	0.510	0.010	0.520

DATE	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-PHORUS 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)
OCT										
31...	0.030	1.1	1.1	0.370	0.350	190	<1	<1	<1	580
DEC										
13...	0.010	0.45	0.46	0.280	0.280	--	--	--	--	--
MAR										
25...	0.030	1.1	1.1	0.450	0.400	--	--	--	--	--
JUN										
06...	0.040	1.9	1.9	0.590	0.500	340	<1	<1	<1	890
AUG										
23...	0.050	1.2	1.3	0.570	0.580	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
31...	500	<1	<1	20	20	<0.10	<1	270	<10	22
JUN										
06...	580	1	3	30	20	<0.10	<1	320	10	28

PEACE RIVER BASIN

02298123 PRAIRIE CREEK NEAR FORT OGDEN, FL

LOCATION.--Lat 27°03'06", long 81°47'05", in SE¼ sec.26, T.39 S., R.25 E., De Soto County, Hydrologic Unit 03100101, near center of span on downstream side of bridge on State Highway 31, 0.4 mi downstream from Myrtle Slough, and 10.6 mi east of Fort Ogden.

DRAINAGE AREA.--233 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to September 1968; October 1969 to September 1977 (gage heights and discharge measurements only); October 1977 to current year.

REVISED RECORDS.--W 1983: 1982 (M and daily).

GAGE.--Water-stage recorder. Datum of gage is 25.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--19 years (water years 1964-68, 1978-91), 184 ft^3/s, 10.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft^3/s, June 25, 1982; maximum gage height, 14.19 ft, Oct. 1, 1979; no flow June 3-7, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft^3/s, Aug. 6, gage height, 10.97 ft; minimum daily discharge, 9.2 ft^3/s, Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	20	9.4	12	62	93	59	69	1290	1080	925	410
2	146	18	11	12	56	101	54	60	1110	1250	941	408
3	129	16	9.6	10	57	144	48	53	895	1210	972	361
4	105	15	14	11	58	230	48	50	705	1150	958	302
5	89	15	14	17	50	223	45	43	543	1110	958	273
6	76	14	14	14	45	204	46	39	450	1070	1340	269
7	66	18	14	12	47	182	60	52	534	1210	1270	286
8	59	15	17	12	55	160	52	53	678	1150	1130	294
9	60	14	15	16	52	175	45	60	683	994	1020	340
10	62	17	17	15	47	205	44	73	623	880	969	411
11	81	15	16	24	41	181	37	78	546	793	921	379
12	76	16	15	23	37	157	37	68	430	719	845	303
13	65	14	15	23	35	134	32	62	309	665	733	264
14	57	14	16	23	40	121	31	62	250	597	743	224
15	50	13	14	27	41	109	32	59	217	551	791	199
16	44	14	14	208	42	102	29	53	201	532	723	174
17	39	13	13	303	45	123	66	66	195	521	667	157
18	36	12	12	261	50	139	106	66	207	636	609	133
19	34	13	14	246	50	193	106	104	196	686	579	122
20	33	11	12	252	50	181	174	227	235	728	566	111
21	38	11	13	255	54	158	278	339	283	855	578	108
22	39	11	11	216	52	147	263	325	376	847	597	161
23	33	13	11	177	44	133	204	481	420	781	680	168
24	30	13	11	151	42	118	157	577	434	718	730	200
25	29	12	13	128	40	99	133	580	546	761	975	190
26	25	15	14	106	46	90	122	580	607	951	1020	213
27	23	11	13	96	49	75	105	700	643	863	915	198
28	22	11	12	92	70	64	94	854	755	783	813	159
29	22	14	9.9	74	---	59	80	913	779	782	715	134
30	20	11	9.2	60	---	52	70	910	789	816	594	113
31	19	---	12	54	---	58	---	1160	---	914	497	---
TOTAL	1751	419	405.1	2930	1357	4210	2657	8816	15929	26603	25774	7064
MEAN	56.5	14.0	13.1	94.5	48.5	136	88.6	284	531	858	831	235
MAX	146	20	17	303	70	230	278	1160	1290	1250	1340	411
MIN	19	11	9.2	10	35	52	29	39	195	521	497	108
CFSM	.24	.06	.06	.41	.21	.58	.38	1.22	2.28	3.68	3.57	1.01
IN.	.28	.07	.06	.47	.22	.67	.42	1.41	2.54	4.25	4.11	1.13

CAL YR 1990 TOTAL 34507.7 MEAN 94.5 MAX 1290 MIN 3.4 CFSM .41 IN. 5.51
WTR YR 1991 TOTAL 97915.1 MEAN 268 MAX 1340 MIN 9.2 CFSM 1.15 IN. 15.63

PEACE RIVER BASIN

02298123 PRAIRIE CREEK NEAR FORT OGDEN, FL--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
NOV							
06...	1600	3.13	13	650	8.2	25.0	12.8
DEC							
17...	0940	3.13	14	530	7.6	18.0	8.0
FEB							
05...	1200	4.07	50	695	7.6	22.0	6.9
MAR							
26...	0900	4.94	90	680	7.6	24.0	5.7
JUL							
18...	1245	9.68	636	325	7.1	28.0	3.5
AUG							
26...	1100	10.42	1020	240	6.7	28.0	3.3

PEACE RIVER BASIN

02298202 SHELL CREEK NEAR PUNTA GORDA, FL

LOCATION.--Lat 26°59'04", long 81°56'09", in NW¼ sec.20, T.40 S., R.24 E., Charlotte County, Hydrologic Unit 03100101, near left bank 60 ft upstream from dam, 1.0 mi upstream from Myrtle Slough, 6.0 mi upstream from mouth, and 7.7 mi northeast of Punta Gorda.

DRAINAGE AREA.--373 mi^2.

GAGE HEIGHT RECORDS

PERIOD OF RECORD.--January 1965 to September 1987; October 1987 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).

REMARKS.--Flow regulated by concrete dam. Diversion by city of Punta Gorda for water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,110 ft^3/s, June 28, 1974, gage height, 7.30 ft; no flow at times most years; minimum daily gage height, 2.51 ft (estimated), Jan. 1, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 6.69 ft, July 1; minimum, 5.01 ft, Dec. 1, 2, 3.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.32	5.11	5.02	5.05	5.19	5.23	5.19	5.27	5.85	6.65	5.87	5.61
2	5.33	5.11	5.02	5.04	5.20	5.25	5.19	5.28	5.87	6.42	5.84	5.55
3	5.30	5.09	5.02	5.03	5.19	5.28	5.18	5.27	5.82	6.18	5.83	5.51
4	5.28	5.09	5.02	5.03	5.17	5.33	5.18	5.25	5.74	6.08	5.82	5.47
5	5.26	5.09	5.03	5.04	5.16	5.38	5.17	5.23	5.65	5.99	5.84	5.47
6	5.24	5.09	5.04	5.06	5.15	5.36	5.20	5.23	5.57	5.98	5.89	5.49
7	5.21	5.10	5.06	5.06	5.15	5.34	5.28	5.37	5.52	6.04	5.98	5.47
8	5.20	5.10	5.06	5.06	5.15	5.33	5.30	5.37	5.55	6.03	6.00	5.45
9	5.19	5.10	5.05	5.06	5.15	5.35	5.29	5.32	5.60	5.94	5.93	5.46
10	5.27	5.08	5.05	5.09	5.15	5.35	5.28	5.30	5.61	5.86	5.86	5.49
11	5.27	5.07	5.05	5.13	5.14	5.35	5.25	5.30	5.58	5.81	5.81	5.50
12	5.27	5.07	5.05	5.11	5.14	5.31	5.23	5.29	5.54	5.76	5.77	5.48
13	5.24	5.07	5.05	5.10	5.14	5.30	5.21	5.30	5.49	5.70	5.75	5.46
14	5.21	5.06	5.05	5.09	5.13	5.28	5.19	5.30	5.43	5.67	5.75	5.43
15	5.19	5.06	5.05	5.15	5.12	5.27	5.18	5.29	5.39	5.74	5.73	5.38
16	5.19	5.05	5.05	5.39	5.12	5.29	5.17	5.32	5.39	5.90	5.75	5.34
17	5.19	5.05	5.05	5.46	5.12	5.30	5.18	5.38	5.47	5.75	5.70	5.31
18	5.18	5.06	5.05	5.46	5.13	5.30	5.27	5.42	5.46	5.80	5.69	5.30
19	5.18	5.05	5.06	5.40	5.14	5.36	5.34	5.69	5.50	5.89	5.79	5.27
20	5.19	5.05	5.07	5.37	5.14	5.38	5.41	5.78	5.66	6.00	5.71	5.26
21	5.18	5.05	5.07	5.36	5.15	5.37	5.45	5.85	5.65	6.03	5.64	5.27
22	5.17	5.04	5.07	5.34	5.16	5.34	5.48	5.72	5.95	5.91	5.61	5.33
23	5.16	5.05	5.07	5.31	5.16	5.32	5.45	5.71	5.79	5.83	5.68	5.39
24	5.15	5.05	5.07	5.28	5.15	5.30	5.40	5.73	5.89	5.77	5.82	5.40
25	5.15	5.05	5.06	5.26	5.16	5.28	5.37	5.70	5.81	5.83	6.08	5.39
26	5.15	5.05	5.05	5.24	5.18	5.26	5.36	5.67	5.90	5.86	6.06	5.44
27	5.14	5.06	5.05	5.22	5.17	5.25	5.34	5.78	5.77	5.94	5.95	5.43
28	5.12	5.05	5.05	5.24	5.21	5.24	5.32	5.83	5.70	5.90	5.87	5.38
29	5.11	5.04	5.05	5.23	---	5.22	5.30	5.80	5.79	5.84	5.79	5.33
30	5.12	5.04	5.05	5.21	---	5.20	5.28	5.75	6.19	5.84	5.73	5.30
31	5.11	---	5.06	5.19	---	5.19	---	5.79	---	5.86	5.68	---
MEAN	5.20	5.07	5.05	5.20	5.15	5.30	5.28	5.49	5.67	5.93	5.81	5.41
MAX	5.33	5.11	5.07	5.46	5.21	5.38	5.48	5.85	6.19	6.65	6.08	5.61
MIN	5.11	5.04	5.02	5.03	5.12	5.19	5.17	5.23	5.39	5.67	5.61	5.26

CAL YR 1990 MEAN 5.19 MAX 5.81 MIN 5.02
WTR YR 1991 MEAN 5.38 MAX 6.65 MIN 5.02

PEACE RIVER BASIN

02298202 SHELL CREEK NEAR PUNTA GORDA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
NOV						
06...	1230	5.09	812	8.2	22.5	8.8
DEC						
13...	1320	5.05	1010	7.6	19.0	8.3
FEB						
06...	0730	5.15	1040	--	19.0	7.8
MAR						
27...	1100	5.26	850	7.6	24.0	5.7
MAY						
31...	1030	5.78	470	6.9	29.0	4.0
AUG						
23...	1245	5.67	375	7.1	29.0	3.0

MYAKKA RIVER BASIN

02298608 MYAKKA RIVER AT MYAKKA CITY, FL

LOCATION.--Lat 27°20'36", long 82°09'25", in SE¼ sec.13, T.36 S., R.21 E., Manatee County, Hydrologic Unit 03100102, near left bank on downstream side of bridge on State Highway 70, 0.3 mi southeast of Myakka City, and 56 mi upstream from mouth.

DRAINAGE AREA.--125 mi^2.

PERIOD OF RECORD.--February 1963 to September 1966, October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 24.45 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to September 1966, at site 1,100 ft upstream at datum 0.64 ft lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years (water years 1964-66, 1978-91), 131 ft^3/s, 14.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,750 ft^3/s, Sept. 8, 1988, gage height, 15.33 ft; no flow for many days in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 21, 1962, reached a stage of 17.2 ft, present datum, from information by local resident, discharge, 7,190 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s, July 2, gage height, 12.14 ft; minimum daily discharge, 8.0 ft^3/s, Jan. 3, 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	522	35	9.5	8.7	37	27	44	98	371	1090	860	163
2	474	32	9.1	8.3	34	27	42	83	298	1590	1100	146
3	383	29	8.9	8.0	31	31	39	71	239	1580	1010	130
4	313	27	8.8	8.0	28	48	38	60	195	1280	889	110
5	298	25	8.5	8.0	26	47	39	51	165	952	728	98
6	297	23	8.2	8.3	24	46	44	44	244	722	577	100
7	303	22	8.4	9.0	23	46	117	41	332	570	502	102
8	258	21	12	8.9	24	43	228	39	388	576	411	110
9	207	20	12	8.6	23	44	288	36	372	454	330	179
10	191	22	11	8.5	21	61	258	33	307	393	266	170
11	659	20	11	11	20	58	193	30	234	334	226	141
12	1160	19	10	12	19	61	136	27	170	300	233	117
13	979	18	10	11	18	63	102	25	124	337	244	100
14	727	17	10	11	17	75	82	38	92	424	233	83
15	542	16	10	14	17	73	71	36	72	361	195	69
16	430	15	11	78	15	82	63	27	58	318	163	58
17	350	14	11	119	14	93	69	23	48	346	135	51
18	286	14	11	169	14	102	84	21	48	303	115	46
19	231	13	11	160	14	129	123	21	60	251	121	42
20	185	12	11	127	14	122	159	62	189	210	121	38
21	152	12	10	98	14	129	161	102	292	165	114	36
22	125	12	10	78	16	125	160	106	391	131	136	40
23	107	11	9.9	65	17	109	146	140	673	145	309	34
24	92	11	10	58	16	93	117	243	856	260	378	31
25	79	11	10	55	16	82	95	321	950	166	380	66
26	69	11	9.6	55	20	74	100	366	1080	135	338	82
27	61	11	10	52	21	64	101	604	1060	136	299	72
28	54	11	9.8	48	22	56	121	729	893	110	264	69
29	48	11	9.4	45	---	50	131	663	712	107	227	63
30	43	10	9.2	42	---	45	117	555	696	162	198	58
31	39	---	9.1	38	---	44	---	457	---	425	185	---
TOTAL	9664	525	309.4	1430.3	575	2149	3468	5152	11609	14333	11287	2604
MEAN	312	17.5	9.98	46.1	20.5	69.3	116	166	387	462	364	86.8
MAX	1160	35	12	169	37	129	288	729	1080	1590	1100	179
MIN	39	10	8.2	8.0	14	27	38	21	48	107	114	31
CFSM	2.49	.14	.08	.37	.16	.55	.92	1.33	3.10	3.70	2.91	.69
IN.	2.88	.16	.09	.43	.17	.64	1.03	1.53	3.45	4.27	3.36	.77

CAL YR 1990 TOTAL 45120.3 MEAN 124 MAX 1160 MIN 3.8 CFSM .99 IN. 13.43
WTR YR 1991 TOTAL 63105.7 MEAN 173 MAX 1590 MIN 8.0 CFSM 1.38 IN. 18.78

MYAKKA RIVER BASIN

02298700 MYAKKA RIVER AT SR-780 NEAR VERNA, FL

LOCATION.--Lat 27°18'05", long 82°15'15", in SE¼ sec.36, T.36 S., R.20 E., Sarasota County, Hydrologic Unit 03100102, on downstream side of bridge on State Highway 780, 2.5 mi south of Verna Road, 5.8 mi south of Verna, and 18 mi east of Sarasota.

DRAINAGE AREA.--165 mi^2.

PERIOD OF RECORD.--April 1989 to September 1991 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Sarasota County Highway Department disk).

REMARKS.--Records good. Record includes flow from Clay Gully.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,790 ft^3/s, July 4, 1991, gage height, 19.35 ft; no flow for many days in 1988, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,790 ft^3/s, July 4, gage height, 19.35 ft; minimum daily discharge, 20 ft^3/s, Jan. 7, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e133	121	55	22	e110	55	90	137	506	1930	e580	325
2	e148	113	50	23	e105	59	83	131	444	2570	e680	365
3	e160	106	46	22	e98	66	77	120	388	3080	e750	361
4	e165	101	43	21	e90	76	73	110	341	3730	e780	326
5	e168	96	39	21	e87	84	70	100	303	3300	e760	300
6	e170	90	35	21	e85	88	75	90	308	2610	e720	306
7	e172	86	33	20	e83	89	91	83	377	1790	e680	311
8	e185	83	34	20	e80	90	131	79	389	1250	e620	307
9	e215	80	32	20	e77	96	168	72	384	1030	e580	306
10	e230	81	32	21	e70	99	198	69	370	780	e530	307
11	e260	78	32	22	e67	101	210	63	341	626	e500	299
12	e290	77	31	22	e62	104	203	58	305	553	e440	284
13	e320	74	29	23	e58	108	186	55	273	587	e390	266
14	e390	72	28	24	e55	123	167	54	249	642	339	248
15	e440	70	27	31	e53	132	150	54	222	625	337	230
16	e450	70	26	86	e50	145	134	58	195	563	327	214
17	e438	68	27	129	e48	148	122	58	184	494	310	199
18	379	67	28	152	e46	158	114	60	179	466	290	204
19	342	66	28	168	e44	172	115	63	165	437	278	257
20	310	64	27	183	42	177	129	85	169	404	276	240
21	294	62	26	186	40	178	145	127	202	373	278	218
22	269	61	25	181	39	179	153	164	331	335	281	212
23	246	60	25	170	40	178	156	183	424	303	288	204
24	228	60	25	159	41	169	154	251	523	319	338	195
25	210	59	25	153	42	156	151	419	650	351	385	185
26	190	58	24	e150	46	142	146	487	982	e350	395	188
27	173	58	24	e140	46	128	138	557	1170	e330	387	193
28	160	61	24	e130	53	115	133	597	1210	e310	369	189
29	149	61	24	e125	---	105	134	626	1150	e290	346	183
30	139	59	23	e120	---	99	139	620	1230	e320	330	175
31	130	---	22	e115	---	95	---	574	---	e450	351	---
TOTAL	7553	2262	949	2680	1757	3714	4035	6204	13964	31198	13915	7597
MEAN	244	75.4	30.6	86.5	62.7	120	134	200	465	1006	449	253
MAX	450	121	55	186	110	179	210	626	1230	3730	780	365
MIN	130	58	22	20	39	55	70	54	165	290	276	175
CFSM	1.48	.46	.19	.52	.38	.73	.82	1.21	2.82	6.10	2.72	1.53
IN.	1.70	.51	.21	.60	.40	.84	.91	1.40	3.15	7.03	3.14	1.71

CAL YR 1990 TOTAL 39954.24 MEAN 109 MAX 967 MIN .00 CFSM .66 IN. 9.01
WTR YR 1991 TOTAL 95828 MEAN 263 MAX 3730 MIN 20 CFSM 1.59 IN. 21.60

e Estimated

MYAKKA RIVER BASIN

02298760 HOWARD CREEK NEAR SARASOTA, FL

LOCATION.--Lat 27°17'17", long 82°20'25", in SE¼ sec.6, T.37 S., R.20 E., Sarasota County, Hydrologic Unit 03100102, on right bank, 3.2 mi above mouth, 3.4 mi south of State Highway 780, and 12.2 mi east of Sarasota.

DRAINAGE AREA.--20.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

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

REMARKS.--Records fair.

AVERAGE DISCHARGE.--7 years (water years 1985-1991), 14.1 ft^3/s, 9.57 in/yr, 10,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft^3/s, Sept. 8, 1988, gage height, 19.06 ft (from high water mark); no flow for many days in some years; creek dry at gage many days in 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 430 ft^3/s, May 27, gage height, 16.28 ft; minimum daily discharge, 0.02 ft^3/s, May 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	3.4	.52	4.0	1.1	2.7	2.2	101	130	107	49
2	1.9	1.1	2.8	.49	3.8	1.3	2.6	1.8	66	116	142	47
3	2.1	1.2	2.1	.45	3.7	1.5	2.4	1.4	45	95	113	30
4	2.0	1.3	1.7	.46	3.6	1.6	2.3	1.2	32	75	69	20
5	1.7	1.3	1.5	.65	3.4	1.7	2.3	.87	25	56	41	16
6	1.4	1.2	1.4	1.3	3.1	1.9	2.3	.60	31	49	27	19
7	1.1	1.2	1.2	1.4	2.9	2.0	2.7	.45	62	52	20	40
8	.83	1.1	1.3	1.4	2.9	2.0	4.6	.39	64	60	16	51
9	.63	1.0	1.4	1.3	2.8	2.1	7.0	.28	47	52	12	49
10	.63	1.0	1.4	1.2	2.6	2.1	8.1	.21	32	38	13	41
11	20	.98	1.3	1.2	2.3	2.0	8.2	.11	22	29	15	32
12	61	.89	1.2	1.3	2.1	1.7	7.7	.05	16	32	13	24
13	75	.85	1.1	1.7	1.9	1.7	7.2	.03	12	57	10	17
14	57	.80	1.1	2.2	1.9	2.0	6.7	.03	9.7	84	7.6	13
15	40	.76	1.1	3.1	1.9	2.4	6.1	.02	8.0	103	6.0	9.8
16	29	.70	1.0	10	1.8	3.2	5.6	1.3	6.9	89	5.0	8.0
17	20	.63	.96	22	1.5	4.0	4.8	3.4	7.4	58	4.5	6.9
18	14	.59	.94	25	1.3	6.1	4.2	4.1	7.8	38	4.3	6.1
19	10	.54	.91	19	1.1	8.0	3.6	5.2	7.1	27	4.0	11
20	8.0	.54	.87	15	1.0	7.6	3.2	6.8	19	20	4.1	35
21	8.9	.54	.82	12	.99	7.1	2.8	9.9	21	15	5.3	35
22	8.3	.52	.79	9.9	.89	6.4	2.3	14	20	12	7.0	25
23	7.4	.49	.71	8.6	.89	5.4	1.9	21	31	9.9	10	23
24	6.4	.46	.68	7.6	.83	4.6	1.6	37	38	8.6	14	24
25	5.0	.45	.63	6.9	.87	3.8	1.4	108	34	12	27	20
26	3.6	.45	.63	6.1	.94	3.1	1.5	265	67	23	46	15
27	2.6	.51	.62	5.5	.77	2.7	2.3	401	129	24	38	11
28	1.9	1.2	.63	5.1	.97	2.6	2.7	377	124	23	26	8.6
29	1.6	2.5	.61	4.8	---	2.6	2.7	269	86	20	18	7.2
30	1.4	3.4	.59	4.5	---	2.6	2.5	197	98	25	13	6.2
31	1.2	---	.57	4.3	---	2.6	---	144	---	55	25	---
TOTAL	395.69	29.40	35.96	184.97	56.75	99.5	116.0	1873.34	1268.9	1487.5	862.8	699.8
MEAN	12.8	.98	1.16	5.97	2.03	3.21	3.87	60.4	42.3	48.0	27.8	23.3
MAX	75	3.4	3.4	25	4.0	8.0	8.2	401	129	130	142	51
MIN	.63	.45	.57	.45	.77	1.1	1.4	.02	6.9	8.6	4.0	6.1
AC-FT	785	58	71	367	113	197	230	3720	2520	2950	1710	1390

CAL YR 1990 TOTAL 1124.58 MEAN 3.08 MAX 75 MIN .00 AC-FT 2230
WTR YR 1991 TOTAL 7110.61 MEAN 19.5 MAX 401 MIN .02 AC-FT 14100

MYAKKA RIVER BASIN

02298760 HOWARD CREEK NEAR SARASOTA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
JAN							
16...	1000	11.53	9.0	1020	7.0	18.0	8.0
AUG							
20...	1330	10.94	4.1	495	6.9	27.0	5.2

MYAKKA RIVER BASIN

02298830 MYAKKA RIVER NEAR SARASOTA, FL

LOCATION.--Lat 27°14'25", long 82°18'50", in SW¼ sec.21, T.37 S., R.20 E., Sarasota County, Hydrologic Unit 03100102, on right bank, 0.5 mi upstream from bridge on State Highway 72, 1.9 mi upstream from Lower Myakka Lake, 14 mi southeast of Sarasota, and 36 mi upstream from mouth.

DRAINAGE AREA.--229 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1936 to current year.

REVISED RECORDS.--WSP 1234: Drainage area. WDR FL-73-3: Drainage area. WRD FL-90-3A: 1989.

GAGE.--Water-stage recorder. Datum of gage is 7.92 ft above National Geodetic Vertical Datum of 1929 (National Park Service bench mark). Prior to Apr. 10, 1941, nonrecording gage at site 0.5 mi downstream at same datum; Apr. 10, 1941, to June 28, 1961, nonrecording gage at present site at same datum.

REMARKS.--Records fair. Records include flow from Vanderipe Slough at extreme high stages.

AVERAGE DISCHARGE.--55 years, 246 ft^3/s, 14.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,670 ft^3/s, Aug. 1, 1960; maximum gage height, 11.60 ft, Sept. 23, 1962; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,870 ft^3/s, July 4, gage height, 8.43 ft; minimum daily discharge, 9.3 ft^3/s, Jan. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	227	32	10	93	29	103	136	1060	1570	1080	489
2	227	206	30	9.7	90	29	101	133	964	1720	1210	515
3	271	187	28	9.4	84	30	99	128	866	1810	1310	557
4	315	172	27	9.3	77	32	96	123	777	1860	1360	558
5	346	158	26	12	71	34	99	117	694	1860	1330	528
6	358	144	25	13	66	35	113	110	671	1780	1270	494
7	358	131	24	12	61	35	111	105	702	1670	1180	471
8	356	123	25	11	61	36	110	105	708	1530	1080	457
9	356	114	24	11	59	38	110	100	694	1370	996	451
10	362	107	23	10	56	43	115	95	668	1230	916	453
11	445	101	22	11	52	45	131	89	637	1100	837	448
12	460	95	22	11	49	46	149	83	597	988	756	440
13	524	88	21	11	46	47	160	78	550	956	683	418
14	657	82	21	11	43	58	162	74	499	950	624	395
15	777	77	20	14	40	65	162	70	455	967	579	370
16	832	72	19	46	37	75	158	68	411	961	543	338
17	826	68	18	57	35	83	153	67	380	913	509	306
18	784	64	17	54	33	89	148	70	360	851	466	297
19	727	60	17	52	31	98	144	70	333	791	442	343
20	686	56	16	51	30	103	141	72	308	750	415	368
21	676	53	15	60	29	107	139	75	294	710	394	374
22	612	50	15	80	28	110	136	74	292	659	375	377
23	551	47	14	98	27	112	138	89	337	619	363	373
24	499	44	13	107	26	115	138	127	445	627	365	357
25	450	41	13	112	26	115	144	226	612	618	398	340
26	402	37	12	114	27	114	149	418	832	600	443	327
27	365	35	12	112	27	111	148	731	1040	575	482	304
28	333	36	12	109	28	107	142	985	1220	544	497	284
29	303	36	12	105	---	104	140	1110	1300	520	493	265
30	276	34	11	101	---	101	139	1150	1410	576	495	247
31	250	---	10	95	---	103	---	1120	---	867	496	---
TOTAL	14585	2745	596	1518.4	1332	2249	3978	7998	20116	32542	22387	11944
MEAN	470	91.5	19.2	49.0	47.6	72.5	133	258	671	1050	722	398
MAX	832	227	32	114	93	115	162	1150	1410	1860	1360	558
MIN	201	34	10	9.3	26	29	96	67	292	520	363	247
CFSM	2.05	.40	.08	.21	.21	.32	.58	1.13	2.93	4.58	3.15	1.74
IN.	2.37	.45	.10	.25	.22	.37	.65	1.30	3.27	5.29	3.64	1.94

CAL YR 1990 TOTAL 58213 MEAN 159 MAX 832 MIN 10 CFSM .70 IN. 9.46
WTR YR 1991 TOTAL 121990.4 MEAN 334 MAX 1860 MIN 9.3 CFSM 1.46 IN. 19.82

MYAKKA RIVER BASIN

02298830 MYAKKA RIVER NEAR SARASOTA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT										
31...	1314	5.71	234	195	6.7	25.5	22.0	160	4.8	16
JUN										
06...	1057	6.77	671	248	6.7	27.0	28.0	240	0.3	21

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)
OCT									
31...	7.7	7.2	3.9	35	22	0.20	5.9	135	0.020
JUN									
06...	9.4	8.5	4.8	46	15	0.20	6.8	179	--

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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
31...	0.010	0.030	0.010	0.98	0.99	0.260	0.250	810	17
JUN									
06...	0.010	<0.020	<0.010	--	1.5	0.610	0.560	1100	26

MYAKKA RIVER BASIN

02298880 MYAKKA RIVER AT CONTROL NEAR LAUREL, FL

LOCATION.--Lat 27°11'07", long 82°21'21", in SE¼ sec.12, T.38 S., R.19 E., Sarasota County, Hydrologic Unit 03100102, on right bank, 500 ft downstream from concrete dam, 4.0 mi south of State Highway 72, 6.8 mi northeast of Laurel, and 27.8 mi upstream from mouth.

DRAINAGE AREA.--253 mi^2.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--March 1986 to current year (gage height and discharge measurements only).

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

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 13.49 ft, Sept. 10, 11, 1988; minimum, 1.42 ft, June 8, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.19 ft, July 4, 5; minimum, 1.51 ft, Jan. 13.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.12	4.81	1.98	1.55	2.96	2.13	3.37	4.80	9.42	9.88	9.36	6.33
2	4.07	4.61	1.98	1.54	2.98	2.10	3.38	4.77	9.31	10.03	9.50	6.14
3	4.09	4.34	1.97	1.55	2.97	2.09	3.37	4.72	9.17	10.12	9.54	6.16
4	4.17	4.17	1.96	1.55	2.93	2.15	3.36	4.66	9.00	10.17	9.57	6.30
5	4.32	4.00	1.97	1.56	2.87	2.16	4.12	---	8.77	10.19	9.57	6.39
6	4.52	3.84	1.85	1.59	2.83	2.15	5.79	---	8.62	10.16	9.53	6.24
7	4.75	3.70	1.79	1.67	2.78	2.15	5.33	---	8.60	10.09	9.36	6.11
8	4.91	3.56	1.82	1.64	2.73	2.18	4.86	4.56	8.45	9.96	9.20	6.00
9	4.96	3.43	1.90	1.62	2.68	2.20	4.52	4.51	8.33	9.80	9.02	5.92
10	5.03	3.33	1.90	1.63	2.64	2.26	4.31	4.45	8.09	9.63	8.81	5.92
11	5.78	3.25	1.90	1.62	2.60	2.28	4.14	4.35	7.88	9.44	8.53	5.82
12	5.99	3.17	1.90	1.53	2.56	2.31	4.05	4.26	7.64	9.23	8.19	5.79
13	6.02	3.09	1.90	1.52	2.50	2.34	4.09	4.19	7.22	9.05	7.75	5.72
14	6.31	3.02	1.90	1.53	2.44	2.47	4.23	4.13	7.00	8.92	7.30	5.61
15	7.09	2.95	1.89	1.56	2.39	2.56	4.38	4.05	6.93	8.84	6.93	5.48
16	7.76	2.88	1.87	1.78	2.40	2.66	4.45	4.04	6.56	8.80	6.62	5.26
17	8.08	2.81	1.87	1.81	2.38	2.75	4.51	4.04	6.34	8.76	6.27	5.12
18	8.16	2.75	1.84	1.83	2.34	2.87	4.53	4.00	6.11	8.65	5.99	4.96
19	8.05	2.68	1.72	1.83	2.31	3.03	4.57	3.99	5.88	8.40	5.77	4.94
20	7.82	2.60	1.72	1.87	2.29	3.12	4.74	4.13	5.61	8.13	5.62	4.95
21	7.64	2.54	1.72	1.89	2.28	3.18	4.78	4.16	5.45	7.97	5.54	5.02
22	7.38	2.47	1.71	1.93	2.26	3.25	4.79	4.22	5.28	7.62	5.41	5.06
23	7.00	2.40	1.69	1.95	2.21	3.32	4.73	4.38	5.18	7.27	5.26	5.12
24	6.59	2.33	1.66	2.00	2.18	3.39	4.71	5.24	5.28	7.10	5.19	5.11
25	6.22	2.14	1.67	2.17	2.16	3.43	4.74	6.56	5.86	7.14	5.30	5.04
26	5.81	1.88	1.68	2.34	2.15	3.45	4.82	7.29	6.79	7.04	5.36	5.01
27	5.49	1.93	1.65	2.53	2.13	3.44	4.82	8.35	8.09	6.91	5.54	4.92
28	5.76	1.96	1.63	2.66	2.13	3.43	4.80	9.13	9.01	6.86	5.76	4.82
29	5.50	1.98	1.59	2.78	---	3.39	4.87	9.46	9.37	6.60	5.98	4.69
30	5.25	1.99	1.55	2.83	---	3.34	4.88	9.57	9.66	6.85	6.03	4.58
31	5.02	---	1.56	2.86	---	3.37	---	9.51	---	8.56	6.34	---
MEAN	5.92	3.02	1.80	1.89	2.50	2.74	4.47	---	7.50	8.65	7.23	5.48
MAX	8.16	4.81	1.98	2.86	2.98	3.45	5.79	---	9.66	10.19	9.57	6.39
MIN	4.07	1.88	1.55	1.52	2.13	2.09	3.36	---	5.18	6.60	5.19	4.58

02298880 MYAKKA RIVER AT CONTROL NEAR LAUREL, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
OCT							
22...	1200	7.41	502	175	26.0	2.6	--
JAN							
22...	1030	1.93	26	245	19.0	7.8	--
APR							
05...	1120	3.35	71	410	23.0	5.7	0.020
AUG							
15...	1000	6.92	--	140	29.0	--	--

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, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
OCT							
22...	0.010	<0.020	0.020	0.88	0.90	0.260	0.260
JAN							
22...	<0.010	0.040	0.030	1.1	1.1	0.270	0.230
APR							
05...	0.010	0.030	0.030	1.2	1.2	0.520	0.460
AUG							
15...	0.010	<0.020	0.100	1.2	1.3	0.480	0.440

MYAKKA RIVER BASIN

02298900 MYAKKA RIVER NEAR LAUREL, FL

LOCATION.--Lat 27°09'47", long 82°21'57", in NW¼ sec.24, T.38 S., R.19 E., Sarasota County, Hydorlogic Unit 03100102, on right bank, and 5.6 mi northeast of Laurel.

DRAINAGE AREA.--258 mi^2.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--1962 to 1966 (miscellaneous discharge measurements only); February 1985 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Sarasota County). Prior to Oct. 1, 1986, at present site at datum 0.17 ft higher.

REMARKS.--Gage-height affected by tide.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 14.55 ft, Sept. 10, 1988 (estimated); minimum, 0.53 ft, June 5, July 4, 8, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.38 ft, July 5; minimum, 1.25 ft, Jan. 13.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.53	4.11	1.72	1.59	2.38	1.82	2.21	3.33	9.22	10.50	9.65	5.51
2	3.47	3.95	1.91	1.57	2.37	1.93	2.20	3.31	8.97	10.94	9.99	5.35
3	3.46	3.81	2.09	1.43	2.37	2.36	2.20	3.28	8.63	11.19	10.06	5.31
4	3.53	3.71	2.16	1.40	2.34	1.89	2.22	3.28	8.26	11.32	10.08	5.39
5	3.62	3.60	1.69	1.34	2.32	1.77	2.76	3.27	7.88	11.37	10.06	5.45
6	3.81	3.53	1.63	1.34	2.33	1.82	5.30	3.21	7.63	11.31	9.91	5.56
7	4.00	3.29	1.75	1.50	2.31	1.83	4.37	3.18	7.64	11.17	9.60	5.45
8	4.09	3.11	1.74	1.47	2.23	1.84	3.75	3.26	7.46	10.91	9.16	5.31
9	4.17	3.15	1.59	1.42	2.15	1.81	3.36	3.24	7.32	10.56	8.72	5.23
10	4.25	3.13	1.62	1.53	2.12	1.81	3.09	3.21	7.12	10.14	8.32	5.11
11	5.44	2.76	1.63	1.79	2.12	1.82	2.92	3.13	6.90	9.68	7.85	5.05
12	5.46	2.66	1.67	1.74	2.07	1.84	2.82	3.09	6.71	9.21	7.42	5.06
13	5.30	2.64	1.68	1.44	2.05	2.05	2.85	3.12	6.37	8.75	6.94	4.99
14	5.46	2.65	1.69	1.34	2.24	2.06	2.96	3.12	6.11	8.50	6.51	4.91
15	6.06	2.54	1.67	1.49	2.08	2.02	3.14	3.10	6.07	8.29	6.17	4.79
16	6.68	2.50	1.75	1.91	1.95	2.05	3.15	3.10	5.72	8.21	5.95	4.59
17	7.07	2.46	1.67	1.68	1.94	2.15	3.16	3.10	5.50	8.14	5.62	4.42
18	7.22	2.40	1.79	1.59	1.93	2.29	3.17	3.04	5.29	8.07	5.34	4.35
19	7.14	2.41	1.73	1.68	1.93	2.29	3.18	3.03	5.11	7.71	5.14	4.31
20	6.93	2.35	1.59	1.72	1.91	2.34	3.22	3.13	4.88	7.35	5.00	4.30
21	6.75	2.32	1.57	1.66	1.90	2.43	3.17	3.14	4.72	7.18	4.90	4.38
22	6.54	2.24	1.54	1.66	1.91	2.49	3.19	3.24	4.66	6.86	4.78	4.39
23	6.23	2.23	1.57	1.70	1.88	2.47	3.26	3.31	4.56	6.52	4.68	4.48
24	5.85	2.27	1.44	1.88	1.84	2.43	3.20	3.84	4.60	6.33	4.60	4.50
25	5.50	2.06	1.39	1.97	1.85	2.42	3.17	5.18	5.02	6.34	4.66	4.51
26	5.07	1.74	1.45	2.01	1.83	2.43	3.20	5.83	5.79	6.29	4.66	4.50
27	4.76	1.80	1.49	2.14	1.77	2.44	3.24	6.84	6.90	6.18	4.79	4.34
28	4.87	1.84	1.55	2.45	1.78	2.45	3.31	8.04	8.14	6.20	4.93	4.22
29	4.69	1.92	1.61	2.45	---	2.63	3.35	9.04	9.07	5.94	5.13	4.13
30	4.48	1.71	1.60	2.51	---	2.55	3.35	9.48	9.88	6.04	5.17	4.02
31	4.28	---	1.67	2.42	---	2.27	---	9.45	---	8.00	5.43	---
MEAN	5.15	2.70	1.67	1.74	2.07	2.15	3.15	4.22	6.74	8.55	6.81	4.80
MAX	7.22	4.11	2.16	2.51	2.38	2.63	5.30	9.48	9.88	11.37	10.08	5.56
MIN	3.46	1.71	1.39	1.34	1.77	1.77	2.20	3.03	4.56	5.94	4.60	4.02

CAL YR 1990 MEAN 3.02 MAX 7.22 MIN 1.28
WTR YR 1991 MEAN 4.16 MAX 11.37 MIN 1.34

02298900 MYAKKA RIVER NEAR LAUREL, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-66, 1988 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)
OCT							
10...	1150	4.33	190	26.5	5.2	0.020	0.010
JAN							
21...	1230	1.66	265	19.0	6.8	--	<0.010
APR							
04...	1130	2.14	410	23.0	7.3	0.040	0.010
JUN							
26...	1000	5.62	220	28.0	2.1	--	0.010
AUG							
22...	1230	4.75	150	29.0	2.4	0.010	0.010

DATE	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)
OCT						
10...	0.030	0.030	0.95	0.98	0.220	0.200
JAN						
21...	0.070	0.030	0.97	1.0	0.280	0.240
APR						
04...	0.050	0.080	2.3	2.4	0.670	0.620
JUN						
26...	<0.020	0.050	1.2	1.3	0.400	0.370
AUG						
22...	0.020	0.160	1.3	1.5	0.470	0.420

MYAKKA RIVER BASIN

02299160 DEER PRAIRIE SLOUGH NEAR NORTH PORT CHARLOTTE, FL

LOCATION.--Lat 27°06'51", long 82°15'50", in SW¼ sec.1, T.39 S., R.20 E., Sarasota County, Hydrologic Unit 03100102, near right bank on upstream side of bridge, 1.0 mi north of Interstate 75, 4.5 mi northwest of North Port Charlotte, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--33.2 mi^2.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--10 years, 21.0 ft^3/s, 15,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 971 ft^3/s, Sept. 9, 1988, gage height, 19.37 ft, from high water mark; no flow for many days in some years; slough dry at gage many days some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 225 ft^3/s, July 6, gage height, 17.94 ft; minimum daily discharge, 0.02 ft^3/s, Jan. 1, 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.21	.05	.02	.33	1.3	.77	1.1	125	86	214	11
2	.21	.20	.05	.02	.33	1.0	.70	.91	103	117	210	9.4
3	.16	.18	.05	.02	.32	.97	.57	.75	83	149	201	7.2
4	.13	.15	.05	.04	.30	1.2	.47	.58	69	188	183	6.3
5	.12	.14	.05	.05	.28	1.0	3.1	.46	57	216	160	6.1
6	.10	.13	.05	.03	.26	.85	17	.36	79	224	140	5.4
7	.08	.12	.06	.03	.27	.73	13	.32	116	218	117	5.0
8	.07	.11	.07	.03	.32	.64	11	.28	86	198	99	4.8
9	.06	.11	.06	.03	.30	.64	9.0	.26	65	173	87	5.0
10	.09	.12	.05	.03	.25	.59	7.9	.24	52	149	82	4.9
11	8.8	.12	.05	.03	.21	.48	6.9	.20	42	133	82	4.3
12	7.2	.11	.05	.04	.19	.42	5.9	.16	35	134	76	3.9
13	5.3	.10	.05	.03	.17	.40	5.1	.17	30	123	66	3.7
14	3.9	.10	.04	.03	.16	.53	4.4	.16	25	115	56	3.0
15	2.9	.09	.04	.08	.14	.53	4.3	.13	22	107	49	2.7
16	2.2	.09	.04	.77	.11	.83	3.8	.15	19	101	45	2.4
17	1.8	.09	.04	.83	.10	1.2	3.6	.28	21	94	42	2.1
18	1.4	.08	.04	.76	.10	1.7	3.6	.57	32	87	37	4.4
19	1.2	.08	.03	.64	.09	2.8	3.4	1.2	35	80	32	4.2
20	1.1	.08	.03	.65	.08	2.1	3.9	7.0	27	73	29	6.1
21	.96	.08	.03	.60	.07	1.8	3.5	9.0	22	69	26	6.2
22	.80	.08	.03	.55	.06	1.5	2.9	9.1	23	66	26	12
23	.69	.08	.03	.51	.06	1.3	2.4	38	21	62	25	14
24	.60	.07	.03	.45	.05	1.2	2.0	79	21	77	22	17
25	.50	.07	.03	.50	.28	1.1	2.0	115	20	114	22	13
26	.40	.07	.03	.54	.71	.93	2.5	126	24	104	20	13
27	.37	.07	.03	.50	.82	.85	2.3	167	36	92	17	13
28	.32	.08	.03	.47	1.1	.76	1.9	172	43	100	15	11
29	.29	.07	.03	.46	---	.68	1.5	178	43	90	12	10
30	.26	.06	.03	.39	---	.62	1.2	157	53	97	11	9.2
31	.24	---	.03	.33	---	.65	---	140	---	175	9.9	---
TOTAL	42.53	3.14	1.28	9.46	7.46	31.30	130.61	1205.38	1429	3811	2212.9	220.3
MEAN	1.37	.10	.041	.31	.27	1.01	4.35	38.9	47.6	123	71.4	7.34
MAX	8.8	.21	.07	.83	1.1	2.8	17	178	125	224	214	17
MIN	.06	.06	.03	.02	.05	.40	.47	.13	19	62	9.9	2.1
AC-FT	84	6.2	2.5	19	15	62	259	2390	2830	7560	4390	437

CAL YR 1990 TOTAL 528.34 MEAN 1.45 MAX 9.7 MIN .00 AC-FT 1050
WTR YR 1991 TOTAL 9104.36 MEAN 24.9 MAX 224 MIN .02 AC-FT 18060

MYAKKA RIVER BASIN

02299160 DEER PRAIRIE SLOUGH NEAR NORTH PORT CHARLOTTE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT											
18...	1100	14.08	1.5	225	6.2	26.0	--	2.4	--	--	--
JAN											
15...	1130	13.31	0.03	640	7.6	17.0	--	6.8	--	--	--
APR											
02...	1130	13.79	0.76	270	6.9	21.0	--	6.3	--	--	--
JUN											
25...	1350	15.01	20	90	6.4	28.0	--	5.7	--	--	--
AUG											
06...	0905	17.21	144	--	5.5	29.5	280	1.7	1.7	K110	K3

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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)	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)
AUG											
06...	190	4.4	1.4	5.3	0.50	0.80	8.5	<0.10	3.0	73	0.010

DATE	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-PHORUS 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)
AUG											
06...	<0.020	<0.010	1.3	0.080	0.040	60	<1	1	2	460	410

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)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)
AUG											
06...	<1	<1	20	10	<0.10	<1	70	40	21	<0.1	<0.010

DATE	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DYRIFOS TOTAL RECOVER (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
AUG											
06...	<0.1	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010

MYAKKA RIVER BASIN

02299160 DEER PRAIRIE SLOUGH NEAR NORTH PORT CHARLOTTE, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	DISYSTON TOTAL (UG/L)	PHORATE TOTAL (UG/L)
AUG 06...	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<1	<0.01	<0.01	<0.01

DATE	DEF TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	MIREX, TOTAL (UG/L)	FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L	CARTERIA	CHLAMYDOMONAS	COSMARIUM	DESMIDIUM	SYNEDRA	NAVICULA
AUG 06...	<0.01	<0.10	<0.01	<0.0	100	1400	6	40	6	6

MYAKKA RIVER BASIN

02299410 BIG SLOUGH CANAL NEAR MYAKKA CITY, FL

LOCATION.--Lat 27°11'35", long 82°08'40", in SW¼ sec.6, T.38 S., R.22 E., Sarasota County, Hydrologic Unit 03100102, near center of span on upstream side of bridge on State Highway 72, 0.6 mi upstream from Mud Lake Slough, and 11 mi south of Myakka City.

DRAINAGE AREA.--36.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1962 to September 1966 (annual maximum); October 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2.28 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to September 1966, nonrecording gage at same site at datum 24.34 ft higher.

REMARKS.--Records good. Prior to September 1966, flow included from Mud Lake Slough.

AVERAGE DISCHARGE.--11 years (water years 1981-91), 27.5 ft^3/s, 10.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft^3/s, Sept. 21, 1962, gage height, 33.73 ft, present datum; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 178 ft^3/s, June 22, gage height, 28.80 ft; minimum daily discharge, 1.2 ft^3/s, May 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	7.4	3.3	1.5	3.6	13	4.8	2.2	99	e120	18	13
2	36	5.7	3.4	1.9	3.5	10	4.3	1.8	82	e160	24	18
3	33	5.1	3.2	1.5	3.3	16	4.2	1.9	63	e165	25	16
4	27	4.8	2.1	1.6	3.1	22	4.2	2.1	48	e160	34	15
5	21	4.4	2.2	1.5	3.1	18	3.8	2.0	37	e140	29	14
6	17	4.1	2.2	1.4	3.5	14	7.3	2.0	34	e120	23	16
7	14	4.5	2.1	1.4	3.4	11	4.5	2.0	37	e108	19	12
8	11	5.2	2.4	1.4	3.1	8.8	5.0	4.0	38	e100	15	9.6
9	9.4	5.5	2.4	1.4	2.7	7.8	4.9	2.3	35	e85	12	10
10	10	5.5	2.2	1.5	2.5	7.7	4.4	1.7	29	e75	11	15
11	78	3.8	2.0	2.0	2.3	6.6	4.2	1.4	21	e65	9.8	13
12	128	3.4	1.9	2.0	2.1	5.8	3.6	1.3	15	e85	9.2	12
13	142	4.2	2.8	1.8	1.9	5.2	3.1	1.3	10	e95	9.2	11
14	146	4.4	2.8	1.6	1.9	10	3.2	1.2	7.4	e77	7.6	9.3
15	131	3.1	3.0	3.3	2.0	11	3.4	1.2	5.5	e70	6.7	7.7
16	104	3.7	2.9	28	2.1	18	4.1	2.8	4.3	e60	6.5	6.4
17	75	4.0	2.7	21	2.5	24	6.4	3.9	3.8	e55	5.9	5.5
18	53	3.8	1.8	18	3.4	26	5.0	3.5	3.6	e45	5.5	4.7
19	40	3.7	1.7	14	3.8	32	4.9	3.5	5.3	e42	6.2	4.3
20	32	3.6	1.7	11	3.1	30	5.8	7.0	6.9	e38	7.3	4.0
21	32	3.5	1.7	9.3	2.9	24	5.6	13	16	e32	7.6	7.9
22	31	3.5	1.8	7.6	2.8	18	5.0	22	151	e28	15	7.1
23	26	3.4	1.9	6.4	3.3	13	4.4	33	95	e30	18	6.1
24	22	3.4	1.9	5.6	3.4	11	3.8	37	e81	e25	22	5.4
25	18	3.3	1.5	5.1	7.6	8.6	3.7	50	e65	e22	19	12
26	14	3.3	1.3	5.0	17	7.2	4.7	81	e55	e24	19	19
27	11	3.3	1.4	5.0	11	6.0	4.0	128	e65	e23	19	17
28	9.9	3.3	1.3	4.7	13	5.2	3.7	117	e82	e16	17	14
29	8.7	3.1	1.6	4.5	---	5.2	3.2	104	e90	e14	14	11
30	8.5	3.0	1.5	4.1	---	4.5	2.7	94	e104	10	12	8.3
31	7.9	---	1.5	3.7	---	4.4	---	119	---	12	14	---
TOTAL	1327.4	123.0	66.2	178.8	117.9	404.0	131.9	847.1	1388.8	2101	460.5	324.3
MEAN	42.8	4.10	2.14	5.77	4.21	13.0	4.40	27.3	46.3	67.8	14.9	10.8
MAX	146	7.4	3.4	28	17	32	7.3	128	151	165	34	19
MIN	7.9	3.0	1.3	1.4	1.9	4.4	2.7	1.2	3.6	10	5.5	4.0
AC-FT	2630	244	131	355	234	801	262	1680	2750	4170	913	643

CAL YR 1990 TOTAL 5603.22 MEAN 15.4 MAX 233 MIN .00 AC-FT 11110
WTR YR 1991 TOTAL 7470.9 MEAN 20.5 MAX 165 MIN 1.2 AC-FT 14820

e Estimated

MYAKKA RIVER BASIN

02299410 BIG SLOUGH CANAL NEAR MYAKKA CITY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1964-67, 1970, 1976, 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 09...	1040	25.40	9.6	305	6.6	25.0	--	6.4	--	--	--	--
DEC 03...	1020	25.03	3.2	1310	7.8	20.0	20	8.2	2.5	1700	310	120
JAN 14...	1300	24.88	1.5	740	7.3	15.0	--	8.6	--	--	--	--
APR 01...	1000	25.14	4.7	720	7.4	19.0	--	6.7	--	--	--	--
JUN 24...	1245	27.64	75	300	6.6	27.0	--	4.1	--	--	--	--
AUG 07...	1025	26.22	18	225	6.0	28.0	60	4.8	0.7	520	67	130

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)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
DEC 03...	160	72	36	4.1	470	76	1.4	18	1060	--	<0.010	0.430
AUG 07...	20	8.5	8.2	2.0	37	15	0.20	7.5	183	0.020	0.010	0.030

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS 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)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
DEC 03...	0.020	0.66	0.68	1.50	0.090	20	<1	<1	<1	150	30	2
AUG 07...	0.050	1.2	1.2	0.340	0.320	100	1	<1	<1	690	380	<1

DATE	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)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DYRIFOS TOTAL RECOVER (UG/L)
DEC 03...	<1	20	10	<0.10	<1	10000	10	7.8	<0.1	<0.010	<0.1	<0.01
AUG 07...	<1	10	10	<0.10	<1	460	20	22	<0.1	<0.010	<0.1	<0.01

02299410 BIG SLOUGH CANAL NEAR MYAKKA CITY, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)
DEC												
03...	<0.010	<0.010	<0.010	<0.01	<0.010	0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01
AUG												
07...	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	DI-SYSTON TOTAL (UG/L)	PHORATE TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	DEF TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	MIREX, TOTAL (UG/L)
DEC												
03...	<0.01	<0.01	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.01
AUG												
07...	<0.01	<0.01	--	<0.01	<1	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.01

DATE	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L	CHLAMY DOMONAS	CHLOREL LA	CHRO OMONAS	STEPHAN ODISCUS	FRAGILA RIA	SYNEDRA	GYRO SIGMA	NAVI CULA	PINNU LARIA	OSCIL LATORIA
DEC											
03...	<0.0	1000	--	870	43	690	--	--	220	7	--
AUG											
07...	<0.0	900	300	--	--	--	6	6	100	--	200

MYAKKA RIVER BASIN

02299455 BIG SLOUGH CANAL NEAR NORTH PORT CHARLOTTE, FL

LOCATION.--Lat 27°06'30", long 82°12'20", in SW¼ sec.4, T.39 S., R.21 E., Sarasota County, Hydrologic Unit 03100102, 150 ft upstream from Interstate 75, 3.5 mi north of North Port Charlotte, and 6.0 mi upstream from mouth.

DRAINAGE AREA.--86.2 mi^2.

PERIOD OF RECORD.--February 1962 to May 1967 (miscellaneous discharge measurements only); April 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 961 ft^3/s, July 4, 1991, gage height, 20.39 ft; no flow for many days in 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 961 ft^3/s, July 4, gage height, 20.39 ft; minimum daily discharge, 1.2 ft^3/s, May 13, 14, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	17	4.2	1.9	7.3	34	9.4	4.4	332	650	180	39
2	37	14	4.5	1.9	7.0	27	8.8	3.7	225	782	155	31
3	37	12	4.4	2.2	6.8	28	7.7	3.1	146	855	133	29
4	36	11	4.0	3.2	6.4	58	7.4	2.7	100	915	146	36
5	38	10	3.2	3.7	5.9	46	34	2.6	74	818	152	47
6	36	9.4	3.2	2.8	6.1	36	71	2.3	130	666	124	41
7	31	8.9	3.3	2.4	6.4	29	29	2.0	144	520	94	41
8	25	9.3	3.7	2.2	6.7	24	20	1.9	90	380	76	31
9	21	9.4	3.6	2.1	5.4	21	16	4.5	69	265	73	36
10	20	9.9	3.4	2.0	4.7	20	13	5.4	55	204	81	35
11	e55	8.2	3.1	2.9	4.2	17	12	2.3	41	190	62	32
12	e110	7.1	2.9	3.2	4.0	14	9.8	1.6	31	280	49	27
13	186	7.0	2.9	3.0	3.8	13	8.2	1.2	23	285	41	25
14	192	7.3	3.6	2.7	3.7	16	7.1	1.2	17	256	34	22
15	180	6.5	3.4	6.1	3.6	21	6.8	1.3	13	238	30	20
16	150	5.7	3.7	72	3.1	31	6.1	1.2	14	214	29	18
17	124	6.3	3.6	52	3.2	46	9.6	7.2	12	194	27	16
18	103	6.1	3.4	38	3.5	57	11	15	31	190	24	51
19	83	5.7	2.6	34	4.4	73	11	22	42	182	23	66
20	69	5.5	2.4	29	4.6	64	13	47	35	169	23	111
21	63	5.3	2.4	23	4.1	54	13	51	32	161	23	103
22	63	5.3	2.4	18	3.9	44	12	49	340	152	32	58
23	58	5.2	2.5	14	4.1	35	9.9	67	400	134	52	42
24	52	5.1	2.6	12	4.2	28	8.5	163	268	176	78	38
25	46	4.9	2.5	11	12	23	7.8	345	192	142	63	29
26	38	4.8	2.1	10	39	19	9.1	477	215	104	52	33
27	32	4.9	2.0	9.9	27	15	8.6	573	323	110	44	29
28	27	5.2	2.0	9.3	27	13	7.3	626	389	129	37	25
29	24	4.8	1.9	9.1	---	11	6.1	514	407	108	32	22
30	21	4.3	2.1	8.2	---	9.8	5.3	392	593	92	29	19
31	19	---	2.1	7.5	---	9.2	---	395	---	133	37	---
TOTAL	2007	226.1	93.7	399.3	222.1	936.0	398.5	3784.6	4783	9694	2035	1152
MEAN	64.7	7.54	3.02	12.9	7.93	30.2	13.3	122	159	313	65.6	38.4
MAX	192	17	4.5	72	39	73	71	626	593	915	180	111
MIN	19	4.3	1.9	1.9	3.1	9.2	5.3	1.2	12	92	23	16
CFSM	.75	.09	.04	.15	.09	.35	.15	1.42	1.85	3.63	.76	.45
IN.	.87	.10	.04	.17	.10	.40	.17	1.63	2.06	4.18	.88	.50

CAL YR 1990 TOTAL 9462.28 MEAN 25.9 MAX 251 MIN .00 CFSM .30 IN. 4.08
WTR YR 1991 TOTAL 25731.3 MEAN 70.5 MAX 915 MIN 1.2 CFSM .82 IN. 11.10

e Estimated

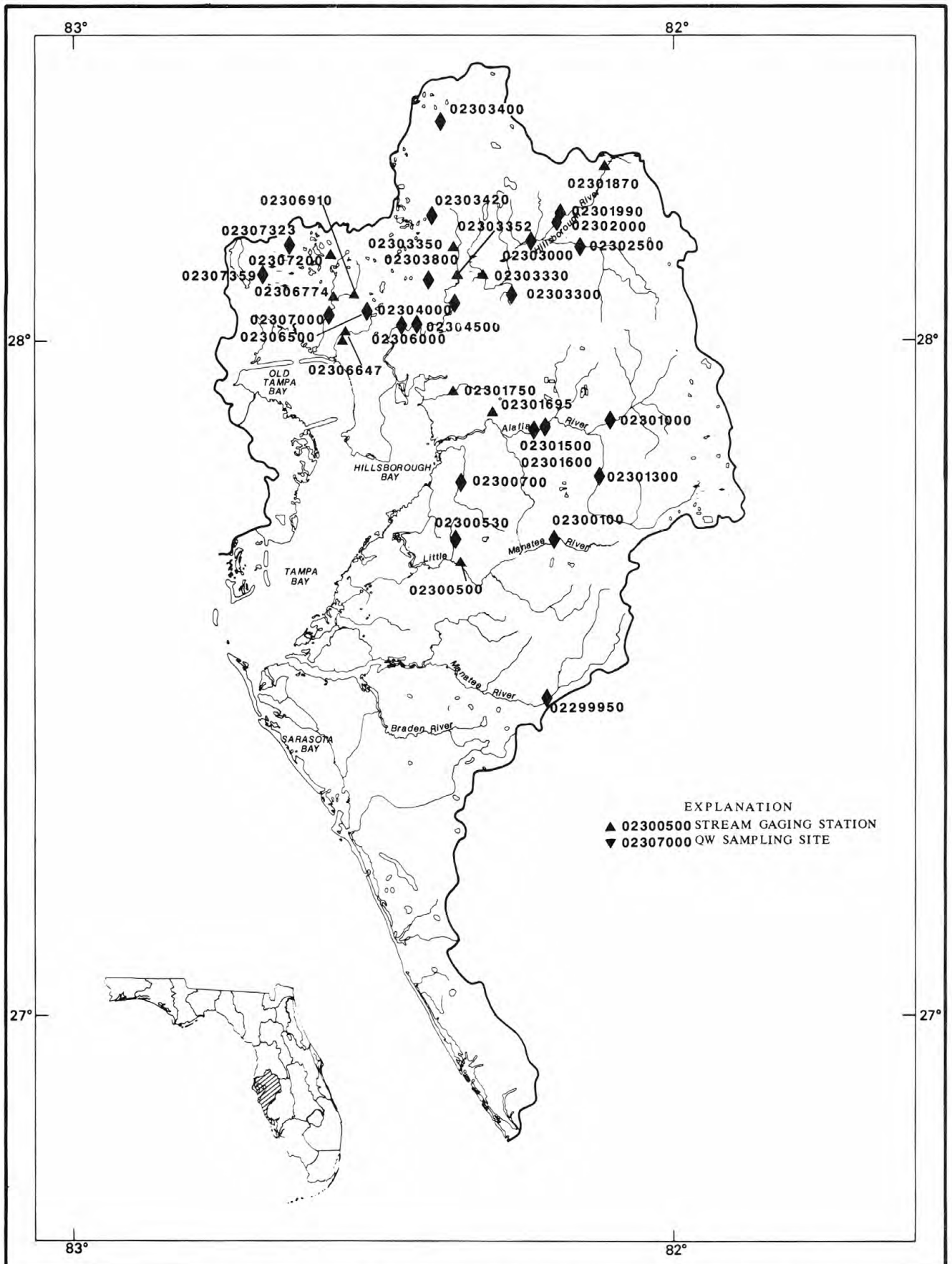

Figure 15.--Location of stream gaging stations in the Manatee, Little Manatee, Alafia, Hillsborough River basins, Tampa Bay and coastal area.

MANATEE RIVER BASIN

02299950 MANATEE RIVER NEAR MYAKKA HEAD, FL

LOCATION.--Lat 27°28'24", long 82°12'41", in SE¼ sec.33, T.34 S., R.21 E., Manatee County, Hydrologic Unit 03100202, on left bank 71 ft downstream from highway bridge on State Highway 64, 2.0 mi downstream from confluence of North and East Forks Manatee River, 5.4 mi east of State Highway 675, 8.4 mi west of Myakka Head, and 36 mi upstream from mouth.

DRAINAGE AREA.--65.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1966 to current year.

REVISED RECORDS.--WRD FL 1968: 1966. WDR FL-75-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 40.93 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Records good. Extreme low flow affected at times by ground-water pumpage into channel upstream from station by Manatee County Utilities since about September 1984.

AVERAGE DISCHARGE.--25 years, 65.2 ft^3/s, 13.56 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft^3/s, Sept. 7, 1988, gage height, 17.85 ft; no flow May 24, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,400 ft^3/s, June 30, gage height, 16.80 ft; minimum daily discharge, 3.9 ft^3/s, Nov. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	6.7	4.2	5.4	11	14	16	22	100	1200	807	50
2	28	6.4	4.1	5.0	11	14	15	17	70	760	635	53
3	19	6.2	4.0	4.7	11	17	12	13	51	583	435	46
4	14	5.9	4.0	4.5	11	36	10	11	40	349	387	58
5	12	5.7	4.0	4.6	12	31	9.2	8.9	36	209	209	52
6	17	5.5	4.0	4.6	11	25	8.3	7.5	83	187	135	45
7	15	5.4	4.2	4.5	9.8	19	9.3	6.6	198	135	100	62
8	13	5.3	8.1	4.4	9.4	15	12	5.8	167	93	94	95
9	10	5.2	11	4.4	9.1	20	11	6.5	96	71	85	221
10	14	6.2	9.6	4.5	8.3	46	10	123	60	65	79	195
11	219	7.5	8.2	5.0	7.6	47	8.4	58	39	60	68	161
12	283	7.4	7.2	5.1	6.9	43	7.3	41	28	345	59	258
13	193	7.1	7.0	5.1	6.5	30	6.3	35	21	571	46	164
14	106	6.4	6.4	4.9	6.4	32	5.6	25	17	440	41	109
15	62	5.9	5.8	5.8	6.5	36	5.7	18	14	317	34	73
16	42	5.5	5.5	55	6.5	35	5.7	13	13	206	33	50
17	32	5.4	5.3	63	6.6	36	9.4	17	14	138	33	40
18	25	5.2	5.1	40	6.1	55	9.0	34	19	117	26	33
19	21	5.0	4.9	26	6.4	98	11	25	128	156	35	31
20	18	4.9	4.9	22	7.0	67	24	92	301	231	76	27
21	16	4.7	4.8	22	6.9	45	45	216	872	147	101	26
22	15	4.2	4.8	19	6.9	31	62	153	955	92	71	27
23	15	3.9	4.7	16	7.2	23	51	266	425	60	122	23
24	13	4.0	4.7	14	7.0	19	30	761	265	191	170	22
25	12	4.2	4.8	14	7.0	16	31	1020	563	400	435	27
26	10	4.6	4.9	17	8.7	14	112	537	677	188	469	30
27	9.1	4.6	5.0	17	8.7	12	105	907	480	92	224	28
28	8.5	4.6	5.1	15	9.6	10	84	827	430	78	125	21
29	7.9	4.7	6.1	14	---	9.1	49	427	357	79	89	18
30	7.4	4.5	6.2	14	---	8.5	32	230	2270	191	67	15
31	7.0	---	5.8	12	---	10	---	146	---	627	55	---
TOTAL	1309.9	162.8	174.4	452.5	232.1	913.6	806.2	6069.3	8789	8378	5345	2060
MEAN	42.3	5.43	5.63	14.6	8.29	29.5	26.9	196	293	270	172	68.7
MAX	283	7.5	11	63	12	98	112	1020	2270	1200	807	258
MIN	7.0	3.9	4.0	4.4	6.1	8.5	5.6	5.8	13	60	26	15
CFSM	.65	.08	.09	.22	.13	.45	.41	3.00	4.49	4.14	2.64	1.05
IN.	.75	.09	.10	.26	.13	.52	.46	3.46	5.01	4.77	3.04	1.17

CAL YR 1990 TOTAL 7137.6 MEAN 19.6 MAX 430 MIN 1.7 CFSM .30 IN. 4.07
WTR YR 1991 TOTAL 34692.8 MEAN 95.0 MAX 2270 MIN 3.9 CFSM 1.46 IN. 19.76

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
29...	1017	1.43	7.8	179	7.2	21.5	18.5	90	8.5	0.9	16
FEB											
22...	1205	1.35	6.9	210	6.7	--	--	--	9.3	--	--
APR											
09...	1200	1.54	11	168	7.2	23.0	--	--	2.7	--	--
MAY											
08...	1058	1.24	5.0	200	7.0	28.0	24.0	100	8.1	0.9	17

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT											
29...	7.0	7.1	3.6	18	19	0.30	9.7	128	0.070	0.010	0.080
MAY											
08...	7.7	8.5	4.2	18	21	0.40	7.9	138	0.070	0.010	0.080

DATE	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-PHORUS 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)
OCT										
29...	0.010	0.51	0.52	0.560	0.560	110	<1	<1	<1	260
MAY										
08...	0.010	0.54	0.55	0.740	0.700	90	<1	<1	2	250

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
29...	200	<1	<1	<10	<10	0.40	<1	170	<10	7.1
MAY										
08...	200	2	<1	10	10	<0.10	2	250	<10	11

LITTLE MANATEE RIVER BASIN

02300100 LITTLE MANATEE RIVER NEAR FORT LONESOME, FL

LOCATION.--Lat 27°42'16", long 82°11'53", in NW¼ sec.15, T.32 S., R.21 E., Hillsborough County, Hydrologic Unit 03100203, on left bank, 100 ft downstream from bridge on State Highway 674, 0.6 mi upstream from Howard Prairie Branch, 3.2 mi west of Fort Lonesome, 6.2 mi east of Wimauma, and 30 mi upstream from mouth.

DRAINAGE AREA.--31.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 45.00 ft above National Geodetic Vertical Datum of 1929. Prior to June 23, 1980, at site 100 ft upstream at same datum.

REMARKS.--Records good. Small diurnal fluctuation at low flow.

AVERAGE DISCHARGE.--28 years, 29.0 ft^3/s, 12.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,100 ft^3/s, Sept. 22, 1979; maximum gage height, 12.21 ft, Sept. 7, 1988, from high water mark; no flow for many days in most years; river dry at gage for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 11	1300	557	9.40	July 13	1600	*941	*10.23

Minimum daily discharge, 3.6 ft^3/s (estimated), Jan. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	6.9	e5.0	e3.8	8.8	11	25	7.9	e9.0	115	346	31
2	15	7.0	e5.0	e3.6	8.2	10	20	6.9	e8.0	138	259	37
3	10	6.5	e4.8	e3.6	9.7	17	15	6.2	e7.0	127	137	77
4	8.6	6.7	e4.6	e5.0	8.1	18	12	5.7	e6.5	90	100	79
5	8.6	7.4	e4.4	e4.4	9.0	17	10	5.3	65	59	89	51
6	12	5.4	e4.4	e4.2	9.8	14	9.8	3.8	69	71	97	30
7	14	5.7	e4.4	e4.0	7.8	11	17	4.0	39	75	145	19
8	10	5.3	e4.8	e4.0	7.4	10	11	7.8	29	44	175	14
9	8.7	9.9	e7.0	e3.8	8.8	41	9.4	7.5	16	28	106	28
10	81	36	e6.0	e4.0	9.6	74	8.5	e40	9.9	23	73	59
11	281	18	e5.0	e4.6	8.9	65	7.8	e20	7.2	189	49	47
12	191	13	e4.8	e4.2	7.0	36	7.5	e30	6.0	410	53	33
13	108	11	e4.6	e4.0	7.6	26	7.5	e22	5.2	549	59	24
14	63	9.3	e4.4	e4.0	7.1	50	7.4	e9.0	4.6	506	56	16
15	38	8.0	e4.4	e5.0	7.6	40	7.2	e12	4.4	404	74	15
16	25	18	e4.4	e25	6.4	32	6.4	e30	4.6	211	56	16
17	19	13	e4.2	e30	7.0	35	23	e50	5.5	140	26	53
18	16	9.1	e4.2	e22	7.9	54	13	e30	7.4	157	15	49
19	18	5.8	e4.2	e16	6.0	46	12	e26	8.7	128	18	38
20	16	5.2	e4.4	e14	7.2	34	12	e40	8.8	81	36	18
21	10	5.8	e4.4	e13	5.8	24	10	e20	11	56	33	11
22	8.3	4.6	e4.2	e12	7.3	20	8.9	e14	15	43	52	7.7
23	7.3	3.8	e4.0	11	6.3	17	8.5	e55	13	31	56	5.9
24	8.0	5.0	e4.0	11	5.3	15	7.1	e70	15	29	61	5.4
25	8.7	e5.2	e3.8	10	6.6	12	11	e100	34	68	90	6.5
26	9.6	e5.2	e3.8	10	8.3	11	22	e90	128	62	118	9.1
27	11	e5.0	e3.8	10	7.8	9.6	16	e70	128	53	88	6.9
28	13	e4.8	e4.0	10	9.3	9.6	15	e50	97	63	61	6.6
29	9.6	e6.0	e4.2	10	---	8.3	12	e35	73	86	80	5.5
30	8.5	e5.5	e4.2	11	---	8.4	9.5	e20	85	124	70	5.0
31	8.4	---	e4.0	11	---	17	---	e12	---	171	41	---
TOTAL	1070.3	258.1	139.4	288.2	216.6	792.9	361.5	900.1	919.8	4331	2719	803.6
MEAN	34.5	8.60	4.50	9.30	7.74	25.6	12.0	29.0	30.7	140	87.7	26.8
MAX	281	36	7.0	30	9.8	74	25	100	128	549	346	79
MIN	7.3	3.8	3.8	3.6	5.3	8.3	6.4	3.8	4.4	23	15	5.0
CFSM	1.10	.27	.14	.30	.25	.81	.38	.92	.98	4.45	2.79	.85
IN.	1.27	.31	.17	.34	.26	.94	.43	1.07	1.09	5.13	3.22	.95

CAL YR 1990 TOTAL 6355.08 MEAN 17.4 MAX 328 MIN .00 CFSM .55 IN. 7.53
WTR YR 1991 TOTAL 12800.5 MEAN 35.1 MAX 549 MIN 3.6 CFSM 1.12 IN. 15.16

e Estimated

LITTLE MANATEE RIVER BASIN

02300100 LITTLE MANATEE RIVER NEAR FORT LONESOME, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT									
30...	1058	2.93	8.5	324	7.4	18.0	60	7.8	32
NOV									
20...	1255	2.63	5.2	305	6.8	16.5	--	7.5	--
JAN									
22...	1600	2.93	12	215	6.9	15.0	--	7.0	--
MAR									
05...	1020	3.51	18	230	7.0	16.0	--	7.3	--
MAY									
08...	0855	2.67	8.2	296	7.0	23.0	60	5.9	25
AUG									
20...	1445	4.34	39.4	360	5.8	25.5	--	5.3	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)
OCT									
30...	14	10	2.8	73	16	0.60	8.8	208	--
NOV									
20...	--	--	--	--	--	--	--	--	0.120
MAY									
08...	12	9.7	12	51	18	0.30	9.0	198	--
AUG									
20...	--	--	--	--	--	--	--	--	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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
30...	<0.010	0.110	0.010	0.40	0.41	0.350	0.370	620	6.9
NOV									
20...	0.010	0.130	0.020	0.42	0.44	0.460	0.430	--	--
JAN									
22...	<0.010	0.090	0.020	0.69	0.71	0.640	0.570	--	--
MAY									
08...	<0.010	0.250	0.020	1.1	1.1	0.370	0.320	1100	11
AUG									
20...	0.010	0.100	0.020	0.78	0.80	0.820	0.760	--	--

LITTLE MANATEE RIVER BASIN

02300500 LITTLE MANATEE RIVER NEAR WIMAUMA, FL

LOCATION.--Lat 27°40'15", long 82°21'10", in NE¼ sec.25, T.32 S., R.19 E., Hillsborough County, Hydrologic Unit 03100203, near center of span on downstream side of bridge on U. S. Highway 301, 1.6 mi upstream from Cypress Creek, 4.2 mi southwest of Wimauma, and 15 mi upstream from mouth.

DRAINAGE AREA.--149 mi^2.

PERIOD OF RECORD.--March 1939 to current year.

REVISED RECORDS.--WSP 1032: 1939(M). WSP 1905: 1961-62, 1965 drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1963, at site 75 ft downstream at datum 2.17 ft higher; Oct. 1, 1963, to Sept. 22, 1971, at former site and present datum.

REMARKS.--Records fair. Some diversion, 3.3 mi upstream from station by Manatee Power Plant since June 1974. Stage-discharge relation affected by tide on some days.

AVERAGE DISCHARGE.--52 years, 166 ft^3/s, 15.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s, Sept. 11, 1960; maximum gage height, 20.14 ft, Sept. 8, 1988; minimum discharge, 0.78 ft^3/s, Dec. 18, 19, 1976; minimum gage height, 1.38 ft, May 18, 19, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 15	0130	*2,160	*14.35	No other peak greater than base discharge.			

Minimum daily discharge, 25 ft^3/s, May 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	49	35	28	44	51	72	40	228	565	1040	185
2	86	45	30	26	42	49	50	50	167	766	1290	253
3	64	44	28	26	41	90	43	40	134	723	1150	258
4	56	42	30	40	39	120	38	35	103	616	849	262
5	46	40	30	35	36	73	64	30	155	427	621	220
6	40	40	30	34	34	71	109	28	622	399	525	170
7	38	38	32	32	34	59	145	25	721	417	322	180
8	38	36	35	33	34	55	131	30	492	259	328	140
9	35	40	47	29	38	253	70	31	261	150	346	146
10	60	160	44	30	37	319	62	60	170	110	240	160
11	662	125	41	36	36	203	47	130	110	125	180	176
12	874	80	39	35	35	154	46	70	80	343	150	150
13	894	64	36	35	35	129	38	90	60	645	161	115
14	584	57	33	34	34	200	35	75	55	1390	204	90
15	212	51	33	42	38	144	35	40	50	1990	177	80
16	126	51	31	120	36	126	50	50	52	1510	177	70
17	101	50	28	149	40	142	66	80	52	1080	161	77
18	85	47	29	125	42	185	50	204	49	753	114	162
19	69	40	28	85	42	151	47	149	143	491	85	191
20	62	36	28	70	35	122	52	152	276	378	115	90
21	54	36	28	65	35	90	50	173	335	267	120	60
22	53	34	28	56	34	70	49	80	261	206	190	50
23	70	34	29	53	34	74	38	338	216	170	453	40
24	65	36	28	48	34	67	35	736	188	150	397	38
25	60	38	27	53	35	68	90	778	205	238	629	42
26	56	40	26	58	40	61	188	1050	288	303	636	60
27	54	38	26	50	41	57	102	1030	463	249	451	46
28	55	41	26	50	43	53	75	792	522	233	315	38
29	55	42	27	48	---	48	55	643	382	238	275	36
30	52	39	28	48	---	46	50	444	296	330	259	34
31	50	---	28	46	---	88	---	285	---	604	222	---
TOTAL	4915	1513	968	1619	1048	3418	1982	7758	7136	16125	12182	3619
MEAN	159	50.4	31.2	52.2	37.4	110	66.1	250	238	520	393	121
MAX	894	160	47	149	44	319	188	1050	721	1990	1290	262
MIN	35	34	26	26	34	46	35	25	49	110	85	34
CFSM	1.06	.34	.21	.35	.25	.74	.44	1.68	1.60	3.49	2.64	.81
IN.	1.23	.38	.24	.40	.26	.85	.49	1.94	1.78	4.03	3.04	.90

CAL YR 1990 TOTAL 32609 MEAN 89.3 MAX 894 MIN 16 CFSM .60 IN. 8.14
WTR YR 1991 TOTAL 62283 MEAN 171 MAX 1990 MIN 25 CFSM 1.15 IN. 15.55

LITTLE MANATEE RIVER BASIN

02300530 CYPRESS CREEK NEAR WIMAUMA, FL

LOCATION.--Lat 27°42'27", long 82°21'48", in SW¼ sec.12, T.32 S., R.19 E., Hillsborough County, Hydrologic Unit 03100203, at center of span on upstream side of bridge on King's Boulevard, 0.3 mi south of State Highway 674, 2.7 mi upstream from mouth, and 3.5 mi west of Wimauma.

DRAINAGE AREA.--8.1 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to September 1991 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 15.11 ft above National Geodetic Vertical Datum of 1929 (local engineering company reference mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--11 years, 13.2 ft^3/s, 22.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 754 ft^3/s, Sept. 7, 1988, gage height, 14.96 ft; minimum, 0.05 ft^3/s, Apr. 23, 24, 1988; minimum gage height, 2.96 ft, June 12, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 182 ft^3/s, Oct. 11, gage height, 9.77 ft; minimum daily discharge, 0.74 ft^3/s, Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	1.7	1.3	.98	6.2	.97	9.6	6.1	15	21	112	8.2
2	6.1	1.7	1.2	1.0	5.6	.95	7.8	4.5	12	22	145	8.4
3	5.1	1.6	1.2	1.2	5.1	12	5.4	3.3	9.8	21	109	6.9
4	4.8	1.5	1.2	1.3	4.3	20	4.0	2.6	8.9	17	84	5.5
5	4.8	1.4	1.1	.95	2.8	18	4.9	2.0	15	16	64	4.7
6	4.2	1.4	1.2	.93	2.1	13	13	1.6	56	25	50	4.0
7	3.6	1.3	1.5	1.0	1.7	12	12	1.4	36	25	35	4.5
8	3.0	1.5	1.5	1.3	1.8	9.5	9.1	1.2	26	17	25	5.3
9	2.6	2.1	1.3	1.1	2.0	31	7.1	1.1	18	13	19	7.7
10	4.7	2.2	1.3	1.1	1.7	36	5.3	1.3	13	11	15	6.2
11	94	1.6	1.3	.88	1.5	25	4.1	1.1	9.8	11	12	5.5
12	89	1.4	1.3	.91	1.3	19	3.4	.94	7.3	14	9.7	4.4
13	66	1.4	1.3	.75	1.3	17	2.9	1.1	5.2	24	8.3	3.8
14	44	1.3	1.2	.74	1.4	20	2.3	1.4	4.3	94	7.5	3.6
15	31	1.2	1.2	1.6	1.5	17	1.9	1.0	4.4	111	6.5	3.1
16	22	1.2	.99	2.7	1.3	16	1.6	1.1	4.8	81	5.5	2.6
17	16	1.1	.96	2.0	1.2	18	1.4	2.9	6.3	58	4.5	2.8
18	12	1.1	.90	1.7	1.1	22	1.3	10	9.4	37	4.0	16
19	9.8	1.1	.89	1.4	1.1	22	1.3	12	12	25	7.0	25
20	8.2	1.1	1.1	2.0	1.1	20	1.5	16	17	18	11	18
21	6.9	1.1	1.1	1.7	1.1	15	1.5	18	13	14	14	14
22	5.8	1.1	1.1	1.6	1.0	12	1.5	15	27	11	12	10
23	5.1	1.0	1.1	1.5	1.0	10	1.4	61	36	9.4	9.8	8.7
24	4.9	1.3	1.0	1.5	1.1	8.4	1.4	134	31	23	15	6.8
25	4.0	1.3	.98	3.7	1.1	6.4	9.3	115	24	57	38	5.2
26	3.5	1.2	.99	4.4	1.1	4.6	22	87	17	83	32	5.7
27	2.9	1.2	.95	3.8	1.0	4.1	17	71	14	73	24	5.8
28	2.6	1.8	1.0	3.1	1.1	3.8	13	50	14	54	18	4.8
29	2.2	3.3	1.0	3.2	---	3.5	10	34	11	43	14	3.9
30	1.9	1.4	1.0	3.3	---	4.0	7.9	25	13	40	12	3.2
31	1.8	---	1.3	4.0	---	7.2	---	20	---	53	10	---
TOTAL	479.2	43.6	35.46	57.34	54.6	428.42	184.9	702.64	490.2	1121.4	932.8	214.3
MEAN	15.5	1.45	1.14	1.85	1.95	13.8	6.16	22.7	16.3	36.2	30.1	7.14
MAX	94	3.3	1.5	4.4	6.2	36	22	134	56	111	145	25
MIN	1.8	1.0	.89	.74	1.0	.95	1.3	.94	4.3	9.4	4.0	2.6
CFSM	1.91	.18	.14	.23	.24	1.71	.76	2.80	2.02	4.47	3.71	.88
IN.	2.20	.20	.16	.26	.25	1.97	.85	3.23	2.25	5.15	4.28	.98

CAL YR 1990 TOTAL 3105.95 MEAN 8.51 MAX 94 MIN .42 CFSM 1.05 IN. 14.26
WTR YR 1991 TOTAL 4744.86 MEAN 13.0 MAX 145 MIN .74 CFSM 1.60 IN. 21.79

LITTLE MANATEE RIVER BASIN

02300530 CYPRESS CREEK NEAR WIMAUMA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 28...	1435	3.19	1.8	460	6.3	23.5	30	4.0	0.2	K500	K230
JAN 16...	1145	3.38	2.7	435	6.8	20.0	30	4.1	1.8	2500	930
MAY 29...	1415	5.10	33	372	6.1	27.0	150	2.1	2.3	410	K30
AUG 14...	1430	3.72	6.9	318	6.9	28.0	100	4.4	1.6	K570	K130

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)	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)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
NOV 28...	48	13	20	6.6	99	37	0.20	5.1	310	5	0.010
JAN 16...	50	12	20	6.4	98	33	0.20	4.6	298	13	0.010
MAY 29...	32	13	15	8.5	90	28	0.20	5.8	270	20	0.010
AUG 14...	30	9.7	13	6.4	66	26	0.20	6.4	225	9	0.010

DATE	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-PHORUS 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)
NOV 28...	0.340	0.140	0.84	0.110	0.020	--	--	--	--	--
JAN 16...	0.210	0.120	1.1	0.150	0.060	240	2	<1	5	600
MAY 29...	0.040	0.050	1.9	0.160	0.120	--	--	--	--	--
AUG 14...	0.120	0.150	1.1	0.130	0.100	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
NOV 28...	--	--	--	--	--	--	--	440	--	9.0
JAN 16...	250	1	1	20	20	<0.10	<1	470	50	8.7
MAY 29...	--	--	--	--	--	--	--	750	--	16
AUG 14...	--	--	--	--	--	--	--	490	--	13

LITTLE MANATEE RIVER BASIN

02300546 LITTLE MANATEE RIVER NEAR RUSKIN, FL

WATER-QUALITY RECORDS

LOCATION.--Lat 27°41'18", long 82°26'19", in NE¼ sec.19, T.32 S., R.19 E., Hillsborough County, Hydrologic Unit 03100203, on right bank, at private residence on Manatee Drive, 2.2 mi south of Ruskin, and 4.8 mi above mouth.

DRAINAGE AREA.--204 mi^2.

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year (incomplete).
WATER TEMPERATURE: October 1983 to current year (incomplete).

INSTRUMENTATION.--Water-quality monitor since October 1983.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments. Extremes may have been exceeded during periods of missing record.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 50,100 microsiemens, May 19, 1991; minimum, 100 microsiemens, Sept. 8-12, 1988, Sept. 7, 26-29, 1989, July 15, 16, 18, Aug. 1-4, 1991.
WATER TEMPERATURE: Maximum, 35.0°C, July 10, 11, 1989; minimum, 10.0°C, Dec. 25, 1989.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 50,100 microsiemens, May 19; minimum, 100 microsiemens, July 15, 16, 18, Aug. 1-4.
WATER TEMPERATURE: Maximum, 32.5°C, June 19; minimum, 16.4°C, Feb. 17.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23500	39400	39400	49800	24100	34400	14400	49000	16100	7100	100	11100
2	28100	20800	40100	48900	24400	34100	21000	28800	12000	1800	100	11400
3	24400	31500	46000	40100	22500	43900	44100	35500	9900	500	100	12100
4	26500	35500	34100	38400	31100	24500	27500	26400	6500	800	100	11400
5	24400	47900	29900	35100	36800	38100	38400	41500	8100	500	400	19400
6	29400	39400	32100	34500	31800	41100	23400	30000	4100	800	900	18500
7	32500	32800	38100	37800	33000	24000	22100	25400	1800	1100	4500	14500
8	36400	26500	36800	40000	28000	28500	24500	27100	900	4500	20500	14500
9	32400	31000	28500	33500	27000	24800	21400	28100	5400	20100	17800	12000
10	26400	36100	29000	41400	32000	5900	22400	32500	33500	27400	16900	13100
11	26000	17400	32800	49100	45000	7500	21100	29400	29400	27800	11100	13100
12	2100	23500	29400	48800	29100	22800	20000	35500	36500	25500	8100	15100
13	900	21400	32900	39000	32000	25500	37900	39100	37500	10000	6000	16500
14	900	46900	31800	39100	41900	23100	34100	46400	39100	1400	6100	17500
15	1800	33400	37500	38400	42400	10100	39500	41400	36500	100	6800	17100
16	5100	28400	40000	41500	20400	7500	35800	42100	31400	100	7000	15100
17	8800	36400	36000	32400	27800	19000	38000	44400	26000	400	8800	15900
18	9400	27400	40400	24400	39400	24000	40900	35400	22100	100	10500	19500
19	15800	31500	41500	30100	40400	7400	38900	50100	24400	500	18400	12000
20	13400	43900	36000	33100	49000	17000	34800	22000	33400	500	17100	10000
21	11400	35500	42100	19000	30100	31900	28500	12500	16000	3400	13000	10800
22	23400	31100	32400	22900	37000	42400	28400	18000	16800	8000	13100	13000
23	26400	34100	33100	27800	46100	21500	31100	24400	17400	14400	15000	15500
24	39400	31400	36000	37900	35100	20400	26400	14100	20000	23400	12400	16000
25	23000	26500	31800	29500	35000	27100	24500	1100	22500	40900	3100	21100
26	11800	41500	33100	29400	35400	23400	19400	3800	28100	17400	1000	19400
27	14900	25500	48100	38500	33000	36000	21000	400	23000	12800	1100	18100
28	14500	32500	33500	42100	33000	26000	28400	1100	9800	13400	2000	23000
29	21400	33500	40800	38000	---	31100	33500	3000	15000	10900	2100	17800
30	16000	30000	46500	40000	---	31900	29500	10500	15900	3900	2100	17000
31	16400	---	45100	33500	---	21000	---	5500	---	1500	8000	---
MAX	39400	47900	48100	49800	49000	43900	44100	50100	39100	40900	20500	23000

CAL YR 1990 MAX 48100
WTR YR 1991 MAX 50100

LITTLE MANATEE RIVER BASIN

02300546 LITTLE MANATEE RIVER NEAR RUSKIN, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	23.7	21.0	24.7	23.2	21.4	23.5	30.5	28.7	29.5	26.7	30.5
2	29.0	24.0	21.7	25.0	21.5	23.2	23.2	30.5	29.2	27.5	28.0	30.2
3	29.5	24.2	22.0	24.7	22.0	23.0	23.0	30.2	30.5	29.2	28.7	30.5
4	30.0	25.0	22.2	24.2	22.2	22.5	23.5	30.0	30.2	29.7	29.7	30.5
5	30.2	25.5	21.2	24.0	22.7	21.4	24.0	29.7	30.2	29.2	29.5	30.7
6	30.7	26.0	19.4	24.7	22.0	21.5	25.2	29.7	28.7	29.2	29.7	31.0
7	31.0	26.2	19.7	24.7	22.2	22.5	26.0	30.5	27.0	30.0	30.7	31.2
8	30.7	26.0	19.2	25.0	21.7	23.2	25.7	30.0	27.0	31.2	31.2	30.7
9	29.2	25.5	18.7	24.2	20.5	22.7	28.0	29.5	28.0	31.5	32.0	30.0
10	29.0	25.2	18.0	23.0	20.2	21.0	28.2	29.7	28.2	31.4	31.5	30.2
11	28.2	23.7	18.2	23.0	20.4	19.0	28.2	30.0	28.5	30.7	32.2	30.7
12	27.0	22.5	17.5	23.2	20.0	19.5	28.0	29.5	29.0	30.0	32.2	31.0
13	27.2	22.0	18.4	21.7	20.0	19.2	27.2	28.9	29.5	28.0	32.0	31.5
14	27.2	22.2	18.7	20.2	20.7	20.7	26.7	28.7	30.0	26.0	31.5	31.2
15	27.7	22.2	19.7	19.5	20.0	20.5	27.0	29.7	30.4	26.0	31.0	31.5
16	28.0	22.2	20.4	20.7	18.0	19.7	27.7	29.5	31.0	28.0	31.0	31.5
17	28.4	22.7	21.0	21.0	16.4	19.7	27.7	29.9	32.4	29.0	31.4	31.4
18	28.5	22.5	22.0	20.5	17.5	20.7	28.0	29.9	32.0	30.0	31.7	30.7
19	28.7	22.2	23.0	20.5	19.7	22.0	27.9	29.5	32.5	29.7	31.9	30.5
20	28.5	22.2	23.5	22.0	21.7	22.0	28.7	29.0	31.5	29.7	31.5	30.7
21	28.7	22.5	23.7	21.7	22.7	22.5	27.2	27.9	31.0	30.2	30.7	30.7
22	28.7	22.7	24.2	20.5	23.0	23.4	28.5	26.7	30.5	31.2	30.5	30.4
23	29.2	23.0	24.7	20.0	23.4	24.2	26.7	27.0	30.7	31.0	30.0	30.2
24	29.2	23.2	23.5	18.7	23.5	25.7	28.2	27.0	30.7	31.0	29.0	30.5
25	28.7	24.2	21.9	19.2	23.2	26.5	28.0	27.2	30.7	30.2	28.5	30.2
26	25.9	24.5	20.7	19.0	23.2	26.5	27.2	27.7	31.0	30.7	28.7	30.4
27	25.0	24.0	21.4	18.5	22.2	26.7	28.2	28.2	30.2	30.5	29.5	29.7
28	23.5	25.2	21.7	19.5	19.2	27.0	29.5	28.5	30.2	30.5	30.0	29.0
29	23.9	25.5	22.7	21.0	---	26.4	29.7	28.5	31.2	30.0	30.5	29.5
30	23.7	23.7	23.5	22.7	---	25.7	30.4	28.2	31.5	29.2	31.0	28.5
31	23.7	---	24.0	23.9	---	24.4	---	28.2	---	27.7	30.5	---
MAX	31.0	26.2	24.7	25.0	23.5	27.0	30.4	30.5	32.5	31.5	32.2	31.5

CAL YR 1990 MAX 32.9
WTR YR 1991 MAX 32.5

TAMPA BAY AND COASTAL AREAS

02300700 BULLFROG CREEK NEAR WIMAUMA, FL

LOCATION.--Lat 27°47'30", long 82°21'08", in SE¼ sec.12, T.31 S., R.19 E., Hillsborough County, Hydrologic Unit 03100206, near center of span on downstream side of bridge on State Highway 672-S, 0.6 mi downstream from Little Bullfrog Creek, 6.0 mi northwest of Wimauma, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--29.1 mi^2.

PERIOD OF RECORD.--September 1956 to November 1958; 1959-74 (annual maximum); April 1977 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 September 1974, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--16 years (water years 1957-58, 1978-91), 39.7 ft^3/s, 18.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft^3/s, Sept. 11, 1960, gage height, 30.59 ft; no flow for many days in 1957, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,250 ft^3/s, July 13, gage height, 28.67 ft; minimum daily discharge, 6.0 ft^3/s, Dec. 29 (estimated).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	13	7.0	7.4	20	17	27	20	42	179	382	36
2	17	14	7.4	7.8	17	17	26	18	34	500	775	68
3	15	13	10	8.2	15	97	20	17	26	297	450	53
4	22	13	11	8.5	13	76	17	16	21	116	169	42
5	19	11	9.0	8.8	12	57	28	e15	20	68	99	32
6	13	11	7.7	8.4	12	33	68	e14	351	50	158	27
7	8.9	11	6.7	6.7	14	23	49	e14	485	47	122	38
8	8.6	11	8.0	7.3	14	22	33	e13	145	40	62	54
9	9.1	13	8.1	7.9	15	38	24	e13	57	33	43	52
10	65	19	7.0	7.7	13	68	19	e15	37	28	32	45
11	234	15	6.6	7.3	14	62	19	e14	27	25	25	45
12	524	12	7.4	7.5	14	34	20	e11	21	59	20	51
13	296	11	11	6.7	15	37	18	e12	17	953	18	40
14	97	12	13	7.4	15	50	18	e14	15	1460	17	31
15	56	12	13	16	15	46	16	e13	14	725	19	26
16	44	11	11	36	18	36	17	e25	19	273	22	24
17	34	11	11	30	21	40	16	43	20	112	20	20
18	30	11	9.6	23	22	61	15	124	20	65	22	48
19	27	10	9.7	16	22	65	16	71	64	47	29	60
20	25	11	9.6	16	21	47	17	57	123	38	29	31
21	25	10	9.0	15	21	33	15	40	119	34	46	24
22	23	11	7.3	16	17	28	e14	39	163	27	34	e21
23	22	12	e6.6	15	18	28	e13	135	188	23	31	e19
24	21	15	e6.5	15	19	28	e12	295	120	25	58	e18
25	20	12	e6.4	21	20	23	e44	673	83	93	113	e16
26	19	12	e6.4	22	20	22	66	461	92	159	87	e18
27	17	10	e6.2	22	17	20	59	207	67	98	55	e18
28	16	12	e6.2	19	20	20	31	126	55	60	38	e17
29	14	11	e6.0	18	---	22	22	78	45	43	32	e16
30	15	8.4	7.4	16	---	24	21	54	42	35	30	e15
31	15	---	7.6	17	---	31	---	45	---	82	26	---
TOTAL	1775.6	358.4	259.4	440.6	474	1205	780	2692	2532	5794	3063	1005
MEAN	57.3	11.9	8.37	14.2	16.9	38.9	26.0	86.8	84.4	187	98.8	33.5
MAX	524	19	13	36	22	97	68	673	485	1460	775	68
MIN	8.6	8.4	6.0	6.7	12	17	12	11	14	23	17	15
CFSM	1.97	.41	.29	.49	.58	1.34	.89	2.98	2.90	6.42	3.40	1.15
IN.	2.27	.46	.33	.56	.61	1.54	1.00	3.44	3.24	7.41	3.92	1.28

CAL YR 1990 TOTAL 10309.2 MEAN 28.2 MAX 524 MIN 2.9 CFSM .97 IN. 13.18
WTR YR 1991 TOTAL 20379.0 MEAN 55.8 MAX 1460 MIN 6.0 CFSM 1.92 IN. 26.05

e Estimated

ALAFIA RIVER BASIN

02301000 NORTH PRONG ALAFIA RIVER AT KEYSVILLE, FL

LOCATION.--Lat 27°52'59", long 82°06'03", in SW¼ sec.10, T.30 S., R.22 E., Hillsborough County, Hydrologic Unit 03100204, near left bank, 300 ft below highway bridge, 0.6 mi north of Keysville, 4.0 mi upstream from confluence with South Prong Alafia River, and 29 mi upstream from mouth of Alafia River at Hillsborough Bay.

DRAINAGE AREA.--135 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Monthly discharge only for May 1950, published in WSP 1304.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 38.56 ft above National Geodetic Vertical Datum of 1929. Prior to May 8, 1974, at site 300 ft upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--41 years, 155 ft^3/s, 112,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,570 ft^3/s ,Sept. 11, 1960, gage height, 15.86 ft, from recorded range in stage; minimum, 3.6 ft^3/s, May 17, 1952; minimum gage height observed, 0.64 ft, June 1, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 14	0500	*3,150	*12.12	No other peak greater than base discharge.			

Minimum daily discharge, 19 ft^3/s, Dec. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	32	22	26	38	e28	63	58	442	667	e700	108
2	48	28	22	25	34	35	55	118	316	709	855	107
3	44	27	21	25	37	45	48	76	240	859	641	113
4	44	27	21	31	37	94	46	54	201	696	413	126
5	53	27	21	27	35	70	44	45	153	481	299	146
6	62	27	21	26	34	41	60	42	183	354	226	141
7	52	25	21	28	36	33	e50	40	217	416	199	119
8	48	25	23	24	30	34	e70	38	166	337	189	127
9	41	24	23	23	30	e30	e120	35	115	221	156	125
10	50	30	22	27	29	e32	e100	33	92	170	177	127
11	73	28	24	23	27	e60	e80	33	79	157	367	108
12	74	25	22	23	28	e55	e70	32	72	181	306	111
13	57	24	21	22	29	e50	e60	32	65	424	227	91
14	51	23	21	e22	31	e60	e50	31	59	e2500	198	78
15	48	30	19	e26	31	e60	46	32	64	e2000	153	72
16	45	26	20	e50	31	e55	44	32	88	e1600	131	69
17	43	21	22	e60	28	e70	45	36	87	e1200	118	74
18	50	21	21	e50	e28	e100	48	45	174	e1000	119	68
19	44	22	20	e45	e28	e180	46	40	148	e800	143	e65
20	40	27	24	e40	e28	e140	47	43	100	e600	173	e60
21	39	24	23	e38	e26	e100	45	65	107	e500	218	e60
22	39	21	22	e36	e26	e80	43	61	205	e420	194	e60
23	38	25	e22	34	e24	e70	40	63	144	e400	150	e55
24	36	33	e22	32	e24	e60	42	84	97	e380	157	e55
25	38	31	e24	36	e22	e55	49	161	116	e400	284	e55
26	35	25	e24	43	e22	e50	e120	132	137	e440	321	e55
27	37	26	e28	40	e24	e48	108	149	113	e380	216	e55
28	34	30	30	37	e24	e46	65	176	110	e360	165	e60
29	31	28	28	35	---	45	52	152	90	e340	162	e55
30	31	29	26	43	---	44	51	99	247	e340	133	e55
31	35	---	26	43	---	50	---	172	---	e400	117	---
TOTAL	1418	791	706	1040	821	1920	1807	2209	4427	19732	7907	2600
MEAN	45.7	26.4	22.8	33.5	29.3	61.9	60.2	71.3	148	637	255	86.7
MAX	74	33	30	60	38	180	120	176	442	2500	855	146
MIN	31	21	19	22	22	28	40	31	59	157	117	55
AC-FT	2810	1570	1400	2060	1630	3810	3580	4380	8780	39140	15680	5160

CAL YR 1990 TOTAL 19661 MEAN 53.9 MAX 371 MIN 18 AC-FT 39000
WTR YR 1991 TOTAL 45378 MEAN 124 MAX 2500 MIN 19 AC-FT 90010

e Estimated

ALAFIA RIVER BASIN

02301000 NORTH PRONG ALAFIA RIVER AT KEYSVILLE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT										
30...	1321	1.27	28	570	7.9	20.5	30	8.6	56	17
NOV										
19...	1300	1.14	21.4	570	7.0	17.5	--	8.3	--	--
JAN										
11...	1400	1.19	23.0	535	7.3	24.0	--	6.8	--	--
MAR										
01...	1345	1.40	26.7	585	7.5	23.0	--	7.0	--	--
MAY										
16...	1045	1.20	25	600	7.5	25.5	30	6.8	52	16
AUG										
27...	1430	4.02	207	402	8.5	27.5	--	5.9	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
30...	43	2.9	130	32	3.0	18	378	--	<0.010	0.950
NOV										
19...	--	--	--	--	--	--	--	2.17	0.330	2.50
JAN										
11...	--	--	--	--	--	--	--	--	<0.010	0.800
MAR										
01...	--	--	--	--	--	--	--	1.09	0.010	1.10
MAY										
16...	47	3.4	100	46	2.4	12	379	1.34	0.060	1.40
AUG										
27...	--	--	--	--	--	--	--	0.520	0.010	0.530

DATE	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-PHORUS 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)
OCT										
30...	<0.010	--	0.33	5.60	5.50	50	4	<1	<1	110
NOV										
19...	1.50	0.60	2.1	9.40	9.20	--	--	--	--	--
JAN										
11...	<0.010	--	0.40	3.50	3.30	--	--	--	--	--
MAR										
01...	0.010	0.44	0.45	3.50	3.40	--	--	--	--	--
MAY										
16...	0.140	0.54	0.68	4.70	4.80	120	4	<1	<1	140
AUG										
27...	0.020	0.85	0.87	5.00	5.20	--	--	--	--	--

ALAFIA RIVER BASIN

02301000 NORTH PRONG ALAFIA RIVER AT KEYSVILLE, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
30...	30	<1	<1	10	10	0.70	1	310	<10	7.9
MAY										
16...	30	<1	<1	10	10	<0.10	3	330	<10	7.1

ALAFIA RIVER BASIN

02301000 NORTH PRONG ALAFIA RIVER AT KEYSVILLE, FL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	540	---	---	---	---	460
2	---	---	---	---	---	---	---	---	371	---	---	---
3	---	---	593	---	---	596	---	---	---	---	---	---
4	---	622	---	---	607	---	---	---	---	---	370	---
5	---	---	---	---	---	---	---	579	---	---	---	---
6	---	---	---	---	---	---	---	---	523	---	---	---
7	---	---	---	---	---	---	521	---	---	359	---	---
8	589	---	---	571	---	---	---	---	---	---	---	399
9	---	---	588	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	567	---	---	---	---	---	---
11	---	576	---	---	588	---	---	---	---	---	302	---
12	---	---	---	---	---	---	---	599	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	560	---	---	548	---	---	653	---	---	175	---	---
15	---	---	---	---	---	---	---	---	---	---	---	482
16	---	---	613	---	---	---	---	---	530	---	---	---
17	---	---	---	---	---	617	---	---	---	---	---	---
18	---	567	---	---	549	---	---	---	---	---	468	---
19	---	---	---	---	---	---	---	448	---	---	---	---
20	---	---	---	582	---	---	---	---	---	---	---	---
21	591	---	---	---	---	---	626	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	467
23	---	---	---	---	---	---	---	---	373	---	---	---
24	---	---	---	---	---	641	---	---	---	---	---	---
25	---	---	---	---	584	---	---	---	---	---	306	---
26	---	562	---	---	---	---	---	---	---	---	---	---
27	---	---	585	586	---	---	---	442	---	---	---	---
28	581	---	---	---	---	---	517	---	---	421	---	492
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	319	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	20.0	---	---	---	---	27.0
2	---	---	---	---	---	---	---	---	25.0	---	---	---
3	---	---	22.0	---	---	22.0	---	---	---	---	---	---
4	---	24.0	---	---	22.0	---	---	---	---	---	30.0	---
5	---	---	---	---	---	---	---	23.0	---	---	---	---
6	---	---	---	---	---	---	---	---	26.0	---	---	---
7	---	---	---	---	---	---	25.0	---	---	27.0	---	---
8	25.0	---	---	23.0	---	---	---	---	---	---	---	27.0
9	---	---	17.0	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	17.0	---	---	---	---	---	---
11	---	15.0	---	---	17.0	---	---	---	---	---	28.0	---
12	---	---	---	---	---	---	---	26.0	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	25.0	---	---	16.0	---	---	26.0	---	---	24.0	---	---
15	---	---	---	---	---	---	---	---	---	---	---	29.0
16	---	---	17.0	---	---	---	---	---	26.0	---	---	---
17	---	---	---	---	---	19.0	---	---	---	---	---	---
18	---	21.0	---	---	16.0	---	---	---	---	---	28.0	---
19	---	---	---	---	---	---	---	26.0	---	---	---	---
20	---	---	---	22.0	---	---	---	---	---	---	---	---
21	26.0	---	---	---	---	---	24.0	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	27.0
23	---	---	---	---	---	---	---	---	26.0	---	---	---
24	---	---	---	---	---	23.0	---	---	---	---	---	---
25	---	---	---	---	22.0	---	---	---	---	---	27.0	---
26	---	23.0	---	---	---	---	---	---	---	---	---	---
27	---	---	20.0	18.0	---	---	---	25.0	---	---	---	---
28	20.0	---	---	---	---	---	25.0	---	---	26.0	---	25.0
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	25.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

ALAFIA RIVER BASIN

02301000 NORTH PRONG ALAFIA RIVER AT KEYSVILLE, FL--Continued

FLUORIDE, DISSOLVED (MG/L AS F), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	2.4	---	---	---	---	2.8
2	---	---	---	---	---	---	---	---	2.1	---	---	---
3	---	---	3.0	---	---	2.0	---	---	---	---	---	---
4	---	3.1	---	---	2.2	---	---	---	---	---	2.0	---
5	---	---	---	---	---	---	---	2.5	---	---	---	---
6	---	---	---	---	---	---	---	---	2.8	---	---	---
7	---	---	---	---	---	---	2.2	---	---	2.2	---	---
8	3.1	---	---	2.3	---	---	---	---	---	---	---	2.4
9	---	---	2.8	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	2.4	---	---	---	---	---	---
11	---	2.8	---	---	2.0	---	---	---	---	---	1.8	---
12	---	---	---	---	---	---	---	2.4	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	3.0	---	---	2.1	---	---	3.2	---	---	1.1	---	---
15	---	---	---	---	---	---	---	---	---	---	---	2.9
16	---	---	3.5	---	---	---	---	---	2.5	---	---	---
17	---	---	---	---	---	2.6	---	---	---	---	---	---
18	---	3.0	---	---	1.7	---	---	---	---	---	2.5	---
19	---	---	---	---	---	---	---	1.6	---	---	---	---
20	---	---	---	2.4	---	---	---	---	---	---	---	---
21	2.8	---	---	---	---	---	2.7	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	2.8
23	---	---	---	---	---	---	---	---	1.7	---	---	---
24	---	---	---	---	---	3.5	---	---	---	---	---	---
25	---	---	---	---	2.0	---	---	---	---	---	1.6	---
26	---	2.5	---	---	---	---	---	---	---	---	---	---
27	---	---	2.3	2.2	---	---	---	1.9	---	---	---	---
28	2.8	---	---	---	---	---	2.4	---	---	2.4	---	2.9
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	2.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

PHOSPHORUS ORTHOPHOSPHATE, TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	5.0	---	---	---	---	6.5
2	---	---	---	---	---	---	---	---	3.4	---	---	---
3	---	---	5.5	---	---	3.2	---	---	---	---	---	---
4	---	5.9	---	---	6.8	---	---	---	---	---	5.5	---
5	---	---	---	---	---	---	---	1.1	---	---	---	---
6	---	---	---	---	---	---	---	---	6.5	---	---	---
7	---	---	---	---	---	---	4.3	---	---	4.9	---	---
8	6.5	---	---	4.1	---	---	---	---	---	---	---	---
9	---	---	5.2	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	4.9	---	---	---	---	---	---
11	---	5.5	---	---	3.6	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	4.0	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	6.5	---	---	3.8	---	---	8.6	---	---	2.2	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	6.7	---	---	---	---	---	6.0	---	---	---
17	---	---	---	---	---	5.3	---	---	---	---	---	---
18	---	5.5	---	---	3.3	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	3.1	---	---	---	---
20	---	---	---	6.4	---	---	---	---	---	---	---	---
21	7.1	---	---	---	---	---	4.9	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	3.8	---	---	---
24	---	---	---	---	---	5.2	---	---	---	---	---	---
25	---	---	---	---	3.3	---	---	---	---	---	4.1	---
26	---	4.6	---	---	---	---	---	---	---	---	---	---
27	---	---	3.9	3.5	---	---	---	3.1	---	---	---	---
28	5.7	---	---	---	---	---	4.3	---	---	5.5	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	3.4	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

ALAFIA RIVER BASIN

02301300 SOUTH PRONG ALAFIA RIVER NEAR LITHIA, FL

LOCATION.--Lat 27°47'47", long 82°07'04", in SW¼ sec.9, T.31 S., R.22 E., Hillsborough County, Hydrologic Unit 03100204, at right bank, 12 ft upstream from bridge on county road, 1.5 mi upstream from Halls Branch, 5.0 mi southeast of Lithia, and 7.6 mi upstream from mouth.

DRAINAGE AREA.--107 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 40.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 13, 1965, at datum 41.56 ft lower; Oct. 13, 1965, to Apr. 11, 1975, at datum 10.00 ft higher; Nov. 29, 1971, to July 25, 1972, nonrecording gage. Prior to July 25, 1972, at site 12 ft downstream; July 25, 1972, to Dec. 17, 1973, at site 60 ft upstream.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--28 years (1963-91), 99.8 ft^3/s, 72,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft^3/s, Aug. 14, 1967; maximum gage height, 17.93 ft, Sept. 7, 1988; minimum discharge, 0.13 ft^3/s, May 25, 1981; minimum gage height, 9.25 ft, June 4, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 14	1800	*883	*16.47	No other peak greater than base discharge.			

Minimum daily discharge, 10 ft^3/s (estimated), Jan. 3, 4, 5, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	20	16	e12	22	18	46	32	62	143	246	125
2	51	19	15	e11	22	17	46	28	53	153	306	140
3	41	17	16	e10	22	23	41	26	43	143	296	114
4	34	e14	16	e10	22	32	34	24	35	123	267	95
5	32	e13	16	e10	21	29	29	22	32	107	219	85
6	29	e14	15	e11	20	24	30	22	35	102	187	78
7	25	e15	15	e13	20	21	36	21	39	119	162	65
8	23	e14	17	e11	23	20	49	26	36	122	155	55
9	20	15	20	e10	23	30	67	27	29	111	154	55
10	41	27	19	e12	21	57	64	28	26	108	141	58
11	107	31	17	e14	19	54	52	26	23	140	129	58
12	211	28	17	e13	18	43	44	23	20	e280	119	57
13	189	25	17	e12	17	34	37	25	18	e460	109	57
14	149	23	16	e13	16	40	33	30	17	e812	99	59
15	116	22	16	17	16	42	32	31	16	714	94	59
16	89	21	16	48	e14	40	30	27	15	546	88	54
17	72	19	15	56	e12	40	40	26	16	461	77	49
18	54	17	17	48	e12	56	54	30	23	501	60	42
19	44	17	22	37	e12	69	69	28	29	458	56	32
20	38	18	19	32	e12	67	75	27	39	370	60	30
21	34	18	16	29	e12	55	62	28	37	316	60	28
22	33	17	16	26	e14	45	53	29	45	285	61	28
23	32	16	15	23	e13	39	46	40	36	258	64	25
24	30	16	14	21	e11	34	42	53	35	228	65	30
25	29	17	14	23	e12	31	45	94	61	223	100	27
26	28	17	14	24	13	30	67	98	95	214	116	29
27	26	16	13	e21	14	29	66	138	95	190	109	33
28	24	17	13	e20	15	30	57	127	79	177	97	34
29	24	17	14	24	---	29	45	101	75	155	96	34
30	22	16	14	25	---	27	38	76	143	138	90	34
31	21	---	13	23	---	33	---	67	---	169	125	---
TOTAL	1726	556	493	659	468	1138	1429	1380	1307	8326	4007	1669
MEAN	55.7	18.5	15.9	21.3	16.7	36.7	47.6	44.5	43.6	269	129	55.6
MAX	211	31	22	56	23	69	75	138	143	812	306	140
MIN	20	13	13	10	11	17	29	21	15	102	56	25
AC-FT	3420	1100	978	1310	928	2260	2830	2740	2590	16510	7950	3310

CAL YR 1990 TOTAL 13008.2 MEAN 35.6 MAX 211 MIN 3.3 AC-FT 25800
WTR YR 1991 TOTAL 23158 MEAN 63.4 MAX 812 MIN 10 AC-FT 45930

e Estimated

ALAFIA RIVER BASIN

02301300 SOUTH PRONG ALAFIA RIVER NEAR LITHIA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT 30...	1130	10.21	23	280	7.7	20.0	50	8.8	26	13
NOV 19...	1355	10.06	16.2	275	7.1	18.0	--	8.5	--	--
JAN 11...	1215	9.94	14	265	7.3	24.5	--	8.0	--	--
MAY 16...	0934	10.41	30	362	7.2	25.0	50	7.1	32	14
AUG 23...	1400	11.33	64	249	9.6	28.0	--	6.5	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 30...	10	2.7	47	16	0.90	4.5	169	--	<0.010	0.720
NOV 19...	--	--	--	--	--	--	--	0.700	0.010	0.710
JAN 11...	--	--	--	--	--	--	--	--	<0.010	0.940
MAY 16...	20	1.4	75	14	1.4	3.4	228	0.290	0.010	0.300
AUG 23...	--	--	--	--	--	--	--	0.520	0.010	0.530

DATE	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-PHORUS 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)
OCT 30...	0.010	0.51	0.52	0.550	0.540	60	<1	<1	<1	120
NOV 19...	0.010	0.49	0.50	0.530	0.500	--	--	--	--	--
JAN 11...	0.010	0.50	0.51	0.720	0.670	--	--	--	--	--
MAY 16...	0.010	0.49	0.50	1.30	1.20	80	1	<1	<1	130
AUG 23...	0.030	0.87	0.90	1.30	1.20	--	--	--	--	--

ALAFIA RIVER BASIN

02301300 SOUTH PRONG ALAFIA RIVER NEAR LITHIA, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
30...	60	<1	<1	10	10	0.10	<1	90	<10	7.9
MAY										
16...	60	<1	<1	10	10	<0.10	<1	150	10	9.5

ALAFIA RIVER BASIN

02301300 SOUTH PRONG ALAFIA RIVER NEAR LITHIA, FL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	334	---	---	---	---	208
2	---	---	---	---	---	---	---	---	322	---	---	---
3	---	---	293	---	---	275	---	---	---	---	---	---
4	---	285	---	---	300	---	---	---	---	---	214	---
5	---	---	---	---	---	---	---	385	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	347	---	---	---	---	---
8	288	---	---	280	---	---	---	---	---	267	---	269
9	---	---	300	---	---	---	---	---	298	---	---	---
10	---	---	---	---	---	261	---	---	---	---	---	---
11	---	273	---	---	298	---	---	---	---	---	279	---
12	---	---	---	---	---	---	---	345	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	237	---	---	281	---	---	372	---	---	129	---	---
15	---	---	---	---	---	---	---	332	---	---	---	327
16	---	---	298	---	---	---	---	---	315	---	---	---
17	---	---	---	---	---	292	---	---	---	---	---	---
18	---	290	---	---	293	---	---	---	---	---	301	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	343	---	---	---	---	---	---	---	---
21	266	---	---	---	---	---	313	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	289
23	---	---	---	---	---	---	---	---	276	---	---	---
24	---	---	---	---	---	337	---	---	---	---	---	---
25	---	---	---	---	288	---	---	---	---	---	229	---
26	---	285	---	---	---	---	---	---	---	---	---	---
27	---	---	295	310	---	---	---	214	---	---	---	---
28	283	---	---	---	---	---	309	---	---	262	---	---
29	---	---	---	---	---	---	---	---	---	---	---	287
30	---	---	---	---	---	---	---	---	202	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	19.0	---	---	---	---	26.0
2	---	---	---	---	---	---	---	---	25.0	---	---	---
3	---	---	22.0	---	---	22.0	---	---	---	---	---	---
4	---	24.0	---	---	22.0	---	---	---	---	---	27.0	---
5	---	---	---	---	---	---	---	25.0	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	24.0	---	---	28.0	---	---
8	25.0	---	---	23.0	---	---	---	---	---	---	---	28.0
9	---	---	16.0	---	---	---	---	---	25.0	---	---	---
10	---	---	---	---	---	16.0	---	---	---	---	---	---
11	---	18.0	---	---	17.0	---	---	---	---	---	28.0	---
12	---	---	---	---	---	---	---	25.0	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	26.0	---	---	15.0	---	---	23.0	---	---	24.0	---	---
15	---	---	---	---	---	---	---	25.0	---	---	---	28.0
16	---	---	18.0	---	---	---	---	---	27.0	---	---	---
17	---	---	---	---	---	24.0	---	---	---	---	---	---
18	---	18.0	---	---	15.0	---	---	---	---	---	26.0	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	21.0	---	---	---	---	---	---	---	---
21	26.0	---	---	---	---	---	22.0	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	28.0
23	---	---	---	---	---	---	---	---	26.0	---	---	---
24	---	---	---	---	---	22.0	---	---	---	---	---	---
25	---	---	---	---	20.0	---	---	---	---	---	28.0	---
26	---	22.0	---	---	---	---	---	---	---	---	---	---
27	---	---	19.0	17.0	---	---	---	25.0	---	---	---	---
28	22.0	---	---	---	---	---	25.0	---	---	26.0	---	---
29	---	---	---	---	---	---	---	---	---	---	---	25.0
30	---	---	---	---	---	---	---	---	25.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

ALAFIA RIVER BASIN

02301300 SOUTH PRONG ALAFIA RIVER NEAR LITHIA, FL--Continued

FLUORIDE, DISSOLVED (MG/L AS F), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.1	---	---	---	---	1.2
2	---	---	---	---	---	---	---	---	1.4	---	---	---
3	---	---	.90	---	---	.72	---	---	---	---	---	---
4	---	1.00	---	---	.85	---	---	---	---	---	1.2	---
5	---	---	---	---	---	---	---	1.6	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	1.2	---	---	1.4	---	---
8	.97	---	---	.94	---	---	---	---	---	---	---	1.1
9	---	---	.94	---	---	---	---	---	1.2	---	---	---
10	---	---	---	---	---	.64	---	---	---	---	---	---
11	---	.90	---	---	.85	---	---	---	---	---	1.6	---
12	---	---	---	---	---	---	---	1.3	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	.90	---	---	.82	---	---	1.4	---	---	.74	---	---
15	---	---	---	---	---	---	---	1.2	---	---	---	1.9
16	---	---	.87	---	---	---	---	---	1.2	---	---	---
17	---	---	---	---	---	.82	---	---	---	---	---	---
18	---	.94	---	---	.78	---	---	---	---	---	1.7	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	.82	---	---	---	---	---	---	---	---
21	.94	---	---	---	---	---	1.4	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	1.4
23	---	---	---	---	---	---	---	---	.88	---	---	---
24	---	---	---	---	---	1.1	---	---	---	---	---	---
25	---	---	---	---	.76	---	---	---	---	---	1.0	---
26	---	.90	---	---	---	---	---	---	---	---	---	---
27	---	---	.90	.82	---	---	---	.77	---	---	---	---
28	.97	---	---	---	---	---	1.4	---	---	1.6	---	---
29	---	---	---	---	---	---	---	---	---	---	---	1.4
30	---	---	---	---	---	---	---	---	.81	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

PHOSPHORUS ORTHOPHOSPHATE, TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.89	---	---	---	---	1.0
2	---	---	---	---	---	---	---	---	.98	---	---	---
3	---	---	.57	---	---	.55	---	---	---	---	---	---
4	---	.50	---	---	.56	---	---	---	---	---	1.4	---
5	---	---	---	---	---	---	---	1.5	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	.96	---	---	1.0	---	---
8	.61	---	---	.68	---	---	---	---	---	---	---	---
9	---	---	.52	---	---	---	---	---	.92	---	---	---
10	---	---	---	---	---	.50	---	---	---	---	---	---
11	---	.58	---	---	.52	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	1.2	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	.65	---	---	.63	---	---	1.3	---	---	1.0	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	.45	---	---	---	---	---	.82	---	---	---
17	---	---	---	---	---	.56	---	---	---	---	---	---
18	---	.50	---	---	.45	---	---	---	---	---	1.6	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	.46	---	---	---	---	---	---	---	---
21	.63	---	---	---	---	---	1.1	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	.76	---	---	---
24	---	---	---	---	---	.78	---	---	---	---	---	---
25	---	---	---	---	.53	---	---	---	---	---	1.4	---
26	---	.52	---	---	---	---	---	---	---	---	---	---
27	---	---	.57	.50	---	---	---	.81	---	---	---	---
28	.55	---	---	---	---	---	1.2	---	---	1.5	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	.60	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

ALAFIA RIVER BASIN

02301500 ALAFIA RIVER AT LITHIA, FL
(National stream quality accounting network station)

LOCATION.--Lat 27°52'19", long 82°12'41", in NE¼ sec.16, T.30 S., R.21 E., Hillsborough County, Hydrologic Unit 03100204, near center of span on downstream side of bridge on State Highway 640, 2.0 mi upstream from Little Fishhawk Creek, 4.3 mi west of Lithia, and 16 mi upstream from mouth.

DRAINAGE AREA.--335 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1932 to current year. Monthly discharge only prior to February 1933, published in WSP 1304.

REVISED RECORDS.--WSP 782: 1933(M). WSP 1234: Drainage area. WSP 1274: 1933-35, 1939, 1945, 1947-50.

GAGE.--Water-stage recorder. Datum of gage is 7.00 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 8, 1939, nonrecording gage at site 200 ft upstream; Aug. 8, 1939, to Sept. 5, 1963, water-stage recorder at site 60 ft downstream; Sept. 6, 1963, to Oct. 14, 1965, water-stage recorder at site 50 ft downstream. Prior to Oct. 14, 1965, at datum 2.86 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--59 years, 344 ft^3/s, 13.94 in/yr, 249,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,900 ft^3/s, Sept. 7, 1933, gage height, 28.5 ft, present datum, from floodmarks, from rating curve extended above 21,000 ft^3/s; minimum, 6.6 ft^3/s, June 5, 6, 1945, gage height, 1.95 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 15	1500	*4,360	*16.82	Aug. 2	1200	1,960	12.88

Minimum daily discharge, 39 ft^3/s, Jan. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	54	42	42	64	57	111	107	412	579	1260	357
2	115	50	40	42	60	60	110	138	450	901	1900	642
3	95	46	40	41	61	79	97	145	311	1110	1600	493
4	85	43	41	42	63	149	90	102	278	1010	1100	335
5	104	41	41	43	60	126	87	88	234	784	740	308
6	110	40	40	41	59	87	103	83	384	588	572	309
7	93	41	40	42	59	71	220	85	316	519	482	272
8	82	41	41	40	59	66	128	83	273	499	442	260
9	73	41	43	40	60	69	174	85	199	389	399	254
10	106	45	43	40	59	99	155	84	160	323	378	259
11	263	50	43	41	58	104	127	84	136	301	469	242
12	427	48	43	40	57	99	113	82	122	406	505	229
13	340	46	41	39	56	90	101	82	111	1000	445	226
14	265	45	41	39	57	112	94	84	104	e2340	416	198
15	207	44	41	40	58	114	89	88	e120	e4120	348	188
16	169	47	41	76	57	104	86	86	e130	3800	307	173
17	144	43	42	95	57	102	87	87	e150	2900	278	167
18	129	41	42	76	57	141	105	106	186	2380	260	166
19	117	41	43	64	57	247	107	100	235	2080	267	143
20	100	41	45	60	57	190	124	115	200	1350	294	130
21	92	43	45	57	56	147	119	116	216	1010	345	124
22	86	41	43	55	57	121	106	126	271	787	342	118
23	84	41	43	52	54	105	98	131	272	640	311	118
24	79	44	43	52	53	96	97	162	193	583	331	118
25	74	47	44	55	51	91	109	248	209	657	481	118
26	70	44	46	65	52	85	254	283	262	615	536	120
27	67	43	46	63	54	83	236	352	259	713	464	124
28	64	43	43	60	55	80	166	367	235	588	394	120
29	59	45	44	59	---	79	126	324	207	512	360	118
30	56	44	43	60	---	79	108	235	309	523	345	118
31	54	---	43	64	---	86	---	231	---	689	396	---
TOTAL	3941	1323	1316	1625	1607	3218	3727	4489	6944	34696	16767	6547
MEAN	127	44.1	42.5	52.4	57.4	104	124	145	231	1119	541	218
MAX	427	54	46	95	64	247	254	367	450	4120	1900	642
MIN	54	40	40	39	51	57	86	82	104	301	260	118
AC-FT	7820	2620	2610	3220	3190	6380	7390	8900	13770	68820	33260	12990
CFSM	.38	.13	.13	.16	.17	.31	.37	.43	.69	3.34	1.61	.65
IN.	.44	.15	.15	.18	.18	.36	.41	.50	.77	3.85	1.86	.73

CAL YR 1990 TOTAL 40938 MEAN 112 MAX 630 MIN 25 AC-FT 81200 CFSM .33 IN. 4.55
WTR YR 1991 TOTAL 86200 MEAN 236 MAX 4120 MIN 39 AC-FT 171000 CFSM .70 IN. 9.57

e Estimated

ALAFIA RIVER BASIN

02301500 ALAFIA RIVER AT LITHIA, FL--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	SAMPLING DEPTH (FEET)	GAGE HEIGHT (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)
OCT											
25...	1024	--	2.94	--	75	417	7.6	23.5	50	--	7.4
DEC											
10...	1417	--	2.86	--	44	426	8.0	14.0	--	1.0	10.5
10...	1418	0.50	--	--	--	425	8.0	14.5	--	--	10.8
10...	1419	0.50	--	--	--	426	8.0	14.0	--	--	10.5
10...	1420	0.50	--	--	--	426	8.0	14.5	--	--	10.5
MAR											
11...	1054	1.00	3.39	--	--	385	7.0	16.5	--	2.0	9.2
11...	1055	1.00	3.39	26.0	--	383	7.2	16.5	--	--	9.1
APR											
26...	1015	3.00	4.81	--	265	335	7.0	22.5	60	--	6.6
MAY											
20...	1315	--	--	--	--	--	--	--	--	--	--
JUL											
16...	1240	--	16.17	--	--	--	--	--	--	--	--
17...	1400	--	14.58	--	2400	262	6.8	25.5	--	6.3	5.1
AUG											
15...	1130	--	--	--	--	--	--	--	--	--	--
SEP											
03...	1055	--	--	37.0	--	269	6.9	26.5	--	4.0	5.7
03...	1056	--	--	32.0	--	271	6.9	26.5	--	--	5.8
03...	1057	--	--	24.0	--	271	6.9	26.0	--	--	5.9
03...	1058	--	--	17.0	--	270	6.9	26.0	--	--	5.8
03...	1059	--	--	10.0	--	269	6.9	26.0	--	--	6.0
03...	1115	--	6.68	--	488	270	6.9	26.0	--	--	5.8
17...	1330	--	3.73	--	167	428	7.6	27.2	--	--	6.1

DATE	BOD OXYGEN DEMAND, BIOCHEM CARBON. 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT											
25...	--	--	--	41	14	25	2.9	--	77	24	1.8
DEC											
10...	--	41	50	42	15	26	2.4	110	83	21	2.0
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
11...	--	K27	K30	36	13	23	4.3	50	73	32	1.2
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
26...	--	--	--	27	10	24	2.8	--	54	23	1.2
MAY											
20...	--	--	--	--	--	--	--	--	--	23	--
JUL											
16...	2.1	--	--	--	--	--	--	--	--	10	--
17...	--	220	1300	21	6.6	14	3.0	--	41	15	1.5
AUG											
15...	0.8	--	--	--	--	--	--	--	--	23	--
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	430	440	22	8.1	15	2.5	53	43	17	1.3
17...	0.7	--	--	--	--	--	--	--	--	21	--

ALAFIA RIVER BASIN

02301500 ALAFIA RIVER AT LITHIA, FL--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT											
25...	12	273	--	--	<0.010	--	0.800	--	0.010	--	0.67
DEC											
10...	10	259	--	1.09	0.010	<0.010	1.10	1.00	0.010	<0.010	0.59
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
11...	7.5	248	--	0.920	0.050	0.041	0.970	1.00	0.120	0.080	0.58
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
26...	6.2	216	--	0.610	0.010	--	0.620	--	0.060	--	1.1
MAY											
20...	--	--	--	0.500	0.010	--	0.510	--	0.010	--	0.53
JUL											
16...	5.3	--	6	0.370	0.020	0.020	0.390	0.390	0.080	0.070	1.2
17...	6.2	185	--	0.380	0.030	0.030	0.410	0.410	0.110	0.100	1.4
AUG											
15...	--	--	8	--	E0.010	<0.010	E0.440	E0.420	E0.030	E0.020	--
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	7.8	172	--	0.400	0.010	<0.010	0.410	0.420	0.030	0.020	0.97
17...	10	--	5	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
OCT											
25...	0.68	--	3.30	--	2.80	--	120	--	2	--	--
DEC											
10...	0.60	--	3.10	3.20	3.20	3.10	--	20	--	3	3
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
11...	0.70	--	2.50	2.40	2.30	1.70	--	60	--	2	2
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
26...	1.2	--	2.60	--	1.90	--	660	--	1	--	--
MAY											
20...	0.54	--	1.60	--	1.50	--	--	--	--	--	--
JUL											
16...	1.3	1.1	2.20	2.00	2.10	1.90	--	--	--	--	--
17...	1.5	1.1	2.90	2.30	3.00	2.70	--	190	--	3	3
AUG											
15...	E0.61	E0.41	--	E2.70	E3.70	E3.60	--	--	--	--	--
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	1.0	--	2.50	2.00	1.90	1.80	--	150	--	2	<2
17...	--	--	--	--	--	--	--	--	--	--	--

ALAFIA RIVER BASIN

02301500 ALAFIA RIVER AT LITHIA, FL--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)
OCT											
25...	--	<1	--	--	--	2	170	100	<1	<1	--
DEC											
10...	<0.5	--	<1.0	1	<3	1	--	24	--	<1	<4
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
11...	<0.5	--	<1.0	<1	<3	2	--	110	--	<1	<4
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
26...	--	<1	--	--	--	2	680	140	<1	<1	--
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
JUL											
16...	--	--	--	--	--	--	--	--	--	--	--
17...	<0.5	--	<1.0	<1	<3	3	--	320	--	4	<4
AUG											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	<0.5	--	<1.0	1	<3	2	--	330	--	<1	<4
17...	--	--	--	--	--	--	--	--	--	--	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
OCT											
25...	<10	<10	0.80	--	--	<1	--	--	--	190	--
DEC											
10...	--	1	--	<0.1	20	--	<1	2	<1.0	200	<6
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
11...	--	5	--	<0.1	<10	--	1	<1	<1.0	130	<6
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
26...	60	30	<0.10	--	--	3	--	--	--	90	--
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
JUL											
16...	--	--	--	--	--	--	--	--	--	--	--
17...	--	13	--	<0.1	<10	--	3	<2	<1.0	65	<6
AUG											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	16	--	<0.1	<10	--	<1	<1	<1.0	81	<6
17...	--	--	--	--	--	--	--	--	--	--	--

ALAFIA RIVER BASIN

02301500 ALAFIA RIVER AT LITHIA, FL--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CHLORO-PHYLL A PHYTO-PLANK-TON, UNCORR. (UG/L)	CHLORO-PHYLL B PHYTO-PLANK-TON, UNCORR. (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
25...	<10	8.2	--	--	--	--	--
DEC							
10...	5	--	--	--	--	5	20
10...	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--
MAR							
11...	13	--	--	--	--	2	100
11...	--	--	--	--	--	--	--
APR							
26...	20	8.0	--	--	--	--	--
MAY							
20...	--	--	--	--	--	--	--
JUL							
16...	--	20	21	3.10	1.00	--	--
17...	31	--	--	--	--	11	73
AUG							
15...	--	16	16	2.80	0.200	--	--
SEP							
03...	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--
03...	9	--	--	--	--	27	59
17...	--	13	13	2.30	0.060	--	--

ALAFIA RIVER BASIN

02301600 LITHIA SPRINGS NEAR LITHIA, FL

LOCATION.--Lat 27°52'00", long 82°13'50", in SW¼ sec.17, T.30 S., R.21 E., Hillsborough County, Hydrologic Unit 03100204, 500 ft upstream from Alafia River, and 5.3 mi northwest of Lithia.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1934, 1935, 1941, 1943, 1946, 1954, 1960 (one discharge measurement in each year); April 1956 to September 1958; June 1966 to current year (discharge measurements only).

GAGE.--Nonrecording gage.

REMARKS.--Total discharge of springs consists of discharge from a major spring and a minor spring into the Alafia River through separate runs and diversion by pumpage from the major spring pool. Discharge is affected by backwater from the Alafia River during medium and high stages. Results of miscellaneous temperature observations prior to October 1977 are available in files of the Geological Survey.

COOPERATION.--Diversion figures were provided by Gardinier, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 83 ft^3/s, Oct. 3, 1967; minimum measured, 6.2 ft^3/s, Feb. 8, 1989.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Time	Major Spring Instantaneous Discharge (cfs)	Time	Minor Spring Instantaneous Discharge (cfs)	Total Flow Measured (cfs)	Diversion by Pumping (cfs)
Feb. 28	1455	21.1	1550	9.21	30.3	2.2
Apr. 26	1141	18.7	1235	5.28	24.0	2.0
Aug. 16	1250	51.6	1155	9.93	61.5	3.0

ALAFIA RIVER BASIN

02301600 LITHIA SPRINGS NEAR LITHIA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1946, 1956-58, 1960, 1965, 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, NITRATE TOTAL (MG/L AS N)
OCT							
25...	1140	458	7.6	24.5	2.9	--	2.89
APR							
26...	1141	437	--	24.0	2.1	--	--
AUG							
16...	1200	515	--	--	--	27	--

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA 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)
OCT							
25...	0.010	2.90	0.010	<0.20	0.060	0.060	0.8
APR							
26...	<0.010	2.80	<0.010	<0.20	0.060	0.060	<0.1

ALAFIA RIVER BASIN

02301600 LITHIA SPRINGS NEAR LITHIA, FL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	453	---	---	---	---	512
2	---	---	---	---	---	---	---	---	456	---	---	---
3	---	---	466	---	---	463	---	---	---	---	---	---
4	---	464	---	---	463	---	---	---	---	---	490	---
5	---	---	---	---	---	---	---	455	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	452	---	---	473	---	---
8	464	---	---	450	---	---	---	---	---	---	---	503
9	---	---	458	---	---	---	---	---	456	---	---	---
10	---	---	---	---	---	435	---	---	---	---	---	---
11	---	466	---	---	459	---	---	---	---	---	500	---
12	---	---	---	---	---	---	---	448	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	470	---	---	447	---	---	452	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	503
16	---	---	466	---	---	---	---	---	469	---	---	---
17	---	---	---	---	---	441	---	---	---	---	---	---
18	---	456	---	---	448	---	---	---	---	---	507	---
19	---	---	---	---	---	---	---	442	---	---	---	---
20	---	---	---	454	---	---	---	---	---	---	---	---
21	464	---	---	---	---	---	449	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	501
23	---	---	---	---	---	---	---	---	471	---	---	---
24	---	---	---	---	---	449	---	---	---	---	---	---
25	---	---	---	---	443	---	---	---	---	---	507	---
26	---	467	---	---	---	---	---	---	---	---	---	---
27	---	---	458	453	---	---	451	448	---	---	---	---
28	468	---	---	---	---	---	---	---	---	486	---	---
29	---	---	---	---	---	---	---	---	---	---	---	502
30	---	---	---	---	---	---	---	---	479	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	25.0	---	---	---	---	25.0
2	---	---	---	---	---	---	---	---	25.0	---	---	---
3	---	---	25.0	---	---	26.0	---	---	---	---	---	---
4	---	25.0	---	---	26.0	---	---	---	---	---	26.0	---
5	---	---	---	---	---	---	---	24.0	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	25.0	---	---	25.0	---	---
8	24.0	---	---	23.0	---	---	---	---	---	---	---	26.0
9	---	---	23.0	---	---	---	---	---	25.0	---	---	---
10	---	---	---	---	---	23.0	---	---	---	---	---	---
11	---	23.0	---	---	25.0	---	---	---	---	---	26.0	---
12	---	---	---	---	---	---	---	25.0	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	25.0	---	---	23.0	---	---	25.0	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	25.0
16	---	---	25.0	---	---	---	---	---	26.0	---	---	---
17	---	---	---	---	---	25.0	---	---	---	---	---	---
18	---	24.0	---	---	25.0	---	---	---	---	---	27.0	---
19	---	---	---	---	---	---	---	25.0	---	---	---	---
20	---	---	---	25.0	---	---	---	---	---	---	---	---
21	26.0	---	---	---	---	---	25.0	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	25.0
23	---	---	---	---	---	---	---	---	25.0	---	---	---
24	---	---	---	---	---	25.0	---	---	---	---	---	---
25	---	---	---	---	25.0	---	---	---	---	---	27.0	---
26	---	25.0	---	---	---	---	---	---	---	---	---	---
27	---	---	25.0	25.0	---	---	25.0	25.0	---	---	---	---
28	25.0	---	---	---	---	---	---	---	---	25.0	---	---
29	---	---	---	---	---	---	---	---	---	---	---	25.0
30	---	---	---	---	---	---	---	---	25.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

ALAFIA RIVER BASIN

02301600 LITHIA SPRINGS NEAR LITHIA, FL--Continued

FLUORIDE, DISSOLVED (MG/L AS F), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.27	---	---	---	---	.28
2	---	---	---	---	---	---	---	---	.23	---	---	---
3	---	---	.28	---	---	.24	---	---	---	---	---	---
4	---	.28	---	---	.26	---	---	---	---	---	.27	---
5	---	---	---	---	---	---	---	.22	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	.28	---	---	.25	---	---
8	.29	---	---	.27	---	---	---	---	---	---	---	.27
9	---	---	.28	---	---	---	---	---	.23	---	---	---
10	---	---	---	---	---	.25	---	---	---	---	---	---
11	---	.28	---	---	.27	---	---	---	---	---	.27	---
12	---	---	---	---	---	---	---	.22	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	.30	---	---	.23	---	---	.25	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	.26
16	---	---	.28	---	---	---	---	---	.24	---	---	---
17	---	---	---	---	---	.26	---	---	---	---	---	---
18	---	.28	---	---	.25	---	---	---	---	---	.27	---
19	---	---	---	---	---	---	---	.22	---	---	---	---
20	---	---	---	.25	---	---	---	---	---	---	---	---
21	.29	---	---	---	---	---	.25	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	.26
23	---	---	---	---	---	---	---	---	.25	---	---	---
24	---	---	---	---	---	.26	---	---	---	---	---	---
25	---	---	---	---	.25	---	---	---	---	---	.26	---
26	---	.28	---	---	---	---	---	---	---	---	---	---
27	---	---	.28	.25	---	---	.24	.22	---	---	---	---
28	.29	---	---	---	---	---	---	---	---	.28	---	---
29	---	---	---	---	---	---	---	---	---	---	---	.31
30	---	---	---	---	---	---	---	---	.25	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

PHOSPHORUS ORTHOPHOSPHATE, TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.05	---	---	---	---	.07
2	---	---	---	---	---	---	---	---	.04	---	---	---
3	---	---	.06	---	---	.05	---	---	---	---	---	---
4	---	.05	---	---	.05	---	---	---	---	---	.09	---
5	---	---	---	---	---	---	---	.04	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	.06	---	---	.05	---	---
8	.05	---	---	.05	---	---	---	---	---	---	---	---
9	---	---	.05	---	---	---	---	---	.05	---	---	---
10	---	---	---	---	---	.06	---	---	---	---	---	---
11	---	.06	---	---	.04	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	.05	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	.09	---	---	.05	---	---	.05	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	.05	---	---	---	---	---	.05	---	---	---
17	---	---	---	---	---	.05	---	---	---	---	---	---
18	---	.05	---	---	.05	---	---	---	---	---	.06	---
19	---	---	---	---	---	---	---	.05	---	---	---	---
20	---	---	---	.06	---	---	---	---	---	---	---	---
21	.05	---	---	---	---	---	.05	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	.05	---	---	---
24	---	---	---	---	---	.05	---	---	---	---	---	---
25	---	---	---	---	.05	---	---	---	---	---	---	---
26	---	.07	---	---	---	---	---	---	---	---	---	---
27	---	---	.06	.05	---	---	.05	.05	---	---	---	---
28	.06	---	---	---	---	---	---	---	---	.08	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	.05	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

ALAFIA RIVER BASIN

02301695 BUCKHORN CREEK NEAR BRANDON, FL

LOCATION.--Lat 27°53'36", long 82°17'55", in SW¼ sec.3, T.30 S., R.20 E., Hillsborough County, Hydrologic Unit 03100204, near center of span on upstream side of bridge on Bloomingdale Road, 0.3 mi west of Kings Avenue, 0.9 mi upstream from mouth, 1.2 mi east of Providence Road, and 3.2 mi southwest of Brandon.

DRAINAGE AREA.--7.12 mi^2.

PERIOD OF RECORD.--1985 (miscellaneous discharge measurements only); October 1985 to September 1991 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 7.02 ft above National Geodetic Vertical Datum of 1929 (levels by Southwest Florida Water Management District).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--6 years (water years 1986-91), 6.00 ft^3/s, 11.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 846 ft^3/s, Sept. 7, 1988, gage height, 10.80 ft; no flow for many days in 1989, creek observed dry May 22, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 139 ft^3/s, July 13, gage height, 8.33 ft; minimum daily discharge, 0.31 ft^3/s, Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.0	e2.6	1.0	.51	2.0	.71	5.6	4.3	12	18	e20	20
2	e2.0	e2.4	.76	.44	1.7	.59	4.0	7.0	12	36	e40	17
3	e1.9	e2.6	.69	.42	1.6	5.2	3.3	5.2	10	27	e30	15
4	e2.0	e2.4	.54	.40	1.5	4.7	3.2	3.9	8.4	19	e20	13
5	e1.9	e2.2	.57	.37	1.2	2.5	4.1	3.4	13	14	e16	10
6	e1.8	e2.1	.62	.33	1.1	1.8	6.1	3.0	10	11	e18	8.4
7	e1.7	e2.0	.65	.34	1.2	1.4	5.5	2.8	8.3	9.5	e14	8.2
8	e1.7	e2.0	.79	.33	1.2	1.2	5.4	2.5	6.7	8.7	e12	7.6
9	e2.0	e2.2	.75	.31	1.0	2.2	4.2	4.4	5.6	6.9	e10	7.5
10	16	e2.4	.64	.34	.77	2.6	3.4	7.0	4.9	6.5	e9.0	6.5
11	30	e2.4	.61	.35	.69	1.9	3.1	5.3	4.1	6.0	e8.5	5.9
12	28	e2.2	.56	1.0	.67	1.4	2.7	3.9	3.8	8.9	e8.0	5.0
13	19	e2.2	.54	1.1	.62	2.5	2.5	3.3	3.1	47	e7.5	4.5
14	e14	e2.4	.54	.94	1.2	5.0	2.4	3.9	2.5	e35	e7.0	4.1
15	e11	e2.2	.54	8.1	1.9	3.2	2.4	3.4	13	e40	e7.0	3.7
16	e9.0	e2.0	.51	7.4	1.4	2.5	2.5	9.3	23	e18	e15	3.4
17	e7.5	1.9	.52	3.7	1.3	2.4	2.9	19	12	e16	e9.0	3.3
18	e6.5	1.5	.54	2.4	1.3	5.2	3.9	17	8.6	e14	e10	3.1
19	e6.0	1.2	.54	1.8	1.4	5.5	2.9	12	7.5	e13	e12	3.3
20	e5.8	1.2	.55	2.2	1.3	3.7	3.8	11	6.7	e12	e15	4.3
21	e5.8	1.1	.52	2.0	1.3	2.8	4.0	7.9	6.2	e12	e20	3.8
22	e5.6	1.1	.49	1.7	1.5	2.2	2.9	7.6	8.0	e11	e18	3.4
23	e5.4	1.1	.47	1.5	1.5	2.2	2.7	7.7	5.9	e10	e30	3.1
24	e5.2	2.1	.51	1.4	1.1	2.5	3.8	11	7.4	e10	e35	2.8
25	e5.0	2.1	.54	3.3	.83	2.5	6.9	19	9.5	e14	e20	3.1
26	e4.5	1.8	.49	3.5	1.1	2.7	12	13	11	e12	e16	3.3
27	e4.0	1.4	.47	2.6	.90	2.8	8.8	11	8.8	e12	e14	2.6
28	e3.6	1.2	.56	1.9	.81	2.8	6.7	9.7	6.5	e18	e12	2.1
29	e3.4	1.3	.59	1.7	---	2.7	5.3	11	5.2	e14	e10	1.8
30	e3.4	1.2	.58	1.7	---	2.9	5.0	13	7.9	e14	e9.0	1.5
31	e3.0	---	.54	2.4	---	5.1	---	15	---	e16	30	---
TOTAL	218.7	56.5	18.22	56.48	34.09	87.40	132.0	257.5	251.6	509.5	502.0	181.3
MEAN	7.05	1.88	.59	1.82	1.22	2.82	4.40	8.31	8.39	16.4	16.2	6.04
MAX	30	2.6	1.0	8.1	2.0	5.5	12	19	23	47	40	20
MIN	1.7	1.1	.47	.31	.62	.59	2.4	2.5	2.5	6.0	7.0	1.5
CFSM	.99	.26	.08	.26	.17	.40	.62	1.17	1.18	2.31	2.27	.85
IN.	1.14	.30	.10	.30	.18	.46	.69	1.35	1.31	2.66	2.62	.95

CAL YR 1990 TOTAL 1533.71 MEAN 4.20 MAX 45 MIN .16 CFSM .59 IN. 8.01
WTR YR 1991 TOTAL 2305.29 MEAN 6.32 MAX 47 MIN .31 CFSM .89 IN. 12.04

e Estimated

ALAFIA RIVER BASIN

02301706 ALAFIA RIVER NEAR RIVERVIEW, FL

WATER-QUALITY RECORDS

LOCATION.--Lat 27°52'57", long 82°18'36", in SE¼ sec.9, T.30 S., R.20 E., Hillsborough County, Hydrologic Unit 03100204, on left bank, at private residence on Monette Road, 1.2 mi northeast of Riverview, and 7.5 mi above mouth.

DRAINAGE AREA.--405 mi^2.

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year (incomplete).
WATER TEMPERATURE: October 1983 to current year (incomplete).

INSTRUMENTATION.--Water-quality monitor since October 1983.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments. Extremes may have been exceeded during periods of missing record.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,800 microsiemens, Apr. 25, 1986; minimum, 100 microsiemens, May 15-18, 1987.
WATER TEMPERATURE: Maximum, 31.0°C, June 4, 1987; minimum, 11.5°C, Jan. 2, 1984.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 33,000 microsiemens, May 6; minimum, 116 microsiemens, July 15.
WATER TEMPERATURE: Maximum, 28.0°C, May 4-6, 8-12; minimum, 20.9°C, Oct. 30.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3700	8000	---	---	---	---	---	---	425	345	217	270
2	3000	10500	---	---	---	---	---	---	306	192	187	267
3	2400	10600	---	---	---	---	---	12000	384	206	217	223
4	2900	13500	---	---	---	---	---	27400	403	242	256	310
5	2000	15400	---	---	---	---	---	32600	399	284	270	345
6	1800	17500	---	---	---	---	---	33000	419	303	296	369
7	1600	7100	---	---	---	---	---	30700	363	327	317	363
8	1900	5400	---	---	---	---	---	27800	411	328	339	369
9	2700	22900	---	---	---	---	---	29000	437	368	351	373
10	3400	15300	---	---	---	---	---	28500	465	489	358	354
11	1800	5300	---	---	---	---	---	26500	8430	398	370	382
12	300	4900	---	---	---	---	---	21500	15500	387	326	415
13	300	5900	---	---	---	---	---	17500	16900	309	370	402
14	300	14500	---	---	---	---	---	11900	18300	121	350	407
15	400	10500	---	---	---	---	---	10900	12100	116	382	444
16	400	12900	---	---	---	---	---	12800	493	164	407	427
17	400	8100	---	---	---	---	---	12100	453	218	391	805
18	600	9000	---	---	---	---	---	9300	458	222	396	13200
19	600	12600	---	---	---	---	---	14400	407	239	386	3440
20	900	9700	---	---	---	---	---	10100	409	260	389	498
21	1900	9600	---	---	---	---	---	20600	409	266	381	461
22	2900	10800	---	---	---	---	---	25000	381	290	372	470
23	3700	14200	---	---	---	---	---	30700	385	314	383	471
24	3100	15600	---	---	---	---	---	29300	347	320	384	469
25	4000	8100	---	---	---	---	---	6700	780	320	357	601
26	4300	6000	---	---	---	---	---	421	379	308	287	470
27	1800	11900	---	---	---	---	---	339	380	309	350	473
28	2200	---	---	---	---	---	---	302	385	313	338	476
29	4200	---	---	---	---	---	---	332	422	333	343	502
30	4900	---	---	---	---	---	---	363	438	340	369	488
31	6000	---	---	---	---	---	---	404	---	318	258	---
MAX	6000	---	---	---	---	---	---	---	18300	489	407	13200

ALAFIA RIVER BASIN

02301706 ALAFIA RIVER NEAR RIVERVIEW, FL--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.4	---	---	---	---	---	---	---	24.5	26.2	24.5	25.7
2	24.6	---	---	---	---	---	---	---	24.1	24.5	25.3	25.7
3	24.7	---	---	---	---	---	---	26.2	24.9	25.3	26.2	25.7
4	24.9	---	---	---	---	---	---	28.0	25.7	25.7	26.6	26.2
5	25.3	---	---	---	---	---	---	28.0	25.7	26.2	26.6	26.2
6	25.7	---	---	---	---	---	---	28.0	25.3	26.6	27.1	26.6
7	25.6	---	---	---	---	---	---	27.6	24.5	27.1	27.1	26.6
8	25.5	---	---	---	---	---	---	28.0	24.5	26.6	27.1	26.6
9	25.2	---	---	---	---	---	---	28.0	24.9	26.6	27.6	26.2
10	25.0	---	---	---	---	---	---	28.0	25.7	26.2	27.6	26.2
11	24.9	---	---	---	---	---	---	28.0	25.7	26.2	27.6	26.2
12	24.7	---	---	---	---	---	---	28.0	25.7	25.3	27.6	25.7
13	24.7	---	---	---	---	---	---	27.6	25.7	24.5	27.6	26.2
14	24.6	---	---	---	---	---	---	26.2	25.7	23.3	26.6	26.2
15	24.3	---	---	---	---	---	---	26.2	25.7	23.7	26.6	26.6
16	24.4	---	---	---	---	---	---	26.2	26.2	24.5	26.2	26.6
17	24.6	---	---	---	---	---	---	25.7	26.6	25.7	26.6	26.6
18	24.7	---	---	---	---	---	---	25.7	26.2	25.3	26.2	26.6
19	24.7	---	---	---	---	---	---	26.2	25.3	26.2	26.2	26.2
20	24.9	---	---	---	---	---	---	25.7	25.7	26.2	26.2	26.2
21	24.9	---	---	---	---	---	---	26.6	26.2	26.6	25.7	26.2
22	25.1	---	---	---	---	---	---	26.6	26.2	27.1	25.7	26.2
23	25.5	---	---	---	---	---	---	26.6	25.7	27.1	25.7	26.2
24	25.0	---	---	---	---	---	---	26.2	25.7	26.6	25.7	26.2
25	24.3	---	---	---	---	---	---	25.3	26.4	26.2	25.3	26.2
26	22.9	---	---	---	---	---	---	25.3	25.7	26.2	25.7	26.2
27	21.9	---	---	---	---	---	---	25.7	25.7	26.2	26.2	25.3
28	21.6	---	---	---	---	---	---	25.7	26.2	26.2	26.6	25.3
29	21.1	---	---	---	---	---	---	25.7	26.6	26.2	26.2	25.3
30	20.9	---	---	---	---	---	---	25.7	26.6	26.6	26.2	24.9
31	---	---	---	---	---	---	---	25.3	---	25.7	25.3	---
MAX	---	---	---	---	---	---	---	---	26.6	27.1	27.6	26.6

TAMPA BAY AND COASTAL AREAS

02301750 DELANEY CREEK NEAR TAMPA, FL

LOCATION.--Lat 27°55'32", long 82°21'52", in SW¼ sec.25, T.29 S., R.19 E., Hillsborough County, Hydrologic Unit 03100206, on right bank at south end of Darlington Street, 1.8 mi south of intersection State Highway 60 and U. S. Highway 301, near southeastern city limits of Tampa.

DRAINAGE AREA.--16.1 mi^2.

PERIOD OF RECORD.--October 1984 to current year.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--7 years, 7.31 ft^3/s, 6.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 573 ft^3/s, Sept. 7, 1988, gage height, 9.63 ft; no flow for many days in 1988, June 10, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 399 ft^3/s, July 13, gage height, 8.03 ft; minimum daily discharge, 0.19 ft^3/s, Dec. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.0	e1.8	.99	.37	5.1	.53	10	3.6	9.1	11	35	15
2	e1.9	e1.7	.70	.34	4.3	.49	6.5	3.7	9.1	20	33	11
3	e1.8	e1.6	.55	.42	3.9	3.6	5.1	3.3	7.2	25	20	7.0
4	e1.7	e1.5	.44	.36	4.7	4.2	4.4	1.9	6.1	18	12	5.9
5	e1.7	e1.4	.37	.36	5.6	1.8	3.8	1.3	5.7	12	8.7	5.5
6	e1.6	e1.4	.34	.35	4.5	1.1	5.2	1.3	5.5	9.5	7.2	5.4
7	e1.5	e1.3	.35	.33	4.1	.90	5.8	1.2	5.5	7.6	6.1	4.9
8	e1.5	e1.2	.39	.34	3.9	.80	4.9	1.2	6.2	6.5	5.5	4.7
9	5.4	e1.7	.36	.31	2.9	2.2	3.8	8.8	5.4	6.0	5.2	4.7
10	19	e2.5	.31	.26	2.3	4.4	2.8	40	5.8	5.7	4.6	4.3
11	33	e1.8	.27	.27	2.1	2.3	2.3	18	6.2	8.4	4.1	4.0
12	29	e1.5	.24	.51	2.1	1.6	1.9	9.5	5.2	21	3.9	3.7
13	18	e1.3	.19	.40	1.8	1.6	1.5	5.6	3.4	201	3.8	3.4
14	13	e1.2	.20	.38	1.9	2.5	1.4	4.0	2.2	256	3.6	3.2
15	10	e1.1	.32	11	1.7	2.2	1.2	2.4	1.8	160	10	2.9
16	8.5	e.90	.36	15	1.9	1.8	1.1	3.6	7.5	70	4.6	2.4
17	7.1	e.85	.40	6.5	1.8	2.1	.97	34	9.4	41	3.7	2.3
18	6.7	e.80	.40	3.9	1.4	12	.79	24	5.4	27	5.3	2.7
19	e5.8	e.75	.40	3.4	1.2	13	.77	19	5.1	18	14	2.8
20	e5.0	e.70	.40	5.1	1.2	10	.67	28	8.2	13	22	6.3
21	e4.5	.65	.40	5.3	.93	8.4	.61	19	15	12	27	4.2
22	e4.0	.55	.38	4.7	.84	6.6	.61	12	10	9.1	37	3.2
23	e3.7	.59	.38	4.2	.72	5.0	.73	10	7.2	6.8	39	2.9
24	e3.4	1.1	.40	3.9	.54	4.4	.70	13	8.0	8.8	23	2.8
25	e3.1	1.2	.37	5.8	.38	3.8	4.8	24	12	14	22	3.2
26	e2.8	.99	.37	5.2	.50	3.2	15	20	18	11	15	2.9
27	e2.6	.84	.38	3.4	.43	2.7	7.7	21	13	15	10	2.7
28	e2.4	1.8	.40	3.0	.56	2.2	4.8	16	10	20	7.0	2.6
29	e2.2	1.7	.40	3.0	---	2.0	3.7	7.7	8.6	15	5.8	2.5
30	e2.1	2.2	.39	2.9	---	3.3	3.6	5.5	9.1	16	5.9	2.3
31	e2.0	---	.39	3.5	---	8.9	---	6.7	---	22	18	---
TOTAL	207.0	38.62	12.24	94.80	63.30	119.62	107.15	369.3	230.9	1086.4	422.0	131.4
MEAN	6.68	1.29	.39	3.06	2.26	3.86	3.57	11.9	7.70	35.0	13.6	4.38
MAX	33	2.5	.99	15	5.6	13	15	40	18	256	39	15
MIN	1.5	.55	.19	.26	.38	.49	.61	1.2	1.8	5.7	3.6	2.3
CFSM	.41	.08	.02	.19	.14	.24	.22	.74	.48	2.18	.85	.27
IN.	.48	.09	.03	.22	.15	.28	.25	.85	.53	2.51	.98	.30

CAL YR 1990 TOTAL 2049.71 MEAN 5.62 MAX 67 MIN .12 CFSM .35 IN. 4.74
WTR YR 1991 TOTAL 2882.73 MEAN 7.90 MAX 256 MIN .19 CFSM .49 IN. 6.66

e Estimated

HILLSBOROUGH RIVER BASIN

02301870 HILLSBOROUGH RIVER NEAR RICHLAND, FL

LOCATION.--Lat 28°15'32", long 82°06'20", in NW¼ sec.3, T.26 S., R.22 E., Polk County, Hydrologic Unit 03100205, near right bank on downstream side of bridge on State Highway 54, 1.0 mi downstream from U. S. Highway 98, 1.8 mi upstream from Fox Branch, 2.5 mi southeast of Richland, and 54 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1965 to current year (thrice weekly gage heights only).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 80.75 ft, Sept. 14, 1988; river dry at gage for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 79.32 ft, July 15; river dry at gage many days.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	76.05	---	76.10	76.10	---	---	---	---
2	---	76.90	---	---	---	---	---	---	---	---	78.93	78.23
3	76.85	---	76.43	---	---	---	76.13	76.15	77.50	---	---	---
4	---	---	---	---	76.10	---	---	---	---	---	78.80	78.09
5	---	76.87	76.40	---	---	---	76.13	---	78.21	---	---	---
6	76.67	---	---	---	76.09	---	---	76.10	---	---	---	77.92
7	---	76.78	76.37	---	---	---	---	---	---	---	78.72	---
8	76.58	---	---	---	76.05	---	76.10	76.07	---	78.98	---	---
9	---	76.70	---	---	---	---	---	---	---	---	78.58	77.50
10	---	---	76.35	---	---	---	76.08	76.05	78.33	79.03	---	---
11	---	---	---	---	76.06	---	---	---	---	---	---	77.46
12	---	76.75	76.32	---	---	---	76.05	---	78.25	79.05	78.32	---
13	76.93	---	---	---	76.05	---	---	76.04	---	---	---	77.42
14	---	76.63	76.25	---	---	---	---	---	78.20	---	78.00	---
15	76.88	---	---	---	76.05	---	76.00	76.20	---	79.32	---	---
16	---	76.57	---	76.00	---	---	---	---	---	---	77.82	77.37
17	76.85	---	76.21	---	---	---	---	76.27	---	79.30	---	---
18	---	---	---	76.00	76.03	76.18	---	---	78.32	---	---	77.33
19	76.80	76.55	76.15	---	---	---	---	---	78.35	79.27	77.75	---
20	---	---	---	---	76.00	76.15	---	76.48	---	---	---	---
21	---	76.52	76.10	76.05	---	---	---	---	78.33	---	77.72	---
22	76.85	---	---	---	76.00	76.10	---	76.50	---	79.25	---	---
23	---	76.48	---	76.05	---	---	---	---	---	---	78.30	77.27
24	77.03	---	76.03	---	---	---	---	76.53	---	79.20	---	---
25	---	---	---	76.05	---	76.12	---	---	---	---	---	77.25
26	---	---	76.00	---	---	---	76.13	---	---	79.13	78.40	---
27	77.00	---	---	---	---	76.10	---	76.92	---	---	---	77.23
28	---	---	---	76.05	---	---	---	---	---	---	78.33	---
29	76.97	---	---	---	---	76.05	76.12	77.12	---	79.08	---	---
30	---	---	---	76.05	---	---	---	---	---	---	78.20	77.21
31	76.95	---	---	---	---	---	---	---	---	79.10	---	---

HILLSBOROUGH RIVER BASIN

02301990 HILLSBOROUGH RIVER ABOVE CRYSTAL SPRINGS, NEAR ZEPHYRHILLS, FL

LOCATION.--Lat 28°11'07", long 82°11'03", in NW¼ sec.35, T.26 S., R.21 E., Pasco County, Hydrologic Unit 03100205, at right bank on upstream side of bridge on former State Highway 23, 0.2 mi upstream from Crystal Springs, 1.5 mi west of village of Crystal Springs, and 3.0 mi south of Zephyrhills.

DRAINAGE AREA.--82 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1941 to August 1964 (fragmentary); September 1964 to September 1983 (gage heights only), incomplete; October 1983 to current year. Records of gage heights prior to October 1963 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1941, nonrecording gage (reference point) at same site at datum 63.30 ft higher; Sept. 12, 1941, to May 14, 1964, nonrecording gage at same site at datum 50.97 ft higher.

REMARKS.--Records good. Discharge measurements made at this site are used in conjunction with those made downstream from Crystal Springs (Station No. 02302000) to determine spring flow.

AVERAGE DISCHARGE.--8 years, 60.9 ft^3/s, 44,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft^3/s, Sept. 8, 1988, gage height, 56.44 ft; minimum daily discharge, 3.4 ft^3/s (estimated), Apr. 8, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 572 ft^3/s, July 18, gage height, 54.68 ft; minimum daily discharge, 3.4 ft^3/s (estimated), Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	19	12	7.9	19	6.8	12	8.7	12	e170	327	90
2	20	12	8.4	13	20	6.8	12	12	16	e300	344	73
3	18	9.9	6.5	14	20	6.5	11	7.5	16	e270	324	61
4	17	9.5	5.9	18	20	6.1	11	8.3	16	e240	306	54
5	13	7.9	6.1	12	15	7.7	9.1	10	26	e220	280	45
6	8.6	9.9	6.8	7.3	11	5.8	5.3	6.6	20	e240	251	38
7	8.1	17	5.9	7.7	11	5.3	3.8	8.8	24	e270	214	34
8	14	18	13	7.3	10	7.0	e3.4	13	40	e260	181	30
9	18	19	17	6.7	6.9	e6.0	5.0	14	39	253	146	28
10	23	16	18	16	5.7	e7.0	9.8	14	43	245	122	26
11	26	8.7	17	19	5.4	e9.0	8.4	14	44	233	95	24
12	28	7.0	12	21	6.1	e12	4.5	14	43	225	75	24
13	17	8.6	6.8	12	6.1	13	5.4	14	40	285	65	23
14	11	17	6.9	7.4	6.0	14	9.7	11	37	291	55	23
15	8.6	19	7.4	9.8	6.4	13	10	8.4	34	298	53	20
16	7.9	17	7.5	10	6.0	11	8.7	17	33	393	49	23
17	13	9.6	6.1	16	5.7	6.8	5.5	19	31	539	43	23
18	18	7.6	6.4	21	5.4	15	4.6	16	33	568	41	e19
19	18	6.4	8.5	21	5.3	14	5.1	13	30	538	42	e17
20	18	5.8	14	14	5.2	13	5.7	13	30	508	50	21
21	19	5.3	16	8.2	8.7	12	4.7	12	33	497	59	23
22	19	5.2	21	8.3	6.7	12	4.0	12	34	485	85	20
23	20	11	21	7.6	8.1	12	5.6	18	31	457	158	23
24	19	18	16	6.5	6.8	9.2	12	18	31	415	179	23
25	14	18	9.1	7.4	5.6	5.2	14	17	35	356	202	22
26	11	15	8.3	18	10	4.1	17	13	42	313	194	24
27	11	8.3	18	14	17	4.2	13	9.4	53	273	199	23
28	9.3	14	18	7.8	14	5.6	12	7.7	e60	251	196	19
29	11	12	11	6.8	---	5.7	12	10	e55	233	177	18
30	18	15	7.3	6.3	---	6.1	10	15	e70	243	149	21
31	19	---	8.1	12	---	9.3	---	14	---	272	117	---
TOTAL	497.5	366.7	346.0	364.0	273.1	271.2	254.3	388.4	1051	10141	4778	912
MEAN	16.0	12.2	11.2	11.7	9.75	8.75	8.48	12.5	35.0	327	154	30.4
MAX	28	19	21	21	20	15	17	19	70	568	344	90
MIN	7.9	5.2	5.9	6.3	5.2	4.1	3.4	6.6	12	170	41	17
AC-FT	987	727	686	722	542	538	504	770	2080	20110	9480	1810
CFSM	.20	.15	.14	.14	.12	.11	.10	.15	.43	3.99	1.88	.37
IN.	.23	.17	.16	.17	.12	.12	.12	.18	.48	4.60	2.17	.41

CAL YR 1990 TOTAL 6787.1 MEAN 18.6 MAX 85 MIN 5.2 AC-FT 13460 CFSM .23 IN. 3.08
WTR YR 1991 TOTAL 19643.2 MEAN 53.8 MAX 568 MIN 3.4 AC-FT 38960 CFSM .66 IN. 8.91

e Estimated

HILLSBOROUGH RIVER BASIN

02301990 HILLSBOROUGH RIVER ABOVE CRYSTAL SPRINGS, NEAR ZEPHYRHILLS, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.26	52.20	52.00	51.73	52.08	51.66	51.97	51.75	51.82	---	54.09	53.07
2	52.22	52.00	51.85	51.92	52.09	51.66	51.95	51.87	51.97	---	54.13	52.92
3	52.18	51.91	51.77	51.97	52.10	51.65	51.94	51.69	51.98	---	54.08	52.79
4	52.16	51.89	51.74	52.06	52.09	51.63	51.94	51.72	51.98	---	54.02	52.71
5	52.02	51.83	51.75	51.87	51.95	51.70	51.87	51.79	52.23	---	53.94	52.60
6	51.86	51.90	51.78	51.69	51.80	51.62	51.70	51.64	52.08	---	53.84	52.48
7	51.84	52.15	51.74	51.70	51.80	51.60	51.62	51.73	52.19	---	53.70	52.41
8	52.06	52.18	52.02	51.68	51.79	51.68	---	51.89	52.52	---	53.57	52.32
9	52.18	52.20	52.15	51.65	51.66	---	51.68	51.90	52.50	53.85	53.40	52.28
10	52.29	52.10	52.15	52.00	51.60	---	51.90	51.90	52.56	53.82	53.27	52.24
11	52.35	51.86	52.14	52.06	51.58	---	51.84	51.90	52.58	53.78	53.09	52.19
12	52.40	51.79	51.96	52.12	51.62	---	51.64	51.89	52.56	53.75	52.94	52.18
13	52.15	51.86	51.75	51.85	51.62	51.93	51.69	51.90	52.52	53.95	52.83	52.17
14	51.94	52.15	51.76	51.67	51.61	51.94	51.87	51.79	52.46	53.98	52.73	52.16
15	51.86	52.20	51.78	51.75	51.63	51.93	51.89	51.70	52.42	54.00	52.70	52.10
16	51.83	52.15	51.77	51.77	51.61	51.85	51.82	52.00	52.39	54.26	52.65	52.15
17	52.01	51.90	51.71	51.96	51.60	51.69	51.68	52.07	52.35	54.61	52.56	52.16
18	52.18	51.82	51.72	52.10	51.58	51.97	51.62	51.97	52.39	54.67	52.53	---
19	52.19	51.76	51.81	52.11	51.58	51.97	51.65	51.87	52.32	54.61	52.55	---
20	52.19	51.73	52.02	51.90	51.58	51.95	51.67	51.86	52.32	54.54	52.66	52.11
21	52.20	51.71	52.07	51.69	51.74	51.93	51.62	51.82	52.38	54.51	52.77	52.16
22	52.21	51.71	52.19	51.70	51.66	51.92	51.57	51.82	52.41	54.49	53.01	52.09
23	52.22	51.95	52.21	51.67	51.72	51.91	51.65	52.03	52.35	54.42	53.46	52.17
24	52.21	52.17	52.05	51.63	51.66	51.82	51.91	52.02	52.36	54.32	53.56	52.17
25	52.06	52.18	51.81	51.66	51.61	51.65	51.97	52.00	52.42	54.17	53.66	52.14
26	51.96	52.09	51.77	52.04	51.79	51.59	52.05	51.87	52.54	54.04	53.62	52.18
27	51.95	51.85	52.11	51.90	52.04	51.60	51.93	51.74	52.70	53.92	53.64	52.16
28	51.89	52.07	52.09	51.69	51.91	51.68	51.90	51.67	---	53.84	53.63	52.05
29	51.94	52.00	51.85	51.64	---	51.69	51.89	51.78	---	53.77	53.55	52.02
30	52.18	52.09	51.72	51.62	---	51.71	51.82	51.95	---	53.81	53.41	52.11
31	52.20	---	51.75	51.82	---	51.85	---	51.91	---	53.91	53.24	---
MEAN	52.10	51.98	51.90	51.83	51.75	---	---	51.85	52.39	53.86	53.32	---
MAX	52.40	52.20	52.21	52.12	52.10	---	---	52.07	52.80	54.67	54.13	---
MIN	51.83	51.71	51.71	51.62	51.58	---	---	51.64	51.82	52.80	52.53	---

CAL YR 1990 MEAN 52.01 MAX 53.03 MIN 51.56

HILLSBOROUGH RIVER BASIN

02301990 HILLSBOROUGH RIVER ABOVE CRYSTAL SPRINGS, NEAR ZEPHYRHILLS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
24...	1147	52.27	19	428	7.7	25.0	24.0	5.3	4.0
DEC									
06...	1020	51.86	6.8	385	7.7	18.0	18.5	4.1	--
JAN									
16...	0920	51.76	10	398	6.7	20.0	21.0	3.7	--
MAR									
12...	1110	51.91	13	435	7.6	17.0	16.5	5.4	--
MAY									
10...	0902	51.90	15	392	7.4	24.5	24.0	4.6	4.0
AUG									
23...	1000	53.49	167	240	7.4	26.0	25.0	5.0	--

HILLSBOROUGH RIVER BASIN

02302000 CRYSTAL SPRINGS NEAR ZEPHYRHILLS, FL

LOCATION.--Lat 28°10'30", long 82°11'20", in SE¼ sec.34, T.26 S., R.21 E., Pasco County, Hydrologic Unit 03100205, on left bank of Hillsborough River, 0.2 mi downstream from Crystal Springs, 2.0 mi west of village of Crystal Springs, and 4.0 mi south of Zephyrhills.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year (discharge measurements only). Miscellaneous discharge measurements for some periods prior to October 1934.

REVISED RECORDS.--WSP 1052: 1935, 1937-42, 1944, 1945.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to May 15, 1964, at present site at datum 34.67 ft higher. Prior to Sept. 30, 1983, auxiliary nonrecording gage on Hillsborough River 0.2 mi upstream from Crystal Springs; Oct. 1, 1983, to Sept. 30, 1984, recording gage at same site upstream. See WRD FL 1968 for history of changes and extremes prior to Jan. 19, 1953.

REMARKS.--Spring discharge is the difference between discharge measurements of Hillsborough River made downstream from and upstream from Crystal Springs. Since 1945, flow regulated occasionally at springs outlet for recreational purposes. Results of miscellaneous temperature observations prior to October 1977 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 147 ft^3/s, July 19, 1941; minimum measured, 20 ft^3/s, July 1, 1946.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Time	Hillsborough River Below springs (cfs)	Hillsborough River Above springs (cfs)	Difference or spring flow (cfs)
Dec. 16	1320	56	8.2	48
Jan. 16	1040	53	10	43
Mar. 12	1200	49	13	36

HILLSBOROUGH RIVER BASIN

02302000 CRYSTAL SPRINGS NEAR ZEPHYRHILLS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1946, 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
OCT							
24...	1130	334	7.6	25.0	24.0	4.2	2.19
DEC							
06...	1100	330	7.8	18.0	19.5	4.0	--
JAN							
16...	1010	325	6.8	21.5	23.5	3.2	--
MAR							
12...	1125	315	7.8	20.0	22.5	5.1	2.19
MAY							
10...	0935	329	7.3	26.5	23.5	3.1	2.09
AUG							
23...	1040	335	7.5	28.0	24.5	4.4	--

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA 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)
OCT							
24...	0.010	2.20	<0.010	<0.20	0.040	0.040	0.5
DEC							
06...	<0.010	2.40	<0.010	<0.20	0.040	0.030	--
JAN							
16...	<0.010	2.30	0.010	<0.20	0.040	0.030	--
MAR							
12...	0.010	2.20	0.020	<0.20	0.040	0.040	--
MAY							
10...	0.010	2.10	0.010	<0.20	0.030	0.030	0.6
AUG							
23...	<0.010	2.20	0.020	<0.20	0.050	0.040	--

HILLSBOROUGH RIVER BASIN

02302500 BLACKWATER CREEK NEAR KNIGHTS, FL

LOCATION.--Lat 28°08'25", long 82°09'00", in NW¼ sec.18, T.27 S., R.22 E., Hillsborough County, Hydrologic Unit 03100205, on left bank, 0.2 mi upstream from State Highway 39, 1.8 mi downstream from Itchepackesassa Creek, 4.4 mi northwest of Knights, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--110 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1951 to current year.

REVISED RECORDS.--WRD FL 1969: 1953 (P).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1985, at site 900 ft downstream at datum 70.56 ft lower; Oct. 1, 1985, to Sept. 30, 1987, at former site at present datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--40 years, 78.7 ft^3/s, 9.72 in/yr, 57,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft^3/s, Mar. 18, 1960; maximum gage height, 80.48 ft, Sept. 7, 1988; no flow some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 15	0515	*1,360	*78.67	No other peak greater than base discharge.			

Minimum daily discharge, 0.28 ft^3/s, Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	.92	2.0	.71	4.7	2.1	20	25	203	401	549	92
2	30	.81	2.1	.61	7.6	1.9	16	19	194	553	638	48
3	17	1.2	2.2	.68	7.7	2.2	15	14	159	455	511	37
4	12	1.7	2.1	.61	7.4	14	11	11	110	363	309	37
5	24	2.1	2.2	.73	7.0	13	9.1	7.3	95	250	203	29
6	43	2.1	1.4	.89	5.9	11	7.5	5.5	137	240	148	23
7	19	2.0	.43	1.1	5.4	9.2	6.2	5.5	164	243	111	31
8	11	1.6	.40	1.3	5.4	6.8	28	3.9	113	164	82	37
9	7.7	1.5	.52	1.1	5.3	7.1	67	3.0	83	111	60	27
10	9.1	1.9	.94	.92	4.9	10	66	2.4	57	98	51	22
11	27	3.0	1.1	.98	4.2	12	44	1.9	40	97	53	17
12	35	3.4	.84	1.3	3.7	10	27	1.4	28	174	38	13
13	26	2.2	.63	1.4	3.2	9.7	19	1.5	22	574	32	11
14	19	1.7	.47	1.1	3.1	8.3	15	2.0	18	1130	31	9.2
15	14	1.5	.36	2.8	3.2	7.2	12	4.1	16	1240	28	7.6
16	12	1.4	.46	24	3.3	7.3	9.0	3.3	32	1020	92	7.3
17	9.7	1.3	.57	21	3.8	8.0	6.8	13	28	928	56	8.0
18	8.2	1.2	.55	15	3.8	17	8.6	37	39	810	35	7.5
19	7.1	1.3	.41	12	3.2	33	14	27	52	836	39	7.2
20	6.3	1.2	.39	9.4	2.9	27	13	39	34	615	70	7.9
21	5.5	1.1	.44	8.6	2.5	25	13	76	117	429	96	6.6
22	4.5	1.0	.52	7.3	2.2	21	11	53	220	315	67	6.8
23	4.0	1.0	.59	5.7	2.1	16	8.1	41	190	249	113	9.0
24	3.4	1.5	.60	4.5	2.0	14	7.6	61	116	192	134	8.7
25	2.8	1.7	.60	4.7	2.8	12	22	73	87	169	185	8.1
26	1.9	2.1	.53	7.3	2.8	9.7	165	62	72	166	176	16
27	1.7	1.9	.41	7.4	2.4	7.8	169	119	47	171	116	15
28	1.5	1.7	.28	6.8	2.1	6.2	127	159	35	202	117	11
29	1.4	1.8	.31	6.4	---	5.0	77	128	30	217	98	8.3
30	1.1	2.1	.69	5.5	---	4.5	39	76	155	258	68	7.4
31	.96	---	.82	4.8	---	5.5	---	160	---	332	68	---
TOTAL	417.86	49.93	25.86	166.63	114.6	343.5	1052.9	1234.8	2693	13002	4374	575.6
MEAN	13.5	1.66	.83	5.38	4.09	11.1	35.1	39.8	89.8	419	141	19.2
MAX	52	3.4	2.2	24	7.7	33	169	160	220	1240	638	92
MIN	.96	.81	.28	.61	2.0	1.9	6.2	1.4	16	97	28	6.6
AC-FT	829	99	51	331	227	681	2090	2450	5340	25790	8680	1140
CFSM	.12	.02	.01	.05	.04	.10	.32	.36	.82	3.81	1.28	.17
IN.	.14	.02	.01	.06	.04	.12	.36	.42	.91	4.40	1.48	.19

CAL YR 1990 TOTAL 8170.44 MEAN 22.4 MAX 244 MIN .00 AC-FT 16210 CFSM .20 IN. 2.76
WTR YR 1991 TOTAL 24050.68 MEAN 65.9 MAX 1240 MIN .28 AC-FT 47700 CFSM .60 IN. 8.13

HILLSBOROUGH RIVER BASIN

02302500 BLACKWATER CREEK NEAR KNIGHTS, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72.61	71.69	71.64	71.51	71.76	71.63	72.13	72.24	74.10	75.66	76.59	72.96
2	72.40	71.67	71.65	71.50	71.87	71.62	72.08	72.16	74.00	76.61	77.05	72.52
3	72.24	71.70	71.65	71.51	71.87	71.64	72.04	72.07	73.66	76.04	76.38	72.39
4	72.14	71.75	71.64	71.50	71.86	71.98	71.97	72.00	73.14	75.44	75.02	72.40
5	72.28	71.77	71.64	71.52	71.85	72.02	71.91	71.92	72.99	74.51	74.09	72.29
6	72.52	71.76	71.57	71.53	71.81	71.96	71.86	71.86	73.42	74.43	73.55	72.23
7	72.26	71.75	71.48	71.55	71.79	71.91	71.82	71.86	73.71	74.46	73.21	72.33
8	72.13	71.72	71.47	71.57	71.79	71.84	72.17	71.80	73.17	73.70	72.97	72.39
9	72.06	71.71	71.49	71.55	71.79	71.85	72.71	71.75	72.87	73.15	72.77	72.27
10	72.09	71.73	71.54	71.54	71.77	71.94	72.70	71.72	72.61	73.02	72.68	72.22
11	72.37	71.79	71.55	71.54	71.74	71.98	72.47	71.68	72.43	73.01	72.70	72.16
12	72.46	71.81	71.53	71.58	71.72	71.95	72.26	71.65	72.28	73.78	72.54	72.10
13	72.36	71.74	71.50	71.58	71.69	71.93	72.13	71.66	72.18	76.41	72.46	72.06
14	72.26	71.70	71.48	71.55	71.69	71.89	72.05	71.70	72.11	78.33	72.44	72.03
15	72.20	71.68	71.46	71.65	71.70	71.85	71.98	71.81	72.07	78.50	72.40	72.00
16	72.15	71.67	71.48	72.20	71.70	71.86	71.91	71.77	72.32	78.11	73.05	71.99
17	72.11	71.65	71.50	72.16	71.73	71.88	71.84	72.02	72.27	77.91	72.73	72.01
18	72.07	71.64	71.49	72.06	71.72	72.08	71.89	72.39	72.41	77.61	72.51	71.99
19	72.04	71.64	71.47	71.98	71.70	72.34	72.02	72.26	72.56	77.68	72.54	71.98
20	72.01	71.63	71.47	71.92	71.68	72.27	72.01	72.41	72.36	76.90	72.86	72.00
21	71.99	71.62	71.48	71.90	71.65	72.24	72.02	72.80	73.22	75.88	73.09	71.96
22	71.95	71.61	71.49	71.86	71.64	72.16	71.95	72.57	74.25	75.08	72.77	71.97
23	71.92	71.60	71.50	71.80	71.63	72.08	71.88	72.44	73.96	74.51	73.18	72.03
24	71.89	71.64	71.50	71.76	71.62	72.03	71.87	72.65	73.21	73.99	73.39	72.02
25	71.85	71.65	71.50	71.76	71.67	71.98	72.10	72.77	72.91	73.76	73.92	72.01
26	71.80	71.67	71.49	71.85	71.67	71.93	73.71	72.66	72.76	73.73	73.83	72.13
27	71.77	71.66	71.47	71.86	71.65	71.87	73.76	73.24	72.51	73.77	73.21	72.13
28	71.76	71.64	71.45	71.84	71.63	71.82	73.32	73.66	72.37	74.08	73.22	72.06
29	71.74	71.64	71.45	71.83	---	71.77	72.81	73.34	72.30	74.21	73.02	72.01
30	71.72	71.66	71.51	71.79	---	71.76	72.41	72.80	73.60	74.59	72.72	71.99
31	71.70	---	71.53	71.77	---	71.79	---	73.66	---	75.20	72.72	---
MEAN	72.09	71.69	71.52	71.73	71.73	71.93	72.26	72.30	72.92	75.29	73.41	72.15
MAX	72.61	71.81	71.65	72.20	71.87	72.34	73.76	73.66	74.25	78.50	77.05	72.96
MIN	71.70	71.60	71.45	71.50	71.62	71.62	71.82	71.65	72.07	73.01	72.40	71.96

CAL YR 1990 MEAN 72.06 MAX 74.50 MIN 71.15
WTR YR 1991 MEAN 72.43 MAX 78.50 MIN 71.45

HILLSBOROUGH RIVER BASIN

02302500 BLACKWATER CREEK NEAR KNIGHTS, FL--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	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)
OCT											
24...	1256	71.89	3.5	386	7.4	28.0	23.5	160	4.5	41	6.5
DEC											
06...	1310	71.60	1.8	660	7.9	20.0	14.5	--	4.2	--	--
JAN											
16...	1230	72.31	30	505	--	23.0	18.0	--	--	--	--
MAR											
11...	1515	71.97	11	355	7.6	16.5	15.0	--	7.2	--	--
MAY											
06...	1045	71.85	5.2	316	7.2	26.0	24.0	200	4.1	34	6.1
AUG											
22...	1145	72.86	69	230	7.4	31.0	26.0	--	6.2	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
24...	25	12	21	29	0.40	13	249	0.870	0.010	0.880
DEC										
06...	--	--	--	--	--	--	--	0.060	0.010	0.070
JAN										
16...	--	--	--	--	--	--	--	--	<0.010	1.00
MAR										
11...	--	--	--	--	--	--	--	1.44	0.160	1.60
MAY										
06...	19	8.4	22	26	0.40	12	226	0.670	0.020	0.690
AUG										
22...	--	--	--	--	--	--	--	0.530	0.030	0.560

DATE	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-PHORUS 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)
OCT										
24...	0.030	1.1	1.1	0.920	0.890	190	2	<1	<1	320
DEC										
06...	0.020	1.2	1.2	1.80	1.70	--	--	--	--	--
JAN										
16...	0.030	1.6	1.6	1.50	1.20	--	--	--	--	--
MAR										
11...	0.190	1.2	1.4	1.50	1.40	--	--	--	--	--
MAY										
06...	0.050	1.2	1.2	1.10	0.940	280	2	<1	2	400
AUG										
22...	0.060	1.2	1.3	0.900	0.770	--	--	--	--	--

HILLSBOROUGH RIVER BASIN

02302500 BLACKWATER CREEK NEAR KNIGHTS, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
24...	220	<1	<1	20	20	0.80	<1	130	<10	14
MAY										
06...	290	2	<1	30	20	<0.10	2	110	10	20

HILLSBOROUGH RIVER BASIN

02303000 HILLSBOROUGH RIVER NEAR ZEPHYRHILLS, FL

LOCATION.--Lat 28°08'59", long 82°13'57", in SW¼ sec.8, T.27 S., R.21 E., Hillsborough County, Hydrologic Unit 03100205, on left bank 30 ft downstream from footbridge in Hillsborough River State Park, 1.2 mi downstream from Blackwater Creek, 6.5 mi southwest of Zephyrhills, and 40 mi upstream from mouth.

DRAINAGE AREA.--220 mi^2, approximately.

WATER-DISCHARGE RECORDS

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 33.28 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Mar. 22, 1963, nonrecording gage at same site and datum.

REMARKS.--Records good. Records include high-water diversions upstream from station from the Withlacoochee River basin through Withlacoochee-Hillsborough overflow near Richland (station no. 02311000).

AVERAGE DISCHARGE.--52 years, 248 ft^3/s, 179,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s, Mar. 18, 1960, gage height, 15.33 ft; minimum, 44 ft^3/s, May 27, 28, 30, 31, 1977, gage height, 0.55 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 15	1845	*1,550	*8.08	No other peak greater than base discharge.			

Minimum daily discharge, 43 ft^3/s, Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	59	54	51	66	50	75	90	259	456	835	315
2	98	55	49	55	69	47	85	87	271	667	1010	244
3	83	50	47	57	73	49	81	76	235	616	901	203
4	75	50	45	61	72	50	78	67	190	544	692	191
5	69	49	45	60	70	64	75	66	167	492	558	170
6	90	49	46	52	62	61	72	60	193	484	473	150
7	77	55	46	51	59	59	65	59	236	531	401	139
8	68	57	50	51	59	54	62	63	218	490	335	148
9	68	58	58	50	57	60	106	62	179	415	282	133
10	72	58	58	56	52	59	123	61	154	385	244	123
11	88	51	58	64	51	60	114	59	136	373	223	116
12	104	49	57	67	50	65	92	58	122	408	190	109
13	98	48	50	63	50	66	81	58	109	708	168	105
14	81	54	47	54	50	65	80	58	99	1260	155	101
15	73	57	48	60	51	64	78	52	94	1470	144	97
16	68	57	48	78	50	63	73	60	101	1420	179	94
17	66	52	47	87	49	60	66	72	106	1350	171	95
18	71	47	46	85	49	81	61	94	121	1370	143	93
19	70	46	48	81	49	102	64	93	130	1300	141	87
20	69	44	52	76	48	96	69	88	125	1190	189	e85
21	69	44	55	64	50	90	66	124	157	931	253	e88
22	68	43	60	60	51	87	63	119	288	805	267	e88
23	67	45	61	59	49	80	60	107	288	722	370	e85
24	66	55	60	56	49	74	70	119	216	644	402	e82
25	63	57	52	55	47	67	77	129	176	574	471	e90
26	56	57	50	64	48	62	176	127	181	521	473	e95
27	55	50	55	69	58	58	237	153	162	484	411	94
28	53	51	61	61	59	57	205	201	149	490	392	89
29	51	53	57	59	---	58	154	196	141	466	371	82
30	57	52	51	57	---	59	111	149	224	520	319	87
31	58	---	50	57	---	64	---	176	---	604	274	---
TOTAL	2260	1552	1611	1920	1547	2031	2819	2983	5227	22690	11437	3678
MEAN	72.9	51.7	52.0	61.9	55.2	65.5	94.0	96.2	174	732	369	123
MAX	109	59	61	87	73	102	237	201	288	1470	1010	315
MIN	51	43	45	50	47	47	60	52	94	373	141	82
AC-FT	4480	3080	3200	3810	3070	4030	5590	5920	10370	45010	22690	7300
CFSM	.33	.24	.24	.28	.25	.30	.43	.44	.79	3.33	1.68	.56
IN.	.38	.26	.27	.32	.26	.34	.48	.50	.88	3.84	1.93	.62

CAL YR 1990 TOTAL 34383 MEAN 94.2 MAX 313 AC-FT 68200 MIN 43 CFSM .43 IN. 5.81
WTR YR 1991 TOTAL 59755 MEAN 164 MAX 1470 AC-FT 118500 MIN 43 CFSM .74 IN. 10.10

e Estimated

HILLSBOROUGH RIVER BASIN

02303000 HILLSBOROUGH RIVER NEAR ZEPHYRHILLS, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.20	.80	.75	.64	.78	.70	.88	.94	2.18	3.28	5.18	2.45
2	1.12	.76	.71	.68	.80	.67	.96	.92	2.25	4.36	6.00	2.01
3	1.00	.72	.68	.70	.83	.69	.92	.83	2.03	4.10	5.49	1.75
4	.94	.71	.67	.72	.83	.69	.90	.76	1.74	3.73	4.48	1.67
5	.88	.71	.67	.71	.81	.83	.87	.76	1.58	3.46	3.80	1.52
6	1.06	.70	.68	.65	.75	.80	.84	.70	1.76	3.42	3.36	1.38
7	.95	.76	.68	.63	.73	.78	.78	.70	2.04	3.66	3.01	1.31
8	.88	.78	.71	.63	.73	.75	.75	.73	1.93	3.45	2.67	1.37
9	.87	.79	.78	.62	.71	.80	1.11	.73	1.68	3.08	2.37	1.27
10	.90	.79	.78	.66	.68	.79	1.23	.72	1.50	2.92	2.13	1.19
11	1.03	.73	.78	.73	.66	.80	1.16	.71	1.38	2.87	2.00	1.13
12	1.17	.70	.76	.75	.65	.85	.99	.70	1.27	3.05	1.78	1.08
13	1.12	.70	.70	.72	.66	.86	.89	.70	1.18	4.55	1.63	1.05
14	.99	.75	.67	.64	.66	.85	.88	.70	1.10	7.02	1.54	1.02
15	.91	.78	.67	.68	.67	.83	.86	.65	1.06	7.80	1.46	.99
16	.87	.78	.67	.84	.67	.82	.83	.73	1.12	7.62	1.70	.97
17	.86	.73	.66	.91	.66	.79	.76	.83	1.16	7.36	1.65	.97
18	.90	.69	.65	.90	.66	.96	.72	1.00	1.28	7.43	1.46	.96
19	.89	.68	.66	.87	.66	1.13	.74	1.01	1.35	7.19	1.44	.92
20	.89	.66	.69	.83	.66	1.08	.78	.97	1.31	6.75	1.77	---
21	.88	.66	.72	.73	.67	1.03	.74	1.25	1.53	5.64	2.19	---
22	.88	.65	.76	.70	.68	1.00	.72	1.21	2.39	5.04	2.27	---
23	.87	.67	.76	.69	.67	.95	.70	1.12	2.40	4.63	2.85	---
24	.86	.76	.75	.67	.68	.90	.77	1.22	1.95	4.24	3.02	---
25	.83	.78	.68	.66	.65	.83	.82	1.29	1.69	3.89	3.35	---
26	.77	.77	.65	.74	.66	.78	1.55	1.28	1.72	3.61	3.35	---
27	.76	.71	.70	.79	.76	.75	1.97	1.46	1.59	3.42	3.01	.97
28	.74	.72	.75	.73	.77	.74	1.76	1.80	1.50	3.44	2.90	.93
29	.73	.74	.71	.71	---	.74	1.42	1.77	1.44	3.33	2.78	.87
30	.78	.73	.65	.69	---	.75	1.11	1.45	1.99	3.60	2.48	.91
31	.79	---	.65	.69	---	.79	---	1.63	---	4.04	2.20	---
MEAN	.91	.73	.70	.72	.71	.83	.98	1.01	1.64	4.58	2.75	---
MAX	1.20	.80	.78	.91	.83	1.13	1.97	1.80	2.40	7.80	6.00	---
MIN	.73	.65	.65	.62	.65	.67	.70	.65	1.06	2.87	1.44	---

CAL YR 1990 TOTAL 367.22 MEAN 1.01 MAX 2.50 MIN .58

HILLSBOROUGH RIVER BASIN

02303000 HILLSBOROUGH RIVER NEAR ZEPHYRHILLS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	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)
OCT											
22...	1152	0.87	68	359	7.7	28.0	24.0	30	6.5	63	4.4
MAY											
06...	1300	0.69	57	345	7.5	29.5	24.0	40	7.0	56	4.5

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
22...	6.6	1.1	12	10	0.10	11	217	1.39	0.010	1.40
MAY										
06...	7.2	1.8	12	12	0.20	11	212	1.39	0.010	1.40

DATE	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-PHORUS 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)
OCT										
22...	0.010	0.69	0.70	0.120	0.130	30	1	<1	<1	100
MAY										
06...	0.010	0.33	0.34	0.240	0.220	80	<1	<1	<1	140

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
22...	50	<1	<1	<10	<10	0.80	1	350	<10	4.4
MAY										
06...	60	1	<1	10	10	<0.10	<1	390	10	4.2

HILLSBOROUGH RIVER BASIN

02303300 FLINT CREEK NEAR THONOTOSASSA, FL

LOCATION.--Lat 28°04'04", long 82°16'03", in NW¼ sec.12, T.28 S., R.20 E., Hillsborough County, Hydrologic Unit 03100205, on left bank, 40 ft downstream from bridge, 50 ft downstream from control structure, 600 ft downstream from Lake Thonotosassa, 2.0 mi northeast of Thonotosassa, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--60 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1956 to December 1958; March to September 1970 (discharge measurements only); October 1970 to September 1991 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1975, at site 90 ft upstream at datum 32.15 ft higher; Oct. 1, 1975, to Oct. 3, 1979, at former site at present datum.

REMARKS.--Records fair. Flow regulated by manipulation of stoplogs, baseflow orifice pipes, and vertical lift gates in control structure. Prior to December 1975, flow regulated by manipulation of stoplogs in control structure. Gage heights prior to Oct. 3, 1979, represent lake stages upstream from control structure. Gage heights after Oct. 3, 1979, represent stream stages downstream from control structure.

COOPERATION.--Records of control changes furnished by Southwest Florida Water Management District.

AVERAGE DISCHARGE.--23 years (water years 1957-58, 1971-91), 36.4 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 941 ft^3/s, Sept. 10, 1988 (estimated); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 293 ft^3/s, July 15; maximum gage height, 35.72 ft, July 15; minimum daily discharge, 0.13 ft^3/s, Feb. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.77	.66	1.7	17	3.7	7.3	e5.0	70	84	165	42
2	5.4	.78	.63	1.4	16	4.0	7.0	e4.0	73	158	189	40
3	9.1	.75	.62	1.1	16	4.3	6.7	e3.5	91	124	170	30
4	9.8	.73	.66	.98	16	3.1	6.0	e3.0	98	66	122	8.0
5	10	.73	.96	.90	15	2.4	5.9	e2.6	142	60	77	8.8
6	9.1	.77	2.2	.87	15	2.4	8.8	e2.3	151	58	66	7.1
7	4.1	.78	2.6	.88	15	1.8	12	e2.0	122	57	66	2.7
8	3.4	.74	2.9	.90	14	.31	12	e2.5	55	54	66	2.2
9	3.4	.74	2.4	10	13	.49	11	e3.0	49	56	65	2.3
10	16	.78	1.9	27	12	.54	10	e2.5	46	59	64	2.0
11	156	.66	1.7	25	11	.28	9.2	2.0	44	58	62	1.7
12	169	.64	1.7	25	10	.26	7.4	1.6	42	68	41	1.5
13	104	.67	1.9	21	6.1	.24	5.9	4.8	40	138	20	1.4
14	92	.64	1.9	17	.70	.24	4.9	20	23	236	48	1.2
15	44	.54	2.2	21	.43	.21	4.3	17	8.2	293	85	1.1
16	4.4	.50	2.4	31	.38	.20	4.7	17	9.1	266	78	1.1
17	2.5	.63	2.5	29	.40	.20	4.4	55	27	228	73	1.1
18	1.9	.62	2.9	27	.34	.74	3.7	86	64	195	70	1.0
19	1.7	.59	3.0	25	.32	1.4	3.0	71	91	170	37	1.1
20	1.4	.61	2.9	25	.26	.67	3.7	130	76	141	37	1.0
21	1.2	.64	3.2	23	.20	.44	3.7	102	74	125	79	.93
22	1.1	.67	3.4	20	.16	.40	2.5	46	137	137	41	.88
23	1.1	.66	3.1	19	.13	.49	2.1	51	108	149	12	.91
24	1.0	.73	2.8	18	.37	.70	2.3	51	90	120	53	.92
25	.94	.70	2.3	18	2.8	1.1	77	58	91	90	87	1.0
26	.89	.70	1.8	17	3.6	1.2	262	59	85	89	64	.94
27	.82	.72	1.7	16	3.3	1.6	238	92	71	90	46	.86
28	.76	.78	1.7	17	3.1	1.8	139	89	64	98	45	.79
29	.72	.78	2.4	17	---	2.2	e10	68	58	98	44	.76
30	.73	.71	4.3	17	---	3.0	e6.0	61	62	104	43	.78
31	.74	---	2.1	17	---	5.2	---	59	---	107	42	---
TOTAL	659.70	20.76	67.43	490.73	192.59	45.61	880.5	1170.8	2161.3	3776	2157	166.07
MEAN	21.3	.69	2.18	15.8	6.88	1.47	29.3	37.8	72.0	122	69.6	5.54
MAX	169	.78	4.3	31	17	5.2	262	130	151	293	189	42
MIN	.72	.50	.62	.87	.13	.20	2.1	1.6	8.2	54	12	.76

CAL YR 1990 TOTAL 7196.27 MEAN 19.7 MAX 299 MIN .50
WTR YR 1991 TOTAL 11788.49 MEAN 32.3 MAX 293 MIN .13

e Estimated

HILLSBOROUGH RIVER BASIN

02303300 FLINT CREEK NEAR THONOTOSASSA, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.13	31.06	31.01	31.23	32.04	31.47	31.63	---	33.16	33.32	34.60	32.70
2	31.41	31.06	31.00	31.18	32.01	31.49	31.62	---	33.20	34.21	34.88	32.67
3	31.68	31.05	31.00	31.15	32.01	31.50	31.61	---	33.45	33.81	34.68	32.36
4	31.72	31.04	31.01	31.12	31.99	31.43	31.58	---	33.56	33.10	34.05	31.64
5	31.74	31.04	31.09	31.10	31.97	31.39	31.58	---	34.04	32.99	33.39	31.68
6	31.67	31.05	31.28	31.09	31.94	31.39	31.68	---	34.14	32.95	33.20	31.59
7	31.32	31.06	31.32	31.09	31.94	31.32	31.83	---	33.80	32.94	33.20	31.33
8	31.25	31.05	31.35	31.10	31.93	31.05	31.81	---	32.91	32.90	33.20	31.29
9	31.24	31.05	31.30	31.60	31.88	31.11	31.79	---	32.81	32.92	33.18	31.29
10	31.83	31.06	31.26	32.33	31.82	31.14	31.74	---	32.75	32.97	33.16	31.27
11	34.00	31.01	31.23	32.29	31.77	31.04	31.70	31.26	32.71	32.97	33.12	31.23
12	34.28	31.01	31.23	32.28	31.73	31.03	31.63	31.21	32.68	33.12	32.65	31.20
13	33.63	31.02	31.25	32.16	31.51	31.01	31.58	31.40	32.63	33.96	32.13	31.18
14	33.47	31.00	31.26	32.05	31.04	31.02	31.53	32.13	32.17	35.09	32.76	31.16
15	32.53	30.96	31.29	32.16	30.95	31.00	31.50	32.04	31.65	35.67	33.54	31.14
16	31.45	30.94	31.31	32.43	30.94	30.99	31.52	32.03	31.69	35.49	33.42	31.14
17	31.32	31.00	31.31	32.39	30.97	30.99	31.51	32.87	32.26	35.21	33.33	31.13
18	31.25	31.00	31.35	32.33	30.96	31.14	31.47	33.39	33.04	34.94	33.28	31.13
19	31.22	30.98	31.36	32.29	30.97	31.29	31.43	33.17	33.46	34.66	32.49	31.14
20	31.19	30.99	31.35	32.27	30.95	31.17	31.47	33.86	33.25	34.32	32.38	31.13
21	31.16	31.01	31.37	32.22	30.93	31.12	31.47	33.50	33.21	34.11	33.44	31.11
22	31.15	31.02	31.39	32.15	30.93	31.11	31.39	32.76	34.00	34.27	32.59	31.09
23	31.15	31.01	31.37	32.09	30.92	31.13	31.36	32.84	33.67	34.43	31.84	31.10
24	31.12	31.04	31.34	32.05	31.01	31.18	31.38	32.84	33.45	34.04	32.84	31.10
25	31.11	31.03	31.29	32.06	31.41	31.25	32.52	32.96	33.46	33.62	33.57	31.13
26	31.09	31.03	31.24	32.04	31.46	31.27	35.13	32.98	33.37	33.61	33.15	31.11
27	31.07	31.04	31.23	32.01	31.45	31.31	34.94	33.48	33.17	33.61	32.80	31.09
28	31.05	31.06	31.23	32.02	31.44	31.33	33.78	33.42	33.06	33.74	32.79	31.06
29	31.04	31.06	31.30	32.04	---	31.37	---	33.12	32.96	33.74	32.77	31.05
30	31.04	31.03	31.45	32.04	---	31.43	---	33.00	33.02	33.83	32.72	31.06
31	31.04	---	31.28	32.04	---	31.54	---	32.98	---	33.87	32.71	---
MEAN	31.66	31.03	31.26	31.88	31.46	31.23	---	---	33.09	33.88	33.16	31.34
MAX	34.28	31.06	31.45	32.43	32.04	31.54	---	---	34.14	35.67	34.88	32.70
MIN	31.04	30.94	31.00	31.09	30.92	30.99	---	---	31.65	32.90	31.84	31.05

CAL YR 1990 MEAN 31.67 MAX 35.42 MIN 30.83

HILLSBOROUGH RIVER BASIN

02303300 FLINT CREEK NEAR THONOTOSASSA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1957, 1966-67, 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
OCT									
22...	1107	31.16	2.5	381	8.8	28.0	26.5	7.8	--
DEC									
05...	1500	31.03	0.70	420	8.9	20.0	19.5	10.5	0.010
JAN									
14...	1225	32.03	16	430	8.6	19.5	19.0	10.1	--
MAY									
10...	0757	31.29	3.8	456	9.0	22.5	27.0	6.1	--
JUN									
25...	1145	33.46	87	400	--	32.0	28.5	9.0	--
AUG									
22...	0840	33.35	71	280	7.4	27.0	28.0	5.5	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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
22...	0.010	<0.020	0.050	3.6	3.7	0.920	0.670	16
DEC								
05...	0.010	0.020	0.090	3.8	3.9	1.00	0.740	--
JAN								
14...	<0.010	<0.020	0.020	4.1	4.1	1.10	0.730	--
MAY								
10...	0.010	<0.020	0.010	4.3	4.3	1.00	0.560	14
JUN								
25...	<0.010	<0.020	0.010	2.6	2.6	0.530	0.410	--
AUG								
22...	0.040	0.050	0.390	1.7	2.1	0.750	0.620	--

HILLSBOROUGH RIVER BASIN

02303330 HILLSBOROUGH RIVER AT MORRIS BRIDGE NEAR THONOTOSASSA, FL

LOCATION.--Lat 28°05'50", long 82°18'45", in NW¼ sec.33, T.27 S., R.20 E., Hillsborough County, Hydrologic Unit 03100205, on downstream side of bridge on State Highway 579, 2.9 mi north of Thonotosassa, 3.4 mi upstream from Trout Creek, and 29 mi upstream from mouth.

DRAINAGE AREA.--375 mi^2, approximately.

PERIOD OF RECORD.--Prior to April 1964 (miscellaneous discharge measurements only); April 1964 to April 1965 (fragmentary); May 1965 to September 1968 (gage heights only); October 1968 to June 1972 (gage heights and miscellaneous discharge measurements); July 1972 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 Oct. 16, 1972, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated during flood stage by Hillsborough River at Structure S-155 (02303354) 3.0 mi downstream since 1985.

AVERAGE DISCHARGE.--19 years (water years 1973-91), 247 ft^3/s, 8.94 in/yr, 179,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,670 ft^3/s, Sept. 9, 1988, gage height, 34.15 ft, affected by backwater; minimum daily discharge, 36 ft^3/s, July 24, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,000 ft^3/s, July 16, gage height, 29.71 ft; minimum daily discharge, 42 ft^3/s, Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	61	52	47	67	54	66	211	231	359	742	393
2	86	61	52	45	70	52	67	166	247	544	1020	356
3	89	59	50	46	73	51	70	121	290	813	1290	335
4	89	56	48	48	74	53	70	95	334	934	1290	304
5	86	54	46	49	74	51	69	79	351	876	1120	262
6	88	53	45	50	73	54	72	70	354	782	932	227
7	87	52	47	46	69	56	79	65	355	700	759	199
8	84	55	48	43	67	55	75	61	352	676	623	174
9	77	57	50	42	66	60	69	59	330	703	520	156
10	86	61	53	48	63	67	76	59	297	696	448	143
11	116	60	54	57	60	60	84	57	262	658	393	133
12	149	55	55	66	57	57	85	55	229	640	348	124
13	209	52	55	69	56	58	81	55	200	720	309	114
14	239	51	51	66	53	60	74	60	177	1060	266	106
15	232	52	48	67	51	60	69	66	156	1730	235	100
16	207	54	48	87	47	59	66	62	143	1980	238	95
17	161	55	47	88	45	61	64	71	154	1940	241	91
18	118	53	47	88	45	69	60	93	170	1850	249	89
19	98	50	46	88	45	81	55	108	e195	1850	294	88
20	90	47	47	88	45	82	56	125	e210	1820	345	86
21	85	46	49	85	45	81	59	142	e205	1670	364	88
22	81	45	51	79	45	79	57	167	e260	1430	395	87
23	79	45	53	74	45	76	54	182	e440	1220	418	85
24	77	49	54	70	44	73	55	178	e440	1070	415	83
25	74	54	54	68	44	70	64	173	e390	941	466	89
26	71	56	51	68	46	66	100	163	e400	868	527	91
27	66	56	47	69	46	61	131	164	396	770	576	89
28	64	53	49	74	50	57	177	180	378	684	553	88
29	61	54	53	73	---	55	238	205	342	646	508	85
30	59	54	53	71	---	56	250	224	310	644	475	81
31	60	---	50	68	---	61	---	233	---	644	438	---
TOTAL	3249	1610	1553	2027	1565	1935	2592	3749	8598	31918	16797	4441
MEAN	105	53.7	50.1	65.4	55.9	62.4	86.4	121	287	1030	542	148
MAX	239	61	55	88	74	82	250	233	440	1980	1290	393
MIN	59	45	45	42	44	51	54	55	143	359	235	81
AC-FT	6440	3190	3080	4020	3100	3840	5140	7440	17050	63310	33320	8810
CFSM	.28	.14	.13	.17	.15	.17	.23	.32	.76	2.75	1.44	.39
IN.	.32	.16	.15	.20	.16	.19	.26	.37	.85	3.17	1.67	.44

CAL YR 1990 TOTAL 38894 MEAN 107 MAX 397 MIN 45 AC-FT 77150 CFSM .28 IN. 3.86
WTR YR 1991 TOTAL 80034 MEAN 219 MAX 1980 MIN 42 AC-FT 158700 CFSM .58 IN. 7.94

e Estimated

HILLSBOROUGH RIVER BASIN

02303330 HILLSBOROUGH RIVER AT MORRIS BRIDGE NEAR THONOTOSASSA, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.71	24.31	24.10	23.97	24.44	24.15	24.41	26.03	26.14	26.68	27.98	27.02
2	24.81	24.31	24.10	23.93	24.50	24.11	24.43	25.76	26.22	27.29	28.47	26.86
3	24.87	24.27	24.06	23.95	24.55	24.08	24.50	25.40	26.42	27.94	28.87	26.77
4	24.87	24.20	24.00	24.00	24.58	24.11	24.49	24.99	26.60	28.19	28.89	26.63
5	24.82	24.15	23.95	24.04	24.58	24.07	24.47	24.67	26.67	28.08	28.64	26.41
6	24.86	24.12	23.94	24.04	24.55	24.15	24.54	24.49	26.68	27.88	28.33	26.21
7	24.83	24.11	23.98	23.95	24.48	24.19	24.68	24.38	26.69	27.70	28.01	26.04
8	24.77	24.16	24.01	23.88	24.44	24.17	24.60	24.29	26.68	27.64	27.72	25.87
9	24.64	24.21	24.04	23.87	24.41	24.28	24.47	24.26	26.59	27.70	27.46	25.73
10	24.81	24.29	24.12	24.00	24.35	24.44	24.63	24.25	26.45	27.69	27.22	25.63
11	25.31	24.27	24.15	24.22	24.28	24.29	24.77	24.22	26.29	27.60	27.01	25.54
12	25.65	24.18	24.17	24.41	24.22	24.21	24.79	24.17	26.13	27.55	26.83	25.44
13	26.02	24.10	24.16	24.48	24.18	24.23	24.71	24.17	25.97	27.74	26.65	25.33
14	26.18	24.07	24.08	24.41	24.13	24.27	24.57	24.28	25.83	28.40	26.43	25.21
15	26.15	24.10	24.01	24.43	24.08	24.27	24.47	24.41	25.70	29.39	26.27	25.11
16	26.01	24.15	24.00	24.84	23.97	24.27	24.42	24.33	25.60	29.69	26.28	25.01
17	25.73	24.17	23.99	24.86	23.94	24.31	24.37	24.51	25.69	29.65	26.29	24.93
18	25.36	24.12	23.98	24.86	23.94	24.46	24.28	24.96	25.79	29.55	26.34	24.88
19	25.06	24.04	23.97	24.86	23.94	24.72	24.18	25.22	---	29.55	26.57	24.84
20	24.89	23.99	23.98	24.85	23.94	24.74	24.20	25.45	---	29.52	26.81	24.80
21	24.79	23.95	24.02	24.80	23.92	24.72	24.25	25.59	---	29.36	26.90	24.84
22	24.72	23.94	24.08	24.69	23.92	24.67	24.21	25.77	---	29.07	27.02	24.84
23	24.68	23.94	24.13	24.57	23.93	24.62	24.15	25.86	---	28.78	27.11	24.79
24	24.63	24.02	24.16	24.50	23.90	24.56	24.16	25.84	---	28.55	27.10	24.75
25	24.59	24.14	24.15	24.46	23.91	24.50	24.36	25.81	---	28.35	27.29	24.87
26	24.51	24.19	24.07	24.44	23.94	24.40	25.10	25.74	---	28.22	27.48	24.93
27	24.42	24.19	23.99	24.48	23.96	24.29	25.50	25.75	26.83	28.03	27.61	24.88
28	24.36	24.13	24.02	24.57	24.06	24.22	25.83	25.86	26.77	27.86	27.55	24.84
29	24.31	24.15	24.12	24.57	---	24.18	26.17	26.00	26.64	27.77	27.43	24.79
30	24.26	24.16	24.12	24.51	---	24.20	26.24	26.10	26.50	27.77	27.32	24.71
31	24.28	---	24.05	24.45	---	24.31	---	26.15	---	27.77	27.19	---
MEAN	24.96	24.14	24.05	24.38	24.18	24.33	24.66	25.12	---	28.29	27.32	25.42
MAX	26.18	24.31	24.17	24.86	24.58	24.74	26.24	26.15	---	29.69	28.89	27.02
MIN	24.26	23.94	23.94	23.87	23.90	24.07	24.15	24.17	---	26.68	26.27	24.71

HILLSBOROUGH RIVER BASIN

02303350 TROUT CREEK NEAR SULPHUR SPRINGS, FL

LOCATION.--Lat 28°08'20", long 82°21'50", in SW¼ sec.13, T.27 S., R.19 E., Hillsborough County, Hydrologic Unit 03100205, at bridge on State Highway 581, 4.1 mi upstream from mouth, and 9.0 mi northeast of Sulphur Springs.

DRAINAGE AREA.--23 mi^2, approximately.

PERIOD OF RECORD.--September 1962 (miscellaneous high-water discharge measurements only); February 1964 to November 1966 (discharge measurements and crest-stage partial records); December 1966 to May 1974 (discharge measurements only); June 1974 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 Sept. 12, 1974, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 19.9 ft^3/s, 11.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,540 ft^3/s, June 28, 1974, gage height, 42.85 ft, from floodmark; no flow for many days each year; creek dry at gage many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 424 ft^3/s, Aug. 2, gage height, 40.41 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	.04	.03	.00	.52	.00	3.0	6.9	3.6	40	120	32
2	4.8	.02	.04	.00	.51	.00	2.8	5.5	2.5	88	402	23
3	3.7	.00	.02	.00	.49	.00	2.2	4.0	1.6	113	308	e17
4	2.8	.00	.00	.00	.42	.00	1.7	2.9	.97	113	184	e12
5	2.4	.00	.00	.00	.32	.06	1.3	1.9	2.9	85	116	e7.0
6	2.0	.00	.00	.00	.24	.10	12	1.1	4.3	75	83	e4.5
7	1.4	.00	.00	.00	.21	.06	24	.51	3.3	71	60	e2.8
8	.92	.00	.00	.00	.19	.03	15	.22	2.3	49	41	e1.7
9	.61	.00	.00	.00	.16	.11	10	.08	1.4	32	27	e1.2
10	1.7	.00	.00	.00	.11	.58	8.0	.01	.73	24	18	e.80
11	11	.01	.00	.00	.07	.52	6.4	.00	.41	24	12	.56
12	32	.01	.00	.00	.04	.35	5.0	.00	.25	44	9.9	.42
13	25	.00	.00	.00	.01	.28	3.9	.00	.14	230	6.8	.29
14	14	.00	.00	.00	.01	.26	3.2	.00	.06	347	4.7	.21
15	10	.00	.00	.00	.03	.25	2.5	.00	.02	271	3.6	.13
16	9.2	.00	.00	.35	.07	.30	2.1	.00	.00	170	3.1	.09
17	7.5	.00	.00	1.3	.08	.69	2.0	.00	.00	110	3.1	.06
18	5.9	.00	.00	.75	.06	2.8	1.4	.00	1.1	78	2.6	.04
19	4.8	.00	.00	.44	.04	6.9	1.0	.08	7.5	56	2.4	.01
20	3.5	.00	.00	.36	.02	7.7	.96	.29	4.6	41	11	.00
21	2.4	.00	.00	.28	.00	5.5	.96	.56	2.3	29	45	.00
22	1.8	.00	.00	.24	.00	4.9	.74	.45	1.7	23	61	.00
23	1.3	.00	.00	.20	.00	4.8	.67	.65	1.4	20	57	.00
24	.99	.00	.00	.19	.00	4.6	1.3	1.3	1.1	18	86	.00
25	.68	.00	.00	.21	.00	4.2	6.3	1.5	3.8	30	184	.00
26	.40	.00	.00	.23	.00	3.6	29	.86	31	41	193	.09
27	.27	.00	.00	.24	.00	2.9	27	.65	27	29	142	.11
28	.22	.00	.00	.31	.00	2.3	17	.68	12	19	102	.04
29	.16	.00	.00	.66	---	1.8	13	.46	6.3	13	78	.01
30	.10	.00	.00	.73	---	1.8	9.3	.30	7.4	10	60	.00
31	.07	---	.00	.58	---	2.6	---	.57	---	11	45	---
TOTAL	157.02	0.08	0.09	7.07	3.60	59.99	213.73	31.47	131.68	2304	2471.2	104.06
MEAN	5.07	.003	.003	.23	.13	1.94	7.12	1.02	4.39	74.3	79.7	3.47
MAX	32	.04	.04	1.3	.52	7.7	29	6.9	31	347	402	32
MIN	.07	.00	.00	.00	.00	.00	.67	.00	.00	10	2.4	.00
CFSM	.22	.00	.00	.01	.01	.08	.31	.04	.19	3.23	3.47	.15
IN.	.25	.00	.00	.01	.01	.10	.35	.05	.21	3.73	4.00	.17

CAL YR 1990 TOTAL 1156.32 MEAN 3.17 MAX 72 MIN .00 CFSM .14 IN. 1.87
WTR YR 1991 TOTAL 5483.99 MEAN 15.0 MAX 402 MIN .00 CFSM .65 IN. 8.87

e Estimated

HILLSBOROUGH RIVER BASIN

02303352 TROUT CREEK NEAR TEMPLE TERRACE, FL

LOCATION.--Lat 28°05'52", long 82°21'30", in NE¼ sec.36, T.27 S., R.19 E., Hillsborough County, Hydrologic Unit 03100205, near left bank, 80 ft upstream from wooden bridge, 1.1 mi upstream from mouth, 2.6 mi downstream from State Highway 581, and 4.9 mi northeast of Temple Terrace.

DRAINAGE AREA.--31 mi^2, approximately.

PERIOD OF RECORD.--1977, 1978 (miscellaneous discharge measurements); October 1980 to current year (discharge measurements only).

GAGE.--Nonrecording gage. Datum of gage has not been determined.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 61 ft^3/s, June 7, 1982; no flow observed some years.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND
OCT 17...	1030	12
DEC 04...	1015	0.33
JAN 08...	1430	0.0
MAR 06...	1200	0.0
JUN 25...	1445	2.2

HILLSBOROUGH RIVER BASIN

02303400 CYPRESS CREEK NEAR SAN ANTONIO, FL

LOCATION.--Lat 28°19'25", long 82°23'03", in SW¼ sec.11, T.25 S., R.19 E., Pasco County, Hydrologic Unit 03100205, at center on downstream side of box culverts on State Highway 52, 3.3 mi downstream from Bee Tree Branch, 6.8 mi west of San Antonio, 12 mi west of Dade City, and 25 mi upstream from mouth.

DRAINAGE AREA.--56.0 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR FL 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Aug. 25, 1965, at present datum; Aug 25, 1965 to Aug 20, 1984, at same site at datum 70.00 ft lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--28 years (water years 1964-91), 20.5 ft^3/s, 4.97 in/yr, 14,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s, Mar. 31, 1987, gage height, 76.05 ft; no flow for many days in some years; creek dry at gage many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 164 ft^3/s, July 15, gage height, 73.79 ft; no flow for many days; creek dry at gage many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	55	28
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	96	25
3	.00	.00	.00	.00	.00	.00	.00	.00	.09	21	127	24
4	.00	.00	.00	.00	.00	.00	.00	.00	.83	28	110	23
5	.00	.00	.00	.00	.00	.00	.00	.00	1.5	29	87	20
6	.00	.00	.00	.00	.00	.00	.00	.00	1.7	30	68	18
7	.00	.00	.00	.00	.00	.00	.00	.00	1.6	34	55	15
8	.00	.00	.00	.00	.00	.00	.00	.00	1.4	38	47	12
9	.00	.00	.00	.00	.00	.00	.00	.00	.99	37	41	9.7
10	.00	.00	.00	.00	.00	.00	.00	.00	.62	34	35	7.5
11	.00	.00	.00	.00	.00	.00	.00	.00	.25	41	30	5.6
12	.00	.00	.00	.00	.00	.00	.00	.00	.04	60	26	4.1
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	85	23	3.0
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	129	21	2.2
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	161	19	1.6
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	141	17	1.2
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	117	14	.82
18	.00	.00	.00	.00	.00	.00	.00	.00	.01	99	12	.56
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	87	11	.38
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	82	14	.25
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	83	18	.16
22	.00	.00	.00	.00	.00	.00	.00	.00	.71	88	22	.10
23	.00	.00	.00	.00	.00	.00	.00	.00	1.9	71	21	.07
24	.00	.00	.00	.00	.00	.00	.00	.00	2.4	57	21	.05
25	.00	.00	.00	.00	.00	.00	.00	.00	4.4	48	25	.05
26	.00	.00	.00	.00	.00	.00	.00	.00	5.4	42	33	.06
27	.00	.00	.00	.00	.00	.00	.00	.00	3.1	37	34	.03
28	.00	.00	.00	.00	.00	.00	.00	.00	2.5	33	32	.01
29	.00	.00	.00	.00	---	.00	.00	.00	2.1	31	32	.00
30	.00	.00	.00	.00	---	.00	.00	.00	2.0	29	31	.00
31	.00	---	.00	.00	---	.00	---	.00	---	28	30	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.54	1812.4	1207	202.44
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	1.12	58.5	38.9	6.75
MAX	.00	.00	.00	.00	.00	.00	.00	.00	5.4	161	127	28
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	11	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	67	3590	2390	402
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.02	1.04	.70	.12
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.02	1.20	.80	.13

CAL YR 1990 TOTAL 276.00 MEAN .76 MAX 10 MIN .00 AC-FT 547 CFSM .01 IN. .18
WTR YR 1991 TOTAL 3255.38 MEAN 8.92 MAX 161 MIN .00 AC-FT 6460 CFSM .16 IN. 2.16

HILLSBOROUGH RIVER BASIN

02303400 CYPRESS CREEK NEAR SAN ANTONIO, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	70.39	72.73	72.12
2	---	---	---	---	---	---	---	---	---	71.32	73.29	72.00
3	---	---	---	---	---	---	---	---	69.61	71.84	73.54	71.93
4	---	---	---	---	---	---	---	---	70.24	72.14	73.41	71.88
5	---	---	---	---	---	---	---	---	70.40	72.16	73.21	71.75
6	---	---	---	---	---	---	---	---	70.45	72.19	73.00	71.62
7	---	---	---	---	---	---	---	---	70.44	72.32	72.82	71.46
8	---	---	---	---	---	---	---	---	70.38	72.45	72.67	71.29
9	---	---	---	---	---	---	---	---	70.29	72.43	72.52	71.10
10	---	---	---	---	---	---	---	---	70.18	72.34	72.35	70.92
11	---	---	---	---	---	---	---	---	70.02	72.49	72.18	70.74
12	---	---	---	---	---	---	---	---	69.81	72.89	72.02	70.57
13	---	---	---	---	---	---	---	---	69.67	73.16	71.89	70.43
14	---	---	---	---	---	---	---	---	69.58	73.56	71.82	70.30
15	---	---	---	---	---	---	---	---	69.68	73.77	71.67	70.19
16	---	---	---	---	---	---	---	---	69.69	73.64	71.55	70.09
17	---	---	---	---	---	---	---	---	69.60	73.47	71.40	70.00
18	---	---	---	---	---	---	---	---	69.65	73.32	71.27	69.93
19	---	---	---	---	---	---	---	---	69.73	73.21	71.23	69.86
20	---	---	---	---	---	---	---	---	69.66	73.16	71.42	69.80
21	---	---	---	---	---	---	---	---	69.57	73.17	71.65	69.73
22	---	---	---	---	---	---	---	---	69.80	73.21	71.83	69.68
23	---	---	---	---	---	---	---	---	70.48	73.03	71.79	69.63
24	---	---	---	---	---	---	---	---	70.57	72.85	71.79	69.59
25	---	---	---	---	---	---	---	---	70.79	72.68	72.00	69.59
26	---	---	---	---	---	---	---	---	70.93	72.55	72.29	69.60
27	---	---	---	---	---	---	---	---	70.68	72.43	72.33	69.56
28	---	---	---	---	---	---	---	---	70.59	72.31	72.28	69.51
29	---	---	---	---	---	---	---	---	70.53	72.24	72.28	69.47
30	---	---	---	---	---	---	---	---	70.50	72.14	72.25	69.46
31	---	---	---	---	---	---	---	---	---	72.12	72.21	---
MEAN	---	---	---	---	---	---	---	---	---	72.61	72.22	70.46
MAX	---	---	---	---	---	---	---	---	---	73.77	73.54	72.12
MIN	---	---	---	---	---	---	---	---	---	70.39	71.23	69.46

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
JUL								
16...	1012	73.77	138	100	6.2	25.0	1.5	0.040
AUG								
30...	1224	72.25	32	120	6.1	26.0	2.4	0.140

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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
JUL							
16...	0.020	0.060	0.170	1.6	1.8	0.740	0.680
AUG							
30...	0.010	0.150	0.030	1.5	1.5	0.580	0.530

HILLSBOROUGH RIVER BASIN

02303420 CYPRESS CREEK AT WORTHINGTON GARDENS, FL

LOCATION.--Lat 28°11'08", long 82°24'03", in SW¼ sec.27, T.26 S., R.19 E., Pasco County, Hydrologic Unit 03100205, on right bank 30 ft downstream from bridge on State Highway 54, 0.2 mi southwest of Worthington Gardens, 4.4 mi northeast of Lutz, and 14 mi upstream from mouth.

DRAINAGE AREA.--117 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1964 to October 1971 (annual maximum); November 1971 to May 1974 (gage heights and periodic discharge measurements only); June 1974 to current year.

REVISED RECORDS.--WRD FL 1974: 1964-65 (M), 1967 (M), 1970 (M).

GAGE.--Water-stage recorder. Datum of gage is 40.00 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1972, nonrecording gage 1,000 ft upstream at datum 40.00 ft lower; Nov. 16, 1972, to Aug. 25, 1977, at site 30 ft upstream at present datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 48.4 ft^3/s, 5.62 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft^3/s, Apr. 3, 1987, gage height, 12.62 ft; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 298 ft^3/s, Aug. 4, gage height, 8.12 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	1.8	.25	.00	3.2	.39	7.6	13	1.9	20	200	100
2	5.8	1.5	.25	.00	3.4	.34	7.5	9.0	1.3	26	257	88
3	5.6	1.2	.22	.00	3.5	.53	6.5	6.1	.93	39	275	76
4	4.0	.98	.19	.00	3.5	1.0	5.0	4.1	.69	41	293	66
5	2.7	.79	.15	.00	3.5	1.2	4.0	2.9	.93	36	296	57
6	1.7	.64	.11	.00	3.4	1.4	13	1.9	.96	29	280	50
7	1.1	.53	.08	.00	3.3	1.4	16	1.2	.80	22	255	44
8	.76	.46	.07	.00	3.3	1.2	15	.69	.62	16	227	38
9	.51	.48	.04	.00	3.1	1.6	13	.42	.31	12	198	34
10	.84	1.1	.01	.00	2.8	2.6	9.5	.26	e.09	10	169	31
11	4.5	1.2	.00	.00	2.4	2.8	6.9	.14	e2.0	12	143	26
12	23	1.1	.00	.04	2.0	2.6	4.9	.03	e2.1	20	121	23
13	46	.98	.00	.04	1.8	2.2	3.7	.00	e2.2	58	100	20
14	48	.82	.00	.00	1.6	1.9	2.9	.00	e2.1	102	83	16
15	43	.65	.00	.11	1.9	1.5	2.3	.00	e1.9	113	71	13
16	36	.52	.00	.47	1.8	1.3	1.8	.00	e1.3	109	62	11
17	30	.41	.00	.77	1.7	1.7	1.5	.04	e.50	100	57	9.1
18	26	.33	.00	.80	1.6	7.6	1.1	.22	e.24	91	56	6.9
19	22	.26	.00	.77	1.4	24	.87	.12	e.50	82	59	5.3
20	18	.20	.00	.97	1.2	33	.69	.14	e3.5	81	67	4.2
21	14	.15	.00	1.1	1.1	33	.53	.23	e10	101	78	3.3
22	12	.09	.00	.98	.96	27	.38	.18	e30	123	81	2.6
23	10	.06	.00	.88	.85	21	.30	.42	e50	137	96	2.0
24	8.4	.13	.00	.78	.74	16	.35	2.6	e30	145	126	1.5
25	6.6	.15	.00	.92	.63	12	1.2	5.1	e15	146	171	1.3
26	5.0	.14	.00	1.0	.55	8.6	9.7	5.6	e2.5	143	169	3.0
27	4.1	.11	.00	1.1	.45	6.4	21	5.3	.99	139	165	4.9
28	3.5	.12	.00	1.3	.39	4.7	25	4.1	.82	138	160	5.7
29	3.0	.24	.00	2.0	---	3.6	22	3.3	1.6	138	150	4.7
30	2.5	.26	.00	2.4	---	4.0	18	2.5	14	138	132	3.5
31	2.1	---	.00	2.7	---	5.8	---	2.2	---	135	115	---
TOTAL	393.91	17.40	1.37	19.13	56.07	232.36	222.22	71.79	179.78	2502	4712	751.0
MEAN	12.7	.58	.044	.62	2.00	7.50	7.41	2.32	5.99	80.7	152	25.0
MAX	48	1.8	.25	2.7	3.5	33	25	13	50	146	296	100
MIN	.51	.06	.00	.00	.39	.34	.30	.00	.09	10	56	1.3
CFSM	.11	.00	.00	.01	.02	.06	.06	.02	.05	.69	1.30	.21
IN.	.13	.01	.00	.01	.02	.07	.07	.02	.06	.80	1.50	.24

CAL YR 1990 TOTAL 1904.67 MEAN 5.22 MAX 70 MIN .00 CFSM .04 IN. .61
WTR YR 1991 TOTAL 9159.03 MEAN 25.1 MAX 296 MIN .00 CFSM .21 IN. 2.91

e Estimated

HILLSBOROUGH RIVER BASIN

02303420 CYPRESS CREEK AT WORTHINGTON GARDENS, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.99	2.73	2.42	2.24	2.87	2.44	3.24	3.57	2.69	3.85	7.16	6.11
2	3.25	2.69	2.42	2.23	2.89	2.42	3.24	3.35	2.62	4.12	7.77	5.89
3	3.23	2.65	2.41	2.23	2.91	2.48	3.16	3.15	2.55	4.58	7.93	5.65
4	3.08	2.62	2.40	2.22	2.91	2.59	3.05	2.98	2.50	4.64	8.09	5.42
5	2.93	2.58	2.38	2.21	2.91	2.62	2.96	2.85	2.55	4.50	8.10	5.21
6	2.82	2.54	2.36	2.21	2.90	2.65	3.54	2.74	2.54	4.24	7.97	5.01
7	2.73	2.52	2.35	2.20	2.89	2.64	3.72	2.64	2.51	3.96	7.75	4.82
8	2.67	2.49	2.35	2.20	2.88	2.61	3.68	2.55	2.46	3.67	7.47	4.64
9	2.61	2.50	2.34	2.19	2.86	2.68	3.55	2.48	2.36	3.40	7.17	4.48
10	2.68	2.64	2.33	2.19	2.82	2.79	3.37	2.44	---	3.30	6.85	4.32
11	3.10	2.66	2.31	2.19	2.78	2.81	3.20	2.39	---	3.45	6.52	4.17
12	4.08	2.64	2.30	2.32	2.74	2.79	3.05	2.34	---	3.81	6.21	4.03
13	4.76	2.62	2.29	2.33	2.70	2.75	2.94	2.31	---	5.04	5.93	3.90
14	4.82	2.58	2.28	2.31	2.69	2.71	2.85	2.29	---	5.92	5.68	3.75
15	4.68	2.55	2.27	2.35	2.71	2.66	2.77	2.26	---	6.10	5.47	3.61
16	4.49	2.51	2.27	2.48	2.70	2.63	2.71	2.24	---	6.04	5.33	3.48
17	4.31	2.48	2.26	2.56	2.70	2.68	2.68	2.28	---	5.90	5.22	3.37
18	4.13	2.45	2.25	2.57	2.68	3.19	2.63	2.41	---	5.74	5.18	3.22
19	3.96	2.43	2.25	2.56	2.66	4.04	2.58	2.37	---	5.58	5.26	3.11
20	3.78	2.40	2.25	2.60	2.64	4.40	2.55	2.37	---	5.55	5.43	3.02
21	3.61	2.38	2.24	2.61	2.61	4.39	2.50	2.40	---	5.90	5.70	2.94
22	3.49	2.36	2.25	2.60	2.59	4.20	2.46	2.38	---	6.25	5.74	2.87
23	3.40	2.35	2.25	2.58	2.57	3.95	2.43	2.45	---	6.43	6.05	2.80
24	3.30	2.37	2.25	2.56	2.55	3.70	2.45	2.79	---	6.54	6.53	2.73
25	3.19	2.38	2.25	2.58	2.52	3.49	2.57	3.06	---	6.55	7.16	2.72
26	3.08	2.38	2.24	2.60	2.50	3.30	3.38	3.10	---	6.51	7.16	2.91
27	2.99	2.37	2.24	2.61	2.47	3.15	3.93	3.07	2.48	6.46	7.09	3.08
28	2.93	2.37	2.24	2.64	2.45	3.03	4.11	2.95	2.44	6.45	6.99	3.15
29	2.88	2.41	2.24	2.73	---	2.92	4.01	2.86	2.53	6.45	6.85	3.06
30	2.82	2.42	2.24	2.77	---	2.96	3.80	2.77	3.52	6.45	6.60	2.96
31	2.78	---	2.24	2.81	---	3.11	---	2.73	---	6.42	6.35	---
MEAN	3.41	2.50	2.30	2.43	2.72	3.06	3.10	2.66	---	5.28	6.60	3.88
MAX	4.82	2.73	2.42	2.81	2.91	4.40	4.11	3.57	---	6.55	8.10	6.11
MIN	2.61	2.35	2.24	2.19	2.45	2.42	2.43	2.24	---	3.30	5.18	2.72

CAL YR 1990 MEAN 2.77 MAX 5.33 MIN 2.05

HILLSBOROUGH RIVER BASIN

02303420 CYPRESS CREEK AT WORTHINGTON GARDENS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT										
17...	1130	4.30	30	237	6.8	30.0	25.0	320	1.4	40
MAR										
06...	0850	2.65	1.4	300	6.9	15.0	13.0	--	4.9	--
MAY										
09...	1027	2.49	0.42	290	7.0	27.0	24.0	180	1.8	49
AUG										
26...	1157	7.16	169	128	6.4	31.0	25.0	--	1.0	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)
OCT									
17...	3.3	8.0	2.9	5.6	21	0.10	8.2	227	0.010
MAR									
06...	--	--	--	--	--	--	--	--	0.020
MAY									
09...	3.9	9.4	1.7	1.0	22	0.10	8.0	251	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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
17...	0.010	0.020	0.020	1.9	1.9	0.020	0.030	100	39
MAR									
06...	0.010	0.030	0.010	1.6	1.6	0.020	0.010	--	--
MAY									
09...	0.010	0.020	0.040	1.6	1.6	0.020	0.020	160	34
AUG									
26...	0.010	<0.020	0.020	1.4	1.4	0.230	0.200	--	--

HILLSBOROUGH RIVER BASIN

02303800 CYPRESS CREEK NEAR SULPHUR SPRINGS, FL

LOCATION.--Lat 28°05'20", long 82°24'33", in SE¼ sec.33, T.27 S., R.19 E., Hillsborough County, Hydrologic Unit 03100205, near center of span on downstream side of bridge on State Highway 581, 1.2 mi downstream from Thirteenmile Run, 2.5 mi upstream from mouth, and 5.0 mi northeast of Sulphur Springs.

DRAINAGE AREA.--160 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1956 to January 1964 (miscellaneous discharge measurements only); February 1964 to current year.

REVISED RECORDS.--WDR FL-80-3: 1979.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Nov. 3, 1967, to Mar. 13, 1978, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--27 years, 85.7 ft^3/s, 7.27 in/yr, 62,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum measured discharge, 2,160 ft^3/s, Aug. 1, 1960, gage height, 34.13 ft, (backwater from Hillsborough River); no flow at times most years; creek dry at gage many days in 1977, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 442 ft^3/s, Aug. 3, gage height, 29.51 ft; minimum daily discharge, 0.31 ft^3/s, Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	3.3	.73	.39	5.8	.77	11	35	20	24	253	241
2	6.1	2.5	.68	.38	5.8	.69	9.3	29	16	90	380	214
3	5.6	1.9	.64	.37	5.5	.77	6.8	22	12	111	429	188
4	5.3	1.5	.63	.36	5.1	.95	4.9	18	8.6	96	435	165
5	5.0	1.2	.63	.35	4.5	.93	4.1	13	8.8	84	402	145
6	4.6	1.2	.63	.34	3.9	.82	6.3	9.7	8.4	77	363	125
7	3.7	1.1	.64	.34	3.4	.72	7.0	6.7	7.3	75	332	107
8	3.0	1.1	.67	.34	3.0	.63	7.5	4.4	5.9	72	307	91
9	2.5	1.0	.68	.33	2.6	.94	12	2.4	4.4	65	285	76
10	4.7	1.1	.65	.32	2.2	1.3	18	2.0	3.0	60	264	65
11	8.4	1.1	.63	.31	1.9	1.3	19	1.6	1.9	58	246	57
12	11	1.0	.62	.41	1.6	1.2	18	1.3	1.3	61	224	50
13	11	.97	.60	.44	1.5	1.1	15	1.0	1.0	108	204	44
14	13	.91	.58	.43	1.5	1.1	12	1.0	.76	186	183	39
15	14	.85	.55	.69	1.5	1.1	9.4	.92	.63	203	169	35
16	14	.79	.54	2.2	1.5	1.1	12	.77	.57	205	159	29
17	16	.75	.53	4.5	1.4	1.4	23	.67	.52	199	139	25
18	19	.72	.51	4.9	1.3	5.3	26	1.0	1.2	186	130	21
19	21	.68	.48	4.8	1.2	11	22	2.7	5.3	170	141	18
20	22	.64	.45	5.6	1.1	13	21	11	9.0	152	146	16
21	21	.61	.45	6.1	1.1	15	20	16	10	136	163	16
22	20	.58	.45	5.5	1.0	14	15	16	8.3	117	163	14
23	21	.55	.45	4.6	.97	13	9.7	15	7.1	102	166	12
24	19	.67	.43	3.6	.95	14	7.4	21	6.1	94	156	9.4
25	17	.77	.44	3.5	.94	15	11	41	6.4	93	158	7.9
26	13	.76	.43	3.5	.90	15	40	44	11	107	173	10
27	9.9	.72	.43	3.2	.83	14	60	40	16	118	205	11
28	7.6	.68	.43	3.2	.79	12	60	36	20	132	227	9.9
29	6.2	.78	.43	4.7	---	9.9	53	30	18	139	238	8.8
30	5.2	.79	.43	5.5	---	8.5	43	24	16	144	242	8.0
31	4.2	---	.41	5.5	---	10	---	23	---	153	265	---
TOTAL	339.5	31.22	16.85	76.70	63.78	186.52	583.4	470.16	235.48	3617	7347	1858.0
MEAN	11.0	1.04	.54	2.47	2.28	6.02	19.4	15.2	7.85	117	237	61.9
MAX	22	3.3	.73	6.1	5.8	15	60	44	20	205	435	241
MIN	2.5	.55	.41	.31	.79	.63	4.1	.67	.52	24	130	7.9
AC-FT	673	62	33	152	127	370	1160	933	467	7170	14570	3690
CFSM	.07	.01	.00	.02	.01	.04	.12	.09	.05	.73	1.48	.39
IN.	.08	.01	.00	.02	.01	.04	.14	.11	.05	.84	1.71	.43

CAL YR 1990 TOTAL 2537.45 MEAN 6.95 MAX 60 MIN .00 AC-FT 5030 CFSM .04 IN. .59
WTR YR 1991 TOTAL 14825.61 MEAN 40.6 MAX 435 MIN .31 AC-FT 29410 CFSM .25 IN. 3.45

HILLSBOROUGH RIVER BASIN

02303800 CYPRESS CREEK NEAR SULPHUR SPRINGS, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.29	26.25	25.64	25.30	26.38	25.54	26.69	27.46	27.05	27.11	28.99	28.98
2	26.34	26.18	25.60	25.28	26.38	25.49	26.58	27.29	26.89	28.19	29.37	28.88
3	26.31	26.10	25.57	25.27	26.36	25.54	26.45	27.12	26.70	28.39	29.48	28.78
4	26.27	26.04	25.56	25.26	26.34	25.65	26.32	26.95	26.55	28.27	29.50	28.68
5	26.25	25.99	25.56	25.25	26.29	25.63	26.26	26.78	26.56	28.15	29.42	28.58
6	26.21	25.94	25.57	25.23	26.25	25.57	26.41	26.60	26.54	28.09	29.33	28.47
7	26.13	25.91	25.58	25.23	26.20	25.51	26.46	26.44	26.47	28.06	29.25	28.36
8	26.05	25.88	25.60	25.22	26.17	25.46	26.49	26.28	26.38	28.01	29.18	28.22
9	25.98	25.85	25.60	25.21	26.13	25.64	26.73	26.10	26.28	27.92	29.12	28.07
10	26.21	25.90	25.58	25.20	26.08	25.87	26.95	26.05	26.16	27.84	29.06	27.92
11	26.50	25.88	25.57	25.20	26.04	25.86	27.01	25.99	26.03	27.79	29.00	27.79
12	26.66	25.85	25.55	25.32	25.99	25.81	26.96	25.85	25.86	27.84	28.92	27.67
13	26.70	25.81	25.53	25.36	25.95	25.76	26.86	25.71	25.69	28.31	28.84	27.55
14	26.80	25.76	25.50	25.35	25.93	25.74	26.72	25.69	25.53	28.77	28.76	27.43
15	26.85	25.72	25.48	25.53	25.96	25.74	26.59	25.64	25.45	28.84	28.69	27.30
16	26.86	25.68	25.47	26.02	25.94	25.76	26.67	25.54	25.39	28.85	28.65	27.14
17	26.93	25.65	25.45	26.20	25.89	25.89	27.15	25.48	25.35	28.82	28.55	26.99
18	27.03	25.63	25.43	26.23	25.85	26.31	27.24	25.69	25.57	28.77	28.50	26.84
19	27.10	25.60	25.41	26.22	25.80	26.65	27.10	25.85	26.34	28.70	28.56	26.72
20	27.12	25.57	25.38	26.29	25.76	26.77	27.06	26.67	26.57	28.62	28.58	26.61
21	27.10	25.54	25.37	26.33	25.73	26.83	27.04	26.88	26.63	28.53	28.67	26.61
22	27.08	25.51	25.37	26.29	25.70	26.81	26.83	26.88	26.53	28.43	28.67	26.52
23	27.09	25.48	25.37	26.23	25.67	26.78	26.60	26.87	26.47	28.32	28.68	26.37
24	27.03	25.59	25.36	26.16	25.66	26.81	26.48	27.06	26.40	28.25	28.64	26.23
25	26.95	25.67	25.37	26.15	25.65	26.85	26.61	27.57	26.41	28.24	28.65	26.13
26	26.81	25.66	25.36	26.16	25.62	26.85	27.52	27.64	26.69	28.36	28.71	26.29
27	26.66	25.63	25.34	26.15	25.58	26.81	27.87	27.56	26.89	28.43	28.85	26.35
28	26.54	25.60	25.34	26.15	25.55	26.73	27.87	27.47	27.02	28.51	28.93	26.26
29	26.46	25.67	25.36	26.28	---	26.61	27.77	27.34	26.95	28.55	28.97	26.19
30	26.40	25.67	25.35	26.34	---	26.54	27.62	27.17	26.89	28.58	28.98	26.14
31	26.33	---	25.32	26.35	---	26.63	---	27.14	---	28.62	29.06	---
MEAN	26.61	25.77	25.47	25.77	25.96	26.14	26.90	26.61	26.34	28.33	28.92	27.34
MAX	27.12	26.25	25.64	26.35	26.38	26.85	27.87	27.64	27.05	28.85	29.50	28.98
MIN	25.98	25.48	25.32	25.20	25.55	25.46	26.26	25.48	25.35	27.11	28.50	26.13

CAL YR 1990 MEAN 25.69 MAX 27.84 MIN 24.24
WTR YR 1991 MEAN 26.69 MAX 29.50 MIN 25.20

HILLSBOROUGH RIVER BASIN

02303800 CYPRESS CREEK NEAR SULPHUR SPRINGS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	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)
OCT											
18...	1056	27.04	19	329	6.8	27.0	24.0	240	0.2	56	3.9
DEC											
04...	0830	25.56	0.47	380	7.0	20.0	17.5	--	1.6	--	--
MAR											
07...	1340	25.52	0.67	395	6.9	25.0	18.0	--	3.7	--	--
MAY											
09...	1158	26.10	2.4	312	6.9	29.5	23.5	200	1.6	53	3.6
JUN											
25...	0945	26.39	6.0	298	6.9	--	23.5	--	1.5	--	--
AUG											
27...	1100	28.85	193	173	6.9	--	26.5	--	0.9	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
18...	10	3.0	9.9	24	0.10	10	291	0.010	0.010	0.020
DEC										
04...	--	--	--	--	--	--	--	0.020	0.010	0.030
MAR										
07...	--	--	--	--	--	--	--	0.050	0.010	0.060
MAY										
09...	9.8	1.7	2.2	22	0.10	8.4	265	0.100	0.010	0.110
JUN										
25...	--	--	--	--	--	--	--	0.050	0.010	0.060
AUG										
27...	--	--	--	--	--	--	--	--	0.010	<0.020

DATE	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-PHORUS 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)
OCT										
18...	0.070	2.2	2.3	0.050	0.040	70	2	<1	<1	1700
DEC										
04...	0.030	2.0	2.0	0.050	0.020	--	--	--	--	--
MAR										
07...	0.020	1.6	1.6	0.020	0.010	--	--	--	--	--
MAY										
09...	0.020	1.8	1.8	0.040	0.030	60	<1	<1	<1	850
JUN										
25...	0.010	1.6	1.6	0.070	0.030	--	--	--	--	--
AUG										
27...	0.010	1.5	1.5	0.140	0.130	--	--	--	--	--

HILLSBOROUGH RIVER BASIN

02303800 CYPRESS CREEK NEAR SULPHUR SPRINGS, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
18...	960	2	2	190	190	0.80	2	120	<10	43
MAY										
09...	620	2	<1	50	40	<0.10	2	140	<10	34

HILLSBOROUGH RIVER BASIN

02304000 HILLSBOROUGH RIVER AT FOWLER AVENUE NEAR TEMPLE TERRACE, FL

LOCATION.--Lat 28°03'15", long 82°21'50", in NW¼ sec.13, T.28 S., R.19 E., Hillsborough County, Hydrologic Unit 03100205, on downstream pile of right bent of Fowler Avenue bridge, 0.2 mi downstream from Cow House Creek, 2.0 mi northeast of Temple Terrace, 2.5 mi downstream from Cypress Creek, and 20 mi upstream from mouth.

DRAINAGE AREA.--630 mi^2, approximately.

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--October 1933 to December 1939 (published as "near Harney"); January 1961 to current year (gage heights and miscellaneous discharge measurements only), incomplete. January 1961 to October 1979, published as Hillsborough River at Fowler Avenue near Tampa. Records of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Dec. 1, 1960, nonrecording gage at present site at datum 19.14 ft higher; Dec. 1, 1960, to Apr. 16, 1976, nonrecording gage at present site and datum. Since Sept. 5, 1975, supplementary nonrecording gage at site 450 ft upstream at same datum.

REMARKS.--Stage affected by withdrawal and gate operations at the Tampa Water Department dam during periods of low water.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s, June 20, 1934; gage height, 32.56 ft, present datum, minimum discharge observed, 46 ft^3/s, Apr. 29, 1938.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 34.67 ft, present datum, Sept. 9, 1933, from floodmarks; discharge, 16,400 ft^3/s, from discharge measurement near crest.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 24.50 ft, July 20; minimum, 20.82 ft, Nov. 21.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.42	22.30	21.28	21.20	22.11	22.20	22.16	22.90	22.97	23.10	22.52	23.01
2	22.45	22.23	21.25	21.20	22.11	22.27	22.09	22.85	22.96	23.20	22.73	22.93
3	22.42	22.14	21.23	21.17	22.14	22.26	22.05	22.75	22.99	23.14	23.19	22.87
4	22.37	22.03	21.25	21.19	22.18	22.26	22.06	22.63	23.06	23.26	23.60	22.85
5	22.36	21.92	21.23	21.20	22.20	22.26	22.06	22.56	23.10	23.35	23.76	22.73
6	22.40	21.81	21.21	21.18	22.24	22.27	22.06	22.53	23.12	23.38	23.74	22.75
7	22.38	21.71	21.21	21.15	22.29	---	22.03	22.44	23.09	23.29	23.57	22.75
8	22.35	21.60	21.25	21.15	22.30	22.27	21.96	22.33	23.07	23.21	23.41	22.73
9	22.32	21.52	21.24	21.15	22.31	22.40	21.89	22.25	23.05	23.14	23.20	22.82
10	22.46	21.52	21.23	21.20	22.32	22.49	21.86	22.13	23.06	23.14	23.01	22.78
11	22.55	21.45	21.26	21.29	22.32	22.48	21.82	22.06	23.09	23.12	22.85	22.81
12	22.68	21.39	21.25	21.44	22.32	22.48	21.77	---	23.05	23.14	22.94	22.81
13	22.80	21.31	21.26	21.53	22.36	22.47	21.71	---	23.05	23.22	22.89	22.79
14	22.92	21.22	21.28	21.63	22.34	22.49	21.71	---	23.04	23.18	22.81	22.77
15	23.02	21.12	21.29	21.82	22.32	22.51	21.72	22.01	23.01	23.40	22.82	22.78
16	23.09	21.05	21.25	22.09	22.31	22.53	21.66	21.88	23.00	23.88	22.89	22.77
17	23.11	21.03	21.22	22.19	22.29	22.57	21.70	21.84	23.00	24.27	22.73	22.75
18	23.07	20.98	21.22	22.23	22.26	22.73	21.67	21.88	23.00	24.40	22.78	22.74
19	23.04	20.90	21.20	22.22	22.23	22.76	21.60	22.01	23.02	24.47	22.96	22.76
20	22.99	20.88	21.18	22.25	22.23	22.69	21.53	22.46	23.02	24.48	22.99	22.73
21	22.94	20.87	21.19	22.21	22.23	22.66	21.77	22.59	23.04	24.46	22.87	22.70
22	22.90	20.86	21.18	22.17	22.19	22.63	22.17	22.67	23.04	24.31	22.84	22.66
23	22.87	20.89	21.15	22.16	22.11	22.60	22.29	22.85	22.99	24.09	22.87	22.64
24	22.82	20.96	21.15	22.15	22.08	22.56	22.40	23.05	22.95	23.84	22.88	22.61
25	22.78	20.98	21.19	22.13	22.07	22.49	22.53	23.08	23.06	23.50	22.80	22.60
26	22.73	20.98	21.20	22.11	22.07	22.41	22.67	23.05	23.18	23.24	22.88	22.59
27	22.68	21.01	21.20	22.14	22.12	22.33	22.79	23.05	23.25	23.04	23.04	22.57
28	22.62	21.04	21.22	22.14	22.18	22.27	22.88	23.02	23.22	22.89	23.14	22.54
29	22.55	21.25	21.23	22.13	---	22.26	22.94	22.98	23.13	22.65	23.13	22.49
30	22.47	21.27	21.21	22.13	---	22.28	22.95	22.96	23.09	22.56	23.10	22.46
31	22.39	---	21.19	22.13	---	22.23	---	23.04	---	22.52	23.12	---
MEAN	22.68	21.34	21.22	21.74	22.22	---	22.08	---	23.06	23.45	23.03	22.73
MAX	23.11	22.30	21.29	22.25	22.36	---	22.95	---	23.25	24.48	23.76	23.01
MIN	22.32	20.86	21.15	21.15	22.07	---	21.53	---	22.95	22.52	22.52	22.46

HILLSBOROUGH RIVER BASIN

02304000 HILLSBOROUGH RIVER AT FOWLER AVENUE NEAR TEMPLE TERRACE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT										
18...	1234	23.08	350	6.9	29.0	25.5	240	1.4	50	4.6
DEC										
05...	1245	21.22	400	7.7	20.0	18.5	--	7.5	--	--
JAN										
14...	1120	21.64	365	7.7	15.0	19.5	--	7.0	--	--
MAR										
08...	0820	22.27	365	8.0	21.0	18.0	--	6.9	--	--
MAY										
21...	1135	22.60	310	7.1	27.5	25.5	45	2.4	45	3.8
JUN										
26...	0900	23.18	278	7.1	--	25.5	--	1.8	--	--
AUG										
26...	1035	22.87	198	7.0	--	26.0	--	1.2	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
18...	17	4.0	27	23	0.20	9.3	245	0.010	0.010	0.020
DEC										
05...	--	--	--	--	--	--	--	0.690	0.010	0.700
JAN										
14...	--	--	--	--	--	--	--	--	<0.010	0.730
MAR										
08...	--	--	--	--	--	--	--	0.390	0.010	0.400
MAY										
21...	10	2.1	14	14	0.20	8.1	183	0.220	0.010	0.230
JUN										
26...	--	--	--	--	--	--	--	0.090	0.010	0.100
AUG										
26...	--	--	--	--	--	--	--	0.040	0.010	0.050

DATE	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)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT										
18...	0.040	0.96	1.0	0.340	0.320	50	2	<1	<1	360
DEC										
05...	0.010	0.38	0.39	0.120	0.090	--	--	--	--	--
JAN										
14...	0.020	0.42	0.44	0.150	0.110	--	--	--	--	--
MAR										
08...	0.020	0.38	0.40	0.140	0.110	--	--	--	--	--
MAY										
21...	0.070	0.48	0.55	0.400	0.210	<10	<1	<1	<1	150
JUN										
26...	0.020	1.2	1.2	0.470	0.400	--	--	--	--	--
AUG										
26...	0.010	1.1	1.1	0.400	0.370	--	--	--	--	--

HILLSBOROUGH RIVER BASIN

02304000 HILLSBOROUGH RIVER AT FOWLER AVENUE NEAR TEMPLE TERRACE, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
18...	190	<1	<1	20	20	<0.10	<1	280	<10	20
MAY										
21...	70	<1	<1	20	10	<0.10	4	300	10	8.4

HILLSBOROUGH RIVER BASIN

02304500 HILLSBOROUGH RIVER NEAR TAMPA, FL

LOCATION.--Lat 28°01'25", long 82°25'40", in NW¼ sec.29, T.28 S., R.19 E., Hillsborough County, Hydrologic Unit 03100205, on left bank at upstream side of control structure for Tampa Reservoir, at 30th Street, 5.4 mi northeast of Tampa, and 10 mi upstream from mouth.

DRAINAGE AREA.--650 mi^2, approximately.

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1234: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (city of Tampa bench mark). Prior to Oct. 1, 1945, at site 2.1 mi upstream at datum 0.66 ft higher.

REMARKS.--Records poor. Flow regulated at station since Oct. 1, 1945, by manipulation of radial gates in spillways and dam by city of Tampa Water Department. Some augmentation at times by pumping from Sulphur Springs at Sulphur Springs into reservoir. Diversion from reservoir 1.3 mi upstream from station by city of Tampa for water supply. Diversion at times since May 1979 from basin into Tampa Bypass Canal during high flow.

COOPERATION.--Records of gate operation and diversions furnished by city of Tampa water department.

AVERAGE DISCHARGE.--40 years (water years 1939-78), 593 ft^3/s, 12.39 in/yr, 429,600 acre-ft/yr, adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft^3/s, Mar. 21, 1960; maximum gage height, 22.89 ft, Aug. 2, 1960; no flow Nov. 30 to Dec. 2, 1945, Apr. 21 to May 18, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 25.6 ft, Sept. 7, 1933, at former site and datum, from floodmarks, affected by backwater prior to failure of Tampa power dam, 2.1 mi below former gage. A discharge of 16,500 ft^3/s, was measured Sept. 9, 1933.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,590 ft^3/s, July 20; maximum gage height, 22.85 ft, Oct. 17; minimum daily discharge, 0.5 ft^3/s (estimated, gates closed and flow consists of leakage) Sept. 23-30; minimum gage height, 20.47 ft, July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.50	.40	.20	.30	.50	.20	.20	164	538	1270	939
2	1.0	.50	.40	.20	.30	.50	.20	.20	182	677	1300	817
3	1.0	.50	.40	.20	.30	.50	.20	.20	106	748	1580	700
4	1.0	.50	.40	.20	.30	.50	.20	.20	157	933	2050	594
5	1.0	.50	.40	.20	.30	.50	.20	.20	158	979	1920	507
6	.90	.50	.40	.20	.30	.60	.20	.20	249	1030	2000	317
7	.90	.50	.40	.20	.30	.60	.20	.20	237	953	1880	318
8	.90	.50	.40	.20	.30	.60	.20	.20	237	924	1820	185
9	.90	.50	.40	.20	.30	.60	.20	.20	215	808	1460	184
10	32	.50	.40	.20	.30	.60	.20	.20	109	834	1370	138
11	89	.50	.40	.20	.40	.60	.20	.20	106	861	1020	67
12	.80	.50	.40	.20	.40	.60	.20	.20	80	926	636	73
13	1.7	.50	.40	.20	.40	.60	.20	.20	59	1670	670	69
14	20	.50	.40	.20	.40	.60	.20	.20	65	1630	558	35
15	61	.50	.40	.20	.40	.60	.20	.20	162	1590	454	29
16	94	.40	.30	.30	.40	.60	.20	.10	61	1880	490	25
17	98	.40	.30	.30	.40	.60	.20	.10	60	2190	516	18
18	81	.40	.30	.30	.40	.60	.20	.10	75	2390	270	146
19	88	.40	.30	.30	.40	.60	.20	.10	148	2540	449	28
20	68	.40	.30	.30	.40	.60	.20	.10	108	2590	924	13
21	54	.40	.30	.30	.50	.60	.20	.10	252	2540	727	5.2
22	43	.40	.30	.30	.50	.60	.20	.10	156	2460	706	.63
23	24	.40	.30	.30	.50	.60	.20	216	192	2080	807	e.50
24	7.5	.40	.30	.30	.50	.60	.20	347	81	2170	934	e.50
25	1.3	.40	.30	.30	.50	.40	.20	166	137	1750	907	e.50
26	.60	.40	.30	.30	.50	.20	.20	190	322	1660	776	e.50
27	.60	.40	.30	.30	.50	.20	.20	221	334	1490	875	e.50
28	.60	.40	.30	.30	.50	.20	.20	83	366	1430	994	e.50
29	.60	.40	.30	.30	---	.20	.20	105	311	1230	1000	e.50
30	.60	.40	.30	.30	---	.20	.20	77	452	1060	1020	e.50
31	.60	---	.30	.30	---	.20	---	284	---	1990	1010	---
TOTAL	775.50	13.50	10.80	7.80	11.00	15.50	6.00	1692.70	5341	46551	32393	5211.83
MEAN	25.0	.45	.35	.25	.39	.50	.20	54.6	178	1502	1045	174
MAX	98	.50	.40	.30	.50	.60	.20	347	452	2590	2050	939
MIN	.60	.40	.30	.20	.30	.20	.20	.10	59	538	270	.50
AC-FT	1540	27	21	15	22	31	12	3360	10590	92330	64250	10340

CAL YR 1990 TOTAL 14176.10 MEAN 38.8 MAX 407 MIN .30 AC-FT 28120
WTR YR 1991 TOTAL 92029.63 MEAN 252 MAX 2590 MIN .10 AC-FT 182500

e Estimated

HILLSBOROUGH RIVER BASIN

02304500 HILLSBOROUGH RIVER NEAR TAMPA, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.25	22.12	21.18	21.06	21.91	21.99	21.80	22.01	22.38	22.47	20.92	22.10
2	22.27	22.04	21.12	21.05	21.91	22.00	21.72	22.19	22.41	22.31	20.92	22.16
3	22.21	21.94	21.10	21.02	21.88	22.03	21.62	22.37	22.52	22.08	21.00	22.23
4	22.16	21.83	21.12	21.05	21.89	22.06	21.52	22.46	22.60	22.08	20.94	22.31
5	22.14	21.71	21.09	21.04	21.94	22.06	21.47	22.48	22.59	22.03	20.92	22.23
6	22.17	21.60	21.07	21.01	21.97	22.06	21.46	22.48	22.57	22.05	20.94	22.40
7	22.16	21.50	21.08	20.96	21.99	22.08	21.42	22.40	22.51	22.00	21.00	22.43
8	22.15	21.39	21.11	20.99	22.05	22.06	21.42	22.29	22.50	22.02	21.31	22.48
9	22.12	21.31	21.10	21.00	22.09	22.23	21.35	22.22	22.49	22.05	21.42	22.61
10	22.28	21.30	21.08	21.06	22.10	22.28	21.25	22.23	22.58	22.14	21.56	22.59
11	22.33	21.24	21.12	21.13	22.12	22.27	21.17	22.13	22.65	22.14	21.71	22.64
12	22.44	21.20	21.10	21.27	22.13	22.26	21.11	22.04	22.64	22.11	22.20	22.66
13	22.54	21.12	21.12	21.36	22.12	22.26	21.07	21.97	22.71	21.90	22.25	22.64
14	22.64	21.02	21.16	21.48	22.13	22.28	21.03	21.82	22.72	21.26	22.26	22.63
15	22.73	20.91	21.17	21.69	22.13	22.32	20.98	21.65	22.70	21.07	22.34	22.66
16	22.78	20.84	21.11	21.94	22.13	22.34	20.98	21.51	22.71	21.00	22.47	22.65
17	22.79	20.81	21.09	22.03	22.14	22.37	20.97	21.48	22.71	20.98	22.29	22.63
18	22.76	20.77	21.08	22.06	22.13	22.53	20.92	21.53	22.69	21.02	22.45	22.63
19	22.77	20.69	21.06	22.02	22.10	22.48	20.93	21.62	22.69	20.97	22.61	22.65
20	22.74	20.70	21.04	22.03	22.04	22.35	20.97	22.11	22.71	20.92	22.44	22.62
21	22.72	20.70	21.06	22.04	22.05	22.28	20.96	22.20	22.69	20.92	22.24	22.59
22	22.70	20.69	21.03	22.03	22.05	22.26	20.92	22.28	22.65	20.91	22.21	22.56
23	22.65	20.74	20.99	21.97	22.02	22.22	20.89	22.49	22.58	21.01	22.14	22.54
24	22.61	20.81	20.98	21.95	21.91	22.20	20.90	22.61	22.56	21.04	22.10	22.50
25	22.55	20.81	21.04	21.96	21.84	22.18	21.04	22.53	22.66	20.88	21.94	22.49
26	22.52	20.81	21.06	21.94	21.85	22.10	21.47	22.52	22.67	20.86	22.06	22.49
27	22.48	20.85	21.07	21.91	21.86	21.97	21.52	22.54	22.67	20.92	22.16	22.47
28	22.42	20.89	21.09	21.91	21.91	21.87	21.60	22.55	22.60	21.00	22.20	22.44
29	22.35	21.14	21.09	21.93	---	21.81	21.76	22.52	22.53	20.95	22.16	22.39
30	22.28	21.16	21.05	21.90	---	21.76	21.88	22.48	22.52	21.06	22.14	22.36
31	22.19	---	21.03	21.90	---	21.79	---	22.51	---	21.10	22.16	---
MEAN	22.45	21.15	21.08	21.57	22.01	22.15	21.27	22.20	22.61	21.46	21.85	22.49
MAX	22.79	22.12	21.18	22.06	22.14	22.53	21.88	22.61	22.72	22.47	22.61	22.66
MIN	22.12	20.69	20.98	20.96	21.84	21.76	20.89	21.48	22.38	20.86	20.92	22.10

CAL YR 1990 MEAN 21.47 MAX 22.79 MIN 18.95
WTR YR 1991 MEAN 21.86 MAX 22.79 MIN 20.69

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL

LOCATION.--Lat 28°01'15", long 82°27'07", in NE¼ sec.25, T.28 S., R.18 E., Hillsborough County, Hydrologic Unit 03100205, at swimming pool, 100 ft west of U. S. Highway 41 in Sulphur Springs, and 500 ft upstream from mouth of outlet channel at Hillsborough River.

PERIOD OF RECORD.--1917, 1929, 1930 (one discharge measurement in each year); February 1931 to June 1934 (monthly discharge measurements published as "at Tampa"); 1935, 1945, 1946 (miscellaneous discharge measurements); May 1956 to June 1959 (periodic discharge measurements only); July 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 15, 1959, nonrecording gage at same site and datum.

REMARKS.--Records fair. Discharge measurements made in spring run about 300 ft downstream from gage. Flow regulated by operating gates in control at swimming pool outlet at head of springs. Some diversions at times by pumping from the spring pool into Hillsborough River above the dam by the city of Tampa Water Department (see station no. 02304500 Hillsborough River near Tampa).

AVERAGE DISCHARGE.--32 years, 39.6 ft^3/s, 25.6 mg/d.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 163 ft^3/s, Aug. 3, 1945, maximum gage height, 11.11 ft, Mar. 21, 1960 (pool flooded by Hillsborough River); minimum daily discharge, 0.10 ft^3/s, May 26, 28, 29, 30, 31, 1981 (affected by pumpage).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 48 ft^3/s, Aug. 1, 2, 3; maximum gage height, 7.84 ft, Aug. 1, 2; minimum daily discharge, 2.6 ft^3/s, Feb. 28, Mar. 2.

REVISIONS.--Revised figures of discharge and diversion for water years 1988, 1989, 1990, superceding those previously published are given below.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	36	e24	16	29	3.2	30	30	36	37	48	44
2	37	36	e32	16	29	2.6	29	29	36	39	48	44
3	36	36	23	16	29	3.3	29	28	36	38	48	44
4	36	36	17	16	29	16	29	29	38	38	47	44
5	36	36	16	21	29	14	30	29	38	39	45	44
6	40	30	17	28	29	14	30	29	37	38	45	44
7	37	21	17	22	29	14	31	29	37	38	46	44
8	36	24	22	16	29	14	30	29	37	38	46	44
9	36	21	23	3.6	29	16	30	29	37	38	46	44
10	39	20	18	3.3	29	16	30	30	37	37	45	44
11	40	19	17	3.3	29	16	30	30	36	38	45	43
12	39	19	17	3.7	29	15	30	30	36	39	45	43
13	38	19	17	3.1	29	15	30	30	35	43	45	42
14	38	19	17	3.0	30	15	30	30	34	44	46	41
15	37	18	22	3.9	30	20	30	30	34	43	45	41
16	37	23	29	4.6	29	27	30	30	35	42	45	41
17	37	32	23	18	29	28	29	31	34	42	46	40
18	38	32	17	27	29	30	29	31	35	43	46	40
19	38	27	17	28	29	30	29	31	36	44	46	43
20	38	19	16	28	23	29	30	32	36	44	47	43
21	38	19	16	28	16	29	30	32	36	44	46	42
22	38	19	22	28	16	29	29	31	37	43	45	41
23	38	18	29	27	16	29	29	32	36	43	44	41
24	37	23	23	28	18	29	29	36	36	44	44	41
25	37	31	16	28	6.2	29	30	36	36	44	44	42
26	37	26	16	28	2.8	29	32	35	36	43	44	42
27	37	18	17	28	8.8	29	32	35	36	43	44	42
28	37	18	16	29	2.6	29	30	35	36	44	44	41
29	37	e18	22	29	---	30	31	35	36	44	45	40
30	37	e18	29	29	---	30	31	35	36	44	45	40
31	29	---	23	29	---	31	---	36	---	45	45	---
TOTAL	1153	731	630	591.5	662.4	661.1	898	974	1081	1283	1410	1269
MEAN	37.2	24.4	20.3	19.1	23.7	21.3	29.9	31.4	36.0	41.4	45.5	42.3
MAX	40	36	32	29	30	31	32	36	38	45	48	44
MIN	29	18	16	3.0	2.6	2.6	29	28	34	37	44	40

CAL YR 1990 TOTAL 11333.2 MEAN 31.0 MAX 41 MIN 3.0
WTR YR 1991 TOTAL 11344.0 MEAN 31.1 MAX 48 MIN 2.6

e Estimated

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL--Continued

DAILY MEAN DIVERSION, IN CUBIC FEET PER SECOND, FROM SULPHUR SPRINGS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	10	15	15	.00	30	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	15	.00	30	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	15	.00	30	.00	.00	.00	.00	.00	.00
4	.00	.00	15	15	.00	15	.00	.00	.00	.00	.00	.00
5	.00	.00	15	7.6	.00	15	.00	.00	.00	.00	.00	.00
6	.00	7.6	15	.00	.00	15	.00	.00	.00	.00	.00	.00
7	.00	15	15	7.6	.00	15	.00	.00	.00	.00	.00	.00
8	.00	15	7.6	15	.00	15	.00	.00	.00	.00	.00	.00
9	.00	15	7.6	30	.00	15	.00	.00	.00	.00	.00	.00
10	.00	15	15	30	.00	15	.00	.00	.00	.00	.00	.00
11	.00	15	15	30	.00	15	.00	.00	.00	.00	.00	.00
12	.00	15	15	30	.00	15	.00	.00	.00	.00	.00	.00
13	.00	15	15	30	.00	15	.00	.00	.00	.00	.00	.00
14	.00	15	7.6	30	.00	15	.00	.00	.00	.00	.00	.00
15	.00	15	.00	30	.00	7.6	.00	.00	.00	.00	.00	.00
16	.00	7.6	7.6	30	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	15	11	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	15	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	7.6	15	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	15	15	.00	7.6	.00	.00	.00	.00	.00	.00	.00
21	.00	15	15	.00	15	.00	.00	.00	.00	.00	.00	.00
22	.00	15	7.6	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	7.6	7.6	.00	15	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	15	.00	24	.00	.00	.00	.00	.00	.00	.00
26	.00	7.6	15	.00	30	.00	.00	.00	.00	.00	.00	.00
27	.00	15	15	.00	22	.00	.00	.00	.00	.00	.00	.00
28	.00	15	15	.00	30	.00	.00	.00	.00	.00	.00	.00
29	.00	15	7.6	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	15	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	13	---	7.6	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	13.00	303.00	330.80	341.20	143.60	262.60	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.42	10.1	10.7	11.0	5.13	8.47	.000	.000	.000	.000	.000	.000
MAX	13	15	15	30	30	30	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1990 TOTAL 1071.80 MEAN 2.94 MAX 30 MIN .00
WTR YR 1991 TOTAL 1394.20 MEAN 3.82 MAX 30 MIN .00

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL--Continued

EXTREMES FOR WATER YEAR 1990.--Maximum daily discharge, 45 ft^3/s, Oct. 1; maximum gage height, 7.79 ft, Oct. 1, 2, 5; minimum daily discharge, 3.0 ft^3/s, Feb. 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	8.2	32	36	33	e5.0	39	32	29	29	36	39
2	44	8.2	32	35	33	e5.0	38	32	29	30	36	38
3	44	8.1	32	35	33	5.4	39	32	29	32	36	38
4	44	8.0	32	35	33	5.7	38	32	28	30	36	38
5	44	7.9	32	36	33	6.0	37	32	27	29	36	38
6	43	7.9	32	35	33	6.1	37	32	27	29	36	38
7	43	7.9	32	35	33	6.0	38	31	28	29	36	38
8	43	7.9	33	35	25	15	37	31	30	29	36	38
9	42	8.2	35	35	24	37	37	31	28	28	39	38
10	42	7.8	33	35	24	38	37	31	28	28	40	37
11	41	7.6	33	35	32	38	36	31	27	28	38	37
12	41	7.5	34	35	34	38	34	31	27	28	37	37
13	41	7.3	35	35	34	38	34	30	27	28	37	37
14	41	7.4	33	35	34	38	34	30	27	31	38	37
15	41	23	34	34	34	38	34	30	27	32	37	37
16	41	33	34	34	34	38	34	30	27	32	37	36
17	41	33	34	34	33	38	34	30	27	32	39	36
18	41	33	34	34	32	38	33	30	27	35	39	36
19	40	33	35	34	31	38	33	29	28	37	39	36
20	40	33	37	34	31	38	32	29	27	35	39	35
21	40	33	37	34	31	37	33	29	27	35	39	35
22	40	33	36	34	31	37	33	29	28	36	39	35
23	40	33	36	34	21	37	33	29	31	35	39	35
24	38	33	35	34	e3.0	37	33	29	30	35	40	35
25	39	33	35	34	e3.0	37	33	30	28	35	39	35
26	22	34	35	34	e4.0	37	33	30	28	36	39	35
27	9.8	33	36	34	e4.0	36	33	30	29	37	39	35
28	9.3	33	36	34	e5.0	36	33	30	29	36	39	34
29	8.7	32	36	34	---	36	33	30	28	36	39	35
30	8.5	32	36	33	---	36	32	29	29	35	40	36
31	8.2	---	37	33	---	40	---	29	---	35	41	---
TOTAL	1105.5	626.9	1063	1068	735.0	915.2	1044	940	841	1002	1180	1094
MEAN	35.7	20.9	34.3	34.5	26.2	29.5	34.8	30.3	28.0	32.3	38.1	36.5
MAX	45	34	37	36	34	40	39	32	31	37	41	39
MIN	8.2	7.3	32	33	3.0	5.0	32	29	27	28	36	34

CAL YR 1989 TOTAL 11352.7 MEAN 31.1 MAX 50 MIN 1.4
WTR YR 1990 TOTAL 11614.6 MEAN 31.8 MAX 45 MIN 3.0

e Estimated

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL--Continued

DAILY MEAN DIVERSION, IN CUBIC FEET PER SECOND, FROM SULPHUR SPRINGS, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00
2	.00	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00
3	.00	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00
4	.00	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00
5	.00	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00
6	.00	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00
7	.00	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00
8	.00	30	.00	.00	10	20	.00	.00	.00	.00	.00	.00
9	.00	30	.00	.00	10	.00	.00	.00	.00	.00	.00	.00
10	.00	30	.00	.00	10	.00	.00	.00	.00	.00	.00	.00
11	.00	30	.00	.00	4.0	.00	.00	.00	.00	.00	.00	.00
12	.00	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	11	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	30	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	30	.00	.00	.00	.00	.00	.00	.00
26	18	.00	.00	.00	30	.00	.00	.00	.00	.00	.00	.00
27	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00	.00
28	30	.00	.00	.00	30	.00	.00	.00	.00	.00	.00	.00
29	30	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	30	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	30	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	168.00	430.00	0.00	0.00	195.00	230.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	5.42	14.3	.000	.000	6.96	7.42	.000	.000	.000	.000	.000	.000
MAX	30	30	.00	.00	30	30	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1989 TOTAL 1930.10 MEAN 5.29 MAX 30 MIN .00
WTR YR 1990 TOTAL 1023.00 MEAN 2.80 MAX 30 MIN .00

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL--Continued

EXTREMES FOR WATER YEAR 1989.--Maximum daily discharge, 50 ft^3/s, Sept. 6; maximum gage height, 7.79 ft, Sept. 2, 5; minimum daily discharge, 1.4 ft^3/s, June 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e44	37	e38	38	35	33	37	6.5	1.6	32	40	44
2	e44	37	e38	38	35	34	37	16	1.6	32	39	48
3	e44	37	e38	38	35	34	37	31	1.5	32	39	49
4	e44	40	e38	38	34	34	37	28	1.4	32	39	48
5	e44	39	e38	37	e34	34	37	6.3	1.4	32	38	49
6	e44	38	e40	36	e34	e34	37	5.7	1.9	33	38	50
7	e44	37	e40	36	e34	e34	36	5.4	1.9	33	37	48
8	e43	37	e40	36	e34	e34	35	5.1	1.9	34	36	48
9	e43	37	e40	35	34	e34	35	4.9	1.7	33	37	48
10	e43	37	e40	34	34	35	35	4.8	1.6	33	39	47
11	e43	37	e40	34	e32	35	35	4.3	3.1	33	38	47
12	e43	37	e40	34	31	36	35	3.9	11	34	38	47
13	e43	36	e40	34	33	32	35	3.9	e34	34	38	46
14	43	36	e40	34	33	33	36	3.8	34	33	38	46
15	43	36	e40	34	33	37	36	3.6	34	33	38	45
16	42	e36	41	34	33	37	36	3.4	34	33	38	45
17	41	e36	40	35	33	37	36	3.1	34	33	37	44
18	41	e36	40	38	33	37	36	2.9	33	33	37	44
19	40	e36	40	39	33	37	36	2.7	33	34	38	44
20	40	e36	40	36	33	37	36	2.6	32	34	38	47
21	40	e36	40	36	33	37	36	2.5	30	34	38	45
22	40	e36	40	36	33	37	35	2.4	30	35	41	45
23	39	e36	39	36	33	37	34	2.3	33	38	40	47
24	39	e36	39	36	32	37	34	2.1	32	37	39	46
25	38	e36	39	36	32	37	34	1.9	30	40	41	46
26	38	e38	39	36	33	37	34	1.8	27	39	43	45
27	38	e38	39	36	33	37	16	1.7	28	37	42	44
28	38	e38	39	35	33	37	7.1	1.7	31	37	45	44
29	37	e38	39	35	---	37	6.6	1.8	30	38	43	45
30	37	e38	39	35	---	37	6.4	1.8	31	39	42	45
31	37	---	38	35	---	37	---	1.7	---	40	43	---
TOTAL	1277	1108	1221	1110	932	1105	963.1	169.6	600.6	1074	1217	1386
MEAN	41.2	36.9	39.4	35.8	33.3	35.6	32.1	5.47	20.0	34.6	39.3	46.2
MAX	44	40	41	39	35	37	37	31	34	40	45	50
MIN	37	36	38	34	31	32	6.4	1.7	1.4	32	36	44

CAL YR 1988 TOTAL 11958.4 MEAN 32.7 MAX 59 MIN 1.2
WTR YR 1989 TOTAL 12163.3 MEAN 33.3 MAX 50 MIN 1.4

e Estimated

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL--Continued

DAILY MEAN DIVERSION, IN CUBIC FEET PER SECOND, FROM SULPHUR SPRINGS, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	18	30	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	5.1	30	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	30	29	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	20	30	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	30	30	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	30	30	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	30	30	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	30	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	110.00	863.10	359.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	3.67	27.8	12.0	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	30	30	30	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1988 TOTAL 695.80 MEAN 1.90 MAX 30 MIN .00
WTR YR 1989 TOTAL 1332.10 MEAN 3.65 MAX 30 MIN .00

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL--Continued

EXTREMES FOR WATER YEAR 1988.--Maximum daily discharge, 59 ft^3/s, Sept. 10, 11; maximum gage height, 7.79 ft, Sept. 11; minimum daily discharge, 1.2 ft^3/s, June 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	39	33	38	36	34	32	34	31	24	27	27	37
2	37	32	39	36	35	32	34	30	25	27	26	39
3	36	33	39	37	35	32	34	30	25	27	25	39
4	36	33	40	36	35	33	34	29	25	27	26	38
5	36	32	39	35	34	34	33	29	24	27	29	42
6	36	32	40	35	34	35	33	29	11	27	28	48
7	35	31	41	35	33	32	33	29	4.6	27	28	51
8	35	32	41	35	32	32	33	30	22	27	29	57
9	34	32	41	34	32	32	33	30	23	27	29	58
10	34	32	41	35	31	35	30	30	23	27	30	59
11	35	31	41	35	32	33	29	14	22	27	30	59
12	37	31	40	35	31	33	30	18	22	27	30	58
13	36	30	38	34	31	34	30	28	22	21	29	58
14	35	31	38	34	31	33	30	28	22	14	29	58
15	35	31	38	34	33	33	30	28	23	5.7	29	57
16	35	31	37	34	32	33	30	27	11	2.1	31	e56
17	35	32	37	34	32	33	30	27	8.1	2.0	33	e54
18	35	35	37	34	32	34	30	27	1.3	2.7	32	e54
19	35	34	37	34	32	37	32	27	1.2	10	34	e54
20	35	34	37	34	33	35	33	27	1.3	8.2	33	e52
21	35	34	37	35	32	34	32	26	2.1	2.2	35	e52
22	34	35	37	34	32	34	32	25	1.7	2.2	34	e52
23	34	35	37	33	33	35	32	24	12	2.2	33	e50
24	34	35	36	33	33	35	31	24	23	2.3	34	e50
25	34	35	37	38	32	35	29	28	24	2.7	34	e48
26	34	36	37	35	33	35	29	26	25	2.8	34	e48
27	34	38	37	34	33	34	28	24	25	16	35	e46
28	34	38	37	33	32	34	29	25	25	24	34	e46
29	34	38	36	33	31	34	29	25	26	26	35	e45
30	33	38	36	34	---	34	30	25	28	26	35	e44
31	33	---	36	34	---	34	---	25	---	27	35	---
TOTAL	1084	1004	1182	1072	945	1045	936	825	532.3	523.1	965	1509
MEAN	35.0	33.5	38.1	34.6	32.6	33.7	31.2	26.6	17.7	16.9	31.1	50.3
MAX	39	38	41	38	35	37	34	31	28	27	35	59
MIN	33	30	36	33	31	32	28	14	1.2	2.0	25	37

CAL YR 1987 TOTAL 13928 MEAN 38.2 MAX 49 MIN 30
WTR YR 1988 TOTAL 11622.4 MEAN 31.8 MAX 59 MIN 1.2

e Estimated

HILLSBOROUGH RIVER BASIN

02306000 SULPHUR SPRINGS AT SULPHUR SPRINGS, FL--Continued

DAILY MEAN DIVERSION, IN CUBIC FEET PER SECOND, FROM SULPHUR SPRINGS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.8	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	19	30	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	15	30	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.00	439.80	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	8.53	14.2	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	30	30	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

WTR YR 1988 TOTAL 695.80 MEAN 1.90 MAX 30 MIN .00 AC-FT 1380

TAMPA BAY AND COASTAL AREAS

02306500 SWEETWATER CREEK NEAR SULPHUR SPRINGS, FL

LOCATION.--Lat 28°02'35", long 82°30'42", in SW¼ sec.16, T.28 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, 25 ft upstream from culverts on private road, 160 ft upstream from Gunn Highway, 1.7 mi downstream from Lake Ellen, and 3.5 mi west of intersection Interstate 75 and Busch Boulevard at Sulphur Springs.

DRAINAGE AREA.--7.43 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 26.00 ft above National Geodetic Vertical Datum of 1929. Prior to May 3, 1974, at site 160 ft downstream. Prior to Oct. 15, 1965, at datum 4.68 ft higher; Oct. 15, 1965, to May 15, 1967, at datum 3.00 ft higher; May 15, 1967, to May 3, 1974, at present datum.

REMARKS.--Records fair. Flow affected by regulation of control structures upstream from station. Since January 1970, flow has been diverted from basin (downstream from station) through Channel G to Rocky Creek.

AVERAGE DISCHARGE.--40 years, 6.54 ft^3/s, 4,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 438 ft^3/s, Mar. 17, 1960; maximum gage height, 9.57 ft, May 18, 1979; no flow for many days in some years; creek dry at gage in June 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 25	1615	Unknown	6.41	Aug. 1	1215	*102	*7.34
July 13	1415	73	6.95	Aug. 15	1645	65	6.16

Minimum daily discharge, 0.29 ft^3/s, May 12, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	.88	.72	.61	1.0	.59	.85	e2.0	13	8.4	68	28
2	1.2	.75	.69	.53	.92	.54	.79	e1.5	7.0	16	60	31
3	.63	.77	.63	.58	.87	.99	.65	e1.5	4.8	13	43	26
4	.64	.82	.69	.52	.78	.88	.68	1.4	15	4.3	34	24
5	1.2	.74	.54	.60	.83	.69	1.0	1.3	14	3.1	28	21
6	1.2	.83	.59	.62	.65	.59	1.7	.88	11	1.9	24	14
7	.82	.70	.55	.53	.74	.65	1.2	.63	8.1	1.1	21	5.7
8	.58	.78	.67	.61	.69	.58	1.0	.52	6.0	.87	18	4.3
9	.52	1.7	.64	.53	.68	1.2	.91	.38	4.6	.87	18	3.2
10	12	2.0	.64	.52	.75	1.0	.75	.50	4.1	.93	9.4	2.4
11	11	1.4	.56	.54	.60	.86	.78	.40	4.3	.99	3.4	2.2
12	9.3	1.0	.57	1.2	.64	.72	.67	.29	2.7	1.3	1.8	1.9
13	6.3	1.1	.61	.78	.57	.77	.64	.38	.84	31	1.2	1.6
14	4.2	.77	.49	.69	.78	.71	.64	.29	.91	30	1.7	1.6
15	3.2	.72	.56	2.0	.80	.65	.60	.57	1.7	21	21	1.6
16	2.5	.65	.61	2.8	.67	.84	.63	.81	1.6	15	27	1.4
17	2.0	.70	.52	1.8	.69	1.0	.60	2.1	e1.0	7.9	21	1.3
18	1.3	.67	.64	1.2	.63	4.3	.51	1.3	e1.5	e5.0	21	1.8
19	1.6	.62	.59	1.1	.56	2.2	.50	4.3	e2.5	e3.5	21	2.0
20	1.6	.68	.52	1.1	.68	1.0	7.5	12	e2.0	e3.0	28	1.5
21	2.1	.59	.63	.95	.63	.68	4.2	7.9	e1.0	e2.0	29	1.6
22	2.1	.67	.63	.89	.58	.64	1.6	2.6	6.2	e1.5	26	1.4
23	1.8	.72	.67	.82	.62	.68	1.2	2.4	16	e1.5	26	1.4
24	1.4	1.0	.67	.82	.61	.69	1.2	18	17	e3.0	28	1.3
25	1.4	.90	.59	1.0	.53	.70	e20	31	15	e3.5	26	1.6
26	1.0	.86	.59	.93	.67	.66	e24	23	11	e3.0	22	1.9
27	.90	.85	.67	.91	.50	.70	e14	15	8.2	e2.0	20	1.5
28	.89	.87	.64	1.2	.58	.54	e6.5	8.6	5.0	e1.5	18	1.4
29	.95	.81	.65	1.2	---	.57	e4.0	4.5	e3.0	e1.0	13	1.3
30	.88	.64	.64	1.1	---	.96	e3.0	15	e1.0	e1.5	14	1.2
31	.77	---	.53	.98	---	1.0	---	25	---	e4.0	28	---
TOTAL	78.38	26.19	18.94	29.66	19.25	28.58	102.30	186.05	190.05	193.66	720.5	191.1
MEAN	2.53	.87	.61	.96	.69	.92	3.41	6.00	6.33	6.25	23.2	6.37
MAX	12	2.0	.72	2.8	1.0	4.3	24	31	17	31	68	31
MIN	.52	.59	.49	.52	.50	.54	.50	.29	.84	.87	1.2	1.2
AC-FT	155	52	38	59	38	57	203	369	377	384	1430	379

CAL YR 1990 TOTAL 775.36 MEAN 2.12 MAX 28 MIN .16 AC-FT 1540
WTR YR 1991 TOTAL 1784.66 MEAN 4.89 MAX 68 MIN .29 AC-FT 3540

e Estimated

02306500 SWEETWATER CREEK NEAR SULPHUR SPRINGS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-66, 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
APR										
03...	0730	3.52	0.65	468	6.9	17.5	30	5.6	E1.6	--
MAY										
09...	1700	3.40	0.26	535	7.1	26.0	35	1.6	1.7	--
29...	1130	4.14	4.3	270	6.7	27.0	40	3.4	1.2	25000
AUG										
06...	1420	4.85	24	171	6.9	30.0	40	5.2	1.8	--
SEP										
03...	1410	4.87	26	183	6.9	29.5	50	5.1	1.7	--

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	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)	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)
APR										
03...	--	44	3.4	44	5.1	17	64	<0.10	7.3	274
MAY										
09...	--	51	3.4	53	6.3	14	76	<0.10	10	307
29...	170	26	2.2	19	3.1	15	36	0.10	3.5	166
AUG										
06...	--	18	1.7	10	2.6	12	20	0.10	2.0	100
SEP										
03...	--	20	1.8	11	2.6	13	22	0.10	2.4	116

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (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)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
03...	4	0.010	0.910	0.040	0.76	2.40	2.40	150	7.4
MAY									
09...	<1	0.320	1.80	0.320	1.1	2.90	2.80	140	6.9
29...	2	0.030	0.350	0.110	0.90	0.680	0.660	130	7.1
AUG									
06...	6	0.010	0.130	0.060	0.80	0.200	0.150	100	8.8
SEP									
03...	10	0.010	0.120	0.060	0.93	0.210	0.130	110	6.5

TAMPA BAY AND COASTAL AREAS

02306647 SWEETWATER CREEK NEAR TAMPA, FL

LOCATION.--Lat 28°00'49", long 82°32'43", in SW¼ sec.30, T.28 E., R.18 E., Hillsborough County, Hydrologic Unit 03100206, near left bank, 24 ft upstream from structure G-1, 1,600 ft southwest of Benjamin Road, 4.0 mi upstream from mouth, and 7.5 mi northwest of Tampa.

DRAINAGE AREA.--14.3 mi^2.

PERIOD OF RECORD.--April 1964 to September 1981 (discharge measurements only); October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Hillsborough County bench mark). Prior to Mar. 25, 1975, nonrecording gage 1,000 ft upstream at datum 10 ft lower; Mar. 25, 1975, to September 1981, nonrecording gage at same site at present datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--6 years (water years 1986-91), 19.4 ft^3/s, 18.4 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 679 ft^3/s, Sept. 9, 1988, gage height, 13.50 ft; no flow for many days in most years; creek observed dry at gage May 16, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 437 ft^3/s, Aug. 1, gage height, 12.86 ft; minimum daily discharge, 1.5 ft^3/s, Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	3.1	2.9	3.1	5.0	3.3	12	6.1	51	42	272	79
2	10	2.9	2.6	2.9	4.9	3.1	6.8	6.4	26	61	227	117
3	6.6	2.9	2.5	2.9	3.7	4.5	4.4	11	19	58	160	59
4	4.8	2.9	2.5	2.9	3.3	4.3	2.7	8.4	23	48	121	42
5	7.1	3.0	2.6	2.5	3.6	3.1	2.7	6.9	29	41	92	36
6	28	3.1	2.5	e2.3	3.7	2.9	5.6	5.8	26	37	43	30
7	14	2.9	2.5	e2.1	3.9	2.9	6.5	4.8	22	32	31	19
8	8.2	2.5	2.5	e1.9	4.3	3.3	5.8	4.3	18	29	25	18
9	6.0	2.9	2.5	e1.7	4.3	14	5.6	4.4	16	26	23	15
10	61	4.3	2.5	e1.6	4.6	11	5.3	4.3	16	25	19	14
11	73	3.7	2.1	1.5	4.8	6.0	4.8	4.8	16	26	14	13
12	56	3.0	2.3	4.1	4.0	5.2	4.3	4.4	16	47	11	12
13	32	2.9	2.5	2.6	3.5	4.9	4.3	4.9	17	186	10	11
14	20	2.9	2.7	2.5	4.0	4.9	4.3	4.9	19	114	10	11
15	14	2.7	3.0	5.9	4.2	5.2	4.4	4.9	19	96	24	9.7
16	11	2.2	3.2	16	3.5	5.9	4.7	4.9	23	78	56	8.4
17	9.3	2.4	3.3	12	3.2	7.5	4.3	6.2	26	56	31	6.9
18	8.0	2.4	3.2	5.6	3.1	50	4.3	18	29	87	33	15
19	7.3	2.5	2.7	3.9	3.2	22	4.4	9.5	42	100	40	34
20	6.5	2.7	2.4	3.8	3.2	8.1	5.9	31	37	28	70	19
21	6.5	2.8	2.4	4.9	3.4	5.0	13	23	23	17	91	13
22	6.9	2.9	2.5	4.9	3.5	3.9	9.1	14	19	14	57	10
23	6.3	2.9	2.7	4.2	3.5	3.5	6.7	21	65	14	49	7.8
24	5.6	3.5	3.1	3.8	3.6	3.9	6.9	24	60	21	49	6.7
25	5.2	3.3	3.1	5.7	3.7	6.3	56	49	55	23	60	8.0
26	4.9	3.0	3.2	6.2	3.6	13	85	43	47	16	51	15
27	4.0	2.8	3.2	5.1	3.3	5.2	35	41	35	11	49	11
28	3.7	2.9	3.3	5.7	3.5	4.8	18	23	28	9.6	56	7.7
29	3.6	2.9	3.3	7.0	---	5.4	12	16	24	7.9	68	6.5
30	3.5	2.8	3.3	4.5	---	9.3	9.3	35	25	11	49	5.2
31	3.3	---	3.3	3.0	---	15	---	95	---	23	86	---
TOTAL	447.3	87.7	86.4	136.8	106.1	247.4	354.1	539.9	871	1384.5	1977	659.9
MEAN	14.4	2.92	2.79	4.41	3.79	7.98	11.8	17.4	29.0	44.7	63.8	22.0
MAX	73	4.3	3.3	16	5.0	50	85	95	65	186	272	117
MIN	3.3	2.2	2.1	1.5	3.1	2.9	2.7	4.3	16	7.9	10	5.2
CFSM	1.01	.20	.19	.31	.26	.56	.83	1.22	2.03	3.12	4.46	1.54
IN.	1.16	.23	.22	.36	.28	.64	.92	1.40	2.27	3.60	5.14	1.72

CAL YR 1990 TOTAL 3370.5 MEAN 9.23 MAX 80 MIN 1.4 CFSM .65 IN. 8.77
WTR YR 1991 TOTAL 6898.1 MEAN 18.9 MAX 272 MIN 1.5 CFSM 1.32 IN. 17.94

e Estimated

TAMPA BAY AND COASTAL AREAS

02306774 ROCKY CREEK AT STATE HIGHWAY 587 NEAR CITRUS PARK, FL

LOCATION.--Lat 28°03'55", long 82°34'00", in NW¼ sec.12, T.28 S., R.17 E., Hillsborough County, Hydrologic Unit 03100206, near left bank, 20 ft north of bridge on State Highway 587 (Gunn Highway), 0.2 mi east of intersection Sheldon Road and Gunn Highway, 1.2 mi south of Citrus Park, and 9.0 mi upstream from mouth.

DRAINAGE AREA.--17.8 mi^2.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Hillsborough County bench mark).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--6 years, 11.4 ft^3/s, 8.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 360 ft^3/s, Sept. 9, 1988, gage height, 25.24 ft; no flow for many days in 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 313 ft^3/s, Aug. 1, gage height, 24.63 ft; minimum daily discharge, 0.26 ft^3/s, Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	1.2	.60	.37	.85	.32	1.2	1.8	4.7	6.6	198	78
2	3.2	1.2	.58	.36	.79	.26	.89	1.5	5.2	8.6	242	65
3	2.7	1.2	.54	.38	.69	.34	.67	1.3	5.7	6.2	169	58
4	2.4	1.2	.53	.39	.64	.43	.57	1.1	6.2	5.3	140	51
5	2.2	1.1	.51	.44	.62	.38	.64	1.1	6.7	4.5	125	45
6	2.1	1.1	.49	.43	.60	.36	2.1	1.0	7.2	3.8	114	40
7	2.0	1.1	.47	.43	.56	.32	1.6	1.0	7.2	3.2	103	36
8	1.9	1.1	.45	.42	.59	.30	1.1	1.1	6.6	2.6	92	34
9	1.8	1.2	.45	.42	.59	.38	.89	1.1	5.7	2.3	82	31
10	3.1	1.7	.44	.43	.56	.52	.70	1.1	4.6	2.1	72	28
11	4.0	1.5	.39	.42	.54	.46	.62	1.1	3.9	2.1	62	25
12	4.8	1.3	.33	.70	.50	.41	.57	1.1	3.3	4.7	53	22
13	3.5	1.2	.29	.63	.51	.35	.53	1.1	3.0	72	45	20
14	2.8	1.1	.30	.55	.51	.32	.53	1.1	3.6	161	39	19
15	2.5	1.0	.30	.64	.56	.34	.56	1.0	12	74	35	17
16	2.3	.98	.32	.92	.54	.32	.55	1.1	7.5	38	32	15
17	2.1	.91	.32	.89	.48	.46	.54	1.2	5.4	29	30	14
18	2.0	.90	.32	.76	.47	2.5	.51	1.2	4.0	26	27	13
19	2.0	.83	.32	.74	.44	4.3	.51	1.1	10	24	26	13
20	1.9	.78	.32	.71	.41	1.4	.72	4.7	22	27	31	11
21	1.9	.71	.32	.77	.44	.90	.98	5.5	15	36	43	10
22	1.9	.66	.32	.73	.41	.73	.80	2.8	19	30	e34	9.1
23	1.8	.65	.37	.68	.41	.62	.71	2.6	86	31	e30	8.6
24	1.8	.71	.39	.63	.37	.57	.76	4.5	68	40	e28	7.7
25	1.7	.78	.38	.68	.36	.56	13	30	25	40	e36	7.3
26	1.8	.71	.40	.76	.36	.51	86	16	16	43	e40	9.5
27	1.6	.69	.37	.71	.31	.49	34	8.0	14	41	e37	8.0
28	1.5	.69	.35	.76	.34	.50	10	4.3	14	37	42	6.8
29	1.4	.69	.38	.96	---	.50	4.6	3.0	8.8	34	58	6.0
30	1.3	.66	.41	.85	---	.77	2.6	2.4	6.1	34	56	5.8
31	1.3	---	.38	.75	---	1.2	---	3.7	---	45	122	---
TOTAL	71.1	29.55	12.34	19.31	14.45	21.82	169.45	109.6	406.4	914.0	2243	713.8
MEAN	2.29	.98	.40	.62	.52	.70	5.65	3.54	13.5	29.5	72.4	23.8
MAX	4.8	1.7	.60	.96	.85	4.3	86	30	86	161	242	78
MIN	1.3	.65	.29	.36	.31	.26	.51	1.0	3.0	2.1	26	5.8
CFSM	.13	.06	.02	.03	.03	.04	.32	.20	.76	1.66	4.06	1.34
IN.	.15	.06	.03	.04	.03	.05	.35	.23	.85	1.91	4.69	1.49

CAL YR 1990 TOTAL 1210.90 MEAN 3.32 MAX 67 MIN .00 CFSM .19 IN. 2.53
WTR YR 1991 TOTAL 4724.82 MEAN 12.9 MAX 242 MIN .26 CFSM .73 IN. 9.87

e Estimated

TAMPA BAY AND COASTAL AREAS

02306910 BRUSHY CREEK NEAR TAMPA, FL

LOCATION.--Lat 28°04'10", long 82°31'51", in SW¼ sec.5, T.28 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, on upstream side of bridge on West Village Drive, 1.0 mi south of Erlich Road, 2.4 mi upstream from mouth, and 6.0 mi northwest of Tampa.

DRAINAGE AREA.--7.16 mi^2.

PERIOD OF RECORD.--October 1981 to September 1987; October 1987 to September 1991 (gage heights only), discontinued.

GAGE.--Water-stage recorder. Datum of gage is 2.64 ft above National Geodetic Vertical Datum of 1929 (levels by Hillsborough County).

AVERAGE DISCHARGE.--6 years (water years 1982-87), 16.6 ft^3/s, 12,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft^3/s, June 18, 1982; maximum gage height, 36.80 ft, Nov. 23, 1988; minimum discharge, 0.24 ft^3/s, May 17, 18, 1984; minimum gage height, 32.10 ft, June 1, 2, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 36.69 ft, Aug. 1; minimum, 32.37 ft, Apr. 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.05	33.20	33.26	33.19	33.09	32.72	33.32	33.26	33.45	33.58	35.76	34.32
2	33.56	33.20	33.25	33.00	33.17	33.04	33.20	33.23	33.42	33.74	35.56	34.15
3	33.36	33.06	32.87	33.10	33.01	33.13	32.96	33.22	33.32	33.50	34.82	34.00
4	33.34	33.05	32.87	33.15	33.13	33.17	33.01	33.18	33.34	33.48	34.48	33.89
5	33.34	33.21	33.19	33.17	33.01	33.09	33.14	33.04	33.40	33.49	34.29	33.81
6	33.41	33.07	33.18	33.18	33.07	32.87	33.48	32.87	33.39	33.41	34.18	33.74
7	33.36	33.19	33.17	33.18	33.05	32.83	33.31	32.66	33.37	33.34	34.03	33.67
8	33.35	33.02	33.21	33.09	33.07	32.96	33.07	33.00	33.21	33.28	33.88	33.69
9	33.18	33.05	33.23	32.97	32.99	33.06	33.02	33.05	33.07	33.24	33.82	33.67
10	33.75	33.57	33.20	32.77	33.06	33.19	33.16	33.37	33.15	33.22	33.79	33.61
11	33.96	33.25	33.19	32.94	33.06	33.01	32.75	33.20	33.13	33.24	33.69	33.62
12	33.84	33.20	33.17	33.11	33.03	32.98	32.44	33.12	32.85	33.27	33.69	33.58
13	33.66	33.09	33.17	33.06	33.02	33.04	32.40	33.14	32.70	34.68	33.62	33.52
14	33.54	33.10	33.18	33.11	33.06	32.94	32.66	32.84	32.91	34.99	33.51	33.48
15	33.40	33.10	33.21	33.07	33.13	33.00	33.03	32.76	33.69	34.35	33.62	33.44
16	33.37	33.20	33.23	33.39	33.12	32.93	33.00	33.13	33.97	34.01	33.73	33.32
17	33.35	33.09	33.07	33.34	33.11	33.20	32.94	33.33	33.67	33.80	33.61	33.29
18	33.34	33.26	33.03	33.25	33.05	33.74	32.96	33.43	33.54	33.64	33.70	33.33
19	33.31	33.15	32.92	33.10	32.94	33.67	32.75	33.35	33.71	33.49	34.06	33.36
20	33.31	33.12	32.92	33.28	33.04	33.18	33.15	33.74	33.75	33.60	34.19	33.15
21	33.34	33.20	32.84	33.23	33.05	33.13	33.22	33.63	33.53	33.93	34.47	32.96
22	33.35	33.20	33.09	33.17	33.04	33.26	33.15	33.42	33.84	33.86	34.16	33.19
23	33.20	33.21	33.12	33.05	33.08	33.24	33.10	33.48	35.23	33.92	33.99	33.26
24	33.19	33.28	33.24	33.15	33.08	33.22	33.14	33.95	34.44	34.48	33.97	33.22
25	33.15	33.28	33.23	33.20	33.05	33.15	33.66	34.17	34.05	34.09	34.05	33.32
26	33.15	33.12	33.18	33.22	33.01	32.81	34.65	33.87	33.81	34.01	33.94	33.74
27	33.16	33.23	33.22	32.97	32.73	32.99	33.97	33.82	33.94	33.90	33.73	33.53
28	33.12	33.27	33.20	33.24	32.50	33.10	33.67	33.78	33.90	33.95	33.79	33.42
29	33.22	33.26	33.22	33.33	---	33.12	33.48	33.60	33.61	33.76	33.93	33.36
30	33.21	33.26	33.20	33.13	---	33.32	33.29	33.51	33.52	33.92	34.11	33.31
31	33.19	---	33.13	33.10	---	33.40	---	33.61	---	34.36	34.76	---
MEAN	33.39	33.18	33.14	33.14	33.03	33.11	33.17	33.35	33.56	33.79	34.09	33.53
MAX	34.05	33.57	33.26	33.39	33.17	33.74	34.65	34.17	35.23	34.99	35.76	34.32
MIN	33.12	33.02	32.84	32.77	32.50	32.72	32.40	32.66	32.70	33.22	33.51	32.96

WTR YR 1991 MEAN 33.38 MAX 35.76 MIN 32.40

TAMPA BAY AND COASTAL AREAS

02307000 ROCKY CREEK NEAR SULPHUR SPRINGS, FL

LOCATION.--Lat 28°02'12", long 82°34'34", in NW¼ sec.23, T.28 S., R.17 E., Hillsborough County, Hydrologic Unit 03100206, on right bank, 75 ft upstream from concrete control, 2.8 mi downstream from Brushy Creek, 5.8 mi upstream from mouth, and 7.4 mi west of intersection Interstate 75 and Busch Boulevard at Sulphur Springs.

DRAINAGE AREA.--35 mi^2, approximately.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1905: 1953-65(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Mar. 23, 1971, at site 1,500 ft upstream at datum 0.15 ft lower.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--38 years, 38.3 ft^3/s, 14.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,840 ft^3/s, July 29, 1960, gage height, 17.03 ft, (former site and datum); no flow Apr. 7 to May 5, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 14	1000	499	7.32	Aug. 2	0400	*993	*8.41

Minimum daily discharge, 3.3 ft^3/s, Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	26	20	8.4	27	4.2	37	e15	56	106	462	229
2	43	27	23	8.8	23	4.3	26	e11	42	138	817	194
3	25	27	25	6.7	24	8.4	12	e15	36	130	439	140
4	19	23	21	7.7	15	10	9.8	e14	36	76	287	109
5	20	20	17	9.7	11	10	9.9	e10	40	43	227	95
6	28	21	19	11	9.6	8.8	16	e8.5	43	39	178	82
7	23	14	11	10	9.7	7.5	24	e6.8	41	35	146	72
8	21	9.1	11	9.3	9.8	5.8	18	e6.0	38	32	129	66
9	20	11	12	7.8	9.5	8.2	13	e7.0	34	30	114	62
10	40	22	12	6.5	8.9	11	8.7	8.4	31	29	103	57
11	76	22	9.5	3.3	8.7	11	9.7	11	31	29	94	52
12	83	14	9.1	8.5	8.9	9.0	8.3	10	31	41	80	49
13	63	11	8.4	8.2	8.6	8.5	6.1	9.2	29	148	70	48
14	48	9.8	8.0	7.1	9.1	8.4	5.0	9.4	25	432	63	42
15	39	9.6	8.2	12	9.8	7.9	4.6	7.8	45	244	56	40
16	34	10	8.9	41	9.4	8.5	6.6	5.4	84	141	59	38
17	30	11	9.7	87	9.8	9.1	7.5	12	98	104	59	34
18	26	11	7.5	59	9.8	31	7.6	20	80	84	57	39
19	25	13	5.8	45	9.2	88	7.6	16	85	72	68	41
20	24	11	4.8	43	8.3	61	8.7	38	120	68	93	37
21	29	10	4.5	45	8.7	35	e18	52	106	94	146	33
22	30	11	4.2	41	8.2	26	e14	38	106	96	124	30
23	28	12	6.9	34	7.4	28	e10	32	210	94	104	37
24	25	14	7.9	29	7.4	26	e60	46	248	125	98	40
25	25	15	9.6	38	7.6	22	e80	89	153	146	116	45
26	25	14	8.9	38	7.6	14	e100	85	122	126	128	65
27	24	13	8.8	36	7.1	12	e70	68	111	123	108	69
28	24	14	9.4	24	6.0	11	e50	52	127	117	110	59
29	26	17	9.8	39	---	13	e35	41	112	118	153	56
30	27	18	10	41	---	19	e22	32	98	117	140	59
31	27	---	9.6	30	---	31	---	48	---	152	269	---
TOTAL	1013	460.5	340.5	795.0	299.1	557.6	705.1	823.5	2418	3329	5097	2019
MEAN	32.7	15.3	11.0	25.6	10.7	18.0	23.5	26.6	80.6	107	164	67.3
MAX	83	27	25	87	27	88	100	89	248	432	817	229
MIN	19	9.1	4.2	3.3	6.0	4.2	4.6	5.4	25	29	56	30
CFSM	.93	.44	.31	.73	.31	.51	.67	.76	2.30	3.07	4.70	1.92
IN.	1.08	.49	.36	.84	.32	.59	.75	.88	2.57	3.54	5.42	2.15

CAL YR 1990 TOTAL 8065.1 MEAN 22.1 MAX 156 MIN 1.7 CFSM .63 IN. 8.57
WTR YR 1991 TOTAL 17857.3 MEAN 48.9 MAX 817 MIN 3.3 CFSM 1.40 IN. 18.98

e Estimated

TAMPA BAY AND COASTAL AREAS

02307000 ROCKY CREEK NEAR SULPHUR SPRINGS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-58, 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
APR											
09...	1055	5.44	13	480	7.4	25.0	30	5.3	1.0	21000	250
MAY											
09...	1520	5.43	7.0	470	7.3	26.5	40	6.6	1.2	1700	900
29...	0945	5.71	42	320	6.8	26.0	80	3.5	0.6	2400	K130
AUG											
06...	1035	6.30	195	153	6.7	29.0	120	4.5	1.0	--	--
13...	1145	5.85	74	165	6.7	29.5	--	4.7	--	K530	K100
SEP											
03...	1010	6.16	156	170	6.9	28.0	160	4.7	1.1	2600	240

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)	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)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)
APR											
09...	44	3.5	49	6.3	21	64	0.10	4.7	277	12	0.010
MAY											
09...	41	3.3	47	6.4	19	60	0.10	5.6	260	1	0.030
29...	30	2.4	25	4.1	14	38	0.10	5.8	191	7	0.010
AUG											
06...	15	2.1	10	3.8	12	18	0.10	3.8	106	8	0.010
SEP											
03...	16	1.9	11	3.9	10	20	0.10	4.4	120	10	0.010

DATE	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-PHORUS 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)
APR										
09...	0.300	0.060	0.71	0.200	0.180	--	--	--	--	--
MAY										
09...	0.380	0.200	0.79	0.210	0.170	--	--	--	--	--
29...	0.500	0.100	1.3	0.180	0.180	100	1	<1	2	280
AUG										
06...	0.100	0.100	1.0	0.110	0.090	--	--	--	--	--
SEP										
03...	0.150	0.130	1.0	0.140	0.090	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
APR										
09...	--	--	--	--	--	--	--	170	--	7.5
MAY										
09...	--	--	--	--	--	--	--	150	--	8.1
29...	210	<1	<1	10	10	<0.10	<1	120	10	7.6
AUG										
06...	--	--	--	--	--	--	--	90	--	14
SEP										
03...	--	--	--	--	--	--	--	110	--	10

TAMPA BAY AND COASTAL AREAS

02307200 BROOKER CREEK AT VAN DYKE ROAD NEAR CITRUS PARK, FL

LOCATION.--Lat 28°07'34", long 82°34'14", in NE¼ sec.23, T.27 S., R.17 E., Hillsborough County, Hydrologic Unit 03100206, at left wingwall on downstream side of box culverts on State Highway 685A (Van Dyke Road), 0.3 mi east of State Highway 587, and 3.4 mi north of Citrus Park.

DRAINAGE AREA.--5.01 mi^2.

PERIOD OF RECORD.--April 1981 to current year. Prior to October 1984, mean daily discharges published in U. S. Geological Survey Open-File Report 86-55.

GAGE.--Water-stage recorder. Datum of gage is 30.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--10 years (water years 1982-91), 4.11 ft^3/s, 2,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 208 ft^3/s, Sept. 9, 1988, gage height, 21.53 ft; no flow for many days in each year; creek dry at gage many days some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft^3/s, Aug. 2, gage height, 19.70 ft; no flow for many days; creek dry at gage many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.00	.00	.00	.00	.00	.12	.19	6.7	.16	24	18
2	.36	.00	.00	.00	.00	.00	.08	.19	6.1	.38	35	16
3	.26	.00	.00	.00	.00	.00	.04	.15	5.4	.40	31	13
4	.17	.00	.00	.00	.00	.00	.02	.09	5.1	.28	27	11
5	.13	.00	.00	.00	.00	.00	.07	.06	5.3	.17	23	9.8
6	.11	.00	.00	.00	.00	.00	.68	.03	5.2	.09	20	8.5
7	.08	.00	.00	.00	.00	.00	.79	.01	5.0	.08	18	7.8
8	.05	.00	.00	.00	.00	.00	.52	.00	4.3	.15	16	8.9
9	.03	.00	.00	.00	.00	.00	.33	.00	3.6	.09	14	8.8
10	.39	.00	.00	.00	.00	.00	.19	.00	2.8	.05	12	7.7
11	1.6	.00	.00	.00	.00	.00	.10	.01	1.9	.05	10	6.9
12	2.6	.00	.00	.00	.00	.00	.05	.00	1.4	.45	8.7	6.2
13	2.1	.00	.00	.00	.00	.00	.02	.00	.98	7.6	7.6	5.5
14	1.5	.00	.00	.00	.00	.00	.00	.00	.87	16	6.5	4.8
15	1.1	.00	.00	.00	.00	.00	.00	.00	1.2	15	5.5	4.3
16	.84	.00	.00	.00	.00	.00	.00	.00	1.1	15	5.3	3.8
17	.72	.00	.00	.00	.00	.00	.00	.00	.86	14	5.0	3.3
18	.60	.00	.00	.00	.00	.00	.00	.00	1.2	13	4.6	3.0
19	.49	.00	.00	.00	.00	.13	.00	.00	2.4	12	5.4	3.0
20	.39	.00	.00	.00	.00	.19	.00	.00	2.4	12	8.7	2.6
21	.29	.00	.00	.00	.00	.12	.00	.03	1.8	15	12	2.1
22	.21	.00	.00	.00	.00	.08	.00	.05	1.3	12	11	1.8
23	.15	.00	.00	.00	.00	.05	.00	.11	1.0	11	11	1.5
24	.11	.00	.00	.00	.00	.04	.00	1.4	.78	11	11	1.1
25	.08	.00	.00	.00	.00	.02	.80	5.7	.55	9.2	11	1.1
26	.08	.00	.00	.00	.00	.00	4.2	5.8	.38	8.7	11	2.5
27	.05	.00	.00	.00	.00	.00	3.2	6.0	.48	9.3	9.8	2.1
28	.03	.00	.00	.00	.00	.00	1.6	6.2	.53	8.9	9.4	1.5
29	.01	.00	.00	.00	---	.00	.69	6.4	.33	7.4	11	1.1
30	.00	.00	.00	.00	---	.02	.33	6.3	.18	7.4	15	.86
31	.00	---	.00	.00	---	.07	---	6.4	---	9.8	21	---
TOTAL	14.79	0.00	0.00	0.00	0.00	0.72	13.83	45.12	71.14	216.65	420.5	168.56
MEAN	.48	.000	.000	.000	.000	.023	.46	1.46	2.37	6.99	13.6	5.62
MAX	2.6	.00	.00	.00	.00	.19	4.2	6.4	6.7	16	35	18
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.18	.05	4.6	.86
AC-FT	29	.00	.00	.00	.00	1.4	27	89	141	430	834	334

CAL YR 1990 TOTAL 542.57 MEAN 1.49 MAX 42 MIN .00 AC-FT 1080
WTR YR 1991 TOTAL 951.31 MEAN 2.61 MAX 35 MIN .00 AC-FT 1890

TAMPA BAY AND COASTAL AREAS

02307323 BROOKER CREEK NEAR LAKE FERN, FL

LOCATION.--Lat 28°08'26", long 82°38'24", in NE¼ sec.18, T.27 S., R.17 E., Hillsborough County, Hydrologic Unit 03100206, on right bank 20 ft downstream from bridge on State Highway 582, 2.9 mi downstream from Island Ford Lake, 3.7 mi west of Lake Fern, 6.0 mi northwest of Citrus Park, and 6.5 mi upstream from mouth.

DRAINAGE AREA.--17 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 25.52 ft above National Geodetic Vertical Datum of 1929. Prior to August 1983, water-stage recorder on downstream side of bridge at same datum.

REMARKS.--Records poor. Some regulation by control structure at outflow of Island Ford Lake (02307295) 2.9 mi upstream.

AVERAGE DISCHARGE.--21 years (water years 1971-91), 6.89 ft^3/s, 5.51 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 472 ft^3/s, Sept. 9, 1988, gage height, 6.09 ft; no flow for many days in each year; creek dry at gage many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft^3/s, Aug 2, gage height, 4.47 ft; no flow for many days; creek dry at gage many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.14	2.1	1.1	42	40
2	1.1	.00	.00	.00	.00	.00	.00	.04	2.0	2.5	69	33
3	1.3	.00	.00	.00	.00	.00	.00	.01	1.3	2.9	51	29
4	1.1	.00	.00	.00	.00	.00	.00	.00	.88	2.2	39	26
5	.75	.00	.00	.00	.00	.00	.00	.00	.71	1.9	35	25
6	.47	.00	.00	.00	.00	.00	.00	.00	.66	1.9	34	24
7	.27	.00	.00	.00	.00	.00	.00	.00	.59	1.5	35	24
8	.14	.00	.00	.00	.00	.00	.00	.00	.43	1.0	34	24
9	.07	.00	.00	.00	.00	.00	.00	.00	.26	.63	33	24
10	.16	.00	.00	.00	.00	.00	.00	.00	.11	.42	32	24
11	.59	.00	.00	.00	.00	.00	.00	.00	.05	.29	29	24
12	1.4	.00	.00	.00	.00	.00	.00	.00	.03	.71	25	24
13	1.5	.00	.00	.00	.00	.00	.00	.00	.02	4.7	22	22
14	1.2	.00	.00	.00	.00	.00	.00	.00	.02	16	19	20
15	.83	.00	.00	.00	.00	.00	.00	.00	.14	14	18	16
16	.50	.00	.00	.00	.00	.00	.00	.00	.64	7.9	16	12
17	.28	.00	.00	.00	.00	.00	.00	.00	.60	4.4	15	8.4
18	.15	.00	.00	.00	.00	.00	.00	.00	1.1	2.5	15	5.9
19	.09	.00	.00	.00	.00	.00	.00	.09	3.6	1.7	15	4.5
20	.05	.00	.00	.00	.00	.00	.00	3.9	5.2	1.8	19	3.3
21	.04	.00	.00	.00	.00	.00	.00	3.7	3.4	3.2	27	2.4
22	.03	.00	.00	.00	.00	.00	.00	2.7	2.4	3.2	27	1.9
23	.02	.00	.00	.00	.00	.00	.00	2.5	4.6	2.5	26	1.6
24	.01	.00	.00	.00	.00	.00	.00	6.5	3.9	2.3	30	1.3
25	.00	.00	.00	.00	.00	.00	.00	10	2.3	5.1	35	1.1
26	.00	.00	.00	.00	.00	.00	.13	8.1	1.4	8.7	37	1.7
27	.00	.00	.00	.00	.00	.00	2.2	4.5	.86	12	43	2.0
28	.00	.00	.00	.00	.00	.00	1.4	2.5	.53	13	43	2.0
29	.00	.00	.00	.00	---	.00	.90	1.5	.31	14	43	1.9
30	.00	.00	.00	.00	---	.00	.46	.84	.33	14	42	1.6
31	.00	---	.00	.00	---	.00	---	.72	---	16	45	---
TOTAL	12.05	0.00	0.00	0.00	0.00	0.00	5.09	47.74	40.47	164.05	995	430.6
MEAN	.39	.000	.000	.000	.000	.000	.17	1.54	1.35	5.29	32.1	14.4
MAX	1.5	.00	.00	.00	.00	.00	2.2	10	5.2	16	69	40
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.02	.29	15	1.1
CFSM	.02	.00	.00	.00	.00	.00	.01	.09	.08	.31	1.89	.84
IN.	.03	.00	.00	.00	.00	.00	.01	.10	.09	.36	2.18	.94

CAL YR 1990 TOTAL 341.49 MEAN .94 MAX 27 MIN .00 CFSM .06 IN. .75
WTR YR 1991 TOTAL 1695.00 MEAN 4.64 MAX 69 MIN .00 CFSM .27 IN. 3.71

02307323 BROOKER CREEK NEAR LAKE FERN, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
16...	0930	1.92	0.54	149	5.1	24.0	1.6	--
17...	0844	1.80	0.30	115	5.1	24.5	0.9	31
MAY								
02...	1025	1.51	0.04	130	5.5	25.5	0.4	33
31...	0905	1.92	0.54	102	5.2	25.0	1.0	--
JUL								
22...	0940	2.55	3.4	79	5.4	26.0	0.6	--
SEP								
04...	0945	3.75	28	91	5.5	26.5	0.5	--

TAMPA BAY AND COASTAL AREAS

02307359 BROOKER CREEK NEAR TARPON SPRINGS, FL

LOCATION.--Lat 28°05'45", long 82°41'15", in NE¼ sec.34, T.27 S., R.16 E., Pinellas County, Hydrologic Unit 03100206, on right bank, 1.9 mi upstream from mouth, and 5 mi southeast of Tarpon Springs.

DRAINAGE AREA.--30 mi^2, approximately.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD FL 1969: 1968(M).

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--41 years (water years 1951-91), 19.7 ft^3/s, 8.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s, Mar. 17, 1960, gage height, 13.32 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 2	1200	*188	*11.71	No other peak greater than base discharge.			

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.12	.06	.01	.89	.41	3.1	2.8	2.3	.39	91	123
2	.45	.07	.09	.01	.79	.34	2.4	2.1	1.9	.34	176	106
3	.38	.04	.06	.01	.66	.80	1.9	1.5	1.4	.20	143	85
4	.25	.02	.07	.00	.56	1.1	1.5	1.0	1.1	.15	108	67
5	.19	.02	.04	.00	.47	.88	1.2	.72	.90	.20	85	54
6	.16	.04	.02	.01	.36	.72	1.0	.52	.75	.22	69	45
7	.09	.04	.02	.01	.34	.61	.85	.36	.67	.14	67	37
8	.06	.02	.03	.01	.34	.50	.71	.24	.53	.09	60	32
9	.04	.05	.03	.01	.29	.88	.69	.15	.39	.13	54	29
10	.59	.20	.02	.03	.23	1.1	.62	.08	.27	.18	49	28
11	1.4	.10	.01	.16	.18	1.0	.51	.03	.17	.15	44	27
12	2.3	.03	.01	.49	.16	.86	.38	.01	.10	.51	39	26
13	1.9	.02	.01	.24	.13	.75	.28	.01	.06	5.0	35	25
14	1.4	.02	.00	.16	.28	.69	.21	.01	.05	16	32	26
15	1.1	.01	.00	.30	.49	.62	.19	.01	.03	23	28	24
16	.83	.01	.00	.79	.36	.62	.14	.03	.05	21	25	22
17	.83	.01	.00	.75	.31	.86	.08	.19	.04	16	22	20
18	1.0	.01	.00	.58	.30	7.9	.06	.72	.04	12	19	18
19	1.1	.01	.00	.49	.29	13	.06	.76	.04	9.8	19	17
20	.81	.01	.00	.59	.25	11	.23	3.0	.03	12	28	15
21	.80	.01	.00	.50	.21	8.2	.23	2.9	.02	30	43	13
22	1.3	.00	.00	.41	.22	6.1	.15	2.3	.02	33	53	11
23	1.1	.00	.01	.33	.22	4.5	.11	2.4	.01	30	75	9.7
24	.86	.12	.01	.28	.20	3.4	.16	2.5	.00	24	92	8.2
25	.67	.10	.01	.37	.19	2.7	2.7	3.6	.00	18	109	6.8
26	.52	.08	.01	.36	.27	2.1	10	4.1	.00	15	100	6.4
27	.41	.08	.00	.31	.42	1.6	9.4	5.5	.00	12	85	6.0
28	.32	.11	.00	.66	.41	1.3	7.8	5.0	.00	20	79	5.5
29	.27	.09	.01	1.2	---	1.0	5.6	4.1	.00	24	80	5.2
30	.20	.07	.01	.83	---	2.8	3.9	3.1	.02	26	78	4.8
31	.15	---	.01	.73	---	3.6	---	2.5	---	30	115	---
TOTAL	21.72	1.51	0.54	10.63	9.82	81.94	56.16	52.24	10.89	379.50	2102	902.6
MEAN	.70	.050	.017	.34	.35	2.64	1.87	1.69	.36	12.2	67.8	30.1
MAX	2.3	.20	.09	1.2	.89	13	10	5.5	2.3	33	176	123
MIN	.04	.00	.00	.00	.13	.34	.06	.01	.00	.09	19	4.8
CFSM	.02	.00	.00	.01	.01	.09	.06	.06	.01	.41	2.26	1.00
IN.	.03	.00	.00	.01	.01	.10	.07	.06	.01	.47	2.61	1.12

CAL YR 1990 TOTAL 722.22 MEAN 1.98 MAX 30 MIN .00 CFSM .07 IN. .90
WTR YR 1991 TOTAL 3629.55 MEAN 9.94 MAX 176 MIN .00 CFSM .33 IN. 4.50

02307359 BROOKER CREEK NEAR TARPON SPRINGS, FL--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT									
10...	1038	7.72	0.82	332	6.9	25.0	160	3.8	45
NOV									
13...	1030	7.37	0.02	402	6.9	16.0	120	2.7	48
FEB									
05...	1105	7.59	0.46	332	6.7	19.0	280	3.8	39
APR									
10...	1110	7.65	0.62	283	6.6	23.0	400	3.3	30
MAY									
07...	0830	7.57	0.39	236	6.1	23.0	560	2.5	22
JUN									
05...	0955	7.72	0.96	231	6.3	25.5	480	3.0	23
JUL									
24...	1045	9.68	24	133	5.8	26.0	560	2.8	15
SEP									
05...	1015	10.56	56	95	6.1	25.5	560	1.5	10

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)
OCT									
10...	3.7	19	2.2	11	41	--	--	--	0.070
NOV									
13...	4.0	22	2.2	15	48	<0.10	5.5	255	--
FEB									
05...	4.2	22	1.9	18	50	<0.10	8.2	260	0.020
APR									
10...	3.9	22	1.5	6.3	54	0.10	7.3	265	0.030
MAY									
07...	3.4	21	1.3	3.5	48	0.10	9.1	252	0.050
JUN									
05...	3.3	19	1.4	3.4	44	0.10	10	254	0.030
JUL									
24...	2.1	11	2.0	11	20	0.20	6.6	198	0.010
SEP									
05...	1.5	6.8	2.5	3.2	13	0.10	4.6	131	--

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, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
10...	0.010	0.080	0.030	1.2	1.2	0.050	0.030	130	20
NOV									
13...	<0.010	0.170	0.020	0.94	0.96	0.030	0.010	120	--
FEB									
05...	0.010	0.030	0.020	1.3	1.3	0.020	0.020	160	--
APR									
10...	0.010	0.040	0.040	1.7	1.7	0.050	0.030	120	--
MAY									
07...	0.020	0.070	0.050	2.3	2.3	0.050	0.050	140	51
JUN									
05...	0.010	0.040	0.040	2.0	2.0	0.030	0.050	120	--
JUL									
24...	0.010	0.020	0.020	2.1	2.1	0.040	0.030	90	--
SEP									
05...	0.010	<0.020	0.020	1.4	1.4	0.090	0.070	90	--

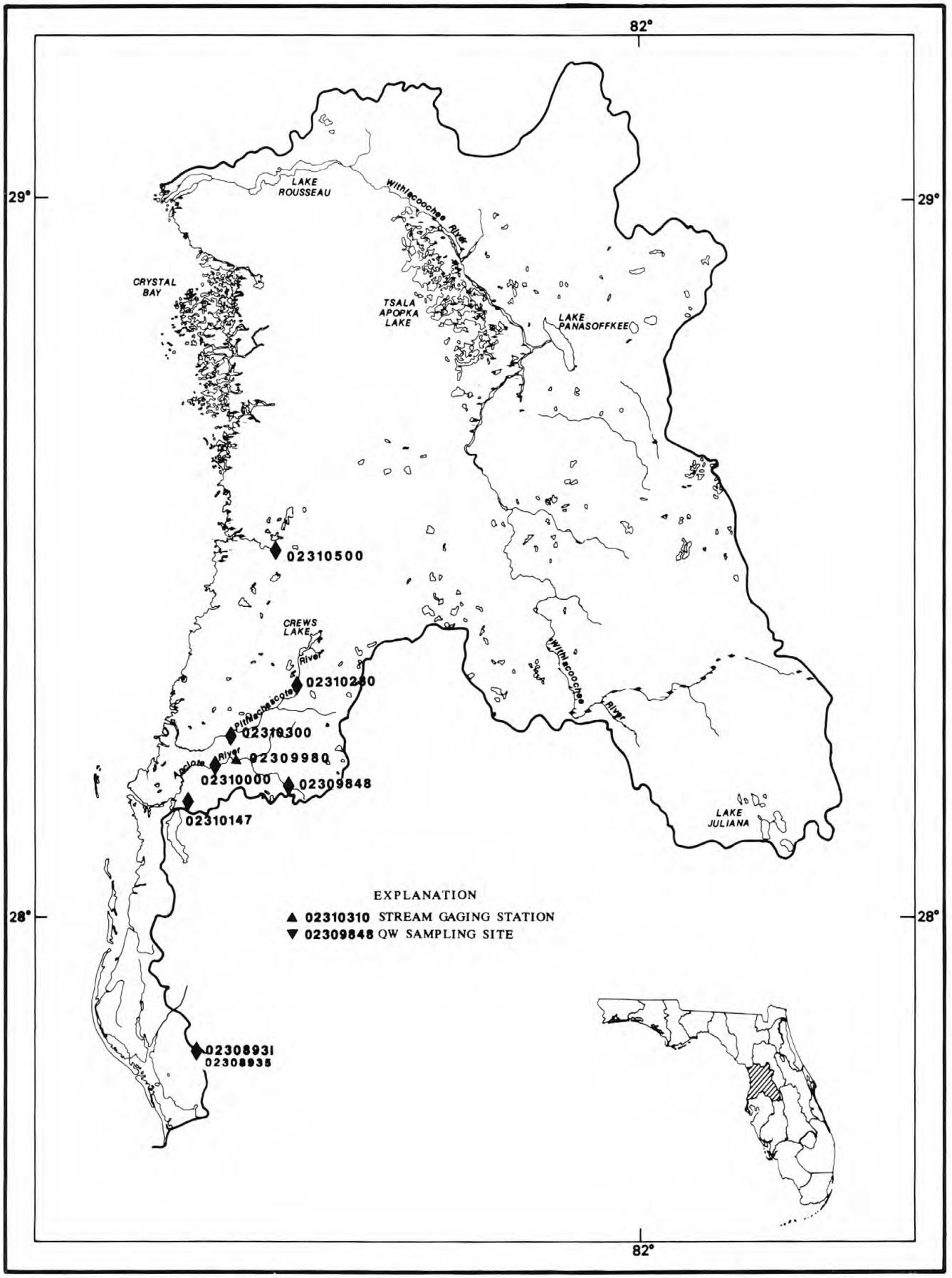

Figure 16.--Location of stream gaging stations in the Coastal area from Tampa Bay to Withlacoochee River.

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02308931 SAINT JOE CREEK AT LEALMAN, FL

LOCATION.--Lat 27°48'57", long 82°41'14", in NE¼ sec. 3, T.31S., R.16E., Pinellas County, Hydrologic Unit 03100207, near right bank 60 ft upstream from SCL Railroad bridge at intersection of 49th Avenue and 40th Street, North, 0.5 mi southeast of community hall at Lealman, 0.5 mi west of U.S. Highway 19, 1.8 mi southeast of Pinellas Park, and 5.9 mi above mouth.

DRAINAGE AREA.--2.00 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1989 to September 1991 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 28.90 ft above National Geodetic Vertical Datum of 1929 (Pinellas County bench mark).

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 212 ft^3/s, May 19, 1991, gage height, 3.53 ft; maximum gage height, 3.59 ft, Sept. 1, 1991; minimum daily discharge, 0.42 ft^3/s, Mar. 21, 1991; minimum gage height, 0.44 ft, Mar 6, 7, 12, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft^3/s amd maximum (*).

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 19	2030	*212	3.53	Aug. 20	1815	120	2.91
July 13	1115	155	3.17	Sept. 1	2045	198	*3.59

Minimum daily discharge, 0.42 ft^3/s, Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	1.4	.74	1.1	4.1	1.8	.83	.50	3.2	9.6	16	37
2	1.0	1.4	.79	1.1	1.9	1.5	.52	.55	1.8	4.9	6.0	23
3	.91	1.3	.82	1.1	1.8	19	.52	.55	1.6	2.6	2.5	3.8
4	.88	1.4	.86	1.3	1.6	3.3	.55	.55	1.6	2.3	2.2	2.8
5	.93	1.4	.89	1.5	1.5	e1.2	.67	.55	2.4	2.2	12	1.9
6	1.0	1.4	.89	3.3	1.6	e.90	1.4	.53	4.7	2.5	5.8	1.8
7	.95	1.5	.93	1.4	1.7	.80	.62	.54	3.1	2.2	2.6	2.4
8	.97	1.5	1.1	1.1	1.6	.79	.62	1.2	1.8	2.1	2.1	7.3
9	1.0	2.0	1.0	1.0	1.6	5.2	.67	1.1	1.6	2.3	2.0	3.9
10	2.0	2.2	.95	1.2	1.5	1.2	.64	.66	1.5	2.4	1.8	8.8
11	14	1.4	.92	1.7	1.6	.67	.68	.61	1.5	2.8	1.6	6.5
12	1.8	1.3	.93	5.4	1.5	.58	.78	.62	1.6	7.8	1.7	2.3
13	1.1	1.3	.96	1.5	1.6	5.2	.79	.68	1.7	48	e1.7	2.1
14	.98	1.3	.97	1.1	2.2	2.8	1.7	.74	1.8	29	1.8	2.1
15	1.0	1.3	.88	19	1.9	.66	2.3	.79	2.1	4.0	3.0	1.9
16	1.0	1.3	.86	7.7	1.5	.59	1.1	7.5	3.4	2.2	10	3.3
17	1.1	1.3	.86	1.9	1.5	.63	.87	7.2	2.2	1.7	3.3	4.3
18	1.1	1.2	.86	1.4	1.5	3.6	.85	4.1	6.7	1.5	3.1	1.9
19	1.2	1.2	.88	1.5	1.5	.72	.85	34	3.7	1.5	12	1.8
20	1.2	1.2	.89	5.1	1.5	.45	.88	23	2.4	2.7	17	1.6
21	1.1	1.2	.89	1.8	1.5	.42	.82	2.6	7.3	2.0	14	1.5
22	1.2	1.1	.90	1.5	1.6	.44	.77	1.6	8.3	3.9	4.2	4.5
23	1.3	1.1	.88	1.4	1.6	.45	.91	1.8	3.1	8.3	3.2	3.0
24	1.3	3.3	.95	1.4	1.6	.47	1.6	1.4	4.6	4.1	30	1.6
25	1.3	1.2	1.0	e4.4	1.5	.48	12	1.8	5.1	3.6	14	1.8
26	1.2	.88	.99	2.0	1.6	.49	2.5	1.2	6.0	1.9	4.2	4.6
27	1.3	.85	1.0	1.6	1.5	.51	.52	1.3	8.2	1.5	2.7	1.6
28	1.3	1.6	1.1	2.7	2.2	.54	.44	1.5	4.7	6.6	4.0	1.4
29	1.3	1.0	1.2	2.5	---	.56	.44	1.5	27	2.7	4.7	1.3
30	1.3	.81	1.1	1.9	---	1.0	.47	20	13	1.6	3.9	1.3
31	1.3	---	1.0	7.8	---	5.5	---	7.9	---	14	5.8	---
TOTAL	52.92	41.34	28.99	89.4	48.3	62.45	38.31	128.57	137.7	184.5	198.9	143.1
MEAN	1.71	1.38	.94	2.88	1.72	2.01	1.28	4.15	4.59	5.95	6.42	4.77
MAX	14	3.3	1.2	19	4.1	19	12	34	27	48	30	37
MIN	.88	.81	.74	1.0	1.5	.42	.44	.50	1.5	1.5	1.6	1.3
AC-FT	105	82	58	177	96	124	76	255	273	366	395	284
CFSM	.85	.69	.47	1.44	.86	1.01	.64	2.07	2.29	2.98	3.21	2.38
IN.	.98	.77	.54	1.66	.90	1.16	.71	2.39	2.56	3.43	3.70	2.66

CAL YR 1990 TOTAL 917.25 MEAN 2.51 MAX 41 MIN .51 AC-FT 1820 CFSM 1.26 IN. 17.06
WTR YR 1991 TOTAL 1154.48 MEAN 3.16 MAX 48 MIN .42 AC-FT 2290 CFSM 1.58 IN. 21.47

e Estimated

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02308931 SAINT JOE CREEK AT LEALMAN, FL--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--Water years 1989 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT										
11...	0615	--	--	1.01	4.2	7.2	--	--	18	2.5
11...	1345	--	--	1.60	24	7.1	--	--	<10	4.9
11...	1610	--	--	1.43	16	7.1	--	--	40	4.2
12...	0840	--	--	0.84	1.8	7.1	--	--	<10	1.7
NOV										
28...	1530	--	--	0.70	1.3	--	24.0	5.3	190	1.8
28...	1531	--	--	0.70	1.3	--	24.0	5.3	150	1.9
DEC										
12...	1145	--	--	0.61	0.94	6.9	16.5	--	--	--
MAR										
06...	1130	--	--	0.44	2.0	7.1	21.0	5.7	<10	1.5
APR										
25...	1625	--	--	1.80	37	--	--	--	--	--
25...	1920	--	--	1.83	39	7.0	--	--	25	6.3
25...	2125	--	--	1.56	25	7.0	--	--	55	6.7
26...	0945	--	--	0.75	1.6	7.2	--	--	30	5.1
MAY										
08...	1045	--	--	0.59	0.82	7.3	--	--	45	1.4
JUL										
29...	1115	--	--	0.87	2.3	7.0	30.0	4.1	40	2.5
AUG										
20...	1045	--	--	1.47	17	7.0	--	--	35	2.5
AUG										
20-20	1215	1215	2015	1.61	24	6.9	--	--	40	5.5
AUG										
20-21	2015	2015	0415	1.34	13	7.0	--	--	30	4.3
AUG										
21-21	0415	0415	1215	1.61	24	7.0	--	--	25	3.3
22...	1100	--	--	1.02	4.2	7.1	--	--	<10	1.5

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	RESIDUE VOLA-TILE, SUS-PENDED (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, ORGANIC TOTAL (MG/L AS N)
OCT									
11...	37	15	145	4	3	<0.010	0.040	0.050	0.60
11...	33	14	131	5	3	<0.010	0.020	0.010	0.82
11...	29	12	113	3	3	0.010	0.050	0.010	0.75
12...	33	14	126	2	2	0.010	0.050	0.100	0.55
NOV									
28...	45	22	197	6	1	<0.010	0.080	0.020	0.59
28...	46	22	198	5	1	<0.010	0.070	0.030	0.60
DEC									
12...	--	--	--	--	--	--	--	--	--
MAR									
06...	38	16	154	3	3	0.010	0.040	0.020	0.67
APR									
25...	--	15	162	E66	E29	0.010	0.170	0.140	2.5
25...	32	14	127	E11	E5	0.010	0.190	0.120	0.98
25...	33	14	130	E7	E2	0.010	0.180	0.090	1.0
26...	37	14	144	E6	E2	0.010	0.080	0.030	1.1
MAY									
08...	19	21	187	2	1	<0.010	0.030	0.020	0.61
JUL									
29...	33	14	125	12	7	--	--	--	--
AUG									
20...	33	11	131	7	2	0.010	0.060	0.210	0.71
AUG									
20-20	31	9.2	118	8	3	0.010	0.070	0.210	0.79
AUG									
20-21	32	9.8	119	5	2	0.010	0.070	0.210	0.74
AUG									
21-21	30	8.7	121	6	1	0.010	0.060	0.350	0.75
22...	34	12	138	6	2	0.010	0.060	0.290	0.61

02308931 SAINT JOE CREEK AT LEALMAN, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT									
11...	0.65	0.170	0.120	50	2	2	4	<0.10	20
11...	0.83	0.190	0.120	90	1	<1	2	<0.10	10
11...	0.76	0.140	0.080	100	1	1	3	0.10	30
12...	0.65	0.120	0.070	40	<1	<1	<1	0.70	20
NOV									
28...	0.61	0.060	<0.010	100	3	1	2	<0.10	20
28...	0.63	0.050	<0.010	120	2	2	3	<0.10	20
DEC									
12...	--	--	--	--	--	--	--	--	--
MAR									
06...	0.69	0.070	0.030	40	2	2	2	<0.10	10
APR									
25...	2.6	0.440	0.080	870	4	8	32	<0.10	80
25...	1.1	0.170	0.080	190	2	3	7	<0.10	190
25...	1.1	0.130	0.060	170	2	3	6	<0.10	260
26...	1.1	0.150	0.050	90	2	3	4	<0.10	20
MAY									
08...	0.63	0.050	0.020	40	8	1	2	<0.10	10
JUL									
29...	0.92	0.040	--	80	3	2	1	<0.10	10
AUG									
20...	0.92	0.090	0.050	60	2	2	2	0.20	20
AUG									
20-20	1.0	0.090	0.050	80	1	3	2	<0.10	320
AUG									
20-21	0.95	0.080	0.050	70	1	3	2	<0.10	390
AUG									
21-21	1.1	0.090	0.060	80	2	3	4	<0.10	280
22...	0.90	0.080	0.050	80	2	2	2	<0.10	20

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02308935 SAINT JOE CREEK AT PINELLAS PARK, FL

LOCATION.--Lat 27°48'50", long 82°41'45", T.31 S., R.16 E., in NW¼ sec.3, Pinellas County, Hydrologic Unit 03100207, near right bank 30 ft upstream from triple box culvert at intersection of 46th Avenue North and 46th Street North, 0.7 mi southwest of community hall, 1.0 mi west of U.S. Highway 19, 1.8 mi south of Pinellas Park, and 5.3 mi above mouth.

DRAINAGE AREA.--2.55 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1984 to September 1991 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 24.70 ft above National Geodetic Vertical Datum of 1929 (Pinellas County bench mark).

REMARKS.--Records poor.

AVERAGE DISCHARGE.--7 years, 5.24 ft^3/s, 27.91 in/yr, 3,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 963 ft^3/s, Sept. 30, 1987, gage height, 4.95 ft; minimum daily discharge, 0.07 ft^3/s, Mar. 22, 1990; minimum gage height, 0.85 ft, Mar. 22, 23, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 330 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sept. 1	2315	*210	*2.87				

Minimum daily discharge, 0.42 ft^3/s, Apr. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	1.2	.94	.90	6.2	1.4	3.5	.56	7.2	17	19	31
2	4.8	1.2	.87	.84	3.3	1.3	1.7	.58	2.7	9.7	17	64
3	2.3	1.2	.80	.84	2.2	11	.99	.59	1.5	4.8	5.7	8.0
4	1.6	1.2	.81	.87	1.9	9.1	.75	.53	1.3	2.4	2.9	4.9
5	1.5	1.2	.78	1.1	1.5	3.2	.67	.53	1.5	1.6	8.0	3.0
6	1.4	1.2	.77	2.4	1.4	1.7	1.4	.53	2.5	1.3	16	2.4
7	1.4	1.2	.79	1.9	1.3	1.2	1.0	.53	3.9	1.1	6.6	2.2
8	1.3	1.1	.91	1.4	1.3	1.1	.79	.67	2.0	1.0	3.6	7.1
9	1.2	1.1	.90	1.2	1.2	2.6	.72	1.2	1.3	.96	2.6	8.2
10	1.8	1.7	.84	1.0	1.1	3.5	.63	.94	1.1	.97	2.1	8.1
11	9.2	1.4	.80	1.3	1.1	1.7	.56	.77	.97	1.0	1.7	19
12	7.3	1.2	.77	3.5	1.1	1.2	.50	.65	.97	2.6	1.6	7.3
13	3.4	1.1	.77	2.6	1.1	1.8	.45	.61	.97	70	1.5	3.6
14	2.3	1.0	.77	1.6	1.2	5.4	.48	.57	.93	42	1.7	2.4
15	1.9	.99	.77	9.8	1.5	2.6	1.3	.55	.97	6.9	1.6	1.8
16	1.7	.99	.77	16	1.2	1.7	.87	2.6	1.3	2.2	6.9	1.8
17	1.7	.96	.77	5.4	1.1	1.5	.65	9.9	1.2	1.2	7.2	4.7
18	1.7	.88	.80	2.5	1.1	3.0	.53	8.7	2.1	.81	3.3	2.9
19	1.8	.81	.84	1.7	1.1	3.6	.47	25	2.8	.70	10	2.0
20	1.7	.77	.84	3.3	1.1	1.8	.47	53	1.6	1.1	23	1.6
21	1.7	.77	.84	2.6	1.0	1.2	.47	7.2	1.6	2.2	29	1.5
22	1.7	.77	.84	1.8	.99	.96	.43	3.0	6.7	1.4	15	1.8
23	1.6	.77	.79	1.4	.99	.86	.42	2.7	3.0	7.1	6.4	3.6
24	1.5	1.7	.77	1.3	.97	.78	.78	1.8	1.9	5.1	31	2.4
25	1.5	1.8	.77	2.3	.92	.75	3.8	1.7	2.1	5.5	45	2.0
26	1.4	1.3	.77	2.3	.99	.68	7.5	1.3	2.3	3.3	12	3.9
27	1.3	1.1	.77	1.8	.96	.65	2.3	1.1	2.8	1.6	4.7	2.9
28	1.3	1.7	.83	1.7	1.0	.65	1.2	1.1	3.5	3.1	3.6	1.9
29	1.3	1.5	.92	2.3	---	.58	.74	1.1	13	4.8	6.6	1.5
30	1.2	1.1	.92	1.9	---	.79	.60	14	28	2.1	4.7	1.4
31	1.2	---	.92	2.9	---	3.3	---	19	---	10	7.7	---
TOTAL	88.7	34.91	25.45	82.45	40.82	71.60	36.67	163.01	103.71	215.54	307.7	208.9
MEAN	2.86	1.16	.82	2.66	1.46	2.31	1.22	5.26	3.46	6.95	9.93	6.96
MAX	23	1.8	.94	16	6.2	11	7.5	53	28	70	45	64
MIN	1.2	.77	.77	.84	.92	.58	.42	.53	.93	.70	1.5	1.4
AC-FT	176	69	50	164	81	142	73	323	206	428	610	414
CFSM	1.12	.46	.32	1.04	.57	.91	.48	2.06	1.36	2.73	3.89	2.73
IN.	1.29	.51	.37	1.20	.60	1.04	.53	2.38	1.51	3.14	4.49	3.05

CAL YR 1990 TOTAL 1396.93 MEAN 3.83 MAX 52 MIN .07 AC-FT 2770 CFSM 1.50 IN. 20.38
WTR YR 1991 TOTAL 1379.46 MEAN 3.78 MAX 70 MIN .42 AC-FT 2740 CFSM 1.48 IN. 20.12

02308935 SAINT JOE CREEK AT PINELLAS PARK, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT										
11...	0555	--	--	1.18	2.4	7.2	--	--	<10	4.5
11...	1230	--	--	1.55	13	--	--	--	<10	3.0
11...	1450	--	--	1.57	13	--	--	--	<10	3.0
12...	0855	--	--	1.44	7.8	7.4	--	--	<10	1.2
NOV										
28...	1510	--	--	1.13	1.8	7.5	25.0	8.0	50	0.7
DEC										
12...	1300	--	--	1.02	0.77	7.7	16.0	--	--	--
MAR										
06...	1255	--	--	1.11	1.7	7.7	22.0	11.9	<10	0.4
APR										
25...	1655	--	--	1.27	3.1	7.0	--	--	45	1.8
25...	1950	--	--	1.51	11	7.3	--	--	40	1.7
25...	2050	--	--	1.53	12	7.2	--	--	35	3.2
26...	1010	--	--	1.44	7.8	7.4	--	--	<10	3.1
MAY										
08...	1115	--	--	1.06	0.65	7.3	--	--	20	0.9
JUL										
29...	1245	--	--	1.43	4.4	7.2	30.5	3.4	30	1.2
AUG										
20...	1100	--	--	1.74	20	7.2	--	--	25	1.9
AUG										
20-20	1400	1400	2115	1.85	30	7.4	--	--	25	2.4
AUG										
21-21	0715	0715	1730	1.86	32	7.3	--	--	<10	2.1
AUG										
21-22	2130	2130	0830	1.74	20	7.2	--	--	<10	1.9
AUG										
22-22	0830	0830	1030	1.68	16	7.2	--	--	<10	2.1

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	RESIDUE VOLA-TILE, SUS-PENDED (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, ORGANIC TOTAL (MG/L AS N)
OCT									
11...	35	13	140	1	<1	<0.010	0.020	0.030	0.71
11...	35	12	135	1	1	<0.010	0.020	0.020	0.86
11...	35	13	130	1	1	<0.010	0.030	0.020	0.45
12...	38	15	148	<1	<1	<0.010	0.050	0.020	0.41
NOV									
28...	42	24	187	5	2	<0.010	0.040	<0.010	--
DEC									
12...	--	--	--	--	--	--	--	--	--
MAR									
06...	38	20	165	1	1	0.010	<0.020	0.010	0.44
APR									
25...	35	19	156	E1	E1	<0.010	<0.020	0.020	0.72
25...	39	21	165	E9	E4	<0.010	<0.020	0.010	1.1
25...	42	18	172	E20	E11	<0.010	<0.020	0.020	1.7
26...	43	18	177	E9	E5	<0.010	<0.020	<0.010	--
MAY									
08...	15	21	168	6	2	<0.010	0.030	0.010	0.58
JUL									
29...	33	13	133	8	5	<0.010	<0.020	0.020	0.53
AUG									
20...	39	15	156	4	2	<0.010	<0.020	0.010	0.67
AUG									
20-20	38	14	159	4	3	<0.010	<0.020	0.030	0.60
AUG									
21-21	35	13	143	4	1	<0.010	<0.020	0.070	0.55
AUG									
21-22	34	11	138	3	1	<0.010	<0.020	0.160	0.52
AUG									
22-22	34	12	139	3	1	<0.010	<0.020	0.150	0.61

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02308935 SAINT JOE CREEK AT PINELLAS PARK, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT									
11...	0.74	0.070	0.020	40	1	2	<1	<0.10	60
11...	0.88	0.050	0.010	20	1	<1	<1	<0.10	20
11...	0.47	0.050	0.020	50	1	<1	<1	--	20
12...	0.43	0.060	0.030	30	<1	<1	<1	0.40	10
NOV									
28...	0.70	0.030	<0.010	40	3	2	1	<0.10	10
DEC									
12...	--	--	--	--	--	--	--	--	--
MAR									
06...	0.45	0.010	0.010	50	1	<1	<1	<0.10	10
APR									
25...	0.74	0.060	0.010	20	<1	<1	<1	<0.10	<10
25...	1.1	0.130	0.010	60	2	1	1	<0.10	10
25...	1.7	0.140	0.020	50	1	<1	<1	<0.10	<10
26...	1.3	0.110	<0.010	60	<1	1	<1	--	<10
MAY									
08...	0.59	0.040	0.010	40	3	<1	2	--	<10
JUL									
29...	0.55	0.060	0.010	<10	2	<1	<1	<0.10	<10
AUG									
20...	0.68	0.060	0.030	40	1	2	<1	<0.10	<10
AUG									
20-20	0.63	0.030	0.020	40	<1	1	<1	<0.10	50
AUG									
21-21	0.62	0.060	0.020	50	2	1	1	<0.10	20
AUG									
21-22	0.68	0.040	0.030	40	2	1	<1	<0.10	20
AUG									
22-22	0.76	0.060	0.030	60	2	1	<1	<0.10	20

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02309848 SOUTH BRANCH ANCLOTE RIVER NEAR ODESSA, FL

LOCATION.--Lat 28°11'08", long 82°33'13", in SE¼ sec.25, T.26 S., R.17 E., Pasco County, Hydrologic Unit 03100207, near left bank, 30 ft downstream from bridge on State Highway 54, 2.5 mi east of Odessa, 3.0 mi upstream from unnamed tributary, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--17.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 46.22 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 17, 1971, at site 30 ft upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--21 years (water years 1971-91), 3.22 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 305 ft^3/s, Sept. 9, 1988, gage height, 5.01 ft; no flow for many days in each year; river dry at gage many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 13	1600	*162	*4.62	Aug. 1	2300	116	4.43

No flow for many days; river dry at gage many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.00	.00	.00	.00	.00	.68	.28	4.0	.76	66	9.8
2	.00	.00	.00	.00	.00	.00	.52	.14	2.2	2.8	104	8.0
3	.00	.00	.00	.00	.00	.00	.36	.03	1.4	4.0	54	6.7
4	.00	.00	.00	.00	.00	.00	.23	.00	1.7	2.8	20	6.0
5	.00	.00	.00	.00	.00	.00	.19	.00	1.9	2.0	12	5.0
6	.00	.00	.00	.00	.00	.00	.49	.00	1.6	1.4	9.2	4.4
7	.00	.00	.00	.00	.00	.00	.50	.00	1.2	.99	6.8	4.2
8	.00	.00	.00	.00	.00	.00	.39	.00	.78	.82	5.3	5.3
9	.00	.00	.00	.00	.00	.00	.24	.30	.44	.79	4.2	5.3
10	.02	.00	.00	.00	.00	.00	.12	3.3	.20	1.5	3.6	4.8
11	.33	.00	.00	.00	.00	.00	.04	1.5	.06	1.6	3.0	4.3
12	.81	.00	.00	.00	.00	.00	.01	.59	.01	3.7	2.5	3.7
13	.91	.00	.00	.00	.00	.00	.00	.22	.00	75	2.1	3.0
14	.72	.00	.00	.00	.00	.00	.00	.06	.03	89	1.8	2.5
15	.51	.00	.00	.00	.00	.00	.00	.01	.08	25	1.5	2.0
16	.36	.00	.00	.00	.00	.00	.00	.00	.02	12	1.1	1.8
17	.26	.00	.00	.00	.00	.00	.00	.00	.00	7.3	1.0	2.1
18	.25	.00	.00	.00	.00	.29	.00	.00	.11	5.0	1.4	1.8
19	.20	.00	.00	.00	.00	.97	.00	.01	.16	3.8	2.7	1.7
20	.13	.00	.00	.00	.00	.72	.00	.13	.10	3.2	7.1	1.4
21	.07	.00	.00	.00	.00	.52	.00	.17	.04	3.0	12	.89
22	.11	.00	.00	.00	.00	.42	.00	.17	.79	2.5	7.5	.44
23	.08	.00	.00	.00	.00	.34	.00	3.5	2.2	2.0	6.1	.22
24	.04	.00	.00	.00	.00	.28	.00	9.6	1.5	1.7	11	.09
25	.01	.00	.00	.00	.00	.21	.70	8.7	1.1	1.5	31	.20
26	.00	.00	.00	.00	.00	.10	2.6	4.8	.84	1.2	19	2.8
27	.00	.00	.00	.00	.00	.03	2.1	2.9	1.6	1.4	13	2.6
28	.00	.00	.00	.00	.00	.01	1.4	2.0	1.3	1.5	11	1.6
29	.00	.00	.00	.00	---	.00	.88	1.4	.89	1.5	10	.93
30	.00	.00	.00	.00	---	.48	.51	1.1	.71	3.8	11	.52
31	.00	---	.00	.00	---	.68	---	4.6	---	9.6	12	---
TOTAL	4.83	0.00	0.00	0.00	0.00	5.05	11.96	45.51	26.96	273.16	452.9	94.09
MEAN	.16	.000	.000	.000	.000	.16	.40	1.47	.90	8.81	14.6	3.14
MAX	.91	.00	.00	.00	.00	.97	2.6	9.6	4.0	89	104	9.8
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.76	1.0	.09

CAL YR 1990 TOTAL 329.02 MEAN .90 MAX 36 MIN .00
WTR YR 1991 TOTAL 914.46 MEAN 2.51 MAX 104 MIN .00

02309848 SOUTH BRANCH ANCLOTE RIVER NEAR ODESSA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF WATER.--Water years 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
15...	1143	2.16	0.54	118	5.3	23.5	2.7	28
MAR								
18...	1345	2.11	0.43	225	6.7	20.0	5.7	--
JUN								
06...	1330	2.63	2.0	250	7.0	24.5	6.0	--
25...	0904	2.56	1.2	97	5.8	24.0	2.6	--
JUL								
15...	0935	3.78	24	50	5.7	24.0	2.7	--
AUG								
27...	0935	3.68	13	55	5.6	26.0	1.7	--

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02309980 ANCLOTE RIVER NEAR ODESSA, FL

LOCATION.--Lat 28°13'17", long 82°38'07", in SE¼ sec.18, T.26 S., R.17 E., Pasco County, Hydrologic Unit 03100207, on left bank, 30 ft downstream from wooden bridge on private road, 3.2 mi northwest of Odessa, and 18 mi upstream from mouth.

DRAINAGE AREA.--68.1 mi^2.

PERIOD OF RECORD.--October 1983 to current year.

REVISED RECORDS.--WRD FL-85-3A: 1984.

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--8 years, 47.7 ft^3/s, 9.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft^3/s, Sept. 9, 1988, gage height, 30.98 ft; no flow June 21, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 712 ft^3/s, July 15, Aug. 2, gage height, 27.87 ft; minimum daily discharge, 0.07 ft^3/s, Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	1.2	.28	.13	.21	.10	.12	21	102	12	205	221
2	15	.96	.28	.13	.20	.11	.10	17	173	21	617	179
3	9.7	.72	.28	.13	.19	.22	.08	13	120	36	639	141
4	6.6	.54	.30	.13	.19	.15	.07	8.7	89	38	457	117
5	5.4	.41	.37	.13	.19	.15	.08	6.0	72	42	333	100
6	4.9	.34	.38	.13	.19	.17	.47	3.8	74	45	243	84
7	4.7	.31	.38	.11	.18	.17	9.0	1.6	67	44	169	71
8	4.3	.30	.39	.10	.19	.19	7.8	.30	48	38	122	75
9	3.0	.27	.38	.09	.17	.27	5.0	.12	35	34	92	72
10	5.7	.24	.22	.09	.16	.21	3.5	.18	26	35	76	59
11	8.7	.21	.20	.10	.15	.21	3.6	5.0	18	39	63	50
12	14	.16	.20	.15	.13	.22	5.1	5.9	13	51	49	43
13	21	.16	.19	.10	.12	.24	5.5	2.8	8.8	80	41	39
14	20	.16	.21	.10	.15	.22	5.1	.45	6.3	486	35	39
15	18	.16	.21	.12	.13	.22	4.3	.10	5.3	656	30	34
16	17	.16	.20	.11	.15	.23	3.1	.38	4.7	460	27	30
17	16	.17	.19	.10	.17	.28	1.8	3.3	3.6	327	25	32
18	15	.16	.19	.09	.17	.62	.85	.50	3.4	224	25	29
19	15	.17	.19	.09	.15	3.6	.30	.16	5.7	164	28	43
20	13	.16	.19	.12	.14	19	.16	1.4	10	113	56	31
21	11	.16	.20	.11	.14	14	.12	1.2	18	92	119	24
22	10	.16	.20	.12	.16	9.2	.14	2.1	28	78	156	19
23	8.8	.16	.22	.13	.16	6.3	.14	7.5	34	60	198	15
24	7.2	.17	.20	.14	.10	4.6	.18	43	49	49	429	12
25	6.3	.17	.18	.17	.09	3.3	1.1	79	64	44	480	9.7
26	5.8	.18	.17	.17	.09	1.8	18	69	50	52	487	15
27	4.3	.17	.16	.19	.09	.70	54	51	37	54	403	15
28	3.5	.20	.16	.21	.08	.21	38	39	28	76	322	11
29	3.1	.21	.17	.17	---	.13	25	31	21	79	282	8.7
30	2.3	.26	.17	.17	---	.13	22	23	15	65	228	6.6
31	1.7	---	.15	.21	---	.13	---	22	---	77	231	---
TOTAL	290.8	8.80	7.21	4.04	4.24	67.08	214.71	459.49	1228.8	3671	6667	1625.0
MEAN	9.38	.29	.23	.13	.15	2.16	7.16	14.8	41.0	118	215	54.2
MAX	21	1.2	.39	.21	.21	19	54	79	173	656	639	221
MIN	1.7	.16	.15	.09	.08	.10	.07	.10	3.4	12	25	6.6
CFSM	.14	.00	.00	.00	.00	.03	.11	.22	.60	1.74	3.16	.80
IN.	.16	.00	.00	.00	.00	.04	.12	.25	.67	2.01	3.64	.89

CAL YR 1990 TOTAL 6459.41 MEAN 17.7 MAX 428 MIN .00 CFSM .26 IN. 3.53
WTR YR 1991 TOTAL 14248.17 MEAN 39.0 MAX 656 MIN .07 CFSM .57 IN. 7.78

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310000 ANCLOTE RIVER NEAR ELFERS, FL

LOCATION.--Lat 28°12'50", long 82°40'00", in NE¼ sec.23, T.26 S., R.16 E., Pasco County, Hydrologic Unit 03100207, on left bank, 40 ft downstream from bridge on State Highway 54, 3.5 mi east of Elfers, and 16 mi upstream from mouth.

DRAINAGE AREA.--72.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1946 to current year.

REVISED RECORDS.--WSP 1434: Drainage area. WSP 1905: 1950-65 (P).

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--45 years, 68.0 ft^3/s, 12.74 in/yr.

EXTREME FOR PERIOD OF RECORD.--Maximum discharge, 3,890 ft^3/s, July 30, 1960, gage height, 26.09 ft; minimum, 0.40 ft^3/s, May 19, 1956 (affected by pumpage); minimum gage height, 6.56 ft, Nov. 1, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 27.7 ft, Aug. 8 or 9, 1945, from information by local residents and floodmarks; discharge, 5,000 ft^3/s, from rating curve extended above 3,700 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 15	0915	659	17.02	Aug. 24	2045	530	15.89
Aug. 3	0430	*675	*17.15				

Minimum daily discharge, 1.9 ft^3/s, Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	3.7	2.5	2.2	2.9	2.6	3.7	22	84	14	265	236
2	16	3.4	2.6	2.1	2.9	2.6	3.5	18	176	19	534	205
3	12	3.2	2.7	2.1	2.8	5.3	3.3	14	130	40	649	164
4	e8.0	2.9	2.8	2.1	e2.7	e3.2	3.2	11	99	41	498	138
5	e7.0	2.7	2.8	2.1	e2.6	e3.0	4.6	8.1	80	44	340	120
6	e6.5	2.6	2.7	2.0	e2.6	e3.0	4.8	6.3	78	50	e250	104
7	6.1	2.6	2.5	1.9	2.9	e2.8	8.3	5.0	74	49	e190	90
8	5.9	2.5	2.8	2.0	3.0	e3.0	10	4.2	54	42	e155	90
9	5.1	2.6	2.7	2.0	2.9	4.3	7.9	4.4	38	36	e120	90
10	7.1	2.7	2.6	2.1	e2.8	e3.4	6.7	4.1	27	37	e100	76
11	10	2.5	2.6	2.1	e2.6	e3.2	6.2	5.4	19	52	e80	65
12	13	2.5	2.5	3.4	e2.4	e2.8	7.1	8.8	15	75	62	56
13	19	2.6	2.5	2.4	e2.4	e3.0	7.5	7.8	12	93	51	50
14	19	2.7	2.5	2.3	3.2	e2.8	7.7	5.4	9.7	363	43	50
15	17	2.7	2.5	2.4	e2.6	e3.0	7.5	3.1	8.7	638	37	43
16	16	2.6	2.4	2.4	e2.8	e3.4	6.7	3.3	8.3	499	34	44
17	15	2.6	2.3	2.4	3.1	4.0	5.9	6.0	7.8	331	30	49
18	14	2.5	2.4	2.4	3.0	6.0	5.2	6.1	7.8	227	29	38
19	14	2.4	2.4	2.3	e2.6	4.8	4.6	9.5	9.7	173	32	56
20	12	2.4	2.4	e3.0	e2.4	18	4.3	6.9	13	125	74	43
21	11	2.4	2.4	e2.4	e2.6	17	3.9	6.0	21	103	130	33
22	10	2.3	2.5	e2.0	2.7	12	3.6	5.6	32	89	176	27
23	9.5	2.2	2.4	e2.2	e2.5	9.7	3.8	13	41	70	241	22
24	8.3	2.4	2.4	e2.2	e2.4	7.8	4.1	55	46	57	488	19
25	7.1	2.3	2.3	e2.6	e2.2	6.6	5.3	101	67	49	514	16
26	5.8	2.3	2.3	e2.4	e2.2	5.5	10	81	56	58	507	20
27	5.2	2.3	2.3	e2.4	e2.2	4.7	56	62	42	57	429	20
28	4.7	2.3	2.3	e2.6	2.4	4.3	48	46	31	84	331	17
29	4.5	2.3	2.3	e2.8	---	3.9	29	35	22	89	287	16
30	4.1	2.3	2.3	e2.8	---	3.9	23	27	17	76	240	14
31	3.9	---	2.3	3.0	---	3.8	---	22	---	90	239	---
TOTAL	308.8	77.5	77.0	73.1	74.4	163.4	305.4	613.0	1326.0	3770	7155	2011
MEAN	9.96	2.58	2.48	2.36	2.66	5.27	10.2	19.8	44.2	122	231	67.0
MAX	19	3.7	2.8	3.4	3.2	18	56	101	176	638	649	236
MIN	3.9	2.2	2.3	1.9	2.2	2.6	3.2	3.1	7.8	14	29	14
CFSM	.14	.04	.03	.03	.04	.07	.14	.27	.61	1.68	3.18	.92
IN.	.16	.04	.04	.04	.04	.08	.16	.31	.68	1.93	3.67	1.03

CAL YR 1990 TOTAL 7324.8 MEAN 20.1 MAX 453 MIN 1.5 CFSM .28 IN. 3.76
WTR YR 1991 TOTAL 15954.6 MEAN 43.7 MAX 649 MIN 1.9 CFSM .60 IN. 8.19

e Estimated

02310000 ANCLOTE RIVER NEAR ELFERS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT										
15...	1227	7.90	19	176	7.0	24.0	160	6.5	24	2.5
DEC										
12...	0919	6.67	2.7	475	7.1	16.5	--	4.1	--	--
JAN										
30...	1300	6.72	2.8	491	6.9	22.0	--	3.1	--	--
MAY										
02...	0826	7.95	18	158	6.8	24.5	280	4.6	23	2.2
JUL										
15...	1346	16.99	616	60	6.2	24.5	--	5.6	--	--
AUG										
28...	1332	13.73	308	80	6.3	25.0	--	5.8	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
15...	7.5	2.2	6.5	15	<0.10	6.4	150	0.030	0.010	0.040
DEC										
12...	--	--	--	--	--	--	--	0.080	0.010	0.090
JAN										
30...	--	--	--	--	--	--	--	1.25	0.350	1.60
MAY										
02...	8.0	1.9	5.7	15	<0.10	5.1	157	0.040	0.010	0.050
JUL										
15...	--	--	--	--	--	--	--	0.010	0.010	0.020
AUG										
28...	--	--	--	--	--	--	--	0.020	0.010	0.030

DATE	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-PHORUS 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)
OCT										
15...	0.030	0.91	0.94	0.040	0.050	130	<1	<1	1	580
DEC										
12...	0.050	0.44	0.49	0.200	0.160	--	--	--	--	--
JAN										
30...	0.240	0.48	0.72	0.320	0.270	--	--	--	--	--
MAY										
02...	0.040	1.3	1.3	0.070	0.050	240	<1	<1	<1	700
JUL										
15...	0.020	0.98	1.0	0.070	0.050	--	--	--	--	--
AUG										
28...	0.020	1.2	1.2	0.110	0.120	--	--	--	--	--

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310000 ANCLOTE RIVER NEAR ELFERS, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
15...	470	1	<1	10	10	0.60	2	90	<10	22
MAY										
02...	630	<1	<1	20	10	<0.10	2	130	10	24

02310000 ANCLOTE RIVER NEAR ELFERS, FL--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	109	---	---	---
2	---	---	---	---	511	485	---	---	---	---	---	---
3	---	360	446	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	180	---	---	75	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	267	---	---	---	---	506	438	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	129	---	---
8	---	---	464	474	---	---	---	---	115	---	---	114
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	414	---	---	---	---	---	---	---	129	---	---
11	---	---	---	---	524	---	---	377	---	---	116	---
12	---	---	479	---	---	---	---	---	---	---	---	---
13	166	---	---	483	---	504	311	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	129
15	---	---	---	---	---	---	---	---	241	---	---	---
16	---	457	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	343	---	---	---	158	---
18	---	---	---	---	495	---	---	---	---	---	---	---
19	---	---	---	495	---	---	---	---	---	---	---	---
20	183	---	---	---	---	---	---	351	---	---	---	---
21	---	---	489	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	310	---	---	---	98	---	---
23	---	---	---	---	512	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	127	---	---	84	253
26	---	---	---	488	---	---	---	---	---	---	---	---
27	---	446	---	---	---	---	128	---	---	---	---	177
28	282	---	---	---	---	---	---	---	---	115	---	---
29	---	---	---	---	---	---	---	---	130	---	---	---
30	---	---	---	---	---	415	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	83	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	24.0	---	---	---
2	---	---	---	---	22.0	23.0	---	---	---	---	---	---
3	---	18.0	21.5	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	25.0	---	---	28.0	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	25.0	---	---	---	---	22.0	24.0	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	26.0	---	---
8	---	---	20.0	23.0	---	---	---	---	23.0	---	---	26.0
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	24.0	---	---	---	---	---	---	---	26.0	---	---
11	---	---	---	---	19.0	---	---	28.0	---	---	27.0	---
12	---	---	17.0	---	---	---	---	---	---	---	---	---
13	26.0	---	---	19.0	---	20.0	24.0	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	26.0
15	---	---	---	---	---	---	---	---	26.0	---	---	---
16	---	21.0	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	26.0	---	---	---	28.0	---
18	---	---	---	---	18.0	---	---	---	---	---	---	---
19	---	---	---	21.0	---	---	---	---	---	---	---	---
20	26.0	---	---	---	---	---	---	26.0	---	---	---	---
21	---	---	23.0	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	23.0	---	---	---	26.0	---	---
23	---	---	---	---	22.0	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	25.0	---	---	27.0	26.0
26	---	---	---	20.0	---	---	---	---	---	---	---	---
27	---	23.0	---	---	---	---	24.0	---	---	---	---	27.0
28	20.0	---	---	---	---	---	---	---	---	26.0	---	---
29	---	---	---	---	---	---	---	---	27.0	---	---	---
30	---	---	---	---	---	23.0	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	26.0	---

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310147 HOLLIN CREEK NEAR TARPON SPRINGS, FL

LOCATION.--Lat 28°09'44", long 82°42'38", in SW¼ sec.4, T.27 S., R.16 E., Pinellas County, Hydrologic Unit 03100207, 10 ft upstream from twin box culverts on abandoned railroad grade, 700 ft northeast of County Road 77, 0.8 mi upstream from mouth, and 3.0 mi northeast of Tarpon Springs.

DRAINAGE AREA.--4.4 mi^2, approximately, excludes approximately 3.9 mi^2 which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1981 to current year. Mean daily discharges prior to October 1984 published in U. S. Geological Survey Open-File Report 86-55.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 7.06 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Stage-discharge relation affected by tide on some days.

AVERAGE DISCHARGE.--10 years (water years 1982-91), 3.71 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 370 ft^3/s, Sept. 9, 1988; gage height, 15.90 ft; no flow several days in May and June 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 141 ft^3/s, Aug. 23, gage height, 12.70 ft; minimum, 0.21 ft^3/s, May 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.26	.45	.33	.77	.37	.96	1.2	1.2	8.4	103	47
2	2.2	.26	.46	.33	.64	.36	.73	1.2	.94	14	96	33
3	.89	.27	.48	.33	.60	e5.0	.64	1.2	.69	9.0	71	23
4	.65	.23	e.46	.33	.52	1.3	.60	1.1	.70	6.1	49	17
5	.75	e.23	e.45	.36	.45	.76	.72	1.1	1.0	6.6	33	14
6	1.2	e.23	.44	.33	.45	.60	1.2	1.3	2.0	e7.3	23	12
7	.68	.23	.45	.33	.46	.54	.99	3.4	1.2	e5.7	35	9.7
8	.51	.20	.52	.33	.51	.51	.77	.57	.96	e4.2	e31	8.1
9	.46	e.22	.42	.30	.48	1.0	.78	.23	.70	e3.1	e22	7.7
10	1.7	e.23	.38	.48	.45	.89	.84	.23	.62	2.5	e16	7.0
11	3.6	.20	.38	.62	.45	.62	.70	.22	.56	3.6	12	6.1
12	3.1	.16	.38	e.90	.45	.55	.71	.21	.54	e10	9.2	5.3
13	1.9	.16	.48	.54	.45	.51	.69	.21	.52	e21	7.4	4.6
14	1.4	.16	.39	.45	.58	.52	.87	.22	.59	40	6.3	4.1
15	1.2	.22	.33	.49	.59	e.54	1.1	e.22	.95	42	6.3	3.8
16	1.2	.28	.33	e.48	.46	.56	.83	e.22	.97	29	5.4	3.9
17	1.2	.29	.33	.48	.45	.95	.64	e3.1	.67	15	4.7	5.2
18	1.1	.45	.33	.44	.39	e8.0	.73	e4.2	1.5	9.1	4.9	4.4
19	1.0	.46	.33	.40	.38	3.3	.72	1.5	1.2	7.4	5.6	4.3
20	.78	.44	.37	.82	.38	1.3	.95	3.6	1.3	e16	17	3.7
21	.80	.46	.38	.54	.38	1.1	.95	2.0	1.4	32	39	3.0
22	.96	.47	.38	.47	.38	.96	.77	1.2	1.1	27	30	2.5
23	.76	.58	.38	.41	.38	.77	.97	2.0	.93	19	61	2.1
24	.61	.96	.36	.38	.38	.72	1.2	e23	.72	11	107	1.8
25	.54	.70	.35	.45	.38	.71	7.0	e27	.74	7.4	90	1.8
26	.46	.63	.33	.45	.37	.64	6.3	e5.0	.64	5.6	65	4.4
27	.43	.57	.33	.45	.33	.61	2.6	2.6	.56	4.7	43	4.0
28	.40	.57	.33	e.90	.33	.59	1.5	1.4	.51	5.5	33	3.1
29	.33	.57	.35	e.80	---	.56	1.2	1.2	.49	10	31	2.3
30	.31	.48	.33	.79	---	1.1	1.2	1.2	2.7	15	31	2.3
31	.27	---	.33	.81	---	1.1	---	1.1	---	26	59	---
TOTAL	31.95	11.17	12.01	15.52	12.84	37.04	39.86	92.93	28.60	423.2	1146.8	251.2
MEAN	1.03	.37	.39	.50	.46	1.19	1.33	3.00	.95	13.7	37.0	8.37
MAX	3.6	.96	.52	.90	.77	8.0	7.0	27	2.7	42	107	47
MIN	.27	.16	.33	.30	.33	.36	.60	.21	.49	2.5	4.7	1.8

CAL YR 1990 TOTAL 349.05 MEAN .96 MAX 17 MIN .12
WTR YR 1991 TOTAL 2103.12 MEAN 5.76 MAX 107 MIN .16

e Estimated

02310147 HOLLIN CREEK NEAR TARPON SPRINGS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
10...	1209	9.49	3.4	494	6.7	25.0	3.6	9.5
DEC								
14...	1316	9.28	0.51	480	6.8	16.5	3.3	--
FEB								
04...	1300	9.32	0.60	640	6.5	19.5	2.8	--
MAR								
15...	1140	9.31	0.58	511	6.2	19.0	3.1	--
18...	1121	10.04	15	260	6.3	20.0	4.9	--
MAY								
07...	0932	9.67	3.2	945	7.2	24.5	3.6	7.4
JUN								
06...	1145	9.39	1.7	520	6.3	24.5	3.5	--
AUG								
05...	0958	10.38	26	185	6.1	25.5	3.4	--

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310280 PITHLACHASCOTEE RIVER NEAR FIVAY JUNCTION, FL

LOCATION.--Lat 28°19'44", long 82°32'13", in NE¼ sec.7, T.25 S., R.18 E., Pasco County, Hydrologic Unit 03100207, at bridge on State Highway 52, 1.2 mi west of Fivay Junction, 3.5 mi above Fivemile Creek, and 21 mi upstream from mouth.

DRAINAGE AREA.--150 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1964 to October 1966 (discharge measurements and crest-stage partial records); November 1966 to September 1972 (discharge measurements only); October 1972 to September 1978 (gage heights and periodic discharge measurements only); October 1978 to September 1983 (discharge measurements only); October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 12, 1968, nonrecording gage 20 ft downstream and Feb. 12, 1968, to Oct. 4, 1972, nonrecording gage at present site at datum 40.00 ft higher; Oct. 5, 1972, to Oct. 17, 1978, water-stage recorder at present site and datum; Oct. 18, 1978, to Sept. 30, 1979, nonrecording gage at present site at datum 40.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--8 years (water years 1984-91), 8.46 ft^3/s, 0.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 294 ft^3/s, Sept. 9, 1988, gage height, 54.37 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68 ft^3/s, Aug. 24, gage height, 52.72 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	2.2	.60	.35	4.0	e.17	e.70	e3.5	1.7	2.4	32	36
2	5.8	1.9	.57	.31	3.1	e.30	e.60	2.8	1.1	29	34	31
3	4.6	1.7	.55	.27	2.5	e.60	e.45	3.2	.59	35	34	26
4	3.7	1.5	.59	.26	2.0	e1.0	e.35	2.2	.53	24	31	24
5	3.1	1.3	.51	.27	1.5	e2.0	e.30	1.5	.73	20	28	20
6	2.4	1.2	.44	.29	1.3	e3.5	e.70	.94	.45	20	26	17
7	1.8	1.2	.53	.27	1.1	e2.7	e1.5	.57	.33	21	23	15
8	1.5	1.1	1.2	.25	1.1	e3.5	e3.0	.32	.12	18	20	14
9	1.3	1.5	.96	.24	.95	e4.0	e7.0	.13	.01	16	18	12
10	3.9	2.5	.78	.23	.80	e2.5	e5.0	.03	.00	20	16	11
11	13	1.8	.66	.20	.65	e1.7	e3.5	.00	.00	17	15	10
12	23	1.4	.59	1.9	.55	1.3	e2.5	.00	.00	24	14	9.2
13	18	1.3	.57	1.1	.47	1.1	e1.6	.00	.00	39	13	8.1
14	16	1.1	.51	.71	e1.1	.99	e1.1	.00	.00	50	12	7.4
15	14	.92	.46	.75	e1.2	.81	e.80	.00	.00	42	11	6.5
16	12	.75	.42	1.1	e1.0	1.0	e.60	.00	.00	35	9.7	5.9
17	10	.61	.42	.81	e.90	3.3	e.45	.00	.00	28	8.8	5.4
18	9.0	.56	.40	.64	e.70	8.6	e.30	.00	.01	23	8.7	5.0
19	8.1	.53	.40	.48	e.58	9.6	e.18	.01	.67	19	9.8	4.6
20	7.1	.51	.44	.87	e.45	6.9	e.20	.82	4.5	16	15	3.9
21	6.7	.45	.43	.70	e.35	5.0	e.30	.90	10	14	22	3.3
22	9.4	.42	.42	.51	e.30	3.6	e.45	.36	5.1	12	19	2.8
23	9.2	.51	.40	.40	e.25	2.7	e.70	1.4	4.0	10	26	2.4
24	8.2	1.3	.41	.32	e.20	2.2	e1.0	5.1	3.7	8.5	60	2.0
25	6.9	1.1	.42	.60	e.17	1.8	e1.5	14	4.7	8.7	57	1.9
26	5.7	.93	.42	.59	e.13	1.3	e2.0	7.2	2.9	13	55	2.3
27	4.9	.83	.41	.48	e.11	.96	e3.0	4.8	2.1	15	50	1.8
28	4.1	.85	.48	1.0	e.09	.71	e4.5	3.5	1.7	15	44	1.4
29	3.5	.85	.53	1.9	---	.55	e6.0	2.3	.89	14	45	1.0
30	3.0	.73	.44	1.4	---	1.3	e4.5	1.5	.70	14	40	2.0
31	2.6	---	.37	2.1	---	e1.0	---	1.6	---	15	44	---
TOTAL	229.4	33.55	16.33	21.30	27.55	76.69	54.78	58.68	46.53	637.6	841.0	292.9
MEAN	7.40	1.12	.53	.69	.98	2.47	1.83	1.89	1.55	20.6	27.1	9.76
MAX	23	2.5	1.2	2.1	4.0	9.6	7.0	14	10	50	60	36
MIN	1.3	.42	.37	.20	.09	.17	.18	.00	.00	2.4	8.7	1.0
AC-FT	455	67	32	42	55	152	109	116	92	1260	1670	581

CAL YR 1990 TOTAL 1255.31 MEAN 3.44 MAX 29 MIN .00 AC-FT 2490
WTR YR 1991 TOTAL 2336.31 MEAN 6.40 MAX 60 MIN .00 AC-FT 4630

e Estimated

02310280 PITHLACHASCOTEE RIVER NEAR FIVAY JUNCTION, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1966-68, 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT									
16...	1204	51.76	10	95	6.4	24.0	240	3.2	13
DEC									
12...	1615	51.17	0.66	128	6.6	13.5	--	6.8	--
JAN									
29...	1504	51.35	1.9	126	6.6	20.0	--	4.9	--
MAY									
01...	1128	51.43	3.9	105	6.4	24.0	240	4.9	15
JUL									
16...	1100	52.26	37	80	6.0	24.5	--	3.0	--
SEP									
03...	1018	52.12	27	70	6.0	25.0	--	2.8	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)
OCT									
16...	1.4	4.4	1.5	0.80	12	<0.10	4.7	103	0.010
JAN									
29...	--	--	--	--	--	--	--	--	0.010
MAY									
01...	1.6	5.7	1.3	1.9	11	<0.10	4.4	114	0.020

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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
16...	0.010	0.020	0.020	1.2	1.2	0.020	0.030	50	25
DEC									
12...	<0.010	<0.020	0.010	0.58	0.59	0.100	0.090	--	--
JAN									
29...	0.010	0.020	0.020	1.3	1.3	0.050	0.010	--	--
MAY									
01...	0.010	0.030	0.030	0.97	1.0	0.040	0.030	70	19
JUL									
16...	0.010	<0.020	0.020	1.1	1.1	0.040	0.030	--	--
SEP									
03...	0.010	<0.020	0.010	0.99	1.0	0.040	0.040	--	--

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310300 PITHLACHASCOTEE RIVER NEAR NEW PORT RICHEY, FL

LOCATION.--Lat 28°15'23", long 82°38'33", in NW¼ sec.6, T.26 S., R.17 E., Pasco County, Hydrologic Unit 03100207, near left bank on upstream side of bridge on private road, 4.9 mi east of New Port Richey, and 10.5 mi upstream from mouth. Prior to May 27, 1981, at site 1.1 mi downstream.

DRAINAGE AREA.--180 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1963 to current year. March 1963 to May 1981, at site 1.1 mi downstream not equivalent due to differences in base flow characteristics of the different drainage areas.

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Southwest Florida Water Management District bench mark). Prior to May 27, 1981, at site 1.1 mi downstream at datum 7.06 ft higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--28 years (water years 1963-91), 30.0 ft^3/s, 2.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 1,480 ft^3/s, Sept. 9, 1988, gage height, 24.67 ft; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 14	2100	294	21.93	Aug. 26	Unknown	Unknown	Unknown

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	4.4	1.5	1.1	6.9	.31	3.7	11	11	12	e150	e130
2	17	3.6	1.3	.94	7.4	.24	3.4	8.4	14	24	e150	e130
3	15	3.0	1.1	.85	7.3	3.0	2.9	6.4	9.2	54	e140	105
4	12	2.4	.98	.73	6.4	7.2	2.0	4.7	7.3	113	e130	90
5	9.6	2.1	.86	.64	5.5	8.4	1.4	3.4	9.9	121	e110	75
6	7.8	1.8	.72	.61	4.8	7.8	11	2.1	7.3	99	e90	63
7	6.3	1.7	.72	.70	4.1	6.3	26	1.1	5.5	87	e75	54
8	5.0	1.6	1.6	.94	3.8	5.3	34	.42	3.9	92	e60	50
9	4.0	1.5	1.7	1.3	3.3	6.6	27	.12	2.5	83	e50	48
10	6.6	2.2	1.4	1.0	2.9	6.2	22	.38	1.3	76	e45	40
11	11	1.9	1.3	.86	2.5	5.0	17	.42	.44	70	e38	35
12	21	2.0	1.3	3.1	2.1	4.5	12	.05	.09	110	e35	30
13	28	2.1	1.1	3.7	1.7	3.8	9.2	.00	.01	151	e30	26
14	32	2.0	.94	4.1	2.1	3.3	7.2	.00	.00	253	e28	26
15	34	1.7	.79	4.2	3.9	2.7	5.8	.00	.00	262	e27	22
16	30	1.4	.69	4.5	4.0	2.5	4.5	.15	.00	201	e27	19
17	25	1.2	.58	4.1	3.9	5.0	3.5	.34	.00	180	e28	20
18	21	.95	.53	3.7	3.6	23	2.6	.10	.09	e140	e38	22
19	17	.74	.51	3.2	3.1	26	1.8	1.5	.09	e130	e59	49
20	14	.56	.45	3.6	2.6	21	1.4	3.6	2.5	e100	e52	34
21	12	.39	.44	3.7	2.1	15	1.0	3.7	10	e80	e60	20
22	12	.36	.39	3.4	1.7	12	.91	3.6	26	e60	e85	14
23	10	.37	.39	3.0	1.4	9.3	1.1	6.0	29	e50	e120	10
24	9.8	1.2	.46	2.7	1.2	7.5	2.9	40	32	e43	e160	8.2
25	9.3	1.7	.44	2.7	.98	6.2	5.2	69	27	e55	e190	7.2
26	8.4	1.6	.38	2.9	.81	5.0	13	32	18	e78	e210	8.5
27	8.0	1.6	.43	2.9	.57	4.0	21	27	12	e78	e200	7.4
28	7.2	1.7	.54	3.7	.37	3.1	25	23	9.5	e72	e170	6.1
29	6.5	2.1	.88	5.6	---	2.3	19	15	7.4	e75	e150	5.0
30	5.8	2.0	1.2	5.5	---	2.6	15	9.7	6.1	e90	e140	4.7
31	5.1	---	1.1	5.9	---	3.3	---	7.9	---	e120	e150	---
TOTAL	430.4	51.87	26.72	85.87	91.03	218.45	302.51	281.08	252.12	3159	2997	1159.1
MEAN	13.9	1.73	.86	2.77	3.25	7.05	10.1	9.07	8.40	102	96.7	38.6
MAX	34	4.4	1.7	5.9	7.4	26	34	69	32	262	210	130
MIN	4.0	.36	.38	.61	.37	.24	.91	.00	.00	12	27	4.7
CFSM	.08	.01	.00	.02	.02	.04	.06	.05	.05	.57	.54	.21
IN.	.09	.01	.01	.02	.02	.05	.06	.06	.05	.65	.62	.24

CAL YR 1990 TOTAL 4814.91 MEAN 13.2 MAX 188 MIN .00 CFSM .07 IN. 1.00
WTR YR 1991 TOTAL 9055.15 MEAN 24.8 MAX 262 MIN .00 CFSM .14 IN. 1.87

e Estimated

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310300 PITHLACHASCOTEE RIVER NEAR NEW PORT RICHEY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-66, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT										
17...	1000	19.67	25	139	6.9	23.5	240	5.9	21	1.9
DEC										
12...	1415	17.93	1.3	186	6.1	13.5	--	7.1	--	--
JAN										
29...	1153	18.46	5.6	181	6.4	18.0	--	5.7	--	--
MAY										
01...	1323	18.91	12	151	6.8	24.5	160	5.6	23	2.0
JUL										
16...	1500	21.47	190	90	6.2	--	--	--	--	--
SEP										
03...	1317	20.96	114	95	6.3	25.0	--	5.8	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT										
17...	5.5	2.1	1.6	12	<0.10	6.0	129	0.010	0.010	0.020
DEC										
12...	--	--	--	--	--	--	--	--	<0.010	<0.020
JAN										
29...	--	--	--	--	--	--	--	0.010	0.010	0.020
MAY										
01...	6.8	1.9	1.2	16	<0.10	5.0	134	--	<0.010	0.030
JUL										
16...	--	--	--	--	--	--	--	--	0.010	<0.020
SEP										
03...	--	--	--	--	--	--	--	0.010	0.010	0.020

DATE	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-PHORUS 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)
OCT										
17...	0.020	0.98	1.0	0.020	0.030	160	<1	<1	<1	530
DEC										
12...	0.010	0.68	0.69	0.030	0.020	--	--	--	--	--
JAN										
29...	0.010	0.61	0.62	0.030	0.010	--	--	--	--	--
MAY										
01...	0.020	0.98	1.0	0.040	0.030	140	<1	<1	<1	400
JUL										
16...	0.010	1.1	1.1	0.050	0.050	--	--	--	--	--
SEP										
03...	0.010	1.1	1.1	0.100	0.080	--	--	--	--	--

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310300 PITHLACHASCOTEE RIVER NEAR NEW PORT RICHEY, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)
OCT										
17...	430	1	<1	30	10	0.70	2	70	<10	25
MAY										
01...	300	<1	<1	10	10	<0.10	<1	100	10	18

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310307 PITHLACHASCOTEE RIVER AT NEW PORT RICHEY, FL

WATER-QUALITY RECORDS

LOCATION.--Lat 28°14'24", long 82°43'12", in SE¼ sec.8, T.26 S., R.16 E., Pasco County, Hydrologic Unit 03100207, on left bank at private residence, 300 ft northwest of bridge on State Highway 595 at New Port Richey, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--139 mi^2.

PERIOD OF RECORD.--March 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1985 to current year (incomplete).
WATER TEMPERATURE: March 1985 to current year (incomplete).

INSTRUMENTATION.--Water-quality monitor since March 1985.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments. Extremes may have been exceeded during periods of missing record.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 38,800 microsiemens, May 15, 1991; minimum, 100 microsiemens, many days in 1986 water year.
WATER TEMPERATURE: Maximum, 33.0°C, June 11, 1985; minimum, 10.5°C, Jan. 29, 30, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 38,800 microsiemens, May 15; minimum, 400 microsiemens, July 16, 17, Aug. 2, 3, 4.
WATER TEMPERATURE: Maximum, 30.7°C, June 17, 30; minimum, 16.5°C, Feb. 17.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10400	17400	28100	31500	10600	22900	11300	21200	10100	13800	700	500
2	8500	17600	31600	32900	13800	27200	17100	16300	7500	8900	400	500
3	11800	20300	33800	26100	13900	30100	20300	20600	6700	6900	400	700
4	14500	25500	34800	24400	16100	17700	21400	22000	6200	1900	400	700
5	11400	28000	17100	20600	15500	11900	21700	17400	5500	800	600	900
6	12500	28300	22900	20900	17500	17900	19800	20700	5300	700	800	1300
7	15000	22900	24700	22300	15800	17600	19300	16300	5200	800	800	1400
8	12400	19500	23900	19800	10200	21500	20500	18400	4800	900	2200	1700
9	13900	22600	14400	16700	9400	13300	17100	19800	11100	3900	6000	2100
10	11700	27500	15900	23700	14300	9400	18200	21800	15600	6600	7900	1800
11	12200	11700	18100	27000	14100	11300	13300	22200	21400	9100	3600	2100
12	16100	13700	19500	22700	15700	20300	13300	25900	27200	4900	1600	4000
13	10500	15500	20100	17000	23100	22600	17400	34200	26600	900	1700	4200
14	15000	17100	19100	21300	24800	19800	22500	38100	30200	600	2500	4100
15	12400	18400	24500	26100	23600	17100	28400	38800	24100	500	4100	2700
16	13900	22300	21800	28000	10400	13400	24800	38000	20700	400	2100	1500
17	11700	18800	24900	22400	13000	20200	27600	36500	15900	400	2300	1200
18	12200	21100	25200	14700	17000	18000	29700	32700	14700	500	3000	2300
19	16100	23100	27500	20300	17600	9700	29000	26400	13900	600	3300	2700
20	10500	22900	23600	28100	15100	11300	27100	15900	12500	600	12600	1000
21	8800	23400	20800	14800	14400	14100	17400	14300	13300	700	900	1400
22	12200	22800	20300	14200	20800	14200	19200	19600	13900	800	1000	2400
23	14700	21800	20000	16100	14400	6800	27000	16300	12700	900	1600	4100
24	13000	20700	17000	22800	16700	8500	19500	10900	11300	3900	500	6500
25	15300	18500	15400	15700	19000	9800	19900	2800	10500	6200	500	9700
26	5000	17500	16000	14500	19100	12800	18300	4300	16000	6900	500	9000
27	8200	17600	25300	27000	18700	16900	17400	4300	14200	6400	500	6100
28	11400	21700	24400	23300	16500	16500	20500	6800	14600	5500	600	3300
29	11800	15000	26700	25200	---	21600	21600	7200	17000	4000	600	5000
30	12700	23700	32800	26000	---	27000	20800	9800	18900	2200	500	5100
31	13900	---	33600	23200	---	15700	---	6700	---	4100	500	---
MAX	16100	28300	34800	32900	24800	30100	29700	38800	30200	13800	12600	9700

WTR YR 1991 MAX 38800

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310307 PITHLACHASCOTEE RIVER AT NEW PORT RICHEY, FL--Continued

TEMPERATURE, WATER (DEG.C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.6	---	20.3	23.0	20.7	20.9	23.6	28.9	28.1	29.3	25.7	27.7
2	26.8	---	20.4	23.4	20.1	22.2	23.1	29.0	28.6	29.2	27.0	27.5
3	27.0	---	20.6	23.4	20.6	22.4	22.7	29.1	28.0	29.1	28.5	26.9
4	27.7	---	20.9	22.8	20.9	21.8	22.9	29.0	27.2	27.9	28.5	26.8
5	28.2	---	19.9	22.4	21.2	20.8	23.1	28.7	28.2	27.4	27.7	27.0
6	28.5	---	18.7	22.6	21.6	20.9	24.2	28.7	27.3	27.5	27.8	27.5
7	28.1	24.6	18.7	23.0	21.1	22.3	24.3	28.6	27.2	28.1	27.9	27.9
8	28.4	25.1	18.7	23.4	20.1	22.7	24.8	28.7	27.2	28.3	28.3	28.2
9	28.0	25.0	18.1	22.6	20.1	22.0	25.4	28.3	27.6	28.7	29.0	28.0
10	27.8	24.8	17.8	22.2	20.0	20.5	25.3	28.5	27.7	28.4	29.4	28.0
11	27.4	22.3	17.7	22.3	20.1	20.2	26.0	28.7	27.7	28.6	29.6	28.4
12	27.2	21.7	17.1	22.0	19.3	20.0	26.2	28.5	27.9	27.3	29.8	28.5
13	28.1	21.5	17.6	21.0	19.5	18.9	25.7	28.5	28.3	24.9	29.8	28.5
14	28.1	21.6	17.9	19.4	19.3	20.3	26.0	28.8	28.1	24.7	29.4	28.7
15	28.4	21.5	18.4	18.9	18.2	19.8	26.0	29.1	29.1	26.2	29.7	29.3
16	28.0	21.4	18.7	19.1	16.9	19.1	26.4	29.3	30.1	27.2	30.1	28.9
17	27.8	21.6	19.2	18.9	16.5	18.7	26.7	28.7	30.7	27.4	30.2	28.5
18	27.4	21.3	19.8	18.7	17.4	19.6	27.1	29.0	29.8	27.6	29.1	28.1
19	27.2	20.6	21.0	19.3	18.6	20.7	27.2	28.7	29.6	28.4	29.0	27.6
20	27.1	20.3	21.8	19.5	19.8	21.0	27.2	27.6	30.1	26.8	29.6	27.3
21	26.5	20.4	22.4	19.6	20.7	21.6	26.6	26.9	30.2	27.6	26.8	27.3
22	26.8	20.6	22.8	18.9	21.5	22.4	25.8	26.2	30.0	28.0	26.9	27.7
23	27.0	20.9	23.1	18.1	21.8	23.4	25.0	26.9	29.7	28.5	26.7	27.8
24	27.1	21.6	22.6	18.2	22.4	23.7	26.0	26.9	29.5	28.9	25.6	28.1
25	26.9	22.2	20.6	18.3	21.9	24.2	25.6	26.1	29.4	29.1	25.4	28.3
26	23.3	22.4	20.3	18.0	21.9	24.5	25.3	26.4	29.7	28.9	26.2	28.1
27	21.6	22.5	20.5	17.8	20.6	24.8	26.4	26.7	29.6	29.2	27.0	27.2
28	21.3	23.4	20.9	18.0	19.2	24.8	27.4	27.3	30.3	28.9	27.4	26.9
29	20.7	23.5	21.5	19.2	---	25.1	28.0	28.0	30.6	28.0	27.6	27.0
30	19.3	22.1	22.1	20.8	---	24.8	28.6	28.9	30.7	27.6	27.4	26.4
31	---	---	22.5	21.1	---	23.4	---	27.5	---	27.1	26.7	---
MAX	---	---	23.1	23.4	22.4	25.1	28.6	29.3	30.7	29.3	30.2	29.3

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310500 WEEKI WACHEE SPRINGS NEAR BROOKSVILLE, FL

LOCATION.--Lat 28°31'00", long 82°34'25", in NE¼ sec.2, T.23 S., R.17 E., Hernando County, Hydrologic Unit 03100207, on west side of spring pool at head of Weeki Wachee River, and 12 mi southwest of Brooksville.

GAGE HEIGHT RECORDS

PERIOD OF RECORD.--1917, 1929-30 (one discharge measurement in each year); February 1931 to June 1966 (discharge measurements only); July 1966 to current year (gage heights and discharge measurements only).
TEMPERATURE OBSERVATIONS: October 1977 to current year. See REMARKS.

GAGE.--Nonrecording gage read once daily. Datum of gage is 8.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Discharge measurements made about 1.0 mi downstream from head of springs. Results of miscellaneous temperature observations prior to October 1977 are available in files of the Geological Survey.

AVERAGE DISCHARGE.--465 measurements, 175 ft^3/s, 113 mg/d.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 275 ft^3/s, Oct. 19, 1964; maximum gage height observed, 3.86 ft, Sept. 9, 1960; minimum discharge measured, 101 ft^3/s, July 24, 1956; minimum gage height observed, 0.58 ft, Aug. 5, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 2.70 ft, Aug. 31, Sept. 20, 23; minimum observed, 1.39 ft, Apr. 23.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.10	2.05	1.88	1.74	1.70	1.50	1.55	1.50	1.45	2.04	2.50	2.58
2	2.12	2.08	1.90	1.75	1.70	1.50	1.55	1.45	1.50	2.04	2.50	2.58
3	2.14	2.08	1.90	1.73	1.70	1.50	1.57	1.45	1.45	2.04	2.44	2.59
4	2.14	2.04	1.88	1.70	1.67	1.50	1.50	1.45	1.45	1.98	2.44	2.58
5	2.20	2.08	1.86	1.70	1.60	1.45	1.47	1.46	1.65	2.00	2.40	2.60
6	2.10	2.08	1.86	1.70	1.60	1.45	1.42	1.46	1.70	2.01	2.46	2.62
7	2.10	2.00	1.88	1.70	1.60	1.45	1.45	1.40	1.70	2.06	2.46	2.62
8	2.10	2.00	1.88	1.70	1.65	1.50	1.42	1.45	1.69	2.10	2.48	2.63
9	2.10	---	1.87	1.68	1.60	1.50	1.55	1.45	1.69	2.10	2.48	2.62
10	2.10	---	1.85	1.70	1.60	1.60	1.62	1.46	1.68	2.16	2.48	2.64
11	---	---	1.85	1.68	1.60	1.45	1.62	1.45	1.65	2.14	2.48	2.64
12	2.19	---	1.80	1.70	1.65	1.42	1.42	1.45	1.64	2.20	2.47	2.63
13	2.20	---	1.80	1.70	1.60	1.40	1.42	1.43	1.64	2.20	2.46	2.64
14	2.20	---	1.85	1.70	1.65	1.45	1.40	1.43	1.64	2.20	2.45	2.66
15	2.20	---	1.80	1.65	1.60	1.40	1.40	1.40	---	2.20	2.45	2.66
16	2.20	1.97	1.85	1.70	1.60	1.40	1.40	1.42	---	2.20	2.50	2.68
17	2.19	---	1.87	1.65	1.62	1.40	1.40	1.40	---	2.20	2.48	2.68
18	2.19	---	1.87	1.70	1.62	1.70	1.60	1.40	---	2.25	2.48	2.66
19	2.20	---	1.80	1.70	1.62	1.64	1.40	1.43	---	2.25	2.50	2.66
20	2.23	---	1.85	1.70	1.60	1.65	1.50	1.45	---	2.26	2.53	2.70
21	2.16	---	1.85	1.70	1.60	1.63	1.40	1.50	---	2.26	2.55	2.68
22	2.14	---	1.80	1.68	1.60	1.55	1.40	1.45	1.44	2.26	2.54	2.68
23	2.14	---	1.78	1.70	1.60	1.55	1.39	1.40	1.46	2.26	2.54	2.70
24	2.19	---	1.78	1.68	1.60	1.60	1.40	1.45	1.46	2.27	2.57	2.64
25	2.20	---	1.78	1.70	1.60	1.56	1.40	1.50	1.74	2.28	2.58	2.64
26	2.20	---	1.80	1.70	1.52	1.64	1.40	1.53	1.73	2.50	2.60	2.65
27	2.10	---	1.76	1.68	1.45	1.55	1.48	1.45	1.72	2.50	2.62	2.62
28	2.10	---	1.76	1.68	1.50	1.63	1.45	1.50	1.70	2.50	2.62	2.62
29	2.10	---	1.75	1.68	---	1.56	1.45	1.45	1.70	2.50	2.65	2.64
30	2.19	---	1.75	1.70	---	1.57	1.45	1.45	1.70	2.50	2.60	2.64
31	2.19	---	1.74	1.70	---	1.55	---	1.45	---	2.50	2.70	---
MEAN	---	---	1.83	1.70	1.61	1.52	1.46	1.45	---	2.22	2.52	2.64
MAX	---	---	1.90	1.75	1.70	1.70	1.62	1.53	---	2.50	2.70	2.70
MIN	---	---	1.74	1.65	1.45	1.40	1.39	1.40	---	1.98	2.40	2.58

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310500 WEEKI WACHEE SPRINGS NEAR BROOKSVILLE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-65, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	GAGE HEIGHT (FEET)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
OCT 16...	1015	2.18	159	291	7.8	23.5	<5	2.1	49	5.6
DEC 17...	1240	1.83	147	288	6.7	24.0	--	2.1	--	--
FEB 05...	1152	1.65	105	280	6.7	24.0	--	2.3	--	--
MAY 01...	0930	1.48	147	292	7.5	23.0	<5	2.1	50	5.4
JUL 19...	1030	2.38	175	308	7.1	23.5	--	2.5	--	--
SEP 27...	1145	2.66	133	300	7.2	23.0	--	2.2	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 16...	3.5	0.30	8.0	6.1	<0.10	8.4	166	--	<0.010	0.340
DEC 17...	--	--	--	--	--	--	--	--	<0.010	0.360
FEB 05...	--	--	--	--	--	--	--	0.330	0.010	0.340
MAY 01...	3.7	0.60	8.1	6.7	0.10	8.4	166	--	<0.010	0.350
JUL 19...	--	--	--	--	--	--	--	--	<0.010	0.420

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS 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)
OCT 16...	<0.010	<0.20	<0.010	0.030	20	<1	<1	<1	30	<10
DEC 17...	<0.010	<0.20	0.010	0.010	--	--	--	--	--	--
FEB 05...	<0.010	<0.20	0.010	0.010	--	--	--	--	--	--
MAY 01...	<0.010	0.20	0.020	<0.010	<10	<1	<1	<1	20	10
JUL 19...	0.010	<0.20	0.010	0.010	--	--	--	--	--	--

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)
OCT 16...	<1	<1	10	<10	0.70	<1	210	<10	2.3
MAY 01...	<1	<1	<10	10	<0.10	<1	230	<10	1.7

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 second table.

Low-flow partial-record stations

About 400 discharge measurements made at low-flow partial-record and miscellaneous discharge measurement sites during 1980 and 1981 are published in Water Resources Investigation 84-4299, "Low-Flow Frequency Analyses for Streams in West-Central Florida."

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 1991

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (feet)	Annual Maximum Discharge (ft^3/s)
		Peace River Basin					
02295630	Thompson Branch near Wauchula, FL	Lat 27°31'47", long 81°49'03", in SE¼ sec.9, T.34 S., R.25 E., Hardee County, Hydrologic Unit 03100101, at culvert on County Road 35A, 1.3 mi south of intersection State Highway 650 and U. S. Highway 17 in Wauchula, and 2.1 mi upstream from mouth.	5.22	1983-91	7-01-91	8.38	230
02296260	Charlie Creek near Crewsville, FL	Lat 27°27'33", long 81°40'43", in SE¼ sec.2, T.35 S., R.26 E., Hardee County, Hydrologic Unit 03100101, at bridge on State Highway 66, 7.1 mi west of Crewsville, and 14.5 mi upstream from mouth.	142	1981-91	8-27-91	18.25	795
02296955	Joshua Slough near Arcadia, FL	Lat 27°12'32", long 81°48'16", in NW¼ sec.3, T.38 S., R.25 E., De Soto County, Hydrologic Unit 03100101, at bridge on State Highway 70, 1.8 mi above mouth, and 3.4 mi east of Arcadia.	8.2	1983-91	†	†	†
02297088	Hawthorn Creek near Nocatee, FL	Lat 27°09'02", long 81°51'31", in NW¼ sec.30, T.37 S., R.25 E., De Soto County, Hydrologic Unit 03100101, at bridge on County Road 760-A, 1.2 mi above mouth, and 1.8 mi east of Nocatee.	39	1983-91	7-01-91	12.78	908
02297251	Horse Creek near Limestone, FL	Lat 27°21'58", long 81°58'25", in NW¼ sec.12, T.36 S., R.23 E., Hardee County, Hydrologic Unit 03100101, at bridge on State Highway 665, 4.5 mi west of Limestone, and 30.5 mi upstream from mouth. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).	130	1981-91	7-24-91	57.05	1,300

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1991

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (feet)	Annual Maximum Discharge (ft^3/s)
		Peace River Basin - Continued					
02297320	Horse Creek near Nocatee, FL	Lat 27°09'31", long 81°57'58", in NE¼ sec.24, T.38 S., R.23 E., De Soto County, Hydrologic Unit 03100101, at bridge on State Highway 761, 5.1 mi west of Nocatee, and 6.6 mi upstream from mouth. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).	231	1981-91	7-04-91	14.16	1,600
		Manatee River Basin					
02300010	Mill Creek near Lorraine, FL	Lat 27°28'57", long 82°24'25", in NE¼ sec.33, T.35 S., R.19 E., Manatee County, Hydrologic Unit 03100202, on downstream side of culvert on State Highway 64, 3.6 mi north of Lorraine, and 3.7 mi upstream from mouth.	6.9	1983-91	10-12-90	23.88	680
2300018	Gamble Creek near Parrish, FL	Lat 27°33'11", long 82°23'23", in NE¼ sec.3, T.34 S., R.19 E., Manatee County, Hydrologic Unit 03100202, on downstream side of bridge on Golf Course Road, 0.2 mi downstream from Frye Canal, 3.0 mi southeast of Parrish, and 5.7 mi upstream from mouth.	50.6	1983-91	10-11-90	13.89	980
		Little Manatee River Basin					
02300200	South Fork Little Manatee River near Duette, FL	Lat 27°35'25", long 82°10'57", in SW¼ sec.23, T.33 S., R.21 E., Manatee County, Hydrologic Unit 03100203, at bridge on county road, 0.5 mi upstream from Graveyard Creek, 3.7 mi west of Duette, and 12 mi upstream from mouth. Datum of gage is 89.25 ft above National Geodetic Vertical Datum of 1929.	a9.4	1960-91	6-30-91	3.31	227
		Alafia River Basin					
02300701	Cowley Run near Riverview, FL	Lat 27°48'09", long 82°20'13", in NE¼ sec.7, T.31 S., R.20 E., Hillsborough County, Hydrologic Unit 03100206, 7 ft upstream from culvert on Cowley Road, 0.2 mi above mouth, 0.2 mi west of U.S. Highway 301, and 4.5 mi south of Riverview.	0.40	1984-91	7-13-91	6.19	70
		Hillsborough River Basin					
02301980	Zephyr Creek near Zephyrhills, FL	Lat 28°14'11", long 82°12'48", in SE¼ sec.9, T.26 S., R.21 E., Pasco County, Hydrologic Unit 03100205, at downstream end of culvert, and auxiliary gage 7 ft upstream from culvert, on Dean Dairy Road, 0.5 mi north of State Highway 54, 2 mi west of Zephyrhills, and 5.7 mi above mouth.	1.93	1984-91	7-15-91	8.09	125

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1991

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (feet)	Annual Maximum Discharge (ft^3/s)
		Hillsborough River Basin - Continued					
02302260	Itchepackesassa Creek near Knights, FL	Lat 28°04'49", long 82°04'24", in NE¼ sec.2, T.28 S., R.22 E., Hillsborough County, Hydrologic Unit 03100205, at left bank on State Highway 582, 3.9 mi east of Knights, and 6.0 mi upstream from mouth.	a34	1982-91	7-14-91	13.05	419
		Tampa Bay and coastal areas					
02306289	Lake Magdalene Outlet near Lutz, FL	Lat 28°04'26", long 82°30'01", in SE¼ sec.4, T.28 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, on right bank of canal, 20 ft downstream from vertical lift gate control structure, 2 ft upstream from V-notch weir, 0.1 mi upstream from inlet to Bay Lake, and 5.8 mi southwest of Lutz.	2.2	1970-81* 1982-91	8-20-91	5.06	19

† Not determined
* Operated as a continuous-record gaging station
a Approximately

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1991

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Myakka River Basin				
Deer Prairie Slough	Myakka River	Lat 27°10'33", long 82°12'42", in NE¼ sec.16, T.38 S., R.21 E., Sarasota County, Hydrologic Unit 03100102, attached to upstream side of wood bridge, 1.4 mi south of State Highway 72, 7.2 mi upstream from mouth, and 12.4 mi south of Myakka City.	†	1983-90	10-09-90 12-05-90 12-13-90 01-18-91 02-22-91 04-03-91 05-06-91 07-01-91	0 0 0 0.45 0 0 0 57
Mud Lake Slough	Big Slough Canal	Lat 27°11'34", long 82°09'22", in NE¼ sec.12, T.38 S., R.21 E., Sarasota County, Hydrologic Unit 03100102, near left bank on downstream side of bridge on State Highway 72, 0.6 mi upstream from mouth, and 11 mi south of Myakka City.	17.0	1983-90	10-09-90 11-26-90 01-14-91 02-19-91 04-01-91 05-06-91 06-24-91 08-19-91	13 0.49 0.58 0.31 1.5 0 32 6.4
		Tampa Bay and Coastal Areas				
Brushy Creek	Rocky Creek	Lat 28°05'03", long 82°31'29", in NE¼ sec.5, T.28 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, near center of span on downstream side of bridge on Ehrlich Road, 3.4 mi upstream from mouth, and 6 mi northwest of Tampa.	a6.2	1990	08-01-91 08-02-91	554 286

† Not Determined
a Approximately

DATE	TIME	SAMPLING DEPTH (FEET)	GAGE HEIGHT (FEET)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)
02298763	HOWARD CREEK DRAINAGE DITCH NEAR SARASOTA, FL (LAT 27 16 44N LONG 082 19 26W)										
JUL 1991											
02...	1030	--	12.91	5.3	75	5.5	26.5	--	--	1.5	--
02298800	UPPER MYAKKA LAKE NR SARASOTA, FLA. (LAT 27 15 50N LONG 082 17 20W)										
OCT 1990											
15...	1150	--	--	--	165	6.4	28.0	160	--	4.1	--
JAN 1991											
17...	1230	--	--	--	245	7.3	19.0	80	--	9.6	--
APR											
04...	0950	--	--	--	410	7.1	22.0	80	--	7.2	--
JUN											
06...	1230	--	--	--	230	6.3	27.5	160	--	3.8	--
27...	1400	--	--	--	162	6.6	29.0	85	--	3.3	--
AUG											
20...	1100	--	--	--	153	6.4	29.0	240	--	1.2	--
02300200	SOUTH FORK LITTLE MANATEE RIVER NR DUETTE, FLA. (LAT 27 35 25N LONG 082 10 57W)										
OCT 1990											
09...	1200	--	-1.18	--	310	5.2	24.5	--	--	5.0	--
29...	1300	--	--	--	382	7.3	19.0	40	--	6.6	--
APR 1991											
09...	0955	--	-0.81	--	225	6.6	22.0	--	--	4.5	--
MAY											
08...	1215	--	-1.32	0.06	155	6.3	25.0	100	--	4.0	--
JUL											
24...	1055	--	-0.59	--	170	6.4	26.5	--	--	4.6	--
02303200	PEMBERTON CREEK NR DOVER, FLA. (LAT 28 01 34N LONG 082 14 12W)										
OCT 1990											
22...	1035	--	--	--	540	7.8	24.0	--	--	7.5	--
JAN 1991											
10...	1005	--	56.15	--	745	7.3	21.0	--	--	7.5	--
MAR											
04...	1445	--	53.64	--	425	--	20.0	--	--	7.5	--
MAY											
06...	0845	--	52.28	9.0	650	7.8	25.0	--	--	6.8	--
AUG											
19...	1245	--	50.65	--	371	7.4	27.0	--	--	6.4	--
02303354	HILLSBOROUGH R AT S-155 NEAR THONOTOSASSA,FLA (LAT 28 05 16N LONG 082 21 05W)										
NOV 1990											
19...	1150	--	21.70	--	373	8.0	18.5	10	1.2	6.8	--
APR 1991											
25...	0900	3.00	--	--	356	7.5	24.0	40	--	5.0	--
02307498	LAKE TARPON CANAL AT S-551, NR OLDSMAR, FLA. (LAT 28 03 12N LONG 082 42 40W)										
NOV 1990											
06...	0840	--	12.86	--	1590	--	23.5	--	--	--	--
DEC											
14...	1145	--	12.69	--	2650	--	18.0	--	--	--	--
FEB 1991											
06...	1150	--	12.98	--	2280	--	20.0	--	--	--	--
MAY											
06...	1100	--	12.95	--	997	--	27.5	--	--	--	--
JUN											
05...	1250	--	13.07	--	983	--	29.0	--	--	--	--
JUL											
23...	1415	--	13.15	--	930	--	30.0	--	--	--	--
02309494	HEALTH SPRING NR OZONA, FLA. (LAT 28 06 22N LONG 082 46 21W)										
NOV 1990											
27...	1045	--	--	--	2300	--	24.0	5	--	--	--
SEP 1991											
24...	1225	--	--	--	1810	7.6	24.5	--	--	--	15

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
02298763 HOWARD CREEK DRAINAGE DITCH NEAR SARASOTA, FL (LAT 27 16 44N LONG 082 19 26W)											
JUL 1991											
02...	--	--	--	--	--	--	--	--	--	--	--
02298800 UPPER MYAKKA LAKE NR SARASOTA, FLA. (LAT 27 15 50N LONG 082 17 20W)											
OCT 1990											
15...	--	--	--	--	15	7.4	6.9	3.4	26	17	0.20
JAN 1991											
17...	--	--	--	--	20	10	10	4.0	51	17	0.20
APR											
04...	--	--	--	--	35	18	12	5.3	130	20	0.20
JUN											
06...	--	--	--	--	18	8.5	7.7	4.1	48	13	0.20
27...	--	--	--	--	14	5.9	6.0	3.6	26	12	0.20
AUG											
20...	--	--	--	--	15	5.9	6.8	3.0	21	9.6	0.20
02300200 SOUTH FORK LITTLE MANATEE RIVER NR DUETTE, FLA. (LAT 27 35 25N LONG 082 10 57W)											
OCT 1990											
09...	--	--	--	--	--	--	--	--	--	--	--
29...	0.9	--	--	--	41	16	10	4.6	67	17	0.50
APR 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
08...	0.9	--	--	--	15	5.8	7.0	2.5	10	16	0.30
JUL											
24...	--	--	--	--	--	--	--	--	--	--	--
02303200 PEMBERTON CREEK NR DOVER, FLA. (LAT 28 01 34N LONG 082 14 12W)											
OCT 1990											
22...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
02303354 HILLSBOROUGH R AT S-155 NEAR THONOTOSASSA,FLA (LAT 28 05 16N LONG 082 21 05W)											
NOV 1990											
19...	2.4	--	--	--	64	4.8	6.8	1.3	15	11	0.20
APR 1991											
25...	0.5	--	--	--	56	4.8	10	2.6	15	14	0.20
02307498 LAKE TARPON CANAL AT S-551, NR OLDSMAR, FLA. (LAT 28 03 12N LONG 082 42 40W)											
NOV 1990											
06...	--	--	--	--	--	--	--	--	--	410	--
DEC											
14...	--	--	--	--	--	--	--	--	--	710	--
FEB 1991											
06...	--	--	--	--	--	--	--	--	--	590	--
MAY											
06...	--	--	--	--	--	--	--	--	--	260	--
JUN											
05...	--	--	--	--	--	--	--	--	--	250	--
JUL											
23...	--	--	--	--	--	--	--	--	--	240	--
02309494 HEALTH SPRING NR OZONA, FLA. (LAT 28 06 22N LONG 082 46 21W)											
NOV 1990											
27...	0.2	<1	<1	64	95	40	320	18	120	530	<0.10
SEP 1991											
24...	0.1	K16	<1	<1	79	30	240	14	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	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-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
02298763 HOWARD CREEK DRAINAGE DITCH NEAR SARASOTA, FL (LAT 27 16 44N LONG 082 19 26W)											
JUL 1991											
02...	--	--	--	--	--	--	--	--	--	--	--
02298800 UPPER MYAKKA LAKE NR SARASOTA, FLA. (LAT 27 15 50N LONG 082 17 20W)											
OCT 1990											
15...	4.7	138	--	0.010	<0.020	0.020	0.96	0.98	0.270	0.260	--
JAN 1991											
17...	0.90	163	--	<0.010	<0.020	0.030	2.2	2.2	0.340	0.190	--
APR											
04...	1.3	273	--	0.010	<0.020	0.020	1.1	1.1	0.300	0.250	--
JUN											
06...	5.5	168	0.010	0.010	0.020	0.030	1.6	1.6	0.350	0.290	80
27...	4.6	122	--	0.010	<0.020	0.080	3.1	3.2	1.50	1.30	--
AUG											
20...	5.5	134	--	0.010	<0.020	0.020	1.8	1.8	0.530	0.390	--
02300200 SOUTH FORK LITTLE MANATEE RIVER NR DUETTE, FLA. (LAT 27 35 25N LONG 082 10 57W)											
OCT 1990											
09...	--	--	--	<0.010	0.250	0.020	0.58	0.60	0.510	0.480	--
29...	14	251	--	<0.010	0.180	0.020	0.37	0.39	0.220	0.220	60
APR 1991											
09...	--	--	0.070	0.010	0.080	0.030	1.1	1.1	0.450	0.410	--
MAY											
08...	8.0	105	0.080	0.010	0.090	0.060	0.55	0.61	0.820	0.790	130
JUL											
24...	--	--	--	--	--	--	--	--	--	--	--
02303200 PEMBERTON CREEK NR DOVER, FLA. (LAT 28 01 34N LONG 082 14 12W)											
OCT 1990											
22...	--	--	0.870	0.010	0.880	0.020	0.58	0.60	0.540	0.450	--
JAN 1991											
10...	--	--	--	<0.010	0.750	0.010	0.45	0.46	0.380	0.320	--
MAR											
04...	--	--	0.960	0.040	1.00	0.990	0.61	1.6	0.470	0.370	--
MAY											
06...	--	--	0.160	0.010	0.170	0.010	0.58	0.59	1.90	1.80	--
AUG											
19...	--	--	0.740	0.030	0.770	0.050	1.0	1.1	0.900	0.620	--
02303354 HILLSBOROUGH R AT S-155 NEAR THONOTOSASSA,FLA (LAT 28 05 16N LONG 082 21 05W)											
NOV 1990											
19...	9.4	246	--	<0.010	1.20	0.020	0.25	0.27	0.110	0.100	--
APR 1991											
25...	9.8	210	0.920	0.010	0.930	0.040	0.89	0.93	0.280	0.250	60
02307498 LAKE TARPON CANAL AT S-551, NR OLDSMAR, FLA. (LAT 28 03 12N LONG 082 42 40W)											
NOV 1990											
06...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
FEB 1991											
06...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
23...	--	--	--	--	--	--	--	--	--	--	--
02309494 HEALTH SPRING NR OZONA, FLA. (LAT 28 06 22N LONG 082 46 21W)											
NOV 1990											
27...	9.2	1350	9.19	0.010	9.20	<0.010	--	0.26	0.160	0.160	--
SEP 1991											
24...	--	--	--	<0.010	0.130	<0.010	--	0.26	0.140	0.130	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	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)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
02298763 HOWARD CREEK DRAINAGE DITCH NEAR SARASOTA, FL (LAT 27 16 44N LONG 082 19 26W)											
JUL 1991											
02...	--	--	--	--	--	--	--	--	--	--	--
02298800 UPPER MYAKKA LAKE NR SARASOTA, FLA. (LAT 27 15 50N LONG 082 17 20W)											
OCT 1990											
15...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
17...	--	--	--	--	--	--	--	--	--	--	--
APR											
04...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	<1	--	--	<1	--	--	<1	260	150	2	1
27...	--	--	--	--	--	--	--	--	--	--	--
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--
02300200 SOUTH FORK LITTLE MANATEE RIVER NR DUETTE, FLA. (LAT 27 35 25N LONG 082 10 57W)											
OCT 1990											
09...	--	--	--	--	--	--	--	--	--	--	--
29...	<1	--	--	<1	--	--	<1	130	70	<1	<1
APR 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
08...	<1	--	--	<1	--	--	1	660	430	<1	<1
JUL											
24...	--	--	--	--	--	--	--	--	--	--	--
02303200 PEMBERTON CREEK NR DOVER, FLA. (LAT 28 01 34N LONG 082 14 12W)											
OCT 1990											
22...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
02303354 HILLSBOROUGH R AT S-155 NEAR THONOTOSASSA,FLA (LAT 28 05 16N LONG 082 21 05W)											
NOV 1990											
19...	<1	<100	<10	<1	2	<1	--	70	--	<1	--
APR 1991											
25...	1	--	--	<1	--	--	<1	140	40	1	<1
02307498 LAKE TARPON CANAL AT S-551, NR OLDSMAR, FLA. (LAT 28 03 12N LONG 082 42 40W)											
NOV 1990											
06...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
FEB 1991											
06...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
23...	--	--	--	--	--	--	--	--	--	--	--
02309494 HEALTH SPRING NR OZONA, FLA. (LAT 28 06 22N LONG 082 46 21W)											
NOV 1990											
27...	2	--	--	--	--	--	--	--	--	--	--
SEP 1991											
24...	2	--	--	--	--	--	--	--	--	--	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
02298763 HOWARD CREEK DRAINAGE DITCH NEAR SARASOTA, FL (LAT 27 16 44N LONG 082 19 26W)										
JUL 1991										
02...	--	--	--	--	--	--	--	--	--	--
02298800 UPPER MYAKKA LAKE NR SARASOTA, FLA. (LAT 27 15 50N LONG 082 17 20W)										
OCT 1990										
15...	--	--	--	--	--	--	850	--	--	--
JAN 1991										
17...	--	--	--	--	--	--	1100	--	--	--
APR										
04...	--	--	--	--	--	--	2200	--	--	--
JUN										
06...	20	20	<0.10	<1	--	--	1100	--	10	--
27...	--	--	--	--	--	--	780	--	--	--
AUG										
20...	--	--	--	--	--	--	930	--	--	--
02300200 SOUTH FORK LITTLE MANATEE RIVER NR DUETTE, FLA. (LAT 27 35 25N LONG 082 10 57W)										
OCT 1990										
09...	--	--	--	--	--	--	--	--	--	--
29...	<10	<10	0.20	<1	--	--	2000	--	<10	13
APR 1991										
09...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	50	40	<0.10	<1	--	--	310	--	<10	9.5
JUL										
24...	--	--	--	--	--	--	--	--	--	--
02303200 PEMBERTON CREEK NR DOVER, FLA. (LAT 28 01 34N LONG 082 14 12W)										
OCT 1990										
22...	--	--	--	--	--	--	--	--	--	10
JAN 1991										
10...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	--	--	--	--	--	--	--	--	7.6
AUG										
19...	--	--	--	--	--	--	--	--	--	--
02303354 HILLSBOROUGH R AT S-155 NEAR THONOTOSASSA,FLA (LAT 28 05 16N LONG 082 21 05W)										
NOV 1990										
19...	<10	--	<0.10	<1	<1	<1	430	<10	--	2.1
APR 1991										
25...	10	10	<0.10	<1	--	--	370	--	10	5.6
02307498 LAKE TARPON CANAL AT S-551, NR OLDSMAR, FLA. (LAT 28 03 12N LONG 082 42 40W)										
NOV 1990										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
14...	--	--	--	--	--	--	--	--	--	--
FEB 1991										
06...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	--	--	--	--	--	--	--	--	--	--
02309494 HEALTH SPRING NR OZONA, FLA. (LAT 28 06 22N LONG 082 46 21W)										
NOV 1990										
27...	--	--	--	--	1	--	480	--	--	2.7
SEP 1991										
24...	--	--	--	--	2	--	--	--	--	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	SAMPLING DEPTH (FEET)	GAGE HEIGHT (FEET)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)
	02299060		DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)									
JAN 1991												
18...	0930	--	26.6	0.45	120	6.1	--	--	--	5.0	--	--
JUL												
01...	1000	--	28.8	57	80	5.3	27.0	--	--	2.0	--	--
AUG												
06...	1105	--	28.6	--	70	5.6	28.5	280	--	1.7	1.4	K120
	02299420		MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)									
OCT 1990												
09...	0940	--	29.4	13	120	6.4	26.0	--	--	4.1	--	--
DEC												
03...	0923	--	28.1	--	175	6.9	18.5	240	--	8.0	1.4	2300
JAN 1991												
01...	1000	--	28.2	0.58	235	6.8	15.0	--	--	9.8	--	--
APR												
01...	0900	--	28.7	1.8	340	7.5	19.0	--	--	7.0	--	--
AUG												
07...	1115	--	30.4	--	120	6.0	29.0	320	--	5.1	1.6	400
	02301766		TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)									
NOV 1990												
14...	1010	--	14.4	--	470	7.3	22.0	--	--	7.9	--	--
19...	1013	--	14.0	--	505	7.6	21.5	10	2.3	5.5	--	--
JAN 1991												
09...	1030	--	13.6	--	485	7.0	23.0	--	--	6.5	--	--
FEB												
27...	1000	--	13.7	--	535	--	19.5	--	--	6.9	--	--
APR												
22...	1000	3.00	14.1	--	486	7.5	25.0	5	--	8.2	--	--
AUG												
19...	1039	--	14.1	--	456	8.6	30.0	--	--	9.4	--	--
	02301770		TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)									
NOV 1990												
14...	0950	--	14.2	--	450	7.5	21.5	--	--	8.1	--	--
JAN 1991												
09...	1100	--	21.0	--	480	7.3	22.0	--	--	7.5	--	--
APR												
24...	1200	3.00	21.0	--	447	7.5	25.5	35	--	7.4	2.7	K130
	02301771		TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)									
APR 1991												
24...	0945	3.00	14.1	--	500	7.5	25.0	5	--	6.2	1.7	K20

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
	02299060		DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)									
JAN 1991												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
06...	K20	230	6.2	2.2	5.0	1.0	0.30	9.2	<0.10	4.1	86	--
	02299420		MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)									
OCT 1990												
09...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
03...	470	370	13	5.6	13	2.1	5.0	26	0.30	0.30	141	0.030
JAN 1991												
01...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
07...	73	100	10	3.7	6.0	2.0	4.8	13	0.10	4.5	120	--
	02301766		TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)									
NOV 1990												
14...	--	--	--	--	--	--	--	--	--	--	--	0.720
19...	--	--	84	7.2	7.4	1.5	95	11	0.20	10	318	0.600
JAN 1991												
09...	--	--	--	--	--	--	--	--	--	--	--	0.620
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	0.480
APR												
22...	--	--	82	8.3	8.9	1.6	99	14	0.20	11	325	--
AUG												
19...	--	--	--	--	--	--	--	--	--	--	--	--
	02301770		TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)									
NOV 1990												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
24...	--	2000	72	7.3	10	2.3	71	18	0.20	9.6	298	--
	02301771		TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)									
APR 1991												
24...	--	K13	81	8.7	10	2.0	97	18	0.20	11	332	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

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-PHORUS 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)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)												
JAN 1991												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
06...	0.010	<0.020	0.01	1.5	1.5	0.240	0.240	60	<1	--	--	<1
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)												
OCT 1990												
09...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
03...	0.010	0.040	0.04	1.5	1.5	1.30	0.130	90	<1	--	--	<1
JAN 1991												
01...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
07...	0.010	<0.020	0.01	1.5	1.5	0.580	0.550	160	<1	--	--	<1
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)												
NOV 1990												
14...	0.020	0.740	0.03	0.26	0.29	0.100	0.070	--	--	--	--	--
19...	0.020	0.620	0.02	0.30	0.32	0.090	0.060	--	<1	<100	<10	<1
JAN 1991												
09...	0.010	0.630	0.04	0.21	0.25	0.120	0.120	--	--	--	--	--
FEB												
27...	0.010	0.490	0.04	0.29	0.33	0.070	0.050	--	--	--	--	--
APR												
22...	<0.010	0.130	0.01	0.50	0.51	0.130	0.080	80	1	--	--	<1
AUG												
19...	<0.010	<0.020	0.01	1.1	1.1	0.230	0.130	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)												
NOV 1990												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
24...	<0.010	0.030	0.01	0.67	0.68	0.210	0.150	110	1	--	--	<1
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)												
APR 1991												
24...	<0.010	<0.020	<0.01	--	0.48	0.170	0.110	160	1	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)												
JAN 1991												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
06...	--	--		350	320	1	2	20	20	<0.10	<1	--
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)												
OCT 1990												
09...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
03...	--	--		550	380	1	<1	<10	<10	<0.10	<1	--
JAN 1991												
01...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
07...	--	--	<1	1100	570	1	<1	30	30	<0.10	<1	--
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)												
NOV 1990												
14...	--	--	--	--	--	--	--	--	--	--	--	--
19...	2	<1	--	70	--	<1	--	40	--	0.80	<1	<1
JAN 1991												
09...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
22...	--	--	<1	90	20	1	<1	40	<10	<0.10	<1	--
AUG												
19...	--	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)												
NOV 1990												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
24...	--	--	<1	90	30	<1	<1	30	<10	<0.10	<1	--
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)												
APR 1991												
24...	--	--	<1	70	20	<1	<1	30	<10	<0.10	<1	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC TOTAL (MG/L AS C)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DYRIFOS TOTAL RECOVER (UG/L)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)												
JAN 1991												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
06...	--	80	--	50	--	--	--	22	<0.1	<0.010	<0.1	<0.01
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)												
OCT 1990												
09...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
03...	--	210	--	10	--	--	--	26	<0.1	<0.010	<0.1	<0.01
JAN 1991												
01...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
07...	--	190	--	10	--	--	--	14	<0.1	<0.010	<0.1	<0.01
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)												
NOV 1990												
14...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<1	1000	1	--	--	--	--	2.9	--	--	--	--
JAN 1991												
09...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
22...	--	1100	--	<10	--	--	--	2.3	--	--	--	--
AUG												
19...	--	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)												
NOV 1990												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
24...	--	820	--	<10	4.4	2.9	2.1	6.9	<0.1	<0.010	<0.1	<0.01
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)												
APR 1991												
24...	--	1100	--	<10	3.0	2.8	2.0	1.9	<0.1	<0.010	<0.1	<0.01

DATE	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)												
JAN 1991 18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 06...	<0.010	<0.010	<0.01	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)												
OCT 1990 09...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	<0.010	<0.010	<0.01	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01
JAN 1991 01...	--	--	--	--	--	--	--	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 07...	<0.010	<0.010	<0.01	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)												
NOV 1990 14...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991 09...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 27...	--	--	--	--	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	--	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)												
NOV 1990 14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1991 09...	--	--	--	--	--	--	--	--	--	--	--	--
APR 24...	<0.010	<0.010	<0.01	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)												
APR 1991 24...	<0.010	<0.010	<0.01	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, 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)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)											
JAN 1991											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	<0.01	<0.01	--	<0.01	<1	<0.01	--	--	--	--	--
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)											
OCT 1990											
09...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	<0.01	<0.01	<0.01	<0.01	<1	<0.01	--	--	--	--	--
JAN 1991											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
07...	<0.01	<0.01	--	<0.01	<1	<0.01	--	--	--	--	--
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
24...	<0.01	<0.01	--	<0.01	<1	<0.01	0.02	<0.01	<0.01	--	--
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)											
APR 1991											
24...	<0.01	<0.01	--	<0.01	<1	<0.01	<0.01	<0.01	<0.01	--	--

DATE	ACE-NAPHTHYLENE TOTAL (UG/L)	ACE-NAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)											
JAN 1991											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	--	--	--	--	--	--	--	--	--	--	--
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)											
OCT 1990											
09...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
07...	--	--	--	--	--	--	--	--	--	--	--
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
24...	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<5.0	<5.0	<5.0	<5.0	<10.0
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)											
APR 1991											
24...	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<5.0	<5.0	<5.0	<5.0	<10.0

DATE	DIETHYL PHTHALATE TOTAL (UG/L)	DI-METHYL PHTHALATE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)	NITROBENZENE TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)											
JAN 1991 18...	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
AUG 06...	--	--	--	--	--	--	--	--	--	--	--
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)											
OCT 1990 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991 01...	--	--	--	--	--	--	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--	--	--	--
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)											
NOV 1990 14...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991 09...	--	--	--	--	--	--	--	--	--	--	--
FEB 27...	--	--	--	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)											
NOV 1990 14...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991 09...	--	--	--	--	--	--	--	--	--	--	--
APR 24...	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)											
APR 1991 24...	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

DATE	PYRENE TOTAL (UG/L)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2,4- TRI- CHLORO- BENZENE TOTAL (UG/L)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	2- CHLORO- NAPH- THALENE TOTAL (UG/L)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)											
JAN 1991											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	--	--	--	--	--	--	--	--	--	--	--
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)											
OCT 1990											
09...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
07...	--	--	--	--	--	--	--	--	--	--	--
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
24...	<5.0	<10.0	<10.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<10.0	<5.0
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)											
APR 1991											
24...	<5.0	<10.0	<10.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<10.0	<5.0

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	DI-SYSTON TOTAL (UG/L)	PHORATE TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	DEF TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)											
JAN 1991											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	--	--	--	--	<0.01	<0.01	<0.1	<0.01	--	--	<0.10
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)											
OCT 1990											
09...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	<0.01	<0.01	<0.1	<0.01	--	--	<0.10
JAN 1991											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
07...	--	--	--	--	<0.01	<0.01	<0.1	<0.01	--	--	<0.10
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
24...	<5.0	<5.0	<5.0	<5.0	<0.01	<0.01	<0.1	<0.01	<5.0	<5.0	<0.10
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)											
APR 1991											
24...	<5.0	<5.0	<5.0	<5.0	<0.01	<0.01	<0.1	<0.01	<5.0	<5.0	<0.10

DATE	HEXA-CHLORO-BENZENE TOTAL (UG/L)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L)	MIREX, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L)	CHLAMY DOMONAS	SPHAERO CYSTIS	GLOEO CYSTIS	SCENE DESMUS
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)											
JAN 1991											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	--	--	<0.01	--	<0.0	--	--	2200	100	--	--
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)											
OCT 1990											
09...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	<0.01	--	<0.0	--	--	1600	170	520	--
JAN 1991											
01...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
07...	--	--	<0.01	--	<0.0	--	--	400	100	--	25
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)											
NOV 1990											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN 1991											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
24...	<5.0	<5.0	<0.01	<0.01	<0.0	0.70	1.0	--	--	--	--
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)											
APR 1991											
24...	<5.0	<5.0	<0.01	<0.01	<0.0	0.70	1.1	--	--	--	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	MOUGEOTIA	CLOSTERIUM	STAURASTRUM	BAMBUSINA	SYNEDRA	GYROSIGMA	NAVICULA	ANACYSTIS	LYNGBYA	ANABAENA
02299060 DEER PRAIRE SLOUGH NR MYAKKA CITY, FL (LAT 27 10 33N LONG 082 12 42W)										
JAN 1991										
18...	--	--	--	--	--	--	--	--	--	--
JUL										
01...	--	--	--	--	--	--	--	--	--	--
AUG										
06...	--	--	6	6	19	19	--	--	--	200
02299420 MUD LAKE SLOUGH NR MYAKKA CITY, FL (LAT 27 11 34N LONG 082 09 22W)										
OCT 1990										
09...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	43	--	170	520	--	--
JAN 1991										
01...	--	--	--	--	--	--	--	--	--	--
APR										
01...	--	--	--	--	--	--	--	--	--	--
AUG										
07...	19	6	--	--	37	--	--	--	37	--
02301766 TAMPA BYPASS CANAL BELOW S-159 NEAR TAMPA,FLA (LAT 28 02 04N LONG 082 20 34W)										
NOV 1990										
14...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
JAN 1991										
09...	--	--	--	--	--	--	--	--	--	--
FEB										
27...	--	--	--	--	--	--	--	--	--	--
APR										
22...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	--	--	--	--	--	--	--	--	--	--
02301770 TAMPA BYPASS CANAL ABOVE S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 15W)										
NOV 1990										
14...	--	--	--	--	--	--	--	--	--	--
JAN 1991										
09...	--	--	--	--	--	--	--	--	--	--
APR										
24...	--	--	--	--	--	--	--	--	--	--
02301771 TAMPA BYPASS CANAL BELOW S-161 NEAR TAMPA,FLA (LAT 28 01 05N LONG 082 22 14W)										
APR 1991										
24...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	SAMPLING DEPTH (FEET)	GAGE HEIGHT (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
			02301802	- TAMPA BYPASS CANAL AT S-160,AT TAMPA,FL.								
NOV												
14...	1207	--	9.77	520	7.8	22.0	--	--	7.9	--	--	--
20...	0915	--	9.64	560	8.2	20.5	20	3.0	7.7	82	9.3	18
JAN												
09...	1510	--	9.68	575	6.9	23.0	--	--	6.5	--	--	--
MAR												
04...	1000	--	9.57	600	--	20.0	--	--	6.7	--	--	--
APR												
22...	1015	--	9.60	--	--	--	--	--	--	--	--	--
22...	1018	0.50	--	520	--	25.5	--	--	7.9	--	--	--
22...	1019	3.00	--	523	--	25.5	--	--	7.9	--	--	--
22...	1020	7.00	--	523	--	25.5	--	--	7.9	--	--	--
22...	1021	9.00	--	523	--	25.5	--	--	7.9	--	--	--
22...	1200	3.00	--	570	8.1	25.5	5	--	7.8	80	9.4	20
23...	0115	--	9.60	--	--	--	--	--	--	--	--	--
25...	1130	0.50	--	550	8.3	26.0	--	--	7.5	--	--	--
25...	1131	3.00	--	551	8.3	26.0	--	--	7.5	--	--	--
25...	1132	5.00	--	550	8.3	26.0	--	--	7.5	--	--	--
25...	1133	9.00	--	550	8.3	26.0	--	--	7.4	--	--	--
25...	1140	--	9.58	--	--	--	--	--	--	--	--	--
25...	1145	--	9.58	--	--	--	--	--	--	--	--	--
25...	2310	--	9.92	--	--	--	--	--	--	--	--	--
25...	2337	1.00	--	545	8.2	25.5	--	--	6.5	--	--	--
25...	2342	3.00	--	546	8.2	25.5	--	--	6.5	--	--	--
25...	2343	5.00	--	546	8.2	25.5	--	--	6.5	--	--	--
25...	2344	7.00	--	546	8.2	25.5	--	--	6.0	--	--	--
25...	2345	9.00	--	546	8.2	25.5	--	--	6.5	--	--	--
MAY												
20...	2320	--	10.02	--	--	--	--	--	--	--	--	--
21...	1300	--	9.95	--	--	--	--	--	--	--	--	--
23...	1400	--	9.88	--	--	--	--	--	--	--	--	--
23...	1405	--	9.88	--	--	--	--	--	--	--	--	--
23...	2200	--	10.11	--	--	--	--	--	--	--	--	--
JUN												
17...	1130	--	9.82	--	--	--	--	--	--	--	--	--
JUL												
16...	1630	--	10.18	--	--	--	--	--	--	--	--	--
AUG												
14...	1351	1.00	--	412	7.7	30.5	--	--	5.7	--	--	--
14...	1352	3.10	--	411	7.7	30.5	--	--	5.5	--	--	--
14...	1353	5.20	--	409	7.7	30.5	--	--	5.4	--	--	--
14...	1354	7.20	--	409	7.7	30.0	--	--	5.1	--	--	--
14...	1357	9.30	--	410	7.6	30.0	--	--	4.4	--	--	--
14...	1400	1.00	9.82	--	--	--	--	--	--	--	--	--
22...	1500	--	8.82	420	--	30.5	--	--	9.5	--	--	--
SEP												
18...	1500	--	9.87	--	--	--	--	--	--	--	--	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	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)
			02301802		- TAMPA BYPASS CANAL AT S-160,AT TAMPA,FL.							
NOV												
14...	--	--	--	--	--	--	--	<0.010	0.040	0.010	0.79	0.80
20...	2.6	86	37	0.20	11	375	0.020	0.010	0.030	0.020	0.74	0.76
JAN												
09...	--	--	--	--	--	--	--	<0.010	0.030	0.010	0.59	0.60
MAR												
04...	--	--	--	--	--	--	0.020	0.010	0.030	0.030	0.60	0.63
APR												
22...	--	--	38	--	7.9	--	--	0.010	<0.010	<0.010	--	0.50
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	2.7	91	34	0.20	8.6	364	--	<0.010	0.020	<0.010	--	0.58
23...	--	--	39	--	8.3	--	--	<0.010	<0.010	<0.010	--	0.55
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	44	--	9.0	--	--	0.010	<0.010	<0.010	--	0.50
25...	--	--	43	--	9.0	--	--	<0.010	0.010	<0.010	--	0.48
25...	--	--	42	--	9.0	--	--	<0.010	0.020	<0.010	--	0.48
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
20...	--	--	24	--	7.1	--	--	<0.010	0.010	<0.010	--	1.0
21...	--	--	24	--	7.1	--	--	<0.010	0.020	0.010	0.99	1.0
23...	--	--	27	--	7.9	--	0.020	0.010	0.030	0.060	0.83	0.89
23...	--	--	27	--	7.9	--	--	<0.010	0.030	0.060	0.82	0.88
23...	--	--	28	--	7.5	--	0.030	0.010	0.040	0.100	0.82	0.92
JUN												
17...	--	--	25	--	5.8	--	--	<0.010	<0.010	<0.010	--	1.2
JUL												
16...	--	--	15	--	7.3	--	0.120	0.020	0.140	0.240	1.4	1.6
AUG												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	20	--	--	--	--	E0.010	E0.010	E0.010	--	E0.74
22...	--	--	--	--	--	--	--	<0.010	<0.020	0.010	0.99	1.0
SEP												
18...	--	--	25	--	11	--	--	E0.020	E0.010	E0.010	--	E0.76

DATE	PHOS-PHORUS 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)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	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)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
			02301802	- TAMPA BYPASS CANAL AT S-160,AT TAMPA,FL.								
NOV												
14...	0.250	0.160	--	--	--	--	--	--	--	--	--	--
20...	0.220	0.150	--	1	<100	<10	<1	1	<1	60	--	1
JAN												
09...	0.170	0.130	--	--	--	--	--	--	--	--	--	--
MAR												
04...	0.180	0.130	--	--	--	--	--	--	--	--	--	--
APR												
22...	0.160	0.160	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	0.180	0.120	50	1	--	--	<1	--	--	70	20	<1
23...	0.170	0.180	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	0.160	0.180	--	--	--	--	--	--	--	--	--	--
25...	0.160	0.190	--	--	--	--	--	--	--	--	--	--
25...	0.170	0.180	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
20...	0.180	0.130	--	--	--	--	--	--	--	--	--	--
21...	0.190	0.150	--	--	--	--	--	--	--	--	--	--
23...	0.210	0.170	--	--	--	--	--	--	--	--	--	--
23...	0.190	0.170	--	--	--	--	--	--	--	--	--	--
23...	0.210	0.190	--	--	--	--	--	--	--	--	--	--
JUN												
17...	0.230	0.150	--	--	--	--	--	--	--	--	--	--
JUL												
16...	0.440	0.360	--	--	--	--	--	--	--	--	--	--
AUG												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	E0.250	E0.220	--	--	--	--	--	--	--	--	--	--
22...	0.300	0.220	--	--	--	--	--	--	--	--	--	--
SEP												
18...	E0.190	E0.150	--	--	--	--	--	--	--	--	--	--

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
OCTOBER 1990 TO SEPTEMBER 1991

DATE	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)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
		02301802		- TAMPA BYPASS CANAL AT S-160,AT TAMPA,FL.						
NOV										
14...	--	--	--	--	--	--	--	--	--	--
20...	--	20	--	<0.10	<1	<1	<1	1000	10	4.2
JAN										
09...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
APR										
22...	--	--	--	--	--	--	--	--	--	4.6
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	<1	20	<10	<0.10	<1	--	--	980	--	3.7
23...	--	--	--	--	--	--	--	--	--	4.6
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	5.7
25...	--	--	--	--	--	--	--	--	--	5.2
25...	--	--	--	--	--	--	--	--	--	4.6
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	--	--	--	--	--	--	--	--	--	5.3
21...	--	--	--	--	--	--	--	--	--	5.6
23...	--	--	--	--	--	--	--	--	--	5.1
23...	--	--	--	--	--	--	--	--	--	5.9
23...	--	--	--	--	--	--	--	--	--	5.4
JUN										
17...	--	--	--	--	--	--	--	--	--	7.9
JUL										
16...	--	--	--	--	--	--	--	--	--	9.6
AUG										
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	12
22...	--	--	--	--	--	--	--	--	--	--
SEP										
18...	--	--	--	--	--	--	--	--	--	10

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
275647082240601 PALM RIVER AT U S HWY 41 BRIDGE NR TAMPA (LAT 27 56 47N LONG 082 24 06W)												
JAN 1991												
02...	0930	--	--	--	--	--	--	--	--	--	--	--
02...	0930	--	4400	8.2	21.5	10	1.3	7.0	4.6	360	1000	8800
APR												
25...	1100	--	--	--	--	--	--	--	--	--	--	--
25...	1100	3.00	4150	7.8	27.0	10	--	7.4	1.3	330	1000	8300

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	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)
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	350	2200	16000	0.90	1.3	30800	--	0.010	<0.020	0.020	0.82	0.84
APR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	360	2100	15000	0.90	2.2	29300	0.020	0.010	0.030	0.090	0.79	0.88

DATE	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	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)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	0.370	0.320	--	<1	100	10	5	2	2	--	160	--
APR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	0.400	0.330	14	1	--	--	<1	--	--	<1	250	140

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	5	--	<0.10	<1	<1	<1	6500	30	--	3.6
APR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<1	<1	6	40	<0.10	<1	--	--	6000	--	30	2.8

DATE	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	CHLORDYRIFOS TOTAL RECOVER (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
275647082240601 PALM RIVER AT U S HWY 41 BRIDGE NR TAMPA (LAT 27 56 47N LONG 082 24 06W)												
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	<0.1	<0.010	<0.	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01
APR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.1	<0.010	<0.	<0.01	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01

DATE	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1	<0.01	<0.01	<0.01
APR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1	<0.01	0.03	<0.01

DATE	SILVEX, TOTAL (UG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)
JAN 1991												
02...	--	70290	--	--	--	--	--	--	--	--	--	--
02...	<0.01	--	--	--	--	--	--	--	--	--	--	--
APR												
25...	--	27950	--	--	--	--	--	--	--	--	--	--
25...	<0.01	--	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<5.0	<5.0	<5.0	<5.0

DATE	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)	NITROBENZENE TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<10.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

DATE	PYRENE TOTAL (UG/L)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2,4- TRI- CHLORO- BENZENE TOTAL (UG/L)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	2- CHLORO- NAPH- THALENE TOTAL (UG/L)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L)
275647082240601 PALM RIVER AT U S HWY 41 BRIDGE NR TAMPA (LAT 27 56 47N LONG 082 24 06W)												
JAN 1991												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<5.0	<10.0	<10.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0

DATE	4- BROMO- PHENYL PHENYL ETHER TOTAL (UG/L)	4- CHLORO- PHENYL PHENYL ETHER TOTAL (UG/L)	NAPHTH- ALENE TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	PHORATE TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	DEF TOTAL (UG/L)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	HEXA- CHLORO- BENZENE TOTAL (UG/L)
JAN 1991											
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	<0.01	<0.01	<0.1	<0.01	--	--	<0.10	--
APR											
25...	--	--	--	--	--	--	--	--	--	--	--
25...	<5.0	<5.0	<5.0	<0.01	<0.01	<0.1	<0.01	<5.0	<5.0	<0.10	<5.0

DATE	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L)	MIREX, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L	EUGLENO PHYCEAE	EUGLENA	CRYPTO PHYCEAE	CRYPTO MONAS	PRORO CENTRUM	PERIDI NIUM	DINO PHYSIA CEAE
JAN 1991											
02...	--	--	--	--	1700	1700	4600	4600	1500	84	7100
02...	--	<0.01	<0.01	<0.0	--	--	--	--	--	--	--
APR											
25...	--	--	--	--	200	200	6700	6700	12	36	2300
25...	<5.0	<0.01	<0.01	<0.0	--	--	--	--	--	--	--

DATE	DINO PHYSIS (96491)	BACIL LARIO PHYCEAE (96702)	THALAS SIOSIRA (96713)	RHIZO SOLENIA (96726)	LEPTO CYLIND RUS (96727)	CHAETO CEROS (96731)	ASTERIO NELLA (96763)	S. COSTA TUM (96931)	NITZ SCHIA (97952)	CYANO PHYCEAE (98063)	SAM- PLING METHOD, CODES (82398)
JAN 1991											
02...	220	30000	2200	440	870	3300	2200	21000	440	--	--
02...	--	--	--	--	--	--	--	--	--	--	30
APR											
25...	420	15000	--	--	410	--	--	810	1600	3900	--
25...	--	--	--	--	--	--	--	--	--	--	--

ELEVATION AND WATER QUALITY OF LAKES

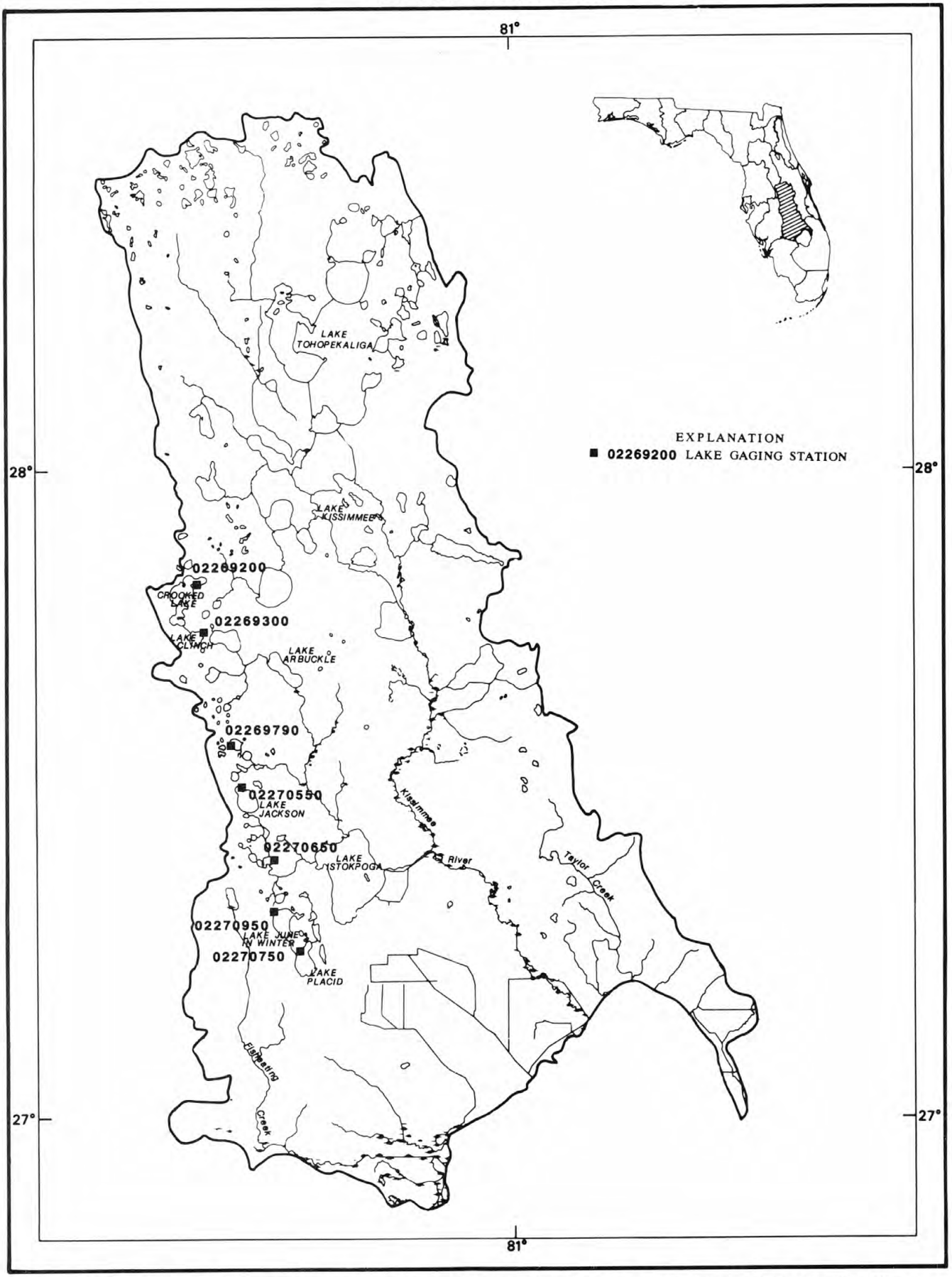

Figure 17.--Location of lake gaging stations in the Kissimmee River basin; the Taylor Creek basin and inflow to Lake Okeechobee from the north; and Fisheating Creek basin and inflow to Lake Okeechobee from the northwest.

KISSIMMEE RIVER BASIN

02269200 CROOKED LAKE NEAR BABSON PARK, FL

LOCATION.--Lat 27°49'39", long 81°33'12", in SE¼ sec.31, T.30 S., R.28 E., Polk County, Hydrologic Unit 03090101, on a peninsula point on the east shore near north end of lake, and 1.5 mi west of Babson Park.

SURFACE AREA.--5,533 acres (8.65 mi^2).

DRAINAGE AREA.--31.3 mi^2.

PERIOD OF RECORD.--April 1945 to current year (weekly). Records of elevations prior to October 1960 are available in files of the Geological Survey.

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 Feb. 6, 1968, at site 0.2 mi west at datum 15.71 ft higher; Feb. 7, 1968, to Apr. 16, 1976, at same site at datum 15.71 ft higher.

REMARKS.--Lake is one of the Arbuckle Creek headwaters chain of lakes. Lake level controlled by concrete control with removable boards.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 124.1 ft, about Sept. 11, 1960, from floodmark; minimum observed, 106.10 ft, May 20, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 109.28 ft, Aug. 29; minimum observed, 106.10 ft, May 20.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107.59	---	---	---	---	---	---	---	---	---	108.61	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	106.74	---	---	---	---	---	---	---
6	---	---	---	---	---	---	106.54	---	106.32	---	---	---
7	---	---	---	106.82	106.74	---	---	106.24	---	---	---	---
8	---	107.31	107.04	---	---	---	---	---	---	107.40	108.90	109.24
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	107.52	108.97	---
13	---	---	---	---	---	106.57	---	---	---	---	---	109.25
14	---	---	---	---	---	---	---	106.14	---	---	---	---
15	107.63	---	---	---	106.67	---	---	---	---	---	---	---
16	---	107.20	106.97	106.88	---	---	106.38	---	106.50	107.94	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	106.64	---	---	109.19
20	---	---	---	---	---	---	---	106.10	---	---	109.08	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	107.59	---	106.92	---	---	---	---	---	---	---	109.20	---
23	---	---	---	---	106.50	---	---	---	---	---	---	---
24	---	107.13	---	106.81	---	106.70	106.39	106.24	106.70	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	106.96	---	---	---
28	---	---	106.88	---	106.45	---	---	106.40	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	109.28	---
30	---	107.04	---	---	---	---	---	---	107.04	108.47	---	109.18
31	---	---	---	106.83	---	106.60	---	---	---	---	---	---

KISSIMMEE RIVER BASIN

02269300 LAKE CLINCH AT FROSTPROOF, FL

LOCATION.--Lat 27°45'15", long 81°32'25", in SW¼ sec.29, T.31 S., R.28 E., Polk County, Hydrologic Unit 03090101, on north shore of lake, near private pier, and 0.9 mi northwest of Frostproof.

SURFACE AREA.--1,194 acres (1.87 mi^2).

DRAINAGE AREA.--42.0 mi^2.

PERIOD OF RECORD.--January 1947 to December 1977 (weekly), incomplete; January 1978 to November 1981, incomplete; December 1981 to current year (weekly), incomplete. Records of elevations prior to October 1960 are available in files of the Geological Survey.

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 Sept. 13, 1953, at site 0.8 mi southeast at same datum.

REMARKS.--Lake is one of the Arbuckle Creek headwater lakes. Outflow is to Reedy Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 110.2 ft, on or about Oct. 10, 1948, from floodmark; minimum observed, 100.20 ft, June 4, 12, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 102.10 ft, Sept. 13, 27; minimum observed, 100.30 ft, May 13, 21.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	100.90	---	---	---	100.65	---	---	---	---	---
5	101.40	101.20	---	---	100.81	100.68	---	100.50	100.50	101.10	101.90	101.95
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	100.73	100.80	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	101.10	100.88	---	---	---	100.59	---	---	101.26	---	---
13	101.50	---	---	---	100.75	100.70	---	100.30	100.40	---	101.97	102.10
14	---	---	---	100.80	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	100.80	---	---	---	---	---	---	---	---	---
20	---	101.05	---	---	100.60	---	100.56	---	---	101.28	101.95	101.98
21	---	---	---	---	---	100.75	---	100.30	---	---	---	---
22	101.45	---	---	---	---	---	---	---	100.55	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	100.90	---	---	---	---	---	---	---	---
25	---	---	---	---	100.58	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	100.98	---	---	---	---	100.60	---	---	101.60	---	102.10
28	---	---	100.75	---	---	100.68	---	100.50	100.80	---	---	---
29	101.29	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	100.80	---	---	---	---	---	---	---	---

KISSIMMEE RIVER BASIN

02269790 LAKE LOTELA NEAR AVON PARK, FL

LOCATION.--Lat 27°34'38", long 81°29'38", in SW¼ sec.26, T.33 S., R.28 E., Highlands County, Hydrologic Unit 03090101, on west shore of lake near intake channel at power plant, and 1.5 mi southeast of Avon Park.

SURFACE AREA.--795 acres (1.24 mi^2).

DRAINAGE AREA.--12.2 mi^2.

PERIOD OF RECORD.--September 1950 to September 1975 (weekly), incomplete; October 1979 to August 1981 (twice weekly), incomplete; September 1981 to September 1988 (incomplete); October 1988 to current year (weekly).

GAGE.--Nonrecording gage. Datum of gage is 52.75 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Feb. 6, 1973, at several locations 1 mi northeast at datum 47.18 ft higher; Feb. 6, 1973, to Sept. 24, 1973, at site 200 ft north at datum 47.18 ft higher; Sept. 24, 1973, to May 27, 1987, at present site at datum 47.18 ft higher.

REMARKS.--Lake is one of a chain of lakes in the headwaters of Carter Creek, a tributary of Arbuckle Creek. Lake has two outlets which join before entering Lake Letta; one outlet has a concrete dam with removable boards, the other outlet flows only at high lake elevations.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 109.38 ft, July 25, 1954; minimum observed, 97.87 ft, May 20, 21, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 100.75 ft, Sept. 9, 10, 11, 13, 16; minimum observed, 97.87 ft, May 20, 21.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99.13	99.07	---	---	98.61	98.33	98.29	98.15	---	98.99	100.01	---
2	99.13	99.07	---	98.57	---	---	98.27	98.13	---	99.05	100.03	---
3	99.13	---	98.65	98.57	---	---	98.26	98.11	98.15	99.23	---	100.59
4	99.11	---	98.65	98.55	98.61	98.31	98.25	---	98.23	---	---	100.59
5	99.11	98.99	98.63	---	98.59	98.29	98.25	---	98.27	99.25	100.07	100.59
6	---	99.01	98.63	---	98.59	98.27	---	98.05	98.29	---	100.11	100.61
7	---	99.01	98.63	98.53	98.59	98.27	---	98.03	98.29	---	100.15	---
8	99.11	98.99	---	98.53	98.61	98.27	98.25	98.01	---	99.43	100.15	---
9	99.11	98.95	---	98.53	---	---	98.31	97.95	---	99.45	100.15	100.75
10	99.09	---	98.69	98.55	---	---	98.29	97.95	---	99.47	---	100.75
11	99.09	---	98.69	98.55	98.53	98.41	98.29	---	---	99.49	---	100.75
12	99.09	---	98.69	---	98.53	98.41	98.29	---	---	99.51	100.13	100.73
13	---	98.93	98.69	---	98.53	98.43	---	97.95	98.25	---	100.15	100.75
14	---	98.93	98.67	98.57	98.51	98.41	---	97.93	98.21	---	100.17	---
15	99.07	98.91	---	98.57	98.45	98.41	98.25	97.93	---	99.55	100.25	---
16	99.09	98.91	---	98.65	---	---	98.25	97.91	---	99.55	100.31	100.75
17	99.21	---	98.67	98.65	---	---	98.25	97.91	98.21	99.57	---	100.73
18	99.25	---	98.67	98.65	98.39	98.45	98.23	---	98.21	99.57	---	100.73
19	99.25	98.75	98.67	---	98.39	98.43	98.21	---	98.31	99.59	100.33	100.71
20	---	98.73	98.65	---	98.35	98.43	---	97.87	98.31	---	100.33	100.71
21	---	98.71	98.63	98.63	98.35	98.43	---	97.87	98.33	---	100.31	---
22	99.25	---	---	98.63	98.35	98.41	98.17	97.89	---	99.63	100.31	---
23	99.25	98.69	---	98.61	---	---	98.15	97.91	---	99.63	100.31	100.59
24	99.25	---	---	98.59	---	---	98.15	97.91	98.75	99.63	---	100.59
25	99.21	---	---	98.61	98.35	98.39	98.17	---	98.79	99.65	---	100.61
26	99.19	98.67	98.59	---	98.33	98.39	98.15	---	98.85	99.65	100.49	100.65
27	---	98.65	98.59	---	98.33	98.39	---	---	98.85	---	100.49	100.65
28	---	---	98.57	98.59	98.33	98.39	---	98.11	98.89	---	100.49	---
29	99.11	---	---	98.59	---	---	98.15	98.11	98.95	99.77	100.49	---
30	99.09	---	---	98.59	---	---	98.15	98.11	98.99	99.85	100.51	100.73
31	99.07	---	98.55	98.61	---	---	---	98.15	---	100.01	100.53	---

KISSIMMEE RIVER BASIN

02270550 LAKE JACKSON AT SEBRING, FL

LOCATION.--Lat 27°30'49", long 81°28'33", in NW¼ sec.24, T.34 S., R.28 E., Highlands County, Hydrologic Unit 03090101, on north shore of northwest bay of lake, and 2.4 mi northwest of Sebring.

SURFACE AREA.--3,244 acres (5.07 mi^2).

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--April 1945 to August 1958 (weekly), incomplete; September 1958 to April 1968; May to August 1968 (weekly); September 1968 to September 1975; November 1979 to current year (twice weekly). Prior to October 1957, published as Rex Beach Lake at Sebring. Records of elevations prior to October 1960 are available in files of the Geological Survey.

GAGE.--Nonrecording gage. Datum of gage is 90.04 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Sept. 16, 1958, at several sites southeast on east shore of lake at datum 6.27 ft higher; Sept. 16, 1958, to Sept. 30, 1975, at site 0.3 mi southeast at former datum.

REMARKS.--Lake is in the Highlands Ridge section of Highlands County and is one of the Josephine Creek headwater lakes which drains southward through Josephine Creek and its tributaries into Lake Istokpoga. Since February 1946, outflow from lake controlled by concrete dam at head of Jackson Creek; present control completed in August 1971 with crest at elevation 102.7 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 103.76 ft, Sept. 19, 1947; minimum observed, 97.16 ft, May 24, 1982. Maximum elevation known, 104.7 ft in 1953 on south side of lake (elevation on north side was about 0.7 ft lower) due to hurricane, observed by location engineer, Florida Department of Transportation.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 99.89 ft, Sept. 30; minimum observed, 97.32 ft, Dec. 28.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98.33	---	---	---	97.83	97.77	97.86	---	---	98.74	---	---
2	---	98.13	---	---	---	---	---	---	---	---	99.04	99.70
3	---	---	97.94	---	---	---	---	97.69	97.83	---	---	---
4	---	---	---	97.56	97.85	97.79	---	---	---	---	---	---
5	98.34	98.11	---	---	---	---	97.85	---	---	98.79	99.39	---
6	---	---	---	---	97.79	---	---	97.67	---	---	---	99.71
7	---	---	97.92	97.72	---	---	---	---	97.82	---	---	---
8	---	---	---	---	97.86	97.81	97.84	---	---	98.83	---	---
9	---	98.07	---	---	---	---	---	---	---	---	99.44	99.72
10	---	---	97.89	---	---	---	---	97.61	97.84	---	---	---
11	---	---	---	97.78	97.84	97.84	---	---	---	---	---	---
12	98.41	98.02	---	---	---	---	97.83	---	---	98.89	99.49	---
13	---	---	---	---	---	---	---	97.58	---	---	---	99.74
14	---	---	97.87	97.84	---	---	---	---	97.88	---	---	---
15	98.39	---	---	---	97.81	97.87	97.71	---	---	98.99	---	---
16	---	97.99	---	---	---	---	---	---	---	---	99.52	99.78
17	---	---	97.84	---	---	---	---	97.50	97.91	---	---	---
18	---	---	---	97.91	97.79	97.91	---	---	---	---	---	---
19	98.38	97.91	---	---	---	---	97.71	---	---	98.99	99.55	---
20	---	---	---	---	---	---	---	97.57	---	---	---	99.82
21	---	---	97.78	97.88	---	---	---	---	98.04	---	---	---
22	98.35	---	---	---	97.74	97.90	97.72	---	---	99.00	---	---
23	---	97.90	---	---	---	---	---	---	---	---	99.58	99.84
24	---	---	97.42	---	---	---	---	97.78	98.44	---	---	---
25	---	---	---	97.85	97.71	97.88	---	---	---	98.94	---	---
26	98.29	---	---	---	---	---	97.72	---	---	99.01	99.64	---
27	---	97.95	---	---	---	---	---	97.81	---	---	---	99.87
28	---	---	97.32	97.84	---	---	---	---	98.54	---	---	---
29	98.20	---	---	---	---	97.86	97.70	---	---	99.02	---	---
30	---	97.94	---	---	---	---	---	---	---	---	99.69	99.89
31	---	---	97.42	---	---	---	---	97.84	---	---	---	---

KISSIMMEE RIVER BASIN

02270650 LAKE JOSEPHINE NEAR DE SOTO CITY, FL

LOCATION.--Lat 27°24'00", long 81°25'10", in SE¼ sec.28, T.35 S., R.29 E., Highlands County, Hydrologic Unit 03090101, on east shore of lake at boat dock, 3 mi southwest of De Soto City, and 6.5 mi southeast of Sebring.

SURFACE AREA.--1,240 acres (1.94 mi^2).

DRAINAGE AREA.--46.3 mi^2.

PERIOD OF RECORD.--December 1946 to July 1955 (weekly), incomplete; August 1955 to September 1975 (weekly); October 1982 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Aug. 19, 1955, nonrecording gage at site on east shore of lake at datum 65.73 ft higher; Aug. 20, 1955, to May 21, 1975, nonrecording gage at site 0.1 mi south at present datum.

REMARKS.--Lake is one of Josephine Creek headwaters chain of lakes at head of Josephine Creek which drains eastward to Lake Istokpoga. Outflow from lake controlled by concrete dam near head of Josephine Creek since April 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 76.80 ft, Sept. 26, 1948, from floodmark; minimum observed, 69.09 ft, May 29, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 71.45 ft, June 26; minimum daily, 70.77 ft, May 18.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71.21	70.94	71.01	70.97	71.02	71.09	71.05	70.96	70.95	71.39	71.30	71.04
2	71.18	70.96	71.01	70.97	71.02	71.10	71.03	70.94	70.94	71.38	71.33	71.03
3	71.15	70.96	71.00	70.96	71.03	71.13	71.00	70.93	70.92	71.38	71.31	71.05
4	71.13	70.97	71.01	70.96	71.03	71.11	71.01	70.92	70.90	71.36	71.28	71.04
5	71.12	70.98	70.98	70.95	71.03	71.08	71.06	70.90	70.91	71.33	71.28	71.04
6	71.11	70.98	70.97	70.95	71.03	71.07	71.06	70.89	71.01	71.30	71.29	71.04
7	71.09	70.98	70.99	70.97	71.03	71.07	71.06	70.88	71.01	71.29	71.27	71.03
8	71.06	70.98	71.05	71.04	71.03	71.06	71.04	70.85	70.98	71.27	71.26	71.04
9	71.05	70.99	71.02	71.03	71.02	71.09	71.04	70.84	70.96	71.24	71.23	71.07
10	71.11	71.05	71.01	71.01	71.01	71.11	71.03	70.83	70.94	71.19	71.21	71.07
11	71.10	71.01	71.01	71.01	71.00	71.09	71.01	70.81	70.92	71.16	71.19	71.06
12	71.10	70.99	71.00	71.03	70.99	71.09	70.98	70.80	70.91	71.13	71.17	71.06
13	71.10	70.99	71.00	71.01	70.99	71.09	70.97	70.79	70.90	71.17	71.15	71.04
14	71.09	70.98	70.99	70.99	71.01	71.11	70.96	70.80	70.90	71.20	71.12	71.03
15	71.06	70.98	70.98	71.02	71.02	71.10	70.96	70.80	70.90	71.19	71.13	71.02
16	71.05	70.98	70.99	71.27	70.95	71.10	70.96	70.79	70.98	71.17	71.10	71.00
17	71.04	70.98	70.99	71.25	70.94	71.12	70.95	70.80	71.16	71.15	71.08	71.00
18	71.04	70.97	70.99	71.21	70.93	71.15	70.95	70.79	71.15	71.16	71.07	71.00
19	71.03	70.97	70.99	71.18	70.94	71.16	70.94	70.82	71.21	71.15	71.05	71.00
20	71.02	70.97	70.99	71.17	70.94	71.14	70.95	70.85	71.29	71.15	71.05	71.00
21	71.04	70.96	70.98	71.15	70.95	71.13	70.96	70.84	71.25	71.15	71.04	71.02
22	71.03	70.96	70.98	71.12	70.97	71.12	70.95	70.88	71.23	71.14	71.05	71.03
23	71.03	70.97	70.98	71.10	70.98	71.12	70.95	71.00	71.23	71.15	71.11	71.03
24	71.02	70.97	70.99	71.10	70.97	71.11	70.96	71.04	71.25	71.14	71.11	71.04
25	71.01	70.97	70.97	71.08	70.98	71.10	70.97	71.02	71.33	71.11	71.09	71.04
26	70.98	70.97	70.97	71.08	71.06	71.08	71.00	71.04	71.44	71.10	71.09	71.04
27	70.95	70.96	70.96	71.07	71.06	71.08	71.00	71.06	71.43	71.09	71.08	71.04
28	70.95	70.97	70.95	71.08	71.06	71.07	71.00	71.03	71.43	71.11	71.08	71.03
29	70.95	70.98	70.96	71.07	---	71.07	70.98	71.00	71.43	71.20	71.06	71.02
30	70.94	71.02	70.97	71.07	---	71.06	70.97	70.99	71.40	71.24	71.05	71.00
31	70.95	---	70.97	71.06	---	71.06	---	70.97	---	71.27	71.05	---
MEAN	71.05	70.98	70.99	71.06	71.00	71.10	70.99	70.90	71.11	71.21	71.15	71.03
MAX	71.21	71.05	71.05	71.27	71.06	71.16	71.06	71.06	71.44	71.39	71.33	71.07
MIN	70.94	70.94	70.95	70.95	70.93	71.06	70.94	70.79	70.90	71.09	71.04	71.00

CAL YR 1990 MEAN 71.02 MAX 71.49 MIN 70.76
WTR YR 1991 MEAN 71.05 MAX 71.44 MIN 70.79

KISSIMMEE RIVER BASIN

02270750 LAKE PLACID NEAR LAKE PLACID, FL

LOCATION.--Lat 27°15'37", long 81°22'22", in NE¼ sec.13, T.37 S., R.29 E., Highlands County, Hydrologic Unit 03090101, on northwest shore of lake, on private dock, 0.7 mi northeast of head of Placid-June Canal, and 2.8 mi south of town of Lake Placid.

SURFACE AREA.--3,381 acres (5.28 mi^2).

DRAINAGE AREA.--20.2 mi^2.

PERIOD OF RECORD.--April 1945 to December 1952 (weekly), incomplete; January 1953 to September 1975; October 1979 to current year (twice weekly). Records of elevations prior to October 1960 are available in files of the Geological Survey.

GAGE.--Nonrecording gage. Datum of gage is 79.66 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Jan. 14, 1953, nonrecording gage at same site at present datum; Jan. 14, 1953, to Nov. 28, 1973, water-stage recorder at same site at present datum; Nov. 28, 1973, to Sept. 30, 1975, water-stage recorder at same site at datum 79.66 ft lower; Sept. 30, 1975, to Apr. 17, 1981, at site 0.2 mi northeast at present datum.

REMARKS.--Lake is in the Highlands Ridge section of Highlands County, and is one of the Lake Placid west chain of lakes which drains northward into Josephine Creek. Outflow from lake is to Lake June-in-Winter (west-chain) to Lake Huntley (east chain), and to Mirror Lake (no surface outlet).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 96.0 ft (estimated), Sept. 11, 12, 1960; minimum observed, 88.30 ft, June 19, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 91.38 ft, Sept. 13, 27; minimum observed, 89.54 ft, May 17.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90.56	---	---	---	89.94	89.76	89.82	---	---	90.28	---	---
2	---	90.14	---	---	---	---	---	---	---	---	90.98	91.26
3	---	---	89.86	---	---	---	---	89.76	89.80	---	90.96	---
4	---	---	---	89.68	89.96	89.88	---	---	---	---	---	---
5	90.54	90.12	---	---	---	---	89.82	---	---	90.38	---	---
6	---	---	---	---	---	---	---	89.72	---	---	---	---
7	---	---	89.80	89.66	---	---	---	---	89.86	---	91.06	91.26
8	90.48	---	---	---	89.92	89.84	89.80	---	---	90.42	---	---
9	---	90.10	---	---	---	---	---	---	---	---	---	91.36
10	---	---	89.80	---	---	---	---	89.64	89.82	---	---	---
11	---	---	---	89.64	89.88	89.88	---	---	---	---	91.12	---
12	90.46	90.06	---	---	---	---	89.78	---	---	90.38	---	---
13	---	---	---	---	---	---	---	89.58	---	---	91.08	91.38
14	---	---	89.78	89.68	---	---	---	---	89.76	---	---	---
15	90.44	---	---	---	89.80	89.84	89.74	---	---	90.42	---	---
16	---	90.00	---	---	---	---	---	---	---	---	91.09	91.36
17	---	---	89.76	---	---	---	---	89.54	89.92	90.46	91.08	---
18	---	---	---	89.98	89.80	89.90	---	---	---	90.46	---	---
19	90.42	89.96	---	---	---	---	89.70	---	---	90.48	---	---
20	---	---	---	---	---	---	---	89.56	---	90.56	---	91.34
21	---	---	89.74	89.98	---	---	---	---	90.14	90.64	---	---
22	90.38	---	---	---	89.74	89.92	89.72	---	---	---	---	---
23	---	89.94	---	---	---	---	---	---	---	---	---	91.34
24	---	---	89.72	---	---	---	---	89.70	90.24	90.66	---	---
25	---	---	---	89.96	89.72	89.90	---	---	---	---	---	---
26	90.30	89.92	---	---	---	---	89.82	---	---	90.68	---	---
27	---	---	---	---	---	---	---	89.86	---	---	---	91.38
28	---	---	89.70	89.94	---	---	---	---	90.26	---	---	---
29	90.18	---	---	---	---	89.86	89.80	---	---	90.94	---	---
30	---	89.90	---	---	---	---	---	---	---	---	---	91.34
31	---	---	89.70	---	---	---	---	89.82	---	---	---	---

KISSIMMEE RIVER BASIN

02270950 LAKE JUNE-IN-WINTER NEAR LAKE PLACID, FL

LOCATION.--Lat 27°19'19", long 81°25'08", in NE¼ sec.28, T.36 S., R.29 E., Highlands County, Hydrologic Unit 03090101, near northwest bay of lake, at boat pier, 150 ft east of Stearns Creek, and 3.6 mi northwest of town of Lake Placid.

SURFACE AREA.--3,662 acres (5.72 mi^2).

DRAINAGE AREA.--44.0 mi^2.

PERIOD OF RECORD.--April 1945 to December 1952 (weekly); January 1953 to January 1968; February 1968 to August 1980 (weekly); August 1980 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey. May 1955 to January 1968, records for Stearns Creek near Lake Placid (station 02271000).

GAGE.--Water-stage recorder. Datum of gage is 65.38 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark); gage readings have been reduced to elevations above NGVD. Prior to Jan. 20, 1953, nonrecording gage and Jan. 20, 1953, to May 23, 1955, water-stage recorder at site on southeast shore of lake on private pier at same datum; May 24, 1955, to Jan. 24, 1968, water-stage recorder on Stearns Creek 250 ft downstream from Lake June-in-Winter at same datum; February 1968 to Aug. 11, 1980, nonrecording gage at same datum.

REMARKS.--Lake is in the Highlands Ridge section of Highlands County and is one of the Lake Placid west chain of lakes which drain northward into Josephine Creek. From Mar. 23, 1955, to Feb. 26, 1968, lake level controlled by a 10-bay sheet-pile stoplog control in Stearns Creek. Subsequent to Feb. 26, 1968, lake level controlled by a 1-culvert stoplog structure 0.6 mi downstream on Stearns Creek and a 3-culvert stoplog structure 1.6 mi downstream on Stearns Creek Canal. Since 1972 lake level controlled by SWFWMD gated structure (G-90) 1.6 mi downstream on Stearns Creek Canal, and since December 1987 structure (G-91) controls normal lake levels, 0.6 mi downstream on Stearns Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 77.58 ft, Oct. 6, 1948; minimum daily, 71.62 ft, May 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 75.19 ft, Aug. 2, 3; minimum observed, 73.50 ft, May 14.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74.41	73.99	73.75	73.63	---	73.81	73.96	---	---	74.48	75.08	74.47
2	74.40	73.97	73.74	73.62	---	73.81	---	---	---	74.49	75.15	74.47
3	74.39	73.97	73.73	73.62	---	73.87	---	---	---	74.51	75.19	74.45
4	74.38	73.95	73.72	73.63	---	73.92	---	---	73.81	74.50	---	74.43
5	74.37	73.95	73.70	73.65	73.90	73.92	---	---	73.93	74.50	---	74.41
6	74.35	73.95	73.69	73.64	73.89	73.92	---	---	74.04	74.48	---	74.41
7	74.33	73.95	73.71	73.64	73.89	73.91	---	---	74.03	74.50	---	74.40
8	74.31	73.95	73.75	73.65	73.87	73.91	---	---	74.01	---	---	74.41
9	74.30	73.96	73.75	73.64	73.84	73.94	---	73.63	73.99	---	---	74.41
10	74.33	73.95	73.74	73.65	73.83	73.95	73.90	73.60	73.96	---	---	74.40
11	74.32	73.93	73.73	73.64	73.81	73.94	73.88	---	73.94	---	---	74.40
12	74.29	73.91	73.72	73.61	73.80	73.93	73.88	---	73.93	74.52	---	74.39
13	74.28	73.90	73.72	73.63	73.79	73.92	---	73.54	73.92	74.51	---	74.38
14	74.28	73.89	73.71	73.93	73.79	73.94	---	73.50	73.90	74.51	---	74.36
15	74.27	73.89	73.70	73.97	73.77	73.94	---	73.54	73.90	74.59	---	74.35
16	74.26	73.87	73.70	73.97	73.76	73.95	73.79	73.57	---	74.60	---	74.33
17	74.25	73.85	73.70	73.98	73.75	73.97	73.78	73.71	74.13	---	---	74.30
18	74.23	73.84	73.70	73.98	73.74	73.99	---	---	74.16	---	---	74.29
19	74.22	73.83	73.69	73.95	73.74	74.01	---	---	74.22	74.62	74.57	74.28
20	74.21	73.82	73.69	73.94	73.74	74.02	---	73.72	74.32	74.65	74.55	74.26
21	74.21	73.81	73.69	73.94	73.73	74.02	---	73.70	---	---	74.53	74.25
22	74.20	73.81	73.68	73.94	73.73	74.02	---	73.74	74.37	---	74.54	74.23
23	74.15	73.80	73.67	73.95	73.73	74.01	73.75	73.76	74.40	---	74.54	74.24
24	74.16	73.79	73.66	73.94	73.73	74.00	73.72	---	74.41	---	74.53	74.27
25	74.13	73.79	73.64	73.93	73.74	74.00	73.72	---	74.45	74.72	74.52	74.26
26	74.08	73.80	73.64	73.92	73.77	74.00	---	---	74.47	74.70	74.52	74.25
27	74.06	73.80	73.64	73.93	73.76	73.99	---	---	74.47	74.73	74.51	74.23
28	74.04	73.79	73.64	73.93	73.79	73.97	---	74.00	74.47	---	74.52	74.21
29	74.03	73.78	73.64	73.91	---	73.96	---	---	74.47	---	74.51	74.21
30	74.00	73.77	73.64	73.90	---	73.94	73.80	73.99	74.47	---	74.50	74.22
31	74.00	---	73.63	73.93	---	73.96	---	74.00	---	74.92	74.48	---
MEAN	74.23	73.88	73.69	73.81	---	73.95	---	---	---	---	---	74.33
MAX	74.41	73.99	73.75	73.98	---	74.02	---	---	---	---	---	74.47
MIN	74.00	73.77	73.63	73.61	---	73.81	---	---	---	---	---	74.21

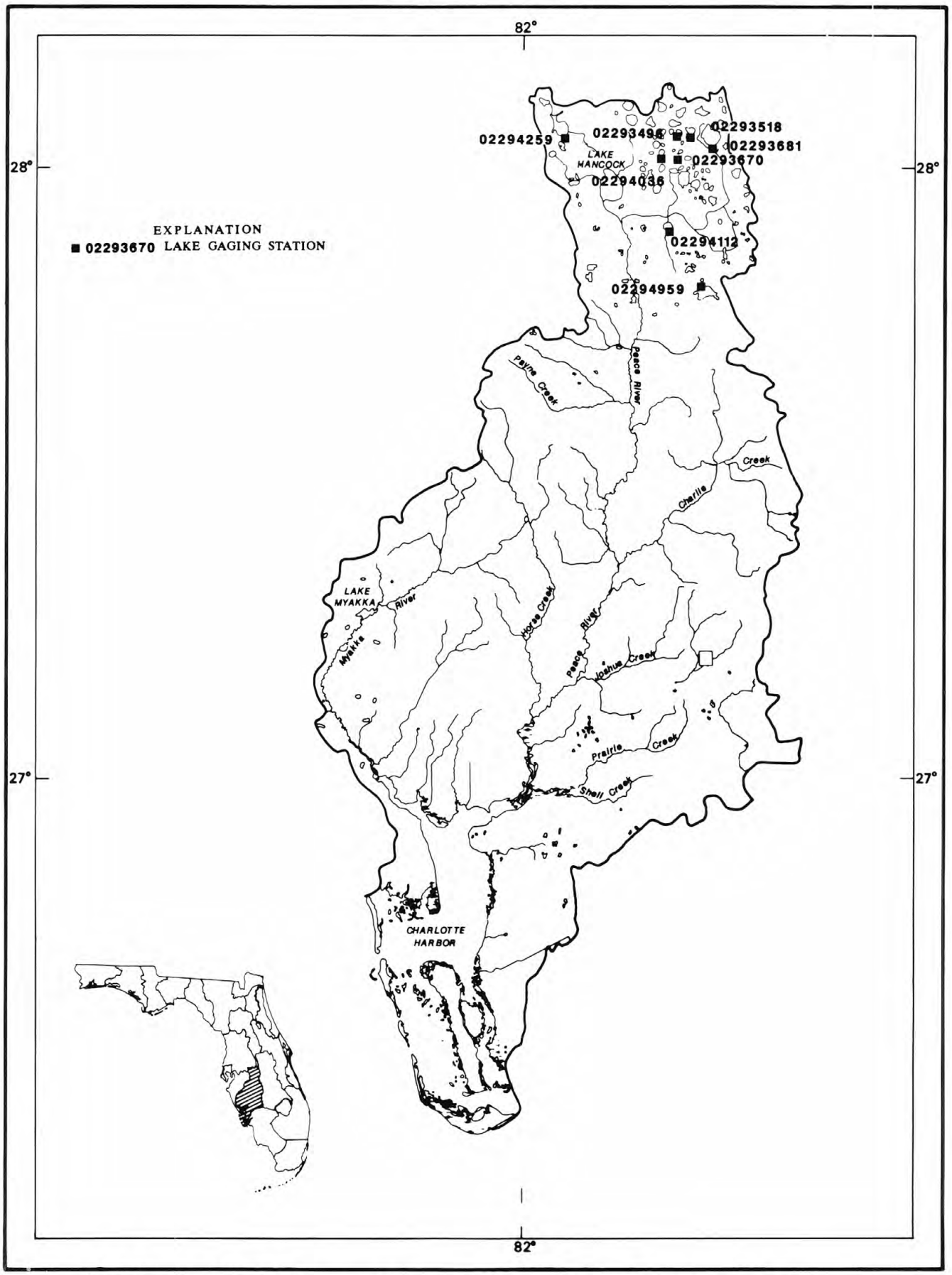

Figure 18.--Location of lake gaging stations in the Peace and Myakka River basins, Charlotte Harbor and coastal area.

PEACE RIVER BASIN

02293496 LAKE SMART NEAR FLORENCE VILLA, FL

LOCATION.--Lat 28°03'08", long 81°42'38", in NW¼ sec.15, T.28 S., R.26 E., Polk County, Hydrologic Unit 03100101, on south shore of lake, 0.4 mi southwest of Smart-Fannie Canal, 0.6 mi north of junction Avenue T NE and 11th Street NE, and 1.2 mi northeast of Florence Villa.

SURFACE AREA.--279 acres (0.44 mi^2).

DRAINAGE AREA.--17.9 mi^2.

PERIOD OF RECORD.--March 1946 to June 1948; February 1951 to January 1954 (fragmentary); April 1966 to January 1980; February 1980 to current year (weekly), incomplete. Records of elevations prior to April 1966 are available in files of the Geological Survey.

GAGE.--Nonrecording gage. Datum of gage is 120.00 ft above National Geodetic Vertical Datum of 1929 (Southwest Florida Water Management District bench mark); gage readings have been reduced to elevations above NGVD. Prior to January 1954, periodic stage observations at site 500 ft east at same datum. Apr. 26, 1966, to Apr. 26, 1967, water-stage recorder on Smart-Fannie Canal at structure P-6, 0.2 mi downstream from outlet of Lake Smart at same datum; Apr. 26, 1967, to Jan. 31, 1980, water-stage recorder at present site at same datum.

REMARKS.--Lake is in headwaters of Peace River and is connected by outlet to Lake Fannie. Since Nov. 8, 1965, lake level controlled by structure P-6.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 129.32 ft, Aug. 25, 1966 (affected by wind); minimum observed, 125.82 ft, July 7, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 128.30 ft, Sept 4; minimum observed, 128.10 ft, Sept. 25.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

Sept. 4	128.30	Sept. 18	128.18
11	128.28	25	128.10

PEACE RIVER BASIN

02293518 LAKE FANNIE NEAR FLORENCE VILLA, FL

LOCATION.--Lat 28°03'08", long 81°41'06", in NE¼ sec.14, T.28 S., R.26 E., Polk County, Hydrologic Unit 03100101, on east shore of lake, 0.2 mi north of outlet of lake, 0.4 mi north of Buckeye Road, and 2.6 mi east of Florence Villa.

SURFACE AREA.--833 acres (1.30 mi^2).

DRAINAGE AREA.--24.7 mi^2.

PERIOD OF RECORD.--April 1967 to current year. Records for April to September 1966, published in WDR FL 1967 are in error and should not be used.

REVISED RECORDS.--WRD FL 1969: 1967, 1968(M). WRD FL 1972: 1970, 1971(M), gage datum. WRD FL-78-3: Drainage area.

GAGE.--Water-stage recorder. 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 Feb. 11, 1976, at site 0.8 mi southwest at datum 20.00 ft higher.

REMARKS.--Lake is in a chain of lakes in the headwaters of Peace River. There are numerous concrete structures controlling lake levels.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 125.98 ft, Mar. 17, 1983; minimum daily, 118.51 ft, May 14, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 125.50 ft, July 26; minimum daily, 120.88 ft, May 16.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121.64	121.71	121.46	---	121.27	121.09	121.25	121.16	121.41	121.70	125.47	125.04
2	121.64	121.70	121.45	---	121.27	121.09	121.23	121.15	121.41	121.78	125.47	125.03
3	121.62	121.70	121.44	121.28	121.29	121.14	121.21	121.13	121.40	121.83	125.44	125.02
4	121.61	121.68	121.44	121.27	121.29	121.20	121.19	121.11	121.38	121.97	125.40	125.02
5	121.61	121.68	121.43	121.26	121.29	121.17	121.19	121.09	121.38	122.08	125.35	125.05
6	121.59	121.68	121.42	121.25	121.29	121.16	121.19	121.06	121.44	122.22	125.29	125.08
7	121.57	121.67	121.41	121.24	121.29	121.15	121.18	121.04	121.49	122.31	125.23	125.10
8	121.55	121.66	121.44	121.24	121.30	121.14	121.17	121.02	121.47	122.39	125.18	125.14
9	121.53	121.65	121.43	121.23	121.29	121.18	121.15	121.00	121.45	122.50	125.17	125.19
10	121.75	121.67	121.42	121.21	121.28	121.20	121.15	120.98	121.44	122.62	125.22	125.20
11	121.82	121.65	121.41	121.20	121.27	121.17	121.13	120.95	121.42	122.74	125.21	125.22
12	121.86	121.63	121.41	121.20	121.26	121.15	121.11	120.93	121.41	122.93	125.19	125.23
13	121.88	121.62	121.40	121.18	121.24	121.14	121.08	120.92	121.39	123.08	125.18	125.25
14	121.87	121.61	121.39	121.16	121.24	121.15	121.07	120.93	121.36	---	125.15	125.27
15	121.86	121.59	121.38	121.18	121.25	121.15	121.05	120.92	121.35	---	125.13	125.29
16	121.86	121.59	121.38	121.26	121.21	121.14	121.04	120.94	121.33	124.30	125.11	125.30
17	121.84	121.58	121.38	121.27	121.19	121.16	121.02	121.01	121.31	124.49	125.09	125.29
18	121.84	121.57	121.36	121.26	121.18	121.25	121.02	121.02	121.31	124.67	125.08	125.27
19	121.83	121.55	121.36	121.24	121.17	121.33	121.03	121.03	121.31	124.82	125.07	125.26
20	121.82	121.54	121.36	121.26	121.17	121.32	121.06	121.05	121.29	124.99	125.05	125.25
21	121.82	121.54	121.35	121.25	121.16	121.31	121.07	121.04	121.29	125.14	125.05	125.23
22	121.85	121.52	121.35	121.24	121.16	121.29	121.04	121.03	121.31	125.27	125.05	125.22
23	121.85	121.52	121.34	121.23	121.15	121.28	121.03	121.14	121.30	125.36	125.05	125.22
24	121.84	121.52	121.34	121.21	121.15	121.28	121.07	121.21	121.32	125.42	125.06	125.20
25	121.83	121.52	121.33	121.24	121.14	121.26	121.12	121.26	121.36	125.45	125.08	125.19
26	121.79	121.52	121.32	121.25	121.13	121.25	121.23	121.31	121.37	125.47	125.07	125.19
27	121.77	121.51	121.30	121.24	121.11	121.23	121.22	121.42	121.45	125.48	125.07	125.17
28	121.76	121.50	121.29	121.23	121.10	121.21	121.21	121.46	121.44	125.45	125.07	125.14
29	121.75	121.50	---	121.23	---	121.18	121.19	121.45	121.48	125.42	125.08	125.12
30	121.73	121.48	---	121.24	---	121.19	121.18	121.43	121.63	125.45	125.07	125.18
31	121.73	---	---	121.25	---	121.24	---	121.42	---	125.47	125.06	---
MEAN	121.75	121.60	---	---	121.22	121.20	121.13	121.12	121.39	---	125.17	125.18
MAX	121.88	121.71	---	---	121.30	121.33	121.25	121.46	121.63	---	125.47	125.30
MIN	121.53	121.48	---	---	121.10	121.09	121.02	120.92	121.29	---	125.05	125.02

PEACE RIVER BASIN

02293670 LAKE OTIS AT WINTER HAVEN, FL

LOCATION.--Lat 28°01'00", long 81°42'52", in SE¼ sec.28, T.28 S., R.26 E., Polk County, Hydrologic Unit 03100101, on west shore of lake, and 1.0 mi east of Winter Haven.

SURFACE AREA.--144 acres (0.22 mi^2).

DRAINAGE AREA.--1.00 mi^2.

PERIOD OF RECORD.--August 1954 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL 1964: Surface area.

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 Apr. 5, 1974, at sites on northeast shore of lake, 1,800 ft northeast at same datum.

REMARKS.--Lake is one of the Peace River headwater lakes.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 129.18 ft, Sept. 10, 1960; minimum daily, 119.56 ft, May 15, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 124.78 ft, Aug. 29, 30, 31, Sept. 1-6; minimum daily, 122.52 ft, May 16, 17, 19.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123.60	123.68	123.43	123.23	123.18	122.86	123.07	122.90	123.04	123.33	124.28	124.78
2	123.59	123.68	123.42	123.22	123.18	122.85	123.06	122.88	123.04	123.35	124.30	124.78
3	123.58	123.68	123.41	123.21	123.18	122.90	123.04	122.86	123.04	123.39	124.30	124.77
4	123.57	123.68	123.41	123.20	123.18	122.97	123.02	122.84	123.04	123.40	124.30	124.78
5	123.56	123.65	123.39	123.19	123.17	122.95	123.02	122.81	123.04	123.42	124.31	124.78
6	123.54	123.64	123.37	123.18	123.17	122.94	123.02	122.79	123.08	123.45	124.32	124.78
7	123.52	123.63	123.37	123.18	123.16	122.92	123.01	122.76	123.12	123.45	124.31	124.77
8	123.49	123.62	123.41	123.17	123.16	122.92	123.01	122.73	123.11	123.45	124.31	124.76
9	123.47	123.61	123.40	123.15	123.14	122.92	122.99	122.70	123.08	123.45	124.32	124.76
10	123.71	123.64	123.39	123.14	123.12	122.94	122.97	122.67	123.07	123.49	124.41	124.76
11	123.81	---	123.37	123.13	123.11	122.92	122.96	122.64	123.05	123.56	124.42	124.76
12	123.86	---	123.36	123.12	123.09	122.91	122.94	122.62	123.04	123.59	124.43	124.75
13	123.87	---	123.35	123.09	123.07	122.89	122.92	122.59	123.02	123.77	124.47	124.74
14	123.87	---	123.34	123.07	123.07	122.90	122.90	122.57	123.01	123.89	124.48	124.73
15	123.86	---	123.33	123.10	123.06	122.90	122.88	122.54	122.99	123.91	124.48	124.71
16	123.86	123.56	123.32	123.20	123.03	122.90	122.87	122.52	122.96	123.95	124.48	124.69
17	123.85	123.55	123.32	123.20	123.00	122.91	122.89	122.52	122.95	123.98	124.48	124.68
18	123.85	123.53	123.32	123.19	122.98	123.02	122.89	122.53	122.94	124.00	124.49	124.66
19	123.84	123.51	123.32	123.19	122.97	123.13	122.87	122.52	122.93	124.00	124.52	124.66
20	123.83	123.50	123.31	123.20	122.96	123.12	122.88	122.54	122.91	124.03	124.53	124.64
21	123.83	123.48	123.31	123.20	122.95	123.11	122.87	122.57	122.90	124.09	124.53	124.65
22	123.83	123.47	123.30	123.18	122.94	123.11	122.85	122.55	122.90	124.10	124.53	124.67
23	123.83	123.47	123.29	123.17	122.93	123.10	122.83	122.60	122.90	124.10	124.54	124.68
24	123.82	123.47	123.28	123.16	122.91	123.09	122.84	122.70	123.01	124.11	124.58	124.66
25	123.81	123.47	123.27	123.18	122.90	123.08	122.86	122.81	123.15	124.13	124.61	124.65
26	123.77	123.47	123.26	123.19	122.90	123.07	122.96	122.88	123.15	124.14	124.62	124.65
27	123.74	123.47	123.25	123.19	122.87	123.05	122.95	123.05	123.18	124.15	124.62	124.63
28	123.72	123.47	123.24	123.19	122.86	123.04	122.94	123.06	123.18	124.15	124.68	124.60
29	123.71	123.47	123.24	123.19	---	123.02	122.93	123.06	123.22	124.15	124.77	124.58
30	123.70	123.45	123.24	123.19	---	123.01	122.91	123.05	123.33	124.21	124.78	124.65
31	123.69	---	123.24	123.19	---	123.04	---	123.05	---	124.27	124.78	---
MEAN	123.73	---	123.33	123.17	123.04	122.98	122.94	122.74	123.05	123.82	124.48	124.71
MAX	123.87	---	123.43	123.23	123.18	123.13	123.07	123.06	123.33	124.27	124.78	124.78
MIN	123.47	---	123.24	123.07	122.86	122.85	122.83	122.52	122.90	123.33	124.28	124.58

PEACE RIVER BASIN

02293681 LAKE HAMILTON NEAR LAKE HAMILTON, FL

LOCATION.--Lat 28°01'54", long 81°38'42", in SE¼ sec.19, T.28 S., R.27 E., Polk County, Hydrologic Unit 03100101, on right bank of Lake Hamilton Outlet, 100 ft upstream from control structure P-8, 0.2 mi downstream from lake, 1.2 mi southwest of town of Lake Hamilton, and 1.3 mi northwest of Dundee.

SURFACE AREA.--2,170 acres (3.39 mi^2).

DRAINAGE AREA.--20.5 mi^2.

PERIOD OF RECORD.--June 1945 to January 1963 (weekly), incomplete; February 1963 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey. Since February 1963, records for Lake Hamilton Outlet at structure P-8, near Lake Hamilton.

REVISED RECORDS.--WRD FL 1964: Surface area.

GAGE.--Water-stage recorder. Datum of gage is 115.00 ft above National Geodetic Vertical Datum of 1929 (Peace River Valley Water Conservation and Drainage District reference mark); gage readings have been reduced to elevations above NGVD. See WDR FL-75-3 for history of changes prior to Mar. 20, 1975.

REMARKS.--Lake is in headwaters of Peace River and is connected by outlet to Peace Creek drainage canal. Since July 20, 1962, lake level controlled by structure P-8. Prior to July 20, 1962, lake level partly controlled by a concrete dam with removable boards in former outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 124.34 ft, Oct. 3, 1948; minimum daily, 116.86 ft, May 15, 16, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 120.85 ft, Aug. 13; minimum daily, 116.86 ft, May 15, 16.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117.32	117.42	117.21	117.08	117.17	116.94	117.12	117.02	117.31	117.85	120.12	120.76
2	117.32	117.42	117.20	117.08	117.15	116.93	117.08	117.01	117.31	117.91	120.17	120.75
3	117.30	117.41	117.19	117.07	117.15	116.99	117.06	116.98	117.32	117.93	120.23	120.75
4	117.29	117.40	117.22	117.08	117.14	117.07	117.04	116.96	117.30	117.94	120.28	120.75
5	117.28	117.39	117.21	117.06	117.16	117.03	117.03	116.93	117.32	117.97	120.34	120.74
6	117.27	117.39	117.17	117.05	117.15	116.99	117.05	116.94	117.37	117.99	120.41	120.73
7	117.25	117.38	117.16	117.04	117.15	116.99	117.03	116.94	117.42	117.99	120.48	120.72
8	117.24	117.37	117.25	117.05	117.19	116.99	117.02	116.93	117.40	118.04	120.52	120.71
9	117.23	117.35	117.21	117.05	117.17	117.05	117.01	116.92	117.38	118.05	120.58	120.71
10	117.43	117.44	117.19	117.02	117.12	117.10	117.02	116.92	117.36	118.09	120.71	120.69
11	117.51	117.40	117.17	117.01	117.11	117.01	117.00	116.90	117.35	118.21	120.74	120.68
12	117.61	117.38	117.16	117.03	117.10	116.98	116.98	116.88	117.34	118.27	120.75	120.67
13	117.61	117.36	117.16	117.03	117.05	116.97	116.96	116.87	117.33	118.55	120.82	120.65
14	117.60	117.36	117.16	116.99	117.05	116.99	116.93	116.88	117.32	118.90	120.80	120.63
15	117.61	117.34	117.15	116.99	117.14	117.00	116.93	116.87	117.31	119.16	120.80	120.62
16	117.60	117.34	117.15	117.08	117.06	117.00	116.93	116.88	117.29	119.30	120.79	120.60
17	117.58	117.34	117.15	117.11	117.00	117.01	116.94	116.93	117.28	119.41	120.78	120.58
18	117.58	117.32	117.14	117.07	116.99	117.11	116.94	116.93	117.28	119.43	120.75	120.56
19	117.57	117.29	117.14	117.04	116.99	117.18	116.94	116.95	117.28	119.44	120.73	120.55
20	117.57	117.28	117.14	117.09	116.99	117.15	116.97	116.95	117.27	119.45	120.72	120.53
21	117.55	117.28	117.13	117.09	116.99	117.14	116.98	116.94	117.30	119.46	120.71	120.52
22	117.56	117.27	117.13	117.08	116.99	117.13	116.94	116.94	117.35	119.46	120.70	120.51
23	117.57	117.27	117.13	117.03	117.00	117.13	116.93	116.98	117.34	119.50	120.70	120.51
24	117.56	117.27	117.13	117.00	116.99	117.13	116.96	117.04	117.37	119.55	120.73	120.49
25	117.58	117.27	117.13	117.07	116.98	117.13	116.99	117.13	117.41	119.63	120.75	120.47
26	117.53	117.27	117.11	117.08	117.00	117.09	117.06	117.16	117.42	119.70	120.75	120.47
27	117.48	117.26	117.09	117.05	116.98	117.08	117.06	117.25	117.50	119.76	120.78	120.45
28	117.47	117.26	117.09	117.04	116.95	117.06	117.05	117.29	117.50	119.83	120.79	120.43
29	117.45	117.29	117.09	117.06	---	117.00	117.04	117.30	117.57	119.87	120.80	120.40
30	117.45	117.28	117.08	117.09	---	117.04	117.03	117.31	117.81	119.94	120.78	120.47
31	117.44	---	117.09	117.14	---	117.10	---	117.32	---	120.04	120.77	---
MEAN	117.46	117.34	117.15	117.06	117.07	117.05	117.00	117.01	117.37	118.92	120.64	120.60
MAX	117.61	117.44	117.25	117.14	117.19	117.18	117.12	117.32	117.81	120.04	120.82	120.76
MIN	117.23	117.26	117.08	116.99	116.95	116.93	116.93	116.87	117.27	117.85	120.12	120.40

CAL YR 1990 MEAN 117.53 MAX 118.04 MIN 117.08
WTR YR 1991 MEAN 117.89 MAX 120.82 MIN 116.87

PEACE RIVER BASIN

02294036 LAKE HOWARD AT WINTER HAVEN, FL

LOCATION.--Lat 28°00'58", long 81°44'22", in SW¼ sec.29, T.28 S., R.26 E., Polk County, Hydrologic Unit 03100101, on southeast shore of lake, on private dock at Winter Haven.

SURFACE AREA.--634 acres (0.99 mi^2).

DRAINAGE AREA.--12.8 mi^2.

PERIOD OF RECORD.--April 1945 to February 1946 (fragmentary); March 1946 to current year (incomplete). Records of elevations prior to October 1960 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL 1964: Surface area.

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. 14, 1946, nonrecording gage at datum 7.85 ft higher; Feb. 14, 1946, to May 7, 1971, water-stage recorder at same datum; May 7, 1971, to July 25, 1972, nonrecording gage at same datum. Prior to July 25, 1972, at site 2,200 ft north of present site.

REMARKS.--Lake is in the Winter Haven chain of lakes which is controlled by a concrete dam with removable boards at the outlet of Lake Lulu.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 133.19 ft, Sept. 11, 1960 (affected by wind); minimum daily, 128.28 ft, May 14, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 132.23 ft, July 31, Aug. 1; minimum daily, 130.42 ft, May 16.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131.38	131.34	131.11	130.92	130.87	130.58	130.80	130.73	130.82	131.05	132.21	132.02
2	131.37	131.33	131.10	130.92	130.86	130.58	130.78	130.71	130.82	131.08	132.19	131.99
3	131.36	131.32	131.09	130.91	130.88	130.65	130.76	130.69	130.82	131.09	132.17	131.96
4	131.36	131.31	131.09	130.90	130.87	130.70	130.75	130.67	130.81	131.14	132.13	131.94
5	131.35	131.30	131.05	130.88	130.86	130.67	130.74	130.65	130.81	131.15	132.10	131.94
6	131.33	131.29	131.04	130.88	130.85	130.65	130.74	130.63	130.85	131.17	132.08	131.92
7	131.31	131.28	131.04	130.88	130.84	130.65	130.73	130.61	130.85	131.21	132.07	131.91
8	131.29	131.28	131.07	130.87	130.83	130.64	130.73	130.59	130.84	131.21	132.05	131.91
9	131.28	131.28	131.05	130.86	130.80	130.68	130.71	130.57	130.82	131.21	132.07	131.92
10	131.50	131.33	131.04	130.85	130.78	130.67	130.71	130.54	130.79	131.24	132.14	131.90
11	131.55	131.31	131.02	130.85	130.77	130.64	130.69	130.52	130.77	131.28	132.15	131.89
12	131.59	131.29	131.02	130.84	130.75	130.64	130.68	130.49	130.75	131.38	132.14	131.88
13	131.58	131.28	131.01	130.81	130.74	130.63	130.66	130.47	130.73	131.61	132.14	131.87
14	131.57	131.26	131.01	130.79	130.74	130.65	130.65	130.46	130.71	131.79	132.14	131.86
15	131.57	131.25	131.00	130.83	130.72	130.64	130.63	130.46	130.70	131.87	132.13	131.84
16	131.56	131.24	131.00	130.94	130.67	130.64	130.63	130.45	130.68	131.92	132.10	131.82
17	131.55	131.23	130.99	130.92	130.65	130.67	130.63	130.48	130.67	131.95	132.06	131.80
18	131.55	131.21	130.99	130.90	130.65	130.79	130.64	130.49	130.66	131.98	132.04	131.80
19	131.54	131.20	130.99	130.89	130.65	130.85	130.65	130.50	130.65	131.99	132.04	131.83
20	131.52	131.19	130.99	130.91	130.65	130.84	130.67	130.53	130.64	132.03	132.03	131.83
21	131.52	131.17	130.98	130.89	130.64	130.83	130.66	130.54	130.63	132.10	132.02	131.82
22	131.53	131.17	130.98	130.87	130.63	130.83	130.63	130.53	130.63	132.10	132.02	131.82
23	131.52	131.16	130.97	130.85	130.63	130.82	130.62	130.58	130.61	132.09	132.03	131.81
24	131.50	131.17	130.96	130.85	130.62	130.81	130.64	130.63	130.63	132.08	132.08	131.80
25	131.48	131.17	130.95	130.89	130.61	130.81	130.68	130.69	130.70	132.08	132.11	131.79
26	131.43	131.17	130.94	130.88	130.61	130.80	130.79	130.76	130.68	132.10	132.10	131.79
27	131.40	131.17	130.93	130.87	130.58	130.79	130.78	130.92	130.69	132.10	132.08	131.77
28	131.39	131.17	130.93	130.87	130.57	130.77	130.77	130.89	130.72	132.11	132.07	131.74
29	131.38	131.16	130.93	130.88	---	130.75	130.76	130.87	130.98	132.11	132.11	131.72
30	131.36	131.13	130.93	130.88	---	130.77	130.75	130.85	131.04	132.18	132.09	131.77
31	131.34	---	130.92	130.88	---	130.80	---	130.84	---	132.21	132.05	---
MEAN	131.45	131.24	131.00	130.88	130.73	130.72	130.70	130.62	130.75	131.70	132.09	131.86
MAX	131.59	131.34	131.11	130.94	130.88	130.85	130.80	130.92	131.04	132.21	132.21	132.02
MIN	131.28	131.13	130.92	130.79	130.57	130.58	130.62	130.45	130.61	131.05	132.02	131.72

CAL YR 1990 MEAN 130.71 MAX 131.59 MIN 129.76
WTR YR 1991 MEAN 131.15 MAX 132.21 MIN 130.45

PEACE RIVER BASIN

02294112 LAKE GARFIELD NEAR ALTURAS, FL

LOCATION.--Lat 27°54'02", long 81°43'25", in SW¼ sec.4, T.30 S., R.26 E., Polk County, Hydrologic Unit 03100101, on southeast shore of lake, 2.1 mi northwest of Alturas.

SURFACE AREA.--664 acres (1.04 mi^2).

DRAINAGE AREA.--18.0 mi^2.

PERIOD OF RECORD.--October 1969 to July 1971 (fragmentary); August 1971 to March 1980 (twice weekly), incomplete; March 1980 to current year (weekly).

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 June 12, 1974, at site 1,400 ft south at datum 8.81 ft higher.

REMARKS.--Lake is connected by outlet to Peace Creek drainage canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 105.91 ft, Sept. 30, 1979; lake dry from late April to mid May 1976.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 105.20 ft, Sept. 1; minimum observed, 99.50 ft, May 12.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	100.19	---	---	---	---	105.20
2	---	---	100.80	---	---	---	---	---	100.06	---	---	---
3	---	---	---	---	100.48	100.26	---	---	---	---	---	---
4	---	101.08	---	---	---	---	---	---	100.04	---	---	---
5	---	---	---	---	---	---	---	99.66	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	101.34	---	---	100.52	---	---	100.08	---	---	101.28	---	---
8	---	---	---	---	---	---	---	---	---	---	105.06	---
9	---	---	100.80	---	---	---	---	---	100.02	---	---	104.90
10	---	---	---	---	100.40	100.20	---	---	---	---	---	---
11	---	101.10	---	---	---	---	---	---	---	---	104.90	---
12	---	---	---	---	---	---	---	99.50	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	101.44	---	---	100.46	---	---	99.90	---	---	102.40	---	---
15	---	---	---	---	---	---	---	---	---	---	---	104.80
16	---	---	100.74	---	---	---	---	---	99.88	---	---	---
17	---	---	---	---	100.28	100.12	---	---	---	---	---	---
18	---	101.00	---	---	---	---	---	---	---	---	104.80	---
19	---	---	---	---	---	---	---	99.68	---	---	---	---
20	---	---	---	100.56	---	---	---	---	---	---	---	---
21	101.38	---	---	---	---	---	99.88	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	104.76
23	---	---	---	---	---	---	---	---	99.90	---	---	---
24	---	---	---	---	100.18	100.20	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	105.18	---
26	---	100.90	---	---	---	---	---	---	---	---	---	---
27	---	---	100.60	100.50	---	---	---	99.82	---	---	---	---
28	101.26	---	---	---	---	---	99.80	---	---	104.10	---	---
29	---	---	---	---	---	---	---	---	---	---	---	104.70
30	---	---	---	---	---	---	---	---	100.38	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

PEACE RIVER BASIN

02294259 LAKE PARKER AT LAKELAND, FL

LOCATION.--Lat 28°02'59", long 81°55'22", in NW¼ sec.16, T.28 S., R.24 E., Polk County, Hydrologic Unit 03100101, on south shore of lake, on dock at city power plant, at Lakeland.

SURFACE AREA.--2,291 acres (3.58 mi^2).

DRAINAGE AREA.--23.6 mi^2.

PERIOD OF RECORD.--May 1949 to June 1954 (weekly), incomplete; July 1954 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. 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 Dec. 7, 1950, reference point at same site at datum 37.47 ft higher; Dec. 7, 1950, to July 21, 1954, nonrecording gage at same site and July 21, 1954, to May 9, 1975, at same site at datum 26.50 ft higher.

REMARKS.--Outflow from lake is through a canal to Saddle Creek; level is controlled by structure in outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 131.91 ft, June 26, 1982; minimum daily, 126.98 ft, June 8, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 131.45 ft, July 15; minimum daily, 129.32 ft, Mar. 3.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130.19	130.13	129.81	129.60	129.68	129.41	129.75	130.22	130.75	130.73	130.92	130.70
2	130.19	130.12	129.80	129.59	129.67	129.40	129.73	130.21	130.80	130.74	130.88	130.69
3	130.18	130.10	129.79	129.58	129.68	129.47	129.71	130.20	130.82	130.74	130.84	130.68
4	130.20	130.09	129.77	129.57	129.66	129.54	129.70	130.17	130.78	130.72	130.78	130.68
5	130.21	130.08	129.76	129.55	129.66	129.51	129.69	130.15	130.75	130.71	130.73	130.68
6	130.19	130.08	129.74	129.54	129.65	129.50	129.69	130.13	130.73	130.70	130.69	130.70
7	130.18	130.07	129.69	129.54	129.65	129.49	129.69	130.11	130.69	130.66	130.60	130.80
8	130.16	130.06	129.74	129.53	129.65	129.49	129.78	130.08	130.62	130.62	130.58	130.79
9	130.14	130.05	129.75	129.52	129.64	129.53	129.82	130.06	130.56	130.58	130.50	130.80
10	130.27	130.09	129.73	129.51	129.61	129.56	129.85	130.05	130.50	130.52	130.68	130.78
11	130.30	130.05	129.72	129.51	129.60	129.51	129.85	130.03	130.45	130.51	130.66	130.80
12	130.34	130.04	129.71	129.52	129.58	129.50	129.84	130.01	130.43	130.57	130.64	130.80
13	130.36	130.03	129.70	129.52	129.55	129.48	129.83	130.01	130.42	130.98	130.52	130.76
14	130.35	130.01	129.70	129.50	129.55	129.51	129.82	130.05	130.41	131.38	130.50	130.74
15	130.36	129.99	129.69	129.54	129.58	129.50	129.81	130.03	130.39	131.44	130.53	130.71
16	130.34	129.99	129.69	129.68	129.52	129.50	129.81	130.04	130.40	131.43	130.55	130.65
17	130.32	129.98	129.68	129.70	129.49	129.51	129.85	130.13	130.38	131.38	130.55	130.64
18	130.32	129.95	129.67	129.68	129.48	129.62	129.87	130.11	130.38	131.34	130.54	130.60
19	130.32	129.93	129.67	129.66	129.47	129.73	129.85	130.09	130.37	131.26	130.55	130.60
20	130.31	129.92	129.67	129.70	129.48	129.71	129.85	130.10	130.38	131.20	130.62	130.60
21	130.30	129.91	129.67	129.69	129.48	129.71	129.84	130.10	130.49	131.16	130.60	130.60
22	130.29	129.90	129.66	129.68	129.47	129.70	129.80	130.09	130.52	131.22	130.60	130.58
23	130.29	129.90	129.65	129.66	129.47	129.70	129.77	130.13	130.52	131.16	130.70	130.60
24	130.29	---	129.65	129.63	129.46	129.70	129.81	130.17	130.50	131.08	130.88	130.58
25	130.28	---	129.64	129.66	129.46	129.70	129.85	130.19	130.51	131.00	130.84	130.52
26	130.23	129.88	129.62	129.67	129.46	129.68	130.16	130.22	130.50	130.94	130.90	130.53
27	130.19	129.88	129.61	129.66	129.43	129.66	130.20	130.43	130.48	130.89	130.86	130.50
28	130.18	129.87	129.61	129.66	129.42	129.65	130.21	130.48	130.47	130.84	130.85	130.49
29	130.17	129.88	129.60	129.66	---	129.61	130.21	130.50	130.48	130.79	130.80	130.50
30	130.15	129.85	129.59	129.66	---	129.63	130.21	130.53	130.66	130.81	130.75	130.50
31	130.14	---	129.61	129.67	---	129.70	---	130.74	---	130.91	130.70	---
MEAN	130.25	---	129.69	129.61	129.55	129.58	129.86	130.18	130.54	130.94	130.69	130.65
MAX	130.36	---	129.81	129.70	129.68	129.73	130.21	130.74	130.82	131.44	130.92	130.80
MIN	130.14	---	129.59	129.50	129.42	129.40	129.69	130.01	130.37	130.51	130.50	130.49

PEACE RIVER BASIN

02294959 LAKE BUFFUM NEAR ALTURAS, FL

LOCATION.--Lat 27°48'30", long 81°40'01", in SE¼ sec.1, T.31 S., R.26 E., Polk County, Hydrologic Unit 03100101, on north shore of lake, 5.4 mi southeast of Alturas.

SURFACE AREA.--1,570 acres (2.45 mi^2).

DRAINAGE AREA.--10 mi^2.

PERIOD OF RECORD.--April 1972 to current year (weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is 96.62 ft above National Geodetic Vertical Datum of 1929 (levels by Southwest Florida Water Management District); gage readings have been reduced to elevations above NGVD.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 132.42 ft, Sept. 29, 1979; minimum observed, 124.04 ft, July 1, 1991.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

Oct.	8	125.68	Jan.	4	124.63
	19	125.68	July	1	124.04
	26	125.66	Sept.	23	125.14
	29	125.64		30	125.18

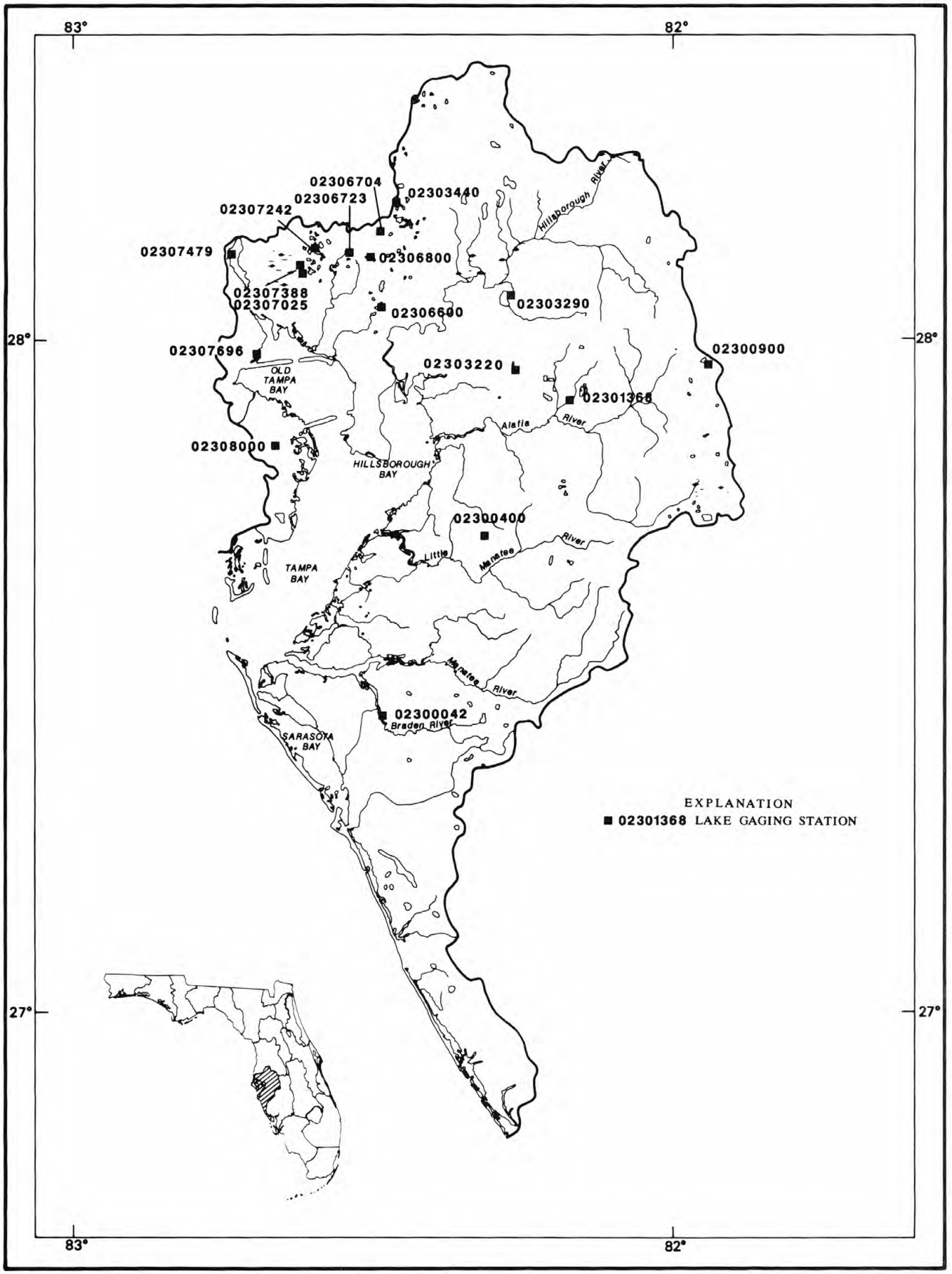

Figure 19.--Location of lake gaging stations in the Manatee, Little Manatee, Alafia, Hillsborough River basins, Tampa Bay and coastal area.

MANATEE RIVER BASIN

02300042 WARD LAKE NEAR BRADENTON, FL

LOCATION.--Lat 27°26'17", long 82°29'13", in NE¼ sec.15, T.35 S., R.18 E., Manatee County, Hydrologic Unit 03100202, on west shore of lake, 200 ft upstream from salinity barrier, and 5 mi southeast of Bradenton.

SURFACE AREA.--57.6 acres (0.09 mi^2).

DRAINAGE AREA.--59.5 mi^2, approximately.

ELEVATION RECORDS

PERIOD OF RECORD.--November 1942 to September 1947 (four times weekly); August 1976 to current year. Records of elevations prior to August 1976 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1987, on east shore of lake at same datum.

REMARKS.--Lake elevations affected by diversion by city of Bradenton.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 6.15 ft, Sept. 7, 1988; minimum observed, 2.60 ft below NGVD, June 16, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 5.17 ft, Oct. 11, 12; minimum daily, 3.68 ft, Nov. 27.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.13	4.03	3.88	3.74	4.03	4.04	4.09	4.00	4.11	4.44	4.81	4.40
2	4.11	4.03	3.88	3.76	4.02	4.05	4.09	3.97	4.09	4.41	4.73	4.42
3	4.07	4.03	3.88	3.78	4.01	4.09	4.07	3.96	4.07	4.34	4.63	4.36
4	4.01	4.01	3.87	3.82	3.99	4.15	4.06	3.94	4.07	4.24	4.53	4.31
5	3.99	4.00	3.85	3.92	3.99	4.16	4.08	3.93	4.05	4.16	4.46	4.29
6	3.97	3.98	3.84	3.97	3.99	4.13	4.51	3.92	4.09	4.13	4.48	4.35
7	3.96	3.96	3.85	3.97	3.99	4.09	4.48	3.92	4.20	4.09	4.76	4.37
8	3.95	3.96	3.95	3.97	4.00	4.05	4.34	3.96	4.15	4.07	4.40	4.34
9	3.92	3.96	3.96	3.97	4.00	4.05	4.28	3.97	4.09	4.05	4.27	4.34
10	3.92	3.98	3.94	3.97	4.01	4.09	4.19	4.21	4.07	4.04	4.22	4.32
11	4.72	3.96	3.93	3.98	4.00	4.12	4.14	4.34	4.05	4.05	4.18	4.30
12	4.99	3.95	3.91	3.98	4.00	4.11	4.11	4.18	4.03	4.17	4.14	4.29
13	4.47	3.95	3.91	3.97	4.01	4.09	4.08	4.09	4.01	4.53	4.13	4.26
14	4.23	3.93	3.90	3.97	4.02	4.13	4.08	4.07	4.01	4.49	4.13	4.22
15	4.15	3.92	3.90	4.00	3.99	4.15	4.16	4.13	4.02	4.40	4.11	4.18
16	4.13	3.90	3.88	4.15	3.98	4.19	4.14	4.11	4.06	4.32	4.11	4.15
17	4.09	3.87	3.87	4.21	3.98	4.20	4.08	4.09	4.06	4.23	4.09	4.11
18	4.07	3.85	3.87	4.12	3.98	4.25	4.06	4.14	4.04	4.17	4.08	4.11
19	4.07	3.82	3.85	4.08	3.98	4.32	4.03	4.18	4.15	4.13	4.09	4.50
20	4.09	3.80	3.84	4.06	3.99	4.30	4.03	4.33	4.22	4.13	4.09	4.58
21	4.16	3.77	3.83	4.06	3.99	4.23	4.01	4.43	4.17	4.30	4.13	4.37
22	4.15	3.76	3.81	4.04	3.99	4.17	4.00	4.36	4.24	4.33	4.18	4.28
23	4.13	3.75	3.80	4.03	3.98	4.12	3.99	4.26	4.32	4.29	4.19	4.23
24	4.12	3.73	3.80	4.02	3.99	4.09	3.98	4.30	4.22	4.50	4.21	4.20
25	4.09	3.72	3.79	4.02	3.99	4.09	3.99	4.68	4.16	4.67	4.39	4.17
26	4.05	3.71	3.78	4.03	4.01	4.07	4.05	4.67	4.15	4.55	4.47	4.17
27	4.05	3.69	3.76	4.02	4.02	4.06	4.12	4.43	4.22	4.46	4.37	4.18
28	4.04	3.74	3.76	4.03	4.03	4.07	4.10	4.34	4.19	4.45	4.27	4.17
29	4.04	3.82	3.75	4.03	---	4.06	4.06	4.24	4.18	4.54	4.22	4.15
30	4.04	3.87	3.74	4.03	---	4.04	4.02	4.18	4.22	4.55	4.21	4.14
31	4.03	---	3.74	4.03	---	4.07	---	4.14	---	4.75	4.28	---
MEAN	4.13	3.88	3.85	3.99	4.00	4.12	4.11	4.18	4.12	4.32	4.30	4.28
MAX	4.99	4.03	3.96	4.21	4.03	4.32	4.51	4.68	4.32	4.75	4.81	4.58
MIN	3.92	3.69	3.74	3.74	3.98	4.04	3.98	3.92	4.01	4.04	4.08	4.11

CAL YR 1990 MEAN 3.94 MAX 4.99 MIN 3.54
WTR YR 1991 MEAN 4.11 MAX 4.99 MIN 3.69

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-67, 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ELEVATION ABOVE NGVD (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)
OCT							
22...	1200	4.25	240	6.9	26.5	7.0	0.010
JAN							
22...	1230	4.05	460	8.0	19.0	8.5	<0.010
APR							
08...	1300	4.33	510	7.7	24.5	7.6	0.010
JUN							
04...	1340	4.07	150	6.9	27.5	--	0.010
AUG							
06...	1145	4.01	320	7.4	28.0	5.5	<0.010
SEP							
25...	1255	4.17	175	6.0	27.5	5.4	0.010

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA 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)
OCT						
22...	<0.020	0.020	0.78	0.290	0.260	14
JAN						
22...	<0.020	0.010	0.89	0.240	0.200	10
APR						
08...	0.020	0.020	1.0	0.260	0.190	11
JUN						
04...	<0.020	0.020	1.3	0.390	0.330	17
AUG						
06...	<0.020	0.010	1.0	0.280	0.210	14
SEP						
25...	<0.020	0.010	0.57	0.250	0.210	14

TAMPA BAY AND COASTAL AREAS

02300400 LAKE WIMAUMA AT WIMAUMA, FL

LOCATION.--Lat 27°42'38", long 82°18'47", in SW¼ sec.9, T.32 S., R.20 E., Hillsborough County, Hydrologic Unit 03100203, on north shore of lake, 0.9 mi southwest of Wimauma.

SURFACE AREA.--137 acres (0.21 mi^2).

DRAINAGE AREA.--0.62 mi^2.

PERIOD OF RECORD.--December 1973 to September 1976 (weekly), incomplete; October 1976 to September 1984 (twice weekly); October 1984 to September 1990 (weekly) discontinued. Records of elevations prior to October 1975 are available in files of the Geological Survey.

GAGE.--Nonrecording gage. Datum of gage is 20.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

COOPERATION.--Records prior to Aug 18, 1976 furnished by Hillsborough County Water Resources Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 83.94 ft, Dec. 28, 1973; minimum observed, 70.12 ft, May 20, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 73.74 ft, Oct. 1; minimum observed, 70.12 ft, May 20.

REVISIONS.--Revised elevations, for October, May, June, July, August, September 1990, are given below. These figures supercede those published in the report for 1990.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73.74	---	---	73.40	---	---	72.52	---	---	71.40	---	---
2	---	---	---	---	---	---	---	---	---	---	---	72.59
3	---	---	73.24	---	---	---	---	---	71.40	---	---	---
4	---	---	---	---	73.12	73.00	---	---	---	---	---	---
5	73.70	73.42	---	---	---	---	---	---	---	---	72.14	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	73.38	---	---	---	---	---	---	---	---
8	73.70	---	---	---	---	---	72.36	---	---	71.34	---	---
9	---	---	---	---	---	---	---	---	---	---	---	72.50
10	---	---	73.30	---	---	---	---	---	71.47	---	---	---
11	---	---	---	---	73.12	72.88	---	---	---	---	---	---
12	---	73.34	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	73.06	---	---	70.30	---	---	72.06	---
14	---	---	---	73.30	---	---	---	---	71.38	---	---	---
15	73.69	---	---	---	---	---	72.22	---	---	71.60	---	---
16	---	---	---	---	---	---	---	---	---	---	---	72.42
17	---	---	73.30	---	---	---	---	---	---	---	---	---
18	---	---	---	---	73.00	72.72	---	---	71.25	71.62	---	---
19	---	73.28	---	---	---	---	72.18	---	---	---	72.30	---
20	---	---	---	---	---	---	---	70.12	---	---	---	---
21	---	---	---	73.26	---	---	---	---	---	---	---	---
22	73.59	---	---	---	---	---	---	---	---	71.90	---	---
23	---	---	---	---	---	---	72.06	---	---	---	---	72.40
24	---	---	---	---	---	---	---	---	71.34	---	---	---
25	---	---	---	---	73.12	72.54	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	72.30	---
27	---	73.31	---	---	---	---	---	71.24	---	---	72.26	---
28	---	---	---	73.18	---	---	---	---	---	---	---	---
29	73.50	73.32	---	---	---	---	---	---	---	72.00	---	---
30	---	---	---	---	---	---	---	---	---	---	---	72.40
31	---	---	---	---	---	---	---	---	---	---	---	---

ALAFIA RIVER BASIN

02300900 SCOTT LAKE NEAR LAKELAND, FL

LOCATION.--Lat 27°57'44", long 81°56'04", in NW¼ sec.17, T.29 S., R.24 E., Polk County, Hydrologic Unit 03100204, on east shore of lake, 5.6 mi south of Lakeland.

SURFACE AREA.--287 acres (0.45 mi^2).

DRAINAGE AREA.--2.11 mi^2.

PERIOD OF RECORD.--March 1953 to May 1954 (twice weekly); June 1954 to May 1965; August 1965 to November 1966 (weekly), incomplete; December 1966 to July 1967 (fragmentary); August 1967 to January 1969; February to September 1969 (weekly), incomplete; October 1969 to September 1977 (twice weekly), incomplete; October 1977 to current year (twice weekly), incomplete. Records of elevations prior to October 1960 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL 1964: Surface area.

GAGE.--Nonrecording gage. Datum of gage is 150.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to June 16, 1954, and May 5, 1965, to May 6, 1968, nonrecording gage, and June 16, 1954, to May 5, 1965, water-stage recorder at site 0.3 mi south at datum 9.68 ft higher; May 6, 1968, to Oct. 28, 1969, at former site and present datum.

REMARKS.--Lake is in the headwaters of North Prong Alafia River; outlet has small concrete control structure. Elevation is affected by pumpage into lake from ground water.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 169.19 ft, Sept. 13, 1960; minimum observed, 159.29 ft, Nov. 18, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 168.40 ft, Aug. 2; minimum observed, 165.48 ft, Mar. 2.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166.66	---	166.06	165.80	165.76	---	---	---	166.80	167.44	---	---
2	---	---	---	---	---	165.48	---	165.90	166.96	167.54	168.40	168.00
3	---	---	---	---	165.78	---	165.72	---	166.98	---	---	168.00
4	166.62	166.30	165.96	---	---	---	---	165.86	166.96	---	---	---
5	---	---	---	165.78	---	165.76	---	---	166.96	---	---	167.98
6	166.60	---	---	---	---	---	165.72	---	166.98	167.66	---	---
7	---	166.28	---	---	---	165.65	---	165.78	---	---	168.26	168.00
8	---	---	---	165.75	165.76	---	---	---	166.98	167.64	---	---
9	166.60	166.28	165.94	165.78	---	---	165.98	165.78	---	---	---	---
10	---	---	---	---	165.76	---	---	---	---	167.60	168.30	---
11	---	166.30	---	---	---	165.68	---	---	166.96	167.58	---	167.90
12	166.60	---	---	---	---	---	---	165.70	---	---	---	---
13	---	166.26	---	165.70	---	165.68	165.90	---	---	---	---	---
14	---	---	165.90	---	---	---	---	---	---	168.20	168.20	167.85
15	166.58	---	---	---	---	165.68	165.88	165.70	166.84	168.28	---	---
16	---	---	---	165.80	165.70	---	---	165.68	---	---	---	---
17	166.56	166.18	165.90	---	---	---	---	---	---	---	---	167.80
18	166.58	166.15	---	165.76	---	---	---	165.78	---	168.20	---	---
19	---	---	---	---	165.58	165.86	165.76	---	166.84	---	168.15	---
20	---	---	---	---	---	---	---	---	---	---	---	167.85
21	---	166.12	---	---	165.58	---	165.76	166.00	---	---	---	---
22	166.52	---	165.85	---	---	---	---	---	166.88	---	---	167.85
23	---	166.10	---	165.76	---	165.80	---	166.08	---	168.20	168.24	---
24	166.50	---	---	---	165.58	---	165.78	---	---	---	---	---
25	---	---	165.85	---	165.58	165.80	165.76	---	167.02	---	168.22	---
26	---	---	---	---	---	---	165.96	---	---	168.10	---	167.78
27	166.50	---	---	165.76	165.56	---	165.96	166.20	---	---	168.18	---
28	---	166.08	---	---	---	165.76	---	166.28	167.00	---	---	---
29	---	---	---	165.76	---	---	---	166.28	---	---	168.10	167.75
30	---	166.06	165.82	---	---	---	165.90	---	167.39	168.38	---	---
31	166.40	---	---	---	---	165.78	---	166.80	---	---	168.06	---

ALAFIA RIVER BASIN

02301368 EDWARD MEDARD RESERVOIR AT PLEASANT GROVE, FL

LOCATION.--Lat 27°54'37", long 82°10'08", in SW¼ sec.36, T.29 S., R.21 E., Hillsborough County, Hydrologic Unit 03100204, on west shore at concrete control structure, 0.1 mi upstream from bridge on Turkey Creek Road, 0.4 mi northwest of Pleasant Grove, 1.5 mi upstream from Turkey Creek, and 2.3 mi above mouth of Little Alafia River.

DRAINAGE AREA.--19.6 mi^2.

PERIOD OF RECORD.--August 1970 to current year. Prior to October 1976, published as Pleasant Grove Reservoir at Pleasant Grove.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Department of Transportation bench mark). Prior to Feb. 23, 1972, at datum 0.40 ft lower.

REMARKS.--Reservoir is formed by concrete dam with earthen embankments, and is fed by the Little Alafia River and runoff from adjacent mining area. Level is controlled by concrete control structure. Reservoir was drained in October 1976 for construction of a new concrete control and modification of the earthen embankments.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 63.74 ft, Sept. 7, 8, 1988; reservoir essentially dry mid-October 1976 to early August 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 61.25 ft, July 15, 16; minimum daily, 58.39 ft, Mar. 2, 3.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59.64	59.68	59.31	58.92	58.81	58.45	58.72	58.76	58.84	59.22	60.79	60.18
2	59.65	59.67	59.28	58.91	58.79	58.43	58.71	58.75	58.83	59.39	60.97	60.19
3	59.63	59.65	59.27	58.90	58.81	58.51	58.68	58.73	58.82	59.55	60.85	60.20
4	59.61	59.63	59.26	58.89	58.79	58.59	58.66	58.71	58.80	59.62	60.72	60.20
5	59.59	59.63	59.23	58.91	58.78	58.59	58.65	58.69	58.91	59.71	60.61	60.21
6	59.57	59.63	59.21	58.87	58.77	58.57	58.69	58.67	59.12	59.86	60.52	60.21
7	59.53	59.62	59.21	58.87	58.75	58.55	58.76	58.66	59.12	59.93	60.45	60.18
8	59.53	59.61	59.20	58.87	58.75	58.55	58.79	58.64	59.14	59.96	60.37	60.17
9	59.50	59.60	59.17	58.83	58.73	58.58	58.80	58.60	59.13	59.99	60.32	60.18
10	59.60	59.61	59.16	58.82	58.71	58.58	58.79	58.58	59.11	60.02	60.26	60.18
11	59.77	59.59	59.14	58.85	58.69	58.55	58.78	58.56	59.10	60.07	60.22	60.19
12	59.93	59.56	59.12	58.88	58.67	58.54	58.77	58.53	59.08	60.16	60.18	60.20
13	59.95	59.54	59.11	58.81	58.65	58.54	58.74	58.52	59.05	60.48	60.16	60.20
14	59.95	59.52	59.10	58.77	58.64	58.57	58.72	58.50	59.04	61.00	60.21	60.18
15	59.97	59.51	59.09	58.78	58.63	58.56	58.70	58.47	59.02	61.19	60.17	60.15
16	59.98	59.49	59.08	58.87	58.60	58.56	58.70	58.46	59.00	61.20	60.14	60.11
17	59.97	59.47	59.07	58.89	58.58	58.57	58.74	58.48	59.00	61.04	60.11	60.08
18	59.96	59.45	59.06	58.85	58.56	58.67	58.73	58.51	58.98	60.95	60.09	60.05
19	59.95	59.43	59.05	58.84	58.56	58.78	58.72	58.51	58.99	60.86	60.09	60.02
20	59.95	59.42	59.05	58.85	58.55	58.78	58.71	58.53	59.02	60.78	60.08	60.00
21	59.92	59.41	59.04	58.84	58.53	58.77	58.69	58.53	59.06	60.74	60.08	59.98
22	59.92	59.39	59.03	58.81	58.52	58.76	58.66	58.52	59.06	60.66	60.07	59.96
23	59.90	59.38	59.02	58.79	58.52	58.75	58.63	58.55	59.05	60.57	60.06	59.94
24	59.89	59.39	59.01	58.77	58.50	58.74	58.64	58.56	59.04	60.49	60.08	59.92
25	59.87	59.39	58.96	58.81	58.49	58.74	58.68	58.57	59.06	60.47	60.13	59.91
26	59.83	59.37	58.95	58.81	58.49	58.72	58.79	58.60	59.09	60.50	60.12	59.90
27	59.80	59.36	58.95	58.80	58.46	58.71	58.80	58.70	59.10	60.51	60.13	59.76
28	59.76	59.35	58.95	58.80	58.45	58.69	58.80	58.74	59.10	60.48	60.16	---
29	59.75	59.34	58.94	58.80	---	58.66	58.78	58.74	59.12	60.46	60.14	58.82
30	59.73	59.36	58.93	58.79	---	58.66	58.77	58.77	59.18	60.51	60.14	58.94
31	59.71	---	58.93	58.80	---	58.70	---	58.84	---	60.59	60.20	---
MEAN	59.78	59.50	59.09	58.84	58.63	58.63	58.73	58.61	59.03	60.35	60.28	---
MAX	59.98	59.68	59.31	58.92	58.81	58.78	58.80	58.84	59.18	61.20	60.97	---
MIN	59.50	59.34	58.93	58.77	58.45	58.43	58.63	58.46	58.80	59.22	60.06	---

TAMPA BAY AND COASTAL AREAS

02303220 VALRICO LAKE AT VALRICO, FL

LOCATION.--Lat 27°57'21", long 82°15'39", in SE¼ sec.13, T.29 S., R.20 E., Hillsborough County, Hydrologic Unit 03100206, on west shore of lake, 0.7 mi north of Valrico.

SURFACE AREA.--130 acres (0.20 mi^2).

DRAINAGE AREA.--8.25 mi^2.

PERIOD OF RECORD.--July 1974 to July 1976 (monthly), incomplete; August 1976 to September 1981 (twice weekly), incomplete; October 1981 to September 1989, incomplete, January to September 1991 (weekly), discontinued. Records of elevations prior to October 1975 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL-85-3A: 1983.

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

REMARKS.--Records prior to August 1976, furnished by Hillsborough County Water Resources Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 47.10 ft, Aug. 5, 1984; minimum observed, 36.86 ft, Apr. 13, 1979 (from levels); minimum daily, unknown, below 39.0 ft mid-May 1977 to March 1980.

EXTREMES FOR CURRENT PERIOD.--Maximum elevation observed, 44.16 ft, Sept. 4; minimum observed, 42.38 ft, May 13.

ELEVATION (FEET NGVD), PERIOD JANUARY TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	42.85	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	42.86	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	42.98	---	42.70	42.85	---	42.90	---	---	44.16
5	---	---	---	---	43.04	---	---	---	---	---	43.87	---
6	---	---	---	---	---	---	---	42.50	---	---	---	---
7	---	---	---	42.92	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	42.80	---	---	42.80	---	---
9	---	---	---	---	---	---	---	---	---	---	---	44.06
10	---	---	---	---	---	---	---	---	42.80	---	---	---
11	---	---	---	---	---	42.68	---	---	---	---	---	---
12	---	---	---	---	42.92	---	---	---	---	---	43.78	---
13	---	---	---	---	---	---	---	42.38	---	---	---	---
14	---	---	---	43.00	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	42.66	---	---	43.40	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	42.76	---	---	---
18	---	---	---	---	42.78	42.88	---	---	---	---	---	43.92
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	43.14	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	42.62	---	---	---	---	---
22	---	---	---	---	---	---	---	42.60	---	43.46	43.92	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	42.85	---	---	---
25	---	---	---	---	42.70	42.88	---	---	---	---	---	43.85
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	43.98	---
28	---	---	---	43.10	---	42.86	---	42.78	---	---	---	---
29	---	---	---	---	---	---	42.66	---	---	43.48	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

HILLSBOROUGH RIVER BASIN

02303290 LAKE THONOTOSASSA NEAR THONOTOSASSA, FL

LOCATION.--Lat 28°04'04", long 82°16'04", in NW¼ sec.12, T.28 S., R.20 E., Hillsborough County, Hydrologic Unit 03100205, on right bank of lake outlet, 40 ft upstream from control, 50 ft upstream from bridge, 500 ft downstream from Lake Thonotosassa, 2.0 mi northeast of Thonotosassa, and 2.8 mi upstream from mouth of Flint Creek.

SURFACE AREA.--824 acres (1.29 mi^2).

DRAINAGE AREA.--60 mi^2, approximately.

PERIOD OF RECORD.--September 1956 to December 1958 (records for Flint Creek near Thonotosassa); August 1965 to September 1976 (weekly), incomplete; October 1976 to August 1977 (monthly); October 1977 to September 1979 (published as Flint Creek near Thonotosassa); October 1979 to September 1991 (discontinued). Records of elevations prior to August 1965 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to December 1958, water-stage recorder at lake outlet at datum 32.16 ft higher; August 1965 to September 1973, nonrecording gage on west shore at datum 25.67 ft higher; October 1973 to August 1977, nonrecording gage at same site at present datum.

REMARKS.--Lake level controlled by control structure. Outflow is through Flint Creek to Hillsborough River.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 38.76 ft, Sept. 10, 1988, from floodmark; minimum daily, 33.37 ft, June 23, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 36.53 ft, Apr. 25; minimum daily, 34.91 ft, Aug. 19.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.52	35.45	35.65	35.60	35.38	35.42	36.24	35.42	35.73	35.40	35.32	35.15
2	35.54	35.47	35.65	35.60	35.37	35.43	36.24	35.45	35.80	35.51	35.23	35.12
3	35.55	35.48	35.65	35.59	35.37	35.47	36.24	35.47	35.78	35.38	35.10	35.10
4	35.56	35.49	35.65	35.59	35.36	35.48	36.23	35.49	35.69	35.38	35.03	35.14
5	35.57	35.50	35.64	35.59	35.35	35.48	36.24	35.50	35.65	35.38	35.11	35.20
6	35.58	35.51	35.63	35.59	35.35	35.50	36.27	35.52	35.54	35.38	35.22	35.24
7	35.58	35.52	35.63	35.59	35.35	35.50	36.29	35.57	35.45	35.36	35.27	35.29
8	35.59	35.53	35.63	35.59	35.34	35.51	36.28	35.57	35.47	35.34	35.31	35.33
9	35.59	35.55	35.62	35.58	35.32	35.60	36.28	35.58	35.51	35.33	35.32	35.36
10	35.67	35.58	35.61	35.54	35.31	35.65	36.27	35.60	35.52	35.34	35.31	35.41
11	35.68	35.57	35.60	35.50	35.30	35.66	36.26	35.59	35.52	35.34	35.29	35.44
12	35.42	35.57	35.61	35.49	35.28	35.67	36.25	35.58	35.52	35.38	35.28	35.48
13	35.26	35.57	35.62	35.44	35.28	35.69	36.24	35.65	35.50	35.44	35.36	35.51
14	35.13	35.57	35.63	35.39	35.32	35.71	36.23	35.81	35.52	35.58	35.42	35.54
15	35.04	35.57	35.63	35.44	35.35	35.74	36.21	35.83	35.57	35.76	35.30	35.56
16	35.08	35.58	35.64	35.54	35.32	35.76	36.20	35.84	35.64	35.67	35.18	35.57
17	35.14	35.60	35.65	35.54	35.32	35.80	36.20	35.91	35.67	35.49	35.07	35.59
18	35.19	35.59	35.65	35.51	35.33	35.90	36.19	35.90	35.65	35.31	34.98	35.60
19	35.23	35.59	35.66	35.49	35.35	35.97	36.18	35.85	35.57	35.25	34.95	35.62
20	35.27	35.59	35.66	35.49	35.36	36.00	36.20	35.74	35.51	35.34	35.07	35.66
21	35.30	35.60	35.66	35.46	35.37	36.03	36.19	35.54	35.54	35.39	35.05	35.72
22	35.33	35.60	35.66	35.42	35.40	36.05	36.17	35.51	35.57	35.37	35.02	35.73
23	35.36	35.61	35.66	35.40	35.41	36.08	36.15	35.53	35.54	35.23	35.12	35.74
24	35.39	35.63	35.65	35.39	35.43	36.12	36.17	35.55	35.52	35.12	35.22	35.76
25	35.40	35.64	35.63	35.39	35.43	36.14	36.26	35.57	35.49	35.12	35.20	35.80
26	35.39	35.64	35.61	35.38	35.42	36.15	36.14	35.57	35.47	35.15	35.14	35.82
27	35.40	35.64	35.61	35.37	35.41	36.17	35.69	35.61	35.44	35.16	35.16	35.83
28	35.41	35.66	35.61	35.38	35.41	36.17	35.34	35.65	35.41	35.18	35.17	35.83
29	35.42	35.67	35.62	35.38	---	36.19	35.34	35.66	35.36	35.24	35.17	35.83
30	35.42	35.65	35.61	35.38	---	36.20	35.38	35.67	35.33	35.27	35.17	35.83
31	35.43	---	35.61	35.38	---	36.23	---	35.67	---	35.30	35.17	---
MEAN	35.40	35.57	35.63	35.48	35.36	35.82	36.12	35.63	35.55	35.35	35.18	35.53
MAX	35.68	35.67	35.66	35.60	35.43	36.23	36.29	35.91	35.80	35.76	35.42	35.83
MIN	35.04	35.45	35.60	35.37	35.28	35.42	35.34	35.42	35.33	35.12	34.95	35.10

CAL YR 1990 MEAN 35.57 MAX 36.43 MIN 34.39
WTR YR 1991 MEAN 35.55 MAX 36.29 MIN 34.95

HILLSBOROUGH RIVER BASIN

02303440 LAKE PADGETT NEAR LUTZ, FL

LOCATION.--Lat 28°12'12", long 82°27'43", in SW¼ sec.24, T.26 S., R.18 E., Pasco County, Hydrologic Unit 03100205, on private dock, on west shore of lake, and 3.7 mi north of Lutz.

SURFACE AREA.--200 acres (0.31 mi^2).

DRAINAGE AREA.--6.6 mi^2, approximately.

PERIOD OF RECORD.--January 1965 to September 1966 (about weekly); October 1966 to January 1970 (fragmentary); February 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 18, 1970, nonrecording gage at same site and datum.

REMARKS.--Lake is connected to Saxon Lake by a dredged channel and culverts.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 72.01 ft, Sept. 9, 1988; minimum daily, 67.03 ft, June 9, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 71.03 ft, Aug. 2,; minimum daily, 68.46 ft, Mar. 3.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.67	69.48	69.16	68.82	68.80	68.48	68.77	68.91	69.14	69.14	70.69	70.53
2	69.70	69.46	69.14	68.81	68.79	68.48	68.75	68.90	69.14	69.23	71.02	70.49
3	69.69	69.45	69.13	68.80	68.78	68.52	68.74	68.88	69.13	69.27	70.98	70.45
4	69.68	69.43	69.12	68.78	68.78	68.55	68.72	68.86	69.12	69.27	70.91	70.41
5	69.67	69.42	69.10	68.77	68.77	68.53	68.73	68.84	69.17	69.27	70.84	70.37
6	69.65	69.40	69.08	68.76	68.76	68.51	68.81	68.82	69.19	69.26	70.77	70.33
7	69.63	69.39	69.07	68.75	68.75	68.51	68.81	68.78	69.18	69.25	70.70	70.30
8	69.60	69.38	69.06	68.74	68.74	68.50	68.82	68.74	69.16	69.23	70.64	70.27
9	69.58	69.38	69.05	68.72	68.73	68.54	68.81	68.72	69.14	69.25	70.57	70.25
10	69.65	69.43	69.03	68.70	68.71	68.54	68.80	68.73	69.12	69.28	70.51	70.23
11	69.74	69.41	69.02	68.70	68.70	68.52	68.79	68.71	69.09	69.28	70.45	70.21
12	69.80	69.39	69.00	68.76	68.68	68.50	68.78	68.69	69.07	69.34	70.39	70.19
13	69.81	69.37	68.99	68.74	68.67	68.49	68.75	68.66	69.05	69.60	70.33	70.15
14	69.80	69.36	68.98	68.72	68.67	68.49	68.74	68.64	69.03	69.78	70.28	70.13
15	69.79	69.34	68.97	68.72	68.68	68.48	68.72	68.62	69.01	69.82	70.22	70.11
16	69.78	69.33	68.96	68.75	68.64	68.48	68.72	68.60	69.00	69.83	70.18	70.08
17	69.77	69.31	68.95	68.76	68.63	68.52	68.73	68.60	68.99	69.83	70.14	70.05
18	69.78	69.29	68.94	68.74	68.61	68.65	68.72	68.69	69.00	69.83	70.12	70.02
19	69.76	69.27	68.94	68.73	68.60	68.72	68.70	68.69	69.02	69.88	70.13	69.99
20	69.75	69.26	68.93	68.76	68.59	68.74	68.69	68.72	69.01	69.91	70.21	69.96
21	69.73	69.24	68.92	68.75	68.59	68.74	68.67	68.72	68.99	69.99	70.28	69.92
22	69.71	69.23	68.91	68.73	68.57	68.75	68.64	68.71	69.03	69.99	70.25	69.89
23	69.70	69.22	68.90	68.72	68.57	68.75	68.63	68.77	69.20	69.98	70.27	69.87
24	69.68	69.23	68.89	68.71	68.56	68.75	68.65	68.90	69.20	70.01	70.36	69.84
25	69.65	69.23	68.87	68.72	68.55	68.74	68.72	68.95	69.20	70.03	70.51	69.84
26	69.61	69.22	68.85	68.71	68.53	68.73	68.90	68.98	69.21	70.07	70.52	69.93
27	69.58	69.21	68.84	68.70	68.51	68.72	68.92	69.03	69.18	70.11	70.53	69.90
28	69.55	69.21	68.84	68.73	68.49	68.70	68.93	69.08	69.16	70.14	70.56	69.87
29	69.54	69.21	68.84	68.76	---	68.69	68.93	69.09	69.15	70.19	70.56	69.84
30	69.52	69.18	68.83	68.76	---	68.74	68.92	69.08	69.15	70.33	70.55	69.81
31	69.50	---	68.83	68.78	---	68.77	---	69.10	---	70.34	70.57	---
MEAN	69.68	69.32	68.97	68.75	68.66	68.61	68.77	68.81	69.11	69.70	70.49	70.11
MAX	69.81	69.48	69.16	68.82	68.80	68.77	68.93	69.10	69.21	70.34	71.02	70.53
MIN	69.50	69.18	68.83	68.70	68.49	68.48	68.63	68.60	68.99	69.14	70.12	69.81

CAL YR 1990 MEAN 69.00 MAX 69.90 MIN 67.98
WTR YR 1991 MEAN 69.25 MAX 71.02 MIN 68.48

TAMPA BAY AND COASTAL AREAS

02306600 LAKE CARROLL NEAR SULPHUR SPRINGS, FL

LOCATION.--Lat 28°02'58", long 82°29'08", in NE¼ sec.15, T.28 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, on east shore of lake, 2.2 mi northwest of intersection Interstate 75 and Busch Boulevard at Sulphur Springs.

SURFACE AREA.--195 acres (0.30 mi^2).

DRAINAGE AREA.--1.66 mi^2.

PERIOD OF RECORD.--May 1946 to August 1951 (incomplete); September 1951 to February 1952 (fragmentary); March 1952 to September 1956 (weekly), incomplete; October 1956 to December 1964 (three or four times weekly); January 1965 to current year (incomplete). Records of elevations prior to October 1960 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL-82-3A: Surface area.

GAGE.--Nonrecording gage. Datum of gage is 30.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Apr. 4, 1952, at site 0.5 mi northeast at same datum; Apr. 4, 1952, to Mar. 28, 1957, at site 900 ft northeast at same datum; Mar. 28, 1957, to Nov. 21, 1972, at site 200 ft north at same datum.

REMARKS.--Lake is in the Sweetwater Creek headwaters chain of lakes. Outflow from lake is to White Trout Lake and is partially controlled by a culvert and stop logs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 40.08 ft on or about Sept. 25, 1947, from floodmark; minimum daily, 32.22 ft, June 13, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 36.22 ft, Sept. 2, 3; minimum daily, 33.60 ft, Apr. 24.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.12	35.04	34.64	34.28	34.22	33.84	33.82	33.88	34.12	34.38	35.50	36.16
2	35.12	35.02	34.64	34.28	34.22	33.84	33.82	33.86	34.12	34.40	35.80	36.22
3	35.10	35.00	34.62	34.26	34.20	33.84	33.80	33.84	34.12	34.40	35.80	36.22
4	35.08	35.00	34.62	34.26	34.20	33.82	33.80	33.82	34.20	34.40	35.78	36.20
5	35.24	34.98	34.60	34.24	34.18	33.82	33.80	33.80	34.20	34.40	35.76	36.20
6	35.26	34.96	34.60	34.22	34.18	33.82	33.80	33.78	34.18	34.38	35.72	36.20
7	35.24	34.94	34.56	34.20	34.16	33.80	33.80	33.76	34.14	34.38	35.70	36.18
8	35.20	34.92	34.54	34.20	34.14	33.80	33.80	33.74	34.12	34.36	35.70	36.18
9	35.18	34.90	34.54	34.20	34.10	33.82	33.78	33.76	34.10	34.30	35.68	36.16
10	35.26	34.98	34.52	34.18	34.10	33.82	33.78	33.74	34.08	34.28	35.66	36.16
11	35.28	34.98	34.52	34.18	34.10	33.80	33.76	33.72	34.06	34.28	35.60	36.14
12	35.30	34.96	34.50	34.18	34.08	33.80	33.76	33.70	34.05	34.26	35.60	36.14
13	35.28	34.96	34.50	34.18	34.08	33.78	33.74	33.68	34.04	34.30	35.58	36.12
14	35.26	34.94	34.48	34.16	34.08	33.78	33.74	33.66	34.06	34.72	35.54	36.10
15	35.24	34.90	34.46	34.16	34.08	33.76	33.72	33.62	34.08	34.74	35.52	36.08
16	35.20	34.88	34.44	34.16	34.10	33.74	33.72	33.64	34.10	34.74	35.46	36.02
17	35.18	34.86	34.44	34.16	34.00	33.92	33.72	33.64	34.10	34.74	35.58	36.02
18	35.18	34.80	34.44	34.16	33.98	33.92	33.70	33.72	34.14	34.74	35.60	36.18
19	35.20	34.78	34.42	34.22	33.98	33.92	33.70	33.70	34.18	34.78	35.60	36.18
20	35.22	34.76	34.42	34.22	33.98	33.92	33.68	33.82	34.22	34.78	35.74	36.16
21	35.18	34.76	34.42	34.20	33.96	33.92	33.66	33.82	34.30	34.76	35.80	36.12
22	35.16	34.74	34.40	34.20	33.96	33.92	33.64	33.84	34.30	34.74	35.82	36.10
23	35.16	34.74	34.40	34.20	33.94	33.90	33.62	33.86	34.28	34.76	35.82	36.10
24	35.14	34.74	34.40	34.20	33.94	33.88	33.60	33.86	34.28	34.78	35.88	36.08
25	35.12	34.72	34.38	34.20	33.90	33.88	33.68	34.06	34.30	34.78	35.88	36.08
26	35.10	34.72	34.38	34.18	33.88	33.86	33.90	34.10	34.30	34.78	35.86	36.10
27	35.10	34.70	34.36	34.24	33.86	33.86	33.90	34.10	34.30	34.76	35.86	36.08
28	35.08	34.68	34.34	34.26	33.84	33.84	33.90	34.10	34.28	34.78	35.90	36.00
29	35.06	34.68	34.32	34.24	---	33.84	33.88	34.10	34.28	34.80	36.10	36.00
30	35.06	34.66	34.30	34.24	---	33.84	33.88	34.10	34.26	34.80	36.12	36.00
31	35.04	---	34.30	34.22	---	33.84	---	34.10	---	35.20	36.10	---
MEAN	35.17	34.86	34.47	34.21	34.05	33.84	33.76	33.84	34.18	34.60	35.74	36.12
MAX	35.30	35.04	34.64	34.28	34.22	33.92	33.90	34.10	34.30	35.20	36.12	36.22
MIN	35.04	34.66	34.30	34.16	33.84	33.74	33.60	33.62	34.04	34.26	35.46	36.00

WTR YR 1991 MEAN 34.57 MAX 36.22 MIN 33.60

TAMPA BAY AND COASTAL AREAS

02306704 LAKE HARVEY NEAR LUTZ, FL

LOCATION.--Lat 28°09'43", long 82°29'12", in SE¼ sec.3, T.27 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, on south shore of lake, on private dock, 1.7 mi northwest of Lutz.

SURFACE AREA.--20.7 acres (0.03 mi^2).

DRAINAGE AREA.--1.7 mi^2, approximately.

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 54.93 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

REMARKS.--Lake is connected by canals from Lake Joy and to Lake Virginia. Lake is near the Pasco County well field.

COOPERATION.--Some records, February to July 1991, provided by Southwest Florida Water Management District, when stilling well was isolated from lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 63.28 ft, Sept. 20, 1979; minimum observed, 57.28 ft, May 21, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 61.84 ft, Aug. 29, 30, 31; minimum observed, 57.28 ft, May 21.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.86	58.61	58.25	57.82	57.91	---	---	---	---	---	58.45	61.80
2	58.85	58.59	58.24	57.81	57.90	---	---	---	---	---	59.70	61.76
3	58.83	58.58	58.23	57.81	57.83	---	---	---	---	---	60.57	61.72
4	58.81	58.56	58.22	57.80	57.79	---	---	---	---	---	60.73	61.68
5	58.79	58.54	58.19	57.77	57.77	---	---	---	---	---	60.83	61.64
6	58.78	58.53	58.17	57.75	57.75	---	---	---	---	---	61.11	61.60
7	58.75	58.51	58.16	57.75	---	---	---	---	---	---	61.30	61.55
8	58.72	58.50	58.15	57.74	---	---	---	---	---	---	61.37	61.52
9	58.70	58.50	58.13	57.73	---	---	---	---	---	---	61.39	61.50
10	58.77	58.54	58.11	57.72	---	---	---	---	---	---	61.42	61.48
11	58.84	58.52	58.10	57.72	---	---	---	---	---	---	61.45	61.45
12	58.87	58.50	58.08	57.73	---	---	---	---	---	---	61.45	61.42
13	58.86	58.48	58.07	57.73	---	---	---	---	---	57.75	61.43	61.39
14	58.85	58.46	58.06	57.72	---	---	---	---	---	57.79	61.41	61.36
15	58.84	58.45	58.05	57.73	---	57.44	---	---	---	57.80	61.37	61.33
16	58.82	58.43	58.03	57.75	---	---	---	---	---	57.81	61.36	61.30
17	58.82	58.42	58.02	57.79	---	---	---	---	---	57.80	61.32	61.28
18	58.86	58.40	58.01	57.78	---	---	---	---	---	57.80	61.33	61.25
19	58.85	58.37	58.00	57.77	57.60	---	---	---	---	57.82	61.38	61.22
20	58.84	58.36	57.99	57.80	---	---	---	---	---	57.82	61.48	61.20
21	58.82	58.34	57.98	57.79	---	---	---	57.28	---	57.83	61.58	61.17
22	58.80	58.33	57.97	57.78	---	---	57.30	---	---	57.82	61.58	61.14
23	58.80	58.32	57.95	57.76	---	---	---	---	---	57.84	61.60	61.12
24	58.78	58.34	57.96	57.75	---	---	---	---	57.46	57.83	61.65	61.10
25	58.76	58.32	57.98	57.76	57.69	57.58	---	---	---	57.84	61.70	61.09
26	58.72	58.31	57.95	57.75	---	57.56	---	---	---	57.87	61.71	61.18
27	58.70	58.30	57.94	57.74	---	---	---	---	---	57.88	61.71	61.15
28	58.68	58.30	57.89	57.76	---	---	---	57.48	---	57.87	61.74	61.12
29	58.66	58.30	57.87	57.80	---	---	---	---	---	57.88	61.84	61.10
30	58.64	58.27	57.85	57.79	---	---	57.98	---	---	57.90	61.84	61.08
31	58.63	---	57.83	57.80	---	---	---	---	---	57.93	61.83	---
MEAN	58.78	58.43	58.05	57.76	---	---	---	---	---	---	61.28	61.36
MAX	58.87	58.61	58.25	57.82	---	---	---	---	---	---	61.84	61.80
MIN	58.63	58.27	57.83	57.72	---	---	---	---	---	---	58.45	61.08

CAL YR 1990 MEAN 58.72 MAX 59.34 MIN 57.83

TAMPA BAY AND COASTAL AREAS

02306723 TURKEY FORD LAKE NEAR LUTZ, FL

LOCATION.--Lat 28°07'45", long 82°32'30", in SE¼ sec.18, T.27 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, on south shore of lake, 5.1 mi west of Lutz.

SURFACE AREA.--93.4 acres (0.15 mi^2).

DRAINAGE AREA.--9.8 mi^2, approximately.

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.30 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to May 19, 1971, at site 0.5 mi north at same datum; May 19, 1971, to July 26, 1988, at site 0.25 mi northeast at same datum.

REMARKS.--Lake is near the Lutz and Cosme well fields. Outflow from lake is through Rocky Creek south to Rock Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 55.31 ft, Sept. 9, 1988; minimum daily, 48.06 ft, June 13, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 54.46 ft, Aug. 3, 4; minimum daily, 50.69 ft, Mar. 2.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51.68	51.38	51.03	50.81	50.94	50.71	50.93	51.76	52.34	51.46	53.63	53.50
2	51.70	51.35	51.02	50.80	50.93	50.71	50.92	51.75	52.28	51.48	54.32	53.43
3	51.67	51.33	51.01	50.79	50.93	50.75	50.91	51.72	52.21	51.49	54.46	53.33
4	51.65	51.31	51.01	50.78	50.92	50.78	50.89	51.69	52.14	51.48	54.44	53.23
5	51.63	51.30	50.99	50.77	50.91	50.76	50.92	51.65	52.10	51.47	54.38	53.12
6	51.62	51.28	50.97	50.77	50.91	50.75	51.02	51.61	52.04	51.46	54.28	53.02
7	51.59	51.26	50.96	50.76	50.90	50.74	51.05	51.57	51.98	51.45	54.12	52.93
8	51.56	51.25	50.96	50.76	50.90	50.74	51.07	51.53	51.92	51.47	53.95	52.86
9	51.53	51.25	50.94	50.75	50.89	50.78	51.08	51.51	51.86	51.45	53.78	52.80
10	51.61	51.31	50.93	50.74	50.87	50.78	51.08	51.54	51.80	51.45	53.61	52.73
11	51.71	51.28	50.92	50.73	50.86	50.76	51.08	51.51	51.74	51.44	53.45	52.65
12	51.80	51.26	50.92	50.80	50.85	50.74	51.08	51.48	51.68	51.48	53.29	52.57
13	51.82	51.24	50.91	50.79	50.84	50.73	51.06	51.45	51.63	51.93	53.13	52.50
14	51.83	51.22	50.90	50.77	50.84	50.73	51.06	51.41	51.59	52.70	52.98	52.43
15	51.83	51.19	50.90	50.79	50.85	50.73	51.05	51.38	51.58	53.03	52.85	52.35
16	51.82	51.18	50.89	50.85	50.82	50.73	51.04	51.35	51.56	53.13	52.79	52.28
17	51.80	51.16	50.89	50.87	50.80	50.76	51.03	51.33	51.53	53.11	52.74	52.20
18	51.78	51.14	50.89	50.87	50.79	50.87	51.01	51.32	51.52	53.05	52.68	52.14
19	51.76	51.12	50.89	50.86	50.79	50.92	51.00	51.31	51.51	53.02	52.68	52.08
20	51.73	51.10	50.88	50.89	50.78	50.92	51.05	51.36	51.50	53.03	52.78	52.02
21	51.70	51.09	50.88	50.89	50.78	50.91	51.07	51.37	51.46	53.19	53.00	51.96
22	51.68	51.08	50.87	50.88	50.77	50.91	51.05	51.35	51.46	53.15	53.05	51.90
23	51.66	51.07	50.87	50.86	50.77	50.90	51.04	51.40	51.51	53.13	53.10	51.85
24	51.63	51.09	50.86	50.86	50.76	50.90	51.05	51.65	51.49	53.14	53.10	51.80
25	51.60	51.08	50.84	50.88	50.75	50.89	51.15	51.94	51.47	53.12	53.12	51.76
26	51.54	51.07	50.83	50.87	50.74	50.87	51.50	52.15	51.45	53.18	53.13	51.79
27	51.51	51.07	50.82	50.87	50.72	50.86	51.61	52.32	51.50	53.17	53.10	51.76
28	51.48	51.07	50.82	50.89	50.71	50.85	51.69	52.42	51.51	53.10	53.08	51.71
29	51.46	51.08	50.82	50.92	---	50.83	51.73	52.44	51.49	53.02	53.22	51.67
30	51.43	51.05	50.82	50.92	---	50.89	51.75	52.42	51.47	52.96	53.35	51.63
31	51.41	---	50.81	50.93	---	50.92	---	52.37	---	53.02	53.54	---
MEAN	51.65	51.19	50.90	50.83	50.83	50.81	51.13	51.68	51.71	52.41	53.39	52.40
MAX	51.83	51.38	51.03	50.93	50.94	50.92	51.75	52.44	52.34	53.19	54.46	53.50
MIN	51.41	51.05	50.81	50.73	50.71	50.71	50.89	51.31	51.45	51.44	52.68	51.63

CAL YR 1990 MEAN 51.30 MAX 52.74 MIN 50.19
WTR YR 1991 MEAN 51.58 MAX 54.46 MIN 50.71

TAMPA BAY AND COASTAL AREAS

02306800 STARVATION LAKE NEAR LUTZ, FL

LOCATION.--Lat 28°07'22", long 82°30'13", in NE¼ sec.21, T.27 S., R.18 E., Hillsborough County, Hydrologic Unit 03100206, on east shore of lake, 3.2 mi southwest of Lutz.

SURFACE AREA.--50.4 acres (0.08 mi^2).

DRAINAGE AREA.--0.30 mi^2.

PERIOD OF RECORD.--June 1961 to November 1963 (weekly); December 1963 to current year. Records of elevations prior to October 1963 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1963, nonrecording gage at same site at datum 0.30 ft higher.

REMARKS.--Lake is landlocked and in the Section 21 well field. Elevation is affected by pumpage into lake from nearby deep well and overflow from nearby pumping station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 54.55 ft (estimated), Sept. 21, 1979; minimum daily, 40.23 ft, July 27, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 50.53 ft, Sept. 2, 3; minimum daily, 44.40 ft, May 19, June 18, 19, 21, 22.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.40	46.02	45.58	45.12	45.21	44.71	44.84	44.72	44.62	44.48	47.15	50.48
2	46.40	46.00	45.56	45.11	45.20	44.69	44.82	44.70	44.60	44.50	47.99	50.52
3	46.38	45.98	45.54	45.09	45.19	44.72	44.80	44.67	44.58	44.52	48.50	50.53
4	46.36	45.96	45.53	45.07	45.18	44.74	44.78	44.64	44.57	44.51	48.94	50.50
5	46.33	45.95	45.50	45.05	45.16	44.72	44.78	44.61	44.60	44.52	49.26	50.47
6	46.31	45.93	45.48	45.03	45.15	44.70	44.82	44.58	44.60	44.50	49.41	50.44
7	46.28	45.91	45.46	45.01	45.13	44.69	44.81	44.55	44.59	44.48	49.49	50.40
8	46.25	45.89	45.45	45.00	45.12	44.68	44.81	44.53	44.56	44.47	49.52	50.40
9	46.22	45.89	45.43	44.98	45.10	44.74	44.79	44.52	44.54	44.45	49.55	50.39
10	46.30	45.94	45.42	44.96	45.08	44.75	44.77	44.54	44.52	44.44	49.56	50.35
11	46.36	45.91	45.40	44.95	45.06	44.73	44.75	44.52	44.50	44.43	49.56	50.32
12	46.39	45.89	45.39	45.00	45.04	44.71	44.72	44.51	44.47	44.45	49.57	50.29
13	46.36	45.86	45.37	44.99	45.02	44.70	44.70	44.49	44.45	44.73	49.57	50.25
14	46.35	45.84	45.36	44.97	45.02	44.70	44.67	44.47	44.43	44.95	49.55	50.22
15	46.33	45.82	45.35	44.99	45.02	44.69	44.65	44.44	44.42	44.96	49.55	50.19
16	46.30	45.81	45.33	45.04	44.98	44.69	44.62	44.42	44.42	44.96	49.57	50.16
17	46.27	45.79	45.32	45.06	44.95	44.72	44.60	44.42	44.41	44.94	49.56	50.13
18	46.25	45.76	45.30	45.05	44.94	44.84	44.58	44.41	44.40	44.96	49.58	50.10
19	46.23	45.74	45.30	45.04	44.92	44.90	44.54	44.41	44.40	45.09	49.63	50.09
20	46.20	45.71	45.29	45.06	44.90	44.89	44.55	44.42	44.41	45.13	49.70	50.06
21	46.19	45.70	45.27	45.05	44.88	44.88	44.55	44.44	44.40	45.20	49.81	50.04
22	46.19	45.68	45.27	45.03	44.85	44.87	44.53	44.43	44.42	45.20	49.89	50.01
23	46.18	45.66	45.25	45.01	44.83	44.87	44.51	44.48	44.50	45.33	49.95	49.99
24	46.18	45.67	45.24	45.00	44.81	44.85	44.51	44.63	44.49	45.45	50.03	49.96
25	46.15	45.66	45.21	45.02	44.79	44.84	44.59	44.68	44.47	45.48	50.10	49.95
26	46.11	45.66	45.19	45.02	44.77	44.82	44.81	44.68	44.46	45.65	50.15	50.00
27	46.09	45.64	45.18	45.00	44.73	44.81	44.80	44.68	44.51	45.98	50.18	49.97
28	46.08	45.63	45.17	45.02	44.71	44.79	44.79	44.68	44.51	46.12	50.20	49.94
29	46.06	45.63	45.16	45.06	---	44.76	44.76	44.66	44.50	46.19	50.25	49.92
30	46.05	45.60	45.15	45.14	---	44.81	44.74	44.63	44.49	46.27	50.31	49.89
31	46.03	---	45.14	45.21	---	44.84	---	44.62	---	46.43	50.41	---
MEAN	46.24	45.80	45.34	45.04	44.99	44.77	44.70	44.55	44.49	45.06	49.56	50.20
MAX	46.40	46.02	45.58	45.21	45.21	44.90	44.84	44.72	44.62	46.43	50.41	50.53
MIN	46.03	45.60	45.14	44.95	44.71	44.68	44.51	44.41	44.40	44.43	47.15	49.89

CAL YR 1990 MEAN 46.50 MAX 47.95 MIN 45.14
WTR YR 1991 MEAN 45.90 MAX 50.53 MIN 44.40

TAMPA BAY AND COASTAL AREAS

02307025 GLASS LAKE NEAR LAKE FERN, FL

LOCATION.--Lat 28°05'57", long 82°37'08", in SE¼ sec.29, T.27 S., R.17 E., Hillsborough County, Hydrologic Unit 03100206, on east shore of lake, and 4.4 mi southwest of Lake Fern.

SURFACE AREA.--16.7 acres (0.03 mi^2).

DRAINAGE AREA.--0.23 mi^2.

PERIOD OF RECORD.--March 1976 to September 1981 (twice monthly), incomplete; October 1981 to September 1987 (monthly); October 1987 to current year (bimonthly).

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

REMARKS.--Lake is near Cosme well field.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 33.29 ft, Sept. 18, 1979; minimum observed, 28.08 ft, June 5, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 31.99 ft, Sept. 4; minimum observed, 28.38 ft, Mar. 28.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

Nov. 6	29.00	May 2	28.91
Dec. 11	28.64	31	29.82
Jan. 29	28.48	July 22	30.46
Mar. 28	28.38	Sept. 4	31.99

TAMPA BAY AND COASTAL AREAS

02307242 KEYSTONE LAKE NEAR ODESSA, FL

LOCATION.--Lat 28°08'50", long 82°35'40", in SW¼ sec.10, T.27 S., R.17 E., Hillsborough County, Hydrologic Unit 03100206, on left bank above liftgate outlet to Brooker Creek, 20 ft upstream from bridge on State Highway 582, 30 ft downstream from outlet of Keystone Lake, and 3.2 mi south of Odessa.

SURFACE AREA.--388 acres (0.61 mi^2).

DRAINAGE AREA.--10 mi^2, approximately.

PERIOD OF RECORD.--April 1946 to September 1974, records for Brooker Creek near Odessa; October 1974 to September 1987; October 1987 to current year (monthly). Records of elevations prior to October 1960 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL 1964: Surface area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southwest Florida Water Management District). Prior to Sept. 12, 1974, water-stage recorder at present site at datum 30.00 ft higher; Sept. 13, 1971, to Sept. 9, 1974, supplementary nonrecording gage 0.1 mi southwest at datum 10.00 ft higher; Sept. 12, 1974, to Sept. 30, 1987, water-stage recorder at site on west shore of lake 0.8 mi southwest at present datum.

REMARKS.--Lake is at the headwaters of Brooker Creek. Since May 1955, elevation in Keystone Lake regulated by vertical lift gates at control.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 43.60 ft, Mar. 19, 1960; minimum, 37.88 ft, May 31, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 41.28 ft, Aug. 29; minimum observed, 39.57 ft, Apr. 4.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

Oct.	16	40.83	May	1	39.93
Dec.	12	40.10		30	40.19
Jan.	29	39.88	July	16	40.78
Apr.	4	39.57	Aug.	29	41.28

TAMPA BAY AND COASTAL AREAS

02307388 BUCK LAKE NEAR LAKE FERN, FL

LOCATION.--Lat 28°06'31", long 82°37'16", in NE¼ sec.28, T.27 S., R.17 E., Hillsborough County, Hydrologic Unit 03100206, on west shore of lake, 3.9 mi southwest of Lake Fern.

SURFACE AREA.--45 acres (0.07 mi^2).

DRAINAGE AREA.--0.3 mi^2.

ELEVATION RECORDS

PERIOD OF RECORD.--July 1972 to November 1986 (twice weekly), incomplete; December 1986 to current year (monthly).

GAGE.--Nonrecording gage. Datum of gage is 14.69 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD. Prior to Dec. 17, 1982, at present site and datum; Dec. 17, 1982, to Jan. 29, 1986, at site 2,100 ft east at datum 14.69 ft lower.

COOPERATION.--Some records provided by Southwest Florida Water Management District and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 34.63 ft, June 27, 1974; minimum observed, 28.36 ft, July 20, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 32.25 ft, July 22; minimum observed, 29.30 ft, Mar. 28.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

Nov. 6	30.28	May 2	29.89
Dec. 11	29.91	June 6	31.40
Jan. 29	29.59	July 22	32.25
Mar. 28	29.30	Sept. 4	32.15

02307388 BUCK LAKE NEAR LAKE FERN, FL--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV				
06...	1515	30.28	143	24.5
DEC				
11...	1445	29.91	147	18.0
JAN				
29...	1525	29.59	149	20.0
MAY				
02...	1415	29.89	159	31.0
JUN				
06...	1005	31.40	145	29.0
JUL				
22...	1145	32.25	133	31.0

TAMPA BAY AND COASTAL AREAS

02307479 LAKE TARPON NEAR TARPON SPRINGS, FL

LOCATION.--Lat 28°07'30", long 82°44'12", in NE¼ sec.19, T.27 S., R.16 E., Pinellas County, Hydrologic Unit 03100206, on private dock, on west shore of lake, and 1.8 mi southeast of Tarpon Springs.

SURFACE AREA.--2,534 acres (3.96 mi^2).

DRAINAGE AREA.--60 mi^2, approximately.

ELEVATION RECORDS

PERIOD OF RECORD.--March 1945 to September 1991 (discontinued). Records of elevations prior to October 1960 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southwest Florida Water Management District). Prior to Apr. 8, 1945, nonrecording gage, and Apr. 8, 1945, to July 16, 1946, water-stage recorder at site 500 ft south at datum 2.42 ft lower; July 17, 1946, to Dec. 16, 1947, water-stage recorder at site 0.7 mi southeast at Pinellas County fish hatchery at present datum; Dec. 16, 1947, to Apr. 15, 1980, water-stage recorder at site 2.4 mi southeast at Cobb's Acres at present datum; Apr. 15, 1980, to Oct. 15, 1987, at site 500 ft north at same datum.

REMARKS.--The major tributary to the lake is Brooker Creek. Since August 1971, lake levels controlled by structure S-551 with vertical lift gates in Lake Tarpon Canal. Prior to May 1969, outflow from lake occurred through sinkhole near the west shore, with salt-water intrusion occurring through underground formations; thereafter, sink isolated from lake by earthen dam with gated underdrain culverts. July 1967 to August 1971, lake levels partially affected by outflow through Lake Tarpon Canal; July 1967 to July 1969, outflow blocked by earthen dam, and August 1969 to August 1971, outflow controlled by gated underdrain culverts.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 7.08 ft, Aug. 2, 1960, from floodmarks; minimum daily, 0.70 ft, Feb. 26, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 3.39 ft, Aug. 24, Sept. 1 (affected by seiche); minimum daily, 2.55 ft, Aug. 4 (affected by seiche).

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.77	2.86	2.75	2.68	3.00	2.87	2.99	3.06	3.05	2.91	3.20	3.33
2	2.81	2.85	2.74	2.68	3.00	2.88	2.98	3.04	3.04	2.97	2.89	3.28
3	2.80	2.84	2.74	2.68	3.00	2.97	2.96	3.02	3.03	2.97	2.69	2.98
4	2.80	2.84	2.74	2.68	2.99	3.00	2.94	3.00	3.02	2.97	2.57	2.93
5	2.80	2.83	2.72	2.67	2.98	2.99	2.92	2.98	3.02	3.00	2.66	2.90
6	2.83	2.84	2.71	2.67	2.97	2.99	2.92	2.95	3.02	3.05	2.77	2.85
7	2.81	2.83	2.72	2.67	2.98	2.97	2.92	2.94	3.00	3.05	2.90	2.86
8	2.79	2.83	2.70	2.67	2.97	2.97	2.92	2.92	2.99	3.03	2.95	2.87
9	2.77	2.84	2.70	2.68	2.96	3.00	2.91	2.91	2.97	3.02	2.98	2.88
10	2.86	2.83	2.69	2.69	2.95	2.96	2.90	2.90	2.95	3.00	3.00	2.86
11	2.98	2.82	2.69	2.71	2.94	2.96	2.89	2.88	2.93	2.99	3.00	2.85
12	3.02	2.80	2.69	2.77	2.93	2.95	2.87	2.87	2.92	3.01	2.99	2.81
13	3.02	2.79	2.69	2.76	2.92	2.95	2.85	2.85	2.90	3.11	2.99	2.79
14	3.02	2.79	2.69	2.76	2.93	2.94	2.86	2.84	2.89	3.18	2.99	2.83
15	3.01	2.78	2.69	2.79	2.91	2.94	2.89	2.82	2.89	3.19	2.98	2.85
16	3.01	2.77	2.69	2.82	2.89	2.95	2.88	2.83	2.90	3.15	2.96	2.87
17	3.00	2.76	2.69	2.84	2.89	2.98	2.87	2.87	2.89	3.09	2.94	2.89
18	2.99	2.75	2.70	2.84	2.89	3.13	2.87	2.92	2.88	3.10	2.92	2.90
19	2.99	2.74	2.70	2.85	2.89	3.21	2.86	2.96	2.87	3.11	2.92	2.94
20	2.98	2.74	2.70	2.87	2.89	3.21	2.88	3.08	2.86	3.13	2.99	2.94
21	2.98	2.73	2.71	2.87	2.89	3.19	2.87	3.10	2.85	3.25	3.05	2.95
22	3.02	2.73	2.70	2.86	2.89	3.15	2.85	3.10	2.83	3.23	3.03	2.96
23	3.01	2.73	2.69	2.86	2.90	3.10	2.85	3.12	2.82	3.10	3.12	2.97
24	3.00	2.76	2.68	2.86	2.89	3.06	2.86	3.17	2.82	2.98	3.33	2.97
25	2.96	2.77	2.67	2.87	2.89	3.02	2.96	3.20	2.88	2.88	3.25	2.97
26	2.93	2.77	2.66	2.87	2.88	3.00	3.21	3.08	2.87	2.79	3.06	3.01
27	2.91	2.78	2.67	2.87	2.86	2.99	3.20	2.98	2.87	2.72	2.88	3.00
28	2.89	2.79	2.67	2.91	2.86	2.97	3.17	2.98	2.86	2.77	2.98	2.99
29	2.88	2.78	2.67	2.96	---	2.97	3.13	2.99	2.84	2.83	3.14	2.97
30	2.87	2.76	2.68	2.98	---	3.01	3.09	2.99	2.83	2.87	3.22	2.97
31	2.87	---	2.68	2.99	---	3.01	---	3.02	---	2.90	3.36	---
MEAN	2.92	2.79	2.70	2.80	2.93	3.01	2.94	2.98	2.92	3.01	2.99	2.94
MAX	3.02	2.86	2.75	2.99	3.00	3.21	3.21	3.20	3.05	3.25	3.36	3.33
MIN	2.77	2.73	2.66	2.67	2.86	2.87	2.85	2.82	2.82	2.72	2.57	2.79

CAL YR 1990 MEAN 2.57 MAX 3.17 MIN 1.77
WTR YR 1991 MEAN 2.91 MAX 3.36 MIN 2.57

02307479 LAKE TARPON NEAR TARPON SPRINGS, FL--Continued

WATER-QUALIY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	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)
OCT										
10...	1300	2.86	856	6.1	27.0	20	--	24	14	110
NOV										
06...	1603	2.83	888	--	23.0	--	--	--	--	--
DEC										
17...	1130	2.69	935	6.1	18.0	--	10.0	--	--	--
FEB										
07...	0833	3.00	963	5.8	19.5	--	8.6	--	--	--
APR										
10...	0850	2.90	955	--	25.0	--	--	--	--	--
MAY										
07...	1023	2.94	963	6.1	28.0	20	6.7	28	14	130
JUN										
05...	1555	3.02	937	6.4	29.0	--	7.9	--	--	--
JUL										
25...	0835	2.89	923	6.3	29.5	--	5.9	--	--	--
SEP										
10...	0845	2.86	722	--	28.0	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	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, 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)
OCT										
10...	4.9	48	220	0.20	0.90	488	--	<0.010	<0.020	0.020
NOV										
06...	--	--	220	--	--	--	--	--	--	--
DEC										
17...	--	--	240	--	--	--	--	<0.010	0.050	<0.010
FEB										
07...	--	--	240	--	--	--	--	<0.010	<0.020	0.030
APR										
10...	--	--	250	--	--	--	--	--	--	--
MAY										
07...	5.6	50	260	0.20	0.90	571	0.020	0.010	0.030	0.010
JUN										
05...	--	--	240	--	--	--	--	<0.010	<0.020	0.010
JUL										
25...	--	--	240	--	--	--	--	<0.010	<0.020	0.020
SEP										
10...	--	--	180	--	--	--	--	--	--	--

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS 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)
OCT										
10...	0.67	0.69	0.040	0.020	50	<1	<1	2	260	50
DEC										
17...	--	0.54	<0.010	0.010	--	--	--	--	--	--
FEB										
07...	0.57	0.60	0.030	0.020	--	--	--	--	--	--
MAY										
07...	0.57	0.58	0.020	0.010	30	<1	<1	<1	130	30
JUN										
05...	0.62	0.63	0.020	<0.010	--	--	--	--	--	--
JUL										
25...	0.98	1.0	0.050	0.010	--	--	--	--	--	--

TAMPA BAY AND COASTAL AREAS

02307479 LAKE TARPON NEAR TARPON SPRINGS, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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)
OCT									
10...	<1	<1	30	20	0.80	<1	260	10	7.7
MAY									
07...	1	<1	20	20	<0.10	<1	320	10	9.5

TAMPA BAY AND COASTAL AREAS

02307696 ALLIGATOR LAKE AT SAFETY HARBOR, FL

LOCATION.--Lat 27°58'45", long 82°41'43", in NW¼ sec.10, T.29 S., R.16 E., Pinellas County, Hydrologic Unit 03100206, on east shore of lake, on right upstream wingwall of concrete control structure, 30 ft upstream from bridge on Bayshore Drive, and 0.8 mi southwest of Safety Harbor.

SURFACE AREA.--76.4 acres (0.12 mi^2).

DRAINAGE AREA.--9.0 mi^2, approximately.

PERIOD OF RECORD.--May 1948 to April 1959, October 1960 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey. Prior to October 1974, published as Alligator Creek at Safety Harbor.

REVISED RECORDS.--WRD FL 1964: Surface area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1959, water-stage recorder at site of former control 160 ft upstream at datum 0.85 ft lower; Oct. 13, 1960, to May 16, 1970, at present site at datum 1.19 ft lower.

REMARKS.--Lake is formed by fixed concrete control structure at elevation 5.0 ft and earth embankment, completed in September 1960. Prior to April 1959, concrete control at elevation 5.4 ft, 24-inch pipe and gate valve with invert at elevation 0.79 ft below NGVD, and earth embankment at site 160 ft upstream. Earth embankment was breached Apr. 5, 1959; elevation at gage subject to tide effect from Old Tampa Bay until structure was rebuilt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 8.15 ft, Sept. 6, 1950; minimum daily, 2.30 ft, Oct. 13, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 6.17 ft, Aug. 28, 29; minimum daily, 5.04 ft, Dec. 20, 21, 22.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.22	5.07	5.08	---	5.17	5.08	5.16	5.12	5.20	5.23	5.73	5.35
2	5.15	5.07	5.08	---	5.13	5.09	5.11	5.11	5.17	5.18	5.63	5.33
3	5.13	5.07	5.08	5.05	5.12	5.13	5.09	5.10	5.15	5.15	5.41	5.30
4	5.12	5.07	5.08	5.05	5.12	5.14	5.08	5.09	5.16	5.13	5.36	5.29
5	5.18	5.07	5.06	5.08	5.11	5.10	5.08	5.08	5.17	5.13	5.32	5.27
6	5.63	5.08	5.06	5.09	5.10	5.08	5.11	5.08	5.15	5.12	5.35	5.25
7	5.28	5.08	5.07	5.08	5.10	5.08	5.09	5.09	5.14	5.15	5.50	5.23
8	5.20	5.07	5.06	5.07	5.08	5.08	5.08	5.32	5.12	5.12	5.34	5.22
9	5.16	5.12	5.05	5.06	5.08	5.15	5.08	5.46	5.11	5.09	5.27	5.22
10	5.22	5.22	5.05	5.09	5.07	5.16	5.07	5.26	5.10	5.12	5.22	5.29
11	5.33	5.12	5.06	5.18	5.07	5.10	5.07	5.18	5.09	5.12	5.19	5.26
12	5.31	5.10	5.06	5.21	5.06	5.09	5.06	5.14	5.09	5.15	5.18	5.21
13	5.23	5.09	5.07	5.12	5.07	5.08	5.06	5.13	5.08	5.50	5.31	5.28
14	5.19	5.08	5.06	5.10	5.11	5.08	5.05	5.12	5.08	5.51	5.30	5.40
15	5.17	5.08	5.06	5.23	5.13	5.08	5.05	5.10	5.31	5.30	5.21	5.33
16	5.16	5.08	5.07	5.38	5.08	5.08	5.17	5.12	5.38	5.22	5.20	5.22
17	5.14	5.08	5.06	5.23	5.08	5.13	5.35	5.26	5.20	5.19	5.20	5.27
18	5.13	5.06	5.06	5.16	5.08	5.27	5.17	5.26	5.15	5.17	5.18	5.22
19	5.12	5.06	5.05	5.14	5.08	5.25	5.12	5.32	5.16	5.19	5.19	5.20
20	5.11	5.07	5.04	5.14	5.08	5.16	5.14	5.68	5.15	5.21	5.35	5.19
21	5.10	5.07	5.04	5.10	5.08	5.12	5.12	5.39	5.19	5.37	5.73	5.17
22	5.10	5.07	5.05	5.08	5.08	5.11	5.09	5.30	5.14	5.25	5.42	5.17
23	5.10	5.07	5.06	5.09	5.08	5.10	5.09	5.55	5.12	5.22	5.31	5.17
24	5.09	5.11	5.06	5.13	5.07	5.09	5.11	5.54	5.11	5.28	5.29	5.16
25	5.08	5.11	5.05	5.18	5.07	5.08	5.28	5.58	5.14	5.26	5.56	5.15
26	5.06	5.09	5.06	5.13	5.07	5.08	5.55	5.35	5.13	5.24	5.56	5.21
27	5.06	5.09	5.05	5.11	5.06	5.08	5.26	5.28	5.11	5.25	5.38	5.16
28	5.06	5.13	5.05	5.20	5.07	5.07	5.18	5.24	5.10	5.20	5.68	5.13
29	5.06	5.12	5.05	5.19	---	5.07	5.15	5.22	5.11	5.23	5.84	5.12
30	5.07	5.09	---	5.14	---	5.13	5.13	5.20	5.15	5.25	5.50	5.12
31	5.07	---	---	5.17	---	5.18	---	5.20	---	5.34	5.40	---
MEAN	5.16	5.09	---	---	5.09	5.11	5.14	5.25	5.15	5.22	5.39	5.23
MAX	5.63	5.22	---	---	5.17	5.27	5.55	5.68	5.38	5.51	5.84	5.40
MIN	5.06	5.06	---	---	5.06	5.07	5.05	5.08	5.08	5.09	5.18	5.12

TAMPA BAY AND COASTAL AREAS

02308000 SAWGRASS LAKE NEAR PINELLAS PARK, FL

LOCATION.--Lat 27°50'32", long 82°39'49", in SE¼ sec.26, T.30 S., R.16 E., Pinellas County, Hydrologic Unit 03100206, on outlet control structure, 110 ft west of Interstate 275, and 2.2 mi east of Pinellas Park.

SURFACE AREA.--21.0 acres (0.03 mi^2).

DRAINAGE AREA.--3.97 mi^2.

PERIOD OF RECORD.--January 1977 to current year.

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

REMARKS.--Lake level regulated by concrete control structure.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 8.36 ft, Sept. 8, 1988; minimum daily, 0.80 ft (estimated), Apr. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 5.92 ft, May 20; minimum daily, 3.48 ft, May 16.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.45	3.61	3.67	3.53	3.95	3.72	4.07	3.74	4.69	4.18	5.05	4.82
2	4.35	3.60	3.64	3.53	3.91	3.72	3.98	3.70	4.58	4.11	5.34	5.22
3	4.24	3.59	3.62	3.53	3.87	4.07	3.89	3.65	4.48	4.01	5.27	5.09
4	4.14	3.58	3.61	3.54	3.85	4.27	3.82	3.62	4.47	3.94	5.20	5.01
5	4.05	3.58	3.59	3.56	3.82	4.13	3.80	3.59	4.48	3.90	5.24	4.90
6	3.97	3.58	3.58	3.58	3.82	4.02	3.93	3.57	4.42	3.84	5.41	4.80
7	3.91	3.57	3.58	3.59	3.85	3.93	3.89	3.55	4.35	3.81	5.22	4.72
8	3.85	3.57	3.59	3.59	3.90	3.86	3.83	3.56	4.26	3.80	4.99	4.69
9	3.81	3.57	3.58	3.58	3.92	3.97	3.80	3.57	4.16	3.78	4.86	4.71
10	3.84	3.69	3.57	3.57	3.93	4.10	3.76	3.56	4.07	3.80	4.70	4.72
11	4.20	3.68	3.57	3.60	3.94	4.00	3.73	3.57	4.00	3.79	4.56	5.04
12	4.41	3.65	3.56	3.76	3.93	3.92	3.69	3.57	3.94	4.03	4.44	4.94
13	4.33	3.62	3.56	3.76	3.94	3.95	3.66	3.56	3.90	4.27	4.34	4.82
14	4.24	3.60	3.55	3.71	3.91	4.23	3.65	3.53	3.85	---	4.25	4.72
15	4.15	3.59	3.55	3.84	3.89	4.15	3.69	3.51	3.86	---	4.17	4.63
16	4.06	3.58	3.55	4.17	3.83	4.07	3.68	3.76	3.88	---	4.32	4.57
17	3.98	3.58	3.55	4.08	3.81	4.04	3.65	4.65	3.86	---	4.48	4.58
18	3.93	3.56	3.55	3.99	3.79	4.19	3.62	5.04	3.87	---	4.42	4.53
19	3.89	3.55	3.55	3.92	3.77	4.23	3.61	5.09	3.89	4.57	4.49	4.47
20	3.85	3.55	3.55	4.00	3.76	4.13	3.61	5.74	3.85	4.55	4.52	4.41
21	3.82	3.54	3.54	3.98	3.74	4.04	3.61	5.31	3.84	4.67	4.62	4.35
22	3.80	3.54	3.54	3.96	3.73	3.97	3.59	5.06	3.99	4.56	4.55	4.32
23	3.78	3.53	3.53	3.93	3.73	3.92	3.58	4.96	3.97	4.48	4.47	4.28
24	3.76	3.71	3.55	3.90	3.71	3.88	3.65	4.92	3.97	4.49	4.64	4.24
25	3.74	3.79	3.54	3.95	3.70	3.85	3.84	4.94	4.01	4.57	5.26	4.23
26	3.70	3.75	3.54	3.96	3.70	3.81	4.22	4.83	3.96	4.53	5.11	4.29
27	3.68	3.71	3.53	3.92	3.68	3.77	4.08	4.71	4.01	4.47	4.96	4.28
28	3.66	3.76	3.53	3.91	3.68	3.75	3.96	4.60	4.05	4.42	4.87	4.24
29	3.65	3.76	3.54	3.93	---	3.72	3.87	4.50	3.98	4.45	4.88	4.21
30	3.63	3.71	3.54	3.90	---	3.74	3.79	4.51	3.96	4.53	4.81	4.19
31	3.62	---	3.54	3.88	---	3.97	---	4.73	---	4.73	4.82	---
MEAN	3.95	3.62	3.56	3.80	3.82	3.97	3.78	4.23	4.09	---	4.78	4.60
MAX	4.45	3.79	3.67	4.17	3.95	4.27	4.22	5.74	4.69	---	5.41	5.22
MIN	3.62	3.53	3.53	3.53	3.68	3.72	3.58	3.51	3.84	---	4.17	4.19

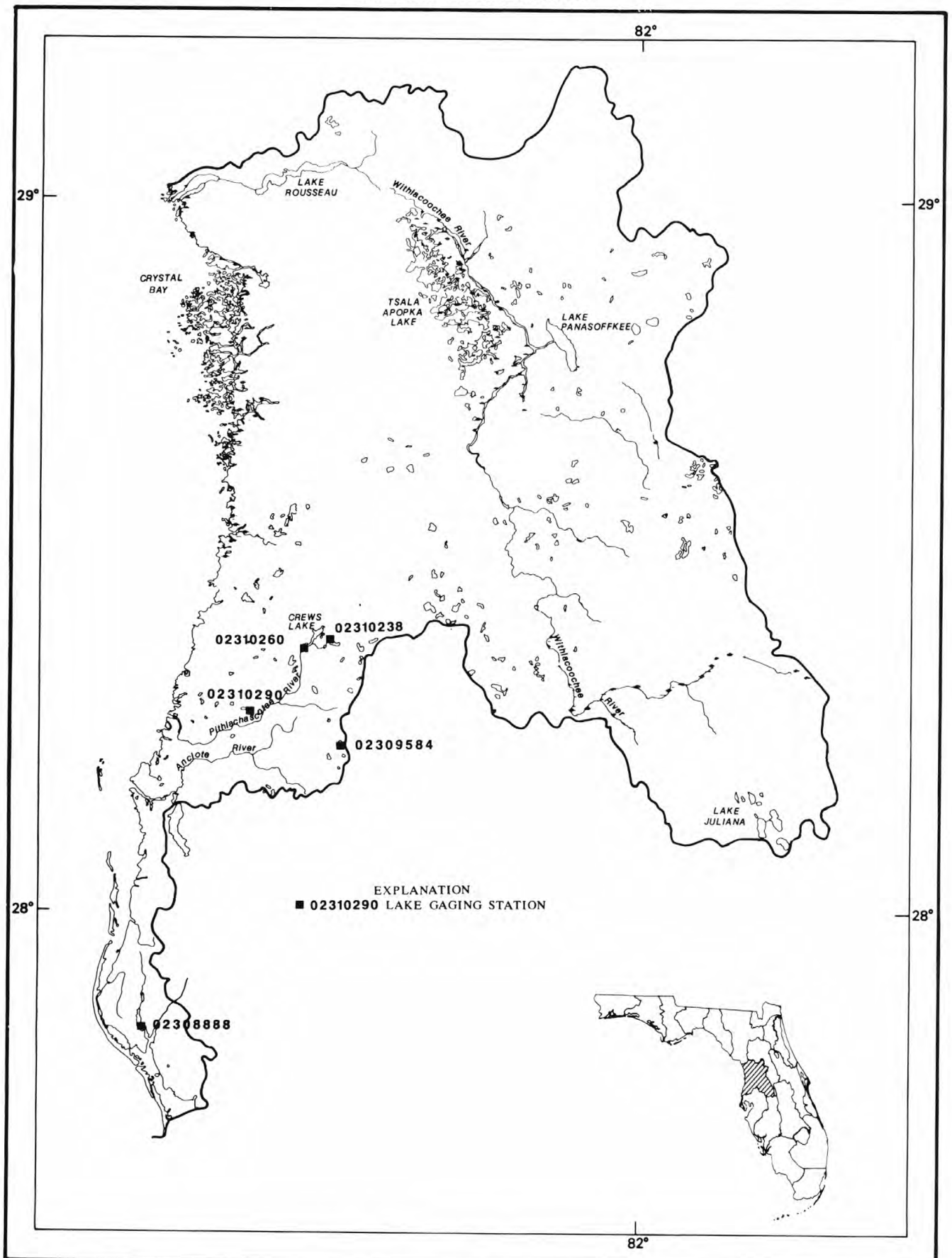

Figure 20.--Location of lake gaging stations in the Coastal area from Tampa Bay to Withlacoochee River.

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02308888 SEMINOLE LAKE NEAR LARGO, FL

LOCATION.--Lat 27°50'20", long 82°46'50", in SE¼ sec.27, T.30 S., R.15 E., Pinellas County, Hydrologic Unit 03100207, on south shore of lake, 250 ft west of highway bridge across spillway channel, and 5.2 mi south of Largo.

SURFACE AREA.--684 acres (1.07 mi^2).

DRAINAGE AREA.--6.94 mi^2.

PERIOD OF RECORD.--August 1950 to September 1973; October 1973 to March 1974 (fragmentary); April 1974 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL-79-3A: Surface area, drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Pinellas County bench mark).

REMARKS.--Outlet of lake is a 50 ft fixed concrete control structure with crest at average elevation of 5.0 ft. Greater part of inflow to Seminole Lake is regulated by pumps at north dam 3.0 mi above station. Pumpage at north dam represents natural flow of tributary above dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 8.22 ft, June 26, 1974; minimum daily, 2.92 ft, June 12, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 5.94 ft, July 20; minimum daily, 3.67 ft, Jan. 10.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.30	4.05	4.16	3.84	4.22	3.90	4.23	4.23	5.07	4.70	5.43	5.11
2	4.29	4.03	4.14	3.82	4.20	3.86	4.20	4.22	5.04	4.68	5.38	5.26
3	4.27	4.01	4.12	3.81	4.19	3.92	4.18	4.18	5.00	4.65	5.28	5.21
4	4.25	3.99	4.15	3.80	4.17	4.02	4.16	4.15	5.00	4.66	5.20	5.19
5	4.24	3.97	4.12	3.79	4.16	4.00	4.15	4.11	5.00	4.66	5.14	5.13
6	4.26	3.97	4.08	3.78	4.14	3.95	4.18	4.10	4.98	4.65	5.12	5.18
7	4.24	3.95	4.07	3.76	4.15	3.94	4.16	4.09	4.96	4.63	5.19	5.14
8	4.22	3.93	4.11	3.77	4.15	3.94	4.14	4.20	4.92	4.61	5.19	5.12
9	4.20	3.96	4.07	3.76	4.14	4.08	4.12	4.18	4.89	4.59	5.20	5.09
10	4.20	4.22	4.05	3.76	4.11	4.16	4.12	4.17	4.86	4.58	5.14	5.09
11	4.29	4.20	4.04	3.81	4.10	4.09	4.09	4.15	4.83	4.57	5.09	5.19
12	4.37	4.18	4.02	3.93	4.09	4.06	4.07	4.12	4.81	4.66	5.05	5.14
13	4.36	4.16	4.02	3.93	4.04	4.07	4.04	4.10	4.78	5.05	5.01	5.10
14	4.34	4.15	4.01	3.91	4.05	4.20	4.06	4.07	4.75	5.34	4.98	5.07
15	4.34	4.13	4.00	3.94	4.09	4.21	4.16	4.05	4.73	5.25	5.00	5.04
16	4.32	4.12	3.99	4.05	4.05	4.22	4.16	4.03	4.72	5.17	4.99	5.03
17	4.30	4.12	3.98	4.08	4.01	4.23	4.14	4.07	4.70	5.11	4.96	5.07
18	4.27	4.09	3.95	4.06	4.00	4.26	4.13	4.30	4.68	5.07	4.94	5.04
19	4.29	4.07	3.95	4.01	3.98	4.30	4.10	4.46	4.73	5.05	4.93	5.01
20	4.28	4.06	3.96	4.11	3.99	4.28	4.12	4.77	4.72	5.33	4.96	5.00
21	4.26	4.04	3.95	4.11	3.99	4.26	4.11	4.79	4.70	5.69	5.25	4.97
22	4.26	4.03	3.94	4.10	3.96	4.24	4.06	4.79	4.67	5.44	5.28	4.95
23	4.26	4.01	3.92	4.08	3.97	4.24	4.01	4.86	4.65	5.38	5.19	4.93
24	4.24	4.08	3.93	4.03	3.96	4.24	4.06	5.05	4.69	5.30	5.22	4.90
25	4.23	4.10	3.91	4.13	3.96	4.24	4.15	5.13	4.81	5.26	5.34	4.88
26	4.18	4.09	3.89	4.13	3.96	4.22	4.30	5.09	4.79	5.38	5.27	4.92
27	4.15	4.10	3.87	4.11	3.93	4.18	4.28	5.05	4.76	5.41	5.19	4.90
28	4.13	4.20	3.86	4.13	3.92	4.15	4.27	5.03	4.75	5.29	5.14	4.87
29	4.10	4.23	3.86	4.15	---	4.07	4.25	5.01	4.72	5.24	5.11	4.84
30	4.09	4.21	3.84	4.13	---	4.19	4.24	4.99	4.71	5.21	5.08	4.83
31	4.07	---	3.84	4.17	---	4.23	---	5.03	---	5.34	5.08	---
MEAN	4.25	4.08	3.99	3.97	4.06	4.13	4.15	4.47	4.81	5.03	5.14	5.04
MAX	4.37	4.23	4.16	4.17	4.22	4.30	4.30	5.13	5.07	5.69	5.43	5.26
MIN	4.07	3.93	3.84	3.76	3.92	3.86	4.01	4.03	4.65	4.57	4.93	4.83

CAL YR 1990 MEAN 4.26 MAX 5.43 MIN 3.11
WTR YR 1991 MEAN 4.43 MAX 5.69 MIN 3.76

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02309584 LAKE THOMAS AT DREXEL, FL

LOCATION.--Lat 28°14'14", long 82°28'08", in NE¼ sec.11, T.26 S., R.18 E., Pasco County, Hydrologic Unit 03100207, on south shore of lake, 0.6 mi southwest of Drexel.

SURFACE AREA.--162 acres (0.25 mi^2).

DRAINAGE AREA.--1.0 mi^2, approximately.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 70.00 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations above NGVD.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 75.79 ft, Sept. 9, 1988; minimum daily, 71.34 ft, Aug. 8, 1977, June 12, 13, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 74.52 ft, Aug. 22; minimum daily, 72.56 ft, Mar. 3.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73.53	73.40	73.13	72.86	72.83	72.58	72.84	73.14	73.23	73.21	---	---
2	73.54	73.38	73.12	72.85	72.82	72.57	72.83	73.13	73.22	73.29	---	---
3	73.54	73.37	73.11	72.84	72.82	72.63	72.81	73.11	73.21	73.32	---	---
4	73.53	73.36	73.10	72.83	72.82	72.66	72.79	73.10	73.20	73.34	---	---
5	73.51	73.35	73.08	72.82	72.81	72.64	72.97	73.07	73.24	73.34	---	---
6	73.50	73.34	73.06	72.81	72.80	72.63	73.11	73.05	73.23	73.35	---	---
7	73.48	73.33	73.06	72.81	72.80	72.63	73.10	73.03	73.21	73.36	---	---
8	73.46	73.32	73.05	72.80	72.79	72.67	73.10	73.01	73.19	73.35	---	---
9	73.44	73.32	73.03	72.79	72.77	72.67	73.10	72.99	73.17	73.36	---	---
10	73.50	73.37	73.02	72.77	72.76	72.65	73.09	73.01	73.15	73.37	---	---
11	73.60	73.35	73.01	72.77	72.75	72.63	73.07	72.99	73.13	73.37	---	---
12	73.67	73.33	72.99	72.83	72.73	72.62	73.06	72.97	73.11	73.41	---	---
13	73.66	73.31	72.99	72.81	72.72	72.62	73.05	72.94	73.09	73.58	---	---
14	73.66	73.30	72.98	72.80	72.73	72.61	73.03	72.93	73.07	73.73	---	---
15	73.65	73.28	72.97	72.80	72.74	72.61	73.02	72.90	73.07	73.75	---	---
16	73.64	73.27	72.96	72.82	72.70	72.65	73.00	72.89	73.08	73.75	---	---
17	73.63	73.26	72.96	72.81	72.68	72.77	72.99	72.88	73.07	---	---	---
18	73.62	73.24	72.95	72.79	72.68	72.88	72.97	72.88	73.08	---	---	---
19	73.61	73.22	72.95	72.78	72.67	72.88	72.96	72.87	73.11	---	---	---
20	73.59	73.21	72.95	72.81	72.66	72.87	72.95	72.88	73.11	---	---	---
21	73.59	73.20	72.94	72.80	72.66	72.87	72.93	72.89	73.10	---	---	---
22	73.60	73.18	72.93	72.78	72.65	72.86	72.91	72.87	73.12	---	74.52	---
23	73.59	73.18	72.92	72.77	72.65	72.86	72.91	72.91	73.26	---	---	---
24	73.58	73.20	72.92	72.76	72.64	72.85	72.92	73.00	73.27	---	---	---
25	73.55	73.20	72.89	72.76	72.63	72.84	73.05	73.03	73.26	---	---	---
26	73.51	73.19	72.88	72.76	72.62	72.83	73.18	73.03	73.25	---	---	---
27	73.48	73.18	72.87	72.75	72.60	72.82	73.18	73.06	73.24	---	---	---
28	73.47	73.18	72.87	72.77	72.58	72.81	73.18	73.07	73.24	---	---	---
29	73.45	73.18	72.87	72.80	---	72.83	73.16	73.06	73.22	---	---	---
30	73.43	73.15	72.87	72.80	---	72.86	73.16	73.05	73.21	---	---	---
31	73.41	---	72.86	72.82	---	72.86	---	73.13	---	---	---	---
MEAN	73.55	73.27	72.98	72.80	72.72	72.73	73.01	73.00	73.17	---	---	---
MAX	73.67	73.40	73.13	72.86	72.83	72.88	73.18	73.14	73.27	---	---	---
MIN	73.41	73.15	72.86	72.75	72.58	72.57	72.79	72.87	73.07	---	---	---

CAL YR 1990 MEAN 72.87 MAX 73.69 MIN 71.77

COASTAL AREA FROM TAMPA BAY TO WITHLACOOCHEE RIVER

02310290 MOON LAKE NEAR NEW PORT RICHEY, FL

LOCATION.--Lat 28°17'07", long 82°37'00", in NW¼ sec.28, T.25 S., R.17 E., Pasco County, Hydrologic Unit 03100207, on southwest shore of lake, on private dock, 6.5 mi northeast of New Port Richey, and 6.5 mi north of Odessa.

SURFACE AREA.--98.2 acres (0.15 mi^2).

DRAINAGE AREA.--0.37 mi^2.

PERIOD OF RECORD.--January 1965 to current year (thrice weekly), incomplete.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Jan. 10, 1973, at site 1,400 ft northwest on northwest shore of lake at same datum.

REMARKS.--Lake has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 40.94 ft, Aug. 1, 3, 1984; minimum observed, 34.96 ft, June 7, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 39.18 ft, Sept. 18, 20; minimum observed, 35.90 ft, May 16.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.46	37.16	36.82	36.52	---	36.16	---	---	---	36.26	37.94	39.12
2	---	---	36.80	---	36.44	---	36.28	36.20	---	36.40	---	---
3	37.44	---	---	36.50	---	36.30	---	---	36.40	36.46	---	39.14
4	37.43	37.12	36.78	---	36.42	---	36.25	36.18	---	---	38.10	---
5	---	---	---	---	---	36.28	---	---	36.38	36.40	---	39.14
6	37.40	37.10	36.78	36.48	36.38	---	36.37	36.14	---	36.52	38.13	39.13
7	37.38	---	---	---	---	36.26	---	---	36.33	---	---	39.12
8	---	37.08	36.76	36.46	36.36	---	36.34	36.12	---	36.52	---	---
9	37.34	37.08	36.76	---	---	36.24	---	---	36.30	36.56	---	39.15
10	---	---	---	36.44	---	---	36.40	---	---	---	38.10	39.14
11	37.48	37.06	---	---	---	36.22	---	36.08	36.26	36.74	---	39.10
12	---	---	36.72	36.52	---	---	36.46	36.02	---	36.90	38.10	---
13	---	37.04	---	---	---	36.20	---	---	36.20	37.06	38.12	39.10
14	37.48	---	36.66	36.49	---	36.18	36.44	35.96	---	37.10	---	---
15	---	37.00	---	---	---	---	---	---	---	---	38.10	39.10
16	---	---	36.64	36.54	---	36.16	36.42	35.90	36.16	37.16	38.10	---
17	---	36.94	36.64	36.54	---	---	---	---	---	---	---	39.08
18	37.42	36.93	---	---	---	36.37	36.40	36.04	36.22	37.26	38.08	39.18
19	---	---	36.62	36.46	---	---	---	---	36.24	---	---	---
20	37.40	36.90	---	---	---	36.35	36.38	36.18	---	37.28	38.26	39.18
21	37.38	---	36.60	36.44	---	---	---	---	36.22	37.30	---	---
22	---	36.86	---	---	---	36.33	36.35	---	---	---	---	39.16
23	---	---	36.56	36.40	---	36.31	---	---	36.18	37.29	38.30	---
24	37.34	36.88	---	---	---	---	36.32	36.11	36.20	---	38.70	39.12
25	---	36.86	---	---	---	36.35	---	---	---	37.28	38.76	---
26	37.40	---	---	36.38	---	---	36.30	---	36.17	---	---	39.10
27	---	36.86	36.54	---	---	---	---	36.40	36.15	37.26	38.84	39.08
28	37.24	---	---	36.42	---	36.32	36.26	---	---	37.36	38.98	---
29	---	36.84	36.54	---	---	---	---	36.38	---	---	39.02	39.06
30	---	---	---	---	---	36.30	36.22	---	36.10	37.40	39.04	39.06
31	37.18	---	36.52	36.45	---	---	---	36.40	---	37.55	---	---

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October 1, 1978

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
	Length	
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)
	Area	
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)
	Volume	
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)
	Flow	
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)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
227 N. Bronough Street, Suite 3015
Tallahassee, FL 32301