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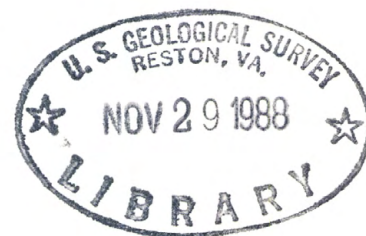
FLORIDA
1987



Water Resources Data Florida

Water Year 1987

Volume 4. Northwest Florida



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-87-4
Prepared in cooperation with the State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 1987

1986

OCTOBER

S	M	T	W	T	F	S
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1987

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Water Resources Data Florida Water Year 1987

Volume 4. Northwest Florida

by P.E. Meadows, J.B. Martin, and P.R. Mixson



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-87-4
Prepared in cooperation with the State of Florida
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

Prepared in cooperation with the
State of Florida
and with other agencies as listed
under cooperation

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Tallahassee, Florida 32301

WATER RESOURCES DATA FOR FLORIDA, 1987
Volume 4: Northwest Florida

III

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 P. R. Mixson under the supervision of M. A. Franklin, J. B. Martin and P. E. Meadows. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data.

A. E. Alvarez	J. B. Martin
L. L. Batts	P. E. Meadows
J. G. Collins	P. R. Messer
J. D. Goin	R. A. Orr
G. T. Losey	L. A. Shannon

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.

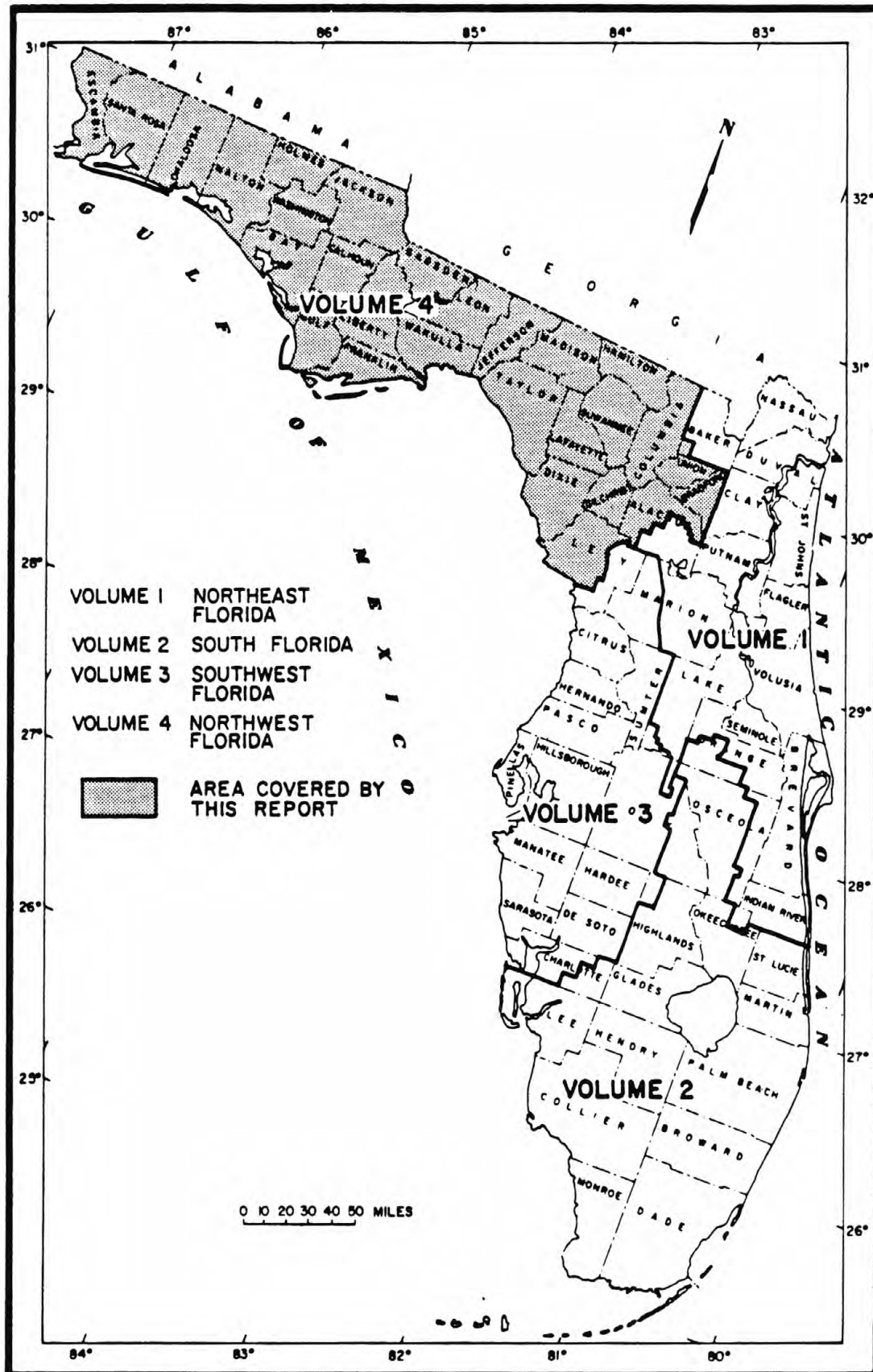


Figure 1.—Geographic area covered by this report.

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[Letters after station names designate type of data: (d) discharge,
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INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, local, and Federal agencies, obtains a large amount of data pertaining to the water resources of Florida each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. 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. This volume contains records for water discharge at 49 gaging stations; stage only at 1 gaging station; stage and/or contents at 9 lakes and reservoirs; water quality at 20 gaging stations and 21 wells; and water levels at 187 observation wells. Also included are data for 50 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the network data-collection program. No discharge measurements were made at low-flow partial-record stations. Miscellaneous data were collected at 6 measuring sites.

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-86-4." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (904) 681-7620.

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:

Florida Department of Environmental Regulation	County of Walton
Florida Department of Transportation	City of Perry
Northwest Florida Water Management District	City of Quincy
Suwannee River Water Management District	City of Tallahassee
Escambia County Utilities Authority	Corps of Engineers, U.S. Army,
Suwannee River Authority	Mobile District
County of Leon	U.S. Bureau of Land Management

Assistance with funds or services was given by the U.S. Army Corps of Engineer, Mobile District, in collecting records for 8 hydrologic gaging stations throughout northwest Florida.

WATER RESOURCES DATA FOR FLORIDA, 1987
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SUMMARY OF HYDROLOGIC CONDITIONS

Rainfall

Rainfall for Northwest Florida was above average for the 1987 water year. Based on six National Oceanic and Atmospheric Administration stations, Cross City, Lake City, Madison, Tallahassee, Chipley, and Pensacola, total rainfall for the 12 month period ranged from 62 inches at Madison to 85 inches at Pensacola. The cumulative monthly departure for the water year ranged from 6 inches at Chipley to 24 inches at Pensacola. The rainfall distribution, however, was not uniform with the first six months receiving the majority of the rain. The following summary gives the cumulative rainfall and departure from the 30 year (1951-80) normal for each of the stations.

Station	<u>October - March</u>		<u>April - September</u>		<u>Water Year</u>	
	Total Rain	Departure	Total Rain	Departure	Total Rain	Departure
Cross City	42.83	+23.34	35.30	-1.89	78.13	+21.45
Lake City	35.80	+15.81	32.08	-2.47	67.88	+13.64
Madison	45.62	+23.77	16.40	-13.61	62.02	+10.16
Tallahassee	40.39	+12.61	38.40	+0.06	78.79	+12.67
Chipley	32.91	+7.67	30.09	-1.49	63.00	+6.18
Pensacola	42.08	+15.96	43.31	+8.27	85.39	+24.23

Surface Water

The unusually heavy fall and winter rains caused streams in the panhandle to recover from the near record lows reached during the summer of 1986. Streams in the eastern part of the area that were not unusually low during the summer responded with record or near record flows for the fall and winter.

Annual mean stream flow for Northwest Florida ranged from 25 percent below to 75 percent above average for the 1987 water year. Annual mean flows in the panhandle were very near normal with the exception of the large streams draining south-central Alabama which were 20 to 25 percent below the long-term average flow. Mean flow for streams from the Big Bend area east and south ranged from 20 to 75 percent above the long term average flow. The record or near record monthly mean flows in this area were the result of long periods of well above-normal flows rather than record peak-flow events.

Stream flows in the Suwannee and Ochlockonee River Basins started the water year slightly below median, but, with the onset of the heavy fall rains, gained until near-record monthly flows were reached in January and February. Coastal streams between the Suwannee River and the Ochlockonee River started the year with median flows in October and approached or set new high monthly mean-flow records from December through March. Streams in the panhandle generally started the year below to well below median, but had recovered to slightly above median flow by January. Starting with the period of deficient rainfall in April, streams across the area covered by this report began a decline with most ending the water year near or below median.

Figures 2-8 present discharge hydrographs for some representative streams in Northwest Florida. The upper graph shows the 1987 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record. The lower graph shows the monthly mean discharge for the period 1978-1987.

Ground Water

Water levels in the Floridan aquifer system began the water year very near median levels except in the central panhandle, where levels were below normal. Water levels began a steady rise with the unusually high fall and winter rains, which continued into late spring or early summer, before leveling off or declining to near median levels by September. Water levels in the Big Bend area maintained the levels reached in early spring and set new record high levels for July through September. Water levels in the southern part of the area declined from a new record high May level to very near median by the end of the water year as a result of the large deficiency in summer rainfall.

Water levels in the sand-and-gravel aquifer, in extreme western Florida, continued to be well below normal for most of the year. The extremely large surplus of rainfall in the Pensacola area contributed to water levels recovering to only slightly below median level by September.

Figures 9-11 present water-level hydrographs for some representative wells in the Northwest Florida area. The graphs show the 1987 monthly maximum water level compared to the maximum, minimum, and median monthly maximum water level for the period of record.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

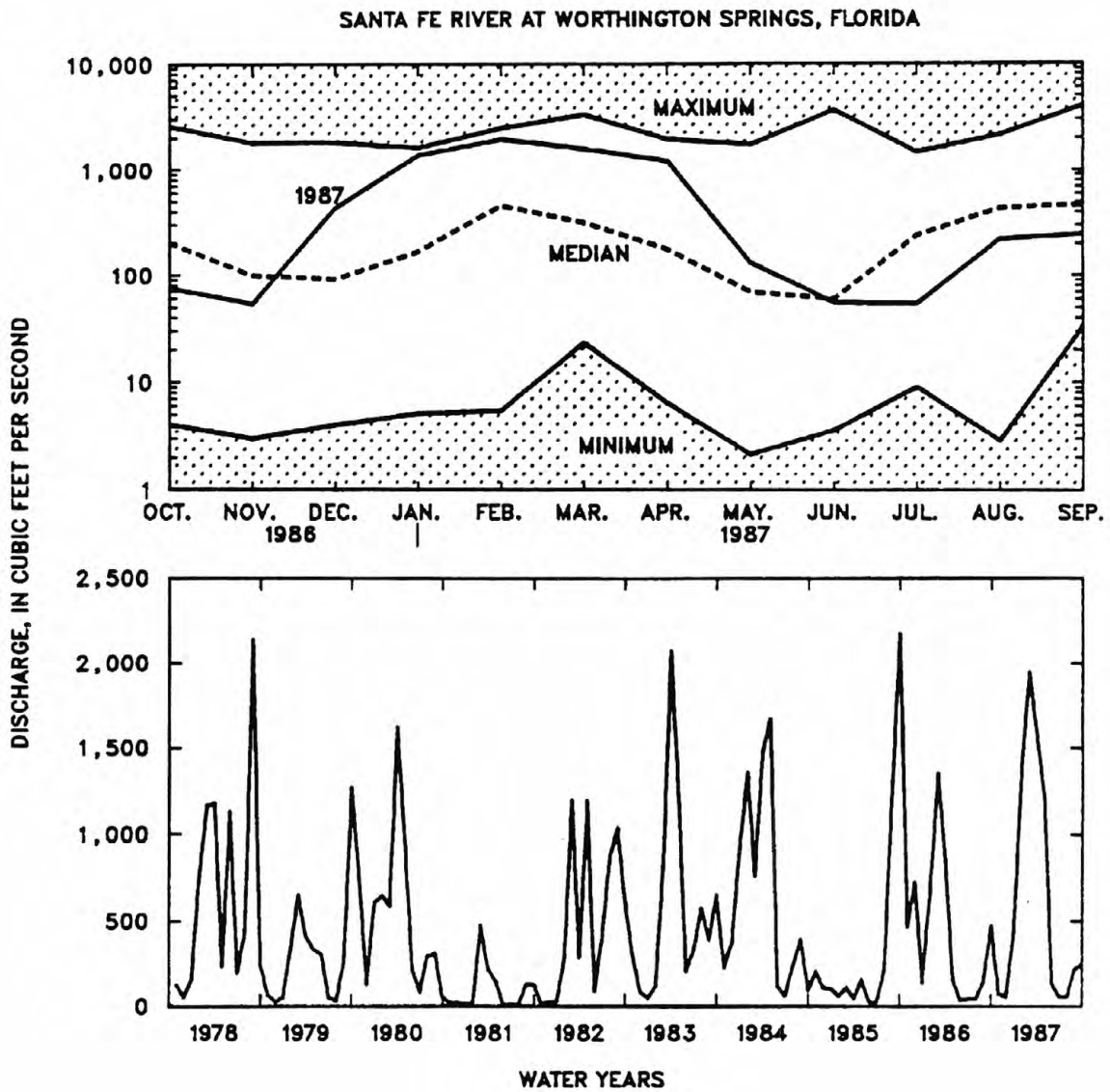


Figure 2.--Santa Fe at Worthington Springs 1987 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and the monthly mean discharge for the period 1978-1987.

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SUMMARY OF HYDROLOGIC CONDITIONS—Continued

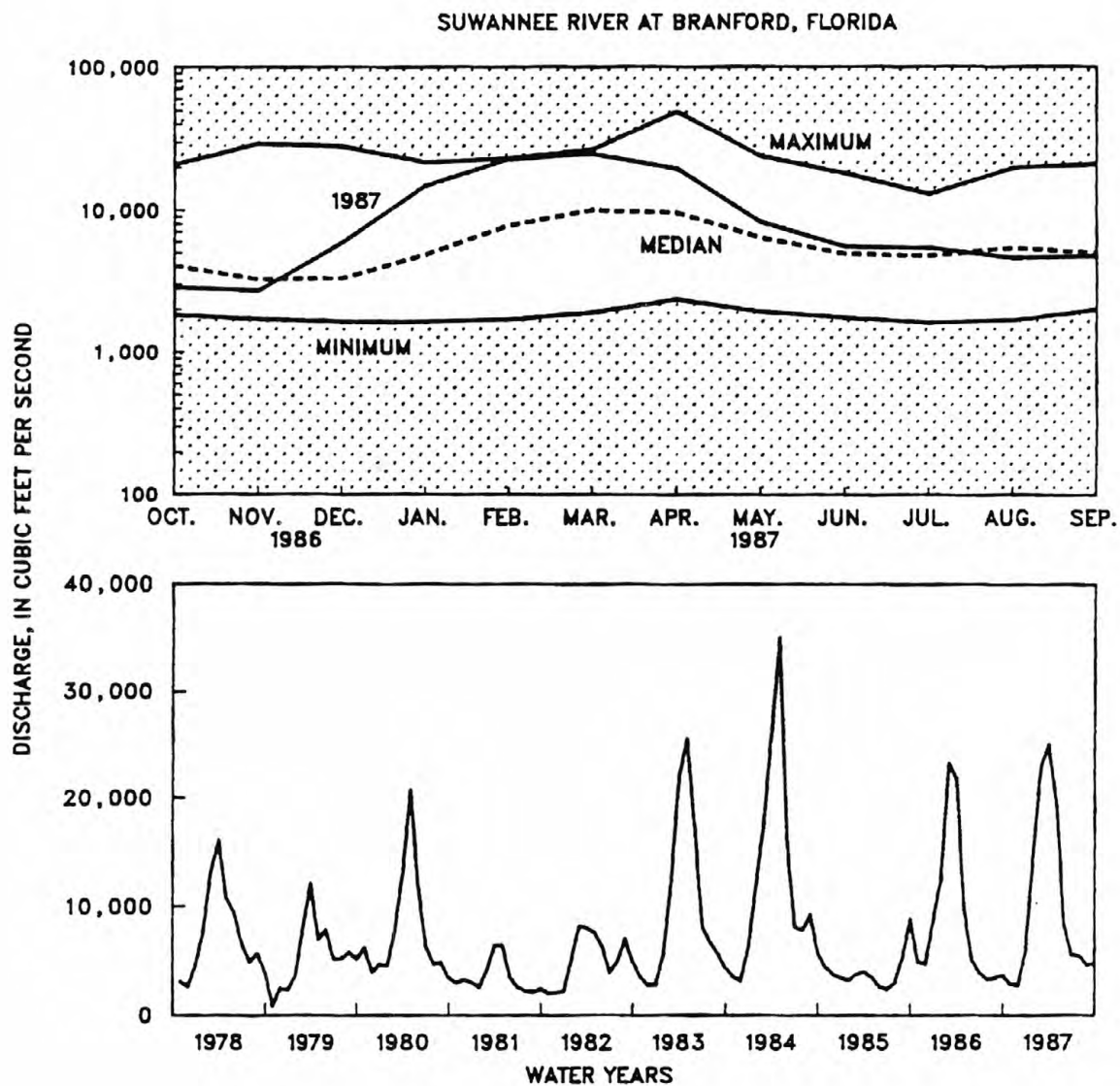


Figure 3.—Suwannee River near Branford 1987 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and the monthly mean discharge for the period 1978-1987.

SUMMARY OF HYDROLOGIC CONDITIONS—Continued

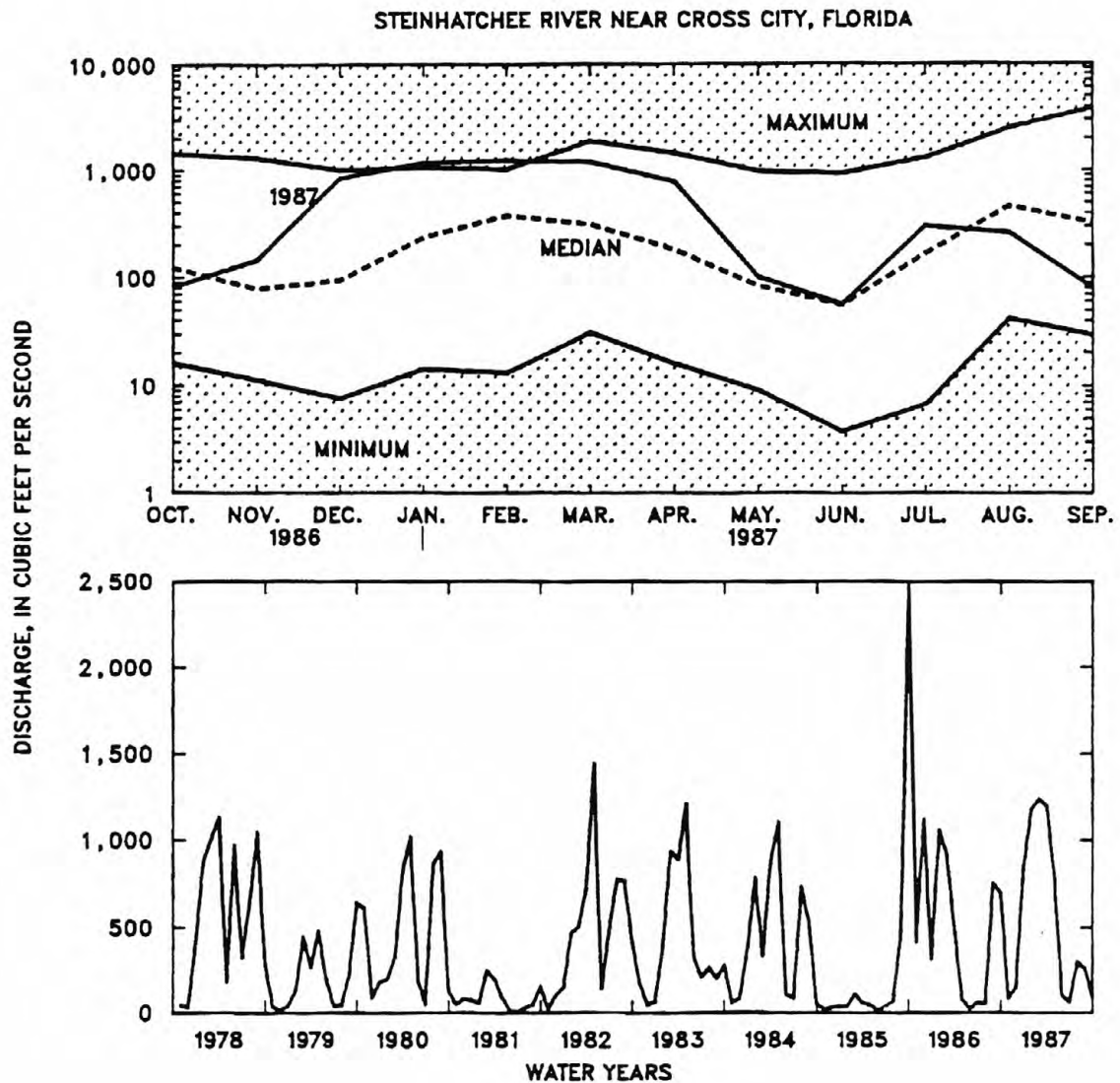


Figure 4.--Steinhatchee River near Cross City 1987 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and the monthly mean discharge for the period 1978-1987.

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SUMMARY OF HYDROLOGIC CONDITIONS—Continued

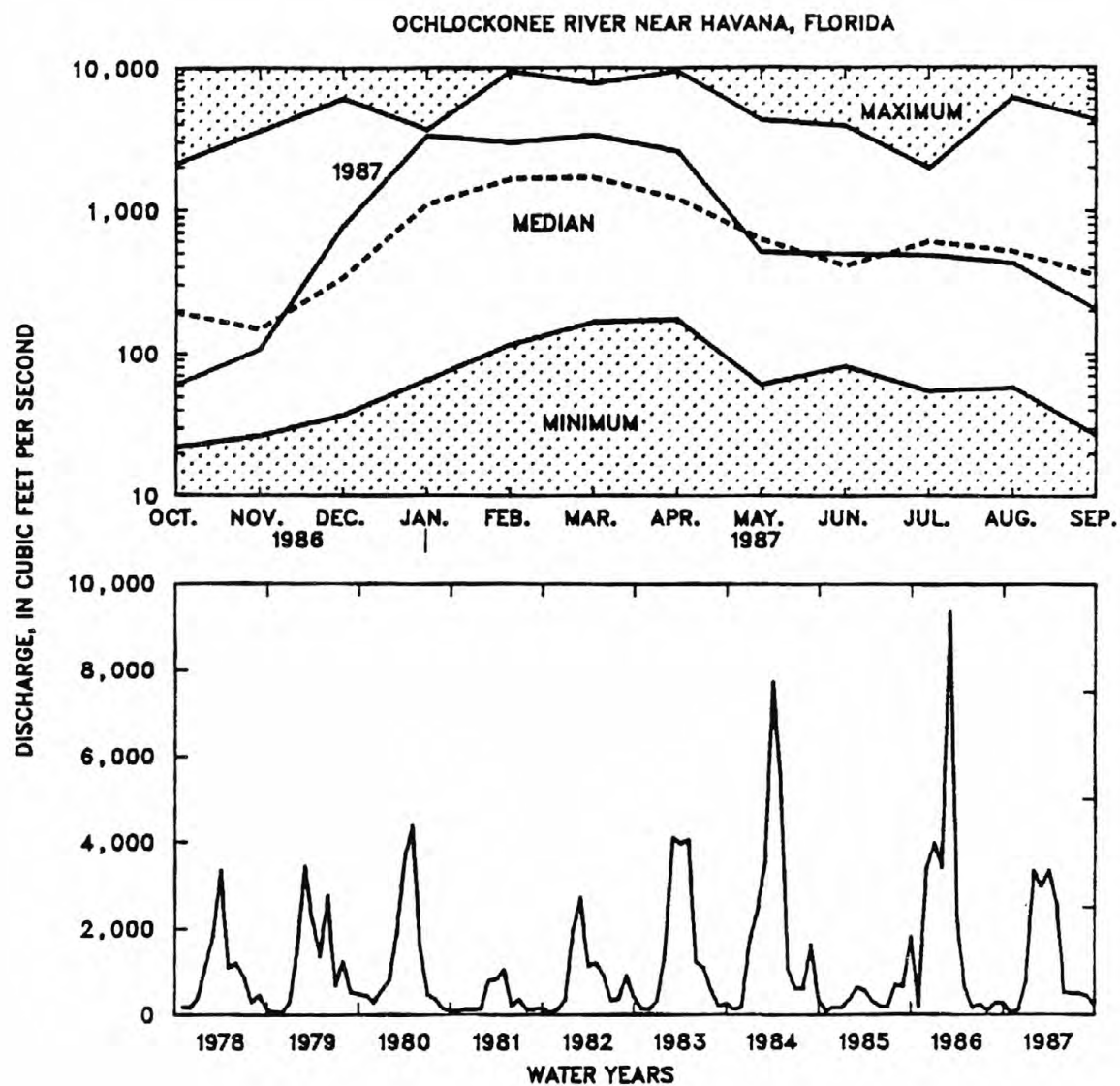


Figure 5.—Ochlockonee River near Havana 1987 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and the monthly mean discharge for the period 1978-1987.

SUMMARY OF HYDROLOGIC CONDITIONS—Continued

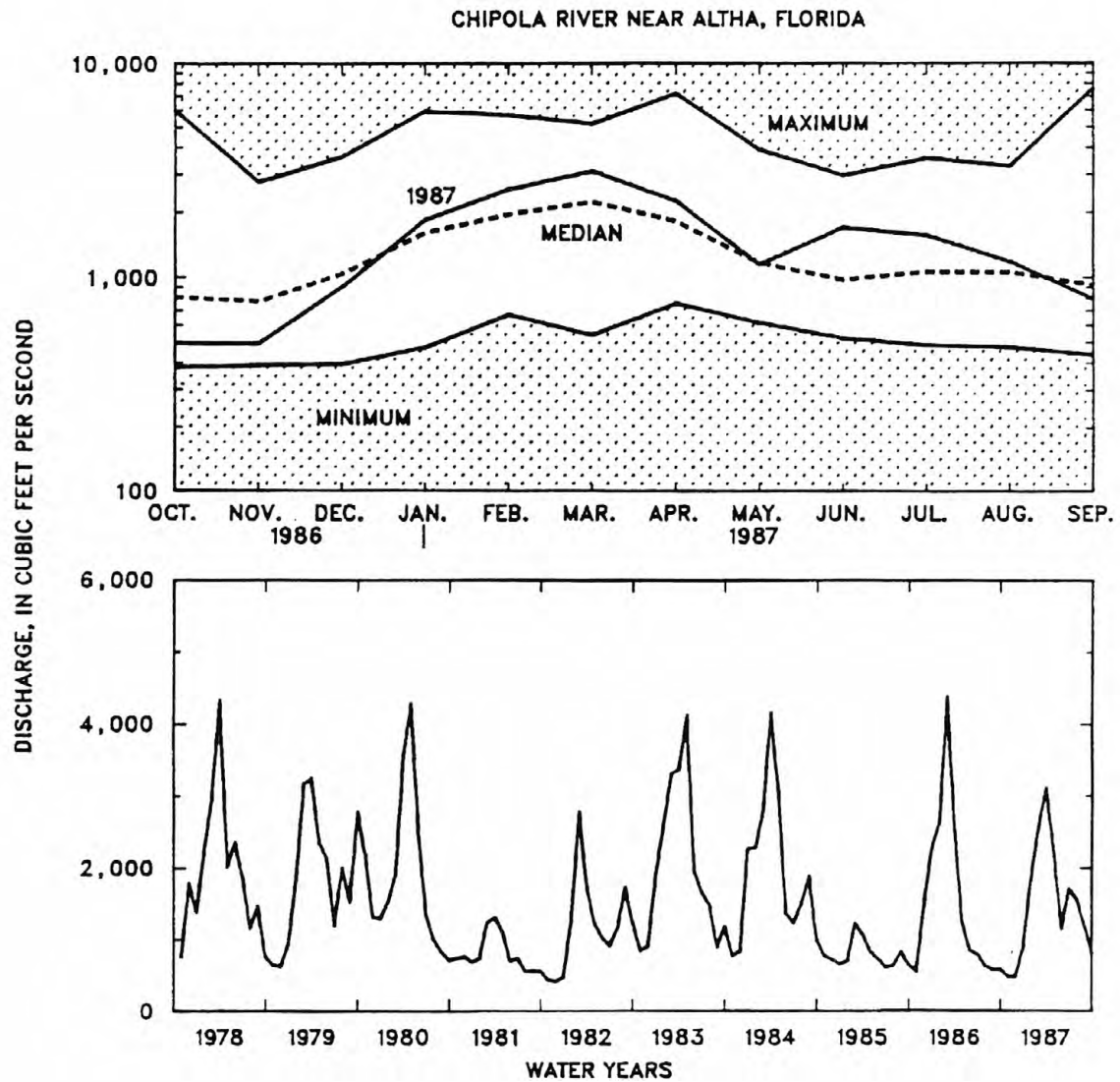


Figure 6.--Chipola River near Altha 1987 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and the monthly mean discharge for the period 1978-1987.

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SUMMARY OF HYDROLOGIC CONDITIONS—Continued

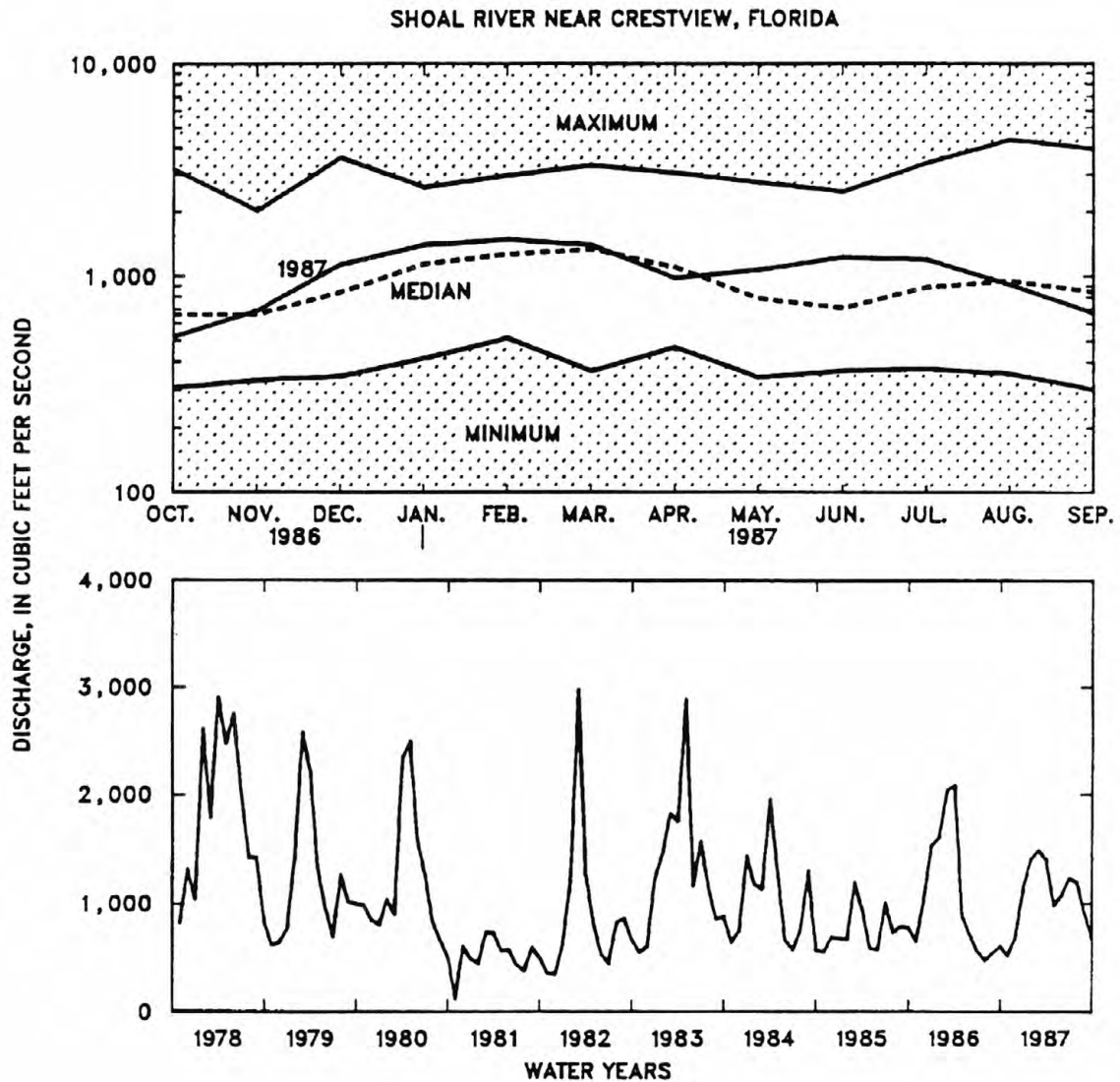


Figure 7.—Shoal River near Crestview 1987 mean monthly discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and the monthly mean discharge for the period 1978–1987.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

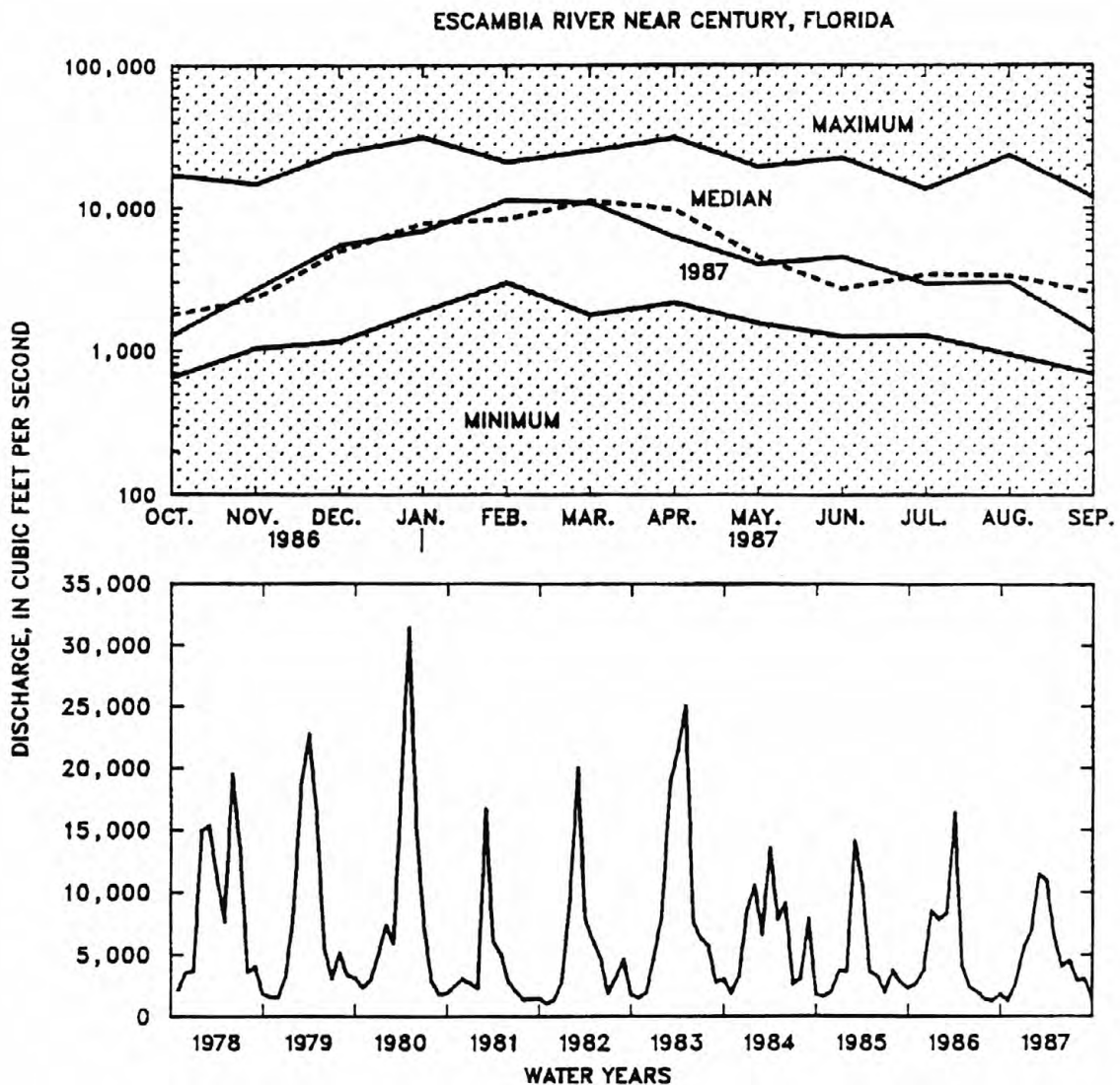


Figure 8.--Escambia River near Century 1987 monthly mean discharge compared to the maximum, minimum, and median monthly mean discharge for the period of record, and the monthly mean discharge for the period 1978-1987.

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SUMMARY OF HYDROLOGIC CONDITIONS—Continued

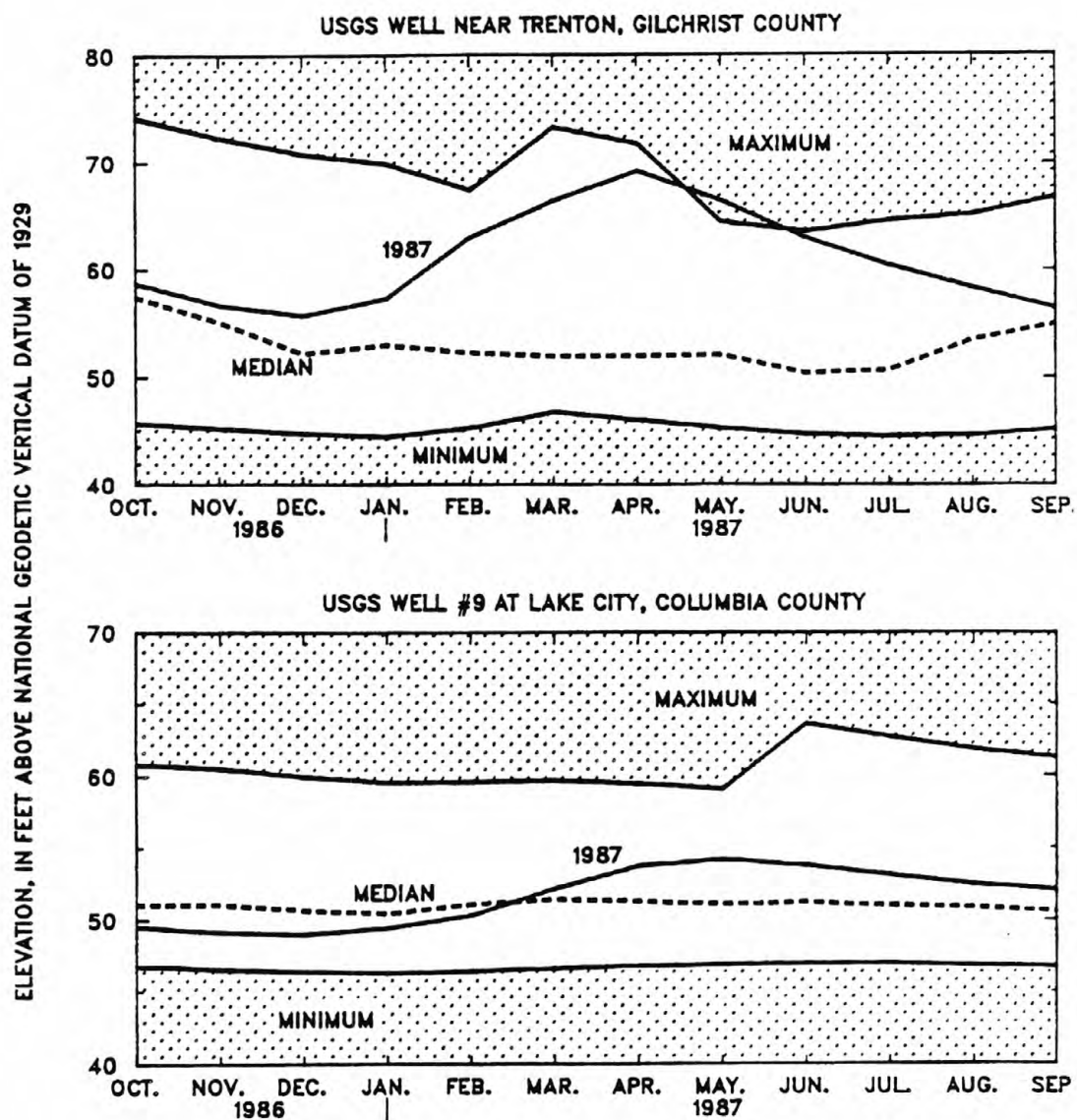


Figure 9.--1987 monthly mean maximum water level compared to the maximum, minimum, and median monthly maximum water level for the period of record for a USGS well Near Trenton, Gilchrist County and USGS well #9 at Lake City, Columbia County.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

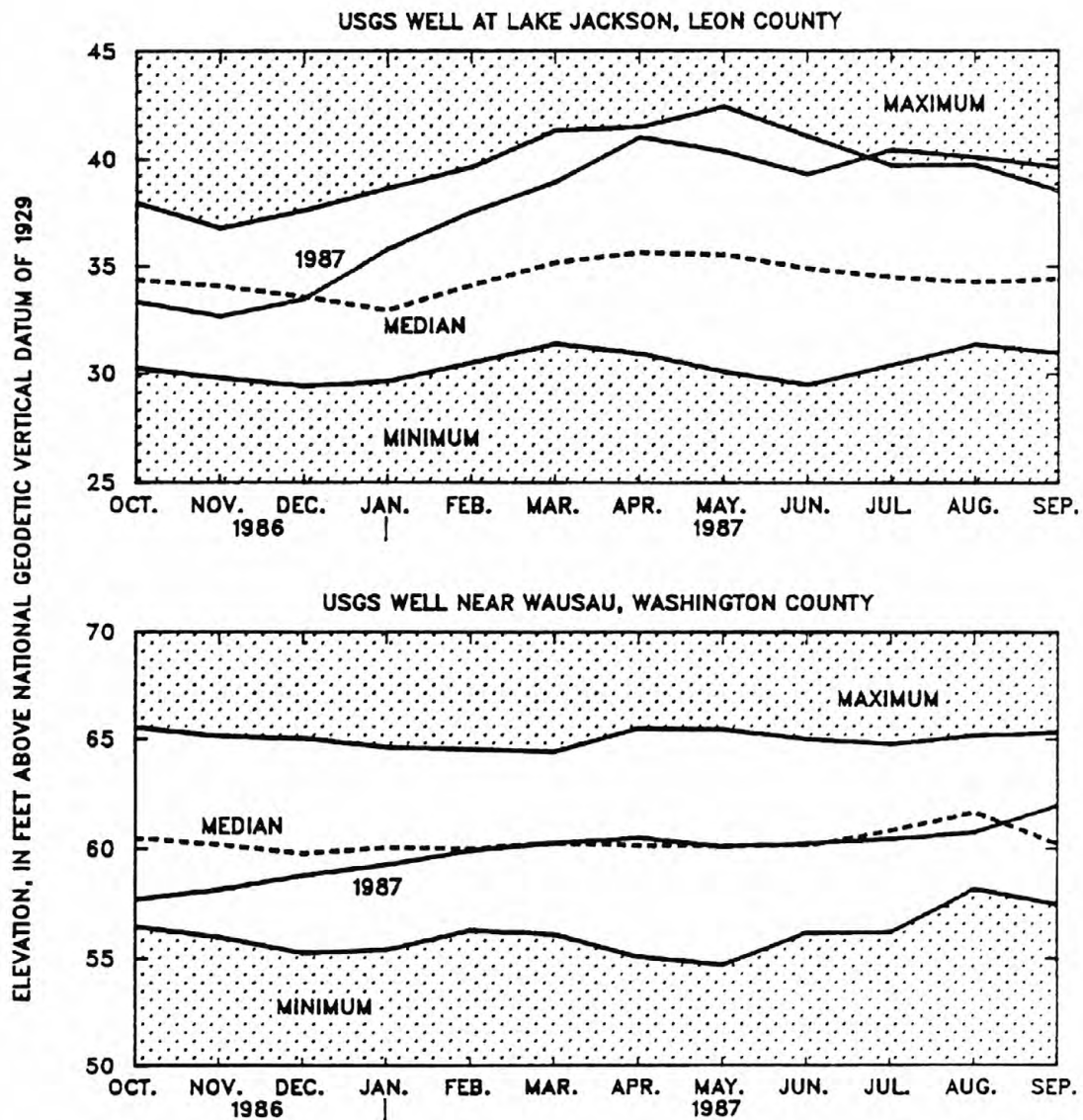


Figure 10.—1987 monthly mean maximum water level compared to the maximum, minimum, and median monthly maximum water level for the period of record for a USGS well at Lake Jackson, Leon County and a USGS well near Wausau, Washington County.

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SUMMARY OF HYDROLOGIC CONDITIONS--Continued

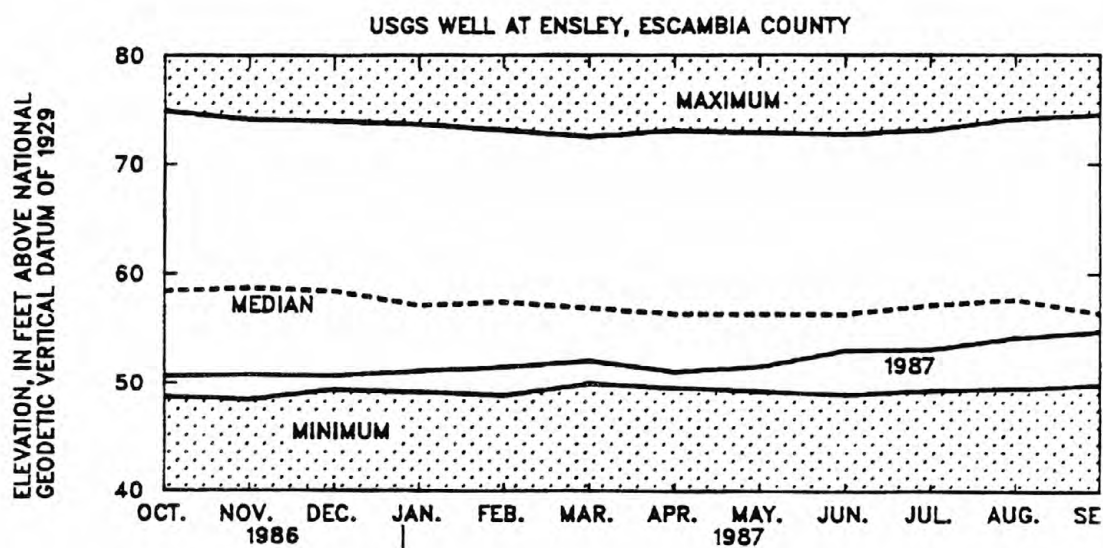


Figure 11.--1987 monthly mean maximum water level compared to the maximum, minimum, and median monthly maximum water level for the period of record for a USGS well at Ensley, Escambia County.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

Surface-Water Quality

Specific conductance and total phosphorus concentration were selected as measures of ambient water-quality conditions. Specific conductance is an estimate of dissolved substances (see definition of terms). The average specific conductance by water year for three major rivers in northwest Florida is shown in figure 12. The average specific conductance for the 1987 water year was, respectively, 223 $\mu\text{m}/\text{cm}$ (micromoles per centimeter)—Suwannee River; 122 $\mu\text{m}/\text{cm}$ —Apalachicola River; and 88 $\mu\text{m}/\text{cm}$ —Escambia River. The average specific conductance for the 1987 water year was slightly less than the long-term average (229 $\mu\text{m}/\text{cm}$) for the Suwannee River and slightly greater than the period of record average (94 $\mu\text{m}/\text{cm}$) for the Apalachicola River and (83 $\mu\text{m}/\text{cm}$) for the Escambia River. The average specific conductance for the three monitoring sites does not indicate persistent trends as a function of time. The apparent variation in average specific conductance among water years for the Suwannee River is likely caused by variable mixes of springflow (ground water) and over-land runoff.

Phosphorus is an important primary nutrient for aquatic plants and long-term changes in phosphorus concentrations may indicate effects of land-use change within a stream drainage basin. The average concentrations of total phosphorus by water year for three major rivers are shown in figure 13. The average total phosphorus concentration for the 1987 water year was 0.23 mg/L (milligrams per liter) for the Suwannee River and about 0.03 mg/L for the Apalachicola and Escambia Rivers. The average concentrations of phosphorus for the 1987 water year were about the same as the long-term averages and no persistent trend with time is evident. The phosphorus concentrations for the Apalachicola and Escambia Rivers are consistently less than 0.1 mg/L. For the Suwannee River, however, total phosphorus ranges from 0.1 to 1.30 mg/L. The greater concentrations in the Suwannee River are likely the result of naturally occurring phosphate-bearing rock in the drainage basin.

Ground-Water Quality

Selected quality conditions of ground water are depicted using concentrations of chloride at two long-term monitoring wells. Chloride concentrations for the Selma Madara well near Freeport in Walton County, a 250-foot deep, Floridan aquifer system well, is shown in figure 14. The chloride concentration in water from the Selma Madara well ranged from 110 to 120 mg/L (milligrams per liter) and averaged 111 mg/L during the 1987 water year. A notable decrease in chloride concentration is indicated since monitoring began at this well in the early 1970's. Prior to the 1987 water year, the long-term average concentration of chloride was 160 mg/L; however, concentrations have remained relatively constant since 1985. Chloride concentrations for the Mary Esther well number 2 at Mary Esther in Okaloosa County, a 764-foot deep, Floridan aquifer system well, is shown in figure 15. Chloride concentrations during the 1987 water year ranged from 57 to 61 mg/L in water from the Mary Esther well. Prior to the 1987 water year, chloride concentrations ranged 50 to 63 mg/L. Thus, no long-term change in chloride concentrations in water from the Mary Esther monitoring well is indicated.

SUMMARY OF HYDROLOGIC CONDITIONS—Continued

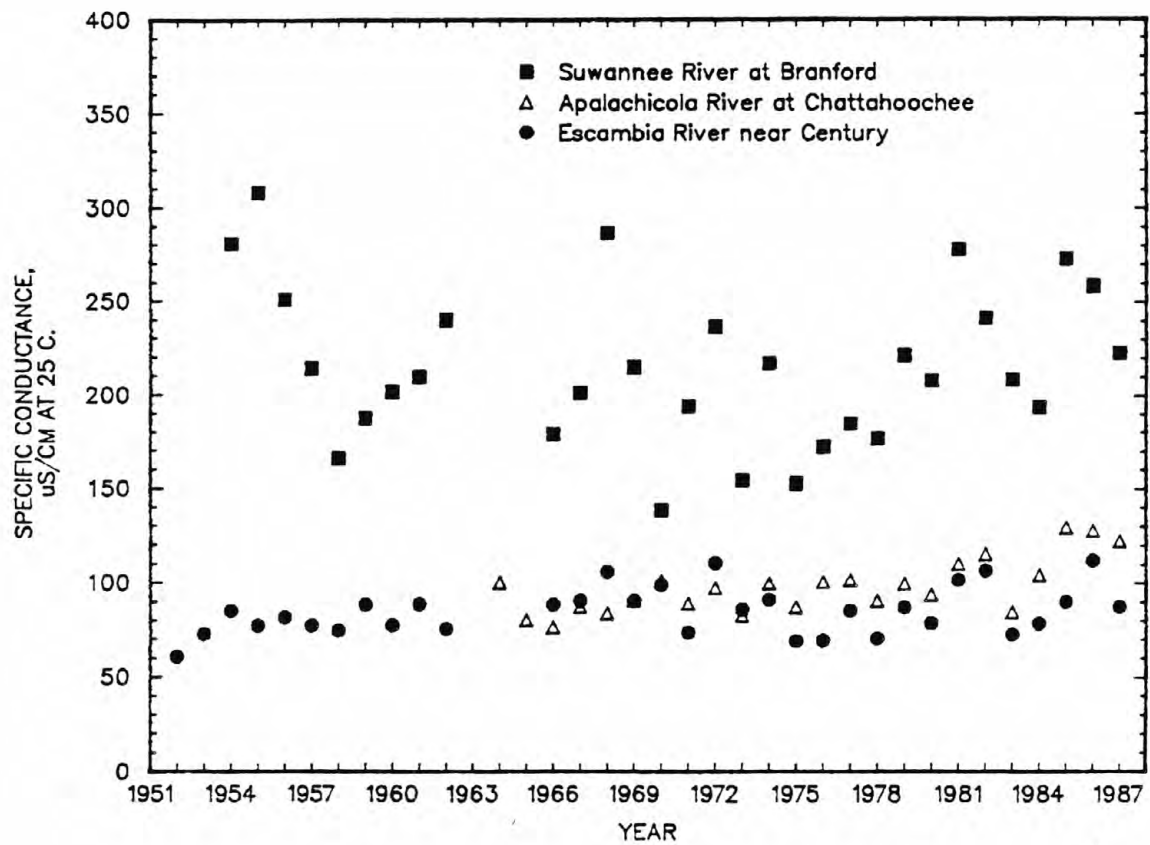


Figure 12.—Average specific conductance by water year for three northwest Florida rivers.

SUMMARY OF HYDROLOGIC CONDITIONS—Continued

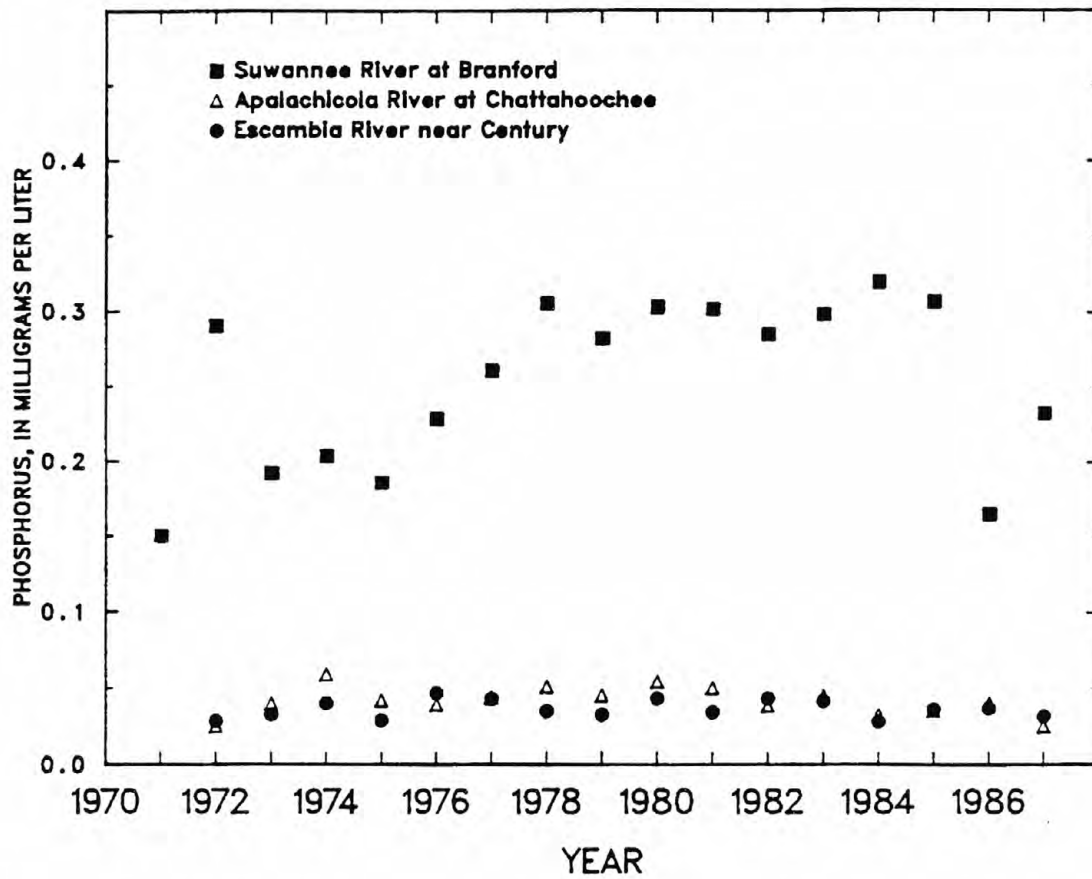


Figure 13.-- Average total phosphorus by water year for three northwest Florida rivers.

Figure 14.—Chloride concentrations for well 301721086101401, Selma Madara well near Freeport, Florida.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

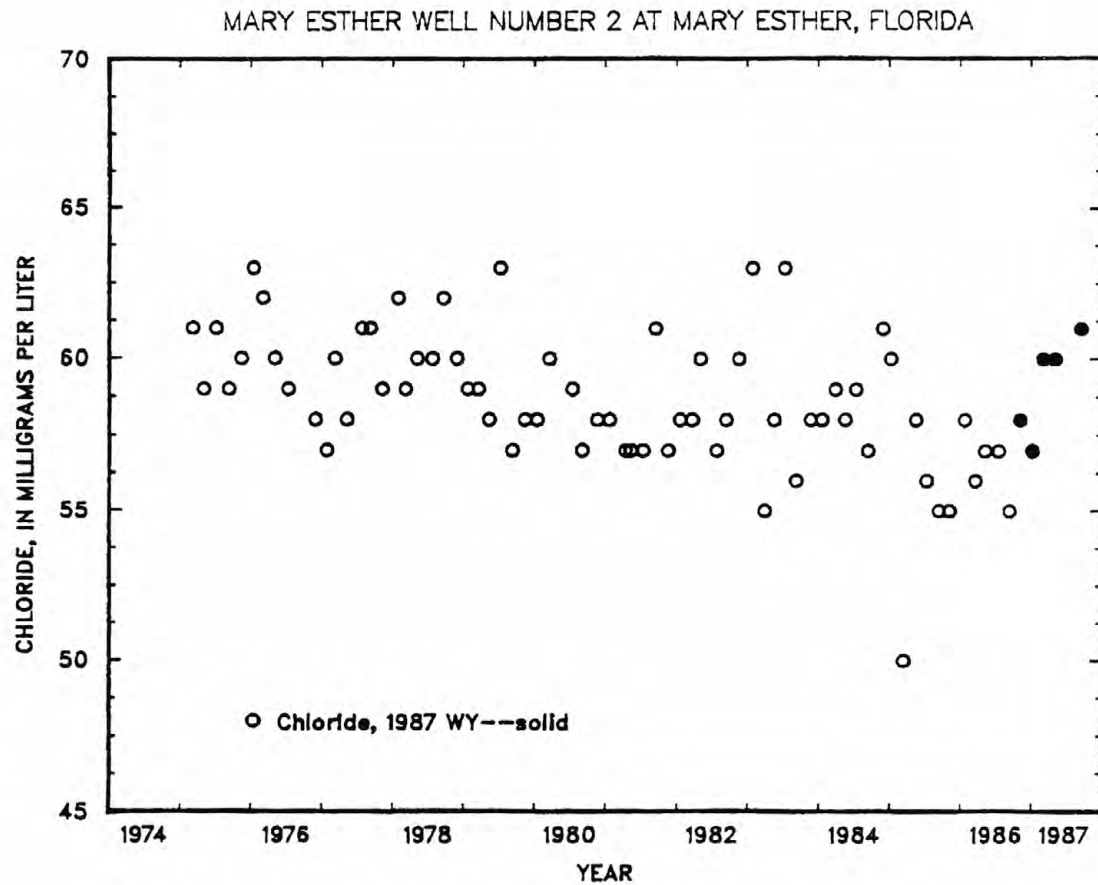


Figure 15.--Chloride concentrations for well 302442086394001, town of Mary Esther well number 2 at Mary Esther, Florida.

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 are shown in Figure 16.

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.

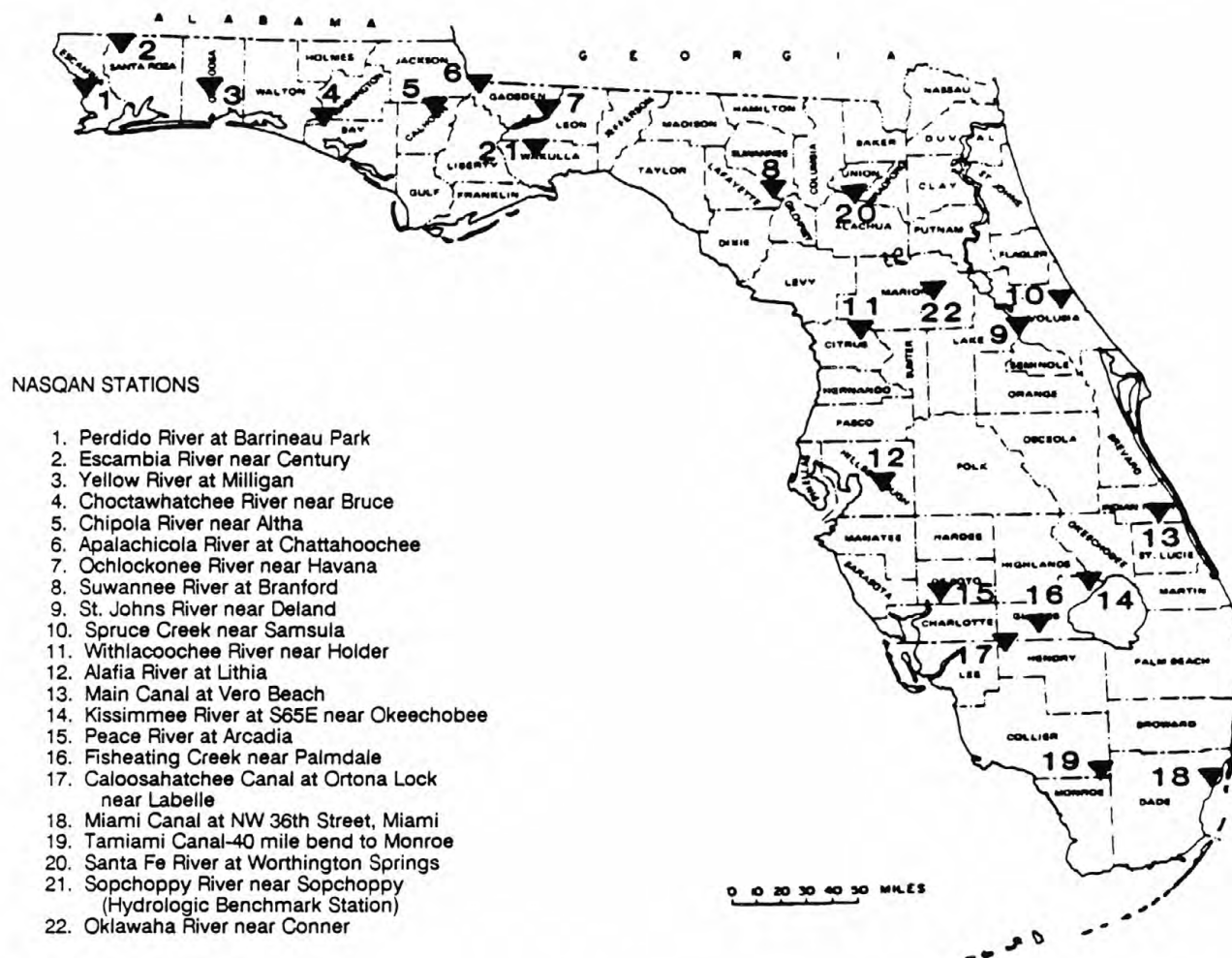


Figure 16.-NASQAN stations in the State of Florida

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1987 water year that began October 1, 1986, and ended September 30, 1987. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous 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 number for each station, such as 02326500, which appears just to the left of the station name, includes the two-digit Part number "02" plus the 6 to 13 digit downstream-order number "326500." The part number refers to an area whose boundaries coincide with natural drainage lines; for example, Part "02" is the South Atlantic Slope and eastern Gulf of Mexico basins.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a unique 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.)

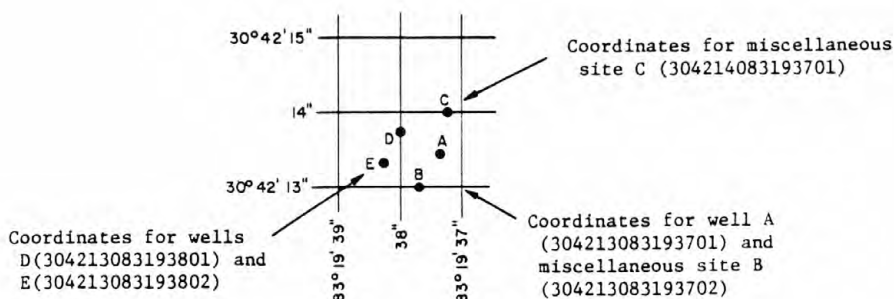


Figure 17.--System for numbering wells and miscellaneous sites (latitude and longitude)

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 recording device through which either instantaneous or mean daily discharges may be computed for any period of time. Complete records of lake or reservoirs, similarly, are those for which stage or content may be computed for any period of time. They may be obtained using a recording device or daily readings. Because daily mean discharges or elevations commonly are published for such stations, they are referred to as "daily stations."

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

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. Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records."

Data Collection and Computation

The base data collected at gaging stations consist of records of gage heights and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of gage height are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives the fluctuations on a paper tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. 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.

For stream-gaging stations, rating tables giving the discharge for any gage height are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge; such as slope-area, contracted opening measurements, computations of flow over dams or weirs, step backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation was subjected to change because of occasional or continual change in the physical features of the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by the technician are used in applying the gage-height corrections to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by the same method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from streams, tides, 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 determining 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 a rapid change in stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some stations there is no relation between stage and discharge because of the flat stream gradients and/or tidal fluctuations. Discharge is determined from ratings which are based on a relation between recorded velocity index unit at a fixed point and mean velocity at a fixed measuring section, and a relation between recorded stage and cross-sectional area at the measuring site.

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. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations. Records are published for the water year, which begins on October 1 and ends on September 30.

Data Presentation

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

Manuscript

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

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

PERIOD OF RECORD.—This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year.

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 glossary), 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 identified by date in this paragraph of the station description for water-discharge stations. (See next section, "Identifying Estimated Daily Discharge.") The paragraph will begin with this information presented as the first entry. This paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and 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.

EXTREMES FOR PERIOD OF RECORD.—Extremes may include maximum and minimum stages, discharges or contents. 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.

Data Table

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 are identified 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 cubic foot per second; to the nearest tenth between 1.0 and 10 cubic feet per second; to whole numbers between 10 and 1,000 cubic feet per second; and to 3 significant figures for more than 1,000 cubic feet per second. 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 Tallahassee 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.

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 is assuring that the data obtained represents the quality of the water in its natural state. 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 natural water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey.

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.

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.

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

Laboratory Measurements

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

Data Presentation

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 complete-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, 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. 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.

Remark Codes

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

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

Records of Ground-Water Levels

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

Data Collection and Computation

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

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

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

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

Data Presentation

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

Manuscript

WELL NUMBER.—This entry designates the unique well-identification number, based on latitude and longitude, and the local well number or name (or both).

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

AQUIFER.—This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well. The aquifer code also may be shown.

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

INSTRUMENTATION.—This paragraph provides information on both the measurement method used and the measuring point. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum).

DATUM.—The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

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

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

EXTREMES FOR PERIOD OF RECORD.—This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

Data Table

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

Records of Ground-Water Quality

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

Data Collection and Computation

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

Data Presentation

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

ACCESS TO WATSTORE DATA

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

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

General inquiries about WATSTORE may be directed to:

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

DEFINITION OF TERMS

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

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

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

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

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

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

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

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

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

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

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

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/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-feet-per-second day (CFS-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 feet 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 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

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

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

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

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

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

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

Elevation is a value given a gaging station or a ground-water well, for which the elevation of the gage datum has not been determined by leveling from a bench mark. The approximate elevation of the gage was then obtained by barometric observation or from topographic map.

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

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

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

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

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

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

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

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

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

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

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 (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

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

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

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

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

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

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

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

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

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.

Recurrence interval 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 return period.

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 (ft³/s) x 0.0027.

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

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

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

7-day 10-year low flow (7 Q₁₀) 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 emerged 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 planimeted. All areas shown are those for the stage when the planimeted map was made.

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

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

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

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

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 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 hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom	.	.	.	.	.	Animal
Phylum	.	.	.	.	.	Arthropoda
Class	.	.	.	.	.	Insecta
Order	.	.	.	.	.	phemeroptera
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.

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, 1987, is called the "1987 water year."

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

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

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

PUBLICATIONS OF 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-E1. APPLICATION OF BOREHOLE GEOPHYSICS TO WATER-RESOURCES INVESTIGATIONS, by W. S. Keys and L. M. MacCary: USGS-TWRI Book 2, Chapter E1. 1971. 126 pages.
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- 3-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 INDIRECT 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.
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- 3-A10. DISCHARGE RATINGS AT GAGING STATIONS, by E. J. Kennedy: USGS-TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. MEASUREMENT OF DISCHARGE BY MOVING-BOAT METHOD, by G. F. Smoot and C. E. Novak: USGS-TWRI Book 3, Chapter A11. 1969. 22 pages.
- 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-B1. AQUIFER-TEST DESIGN, OBSERVATION, AND DATA ANALYSIS, by R. W. Stallman: USGS-TWRI Book 3, Chapter B1. 1971. 26 pages.
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- 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.
- 4-A2. FREQUENCY CURVES, by H. C. Riggs: USGS-TWRI Book 4, Chapter A2. 1968. 15 pages.
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- 4-B3. REGIONAL ANALYSES OF STREAMFLOW CHARACTERISTICS, by H. C. Riggs: USGS-TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. COMPUTATION OF RATE AND VOLUME OF STREAM DEPLETION BY WELLS, by C. T. Jenkins: USGS-TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. METHODS FOR DETERMINATION OF INORGANIC SUBSTANCES IN WATER AND FLUVIAL SEDIMENTS, by M. W. Skougstad, and others, editors: USGS-TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. DETERMINATION OF MINOR ELEMENTS IN WATER BY EMISSION SPECTROSCOPY, by P. R. Barnett and E. C. Malloy Jr.: USGS-TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. METHODS FOR ANALYSIS OF ORGANIC SUBSTANCES IN WATER, by D. F. Goerlitz and Eugene Brown: USGS-TWRI Book 5, Chapter A3. 1972. 40 pages.
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- 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.
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- 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.
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- 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. INSTALLATION AND SERVICE MANUAL FOR U.S. GEOLOGICAL SURVEY MANOMETERS, by J. D. Craig: USGS-TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. CALIBRATION AND MAINTENANCE OF VERTICAL-AXIS TYPE CURRENT METERS, by G. F. Smoot and C. E. Novak: USGS-TWRI Book 8, Chapter B2. 1968. 15 pages.

STAGE, DISCHARGE, AND WATER QUALITY OF STREAMS

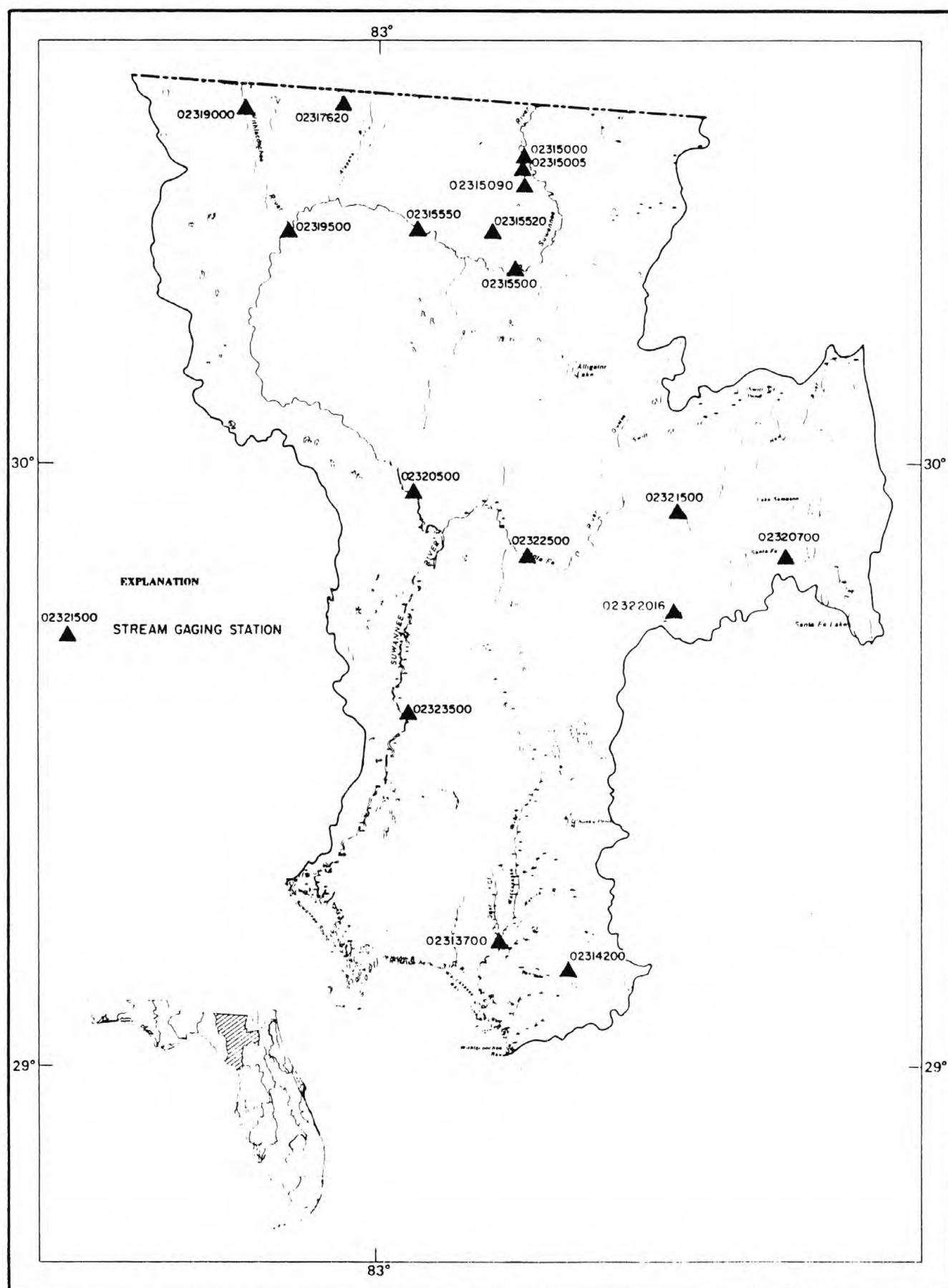


Figure 18.—Location of stream gaging stations in the Waccasassa and Suwannee River basins.

WACCASASSA RIVER BASIN

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02313700 WACCASASSA RIVER NEAR GULF HAMMOCK, FL

LOCATION.--Lat 29°12'14", long 82°46'09", in SW¹/₄ sec.2, T.15 S., R.15 E., Levy County, Hydrologic Unit 03110101, near right bank at abandoned railroad grade, 0.5 mi upstream from Otter Creek, 3.6 mi upstream from mouth, and 4 mi southwest of Gulf Hammock.

DRAINAGE AREA.--480 mi², approximately, including that of Otter Creek.

PERIOD OF RECORD.--March 1963 to September 1978; November 1980 to current year (fragmentary).

REVISED RECORDS.--WSP 2105: 1969. WRD FL-72-1: Drainage area.

GAGE.--Water-stage and water-current meter recorders. Datum of gage is 10.51 ft below National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1980, water-stage and deflection-meter recorders at same site at datum 10.00 ft higher.

REMARKS.--Records poor. Flow affected by tide. Discharge computed from continuous velocity record obtained from water-current meter. Records include flow of Otter Creek. Above bankfull stage, discharge measurements are made along abandoned railroad fill and include all flow from about 1.5 mi northwest to 0.8 mi northeast of gaging station.

AVERAGE DISCHARGE.--17 years (water years 1964-78, 86-current year), 308 ft³/s 223,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s Sept. 12, 1964, gage height, 16.96 ft present datum; maximum daily reverse flow 2,310 ft³/s Aug. 31, 1985, minimum gage height, 7.23 ft Nov. 23, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 2,260 ft³/s Apr. 4; maximum daily gage height 13.46 ft Mar. 31; maximum daily reverse flow 445 ft³/s Feb. 22; minimum daily gage height, 9.60 ft Nov. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	19	658	46	41	805	e700	213	56	483	107	93
2	69	7.8	940	333	-45	720	e1000	230	120	527	162	117
3	48	62	784	226	68	717	1220	240	82	639	256	243
4	-15	154	1190	170	215	749	2260	227	104	618	317	221
5	14	-297	738	289	80	806	1450	231	171	406	263	163
6	-56	35	607	209	50	892	849	187	181	214	207	71
7	51	128	511	197	86	e85	5.2	94	147	-84	69	-28
8	100	232	448	185	28	993	121	176	93	-185	-68	-26
9	275	291	353	184	250	1080	438	247	143	-169	-33	-65
10	186	100	241	40	269	1880	385	156	53	-290	108	48
11	292	186	148	179	356	1580	424	134	26	-33	141	-2.5
12	75	115	6.0	158	228	1310	419	98	-79	79	78	95
13	63	164	117	211	207	1060	417	125	71	130	254	237
14	66	204	302	-5.9	148	902	282	212	202	171	376	216
15	37	168	192	298	74	549	360	234	303	270	458	213
16	54	150	69	-86	112	591	516	245	125	189	612	178
17	39	68	50	27	160	129	423	160	111	161	512	203
18	58	124	44	16	263	577	505	238	-16	149	415	161
19	55	127	45	-47	197	-14	476	275	-164	106	396	84
20	4.3	137	49	-9.5	114	680	519	236	74	-62	370	133
21	-149	167	101	51	134	505	402	395	12	456	412	57
22	e-75	133	103	128	-445	377	294	325	37	491	386	57
23	-60	35	19	70	913	410	343	260	47	348	218	20
24	51	215	16	426	863	336	371	202	21	283	86	6.4
25	127	257	60	389	826	410	401	216	-27	189	41	-41
26	203	219	79	69	718	261	311	169	21	121	23	-34
27	165	196	41	247	673	e300	251	153	278	60	- .67	6.5
28	80	312	107	360	646	e400	173	161	314	16	-22	13
29	43	252	73	212	---	e100	206	117	348	16	2.8	27
30	-25	312	123	43	---	e200	208	141	432	12	53	208
31	-3.4	---	117	-80	---	e500	---	122	---	59	58	---
TOTAL	1834.9	4272.8	8331.0	4534.6	7229	19890	15729.2	6219	3286	5370	6257.13	2674.4
MEAN	59.2	142	269	146	258	642	524	201	110	173	202	89.1
MAX	292	312	1190	426	913	1880	2260	395	432	639	612	243
MIN	-149	-297	6.0	-86	-445	-14	5.2	94	-164	-290	-68	-65
AC-FT	3640	8480	16520	8990	14340	39450	31200	12340	6520	10650	12410	5300
CFSM	.12	.30	.56	.30	.54	1.34	1.09	.42	.23	.36	.42	.19
IN.	.14	.33	.65	.35	.56	1.54	1.22	.48	.25	.42	.48	.21

CAL YR 1986 TOTAL 94305.40 MEAN 258 MAX 1690 MIN -297 AC-FT 187100 CFSM .54 IN. 7.31
WTR YR 1987 TOTAL 85628.03 MEAN 235 MAX 2260 MIN -445 AC-FT 169800 CFSM .49 IN. 6.64

e Estimated

WACCASASSA RIVER BASIN

02314200 TENMILE CREEK AT LEBANON STATION, FL

LOCATION.--Lat 29°09'39", long 82°38'21", in SE¹/₄ sec.24, T.15 S., R.16 E., Levy County, Hydrologic Unit 03110101, near center of span on downstream side of bridge on U.S. Highways 19 and 98, just downstream from North Prong Tenmile Creek, 0.2 mi south of Lebanon Station, 9.4 mi upstream from mouth, and 13 mi northwest of Dunnellon.

DRAINAGE AREA.--26 mi², approximately; 34 mi², approximately, includes that of Horse Hole Creek.

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

GAGE.--Water-stage recorder. Datum of gage is 15.00 ft above National Geodetic Vertical Datum of 1929. Since Feb. 26, 1964, nonrecording gage at Horse Hole Creek. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Records do not include considerable amount of water diverted naturally above station into Horse Hole Creek basin. Discharge measurements of Horse Hole Creek, drainage area 8.1 mi², approximately, are made at bridge on U.S. Highways 19 and 98, 1.9 mi south of Tenmile Creek station.

AVERAGE DISCHARGE.--24 years, 38.5 ft³/s, 27,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,290 ft³/s Sept. 11, 1964, gage height, 12.38 ft; no flow for many days in 1964, 1967, 1977, 1981, 1985, 1986.

EXTREMES FOR PERIOD OF RECORD (Horse Hole Creek-02314205).--Maximum discharge measured, 1,270 ft³/s Sept. 11, 1964, elevation, 26.56 ft above NGVD; creek dry at times each year.

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

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 8	0100	415	9.08	July 2	2300	376	8.97
Mar. 31	0800	*699	*9.69				

Minimum discharge, 0.18 ft³/s Sept. 1.

Discharge measurements in cubic feet per second, of Horse Hole Creek near Lebanon Station for the water year 1987 are given in table below.

DATE	TIME	STREAM FLOW INSTAN- TANEOUS (CFS)	DATE	TIME	STREAM FLOW INSTAN- TANEOUS (CFS)
Oct. 21...	1340	.00	May 27...	1200	.01
Feb. 4...	1030	3.5	Aug. 4...	1350	.06
Mar. 31...	1200	57.6			

WACCASASSA RIVER BASIN

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02314200 TENMILE CREEK AT LEBANON STATION, FL--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	e6.4	68	63	37	72	443	2.9	.48	157	.96	.24
2	20	e5.7	74	65	32	88	311	2.5	.38	298	4.3	1.0
3	17	e5.0	85	60	29	80	245	2.1	.31	311	5.0	1.4
4	14	4.1	74	63	26	68	207	1.7	.36	223	7.1	1.3
5	12	3.2	61	72	30	57	173	1.7	2.0	175	4.2	1.1
6	9.9	2.8	49	66	71	47	143	2.6	12	136	2.6	.94
7	13	2.5	40	58	79	189	116	2.4	15	102	1.6	.78
8	18	2.1	33	51	88	379	96	1.9	14	81	.97	.62
9	16	1.7	28	45	85	299	83	1.6	11	67	.58	.46
10	21	1.5	25	41	75	232	72	1.4	7.9	55	.53	.33
11	24	1.3	25	42	64	180	62	1.7	5.2	42	1.8	.27
12	e22	1.2	36	37	54	143	53	1.7	3.1	32	1.7	6.1
13	e20	1.1	44	33	46	111	45	1.7	2.2	24	1.2	17
14	e17	1.1	42	30	39	89	38	2.5	3.6	18	1.2	11
15	e14	1.0	40	27	33	76	36	3.4	4.9	16	5.0	7.8
16	e12	1.0	36	27	30	64	38	6.2	2.3	14	11	8.7
17	e10	.95	33	26	27	54	34	6.1	1.3	11	15	11
18	e8.6	.95	29	25	24	47	30	5.2	.92	7.6	11	9.1
19	e7.4	.97	26	24	21	56	25	5.7	1.8	5.9	6.9	7.5
20	e6.4	1.1	23	24	19	53	22	8.4	1.5	5.7	4.4	7.1
21	e5.7	1.4	21	28	37	47	19	9.0	1.1	15	4.5	6.8
22	e5.4	1.3	19	69	83	41	17	12	2.8	15	8.6	5.1
23	e5.7	1.1	20	90	112	36	15	9.5	3.6	14	7.0	3.8
24	e6.3	.98	31	83	108	31	13	7.5	4.3	12	3.4	2.8
25	e7.5	.91	32	77	95	28	11	6.0	5.7	9.5	1.8	1.9
26	e9.0	.85	30	79	84	27	9.3	4.0	4.7	7.3	1.1	1.3
27	e10	.80	28	72	73	50	7.7	2.6	120	5.4	.71	.91
28	e9.3	.76	26	63	62	236	6.3	1.7	234	3.4	.52	.64
29	e8.6	3.8	23	56	---	250	5.0	1.2	195	2.2	.37	.47
30	e7.9	29	21	49	---	371	3.7	.81	174	1.3	.28	21
31	e7.2	---	23	43	---	648	---	.60	---	.95	.27	---
TOTAL	387.9	86.57	1145	1588	1563	4149	2379.0	118.31	835.45	1867.25	115.59	138.46
MEAN	12.5	2.89	36.9	51.2	55.8	134	79.3	3.82	27.8	60.2	3.73	4.62
MAX	24	29	85	90	112	648	443	12	234	311	15	21
MIN	5.4	.76	19	24	19	27	3.7	.60	.31	.95	.27	.24
AC-FT	769	172	2270	3150	3100	8230	4720	235	1660	3700	229	275
CFSM	.48	.11	1.42	1.97	2.15	5.15	3.05	.15	1.07	2.32	.14	.18
IN.	.55	.12	1.64	2.27	2.24	5.94	3.40	.17	1.20	2.67	.17	.20

CAL YR 1986 TOTAL 16284.93 MEAN 44.6 MAX 547 MIN .01 AC-FT 32300 CFSM 1.72 IN. 23.30
WTR YR 1987 TOTAL 14373.53 MEAN 39.4 MAX 648 MIN .24 AC-FT 28510 CFSM 1.51 IN. 20.57

e Estimated

SUWANNEE RIVER BASIN

02315000 SUWANNEE RIVER NEAR BENTON, FL

LOCATION.--Lat 30°30'26", long 82°42'59", in NE¹/₄ sec.9, T.1 N., R.16 E., Columbia County, Hydrologic Unit 03110201, near left bank on downstream side of bridge on State Highway 6, 3.7 mi northwest of Benton, 6.4 mi south of Florida-Georgia State Line, 13.7 mi east of Jasper, and 196 mi, upstream from mouth.

DRAINAGE AREA.--2,090 mi², approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year. Miscellaneous discharge measurements for some periods July 1934 to September 1975. Records for December 1931 to June 1934, at site 2.0 mi upstream (at Turner Bridge) not equivalent owing to difference in drainage areas.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Oct. 1, 1975 to Oct. 14, 1986, non-recording gage at same site and datum. Dec. 8, 1931 to June 30, 1934, nonrecording gage at site 2.0 mi upstream at datum unknown.

REMARKS.--Records good, except for estimated periods, which are fair.

AVERAGE DISCHARGE.--12 years, 1,574 ft³/s, 10.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,300 ft³/s Apr. 6, 1984, gage height, 99.90 ft; minimum daily, 5.0 ft³/s Aug. 9, 1977; minimum gage height, 74.10 ft, Oct. 27, 28, 29, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge measured, 27,700 ft³/s Apr. 6, 1973, gage height, 102.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft³/s Mar. 5, gage height, 96.45 ft; minimum, 6.5 ft³/s Oct. 27, 28, 29, gage height, 74.10 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e64	30	605	2230	8320	9590	7460	915	172	243	135	311
2	e55	30	760	2570	8180	9900	7740	838	152	366	137	484
3	e48	27	798	2620	8010	10100	7860	757	135	441	123	714
4	e41	25	787	2730	7820	10200	7890	684	124	477	116	747
5	e36	23	717	3140	7710	10300	7750	620	119	525	108	778
6	e33	22	628	3400	7740	10200	7480	565	114	564	100	1380
7	e30	22	552	3550	7780	10100	7130	525	105	600	90	2110
8	e28	21	499	3690	7810	10100	6640	491	98	676	e80	2450
9	e30	20	460	3790	7810	9990	6120	467	90	686	e70	2650
10	e45	19	485	3880	7750	9890	5670	442	84	718	e60	2630
11	e44	18	730	3980	7650	9780	5350	417	78	795	e55	2410
12	e37	16	1220	4000	7490	9590	5020	392	73	755	59	2090
13	e32	16	1900	3990	7300	9340	4680	376	71	679	122	1810
14	e27	16	1940	3970	7060	9070	4320	365	75	608	253	1620
15	23	15	1930	3920	6760	8770	3970	366	71	553	806	1480
16	19	14	1900	3880	6500	8430	3670	363	68	517	928	1320
17	15	15	1840	4100	6240	8070	3400	369	69	496	940	1200
18	14	26	1740	4400	5980	7680	3110	370	83	468	907	1120
19	13	78	1640	4620	5750	7340	2880	373	74	435	830	1030
20	12	298	1560	4830	5630	6960	2640	392	74	405	735	959
21	11	349	1480	5040	5610	6530	2410	385	70	372	640	902
22	9.7	463	1390	5370	5690	6080	2230	409	68	340	590	824
23	9.0	451	1370	5730	6180	5740	2050	434	66	308	564	750
24	8.6	385	1800	6330	6950	5520	1850	410	69	277	540	679
25	8.4	319	2040	7060	7690	5240	1670	396	85	246	504	610
26	8.0	267	2080	7670	8350	5110	1500	346	109	217	472	548
27	7.7	231	2070	8150	8830	5450	1360	303	130	194	435	498
28	7.1	215	2050	8400	9180	e5800	1250	275	150	177	393	452
29	14	234	2020	8500	---	e6200	e1150	246	161	162	333	412
30	19	332	1960	8500	---	6460	e1000	220	185	152	296	375
31	20	---	1890	8440	---	7030	---	196	---	141	e270	---
TOTAL	768.5	3997	42841	152480	203770	250560	127250	13707	3022	13593	11691	35343
MEAN	24.8	133	1382	4919	7277	8083	4242	442	101	438	377	1178
MAX	64	463	2080	8500	9180	10300	7890	915	185	795	940	2650
MIN	7.1	14	460	2230	5610	5110	1000	196	66	141	55	311
AC-FT	1520	7930	84980	302400	404200	497000	252400	27190	5990	26960	23190	70100
CFSM	.01	.06	.66	2.35	3.48	3.87	2.03	.21	.05	.21	.18	.56
IN.	.01	.07	.76	2.71	3.63	4.46	2.26	.24	.05	.24	.21	.63

CAL YR 1986 TOTAL 622451.1 MEAN 1705 MAX 12900 MIN 7.1 AC-FT 1235000 CFSM .82 IN. 11.08
WTR YR 1987 TOTAL 859022.4 MEAN 2353 MAX 10300 MIN 7.1 AC-FT 1704000 CFSM 1.13 IN. 15.29

e Estimated

SUWANNEE RIVER BASIN

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02315000 SUWANNEE RIVER NEAR BENTON, FL--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	74.47	77.32	83.19	95.25	96.03	94.69	78.58	75.43	75.71	75.25	75.98
2	---	74.47	77.96	84.29	95.16	96.21	94.89	78.27	75.33	76.21	75.26	76.76
3	---	74.46	78.11	84.46	95.06	96.33	94.96	77.95	75.25	76.56	75.18	77.78
4	---	74.44	78.07	84.80	94.93	96.40	94.98	77.66	75.19	76.74	75.14	77.91
5	---	74.42	77.79	86.07	94.87	96.43	94.90	77.40	75.16	76.98	75.08	78.03
6	---	74.41	77.43	86.82	94.89	96.40	94.71	77.17	75.13	77.17	75.03	80.31
7	---	74.40	77.11	87.28	94.91	96.35	94.44	76.98	75.07	77.32	74.96	82.80
8	---	74.39	76.84	87.68	94.93	96.30	94.06	76.81	75.02	77.62	---	83.93
9	---	74.37	76.65	87.98	94.93	96.26	93.62	76.69	74.97	77.66	---	84.55
10	---	74.36	76.77	88.21	94.90	96.20	92.99	76.56	74.92	77.79	---	84.48
11	---	74.34	77.84	88.51	94.83	96.14	92.19	76.43	74.89	78.10	---	83.78
12	---	74.32	79.73	88.56	94.71	96.03	91.34	76.31	74.85	77.94	74.74	82.75
13	---	74.32	82.11	88.53	94.57	95.88	90.44	76.24	74.84	77.64	75.17	81.79
14	---	74.31	82.22	88.45	94.38	95.72	89.44	76.20	74.87	77.35	75.75	81.17
15	74.38	74.29	82.19	88.34	94.15	95.53	88.46	76.20	74.84	77.11	78.13	80.68
16	74.32	74.28	82.10	88.23	93.95	95.32	87.63	76.19	74.82	76.94	78.63	80.18
17	74.26	74.30	81.90	88.83	93.74	95.10	86.83	76.21	74.82	76.83	78.68	79.73
18	74.24	74.44	81.57	89.67	93.49	94.85	85.99	76.22	74.92	76.69	78.55	79.38
19	74.22	74.83	81.24	90.28	93.20	94.60	85.27	76.23	74.86	76.52	78.24	79.03
20	74.20	75.95	80.96	90.86	92.90	94.30	84.52	76.31	74.86	76.38	77.86	78.76
21	74.18	76.15	80.69	91.40	92.86	93.97	83.81	76.28	74.84	76.23	77.48	78.53
22	74.16	76.67	80.40	92.24	93.06	93.58	83.22	76.40	74.82	76.10	77.28	78.22
23	74.15	76.60	80.35	93.12	93.67	93.17	82.59	76.52	74.80	75.97	77.17	77.92
24	74.14	76.29	81.76	93.81	94.30	92.62	81.95	76.40	74.82	75.85	77.05	77.64
25	74.14	76.02	82.58	94.38	94.85	91.92	81.33	76.33	74.94	75.72	76.87	77.36
26	74.13	75.81	82.69	94.84	95.27	91.58	80.75	76.12	75.09	75.61	76.71	77.09
27	74.12	75.66	82.68	95.14	95.57	92.45	80.30	75.95	75.22	75.51	76.53	76.84
28	74.11	75.60	82.61	95.30	95.79	---	79.90	75.84	75.33	75.45	76.32	76.61
29	74.23	75.68	82.49	95.36	---	---	---	75.72	75.38	75.38	76.07	76.41
30	74.32	76.08	82.30	95.36	---	93.93	---	75.62	75.48	75.33	75.92	76.24
31	74.34	---	82.06	95.33	---	94.36	---	75.52	---	75.28	---	---
TOTAL	---	2250.13	2486.52	2787.32	2645.12	---	---	2373.31	2250.76	2373.69	---	2382.64
MEAN	---	75.0	80.2	89.9	94.5	---	---	76.6	75.0	76.6	---	79.4
MAX	---	76.67	82.69	95.36	95.79	---	---	78.58	75.48	78.10	---	84.55
MIN	---	74.28	76.65	83.19	92.86	---	---	75.52	74.80	75.28	---	75.98

02315000 SUWANNEE RIVER NEAR BENTON, FL--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
OCT 06...	1550	33	52	4.80	30.5	.20	6.1	.6	.30	.01
DEC 09...	1245	460	74	4.10	14.0	1.5	10.2	1.6	.40	.02
FEB 03...	1515	7980	58	3.70	14.0	.80	8.4	1.2	.40	.01
APR 07...	1210	7130	50	4.00	15.0	.80	9.3	.9	.30	.00
AUG 03...	1325	120	--	--	32.0	--	--	--	--	--
05...	1025	107	49	4.20	29.5	.50	6.5	.8	.30	--
SEP 01...	1420	310	53	3.80	30.0	1.8	6.4	.9	.30	--

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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
OCT 06...	.010	.02	.030	.83	.86	.88	3.9	.140	.04	.140
DEC 09...	.010	.03	.010	1.2	1.2	1.2	5.4	.090	.02	.070
FEB 03...	.010	.02	.020	.98	1.0	1.0	4.5	.030	.06	.020
APR 07...	.020	.02	.010	.97	.98	1.0	4.4	.050	.05	.040
AUG 03...	--	--	--	--	--	--	--	--	--	--
05...	.010	.02	.010	.65	.66	--	--	.150	--	.140
SEP 01...	.010	.02	.010	.95	.96	--	--	.110	--	.080

[illegible][illegible]

SUWANNEE RIVER BASIN

41

02315005 HUNTER CREEK NEAR BELMONT, FL

LOCATION.--Lat 30°29'08", long 82°42'44", in SE¹/₄ sec.16, T.1 N., R.16 E., Hamilton County, Hydrologic Unit 03110201, on left bank 30 ft downstream from bridge on State Highway 135, 0.8 mi upstream from mouth, and 1.6 mi southeast of Belmont.

DRAINAGE.--Indeterminate, due to progressive strip mining.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1970 (one discharge measurement); August 1971 to January 1979 (discharge measurements only); January to September 1979 (fragmentary); October 1979 to current year.

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

GAGE.--Water-stage recorder. Elevation of gage is 100 ft from topographic map.

REMARKS.--No estimated daily discharges. Record fair. Flow regulated by phosphate mining operation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 597 ft³/s Mar. 26, 1987; maximum gage height, 12.13 ft Apr. 5, 6, 1984 (backwater from Suwannee River); no flow part of each day Oct. 15, 16, 1980, Aug. 26-31, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 597 ft³/s Mar. 26, gage height 11.59 ft; minimum daily, .45 ft³/s Nov. 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	1.8	25	52	110	156	235	2.4	1.7	4.1	.83	20
2	.65	1.6	25	48	108	155	201	2.2	1.7	4.9	.90	27
3	.63	1.4	25	41	112	150	178	2.2	1.7	2.7	.86	23
4	.61	1.3	25	48	111	149	165	2.0	1.7	2.7	.81	22
5	.65	.79	22	67	123	148	147	2.1	1.9	2.6	.78	21
6	.66	1.5	19	110	145	147	140	2.2	2.3	1.9	.75	21
7	.64	1.2	16	111	149	150	137	2.1	1.8	2.1	.71	20
8	.64	.86	15	104	149	158	129	2.1	1.7	2.1	.69	18
9	.70	.73	14	94	141	158	118	2.0	1.6	1.7	.66	15
10	1.1	.67	28	94	131	156	109	1.9	1.5	1.5	.69	12
11	.81	.50	32	100	122	151	101	1.9	1.5	1.4	1.4	11
12	.78	.58	79	96	115	145	92	2.1	1.4	1.3	10	14
13	.74	.53	116	86	108	138	84	2.4	1.4	1.2	16	20
14	.76	.55	98	82	94	132	67	2.4	2.0	1.0	34	18
15	.75	.53	87	77	78	121	60	2.3	2.1	1.2	35	15
16	.71	.45	81	79	91	115	46	2.2	1.7	1.1	20	12
17	.73	.48	69	88	93	107	15	2.1	1.6	1.0	15	10
18	.56	8.5	22	96	89	98	10	2.0	1.6	1.0	11	9.2
19	1.7	5.7	12	98	85	95	7.6	2.1	1.7	1.1	8.3	7.9
20	3.5	5.4	10	98	80	89	6.6	2.8	1.5	1.0	6.9	11
21	2.2	8.6	11	95	118	80	5.7	2.3	1.6	1.1	5.8	22
22	1.2	6.3	14	152	154	77	5.0	2.5	1.9	.93	5.7	9.2
23	1.1	5.9	21	166	184	72	4.3	2.3	2.1	.83	4.7	5.8
24	.97	5.9	39	158	178	69	4.0	2.3	2.1	.81	4.1	4.5
25	1.0	6.0	37	154	172	71	3.8	2.1	1.7	.75	5.3	3.7
26	.70	5.8	33	155	163	236	3.9	1.9	1.7	.78	5.4	3.2
27	.67	5.9	27	152	153	293	3.6	1.9	2.1	.96	5.1	2.8
28	.63	6.4	23	144	146	307	3.6	2.1	1.8	.86	4.7	3.0
29	2.7	14	19	135	---	274	3.2	1.9	1.5	.79	4.2	2.8
30	3.4	21	16	125	---	271	2.9	1.9	1.4	.78	11	2.6
31	2.4	---	15	118	---	269	---	1.8	---	.85	25	---
TOTAL	34.95	120.87	1075	3223	3502	4737	2088.2	66.5	52.0	47.04	246.28	386.7
MEAN	1.13	4.03	34.7	104	125	153	69.6	2.15	1.73	1.52	7.94	12.9
MAX	3.5	21	116	166	184	307	235	2.8	2.3	4.9	35	27
MIN	.56	.45	10	41	78	69	2.9	1.8	1.4	.75	.66	2.6
AC-FT	69	240	2130	6390	6950	9400	4140	132	103	93	488	767

CAL YR 1986 TOTAL 13064.72 MEAN 39.7 MAX 500 MIN .45 AC-FT 25910
WTR YR 1987 TOTAL 15579.43 MEAN 42.7 MAX 307 MIN .45 AC-FT 30900

SUWANNEE RIVER BASIN
02315005 HUNTER CREEK NEAR BELMONT, FL--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1967 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1, 1986 to September 30, 1987 (incomplete).

WATER TEMPERATURE: October 1, 1986 to September 30, 1987 (incomplete).

INSTRUMENTATION.--Water-quality monitor since October 1986.

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 RECORD.—

SPECIFIC CONDUCTANCE: Maximum observed, 630 microsiemens, Sept. 30, 1975; minimum observed, 34 microsiemens, June 26, 1972.

WATER TEMPERATURE: Maximum observed, 28.0°C, Aug. 19, 1971, Aug. 1, 1977, Aug. 7, 1979, Aug. 6, 1980, Aug. 18-20, 1987; minimum observed, 7.0°C, Dec. 4, 1974, Jan. 23, 1985.

WATER QUALITY DATA. WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	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 06...	1510	.66	280	6.60	25.0	.30	7.2	.7	1.0	--	--	--
DEC 09...	1125	14	440	5.90	16.0	.80	10.0	4.2	2.0	.64	.060	.70
FEB 03...	1405	112	368	5.40	12.5	4.0	9.3	4.1	1.8	--	--	--
APR 07...	1025	136	260	5.80	15.0	1.0	9.6	.2	1.8	.08	.020	.10
AUG 05...	0840	.78	232	6.20	24.0	1.0	5.7	.7	.70	--	<.010	.53
SEP 01...	1210	15	67	4.70	24.0	2.2	6.1	2.2	.60	--	--	--

[illegible][illegible]

WATER-QUALITY RECORDS

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	290	268	382	340	136	127	377	373	293	257
2	---	---	316	290	397	384	137	107	388	377	295	267
3	---	---	335	318	421	397	138	134	396	366	303	273
4	---	---	341	327	448	413	138	104	398	368	315	281
5	---	---	347	296	440	436	137	105	372	324	325	293
6	---	---	362	270	469	443	307	169	348	334	335	325
7	---	---	336	304	469	439	315	289	348	330	339	327
8	---	---	323	315	444	439	330	298	332	290	337	301
9	---	---	313	298	444	438	346	318	292	196	345	309
10	---	---	296	276	438	289	339	311	230	202	353	319
11	---	---	297	272	313	287	366	321	350	220	357	325
12	---	---	299	257	321	161	380	350	374	346	357	353
13	---	---	265	262	380	286	386	358	364	314	355	313
14	---	---	278	264	402	376	397	369	356	328	349	309
15	---	---	274	253	413	393	401	393	352	324	351	313
16	268	264	263	253	415	409	402	378	332	294	349	313
17	278	262	266	260	420	378	378	368	360	314	349	315
18	268	256	272	208	376	188	358	348	370	336	355	317
19	312	261	349	222	190	85	359	349	377	347	355	327
20	320	182	389	341	87	85	372	359	379	345	353	325
21	202	162	396	347	154	76	378	342	371	273	373	341
22	201	171	424	396	154	82	334	260	297	215	369	336
23	197	173	413	402	152	117	321	307	269	235	366	334
24	216	186	419	413	115	105	327	299	277	245	358	340
25	218	188	423	415	132	105	336	304	283	255	348	298
26	211	199	426	418	136	108	348	332	291	285	322	214
27	223	211	430	420	136	109	361	349	297	267	242	222
28	226	214	429	397	139	111	365	335	301	275	254	224
29	229	188	409	323	139	111	368	336	---	---	262	254
30	233	219	354	310	142	112	370	364	---	---	262	256
31	299	231	---	---	142	136	375	366	---	---	254	228
MONTH	320	162	430	208	469	76	402	104	398	196	373	214
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	258	228	163	159	---	---	219	182	---	---	62	56
2	252	214	164	154	---	---	214	178	---	---	60	54
3	242	214	168	156	---	---	210	176	---	---	56	54
4	248	240	154	147	---	---	---	---	---	---	56	52
5	250	214	151	149	219	187	---	---	---	---	54	52
6	268	250	153	138	217	170	---	---	---	---	54	50
7	292	230										

SUWANNEE RIVER BASIN

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02315090 ROARING CREEK NEAR BELMONT, FL

LOCATION.--Lat 30°25'50", long 82°40'00", Hamilton County, Hydrologic Unit 03110201, at bridge on State Highway 135, 5.8 mi southeast of Belmont.

DRAINAGE AREA.--17.5 mi².

PERIOD OF RECORD.--November 1967 to August 1970; March 1977 to April 1978; December 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
OCT , 1985										
16...	1240	.25	91	6.30	21.0	1.7	5.5	1.0	.60	.07
DEC										
11...	0950	1.3	66	5.80	14.0	1.1	6.2	.8	.60	.02
FEB , 1986										
05...	1315	3.6	70	5.60	15.0	1.4	7.2	.6	.50	.00
APR										
02...	1030	1.6	50	5.20	17.0	2.0	6.2	1.0	.90	.01
JUN										
03...	0750	.18	131	5.70	24.5	1.5	2.5	.4	.60	.12
AUG										
06...	1100	.12	125	6.70	23.0	.30	2.2	.7	.70	.07
DEC										
10...	0910	7.4	76	4.90	17.0	2.3	9.2	1.4	.60	.02
FEB , 1987										
04...	0820	3.0	52	4.00	11.0	1.4	7.7	.2	.70	.01
APR										
07...	1420	12	53	4.10	15.5	1.0	8.4	1.0	.60	.00
AUG										
05...	1220	1.6	145	5.90	24.0	1.0	3.0	.8	.70	.07
SEP										
02...	0840	.22	122	5.20	22.0	1.7	3.5	1.0	.60	.07

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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT , 1985										
16...	.010	.08	.020	.51	.53	.61	2.7	1.20	1.10	22
DEC										
11...	.010	.03	.010	1.3	1.3	1.3	5.9	.370	.360	64
FEB , 1986										
05...	.020	.02	.020	1.4	1.4	1.4	6.3	.400	.360	65
APR										
02...	.020	.03	.010	1.2	1.2	1.2	5.4	.560	.520	47
JUN										
03...	.010	.13	.070	.35	.42	.55	2.4	1.50	1.50	8.5
AUG										
06...	.010	.08	.070	.41	.48	.56	2.5	1.60	1.60	13
DEC										
10...	.010	.03	.020	.98	1.0	1.0	4.6	.580	.480	48
FEB , 1987										
04...	.010	.02	.020	1.4	1.4	1.4	6.3	.230	.220	60
APR										
07...	.020	.02	.010	1.4	1.4	1.4	6.3	.220	.200	5.8
AUG										
05...	<.010	.07	.020	--	<.20	--	--	1.50	1.50	3.5
SEP										
02...	<.010	.07	.020	.52	.54	.61	2.7	1.40	1.30	7.5

SUWANNEE RIVER BASIN

02315500 SUWANNEE RIVER AT WHITE SPRINGS, FL

LOCATION.--Lat 30°19'32", long 82°44'18", in SW¹/₄ sec.8, T.2 S., R.16 E., Columbia County, Hydrologic Unit 03110201, on downstream side of bridge on U.S. Highway 41, 1.0 mi southeast of White Springs and 171 mi upstream from mouth.

DRAINAGE AREA.--2,430 mi² approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1906 to December 1908, February 1927 to current year.

REVISED RECORDS.--WSP 1504: 1906, 1908. WSP 1905: WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 31, 1932, nonrecording gage at site 1.0 mi downstream at datum 48.54 ft. August 1, 1932 to October 10, 1979, water-stage recorder at datum 48.54 ft. October 11, 1979 to December 1, 1983, non-recording gage at site 2.2 miles downstream at NGVD. December 2, 1983 to April 30, 1988, non-recording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--62 years (water years 1907-08, 1928-87), 1,874 ft³/s, 10.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft³/s Apr. 10, 1973, gage height, 88.56 ft present datum; minimum, 4.8 ft³/s Nov. 15, 1931; minimum gage height, 49.59 ft present datum June 24-26, 1955, Nov. 3-8, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft³/s Mar. 9, gage height, 77.39 ft; minimum daily, 52 ft³/s Oct. 25, minimum gage height 50.17 ft, Oct. 25, 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	145	1180	e2580	8800	8930	8550	1140	294	340	246	642
2	94	136	1400	e2730	8790	9250	8640	1020	270	525	243	647
3	92	132	1420	e3200	8760	9490	8690	904	247	607	241	955
4	86	125	e1350	e3900	8700	9650	8730	811	226	663	236	1010
5	82	115	1230	4480	8630	9780	8680	746	220	686	238	1070
6	77	111	1080	4770	8880	9870	8580	688	211	719	222	1370
7	73	106	941	4820	8980	9930	8390	646	203	744	204	2310
8	69	102	834	e4770	9030	10000	8150	590	187	806	186	2760
9	66	96	765	4820	8970	10100	7860	550	177	855	169	3020
10	91	91	947	e5040	8860	10100	7540	520	168	871	158	3100
11	e110	85	1400	5150	8580	10000	7180	486	160	997	156	2950
12	e105	82	2060	5120	8540	9940	e6760	495	155	1020	172	2680
13	77	81	e3000	5050	8350	9850	6390	493	148	921	457	2560
14	73	75	3240	4980	8100	9710	5870	430	159	821	576	2340
15	79	74	3020	4910	7850	9550	5420	421	166	764	1400	2100
16	74	75	2840	4890	7670	9340	4920	429	154	711	1980	1900
17	67	79	2740	5070	7550	9090	4460	428	144	676	1850	1720
18	63	122	2580	5440	7320	8800	4000	423	158	650	1630	1570
19	61	180	2400	5700	7080	8520	e3610	421	161	599	1450	1450
20	60	317	2270	5880	6840	8180	3320	434	151	561	1280	1340
21	59	502	e2130	6060	6780	e7800	3060	452	125	527	1130	1260
22	56	604	2000	6900	7010	e7420	2810	459	112	482	1020	1150
23	54	645	1980	7620	7790	7040	2580	470	122	421	953	1040
24	54	579	2530	7850	8060	6660	2380	485	116	381	891	937
25	52	472	2870	7910	8110	6300	2160	480	114	351	824	841
26	56	426	2850	8080	8220	6070	e1950	444	131	325	769	764
27	54	e355	2800	8290	8400	6700	1750	400	183	310	712	702
28	53	e335	2750	8460	8600	7240	1570	372	217	288	666	650
29	76	e405	e2680	8600	---	7480	1420	348	225	275	598	588
30	193	752	e2640	8730	---	7750	1280	325	270	267	534	529
31	184	---	e2600	8800	---	8260	---	308	---	260	633	---
TOTAL	2492	7404	64527	180600	229250	268800	156700	16618	5374	18423	21824	45955
MEAN	80.4	247	2082	5826	8187	8671	5223	536	179	594	704	1532
MAX	193	752	3240	8800	9030	10100	8730	1140	294	1020	1980	3100
MIN	52	74	765	2580	6780	6070	1280	308	112	260	156	529
AC-FT	4940	14690	128000	358200	454700	533200	310800	32960	10660	36540	43290	91150
CFSM	.03	.10	.86	2.40	3.37	3.57	2.15	.22	.07	.24	.29	.63
IN.	.04	.11	.99	2.76	3.51	4.11	2.40	.25	.08	.28	.33	.70

CAL YR 1986 TOTAL 761976 MEAN 2088 MAX 14300 MIN 52 AC-FT 1511000 CFSM .86 IN. 11.66
WTR YR 1987 TOTAL 1017967 MEAN 2789 MAX 10100 MIN 52 AC-FT 2019000 CFSM 1.15 IN. 15.58

e Estimated

SUWANNEE RIVER BASIN

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02315500 SUWANNEE RIVER AT WHITE SPRINGS, FL--Continued.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50.66	50.93	54.82	e58.65	73.74	74.81	73.93	54.97	51.73	51.92	51.50	53.03
2	50.60	50.86	55.44	e59.05	73.71	75.53	74.15	54.63	51.61	52.64	51.48	53.07
3	50.57	50.83	55.50	e60.25	73.65	76.08	74.26	54.28	51.50	52.91	51.47	54.16
4	50.52	50.78	e55.30	e62.05	73.50	76.45	74.34	53.99	51.39	53.12	51.44	54.32
5	50.49	50.71	54.97	63.48	73.35	76.75	74.22	53.73	51.36	53.23	51.45	54.49
6	50.44	50.68	54.53	64.19	73.91	76.94	73.96	53.48	51.31	53.38	51.37	55.35
7	50.40	50.64	54.12	64.31	74.14	77.09	73.50	53.27	51.27	53.48	51.27	57.93
8	50.37	50.61	53.81	e64.20	74.26	77.29	72.93	53.08	51.18	53.71	51.17	59.11
9	50.34	50.56	53.56	64.31	74.19	77.38	72.23	52.93	51.12	53.87	51.07	59.79
10	50.56	50.52	54.14	e64.85	73.98	77.38	71.47	52.82	51.07	53.92	51.00	60.01
11	e50.70	50.47	55.44	65.13	73.40	77.28	70.59	52.69	51.02	54.29	50.99	59.60
12	e50.65	50.45	57.26	65.05	73.36	77.11	e69.60	52.71	50.99	54.35	51.08	58.92
13	50.43	50.44	e59.75	64.89	72.99	76.90	68.69	52.70	50.94	54.06	52.39	58.60
14	50.39	50.38	60.35	64.71	72.46	76.59	67.43	52.46	51.01	53.77	52.83	58.01
15	50.45	50.37	59.80	64.54	71.94	76.22	66.32	52.41	51.05	53.56	55.45	57.39
16	50.40	50.38	59.32	64.50	71.58	75.74	65.08	52.44	50.98	53.34	57.04	56.85
17	50.34	50.42	59.06	64.94	71.35	75.18	63.92	52.42	50.91	53.18	56.68	56.34
18	50.29	50.76	58.65	65.82	70.88	74.51	62.77	52.40	51.00	53.06	56.07	55.96
19	50.27	51.14	58.18	66.45	70.36	73.87	e61.75	52.38	51.02	52.89	55.59	55.61
20	50.26	51.83	57.82	66.90	69.86	73.09	61.00	52.42	50.96	52.76	55.11	55.32
21	50.25	52.56	e57.45	67.33	69.82	e72.20	60.32	52.47	50.77	52.65	54.67	55.09
22	50.22	52.90	57.10	69.32	70.36	e71.30	59.63	52.49	50.67	52.49	54.36	54.78
23	50.20	53.04	57.03	71.02	72.18	70.41	59.00	52.53	50.75	52.26	54.16	54.45
24	50.19	52.82	58.52	71.54	72.79	69.53	58.48	52.57	50.71	52.10	53.98	54.15
25	50.17	52.45	59.40	71.68	72.92	68.67	57.87	52.54	50.69	51.98	53.78	53.88
26	50.21	52.28	59.35	72.07	73.17	68.12	e57.30	52.40	50.81	51.87	53.58	53.61
27	50.19	e52.00	59.23	72.56	73.59	69.63	56.74	52.22	51.14	51.80	53.35	53.36
28	50.17	e51.90	59.08	72.95	74.06	70.88	56.23	52.10	51.31	51.70	53.13	53.12
29	50.40	e52.20	e58.90	73.28	---	71.46	55.79	51.99	51.38	51.64	52.88	52.91
30	51.22	53.51	e58.80	73.58	---	72.08	55.40	51.88	51.61	51.60	52.67	52.71
31	51.17	---	e58.70	73.73	---	73.27	---	51.79	---	51.57	53.01	---
TOTAL	1563.52	1539.42	1775.38	2067.33	2035.50	2299.74	1968.90	1637.19	1533.26	1639.10	1646.02	1671.92
MEAN	50.44	51.31	57.27	66.69	72.70	74.19	65.63	52.81	51.11	52.87	53.10	55.73
MAX	51.22	53.51	60.35	73.73	74.26	77.38	74.34	54.97	51.73	54.35	57.04	60.01
MIN	50.17	50.37	53.56	58.65	69.82	68.12	55.40	51.79	50.67	51.57	50.99	52.71
CAL YR 1986	TOTAL 20578.48 MEAN 56.38 MAX 80.66 MIN 50.17											
WTR YR 1987	TOTAL 21377.28 MEAN 58.57 MAX 77.38 MIN 50.17											

e Estimated

SUWANNEE RIVER BASIN
02315500 SUWANNEE RIVER AT WHITE SPRINGS, FL--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 07...	0935	74	68	6.30	26.0	.50	6.2	.8	.40
DEC 10...	1055	914	62	4.50	14.0	.80	10.2	1.4	.50
FEB 04...	0955	8710	54	3.80	10.5	.80	7.4	.5	.50
APR 08...	0810	8210	46	3.70	15.0	1.0	8.8	1.4	.10
AUG 03...	1450	247	--	--	31.5	--	--	--	--
05...	1420	245	46	5.00	30.0	.50	6.9	.9	.30
SEP 02...	1000	619	50	4.80	27.0	1.1	6.5	1.2	.40

DATE	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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHOROUS TOTAL (MG/L AS P)
OCT 07...	.10	.010	.11	.030	.69	.72	.83	3.7	.240
DEC 10...	.09	.010	.10	.050	1.1	1.1	1.2	5.3	.290
FEB 04...	.01	.010	.02	.010	.99	1.0	1.0	4.5	.110
APR 08...	.00	.020	.02	.010	.97	.98	1.0	4.4	.130
AUG 03...	--	--	--	--	--	--	--	--	--
05...	.04	.010	.05	.010	.74	.75	.80	3.5	.220
SEP 02...	.15	.020	.17	.010	1.4	1.4	1.6	6.9	.240

DATE	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM- INUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	.74	.240	--	--	--	--	--	--	46
DEC 10...	.86	.280	--	--	--	--	--	--	56
FEB 04...	.30	.100	--	--	--	--	--	--	47
APR 08...	.37	.120	--	--	--	--	--	--	49
AUG 03...	--	--	350	110	<1	<1	<10	<10	--
05...	--	.230	--	--	--	--	--	--	43
SEP 02...	--	.220	--	--	--	--	--	--	60

SUWANNEE RIVER BASIN

49

02315520 SWIFT CREEK AT FACIL, FL

LOCATION.--Lat 30°22'14", long 82°48'00", in SE¹/₄ sec.27, T.1 S., R.15 E., Hamilton County, Hydrologic Unit 03110201, near right bank on downstream side of bridge on U.S. Highway 41, 0.5 mi northwest of Facil, 2.8 mi upstream from mouth, and 3.0 mi southeast of Genoa.

DRAINAGE AREA.--Indeterminate due to progressive strip mining.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1969 to April 1976 (discharge measurements only); May 1976 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 86.43 ft above National Geodetic Vertical Datum of 1929. Prior to May 20, 1976, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated to some extent since 1965 by Occidental Chemical Company by control structures on Swift Creek, Altmans Bay Canal, and on an unnamed tributary. Possible interchange of water between Swift Creek, Hunter Creek, and Roaring Creek basins due to releases from diked phosphate mining area encompassing part of the three basins. Flow contains some ground water used for phosphate mining.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 1,180 ft³/s June 27, 1972, gage height, 8.54 ft observed; since May 1976, maximum discharge, 850 ft³/s Mar. 28, 1984, gage height 7.52 ft; minimum discharge, 1.6 ft³/s Nov. 12, 1977; minimum gage height, 0.40 ft July 31, 1981, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 432 ft³/s Mar. 30, gage height, 5.80 ft; minimum daily, 11 ft³/s, May 5.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	29	172	216	124	221	322	32	61	66	26	73
2	26	13	172	193	125	141	318	36	60	86	27	75
3	22	13	162	177	125	183	243	30	55	88	22	108
4	21	12	143	181	116	173	221	23	49	91	19	95
5	25	13	134	221	129	156	204	11	45	89	18	93
6	26	18	120	161	157	133	196	13	42	83	18	93
7	25	20	104	134	150	122	186	17	39	86	17	89
8	25	23	94	126	151	134	172	23	36	100	17	73
9	27	34	86	117	144	131	156	35	34	94	18	58
10	32	44	130	116	146	115	146	32	33	86	20	55
11	32	42	156	116	163	110	118	33	33	82	21	53
12	28	45	245	111	156	97	99	32	16	78	32	57
13	25	44	292	105	123	95	79	36	42	76	59	78
14	23	45	245	97	117	88	67	38	72	73	65	86
15	20	39	230	95	111	84	64	36	87	70	107	90
16	17	33	216	100	130	83	64	47	78	68	105	82
17	15	29	200	116	125	80	71	45	76	59	112	69
18	13	59	187	122	114	77	57	42	74	54	105	62
19	12	95	178	121	103	94	50	36	71	52	127	58
20	13	99	159	119	102	93	45	41	64	49	128	62
21	14	126	148	136	143	80	51	41	62	46	118	68
22	14	113	150	243	185	73	32	43	62	47	112	71
23	16	99	168	212	238	65	33	43	68	53	110	56
24	15	94	205	198	175	62	56	46	67	59	111	48
25	17	86	200	189	168	62	51	45	64	52	41	45
26	16	80	192	182	234	113	34	42	59	47	63	45
27	15	81	183	168	235	238	24	50	58	45	88	49
28	13	89	175	151	218	274	30	59	54	36	96	50
29	37	133	168	149	---	279	33	55	43	29	87	44
30	52	164	151	138	---	349	30	53	46	29	84	41
31	39	---	127	130	---	386	---	54	---	27	80	---
TOTAL	706	1814	5292	4640	4207	4391	3252	1169	1650	2000	2053	2026
MEAN	22.8	60.5	171	150	150	142	108	37.7	55.0	64.5	66.2	67.5
MAX	52	164	292	243	238	386	322	59	87	100	128	108
MIN	12	12	86	95	102	62	24	11	16	27	17	41

CAL YR 1986 TOTAL 28211.6 MEAN 77.3 MAX 655 MIN 4.4
WTR YR 1987 TOTAL 33200 MEAN 91.0 MAX 386 MIN 11

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1967 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1, 1986 to September 30, 1987 (incomplete).

WATER TEMPERATURE: October 1, 1986 to September 30, 1987 (incomplete).

INSTRUMENTATION.--Water-quality monitor since October 1986.

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 RECORD.—

SPECIFIC CONDUCTANCE: Maximum observed, 962 microsiemens, Aug. 20, 1985; minimum observed, 133 microsiemens, Apr. 3, 1973.

WATER TEMPERATURE: Maximum observed, 32.0°C, Aug. 10, 1982; minimum, 1.0°C, Jan. 12, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM- ICAL, 5 DAY (MG/L)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	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 06...	1350	26	436	6.80	28.5	1.1	5.8	1.1	5.2	.93	.030	.96
DEC 08...	1515	92	418	5.60	17.0	2.0	6.2	E7.2	3.9	1.7	.200	1.9
FEB 03...	1225	124	370	5.60	12.0	9.1	8.2	6.4	2.8	2.0	.100	2.1
APR 07...	0830	186	290	5.20	16.0	10	7.2	<8.5	3.0	1.2	.120	1.3
AUG 04...	1440	19	418	6.20	28.0	2.2	4.8	6.4	4.3	1.5	.100	1.6
31...	1515	73	370	6.00	29.0	2.3	3.3	4.2	3.2	1.0	.100	1.1

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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (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)
OCT 06...	.080	.74	.82	1.8	7.9	6.60	20	6.60	--	--	--
DEC 08...	2.90	.60	3.5	5.4	24	7.40	23	7.40	--	--	--
FEB 03...	1.80	.90	2.7	4.8	21	4.90	14	4.60	--	--	--
APR 07...	3.00	1.0	4.0	5.3	23	3.90	12	3.80	--	--	--
AUG 04...	2.20	.70	2.9	4.5	20	6.80	--	6.80	330	30	1
31...	3.00	.70	3.7	4.8	21	4.90	--	4.60	--	--	--

[illegible]

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH					
1	29.5	27.5	21.0	20.0	20.0	19.0	12.5	12.0	12.5	9.5	18.5	17.5				
2	29.5	27.5	---	---	19.5	19.0	12.0	11.0	12.5	11.0	17.5	16.0				
3	29.0	27.5	---	---	19.0	17.5	11.5	10.0	13.5	11.0	18.5	15.0				
4	29.0	27.0	---	---	17.0	16.0	11.5	11.0	14.0	12.0	19.0	16.0				
5	29.0	27.5	---	---	16.5	15.5	11.5	10.5	13.0	12.5	18.5	16.0				
6	29.0	27.5	---	---	16.0	14.5	12.0	10.0	13.0	12.5	18.0	15.5				
7	28.5	27.0	---	---	16.0	14.0	13.0	11.0	13.0	12.5	16.5	16.0				
8	28.0	26.5	---	---	17.0	15.5	13.5	11.5	14.0	11.5	19.0	16.5				
9	27.5	26.0	24.5	23.0	18.5	17.0	13.5	11.5	13.0	10.5	18.5	17.0				
10	27.0	26.0	24.5	23.0	19.0	18.5	15.0	11.0	12.5	10.0	19.5	16.5				
11	26.5	25.5	24.5	23.5	19.0	18.5	13.5	8.0	13.0	10.0	17.5	16.0				
12	25.5	24.5	25.0	23.5	19.0	18.0	11.5	1.0	14.5	11.0	16.5	15.5				
13	26.5	25.0	24.5	21.5	18.0	15.5	15.0	3.0	15.5	12.5	17.5	14.5				
14	26.5	25.5	21.5	18.0	15.5	14.5	18.5	2.5	15.5	13.0	18.5	14.5				
15	---	---	18.5	17.0	15.5	14.5	17.5	9.5	16.5	13.5	19.0	15.5				
16	---	---	19.0	18.0	16.0	15.5	16.5	14.0	18.5	15.5	20.0	16.0				
17	---	---	21.0	19.0	16.5	15.5	15.0	13.5	17.5	15.0	19.0	17.0				
18	---	---	22.0	21.5	17.0	16.0	15.5	13.5	15.5	15.0	18.5	17.0				
19	---	---	22.0	21.0	16.5	15.5	15.5	14.5	16.0	13.5	21.0	17.5				
20	---	---	21.5	20.5	16.5	15.5	14.0	13.5	15.5	14.0	20.0	18.0				
21	---	---	21.0	19.0	16.0	15.0	13.5	12.0	14.5	13.5	21.5	18.0				
22	---	---	19.5	17.5	15.0	13.5	12.0	10.5	14.0	13.5	22.0	18.5				
23	---	---	20.5	18.5	14.5	13.5	10.5	9.0	15.5	13.5	22.0	19.0				
24	---	---	21.5	19.5	15.5	14.5	11.5	9.0	15.0	14.0	21.0	19.0				
25	---	---	22.0	21.0	15.0	14.0	11.5	10.0	16.5	14.5	22.5	20.0				
26	---	---	21.5	21.5	14.5	13.5	11.5	9.5	15.5	15.0	22.0	20.5				
27	---	---	21.5	20.5	14.5	13.5	10.0	8.0	17.0	14.5	21.0	20.5				
28	---	---	21.0	20.0	14.0	13.0	11.0	8.0	18.0	15.5	22.0	20.5				
29	21.0	19.0	19.5	19.5	14.0	12.5	11.5	9.0	---	---	21.5	21.0				
30	20.5	19.5	20.5	19.5	14.0	13.0	13.0	11.0	---	---	21.0	20.0				
31	20.5	20.0	---	---	13.0	12.5	12.5	10.5	---							

SUWANNEE RIVER BASIN
02315520 SWIFT CREEK AT FACIL, FL--Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1									---	---	413	381
2									---	---	414	391
3									---	---	404	389
4									---	---	396	387
5									---	---	387	379
6									---	---	382	371
7									---	---	377	365
8									---	---	374	363
9									---	---	377	366
10									---	---	377	366
11									583	548	370	361
12									580	531	370	363
13									655	523	406	350
14									601	483	368	355
15									587	521	367	346
16									529	510	359	349
17									511	479	367	356
18									490	455	368	357
19									472	455	374	362
20									474	463	375	367
21									479	456	383	374
22									459	443	382	371
23									452	431	396	380
24									434	408	409	393
25									459	393	412	398
26									460	418	418	404
27									424	404	418	394
28									413	392	408	394
29									407	392	410	398
30									411	395	411	403
31									408	394	---	---
MONTH									655	392	418	346
YEAR	655	346										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

SUWANNEE RIVER BASIN

53

02315550 SUWANNEE RIVER AT SUWANNEE SPRINGS, FL

LOCATION.--Lat 30°23'34", long 82°56'00", in NE¹/₄ sec.20, T.1 S., R.14 E., Suwannee County, Hydrologic Unit 03110201, on left bank 0.2 mi upstream from springs at town of Suwannee Springs, 7.5 mi north of Live Oak, and 150 mi upstream from mouth.

DRAINAGE AREA.--2,630 mi², approximately, includes part of watershed in Okefenokee Swamp, which is indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year. Prior to November 1960, six miscellaneous discharge measurements made in 1906, 1951 and 1956. November 1960 to September 1974 (gage heights and discharge measurements only).

REVISED RECORDS.--WSP 2105: WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Dec. 13, 1960 to Apr. 26, 1972 and Aug. 21, 1974 to May 8, 1980, auxiliary nonrecording gage 0.3 mi downstream from base gage at same datum. Since Oct. 1, 1982 water stage recorder at Suwannee River at Ellaville (02319500), about 23 mi. downstream from base gage, used to determine discharge during backwater conditions.

REMARKS.--No estimated daily discharges. Records good. Flow affected by backwater from Withlacoochee and Alapaha Rivers at times.

AVERAGE DISCHARGE.--13 years (water years 1975-87), 1,971 ft³/s, 10.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,100 ft³/s Apr. 12, 1973, gage height, 78.91 ft, from flood marks; minimum, 69 ft³/s Dec. 10, 11, 1983; minimum gage height, 37.00 ft estimated, Nov. 2, 3, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft³/s Mar. 13; maximum gage height, 64.87 ft Mar. 11; minimum, 171 ft³/s Oct. 29, gage height, 37.97 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	232	292	1340	2790	8290	8900	8870	1770	607	628	448	841		
2	228	253	1580	3410	8450	9170	8960	1660	602	764	439	825		
3	219	235	1650	3440	8610	9420	8980	1550	577	829	430	991		
4	211	227	1590	3420	8700	9640	8970	1440	554	911	421	1200		
5	207	218	1470	3890	8800	9810	8910	1340	534	928	414	1240		
6	205	212	1330	4290	9080	9940	8800	1260	515	953	408	1310		
7	202	211	1170	4320	9230	10100	8620	1190	502	999	389	1960		
8	197	207	1040	4290	9290	10200	8380	1140	486	1040	370	2550		
9	195	207	939	4300	9230	10200	8100	1090	470	1110	353	2860		
10	202	212	1030	4360	9100	10200	7810	1050	457	1110	341	3030		
11	210	214	1510	4560	8930	10200	7510	1010	447	1160	348	3010		
12	209	210	2190	4620	8740	10300	7190	990	429	1240	350	2860		
13	203	208	3050	4620	8520	10300	6820	964	419	1190	486	2730		
14	200	203	3230	4600	8280	10300	6400	949	457	1090	767	2600		
15	199	203	3030	4590	8030	10200	5980	906	515	1020	1450	2390		
16	196	198	2860	4620	7890	10000	5540	898	502	964	1950	2200		
17	192	196	2750	4770	7760	9770	5110	856	479	903	2110	2010		
18	187	215	2620	5060	7560	9480	4690	828	472	854	1920	1850		
19	184	287	2460	5310	7330	9190	4320	811	474	810	1760	1720		
20	181	340	2310	5490	7110	8830	3990	813	465	784	1630	1600		
21	181	560	2180	5650	7120	8430	3710	812	454	772	1480	1500		
22	180	673	2070	6380	7330	8010	3440	811	451	727	1360	1420		
23	180	729	2030	7180	8050	7590	3200	818	454	688	1270	1300		
24	179	714	2450	7380	8260	7190	3000	854	449	674	1210	1190		
25	179	639	2780	7430	8290	6800	2800	822	430	624	1130	1090		
26	179	561	2830	7520	8360	6710	2580	792	437	579	1020	1000		
27	176	509	2790	7620	8460	7130	2380	745	460	554	974	920		
28	174	472	2720	7750	8600	7680	2210	716	484	519	925	850		
29	188	613	2640	7890	---	7900	2050	683	476	485	857	781		
30	274	926	2550	8020	---	8190	1910	648	510	467	780	720		
31	340	---	2430	8150	---	8630	---	624	---	461	767	---		
TOTAL	6289	10944	66619	167720	233400	280410	171230	30840	14568	25837	28557	50548		
MEAN	203	365	2149	5410	8336	9045	5708	995	486	833	921	1685		
MAX	340	926	3230	8150	9290	10300	8980	1770	607	1240	2110	3030		
MIN	174	196	939	2790	7110	6710	1910	624	419	461	341	720		
AC-FT	12470	21710	132100	332700	462900	556200	339600	61170	28900	51250	56640	100300		
CFSM	.08	.14	.82	2.06	3.17	3.44	2.17	.38	.18	.32	.35	.64		
IN.	.09	.15	.94	2.37	3.30	3.97	2.42	.44	.21	.37	.40	.71		
CAL YR 1986	TOTAL	795345	MEAN	2179	MAX	12500	MIN	174	AC-FT	1578000	CFSM	.83	IN.	11.25
WTR YR 1987	TOTAL	1086962	MEAN	2978	MAX	10300	MIN	174	AC-FT	2156000	CFSM	1.13	IN.	15.37

SUWANNEE RIVER BASIN

02315550 SUWANNEE RIVER AT SUWANNEE SPRINGS, FL--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.54	38.97	42.77	47.79	61.89	62.52	61.21	44.69	40.58	40.55	39.71	41.19
2	38.51	38.71	43.51	49.27	62.17	62.97	61.58	44.29	40.53	41.08	39.67	41.13
3	38.43	38.57	43.71	49.55	62.37	63.37	61.82	43.92	40.39	41.34	39.63	41.68
4	38.36	38.50	43.52	49.75	62.43	63.69	61.95	43.55	40.28	41.63	39.59	42.37
5	38.33	38.42	43.18	50.88	62.46	63.94	61.96	43.21	40.19	41.69	39.56	42.49
6	38.31	38.37	42.76	51.84	62.70	64.12	61.84	42.92	40.11	41.77	39.53	42.70
7	38.28	38.36	42.31	52.10	62.80	64.31	61.59	42.68	40.05	41.92	39.45	44.55
8	38.23	38.33	41.90	52.24	62.79	64.55	61.20	42.49	39.97	42.03	39.36	46.09
9	38.21	38.33	41.57	52.42	62.61	64.70	60.71	42.33	39.90	42.23	39.28	46.87
10	38.28	38.37	41.84	52.71	62.31	64.79	60.13	42.17	39.84	42.25	39.23	47.26
11	38.35	38.39	43.31	53.20	61.96	64.84	59.45	42.04	39.79	42.38	39.26	47.22
12	38.34	38.36	45.22	53.41	61.57	64.86	58.66	41.95	39.70	42.63	39.27	46.86
13	38.29	38.34	47.49	53.47	61.13	64.81	57.80	41.85	39.65	42.51	39.83	46.54
14	38.26	38.29	48.15	53.46	60.65	64.68	56.86	41.79	39.81	42.22	40.90	46.21
15	38.25	38.28	47.81	53.43	60.15	64.42	55.93	41.66	40.04	41.99	43.10	45.69
16	38.22	38.24	47.48	53.42	59.84	64.05	54.95	41.68	39.98	41.79	44.56	45.21
17	38.18	38.22	47.23	53.67	59.55	63.58	53.95	41.58	39.88	41.58	45.01	44.70
18	38.13	38.39	46.95	54.28	59.19	63.04	52.95	41.50	39.85	41.40	44.55	44.26
19	38.10	38.92	46.59	54.86	58.81	62.49	52.01	41.44	39.85	41.23	44.11	43.89
20	38.07	39.21	46.24	55.32	58.45	61.81	51.16	41.44	39.81	41.12	43.73	43.56
21	38.07	40.13	45.92	55.73	58.49	61.04	50.41	41.43	39.76	41.06	43.30	43.29
22	38.06	40.57	45.62	57.04	58.81	60.23	49.69	41.43	39.75	40.88	42.93	43.05
23	38.05	40.77	45.51	58.43	59.95	59.39	49.02	41.44	39.78	40.71	42.64	42.69
24	38.05	40.72	46.56	58.92	60.48	58.57	48.45	41.56	39.78	40.64	42.44	42.34
25	38.05	40.44	47.40	59.25	60.78	57.79	47.86	41.43	39.72	40.45	42.20	42.02
26	38.05	40.14	47.58	59.63	61.14	57.51	47.24	41.31	39.76	40.27	41.82	41.73
27	38.02	39.93	47.53	60.02	61.55	58.09	46.62	41.13	39.86	40.16	41.67	41.46
28	38.00	39.78	47.41	60.45	61.95	58.88	46.10	41.02	39.95	40.02	41.50	41.21
29	38.14	40.34	47.27	60.87	---	59.23	45.60	40.90	39.92	39.88	41.26	40.97
30	38.85	41.46	47.10	61.27	---	59.77	45.13	40.77	40.06	39.80	40.99	40.75
31	39.21	---	46.90	61.61	---	60.62	---	40.67	---	39.77	40.93	---
TOTAL	1186.22	1173.85	1408.34	1700.29	1708.98	1928.66	1643.83	1302.27	1198.54	1278.98	1281.01	1309.98
MEAN	38.27	39.13	45.43	54.85	61.03	62.21	54.79	42.01	39.95	41.26	41.32	43.67
MAX	39.21	41.46	48.15	61.61	62.80	64.86	61.96	44.69	40.58	42.63	45.01	47.26
MIN	38.00	38.22	41.57	47.79	58.45	57.51	45.13	40.67	39.65	39.77	39.23	40.75

WTR YR 1987 TOTAL 17120.95 MEAN 46.91 MAX 64.86 MIN 38.00

SUWANNEE RIVER BASIN

02317620 ALAPAHA RIVER NEAR JENNINGS, FL

LOCATION.--Lat 30°35'53", long 83°04'24", in SW¹/₄ sec.1, T.2 N., R.12 E., Hamilton County, Hydrologic Unit 03110202, near left bank on downstream side of bridge on State Highway 150, 150 ft upstream from Southern Railroad bridge, 1,400 ft downstream from Apalahoochee River, 1.5 mi south of Florida-Georgia State line, and 1.6 mi southeast of Jennings, and 20.1 mi upstream from mouth.

DRAINAGE AREA.--1,680 mi², approximately.

PERIOD OF RECORD.--July 1976 to September 1984; October 1984 to September 1985 (gage height and peak discharge only); October 1985 to September 1987 (discontinued). Prior to July 28, 1976 (one miscellaneous discharge measurement in 1923, three in 1928 and six made by Suwannee River Water Management District in 1976).

GAGE.--Water-stage recorder. Datum of gage is 58.22 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to August 18, 1928, nonrecording gage at site 150 ft downstream at datum unknown.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--10 years, (water years 1977-84, 1986-87), 1,674 ft³/s, 13.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s Feb. 17, 1986, gage height, 32.10 ft; minimum, 31 ft³/s July 22, 1986, gage height, 3.30 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum measured discharge, 17,900 ft³/s May 2, 1928, gage height not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 13	1900	2,500	11.10	Apr. 1	2300	5,970	19.32
Feb. 2	0800	*10,700	*27.25	July 16	1000	1,590	8.56
Feb. 25	1700	8,170	23.75				

Minimum discharge, 46 ft³/s Oct. 21-24, gage height, 3.43 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	75	336	2770	10200	7470	5860	422	697	787	206	115
2	72	69	341	3390	10700	7420	5890	389	606	916	193	119
3	69	65	337	3960	10500	7330	5470	359	585	960	180	180
4	65	62	335	4250	9880	7180	5020	334	592	1020	190	200
5	61	60	345	4470	9350	6970	4600	310	693	1050	172	177
6	59	63	352	4630	8900	6710	4260	292	718	881	170	247
7	56	64	359	4840	8450	6590	4010	276	611	759	151	1100
8	56	59	362	4950	7980	6900	3840	353	451	692	137	1350
9	60	57	359	5100	7310	7310	3710	358	362	679	132	1090
10	61	56	363	5350	6540	7690	3580	285	304	719	133	837
11	63	53	904	5640	5870	7980	3440	258	263	855	133	636
12	62	54	1790	5830	5350	8090	3260	249	234	1020	123	526
13	62	54	2410	5940	4950	7970	3060	248	215	1210	217	471
14	66	58	2250	5940	4650	7680	2840	267	220	1380	395	404
15	76	55	1860	5810	4420	7290	2590	295	218	1520	776	336
16	65	55	1630	5680	4500	6870	2320	303	206	1580	704	285
17	61	61	1560	6500	4820	6420	2050	290	185	1510	676	247
18	60	92	1560	6910	5210	5940	1790	283	182	1340	420	227
19	56	116	1560	7360	5360	5480	1570	329	195	1170	299	237
20	52	129	1560	7470	5120	5040	1390	423	171	976	239	229
21	49	127	1550	7240	5040	4620	1230	510	157	774	212	208
22	47	142	1510	7210	5370	4200	1100	574	189	612	210	183
23	47	131	1510	7170	6560	3830	990	515	385	467	208	169
24	47	111	1790	7170	7470	3500	894	458	578	375	186	156
25	48	110	2080	7260	8100	3210	800	400	660	312	163	140
26	54	150	2260	7380	8040	3130	714	390	676	268	145	128
27	54	205	2240	7520	7810	3220	641	489	674	253	135	121
28	51	196	2140	7690	7520	3390	576	647	654	226	127	115
29	61	217	2120	7890	---	3550	517	810	647	205	121	110
30	89	270	2160	8270	---	4620	463	903	629	194	118	111
31	78	---	2270	8980	---	5470	---	842	---	200	110	---
TOTAL	1882	3016	42203	190570	195970	183070	78475	12861	12957	24910	7381	10454
MEAN	60.7	101	1361	6147	6999	5905	2616	415	432	804	238	348
MAX	89	270	2410	8980	10700	8090	5890	903	718	1580	776	1350
MIN	47	53	335	2770	4420	3130	463	248	157	194	110	110
AC-FT	3730	5980	83710	378000	388700	363100	155700	25510	25700	49410	14640	20740
CFSM	.04	.06	.81	3.66	4.17	3.52	1.56	.25	.26	.48	.14	.21
IN.	.04	.07	.93	4.22	4.34	4.05	1.74	.28	.29	.55	.16	.23

CAL YR 1986	TOTAL 487498	MEAN 1336	MAX 18100	MIN 34	AC-FT 967000	CFSM .80	IN. 10.79
WTR YR 1987	TOTAL 763749	MEAN 2092	MAX 10700	MIN 47	AC-FT 1515000	CFSM 1.25	IN. 16.91

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GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.63	3.63	4.84	11.82	26.65	22.35	19.09	5.14	5.99	6.24	4.32	3.90
2	3.61	3.59	4.86	13.45	27.20	22.24	19.14	5.02	5.72	6.58	4.27	3.93
3	3.59	3.56	4.84	14.88	26.97	22.07	18.27	4.92	5.66	6.70	4.21	4.21
4	3.56	3.54	4.83	15.58	26.34	21.77	17.31	4.83	5.68	6.87	4.25	4.30
5	3.53	3.53	4.87	16.12	25.69	21.35	16.41	4.74	5.97	6.95	4.18	4.20
6	3.52	3.55	4.89	16.48	25.10	20.83	15.60	4.67	6.05	6.49	4.16	4.48
7	3.50	3.56	4.92	16.92	24.30	20.59	15.00	4.61	5.73	6.16	4.08	7.13
8	3.50	3.52	4.93	17.16	23.37	21.21	14.58	4.89	5.23	5.97	4.03	7.83
9	3.53	3.51	4.92	17.49	22.04	22.04	14.25	4.91	4.93	5.94	4.01	7.08
10	3.53	3.50	4.93	18.02	20.48	22.78	13.93	4.65	4.72	6.05	4.01	6.37
11	3.55	3.48	6.55	18.63	19.10	23.36	13.57	4.54	4.56	6.42	4.01	5.81
12	3.54	3.48	9.14	19.01	18.01	23.57	13.12	4.50	4.44	6.86	3.94	5.47
13	3.54	3.49	10.88	19.25	17.17	23.35	12.61	4.50	4.36	7.42	4.37	5.30
14	3.57	3.51	10.43	19.24	16.51	22.77	12.01	4.58	4.38	7.93	5.01	5.08
15	3.64	3.49	9.33	18.97	16.00	21.99	11.36	4.68	4.38	8.34	6.20	4.84
16	3.56	3.49	8.68	18.70	16.18	21.14	10.63	4.71	4.33	8.53	6.01	4.64
17	3.53	3.54	8.48	20.40	16.88	20.24	9.86	4.66	4.23	8.30	5.92	4.49
18	3.52	3.74	8.46	21.23	17.72	19.25	9.14	4.64	4.22	7.83	5.13	4.41
19	3.50	3.90	8.47	22.12	18.03	18.30	8.49	4.81	4.28	7.30	4.70	4.46
20	3.47	3.98	8.48	22.35	17.52	17.36	7.96	5.14	4.17	6.75	4.47	4.42
21	3.45	3.97	8.45	21.89	17.37	16.45	7.49	5.42	4.11	6.20	4.35	4.33
22	3.43	4.04	8.31	21.83	18.05	15.46	7.10	5.62	4.25	5.74	4.34	4.23
23	3.43	3.99	8.32	21.76	20.53	14.56	6.78	5.44	5.01	5.28	4.34	4.16
24	3.43	3.87	9.14	21.76	22.36	13.72	6.53	5.26	5.63	4.97	4.24	4.10
25	3.44	3.86	9.95	21.94	23.60	12.99	6.27	5.06	5.88	4.75	4.14	4.04
26	3.48	4.07	10.47	22.18	23.47	12.78	6.03	5.03	5.93	4.58	4.06	3.98
27	3.48	4.32	10.41	22.46	23.01	13.00	5.83	5.36	5.92	4.52	4.02	3.93
28	3.46	4.28	10.14	22.79	22.45	13.44	5.63	5.84	5.86	4.41	3.98	3.90
29	3.53	4.37	10.07	23.18	---	13.84	5.45	6.30	5.84	4.32	3.94	3.86
30	3.72	4.59	10.19	23.94	---	16.43	5.27	6.55	5.79	4.27	3.92	3.87
31	3.65	---	10.48	25.18	---	18.27	---	6.39	---	4.30	3.87	---
TOTAL	109.42	112.95	243.66	606.73	592.10	589.50	334.71	157.41	153.25	192.97	136.48	142.75
MEAN	3.53	3.76	7.86	19.57	21.15	19.02	11.16	5.08	5.11	6.22	4.40	4.76
MAX	3.72	4.59	10.88	25.18	27.20	23.57	19.14	6.55	6.05	8.53	6.20	7.83
MIN	3.43	3.48	4.83	11.82	16.00	12.78	5.27	4.50	4.11	4.27	3.87	3.86
CAL YR 1986	TOTAL 2533.43		MEAN 6.94	MAX 31.84	MIN 3.33							
WTR YR 1987	TOTAL 3371.93		MEAN 9.24	MAX 27.20	MIN 3.43							

SUWANNEE RIVER BASIN

02319000 WITHLACOOCHIE RIVER NEAR PINETTA, FL

LOCATION.--Lat 30°35'43", long 83°15'35", in NW¹/₄ sec.7, T.2 N., R.11 E., Madison County, Hydrologic Unit 03110203, on right bank 30 ft downstream from bridge, 0.1 mi downstream from small tributary, 0.3 mi west of Bellville, 5.6 mi east of Pinetta, and 22 mi upstream from mouth.

DRAINAGE AREA.--2,120 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for October and November 1931, published in WSP 1304.

REVISED RECORDS.--WSP 972: 1941-42. WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 47.21 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Oct. 11, 1931 to Dec. 3, 1941, nonrecording gage at same site and datum. Dec. 3, 1941 to Aug. 2, 1972, water-stage recorder at same site and datum. Aug. 2, 1972 to Apr. 22, 1986, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--56 years, 1,701 ft³/s, 10.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 79,400 ft³/s Apr. 5, 1948, gage height, 38.64 ft from flood marks; minimum, 70 ft³/s Aug. 23, 1955, gage height, 6.27 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1928 reached a stage of 36.75 ft from floodmarks, discharge, 53,600 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,100 ft³/s Jan. 30, gage height, 26.68 ft; minimum daily, 123 ft³/s Nov. 10, gage height, 6.51 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	150	482	4490	11300	10200	5580	526	951	1460	294	251
2	195	150	615	4940	9880	9980	6150	497	714	1570	276	252
3	192	150	708	5560	8430	9590	6700	469	568	1470	257	256
4	186	147	784	6050	7200	9400	7210	444	493	1210	259	302
5	180	144	851	6380	6150	9210	7430	422	500	1090	256	292
6	174	153	913	6670	5680	9000	7290	405	505	1070	253	267
7	171	147	971	7080	5550	8950	7130	395	432	1030	250	269
8	168	132	1000	7610	5430	9580	6730	387	436	815	243	273
9	165	126	960	8110	5430	10100	6200	384	473	679	235	274
10	165	123	863	8370	5450	9840	5390	380	442	702	236	269
11	162	132	1310	8300	5530	9060	4360	373	388	705	245	259
12	159	144	2660	8010	5450	8010	3430	366	359	729	249	255
13	159	140	3470	7590	5350	6750	2800	358	360	760	270	248
14	144	142	3770	7020	5290	5680	2390	368	366	682	358	238
15	153	147	3680	6350	4730	5110	2140	771	360	565	828	226
16	150	147	3400	5710	4550	4800	1970	1310	348	500	1210	220
17	156	151	3220	5610	4580	4580	1820	1720	336	450	1030	214
18	150	166	3220	5870	4550	4320	1680	1730	330	415	964	208
19	141	178	3310	6170	4560	4000	1540	1600	336	372	843	206
20	138	225	3400	6410	4690	3880	1420	1610	330	344	726	210
21	135	199	3380	6670	4950	3580	1310	1640	339	323	677	208
22	132	222	3150	7100	5280	3300	1200	1600	406	314	594	201
23	129	221	2840	7630	5950	3090	1100	1470	694	293	536	197
24	132	205	2830	8420	6670	3000	1010	1300	1080	284	465	193
25	126	193	3040	9600	7520	2990	914	1250	1330	285	400	192
26	141	212	3250	10800	8630	3080	819	1300	1350	278	354	192
27	141	227	3400	11900	9620	3240	737	1360	1220	283	322	188
28	132	263	3540	13100	10200	3310	680	1440	1080	285	296	185
29	129	302	3730	13900	---	3340	623	1470	1090	273	288	183
30	156	359	3950	14000	---	3820	565	1400	1270	263	276	183
31	150	---	4150	12800	---	4790	---	1220	---	292	262	---
TOTAL	4809	5397	76847	248220	178600	189580	98318	29965	18886	19791	13752	6911
MEAN	155	180	2479	8007	6379	6115	3277	967	630	638	444	230
MAX	198	359	4150	14000	11300	10200	7430	1730	1350	1570	1210	302
MIN	126	123	482	4490	4550	2990	565	358	330	263	235	183
AC-FT	9540	10700	152400	492300	354300	376000	195000	59440	37460	39260	27280	13710
CFSM	.07	.08	1.17	3.78	3.01	2.88	1.55	.46	.30	.30	.21	.11
IN.	.08	.09	1.35	4.36	3.13	3.33	1.73	.53	.33	.35	.24	.12
CAL YR 1986	TOTAL 815021	MEAN 2233	MAX 47100	MIN 123	AC-FT 1617000	CFSM 1.05	IN. 14.30					
WTR YR 1987	TOTAL 891076	MEAN 2441	MAX 14000	MIN 123	AC-FT 1767000	CFSM 1.15	IN. 15.64					

SUWANNEE RIVER BASIN

002319500 SUWANNEE RIVER AT ELLAVILLE, FL

LOCATION.--Lat 30°23'04", long 83°10'19", in NE 1/4 sec.24, T.1 S., R.11 E., Suwannee County, Hydrologic Unit 03110205, on left bank at Ellaville, 100 ft upstream from Seaboard Air Line Railroad bridge, 200 ft downstream from Withlacoochee River, 900 ft upstream from bridge on U.S. Highway 90, and 127 mi upstream from mouth.

DRAINAGE AREA.--6,970 mi², approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

PERIOD OF RECORD.--January 1927 to current year.

REVISED RECORDS.--WSP 1905: WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 27.22 ft above National Geodetic Vertical Datum of 1929. Prior to June 20, 1932, nonrecording gage at same site and datum. Nov. 8, 1955 to Sept. 30, 1970, nonrecording gage 1.1 mi downstream from base gage at datum 2.67 ft lower, used as supplementary gage when flow was less than 4,800 ft³/s.

REMARKS.--No estimated daily discharges. Records good. Since Nov. 7, 1953, slight regulation at low water caused by diversions above control 0.7 mi downstream from gage by a steam-electric powerplant for cooling of condensers. Total diverted flow is returned to river below control. Records include flow of large spring on left bank about 200 ft downstream; spring flow may reverse during high stages.

AVERAGE DISCHARGE.--60 years, 6,575 ft³/s, 12.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,300 ft³/s Apr. 7,8, 1948, gage height, 40.88 ft, from floodmarks; minimum, 882 ft³/s July 17, 1955; minimum gage height, 1.56 ft Dec. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,700 ft³/s Mar. 11, gage height, 25.11 ft; minimum, 1,300 ft³/s Nov. 15, gage height, 1.96 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	1800	2580	9400	24200	23900	20600	7530	4510	3740	2710	2790
2	1710	1760	2870	10100	24400	24200	21300	7170	4270	3980	2670	2780
3	1680	1720	3030	10800	24400	24400	21900	6830	4020	4190	2630	2790
4	1660	1690	3120	11600	24300	24600	22200	6510	3870	4240	2610	2980
5	1630	1680	3190	12300	24100	24700	22400	6220	3770	4200	2580	3030
6	1610	1650	3210	13100	23800	24800	22500	5950	3760	4170	2550	3040
7	1590	1550	3260	13700	23600	24900	22500	5730	3680	4140	2520	3200
8	1580	1380	3240	14300	23400	25100	22300	5540	3580	4030	2470	3660
9	1560	1370	3210	14800	23100	25400	22000	5360	3520	3920	2420	4120
10	1570	1360	3180	15300	22800	25600	21500	5200	3490	3890	2390	4310
11	1560	1430	3380	15800	22400	25700	20800	5050	3350	3910	2430	4360
12	1550	1460	4310	16100	22000	25700	19900	4920	3270	4000	2400	4330
13	1540	1340	5850	16300	21600	25500	19000	4780	3180	4110	2460	4250
14	1530	1320	6980	16300	21100	25200	18200	4670	3150	4140	2640	4190
15	1520	1320	7430	16300	20600	24800	17300	4710	3120	4110	3150	4070
16	1490	1360	7490	16100	20300	24400	16500	4950	3090	4080	3860	3940
17	1500	1460	7480	16100	20000	23900	15700	5190	3030	4020	4190	3780
18	1510	1480	7500	16400	19800	23500	14800	5270	3000	3940	4230	3630
19	1570	1460	7550	16900	19600	22900	14000	5200	2970	3800	4120	3490
20	1670	1580	7620	17400	19400	22300	13300	5140	2950	3660	3980	3390
21	1660	1690	7650	17900	19500	21600	12600	5130	2920	3540	3850	3280
22	1650	1840	7600	18500	19600	20900	11900	5110	2920	3390	3700	3190
23	1650	1930	7480	19100	20000	20200	11300	5030	3040	3250	3560	3100
24	1640	1970	7500	19700	20700	19500	10800	4930	3220	3130	3450	3000
25	1640	1940	7810	20400	21400	18800	10300	4810	3420	3040	3340	2910
26	1640	1910	8140	21100	22100	18400	9740	4750	3520	2970	3200	2820
27	1630	1900	8420	21700	22800	18400	9240	4700	3520	2910	3090	2740
28	1610	1890	8580	22400	23400	18500	8780	4690	3490	2860	3010	2660
29	1650	1990	8720	23000	---	18600	8340	4700	3480	2810	2940	2620
30	1700	2250	8880	23600	---	19000	7920	4740	3560	2760	2870	2560
31	1790	---	9060	24000	---	19800	---	4690	---	2730	2800	---
TOTAL	50020	49460	186320	520500	614400	705200	489620	165200	102670	113660	94820	101010
MEAN	1614	1649	6010	16790	21940	22750	16320	5329	3422	3666	3059	3367
MAX	1790	2250	9060	24000	24400	25700	22500	7530	4510	4240	4230	4360
MIN	1490	1320	2580	9400	19400	18400	7920	4670	2920	2730	2390	2560
AC-FT	99210	98100	369600	1032000	1219000	1399000	971200	327700	203600	225400	188100	200400
CFSM	.23	.24	.86	2.41	3.15	3.26	2.34	.76	.49	.53	.44	.48
IN.	.27	.26	.99	2.78	3.28	3.76	2.61	.88	.55	.61	.51	.54

CAL YR 1986 TOTAL 2610690 MEAN 7153 MAX 54200 MIN 1320 AC-FT 5178000 CFSM 1.03 IN. 13.93
WTR YR 1987 TOTAL 3192880 MEAN 8748 MAX 25700 MIN 1320 AC-FT 6333000 CFSM 1.26 IN. 17.04

SUWANNEE RIVER BASIN

02320500 SUWANNEE RIVER AT BRANFORD, FL
(National stream-quality accounting network station)

LOCATION.--Lat 29°57'20", long 82°55'40", in NE¹/₄ sec.20, T.6 S., R.14 E., Suwannee County, Hydrologic Unit 03110205, near left bank on upstream side of bridge on U.S. Highway 27 at Branford, 10.2 mi upstream from Santa Fe River and 75 mi upstream from mouth.

DRAINAGE AREA.--7,880 mi², includes part of watershed in Okefenokee Swamp which is indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1931 to current year.

REVISED RECORDS.--WSP 1905: WDR FL-75-1: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 4.81 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges during year. Records good.

AVERAGE DISCHARGE.--56 years, 7,072 ft³/s, 12.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,900 ft³/s Apr. 11, 1948, gage height, 34.07 ft; minimum, 1,530 ft³/s July 1, 2, 1955; minimum gage height, 1.97 ft observed, Jan. 10, 11, 14, 17, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1928 reached a stage of 32.0 ft from floodmark; discharge, 65,000 ft³/s computed on basis of measured crest flow at Ellaville (station 02319500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,100 ft³/s Mar. 14, gage height, 24.48 ft; minimum daily, 2,540 ft³/s Nov. 15, gage height, 4.17 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3120	2740	3130	8800	22500	24400	22200	11200	6870	5440	4520	4360
2	3090	2740	3320	9020	23000	24800	22600	10800	6720	5510	4450	4320
3	3060	2730	3540	9390	23300	25100	23100	10500	6560	5670	4400	4290
4	3040	2710	3680	9870	23600	25300	23600	10100	6360	5830	4360	4290
5	3010	2690	3750	10400	23700	25600	23900	9790	6240	5920	4310	4400
6	2980	2670	3820	10900	24000	25800	24200	9400	6160	5940	4270	4460
7	2950	2660	3870	11500	24100	26000	24500	9190	6040	5980	4220	4470
8	2940	2640	3900	11900	24000	26500	24600	8920	5930	5930	4170	4590
9	2920	2620	3900	12400	24000	26600	24600	8740	5840	5880	4080	4860
10	2920	2600	4010	12900	23800	26700	24500	8490	5730	5790	4040	5140
11	2890	2600	4030	13400	23700	26800	24000	8320	5660	5720	4100	5320
12	2870	2590	4200	13700	23600	26900	23700	8180	5560	5710	4050	5410
13	2860	2570	4690	14100	23500	27100	23200	8010	5480	5750	4040	5470
14	2880	2550	5470	14300	23200	27100	22400	7880	5430	5830	4100	5460
15	2860	2540	6120	14600	23000	27100	21700	7760	5370	5860	4190	5420
16	2830	2560	6540	14800	22800	27000	20900	7690	5280	5820	4540	5390
17	2800	2570	6800	14900	22500	26700	20200	7720	5220	5750	4990	5330
18	2790	2580	6970	15000	22100	26500	19300	7750	5140	5710	5250	5240
19	2760	2600	7120	15300	21800	26200	18300	7790	5070	5620	5380	5150
20	2740	2610	7240	15700	21500	25800	17600	7730	5010	5540	5400	5020
21	2720	2690	7330	16100	21600	25300	16900	7670	4980	5450	5370	4960
22	2720	2710	7410	16800	21500	24800	16100	7610	4960	5360	5330	4850
23	2710	2760	7500	17200	21800	24300	15400	7520	4920	5220	5240	4750
24	2710	2830	7580	17700	21900	23700	14700	7400	4990	5120	5170	4660
25	2710	2880	7610	18400	22300	23000	14000	7330	5100	5010	5080	4550
26	2730	2870	7750	19100	22800	22300	13500	7240	5220	4890	4970	4400
27	2690	2890	7940	19700	23300	21900	13000	7140	5360	4800	4840	4340
28	2660	2860	8110	20400	23800	21800	12500	7060	5350	4720	4710	4230
29	2690	2940	8280	21000	---	21600	12000	7010	5320	4630	4620	4150
30	2760	3030	8420	21600	---	21700	11700	6960	5320	4570	4550	4110
31	2710	---	8550	22200	---	21900	---	6900	---	4520	4470	---
TOTAL	88120	81030	182580	463080	642700	776300	588900	255800	167190	169490	143210	143390
MEAN	2843	2701	5890	14940	22950	25040	19630	8252	5573	5467	4620	4780
MAX	3120	3030	8550	22200	24100	27100	24600	11200	6870	5980	5400	5470
MIN	2660	2540	3130	8800	21500	21600	11700	6900	4920	4520	4040	4110
AC-FT	174800	160700	362100	918500	1275000	1540000	1168000	507400	331600	336200	284100	284400
CFSM	.36	.34	.75	1.90	2.91	3.18	2.49	1.05	.71	.69	.59	.61
IN.	.42	.38	.86	2.19	3.03	3.66	2.78	1.21	.79	.80	.68	.68
CAL YR 1986	TOTAL 2947340	MEAN 8075	MAX 38500	MIN 2540	AC-FT 5846000	CFSM 1.02	IN. 13.91					
WTR YR 1987	TOTAL 3701790	MEAN 10140	MAX 27100	MIN 2540	AC-FT 7342000	CFSM 1.29	IN. 17.48					

SUWANNEE RIVER BASIN
02320500 SUWANNEE RIVER AT BRANFORD, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1954 to September 1957, October 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	
NOV 06...	1730	2690	328	8.10	22.5	.80	7.0	81	K16	K10	170	
FEB 13...	1530	23400	68	6.50	11.5	2.4	8.8	81	54	43	29	
MAY 06...	1515	9570	272	8.10	21.0	2.3	5.3	60	K18	20	140	
AUG 25...	1400	5060	223	7.65	27.0	1.5	4.8	60	170	K23	120	
DATE	TIME	HARD- NESS, NONCARB F.WH.W. (MG/L CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LITY LAB (MG/L AS CACO3)	ALKA- LITY, CARB., FIELD, INC.T., (MG/L CACO3)
NOV 06...	27	27	50	10	6.1	7	.2	.70	139	139	138	
FEB 13...	12	12	8.5	1.9	3.8	21	.3	1.1	17	16	16	
MAY 06...	27	27	44	6.8	3.7	5	.1	.50	111	122	112	
AUG 25...	26	26	35	7.0	6.7	11	.3	.80	90	93	90	
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 06...	2.1	23	6.1	.30	8.5	179	190	.24	1300	<.010	1.0	
FEB 13...	10	18	6.1	.10	5.7	72	57	.10	4550	<.010	.21	
MAY 06...	1.7	14	6.1	.10	6.7	182	150	.25	4700	<.010	.95	
AUG 25...	3.9	24	6.8	.20	7.6	160	140	.22	2190	<.010	<.10	
DATE		NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS., (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
NOV 06...	.020	.040	.05	2.1	2.1	.430	.430	.410	1.3	30	<1	
FEB 13...	.060	.030	.04	.74	.80	.150	.090	.110	.34	450	<1	
MAY 06...	.010	.020	.03	.59	.60	.110	.090	.090	.28	60	<1	
AUG 25...	.050	.040	.05	.85	.90	.240	.230	.150	.46	150	<1	

SUWANNEE RIVER BASIN

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02320500 SUWANNEE RIVER AT BRANFORD, FL-Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)
NOV 06...	12	<.5	<1	<1	<3	<1	38	<5	5	5	<.1
FEB 13...	19	1.1	<1	<1	<3	<1	400	<5	4	24	<.1
MAY 06...	15	<.5	1	<1	<3	<1	160	<5	5	10	<.1
AUG 25...	16	<.5	<1	<1	5	<1	290	<5	<4	9	<.1
DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	
NOV 06...	<10	2	<1	<1	95	<6	7	3	22	55	
FEB 13...	<10	<1	<1	<1	18	<6	21	12	758	25	
MAY 06...	<10	2	<1	<1	64	<6	8	16	413	81	
AUG 25...	<10	<1	<1	<1	63	<6	13	12	164	83	

SUWANNEE RIVER BASIN

02320700 SANTA FE RIVER NEAR GRAHAM, FL

LOCATION.--Lat 29°50'46", long 82°13'11", in NE¹/₄ sec.32, T.7 S., R.21 E., Alachua County, Hydrologic Unit 03110206, near left bank on upstream side of bridge on State Highway 225, 1.0 mi south of Graham, 1.5 mi upstream from Sampson River, and 71 mi upstream from mouth.

DRAINAGE AREA.--94.9 mi².

PERIOD OF RECORD.--August 1957 to current year.

REVISED RECORDS.--WSP 2105: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 103.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except for period of missing record, which is fair. Records do not include diversions during periods of high stages from Santa Fe Lake through Lochloosa Creek in St. Johns River basin.

AVERAGE DISCHARGE.--30 years, 57.9 ft³/s, 8.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,360 ft³/s Sept. 12, 1964, gage height, 14.97 ft; minimum, 0.02 ft³/s June 1, 1981, gage height, 2.72 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge base of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 12	0100	596	12.10	Mar. 1	1900	408	11.16
Feb. 23	Unknown	*650	Unknown	Mar. 30	1500	633	12.22

Minimum discharge, 0.43 ft³/s Aug. 9, 10, gage height, 3.02 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.2	14	69	120	324	576	40	8.5	1.2	.79	7.7
2	1.7	1.1	11	61	105	356	495	36	7.1	1.1	.89	9.7
3	1.4	1.1	14	54	92	332	404	33	6.0	1.1	1.4	7.0
4	1.2	1.1	8.5	67	82	294	336	31	5.0	1.5	1.1	6.0
5	1.2	1.1	6.0	190	85	254	291	29	6.5	13	.99	6.4
6	1.2	1.1	4.8	160	84	218	250	28	6.6	9.1	.94	15
7	1.2	1.0	4.3	158	78	234	215	26	5.4	7.3	.71	14
8	1.2	1.0	4.2	138	73	306	189	25	4.4	8.7	.58	11
9	1.4	1.0	3.9	113	69	293	168	24	3.5	9.3	.51	8.6
10	1.8	1.0	3.7	96	98	274	152	23	2.9	8.1	.57	7.1
11	1.4	.98	10	88	228	242	138	23	2.5	8.4	.67	14
12	1.2	.97	50	74	472	212	127	24	2.1	5.8	1.3	15
13	1.2	.97	65	63	414	187	117	24	1.9	4.3	2.4	20
14	1.7	.93	38	55	e350	167	107	25	1.7	3.3	27	15
15	1.3	.90	37	49	e300	150	102	28	1.6	2.9	84	11
16	1.2	.92	36	47	e250	137	97	28	1.4	2.6	135	7.4
17	1.2	.93	32	56	e225	127	94	26	1.3	2.1	169	24
18	1.1	.90	28	57	e190	117	91	25	1.6	1.7	156	20
19	1.1	.90	24	54	e160	113	89	24	1.7	1.6	130	16
20	1.1	.93	21	53	e190	105	85	27	1.5	1.4	102	23
21	1.1	.93	19	57	e300	98	80	25	1.3	1.2	85	17
22	1.0	.90	17	196	e450	92	74	24	1.2	1.2	.65	12
23	1.0	.90	19	227	e650	86	69	22	1.2	1.0	50	8.2
24	.99	.90	34	210	467	81	64	20	1.2	.94	40	5.9
25	.98	.90	30	202	424	76	61	18	1.2	.90	32	4.4
26	1.0	.88	26	200	361	75	58	16	1.6	.93	26	3.3
27	1.0	.86	24	175	313	81	54	14	2.2	.99	21	2.6
28	.97	.88	22	154	268	257	51	14	2.0	.83	21	2.1
29	.99	2.1	20	123	---	290	47	13	1.4	.74	18	1.7
30	1.4	10	18	157	---	511	43	11	1.2	.69	12	1.5
31	1.3	---	19	137	---	590	---	9.8	---	.80	7.8	---
TOTAL	38.53	39.28	663.4	3540	6898	6679	4724	735.8	87.7	104.72	1193.65	316.6
MEAN	1.24	1.31	21.4	114	246	215	157	23.7	2.92	3.38	38.5	10.6
MAX	2.0	10	65	227	650	590	576	40	8.5	13	169	24
MIN	.97	.86	3.7	47	69	75	43	9.8	1.2	.69	.51	1.5
AC-FT	76	78	1320	7020	13680	13250	9370	1460	174	208	2370	628
CFSM	.01	.01	.23	1.20	2.60	2.27	1.66	.25	.03	.04	.41	.11
IN.	.02	.02	.26	1.39	2.70	2.62	1.85	.29	.03	.04	.47	.12

CAL YR 1986	TOTAL	15912.73	MEAN	43.6	MAX	400	MIN	.00	AC-FT	31560	CFSM	.46	IN.	6.24
WTR YR 1987	TOTAL	25020.53	MEAN	68.5	MAX	650	MIN	.51	AC-FT	49630	CFSM	.72	IN.	9.81

e Estimated

SUWANNEE RIVER BASIN

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02321500 SANTA FE RIVER AT WORTHINGTON SPRINGS, FL
(National stream-quality accounting network station)

LOCATION.--Lat 29°55'18", long 82°25'35", in SE¹/₄ sec.32, T.6 S., R.19 E., Alachua County, Hydrologic Unit 03110206, near center of span on downstream side of bridge on State Highway 121, 0.5 mi south of Worthington Springs, 0.8 mi downstream from New River, and 51 mi upstream from mouth.

DRAINAGE AREA.--575 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year. Published as "near Worthington" prior to October 1965. Monthly discharge only for October 1931, published in WSP 1304.

REVISED RECORDS.--WSP 2105: WDR FL-76-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 42.74 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 16, 1939, nonrecording gage at site 0.2 mi downstream at present datum; Jan. 16, 1939 to July 23, 1953, nonrecording gage at present site and datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Records do not include diversions, during periods of high stages from Santa Fe Lake through Lochloosa Creek in St. Johns River basin.

AVERAGE DISCHARGE.--56 years, 445 ft³/s, 10.51 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s Sept. 13, 1964, gage height, 28.40 ft; minimum, 0.50 ft³/s June 24, 1955, gage height, 6.74 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,250 ft³/s Feb. 24, gage height, 20.12 ft; minimum, 36 ft³/s July 29, gage height, 7.72 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	67	e170	e900	1240	2580	4870	185	66	50	91	153
2	69	69	e250	e1100	1080	2610	4550	171	62	47	74	151
3	63	66	e300	e900	982	2730	3910	159	59	47	58	156
4	59	63	e300	e800	858	2550	3270	147	57	45	57	147
5	55	60	e280	e1500	822	2210	2630	138	59	48	57	133
6	52	58	e260	e1700	1320	1930	2120	132	78	47	62	121
7	50	56	e240	e1510	1750	1790	1770	130	88	51	60	128
8	63	53	e200	1420	2260	1940	1500	182	73	54	49	140
9	80	51	e170	1200	2480	2060	1280	155	61	61	43	123
10	135	e51	e150	1000	2350	2210	1100	135	55	75	38	108
11	153	e50	e130	924	2090	2160	934	125	51	85	42	98
12	141	e50	e500	823	1800	2050	790	120	50	86	63	152
13	122	e50	e800	764	1530	1870	703	125	48	76	68	541
14	103	e49	e900	723	1300	1640	631	137	47	65	99	557
15	91	e49	e850	655	1110	1420	587	149	47	59	115	612
16	90	e49	e800	641	1020	1230	542	195	46	61	191	611
17	94	e48	e700	776	992	1070	491	185	43	64	395	e580
18	84	e48	e600	838	962	935	452	153	42	59	505	e520
19	73	e48	e500	912	906	847	423	130	44	53	516	e450
20	66	e48	e450	1030	810	778	392	121	44	50	517	e350
21	61	e48	e400	1030	857	726	363	120	42	48	565	e300
22	57	e47	e375	1520	1330	676	337	128	41	46	539	e250
23	53	e47	e350	2240	3860	622	315	116	48	44	513	e200
24	51	e47	e500	2720	5080	566	401	105	52	53	470	e170
25	50	e47	e600	2740	4930	517	392	99	47	49	361	e150
26	50	e47	e550	2640	4260	481	311	93	47	45	294	e130
27	51	e46	e500	2470	3620	466	263	85	48	42	263	e110
28	51	e46	e460	2230	2920	747	237	82	83	38	220	e100
29	51	e46	e430	1920	---	1300	218	78	67	36	184	e90
30	60	e100	e410	1650	---	2200	201	74	56	38	158	e80
31	64	---	e400	1430	---	3860	---	70	---	49	150	---
TOTAL	2318	1604	13525	42706	54519	48771	35983	4024	1651	1671	6817	7411
MEAN	74.8	53.5	436	1378	1947	1573	1199	130	55.0	53.9	220	247
MAX	153	100	900	2740	5080	3860	4870	195	88	86	565	612
MIN	50	46	130	641	810	466	201	70	41	36	38	80
AC-FT	4600	3180	26830	84710	108100	96740	71370	7980	3270	3310	13520	14700
CFSM	.13	.09	.76	2.40	3.39	2.74	2.09	.23	.10	.09	.38	.43
IN.	.15	.10	.88	2.76	3.53	3.16	2.33	.26	.11	.11	.44	.48

CAL YR 1986 TOTAL 129386 MEAN 354 MAX 3830 MIN 15 AC-FT 256600 CFSM .62 IN. 8.37
WTR YR 1987 TOTAL 221000 MEAN 605 MAX 5080 MIN 36 AC-FT 438400 CFSM 1.05 IN. 14.30

e Estimated

SUWANNEE RIVER BASIN

02321500 SANTA FE RIVER AT WORTHINGTON SPRINGS, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1957 to September 1960, October 1963 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCARB F.WH.W. ,FET, (MG/L CACO3)	
NOV 06...	1330	58	188	7.50	21.0	1.0	8.0	90	110	60	72	21	
FEB 12...	1655	1730	65	5.70	11.0	1.5	8.8	81	230	47	20	15	
MAY 07...	1200	129	94	7.00	21.0	2.2	6.8	77	46	110	32	16	
AUG 26...	1015	295	80	6.30	26.0	1.4	6.5	80	190	K430	31	20	
DATE		HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY, CARB., FIELD, INC.T., (MG/L CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
NOV 06...		21	18	6.5	12		26	.6	1.4	51	51	51	3.1
FEB 12...		15	5.2	1.8	5.4		35	.5	1.0	5	6.0	3	19
MAY 07...		16	8.6	2.6	6.9		31	.5	.60	16	17	13	3.1
AUG 26...		20	8.4	2.5	6.1		29	.5	1.0	11	12	8	11
DATE		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)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
NOV 06...		27	14	.20	6.7	131	120	.18	21	--	<.010	.29	
FEB 12...		21	8.8	<.10	4.8	88	52	.12	411	--	<.010	<.10	
MAY 07...		17	14	.10	3.9	92	65	.13	32	.14	.010	.15	
AUG 26...		27	8.5	.20	5.9	126	68	.17	100	--	<.010	.88	
DATE		NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	
NOV 06...		.040	.050	.06	--	.86	.90	.430	.410	.390	1.2	70	
FEB 12...		.050	.040	.05	--	.95	1.0	.090	.070	.080	.25	580	
MAY 07...		.060	.070	.09	.03	1.0	1.1	.200	.170	.150	.46	270	
AUG 26...		.070	.020	.03	--	.73	.80	.240	.240	.040	.12	570	

SUWANNEE RIVER BASIN

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02321500 SANTA FE RIVER AT WORTHINGTON SPRINGS, FL--Continued

WATER-QUALITY RECORDS--CONTINUED

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 06...	<1	17	<.5	<1	<1	<3	<1	160	<5	<4	11
FEB 12...	<1	12	.6	<1	<1	<3	3	370	<5	<4	14
MAY 07...	<1	14	<.5	<1	<1	<3	1	340	<5	<4	13
AUG 26...	<1	19	<.5	<1	<1	<3	1	760	<5	<4	43
DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 06...	<.1	<10	1	<1	<1	66	<6	<3	7	1.1	57
FEB 12...	.1	<10	<1	<1	<1	17	<6	24	9	42	44
MAY 07...	<.1	<10	<1	<1	<1	28	<6	<3	13	4.5	85
AUG 26...	<.1	<10	<1	<1	<1	31	<6	12	15	12	80

SUWANNEE RIVER BASIN
02322016 BLUES CREEK NEAR GAINESVILLE, FL

LOCATION.--Lat 29°43'41", long 82°25'54", in NW¹/₄ sec.8, T.9 S., R.19 E., Alachua County, Hydrologic Unit 03080102, about 1 mi above sink, 1 mi northwest of University of Florida Agricultural Experiment Station, 6.0 mi southeast of Alachua and 7.6 mi northwest of Gainesville.

DRAINAGE AREA.--5.04 mi², of which 3.5 mi² are noncontributing at low and medium discharge.

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

GAGE.--Water-stage recorder. Elevation of the gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 209 ft³/s, Aug. 31, 1985, gage height, 6.15 ft (from high-water marks); minimum daily, 0.16 ft³/s, June 7, 8, 12, 1986 estimated.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft³/s, Mar. 30, gage height 6.06 ft; minimum daily, 0.36 ft³/s Sept. 26-29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.6	14	17	7.2	42	49	e1.7	.95	1.7	.87	e1.6
2	1.4	2.4	14	13	6.6	27	33	e1.6	.83	1.6	.74	2.1
3	1.3	2.3	13	9.9	6.3	21	25	e1.6	.76	1.3	.84	1.4
4	1.1	2.1	11	11	5.8	16	18	e1.5	.74	1.2	.90	1.0
5	.97	2.1	9.0	12	18	12	13	e1.5	.79	1.1	.73	.82
6	.87	2.0	7.6	9.9	29	10	9.4	e1.4	1.2	1.0	.67	.71
7	3.9	2.0	6.6	8.6	28	19	7.5	e1.4	.86	1.4	e.64	.66
8	12	1.9	6.0	7.5	20	21	6.1	e1.4	.77	1.5	e.62	.57
9	22	1.8	5.4	6.5	15	16	5.1	e1.3	.72	1.1	e.65	.48
10	35	1.8	4.9	6.5	12	13	4.5	e1.3	.67	1.3	e.70	.48
11	20	1.7	6.6	6.6	9.9	10	4.1	e1.2	.64	2.2	e.72	.51
12	14	2.3	15	5.9	8.2	8.8	3.9	e1.2	.62	1.5	2.6	2.3
13	11	2.6	16	5.4	7.2	7.7	e3.8	e1.2	.58	1.1	2.1	2.3
14	9.0	2.3	13	5.0	6.4	6.9	e3.7	e1.2	.57	.99	1.5	1.5
15	7.0	2.2	10	4.8	5.7	6.1	e3.5	e1.1	.63	1.1	1.3	1.2
16	5.8	2.1	9.0	5.7	7.4	5.5	e3.3	e1.1	.54	1.0	1.1	.96
17	4.9	2.0	7.9	13	7.3	5.1	e3.1	e1.1	.54	.81	.92	.82
18	4.1	1.9	7.1	10	6.5	4.8	e2.9	e1.1	1.2	.75	.77	.82
19	3.6	1.8	6.5	9.0	5.7	4.9	e2.7	5.5	1.5	.73	.91	1.1
20	3.1	1.8	6.1	8.3	5.3	4.6	e2.6	4.2	1.0	.71	.97	.92
21	2.9	2.0	5.6	9.9	11	4.3	e2.6	e4.1	.84	.97	e.76	.79
22	2.6	1.8	5.3	45	26	4.1	e2.5	e3.9	1.4	.80	e.67	.68
23	2.3	1.7	6.8	27	27	4.0	e2.4	e3.6	2.0	.66	e.65	.64
24	2.2	1.7	10	21	18	3.8	e2.3	e3.3	1.7	.63	e.64	.56
25	2.1	1.6	9.1	20	15	3.6	e2.2	e3.0	1.8	1.9	e.63	.41
26	2.2	1.6	7.8	17	12	3.6	e2.1	2.7	2.0	1.9	e.62	.36
27	2.9	1.5	7.0	14	10	11	e2.0	1.2	3.2	1.3	e.60	.36
28	2.4	1.5	6.4	12	8.9	49	e1.9	1.2	3.5	1.2	e.65	.36
29	2.5	6.0	6.0	11	---	29	e1.8	1.1	2.4	.91	e.70	.36
30	3.2	12	5.6	9.1	---	123	e1.7	.99	2.0	.76	e.75	.43
31	2.9	---	7.0	8.2	---	103	---	.94	---	.80	e.80	---
TOTAL	190.94	73.1	265.3	369.8	345.4	599.8	225.7	59.63	36.95	35.92	27.72	27.20
MEAN	6.16	2.44	8.56	11.9	12.3	19.3	7.52	1.92	1.23	1.16	.89	.91
MAX	35	12	16	45	29	123	49	5.5	3.5	2.2	2.6	2.3
MIN	.87	1.5	4.9	4.8	5.3	3.6	1.7	.94	.54	.63	.60	.36
AC-FT	379	145	526	733	685	1190	448	118	73	71	55	54
CFSM	1.22	.48	1.70	2.37	2.45	3.84	1.49	.38	.24	.23	.18	.18
IN.	1.41	.54	1.96	2.73	2.55	4.43	1.67	.44	.27	.27	.20	.20

CAL YR 1986 TOTAL 1637.31 MEAN 4.49 MAX 36 MIN .16 AC-FT 3250 CFSM .89 IN. 12.08
WTR YR 1987 TOTAL 2257.46 MEAN 6.18 MAX 123 MIN .36 AC-FT 4480 CFSM 1.23 IN. 16.66

e Estimated

SUWANNEE RIVER BASIN

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02322500 SANTA FE RIVER NEAR FORT WHITE, FL

LOCATION.--Lat 29°50'55", long 82°42'55", in SE 1/4 sec.28, T.7 S., R.16 E., Gilchrist County, Hydrologic Unit 03110206, on left bank 2.1 mi upstream from bridge on State Highway 47, 5.1 mi south of Fort White, and 18 mi upstream from mouth.

DRAINAGE AREA.--1,017 mi².

PERIOD OF RECORD.--October 1927 to January 1930, June 1932 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 20.86 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 3, 1932, nonrecording gage at several sites within 200 ft of present site at various datums. Oct. 1, 1947 to Feb. 10, 1949, auxiliary nonrecording gage and since Feb. 11, 1949, auxiliary water-stage recorder at bridge on U.S. Highway 129, 16 mi downstream from base gage at datum 3.5 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges during water year. Records good.

AVERAGE DISCHARGE.--57 years (water years 1928-29, 1933-87), 1,625 ft³/s, 21.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft³/s Sept. 16, 1964, gage height, 15.34 ft; minimum 609 ft³/s May 22, 1957; minimum gage height, 0.45 ft Mar. 20, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,980 ft³/s Mar. 1, gage height, 7.10 ft; minimum, 1,080 ft³/s Nov. 28, gage height, 0.92 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1370	1180	1120	1440	3150	4920	3700	2390	1700	1530	1510	1750
2	1350	1180	1120	1440	3040	4780	4200	2330	1680	1530	1510	1760
3	1340	1180	1130	1480	2930	4620	4660	2280	1670	1520	1510	1770
4	1320	1180	1140	1580	2820	4510	4910	2230	1660	1520	1510	1780
5	1310	1180	1160	1690	2770	4430	4940	2190	1650	1520	1510	1800
6	1300	1170	1180	1810	2770	4340	4840	2150	1650	1520	1510	1780
7	1290	1160	1180	1920	2810	4280	4660	2120	1630	1520	1510	1760
8	1300	1160	1190	2000	2890	4200	4450	2100	1630	1520	1510	1740
9	1300	1150	1180	2060	3020	4110	4220	2070	1620	1520	1510	1730
10	1320	1150	1190	2110	3160	4030	4010	2040	1600	1520	1520	1720
11	1330	1150	1190	2120	3270	3970	3820	2050	1590	1520	1520	1700
12	1330	1140	1200	2100	3320	3940	3650	2020	1570	1530	1540	1700
13	1340	1140	1220	2090	3320	3910	3510	1980	1570	1540	1530	1720
14	1340	1130	1260	2070	3270	3860	3400	1960	1570	1570	1520	1780
15	1320	1130	1330	2060	3200	3780	3320	1940	1560	1550	1530	1850
16	1300	1130	1400	2040	3150	3680	3240	1930	1550	1540	1560	1930
17	1290	1130	1440	2050	3080	3580	3170	1930	1540	1520	1590	1980
18	1280	1120	1460	2080	2990	3470	3090	1930	1540	1520	1650	2000
19	1280	1120	1450	2100	2890	3390	3000	1920	1530	1520	1740	2010
20	1260	1110	1450	2120	2830	3290	2920	1900	1530	1530	1820	2000
21	1250	1100	1430	2170	2840	3200	2860	1880	1540	1530	1900	1960
22	1240	1100	1420	2340	2920	3150	2800	1860	1530	1520	1940	1920
23	1240	1100	1430	2480	3290	3100	2740	1850	1540	1520	1960	1890
24	1240	1100	1430	2730	3620	3030	2690	1840	1540	1510	1970	1850
25	1240	1100	1410	3020	4070	2970	2660	1820	1540	1510	1970	1800
26	1220	1090	1410	3220	4540	2910	2630	1800	1530	1510	1940	1750
27	1210	1090	1440	3350	4850	2870	2580	1780	1540	1510	1910	1700
28	1190	1090	1460	3410	4930	2880	2550	1760	1530	1500	1890	1670
29	1200	1110	1460	3400	---	2870	2510	1740	1530	1500	1850	1640
30	1190	1120	1440	3350	---	3050	2450	1730	1530	1500	1820	1630
31	1190	---	1440	3270	---	3340	---	1710	---	1500	1780	---
TOTAL	39680	33990	40760	71100	91740	114460	104180	61230	47390	47170	52040	54070
MEAN	1280	1133	1315	2294	3276	3692	3473	1975	1580	1522	1679	1802
MAX	1370	1180	1460	3410	4930	4920	4940	2390	1700	1570	1970	2010
MIN	1190	1090	1120	1440	2770	2870	2450	1710	1530	1500	1510	1630
AC-FT	78710	67420	80850	141000	182000	227000	206600	121400	94000	93560	103200	107200
CFSM	1.26	1.11	1.29	2.26	3.22	3.63	3.41	1.94	1.55	1.50	1.65	1.77
IN.	1.45	1.24	1.49	2.60	3.36	4.19	3.81	2.24	1.73	1.73	1.90	1.98

CAL YR 1986 TOTAL 543080 MEAN 1488 MAX 3190 MIN 1070 AC-FT 1077000 CFSM 1.46 IN. 19.86
WTR YR 1987 TOTAL 757810 MEAN 2076 MAX 4940 MIN 1090 AC-FT 1503000 CFSM 2.04 IN. 27.72

SUWANNEE RIVER BASIN
02323500 SUWANNEE RIVER NEAR WILCOX, FL

LOCATION.--Lat 29°35'22", long 82°56'12", in NW¹/₄ sec.29, T.10 S., R.14 E., Levy County, Hydrologic Unit 03110205, on left bank about 400 ft downstream from Fort Fannin Bridge on U.S. Highway 19, 2.0 mi southwest of Wilcox and 33 mi upstream from mouth.

DRAINAGE AREA.--9,640 mi², approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1931, October 1941 to current year. Monthly discharge only for some periods, published in WSP 1304.

REVISED RECORDS.--WSP 1905: WDR FL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.53 ft below National Geodetic Vertical Datum of 1929. Prior to July 4, 1931, nonrecording gage at site 400 ft upstream at present datum. July 4 to Sept. 30, 1931, and Mar. 26 to May 14, 1942, water-stage recorder, and May 15, 1942 to Jan. 24, 1951, nonrecording gage at present site and datum. Since Feb. 1, 1951, auxiliary water-stage recorder about 9.0 mi downstream from base gage. Datum of gage is 2.99 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow generally affected by tide when discharge is less than 17,500 ft³/s.

AVERAGE DISCHARGE.--47 years (water years 1931, 1942-87), 10,680 ft³/s, 15.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,700 ft³/s Apr. 14, 1948, gage height, 22.32 ft; minimum daily since January 1951, 2,960 ft³/s Oct. 25, 1981; minimum gage height since January 1951, 0.57 ft Jan. 19, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,400 ft³/s Mar. 16; gage height, 13.41 ft; minimum daily, 4,770 ft³/s Oct. 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5660	5390	5590	10800	25300	29200	28300	18500	12300	9000	7970	7610
2	e5630	5380	5620	13300	25800	29700	28100	18000	12300	9310	7910	7410
3	e5600	5260	6330	13200	26300	30000	28300	17500	12000	9360	7920	7110
4	e5580	5230	6880	12600	26600	30300	28700	17200	11900	9640	7930	7190
5	e5550	5160	7320	14900	27100	30500	29100	17200	11800	9470	7790	7220
6	e5520	5230	7650	16000	27500	30600	29500	17100	12100	9680	7620	6990
7	e5490	5220	7350	15700	27800	31100	29900	16600	11500	9710	7540	6890
8	e5480	5210	6670	16000	27900	31700	30200	16100	10900	9470	7430	7300
9	e5460	5290	6400	16200	28000	31900	30400	15900	10300	9380	7390	7590
10	e5460	5200	6610	16300	28000	32100	30400	15400	10100	9070	7590	8040
11	e5430	4890	6480	17000	28000	32100	30400	14600	9870	8970	7630	8270
12	e5410	5090	6800	18400	28000	32200	30200	14300	9490	8960	7410	8050
13	e5400	5390	8660	17900	28100	32200	30000	14100	9480	9070	7860	7460
14	e5420	6730	9050	17800	28100	32300	29600	14000	9370	9230	8010	8320
15	e5400	5400	8910	18300	28000	32300	29100	13600	9580	9390	7630	9270
16	e5370	5000	9670	18800	28200	32400	28500	13300	9870	9800	7840	8920
17	e5340	5030	9830	19200	28000	32300	27800	13100	9880	10000	8680	8000
18	e5330	5060	10000	19400	27700	32300	27100	13200	10300	10000	8990	8180
19	e5300	5090	10400	19600	27300	32200	26300	13400	9910	9890	9120	8210
20	e5280	5000	10400	19700	26900	32000	25500	13500	9480	9180	9110	7530
21	e5260	5450	11200	19800	26800	31600	24800	13500	9490	9660	9230	8360
22	5330	5450	11900	20500	26900	31100	24100	13600	9490	9410	9180	8110
23	5130	5290	10200	20900	27100	30600	23500	13200	9350	8720	8830	7980
24	4960	5290	10400	21100	27100	30100	22800	12900	9430	8760	8440	7750
25	4770	5370	11500	21600	27100	29700	22200	12700	9340	8490	8370	7630
26	5130	5120	11900	22300	27400	29100	21500	12600	8980	8280	8270	7610
27	5180	5660	11800	22800	27700	28800	20800	12500	8940	8140	8080	7500
28	5690	5590	12300	23200	28200	29200	20200	12500	9610	8060	7940	7350
29	5490	5370	12300	23700	---	28700	19600	12400	9300	8030	7820	7280
30	5550	5330	12400	24300	---	28600	19000	12400	9280	7890	7800	7050
31	5280	---	12400	24800	---	28600	---	12500	---	8080	7690	---
TOTAL	166880	159170	284920	576100	766900	955500	795900	447400	305640	282100	251020	232180
MEAN	5383	5306	9191	18580	27390	30820	26530	14430	10190	9100	8097	7739
MAX	5690	6730	12400	24800	28200	32400	30400	18500	12300	10000	9230	9270
MIN	4770	4890	5590	10800	25300	28600	19000	12400	8940	7890	7390	6890
AC-FT	331000	315700	565100	1143000	1521000	1895000	1579000	887400	606200	559500	497900	460500
CFSM	.56	.55	.95	1.93	2.84	3.20	2.75	1.50	1.06	.94	.84	.80
IN.	.64	.61	1.10	2.22	2.96	3.69	3.07	1.73	1.18	1.09	.97	.90
CAL YR 1986	TOTAL 4221080	MEAN 11560	MAX 41300	MIN 4770	AC-FT 8373000	CFSM 1.20	IN. 16.29					
WTR YR 1987	TOTAL 5223710	MEAN 14310	MAX 32400	MIN 4770	AC-FT 10360000	CFSM 1.48	IN. 20.16					

e Estimated

SUWANNEE RIVER BASIN

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02323500 SUWANNEE RIVER NEAR WILCOX, FL--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	3.23	3.80	6.16	11.10	12.39	12.09	8.39	5.50	4.63	4.20	4.00
2	---	3.23	3.71	6.04	11.27	12.56	12.05	8.19	5.47	4.71	4.22	3.96
3	---	3.34	3.71	6.04	11.43	12.67	12.10	7.98	5.40	4.78	4.23	3.98
4	---	3.41	3.27	6.28	11.55	12.76	12.23	7.74	5.34	4.75	4.24	3.93
5	---	3.45	3.05	6.46	11.69	12.82	12.37	7.56	5.27	4.73	4.29	4.27
6	---	3.41	2.92	6.41	11.83	12.87	12.51	7.34	5.20	4.82	4.27	4.30
7	---	3.29	3.01	6.69	11.92	13.02	12.63	7.14	5.08	4.90	4.20	4.26
8	---	3.14	3.33	6.97	11.97	13.21	12.73	7.00	5.09	4.96	4.21	4.37
9	---	3.00	3.70	7.22	11.99	13.26	12.79	6.85	5.13	4.95	4.17	4.38
10	---	2.95	3.72	7.51	11.99	13.30	12.80	6.69	5.15	4.95	4.03	4.41
11	---	3.16	3.94	7.76	12.00	13.31	12.79	6.63	5.14	4.98	4.01	4.46
12	---	3.30	3.99	7.81	12.01	13.33	12.74	6.57	5.18	4.97	4.07	4.44
13	---	3.18	3.48	7.97	12.03	13.35	12.65	6.51	5.23	4.93	4.12	4.34
14	---	2.38	3.40	8.14	12.02	13.37	12.52	6.46	5.25	4.84	4.04	4.38
15	---	2.65	4.08	8.34	12.00	13.38	12.36	6.37	5.27	4.89	3.97	4.32
16	---	3.13	4.51	8.53	12.05	13.39	12.17	6.32	5.04	4.85	4.25	4.38
17	---	3.37	4.81	8.68	12.00	13.38	11.94	6.29	4.85	4.65	4.12	4.35
18	---	3.41	5.00	8.75	11.90	13.36	11.71	6.26	4.69	4.60	4.17	4.43
19	---	3.37	5.04	8.84	11.77	13.34	11.45	6.22	4.59	4.55	4.30	4.53
20	---	3.39	5.15	8.87	11.64	13.27	11.18	6.17	4.71	4.67	4.41	4.41
21	---	3.16	5.06	8.92	11.61	13.16	10.90	6.11	4.70	4.84	4.44	4.44
22	3.14	2.93	4.91	9.19	11.63	13.03	10.64	6.05	4.71	4.66	4.49	4.36
23	3.20	2.98	5.19	9.35	11.69	12.88	10.38	6.00	4.69	4.59	4.48	4.32
24	3.39	3.09	5.65	9.43	11.68	12.71	10.13	6.01	4.73	4.56	4.53	4.25
25	3.70	3.16	5.45	9.64	11.71	12.55	9.86	5.97	4.73	4.45	4.53	4.26
26	3.58	3.46	5.29	9.92	11.78	12.38	9.58	5.90	4.84	4.43	4.51	4.17
27	3.35	3.33	5.33	10.11	11.91	12.27	9.31	5.81	5.05	4.40	4.44	4.03
28	3.03	3.04	5.41	10.29	12.08	12.40	9.06	5.72	4.86	4.38	4.42	3.94
29	2.97	3.25	5.48	10.49	---	12.23	8.84	5.64	4.69	4.34	4.35	3.83
30	2.98	3.75	5.62	10.72	---	12.20	8.61	5.60	4.68	4.31	4.25	3.92
31	3.17	---	5.71	10.93	---	12.19	---	5.54	---	4.24	4.16	---
TOTAL	---	95.94	136.72	258.46	330.25	400.34	343.12	203.03	150.26	145.31	132.12	127.42
MEAN	---	3.20	4.41	8.34	11.8	12.9	11.4	6.55	5.01	4.69	4.26	4.25
MAX	---	3.75	5.71	10.93	12.08	13.39	12.80	8.39	5.50	4.98	4.53	4.53
MIN	---	2.38	2.92	6.04	11.10	12.19	8.61	5.54	4.59	4.24	3.97	3.83

SUWANNEE RIVER BASIN
02323500 SUWANNEE RIVER NEAR WILCOX, FL--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	
OCT 07...	1230	5490	338	7.50	26.0	.70	7.3	.7	.30	
DEC 09...	0820	6190	268	6.10	17.5	2.0	9.0	1.4	.40	
FEB 04...	1250	26600	54	5.30	11.0	2.6	7.2	.6	.40	
APR 08...	1110	30200	72	5.80	15.5	2.0	8.1	1.6	.30	
AUG 03...	1700	9810	--	--	28.5	--	--	--	--	
06...	0845	8120	309	6.20	25.0	1.3	6.5	.8	.20	
SEP 01...	0835	5780	281	5.90	27.0	2.8	6.7	.8	.30	
DATE		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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHOROUS TOTAL (MG/L AS P)
OCT 07...	.88	.010	.89	.030	.17	.20	1.1	4.8	.150	
DEC 09...	.68	.010	.69	.050	.55	.60	1.3	5.7	.360	
FEB 04...	.14	.010	.15	.010	.67	.68	.83	3.7	.120	
APR 08...	.12	.020	.14	.030	.87	.90	1.0	4.6	.160	
AUG 03...	--	--	--	--	--	--	--	--	--	
06...	--	<.010	.88	.020	--	<.20	--	--	.190	
SEP 01...	--	<.010	.79	.010	.32	.33	1.1	5.0	.250	
DATE		PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM- INUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	.50	.150	--	--	--	--	--	--	--	2.0
DEC 09...	.92	.300	--	--	--	--	--	--	--	18
FEB 04...	.34	.110	--	--	--	--	--	--	--	27
APR 08...	.43	.140	--	--	--	--	--	--	--	30
AUG 03...	--	--	500	490	<1	<5	<10	<10	--	--
06...	--	.120	--	--	--	--	--	--	--	2.5
SEP 01...	--	.160	--	--	--	--	--	--	--	13

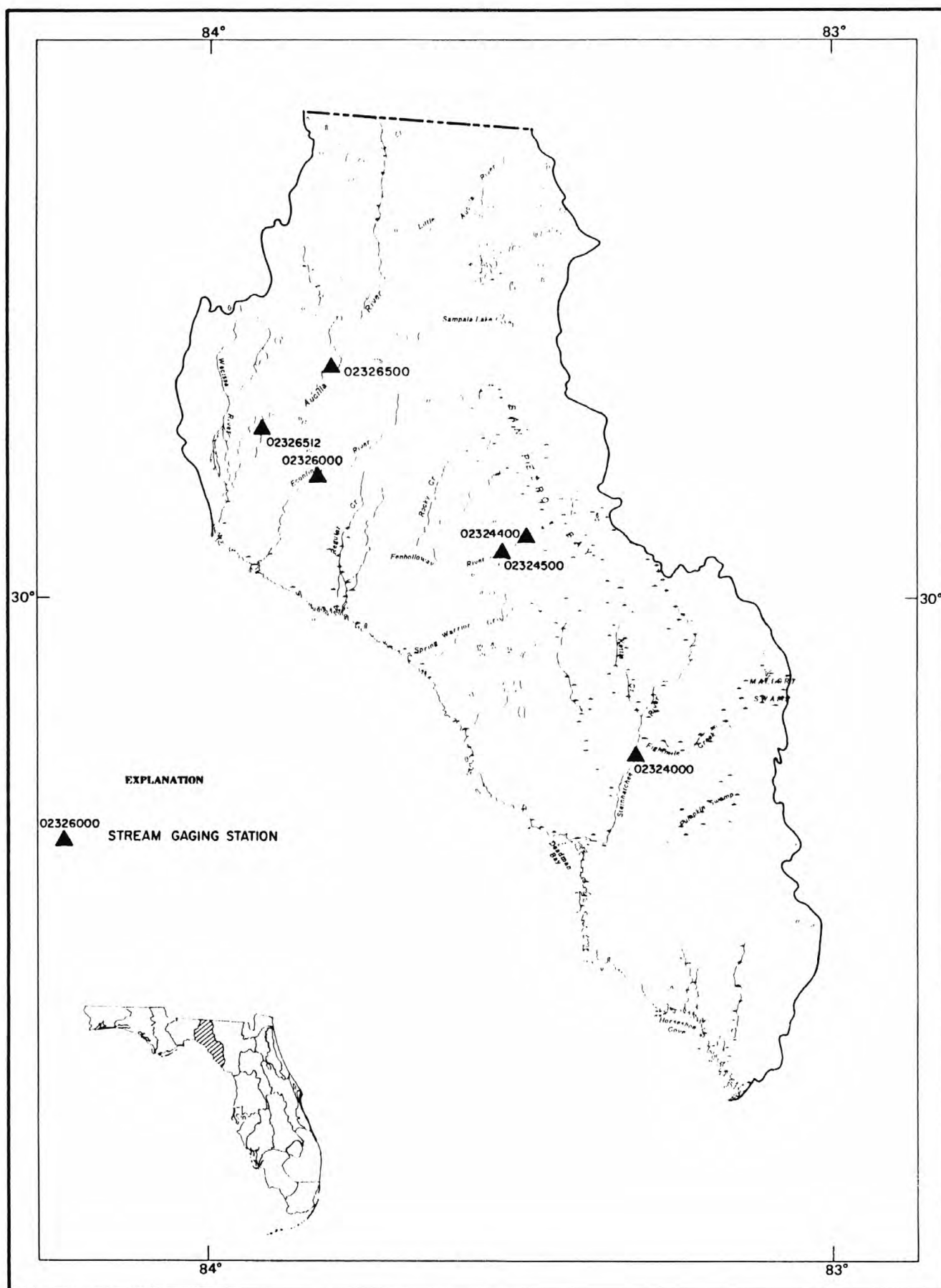


Figure 19.--Location of stream gaging stations in the Steinatchee, Fenholloway, Econfinia, and Aucilla River basins.

STEINHATCHEE RIVER BASIN
02324000 STEINHATCHEE RIVER NEAR CROSS CITY, FL

LOCATION.--Lat 29°47'11", long 83°19'18", in NE¹/₄ sec.16, T.8 S., R.10 E., Taylor County, Hydrologic Unit 03110102, on right bank 0.7 mi downstream from Atlantic Coast Line Railroad bridge, 0.7 mi south of Clara, 13 mi upstream from mouth, and 16 mi northwest of Cross City.

DRAINAGE AREA.--350 mi², approximately. See REMARKS.

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

REVISED RECORDS.--WSP 1234: 1950. WSP 1724: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.84 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair, except for the period of no gage height record, which are poor. Below about 500 ft³/s, all flow enters sinkhole 0.5 mi downstream from gage. Above about 4,000 ft³/s, discharge measurements are made along U.S. Highways 19, 98, and Alternate 27, measurements include all flow from about 3 mi northwest to 5 mi southwest of main channel, drainage area is increased by about 30 mi².

AVERAGE DISCHARGE.--37 years, 339 ft³/s, 13.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s Sept. 13, 14, 1964, gage height, 18.90 ft; minimum, 2.5 ft³/s July 18, 1981; minimum gage height, 2.38 ft July 29-31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,100 ft³/s, Apr. 2, gage height, 13.35 ft; minimum daily discharge, 34.0 ft³/s, Oct. 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	368	523	842	1180	1600	1980	92	49	301	69	87
2	97	318	703	871	1110	1600	2090	84	45	325	74	97
3	89	286	812	887	1060	1510	2040	78	43	347	86	104
4	80	255	813	933	990	1400	1920	73	44	389	102	106
5	73	228	786	1010	1000	1290	1710	67	49	407	99	111
6	67	204	740	1020	1240	1200	1490	62	57	369	85	105
7	62	182	e730	1010	1300	1190	1310	58	59	396	80	104
8	60	162	e700	988	1370	1600	1190	64	51	502	77	94
9	69	146	e670	946	1330	1760	1080	72	45	526	71	108
10	73	131	e700	918	1270	1800	975	68	42	611	67	85
11	74	119	e760	937	1190	1720	882	109	38	603	62	71
12	66	111	e820	907	1110	1590	803	90	36	539	108	78
13	62	102	e880	893	1030	1450	727	77	35	453	356	94
14	58	91	e940	876	938	1310	649	86	35	375	408	111
15	56	83	e1000	855	860	1200	590	176	37	339	383	93
16	55	78	e1040	915	917	1100	528	215	41	325	832	76
17	51	78	1170	1050	1000	1020	470	204	40	305	1080	72
18	46	79	1110	1130	1010	945	428	168	39	256	920	68
19	43	78	1030	1170	998	996	388	139	37	217	685	70
20	40	77	949	1180	956	954	344	119	36	178	499	80
21	38	85	878	1180	970	895	304	107	35	198	380	88
22	37	79	804	1430	1120	831	272	118	36	275	308	69
23	36	73	787	1680	1590	769	247	110	39	222	245	58
24	35	69	946	1820	1800	698	224	133	44	170	201	52
25	34	66	943	1870	1920	635	194	118	44	135	164	46
26	36	64	933	1860	1900	605	169	98	48	112	138	42
27	36	68	909	1750	1780	627	150	83	125	105	114	39
28	35	66	870	1610	1620	909	132	75	176	106	97	37
29	126	164	817	1470	---	952	116	68	151	94	105	35
30	376	401	759	1350	---	1240	102	62	133	82	93	37
31	418	---	708	1260	---	1720	---	56	---	73	83	---
TOTAL	2534	4311	26230	36618	34559	37116	23504	3129	1689	9335	8071	2317
MEAN	81.7	144	846	1181	1234	1197	783	101	56.3	301	260	77.2
MAX	418	401	1170	1870	1920	1800	2090	215	176	611	1080	111
MIN	34	64	523	842	860	605	102	56	35	73	62	35
AC-FT	5030	8550	52030	72630	68550	73620	46620	6210	3350	18520	16010	4600
CFSM	.23	.41	2.42	3.37	3.53	3.42	2.24	.29	.16	.86	.74	.22
IN.	.27	.46	2.79	3.89	3.67	3.94	2.50	.33	.18	.99	.86	.25

CAL YR 1986 TOTAL 157225 MEAN 431 MAX 1930 MIN 14 AC-FT 311900 CFSM 1.23 IN. 16.71
WTR YR 1987 TOTAL 189413 MEAN 519 MAX 2090 MIN 34 AC-FT 375700 CFSM 1.48 IN. 20.13

e Estimated

FENHOLLOWAY RIVER BASIN
02324400 FENHOLLOWAY RIVER NEAR FOLEY, FL

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LOCATION.--Lat 30°05'53", long 83°28'19", in NE¹/₄ sec.36, T.4 S., R.8 E., Taylor County, Hydrologic Unit 03110102, near left bank at downstream side of bridge on U.S. Highway 27, 1.8 mi upstream from small tributary, 4 mi northeast of Foley, and 32 mi upstream from mouth.

DRAINAGE AREA.--60 mi² approximately.

PERIOD OF RECORD.--February to August 1955 (discharge measurements only); September 1955 to current year.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 53.59 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--32 years, 57.1 ft³/s, 41,370 acre ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,210 ft³/s Sept. 12, 1964, gage height, 15.21 ft; minimum, 0.49 ft³/s June 15, 1985; minimum gage height, 0.50 ft June 29.30, July 1, 1968.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	0400	*404	*11.03	Mar. 31	0600	343	10.25

Minimum discharge, 1.6 ft³/s, Oct. 28, gage height, 0.94 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	6.1	108	151	155	265	312	17	3.0	24	52	12
2	7.7	5.9	116	159	148	266	284	15	2.7	16	52	11
3	6.5	5.7	116	160	145	249	261	13	2.5	30	66	10
4	5.4	5.2	108	166	139	231	244	11	2.4	72	93	9.8
5	4.6	4.6	99	178	143	213	224	9.5	3.3	71	92	9.4
6	4.1	4.2	90	177	174	199	207	8.5	4.0	71	86	9.1
7	3.6	3.9	83	171	181	206	192	7.7	3.8	72	77	21
8	3.2	3.5	77	163	186	278	177	7.0	3.5	88	67	24
9	3.1	3.1	73	154	180	277	165	6.5	3.1	85	56	22
10	5.7	2.8	71	160	170	263	153	5.9	2.8	95	46	18
11	5.4	2.7	77	171	160	242	142	6.1	2.5	94	42	16
12	4.5	2.5	122	167	151	225	132	6.3	2.3	84	53	22
13	4.0	2.4	179	160	144	211	122	6.4	2.2	72	73	24
14	3.6	2.2	190	152	137	198	113	6.5	2.5	61	77	23
15	3.5	2.0	190	144	131	187	104	10	3.3	55	80	21
16	3.1	2.0	185	144	168	177	94	15	3.1	49	99	18
17	2.8	2.0	177	161	187	168	86	17	2.8	41	96	15
18	2.5	2.0	168	179	188	162	78	16	2.5	35	86	13
19	2.3	2.2	158	188	180	172	71	16	2.3	30	74	12
20	2.1	2.2	148	188	169	165	64	14	7.9	27	62	11
21	2.0	2.2	140	182	203	157	58	13	6.6	25	52	10
22	1.9	2.5	132	229	267	148	52	11	9.2	30	45	8.8
23	1.8	3.0	134	243	394	139	48	9.5	9.4	30	37	7.9
24	1.7	3.1	155	233	362	129	43	8.2	9.6	36	31	6.9
25	1.7	3.3	162	226	328	122	38	6.9	9.1	31	26	5.9
26	1.7	5.4	161	225	296	118	34	5.9	9.3	26	23	5.1
27	1.7	29	153	212	271	128	30	5.1	10	26	20	4.5
28	1.6	34	145	198	249	163	26	4.5	14	22	18	3.9
29	2.0	50	137	185	---	179	23	4.1	11	19	15	3.5
30	4.6	78	129	174	---	287	20	3.7	10	17	14	3.6
31	5.7	---	125	164	---	337	---	3.3	---	21	13	---
TOTAL	113.0	277.7	4108	5564	5606	6261	3597	289.6	160.7	1455	1723	381.4
MEAN	3.65	9.26	133	179	200	202	120	9.34	5.36	46.9	55.6	12.7
MAX	8.9	78	190	243	394	337	312	17	14	95	99	24
MIN	1.6	2.0	71	144	131	118	20	3.3	2.2	16	13	3.5
AC-FT	224	551	8150	11040	11120	12420	7130	574	319	2890	3420	757
CFSM	.06	.15	2.21	2.99	3.34	3.37	2.00	.16	.09	.78	.93	.21
IN.	.07	.17	2.55	3.45	3.48	3.88	2.23	.18	.10	.90	1.07	.24

CAL YR 1986	TOTAL 20974.6	MEAN 57.5	MAX 353	MIN 1.3	AC-FT 41600	CFSM .96	IN. 13.00
WTR YR 1987	TOTAL 29536.4	MEAN 80.9	MAX 394	MIN 1.6	AC-FT 58590	CFSM 1.35	IN. 18.31

FENHOLLOWAY RIVER BASIN
02324500 FENHOLLOWAY RIVER AT FOLEY, FL

LOCATION.--Lat 30°03'55", long 83°34'29", in NE¹/₄ sec.7, T.5 S., R.8 E., Taylor County, Hydrologic Unit 03110102, near center of span on downstream side of bridge of U.S. Highway 19, 1.6 mi west of Foley, 2.4 mi downstream from clarifier flume of the Buckeye Cellulose Corporation plant, 11.4 mi upstream from Spring Creek, and 24.4 mi upstream from mouth.

DRAINAGE AREA.--120 mi², approximately.

PERIOD OF RECORD.--September 1946 to current year.

REVISED RECORDS.--WSP 1905: Drainage area. WDR FL-77-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.85 ft above National Geodetic Vertical Datum of 1929. Prior to June 24, 1947, nonrecording gage and June 24, 1947 to Feb. 4, 1971, water-stage recorder, at site about 1.6 mi upstream at datum 4.51 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Since Feb. 1, 1954, large ground-water withdrawals by cellulose plant upstream. Records include return flow from plant.

AVERAGE DISCHARGE.--41 years; 134 ft³/s, 97,083 acre ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,810 ft³/s Sept. 12, 1964, gage height, 18.52 ft; no flow Jan. 2-4, 1971, caused by diversion of flow into lagoon; minimum gage height, 6.40 ft Jan. 8, 9, 1950, at former site and datum. Maximum discharge, 1,120 ft³/s Apr. 5, 1973, gage height 15.03; minimum discharge, 0.80 ft³/s Aug. 16, 1972; minimum gage height, 8.96 ft July 11, 12, 1974, present site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 662 ft³/s, Feb. 24, gage height, 14.11 ft; minimum 23 ft³/s, May 30, gage height, 9.08 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	74	189	283	319	491	600	118	78	86	97	78
2	71	74	206	313	304	494	575	113	71	85	115	71
3	76	68	212	324	292	483	533	108	75	91	122	78
4	79	70	207	336	273	456	494	106	83	115	146	78
5	84	65	201	351	272	426	464	97	83	136	158	82
6	81	69	192	361	316	400	432	97	79	143	156	78
7	84	67	181	354	347	401	401	95	75	144	149	81
8	85	68	175	340	362	451	372	93	75	155	139	93
9	84	70	167	319	363	507	346	91	76	171	129	97
10	85	71	169	329	350	504	323	90	75	183	117	88
11	82	75	183	338	336	485	296	90	75	170	107	91
12	81	79	232	334	313	459	275	91	71	162	135	94
13	80	73	294	324	290	432	257	88	74	150	182	96
14	81	71	365	306	274	407	243	95	81	148	202	95
15	79	74	384	294	282	383	235	103	75	149	210	94
16	73	75	383	294	308	363	228	105	73	136	222	92
17	73	78	368	314	356	343	221	106	74	122	220	86
18	75	85	346	350	370	327	213	105	71	108	211	86
19	74	80	327	378	367	330	204	103	70	98	196	84
20	74	78	308	390	348	323	195	104	74	94	179	81
21	73	74	292	387	375	310	187	102	75	91	161	75
22	73	74	272	407	452	294	178	97	73	90	147	74
23	73	75	276	446	553	278	169	88	61	98	133	70
24	72	74	301	461	651	261	163	85	53	107	121	70
25	75	76	321	457	628	249	155	83	49	101	114	69
26	74	90	322	445	579	239	147	83	67	95	106	69
27	73	80	312	432	533	249	140	80	70	92	98	69
28	70	77	295	413	493	293	134	80	69	91	98	64
29	93	119	278	388	---	328	129	63	71	87	94	68
30	79	146	262	363	---	421	120	50	81	88	90	73
31	72	---	254	341	---	545	---	63	---	91	88	---
TOTAL	2388	2349	8274	11172	10686	11932	8429	2872	2177	3677	4442	2424
MEAN	77.0	78.3	267	360	382	385	281	92.6	72.6	119	143	80.8
MAX	93	146	384	461	651	545	600	118	83	183	222	97
MIN	60	65	167	283	262	239	120	50	49	85	88	64
AC-FT	4740	4660	16410	22160	21200	23670	16720	5700	4320	7290	8810	4810
CFSM	.64	.65	2.22	3.00	3.18	3.21	2.34	.77	.60	.99	1.19	.67
IN.	.74	.73	2.56	3.46	3.31	3.70	2.61	.89	.67	1.14	1.38	.75

CAL YR 1986	TOTAL 56057	MEAN 154	MAX 514	MIN 26	AC-FT 111200	CFSM 1.28	IN. 17.38
WTR YR 1987	TOTAL 70822	MEAN 194	MAX 651	MIN 49	AC-FT 140500	CFSM 1.62	IN. 21.95

ECONFINA RIVER BASIN

79

02326000 ECONFINA RIVER NEAR PERRY, FL.

LOCATION.--Lat 30°10'14", long 83°49'26", in NE¹/₄ sec.4, T.4 S., R.5 E., Taylor County, Hydrologic Unit 03110102, on downstream side of concrete bridge, 3.0 mi downstream from Natural Well Branch, 14 mi upstream from mouth, and 14.7 mi northwest of Perry.

DRAINAGE AREA.--198 mi².

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

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.35 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges during the year. Records fair.

AVERAGE DISCHARGE.--37 years, 146 ft³/s, 10.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,540 ft³/s Sept. 17, 1957, gage height, 12.78 ft; minimum, 2.3 ft³/s July 8, 1955; minimum gage height, 1.87 ft Mar. 2, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,110 ft³/s Apr. 1, gage height, 11.36 ft; minimum, 20 ft³/s Sept. 29, 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	24	77	455	633	877	1100	85	36	29	24	23
2	35	25	93	495	602	858	1080	77	35	29	24	22
3	33	25	103	513	579	835	1050	71	35	29	25	22
4	32	24	106	535	554	807	1010	66	35	30	27	24
5	32	24	104	557	535	776	972	61	34	32	27	24
6	30	24	98	563	535	741	932	57	33	34	27	23
7	29	24	91	561	533	725	888	54	32	35	27	23
8	29	24	85	554	530	758	843	51	32	41	26	22
9	28	24	80	541	507	770	797	49	31	47	26	21
10	28	23	77	537	485	761	756	46	30	50	25	21
11	27	23	116	538	465	740	712	45	29	52	24	21
12	27	23	172	529	445	715	661	44	29	54	24	22
13	27	23	255	513	423	682	608	43	28	53	26	21
14	26	23	353	497	399	643	564	43	29	52	31	21
15	26	23	408	487	374	606	523	50	29	51	37	22
16	26	23	439	493	407	573	484	55	29	48	41	24
17	25	23	450	553	438	544	444	59	29	45	43	25
18	25	24	452	633	438	525	401	59	28	41	41	25
19	24	24	449	709	437	538	359	58	28	38	39	25
20	24	25	443	754	433	531	319	56	28	36	36	26
21	24	26	434	769	604	509	283	57	27	34	33	26
22	23	27	422	790	794	485	253	59	27	32	31	27
23	23	27	421	791	945	457	226	57	28	31	30	27
24	23	28	445	784	985	425	202	53	29	31	28	26
25	23	28	458	783	980	399	177	49	29	30	29	24
26	24	29	458	784	955	379	154	46	31	29	27	23
27	24	30	455	771	913	386	135	43	31	28	27	22
28	24	33	448	751	870	451	119	42	30	26	26	21
29	24	41	435	727	---	516	105	40	30	25	25	20
30	24	54	418	702	---	802	94	39	29	24	24	20
31	24	---	403	670	---	1050	---	37	---	24	24	---
TOTAL	829	798	9248	19339	16798	19864	16251	1651	910	1140	904	693
MEAN	26.7	26.6	298	624	600	641	542	53.3	30.3	36.8	29.2	23.1
MAX	36	54	458	791	985	1050	1100	85	36	54	43	27
MIN	23	23	77	455	374	379	94	37	27	24	24	20
AC-FT	1640	1580	18340	38360	33320	39400	32230	3270	1800	2260	1790	1370
CFSM	.14	.13	1.51	3.15	3.03	3.24	2.74	.27	.15	.19	.15	.12
IN.	.16	.15	1.74	3.63	3.16	3.73	3.05	.31	.17	.21	.17	.13

CAL YR 1986 TOTAL 64278 MEAN 176 MAX 1290 MIN 21 AC-FT 127500 CFSM .89 IN. 12.08
WTR YR 1987 TOTAL 88425 MEAN 242 MAX 1100 MIN 20 AC-FT 175400 CFSM 1.22 IN. 16.61

DRAINAGE AREA.--747 mi².

REVISED RECORDS.--WSP 1204, 1905: Drainage area. WSP 1504: 1953.

REMARKS.--Pumpage above and below station for irrigation during dry seasons. Since Aug. 27, 1963, low-head rock and concrete dam 0.6 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 4,130 ft³/s Apr. 4, 5, gage height, 12.19 ft; minimum daily gage height 5.00 ft. Sept. 29.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.15	5.26	6.99	10.57	10.98	11.53	12.06	7.63	6.31	6.58	6.06	5.26
2	6.08	5.32	6.93	10.49	10.87	11.50	12.14	7.48	6.22	6.50	6.05	5.23
3	6.03	5.34	7.25	10.41	10.77	11.39	12.15	7.34	6.13	6.62	6.17	5.26
4	6.03	5.33	8.02	10.32	10.56	11.27	12.18	7.22	6.05	7.06	6.26	5.28
5	6.03	5.31	8.99	10.25	10.47	11.13	12.17	7.09	6.08	7.27	6.40	5.31
6	6.00	5.31	9.48	10.69	10.40	10.99	12.11	6.99	6.03	7.33	6.64	5.46
7	5.98	5.30	9.71	10.94	10.33	10.86	11.98	6.90	6.01	7.54	6.47	5.45
8	5.94	5.28	9.77	11.01	10.27	10.88	11.78	6.87	6.10	7.73	6.32	5.33
9	5.89	5.27	9.77	11.09	10.20	11.03	11.56	6.75	6.07	7.71	6.20	5.33
10	5.83	5.27	9.71	11.29	10.14	11.08	11.33	6.64	5.98	7.55	6.09	5.35
11	5.77	5.25	9.64	11.43	10.07	11.02	11.10	6.59	5.87	7.40	6.01	5.47
12	5.83	5.23	9.54	11.49	10.00	10.93	10.89	6.52	5.76	7.20	6.45	5.69
13	5.76	5.22	9.45	11.47	10.02	10.82	10.70	6.46	5.69	6.98	6.54	5.77
14	5.69	5.19	9.34	11.40	10.30	10.74	10.52	6.55	5.74	6.79	6.42	5.69
15	5.62	5.19	9.48	11.32	10.35	10.67	10.37	6.83	5.95	6.73	6.48	5.54
16	5.58	5.18	10.02	11.28	10.32	10.60	10.21	6.79	6.20	6.60	6.52	5.44
17	5.55	5.15	10.63	11.17	10.29	10.52	10.05	6.78	6.45	6.41	6.48	5.35
18	5.50	5.12	10.96	11.05	10.26	10.46	9.90	6.77	6.44	6.26	6.39	5.32
19	5.45	5.12	11.08	10.92	10.28	10.43	9.76	6.76	6.24	6.14	6.30	5.33
20	5.41	5.13	11.09	10.78	10.38	10.35	9.61	6.79	6.13	6.03	6.19	5.50
21	5.37	5.18	11.05	10.83	10.65	10.27	9.46	6.92	6.10	5.97	6.11	5.40
22	5.33	5.39	10.97	11.61	10.94	10.16	9.30	7.04	6.17	5.99	6.02	5.28
23	5.31	5.54	10.89	11.94	11.05	10.04	9.14	7.02	6.32	5.89	5.93	5.22
24	5.29	5.69	10.82	11.98	11.13	9.93	8.97	6.95	6.63	5.80	5.84	5.15
25	5.27	5.83	10.74	11.94	11.18	9.92	8.77	6.86	6.87	5.94	5.79	5.09
26	5.25	5.94	10.64	11.89	11.20	10.06	8.56	6.79	7.02	6.04	5.73	5.06
27	5.23	6.01	10.54	11.83	11.23	10.28	8.36	6.73	7.05	6.06	5.62	5.04
28	5.28	6.08	10.59	11.68	11.33	10.44	8.16	6.67	6.98	6.08	5.53	5.02
29	5.36	6.13	10.65	11.47	---	10.82	7.96	6.58	6.87	6.10	5.47	5.00
30	5.33	6.56	10.66	11.33	---	11.49	7.79	6.48	6.72	6.07	5.39	5.02
31	5.28	---	10.63	11.20	---	11.91	---	6.39	---	6.05	5.31	---
TOTAL	174.42	163.12	306.03	347.07	295.97	333.52	309.04	212.18	188.18	204.42	189.18	159.64
MEAN	5.63	5.44	9.87	11.2	10.6	10.8	10.3	6.84	6.27	6.59	6.10	5.32
MAX	6.15	6.56	11.09	11.98	11.33	11.91	12.18	7.63	7.05	7.73	6.64	5.77
MIN	5.23	5.12	6.93	10.25	10.00	9.92	7.79	6.39	5.69	5.80	5.31	5.00
CAL YR 1986	TOTAL 2723.03		MEAN 7.46	MAX 13.97	MIN 4.95							
WTR YR 1987	TOTAL 2882.72		MEAN 7.90	MAX 12.18	MIN 5.00							

AUCILLA RIVER BASIN

81

02326512 AUCILLA RIVER NEAR SCANLON, FL

LOCATION.--Lat 30°13'52", long 83°55'08", in SW¹/₄ sec.10, T.3 S., R.4 E., Taylor County, Hydrologic Unit 03110103, on left bank, 3 mi west of Cabbage Grove, 6.9 mi north of Scanlon, 12 mi southwest of Lamont and 14 mi upstream from mouth.

DRAINAGE AREA.--805 mi².

PERIOD OF RECORD.--March 1950 to November 1957, crest-stage partial-record station; May 1965, May 1967 (one discharge measurement made each water year); August 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3.14 ft above National Geodetic Vertical Datum of 1929, unadjusted. February 1950 to November 1957, crest-stage gage at same site at present datum. August 30, 1976 to April 24, 1982, water-stage recorder at same site and datum. April 25, 1982 to October 24, 1984, nonrecording gage.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--11 years, 625 ft³/s, 10.54 in/yr.

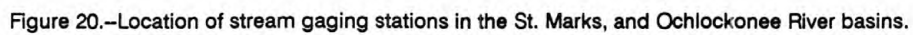
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,460 ft³/s Apr. 8, 1984, gage height, 20.47 ft present datum from floodmark, from rating extended above 6,000 ft³/s on basis of velocity-area study; minimum, 31 ft³/s Oct. 10, 1981; minimum gage height, 2.76 ft, June 14, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 9, 1973, reached a stage of about 23.5 ft, from floodmarks, (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,550 ft³/s Apr. 6, gage height, 19.13 ft; minimum, 49 ft³/s Nov. 15-17 gage height, 2.95 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	68	714	1850	3090	3120	3780	480	186	232	163	81
2	185	67	853	2020	2910	3280	4180	443	176	216	165	78
3	178	66	980	2140	2720	3410	4390	408	168	209	167	76
4	174	65	1080	2280	2530	3390	4470	376	162	256	178	77
5	171	64	1120	2440	2360	3230	4510	346	158	324	185	82
6	168	63	1130	2570	2250	3040	4530	320	157	339	215	85
7	164	61	1110	2700	2130	2890	4510	298	142	370	224	95
8	157	60	1070	2820	2040	2850	4420	284	147	424	198	92
9	146	59	1030	2880	1890	2800	4250	272	156	441	182	83
10	149	58	980	2880	1720	2800	4000	247	145	423	171	82
11	144	57	1160	2810	1640	2800	3690	235	129	392	161	87
12	128	54	1370	2600	1590	2750	3320	224	114	354	169	116
13	118	54	1590	2510	1530	2660	2980	215	103	311	216	134
14	111	52	1740	2410	1480	2550	2670	210	108	280	211	144
15	104	51	2100	2300	1420	2410	2360	248	118	268	206	127
16	97	50	2350	2260	1490	2260	2000	261	152	247	220	109
17	91	51	2470	2530	1550	2100	1660	265	187	218	217	97
18	84	55	2490	2800	1580	1940	1530	261	208	193	209	90
19	80	59	2430	3150	1590	1960	1410	255	188	176	198	91
20	75	71	2320	3360	1570	1850	1290	262	171	168	187	104
21	72	90	2190	3430	1650	1720	1180	285	165	168	179	108
22	70	105	2040	3530	1830	1650	1080	315	164	164	173	95
23	67	120	1930	3510	2270	1580	995	314	186	158	163	86
24	66	134	1920	3460	2430	1510	916	301	211	139	150	80
25	68	144	1860	3470	2620	1440	839	284	245	134	141	74
26	69	173	1810	3430	2760	1380	764	265	288	158	132	69
27	71	248	1770	3360	2850	1380	694	251	308	166	121	66
28	70	283	1710	3240	2900	1530	633	237	300	165	110	65
29	67	319	1660	3380	---	1730	576	227	281	167	100	64
30	65	484	1620	3530	---	2590	524	212	260	165	94	64
31	67	---	1570	3300	---	3220	---	198	---	163	87	---
TOTAL	3470	3285	50167	88950	58390	73820	74151	8799	5483	7588	5292	2701
MEAN	112	109	1618	2869	2085	2381	2472	284	183	245	171	90.0
MAX	194	484	2490	3530	3090	3410	4530	480	308	441	224	144
MIN	65	50	714	1850	1420	1380	524	198	103	134	87	64
AC-FT	6880	6520	99510	176400	115800	146400	147100	17450	10880	15050	10500	5360
CFSM	.14	.14	2.01	3.56	2.59	2.96	3.07	.35	.23	.30	.21	.11
IN.	.16	.15	2.32	4.11	2.70	3.41	3.43	.41	.25	.35	.24	.12
CAL YR 1986	TOTAL 288446	MEAN 790	MAX 6300	MIN 46	AC-FT 572100	CFSM .98	IN. 13.33					
WTR YR 1987	TOTAL 382096	MEAN 1047	MAX 4530	MIN 50	AC-FT 757900	CFSM 1.30	IN. 17.66					



ST. MARKS RIVER BASIN

83

02326900 ST. MARKS RIVER NEAR NEWPORT, FL

LOCATION.--Lat 30°16'00", long 84°09'00", in SE¹/₄ sec.32, T.2 S., R.2 E., Wakulla County, Hydrologic Unit 03120001, on left bank 0.9 mi downstream from Rhodes Springs, 6 mi north of Newport, 11 mi upstream from Wakulla River, and 14 mi upstream from mouth.

DRAINAGE AREA.--535 mi² including 290 mi² of Lake Miccosukee, which contributes at high stages to the St. Marks River.

PERIOD OF RECORD.--October 1956 to September 1976. October 1976 to September 1977 (gage heights only); October 1977 to current year.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3.53 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records poor.

AVERAGE DISCHARGE.--31 years (water years 1957-76, 1978-87), 694 ft³/s, 502,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft³/s Apr. 7, 1973, gage height, 11.81 ft; minimum discharge, 310 ft³/s Apr. 25, 1964, Oct. 4-6, 1968; minimum gage height, 4.20 ft Mar. 17, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,560 ft³/s Apr. 1, gage height, 8.63 ft; minimum, 572 ft³/s Oct. 20-25, gage height, 5.13 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	594	595	911	1330	1140	1320	2540	995	859	1020	840	813
2	592	594	909	1390	1120	1290	2530	985	853	992	832	813
3	592	595	910	1440	1100	1260	2490	974	849	980	834	815
4	591	595	896	1600	1070	1240	2400	964	850	980	840	810
5	590	595	853	1550	1060	1210	2250	955	862	965	844	828
6	590	593	807	1420	1070	1180	2110	947	862	964	839	828
7	589	593	776	1360	1080	1170	1990	942	854	949	831	822
8	588	593	758	1330	1060	1240	1900	938	849	952	825	821
9	589	592	750	1260	1050	1240	1810	934	844	965	821	820
10	590	591	768	1200	1030	1230	1730	931	837	945	813	813
11	589	591	1030	1160	1020	1240	1660	929	832	919	805	815
12	588	590	1130	1110	997	1230	1600	926	829	890	803	869
13	589	588	1150	1090	976	1200	1540	921	829	868	810	871
14	595	582	1200	1080	961	1170	1490	916	846	859	846	873
15	595	583	1190	1070	952	1150	1430	915	886	867	887	866
16	593	587	1140	1130	1090	1140	1380	927	934	854	913	841
17	587	591	1070	1510	1120	1120	1330	953	1010	842	907	830
18	584	602	1010	1600	1150	1140	1290	979	1040	833	899	824
19	579	607	956	1720	1230	1260	1260	981	1060	827	897	818
20	576	613	926	1720	1210	1270	1220	978	1080	847	893	814
21	575	613	896	1600	1210	1290	1190	989	1060	902	881	809
22	574	611	869	1540	1250	1310	1170	984	1040	902	880	805
23	574	611	902	1480	1330	1280	1150	960	1020	908	870	800
24	574	611	974	1410	1350	1240	1130	942	1030	917	858	793
25	598	612	955	1400	1420	1210	1110	924	1060	878	847	786
26	620	620	952	1380	1420	1200	1090	910	1100	856	838	780
27	608	626	975	1320	1360	1220	1070	898	1120	864	836	775
28	603	637	958	1290	1310	1290	1050	888	1080	862	829	770
29	602	689	921	1260	---	1420	1030	879	1050	877	823	766
30	601	798	887	1230	---	1950	1010	871	1030	867	815	766
31	598	---	866	1180	---	2320	---	865	---	851	817	---
TOTAL	18307	18298	29295	42160	32136	40030	46950	29100	28455	28002	26273	24454
MEAN	591	610	945	1360	1148	1291	1565	939	948	903	848	815
MAX	620	798	1200	1720	1420	2320	2540	995	1120	1020	913	873
MIN	574	582	750	1070	952	1120	1010	865	829	827	803	766
AC-FT	36310	36290	58110	83620	63740	79400	93130	57720	56440	55540	52110	48500
CFSM	1.10	1.14	1.77	2.54	2.15	2.41	2.93	1.75	1.77	1.69	1.58	1.52
IN.	1.27	1.27	2.04	2.93	2.23	2.78	3.26	2.02	1.98	1.95	1.83	1.70
CAL YR 1986	TOTAL 304634	MEAN 835	MAX 2390	MIN 574	AC-FT 604200	CFSM 1.56	IN. 21.18					
WTR YR 1987	TOTAL 363460	MEAN 996	MAX 2540	MIN 574	AC-FT 720900	CFSM 1.86	IN. 25.27					

OCHLOCKONEE RIVER BASIN

02327100 SOPCHOPPY RIVER NEAR SOPCHOPPY, FL
(Hydrologic bench-mark station)

LOCATION.--Lat 30°07'45", long 84°29'40" in NW 1/4 sec.24, T.4 S., R.3 W., Wakulla County, Hydrologic Unit 03120003, Apalachicola National Forest, near left bank on downstream side of bridge on U.S. Forest Road 346A, 4.7 mi north of Sopchoppy, 5.2 mi upstream from Duval Branch, and 24 mi upstream from mouth.

DRAINAGE AREA.--102 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1961-64 (annual maximum); June 1964 to current year.

REVISED RECORDS.--WSP 1905, WDR FL-76-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Jan. 27, 1961 to June 3, 1964, non-recording gage and crest-stage gage at same site at datum 9.63 ft higher.

REMARKS.--No estimated daily discharge. Records good.

AVERAGE DISCHARGE.--23 years (water years 1965-87), 200 ft³/s, 26.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,260 ft³/s July 31, 1975, gage height, 34.47 ft, from rating curve extended above 3,500 ft³/s by velocity-area study; minimum, 1.0 ft³/s June 29 to July 3, 1968, Nov. 19, 1983, May 5-8, 1985; minimum gage height, 7.94 ft June 4, 5, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 13	0800	1,530	23.58	Mar. 31	2100	*2,810	*28.93
Jan. 18	1900	1,220	21.18	Aug. 17	1100	1,820	25.12

Minimum discharge, 2.5 ft³/s Oct. 22-25. Nov. 13-15, gage height, 8.18 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	3.0	835	469	265	526	2650	7.8	6.7	300	96	22
2	4.2	3.0	848	583	234	518	1980	7.3	5.8	248	125	18
3	4.1	3.0	742	590	218	463	1260	7.0	5.3	197	463	16
4	3.7	3.0	622	565	195	390	853	6.7	19	289	420	16
5	3.4	2.9	508	613	181	322	638	6.8	63	343	356	39
6	3.2	2.9	407	622	189	266	495	13	32	372	277	140
7	3.1	3.0	333	574	191	236	391	11	21	355	212	238
8	3.0	2.9	276	496	208	346	315	9.3	15	348	155	234
9	3.2	2.8	233	420	194	392	256	8.3	12	359	109	192
10	3.9	2.8	257	399	173	379	208	7.3	9.5	297	75	152
11	3.5	2.8	836	430	152	331	168	6.7	7.5	235	50	121
12	3.4	2.7	1350	401	133	297	135	6.4	6.5	184	33	154
13	3.5	2.6	1500	356	118	267	109	6.2	7.1	135	54	242
14	4.1	2.5	1310	309	103	234	89	6.2	27	104	183	289
15	5.6	2.6	1000	281	91	202	75	7.0	80	115	648	287
16	5.9	2.9	773	383	217	173	63	13	91	89	1430	239
17	4.8	3.2	653	1010	378	148	51	16	133	64	1780	192
18	3.9	3.8	560	1200	446	198	42	16	177	49	1480	155
19	3.4	5.7	469	1180	429	669	35	13	181	48	1060	126
20	3.0	6.9	393	1070	374	802	29	11	158	33	798	110
21	2.8	6.5	333	898	408	769	24	20	157	25	647	95
22	2.6	5.5	284	794	502	648	20	111	303	20	504	75
23	2.5	5.2	330	748	786	529	18	83	535	20	371	56
24	2.5	4.8	474	667	862	422	15	56	865	17	269	41
25	3.3	4.2	472	607	810	351	14	40	864	14	192	30
26	4.1	5.8	428	586	695	303	12	29	738	13	137	22
27	3.3	9.9	371	531	590	308	11	21	618	18	97	17
28	3.3	12	317	459	500	453	9.9	16	522	17	70	13
29	3.3	48	271	395	---	571	9.0	13	432	23	51	10
30	3.1	337	232	344	---	1420	8.4	10	347	32	39	8.5
31	3.0	---	205	304	---	2560	---	8.2	---	77	29	---
TOTAL	111.0	503.9	17622	18284	9642	15493	9983.3	593.2	6438.4	4440	12210	3349.5
MEAN	3.58	16.8	568	590	344	500	333	19.1	215	143	394	112
MAX	5.9	337	1500	1200	862	2560	2650	111	865	372	1780	289
MIN	2.5	2.5	205	281	91	148	8.4	6.2	5.3	13	29	8.5
AC-FT	220	999	34950	36270	19120	30730	19800	1180	12770	8810	24220	6640
CFSM	.04	.16	5.57	5.78	3.38	4.90	3.26	.19	2.10	1.40	3.86	1.09
IN.	.04	.18	6.43	6.67	3.52	5.65	3.64	.22	2.35	1.62	4.45	1.22

CAL YR 1986	TOTAL 64011.2	MEAN 175	MAX 2710	MIN 1.5	AC-FT 127000	CFSM 1.72	IN. 23.35
WTR YR 1987	TOTAL 98670.2	MEAN 270	MAX 2650	MIN 2.5	AC-FT 195700	CFSM 2.65	IN. 35.99

OCHLOCKONEE RIVER BASIN

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02327100 SOPCHOPPY RIVER NEAR SOPCHOPPY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
NOV 05...	1300	3.0	243	--	20.0	.40	8.2	91	80	K110	--
FEB 17...	1630	391	42	4.00	14.0	1.1	9.0	88	390	85	3
MAY 08...	1150	9.0	113	7.60	21.0	1.4	6.3	71	K20	91	56
AUG 27...	1405	94	32	4.43	26.0	.50	6.2	77	K16	42	10
DATE	HARD- NESS, NONCARB F.WH.W. (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LITY LAB (MG/L AS CACO3)	ALKA- LITY, CARB., FIELD, INC. T., (MG/L CACO3)
NOV 05...	--	--	--	--	--	--	--	<.10	--	121	--
FEB 17...	3	3	.90	.30	1.6	48	.4	.20	0	<1.0	0
MAY 08...	9	9	19	2.1	1.9	7	.1	.30	47	51	48
AUG 27...	10	10	3.1	.46	1.5	25	.2	.20	0	<1.0	0
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 05...	--	2.0	--	<.10	--	--	--	--	--	<.010	<.10
FEB 17...	.0	17	3.9	<.10	3.1	42	28	.06	44	<.010	<.10
MAY 08...	2.3	11	3.4	<.10	5.9	80	72	.11	1.9	<.010	<.10
AUG 27...	.0	28	3.6	.10	5.0	93	44	.13	24	<.010	<.10
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHOS, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHOS, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	
NOV 05...	.020	.020	.03	.48	.50	.060	<.010	.020	.06	--	
FEB 17...	.030	.030	.04	.67	.70	.030	.010	.010	.03	500	
MAY 08...	.040	.060	.08	.36	.40	.060	.050	.030	.09	180	
AUG 27...	.020	.020	.03	.88	.90	.030	.020	<.010	--	670	
DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	
NOV 05...	<1	5	<.5	<1	<1	<3	<1	--	<5	<4	
FEB 17...	<1	7	2.0	<1	<1	<3	<1	260	<5	<4	
MAY 08...	<1	8	<.5	<1	<1	<3	<1	240	<5	5	
AUG 27...	<1	10	<.5	<1	<1	<3	<1	950	<5	<4	

OCHLOCKONEE RIVER BASIN
02327100 SOPCHOPPY RIVER NEAR SOPCHOPPY, FL--Continued
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)
NOV 05...	2	<.1	<10	1	<1	<1	--	<6	5	--
FEB 17...	4	<.1	<10	<1	<1	<1	4	<6	5	.5
MAY 08...	5	<.1	<10	<1	<1	<1	42	<6	6	--
AUG 27...	7	<.1	<10	<1	<1	<1	8	<6	12	--
DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)	SEDI- MENT, DIS- SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 05...	--	--	--	--	--	--	--	--	--	--
FEB 17...	<.4	.7	<.4	.7	<.4	.07	.03	5	5.3	40
MAY 08...	--	--	--	--	--	--	--	11	.27	91
AUG 27...	--	--	--	--	--	--	--	6	1.5	100

OCHLOCKONEE RIVER BASIN

87

02329000 OCHLOCKONEE RIVER NEAR HAVANA, FL
(National stream-quality accounting network station)

LOCATION.--Lat 30°33'14", long 84°23'03", in SE¹/₄ sec.24, T.2 N., R.2 W., Leon County, Hydrologic Unit 03120003, near left bank on downstream side of downstream bridge on divided U.S. Highway 27, 0.8 mi upstream from Seaboard Air Line Railroad bridge, 4.0 mi downstream from Mill Creek, 5.0 mi southeast of Havana, and 94 mi upstream from mouth.

DRAINAGE AREA.--1,140 mi², approximately. At site used prior to January 1929, 1,220 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1926 to current year. June 1926 to December 1929 (published as "at Ochlockonee"). Records published for both sites December 1928 to December 1929.

REVISED RECORDS.--WSP 822: 1929 (M). WSP 1504: 1928. WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 59.36 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1930, nonrecording gage at site about 10 mi downstream at datum 9.36 ft lower. Dec. 12, 1928, to Nov. 17, 1963, nonrecording gage at site 100 ft upstream at present datum. Nov. 18, 1963 to Nov. 15, 1976, nonrecording gage at same site and datum.

REMARKS.--No estimated discharges during year. Records good.

AVERAGE DISCHARGE.--61 years, 1,054 ft³/s, 12.56 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,900 ft³/s Apr. 4, 1948, gage height, 35.08 ft; minimum, 17 ft³/s Oct. 23-28, Nov. 1, 1954; minimum gage height, 10.75 ft Oct. 31, Nov. 1, 3, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,530 ft³/s Apr. 3, gage height, 26.93 ft; minimum, 44 ft³/s, Oct. 23-25, Nov. 10, minimum gage height, 11.23 ft Oct. 23-25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	54	634	1310	3290	5280	5230	512	356	901	269	275
2	89	52	667	1370	2950	4530	7030	479	341	967	269	228
3	84	52	691	1360	2680	4130	7450	451	324	1030	289	229
4	79	51	690	1460	2430	3990	6860	427	300	1050	316	233
5	76	50	668	1690	2330	4030	6020	443	289	1020	338	264
6	71	50	632	1840	2360	4540	5230	441	263	864	347	279
7	67	50	577	2020	2430	4950	4440	413	249	734	380	253
8	63	48	506	2250	2470	4860	3790	442	238	651	411	234
9	60	48	443	2450	2460	4330	3340	448	222	592	417	221
10	59	47	399	2630	2390	3940	2950	464	209	570	387	213
11	57	47	451	2710	2310	3730	2580	452	199	568	335	207
12	55	49	540	2610	2230	3580	2310	419	192	569	285	210
13	55	47	628	2450	2120	3390	2080	391	192	547	259	223
14	55	46	690	2300	2010	3170	1870	434	203	503	268	217
15	56	46	754	2160	1880	2920	1700	493	297	444	356	205
16	55	46	819	2080	2040	2650	1550	606	550	388	476	197
17	55	46	864	2230	2090	2410	1420	656	815	341	551	185
18	56	121	894	2250	2100	2290	1320	701	976	310	611	174
19	55	136	912	2390	2330	2470	1230	769	910	292	677	168
20	51	114	920	2770	2720	2460	1140	721	806	280	742	177
21	49	119	888	3230	2990	2450	1070	640	752	290	783	158
22	48	112	834	4140	3160	2660	994	622	680	262	780	165
23	45	113	823	5420	3490	2770	924	631	653	241	725	205
24	44	124	872	6410	3740	2660	857	594	618	224	630	225
25	49	126	875	6990	4540	2490	792	555	600	215	521	211
26	57	174	918	7260	5840	2390	734	524	625	206	425	185
27	53	207	981	7240	6310	2380	683	495	656	202	357	164
28	54	222	1040	6510	5950	2430	634	459	728	200	307	151
29	57	312	1090	5440	---	2530	589	423	770	191	269	145
30	59	507	1140	4500	---	3390	549	394	834	191	245	140
31	58	---	1170	3780	---	4200	---	372	---	223	240	---
TOTAL	1863	3216	24010	103250	83640	104000	77366	15871	14847	15066	13265	6141
MEAN	60.1	107	775	3331	2987	3355	2579	512	495	486	428	205
MAX	92	507	1170	7260	6310	5280	7450	769	976	1050	783	279
MIN	44	46	399	1310	1880	2290	549	372	192	191	240	140
AC-FT	3700	6380	47620	204800	165900	206300	153500	31480	29450	29880	26310	12180
CFSM	.05	.09	.68	2.92	2.62	2.94	2.26	.45	.43	.43	.38	.18
IN.	.06	.10	.78	3.37	2.73	3.39	2.52	.52	.48	.49	.43	.20
CAL YR 1986	TOTAL 514524	MEAN 1410	MAX 32700	MIN 44	AC-FT 1021000	CFSM 1.24	IN. 16.79					
WTR YR 1987	TOTAL 462535	MEAN 1267	MAX 7450	MIN 44	AC-FT 917400	CFSM 1.11	IN. 15.09					

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.85	11.39	16.09	19.46	24.43	25.90	25.87	15.62	14.47	17.88	13.76	13.82
2	11.83	11.36	16.29	19.68	23.97	25.49	26.71	15.39	14.36	18.22	13.76	13.40
3	11.77	11.36	16.43	19.65	23.58	25.24	26.90	15.19	14.23	18.53	13.94	13.42
4	11.71	11.34	16.43	20.04	23.14	25.12	26.64	15.01	14.03	18.63	14.15	13.46
5	11.67	11.33	16.29	20.81	22.89	25.16	26.26	15.13	13.93	18.48	14.34	13.73
6	11.62	11.33	16.08	21.28	22.98	25.49	25.88	15.12	13.72	17.69	14.40	13.85
7	11.57	11.32	15.73	21.78	23.14	25.73	25.44	14.91	13.59	16.99	14.66	13.63
8	11.52	11.30	15.27	22.39	23.25	25.68	24.96	15.12	13.50	16.50	14.89	13.46
9	11.49	11.29	14.82	22.88	23.21	25.37	24.48	15.17	13.36	16.14	14.94	13.35
10	11.46	11.29	14.49	23.19	23.05	25.09	23.97	15.29	13.23	16.00	14.71	13.27
11	11.44	11.28	14.87	23.32	22.85	24.92	23.42	15.19	13.13	15.98	14.31	13.21
12	11.40	11.31	15.49	23.18	22.64	24.78	22.85	14.95	13.06	15.99	13.90	13.24
13	11.39	11.29	16.05	22.89	22.37	24.55	22.25	14.74	13.06	15.85	13.68	13.36
14	11.41	11.27	16.42	22.51	22.06	24.26	21.67	15.06	13.17	15.56	13.75	13.31
15	11.42	11.27	16.79	22.16	21.68	23.93	21.14	15.48	13.95	15.13	14.47	13.20
16	11.41	11.25	17.14	21.95	22.13	23.53	20.65	16.22	15.85	14.72	15.36	13.11
17	11.41	11.27	17.38	22.34	22.29	23.08	20.20	16.53	17.43	14.36	15.87	12.99
18	11.41	12.13	17.54	22.39	22.31	22.79	19.80	16.80	18.26	14.11	16.25	12.88
19	11.40	12.32	17.63	22.72	22.90	23.24	19.42	17.18	17.93	13.96	16.66	12.81
20	11.34	12.09	17.67	23.40	23.64	23.21	19.05	16.91	17.38	13.86	17.03	12.91
21	11.31	12.15	17.51	24.04	24.02	23.20	18.70	16.43	17.09	13.95	17.26	12.71
22	11.29	12.07	17.22	24.91	24.26	23.55	18.35	16.32	16.68	13.71	17.24	12.79
23	11.25	12.08	17.16	25.80	24.68	23.71	18.00	16.38	16.51	13.52	16.93	13.19
24	11.23	12.20	17.42	26.37	24.93	23.55	17.65	16.15	16.29	13.38	16.37	13.39
25	11.30	12.22	17.44	26.67	25.49	23.28	17.31	15.90	16.19	13.29	15.67	13.25
26	11.44	12.67	17.66	26.80	26.18	23.05	16.99	15.70	16.34	13.20	14.99	12.99
27	11.37	12.99	17.97	26.80	26.40	23.01	16.69	15.50	16.53	13.16	14.48	12.77
28	11.39	13.12	18.26	26.48	26.23	23.13	16.40	15.24	16.95	13.14	14.08	12.63
29	11.43	13.83	18.51	25.98	---	23.31	16.12	14.98	17.19	13.05	13.77	12.57
30	11.46	15.26	18.71	25.47	---	24.54	15.86	14.76	17.53	13.05	13.56	12.52
31	11.44	---	18.85	24.95	---	25.28	---	14.60	---	13.36	13.52	---
TOTAL	355.43	357.38	521.61	722.29	660.70	752.17	639.63	482.97	458.94	471.39	462.70	395.22
MEAN	11.5	11.9	16.8	23.3	23.6	24.3	21.3	15.6	15.3	15.2	14.9	13.2
MAX	11.85	15.26	18.85	26.80	26.40	25.90	26.90	17.18	18.26	18.63	17.26	13.85
MIN	11.23	11.25	14.49	19.46	21.68	22.79	15.86	14.60	13.06	13.05	13.52	12.52
CAL YR 1986	TOTAL 7045.07		MEAN 19.3	MAX 1167.29	MIN 11.23							
WTR YR 1987	TOTAL 6280.33		MEAN 17.2	MAX 26.90	MIN 11.23							

OCHLOCKONEE RIVER BASIN

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02329000 OCHLOCKONEE RIVER NEAR HAVANA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1962 to June 1972, October 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCARB F.W.H.W. ,FET, (MG/L CACO3)
NOV 07...	1230	50	265	7.90	22.0	5.0	7.7	88	74	71	66	17
FEB 23...	1000	3470	77	6.50	11.0	11	7.9	72	230	370	13	5
MAY 08...	1730	446	108	7.30	21.0	6.5	6.3	71	K20	120	27	7
AUG 28...	1900	293	128	7.30	30.0	7.8	5.8	77	58	54	31	8

DATE	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY, CARB., FIELD, INC. T., (MG/L CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV 07...	17	16	6.2	25	43	1	4.1	49	49	48	1.2
FEB 23...	5	2.9	1.4	8.2	54	1	1.6	8	7.0	6	4.9
MAY 08...	7	6.5	2.7	9.2	41	.8	1.6	20	21	20	1.9
AUG 28...	8	7.3	3.0	12	44	1	2.6	23	23	22	2.2

DATE	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 07...	20	32	.20	3.3	140	140	.19	19	1.8	.020	1.8
FEB 23...	13	10	<.10	4.8	50	48	.07	468	--	<.010	.25
MAY 08...	10	12	.10	5.9	70	61	.10	84	.69	.020	.71
AUG 28...	11	17	.20	8.8	92	77	.13	73	--	<.010	.40

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
NOV 07...	.040	.060	.08	.07	1.9	1.9	.320	.250	.250	.77	40
FEB 23...	.040	.050	.06	--	.86	.90	.090	.030	.030	.09	260
MAY 08...	.060	.080	.10	.07	.64	.70	.190	.040	.030	.09	70
AUG 28...	.040	.030	.04	--	1.8	1.8	.290	.090	.070	.21	70

OCHLOCKONEE RIVER BASIN
02329000 OCHLOCKONEE RIVER NEAR HAVANA, FL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 07...	<1	24	<.5	<1	<1	<3	<1	130	<5	<4	53
FEB 23...	<1	18	<.5	<1	<1	<3	<1	450	<5	<4	20
MAY 08...	<1	22	<.5	<1	<1	<3	<1	600	<5	5	83
AUG 28...	1	27	<.5	<1	<1	<3	<1	1000	<5	<4	93
DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 07...	<.1	<10	2	<1	<1	78	<6	11	6	.81	85
FEB 23...	<.1	<10	<1	<1	<1	14	<6	20	14	131	50
MAY 08...	<.1	<10	<1	<1	<1	32	<6	9	19	23	68
AUG 28...	.1	<10	<1	<1	<1	45	<6	<3	14	11	86

OCHLOCKONEE RIVER BASIN
02329500 LITTLE RIVER NEAR QUINCY, FL

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LOCATION.--Lat 30°35'14", long 84°29'48", in NW¹/₄ sec.12, T.2 N., R.3 W., Gadsden County, Hydrologic Unit 03120003, near left bank on downstream side of bridge on State Highway 12, 0.5 mi southwest of Shady Rest, 1.1 mi down stream from confluence of Willacoochee and Attapulgus Creeks, 4.5 mi east of Quincy, and 12 mi upstream from mouth.

DRAINAGE AREA.--237 mi².

PERIOD OF RECORD.--April 1950 to March 1979; April 1979 to September 1980 (discharge measurements only); October 1980 to current year.

REVISED RECORDS.--WSP 1704: 1958, 1959; WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 83.19 ft above National Geodetic Vertical Datum of 1929, unadjusted. Prior to June 5, 1978 at site 50 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--35 years (water years 1951-78, 1981-87), 298 ft³/s 17.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,600 ft³/s Sept. 22, 1969, gage height, 24.65 ft, from floodmarks; minimum, 6.7 ft³/s Oct. 5, 6, 1968, July 2, 1969, gage height, 0.52 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1600	1940	11.90	Mar. 20	1200	2340	12.33
Jan. 20	1600	2000	11.97	Mar. 31	1500	*4170	*13.81
Jan. 24	0200	1920	11.87	Jun. 17	1600	1550	11.39
Feb. 24	1000	2890	12.85				

Minimum discharge, 43 ft³/s Sept. 28, 29, gage height, 1.48 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	67	1710	602	412	771	2960	127	78	181	162	62
2	78	66	1460	809	436	862	1670	122	76	187	149	67
3	90	70	1070	903	586	900	1140	124	74	321	111	97
4	70	71	650	882	624	793	919	123	70	379	90	120
5	64	68	338	1120	640	599	769	171	65	313	83	108
6	56	68	242	1400	743	457	653	145	64	299	81	155
7	53	67	207	1210	779	422	559	129	65	284	91	145
8	53	67	189	909	740	615	488	133	60	271	135	184
9	50	66	188	588	638	694	441	135	55	202	121	152
10	51	64	318	492	522	694	412	125	58	158	86	115
11	54	62	575	543	427	609	383	121	52	132	68	94
12	78	65	774	505	376	519	357	154	50	115	61	90
13	100	65	886	437	352	494	334	140	51	104	98	105
14	97	61	827	375	334	466	317	181	99	96	203	129
15	131	57	615	343	325	420	313	194	362	112	438	113
16	126	59	445	453	701	376	300	248	934	115	300	88
17	99	69	396	930	1000	345	284	389	1440	103	170	73
18	79	302	357	1220	1270	446	268	432	1260	90	126	66
19	66	313	321	1370	1010	1170	252	492	895	80	102	68
20	60	157	343	1790	711	2200	238	407	647	78	87	90
21	57	172	314	1780	607	1590	225	295	516	118	76	96
22	55	167	273	1390	761	1050	208	213	552	116	68	76
23	54	129	328	1600	1650	705	196	267	541	99	62	65
24	54	112	545	1790	2690	488	186	214	827	86	58	59
25	56	100	609	1310	1690	432	175	167	807	80	55	54
26	91	180	529	1030	1140	485	163	136	571	71	70	50
27	103	351	396	843	894	743	155	115	384	74	67	48
28	90	328	301	681	723	937	150	103	321	73	63	47
29	78	377	251	553	---	1130	141	95	281	79	65	44
30	72	972	232	478	---	2270	133	88	217	92	66	48
31	70	---	223	439	---	3850	---	82	---	127	61	---
TOTAL	2298	4772	15912	28775	22781	27532	14789	5867	11472	4635	3473	2708
MEAN	74.1	159	513	928	814	888	493	189	382	150	112	90.3
MAX	131	972	1710	1790	2690	3850	2960	492	1440	379	438	184
MIN	50	57	188	343	325	345	133	82	50	71	55	44
AC-FT	4560	9470	31560	57080	45190	54610	29330	11640	22750	9190	6890	5370
CFSM	.31	.67	2.17	3.92	3.43	3.75	2.08	.80	1.61	.63	.47	.38
IN.	.36	.75	2.50	4.52	3.58	4.32	2.32	.92	1.80	.73	.55	.43

CAL YR 1986	TOTAL 130902	MEAN 359	MAX 8700	MIN 27	AC-FT 259600	CFSM 1.51	IN. 20.55
WTR YR 1987	TOTAL 145014	MEAN 397	MAX 3850	MIN 44	AC-FT 287600	CFSM 1.68	IN. 22.76

OCHLOCKONEE RIVER BASIN
02329534 QUINCY CREEK AT S267 AT QUINCY, FL

LOCATION.--Lat 30°36'00", long 84°34'50", in NW¹/₄ sec.6, T.2 N., R.3 W., Gadsden County, Hydrologic Unit 03120003, at culvert on State Highway 267, 0.9 mi north of Quincy, and 6.2 mi upstream from mouth.

DRAINAGE AREA.--16.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to September 1977, December 1977 to current year.

REVISED RECORDS.--WDR FL-83-4: 1980(M). WDR FL-85-4: 1975(P), 1976, 1977, 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 129.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Streamflow affected by city water plant withdrawal about 400 ft above gage.

AVERAGE DISCHARGE.--12 years (water years 1975-77, 1978-87), 28.6 ft³/s, 23.12 in/yr (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,470 ft³/s, March 6, 1984, gage height, 8.64 ft; minimum, 2.3 ft³/s May 7, 8, 1985, May 26-29, 1986; minimum gage height, 0.09 ft May 7, 8, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 22, 1969, reached a stage of 11.68 ft, present datum, from floodmarks, discharge, 3,170 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0430	*499	*6.38	Mar. 29	1900	375	5.61
Feb. 22	1700	420	5.90	Aug. 14	1600	469	6.20
Mar. 18	2030	393	5.73				

Minimum discharge, 8.2 ft³/s Oct. 7, 8, 9, minimum gage height, 0.31 ft Oct. 8, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	14	118	130	43	78	90	23	15	25	52	17
2	11	14	68	67	65	60	70	23	15	30	31	18
3	10	16	49	48	59	53	69	23	14	39	24	18
4	9.8	15	40	149	48	49	63	28	14	50	20	16
5	9.4	13	35	118	57	45	57	30	14	44	17	30
6	9.2	12	32	69	57	43	54	25	14	35	17	29
7	8.8	12	30	54	53	59	51	25	13	31	19	62
8	8.6	13	29	47	51	68	47	27	12	29	32	66
9	8.5	12	53	42	45	56	46	25	12	26	21	44
10	9.4	12	54	62	41	49	44	24	11	24	17	33
11	10	15	105	51	40	45	42	34	11	22	15	28
12	10	16	90	42	39	49	40	32	11	21	30	29
13	11	15	61	39	39	45	40	28	23	20	72	27
14	18	14	48	38	38	42	40	28	47	21	262	26
15	18	13	42	44	38	41	40	27	124	26	145	22
16	14	15	45	100	128	40	38	30	134	23	61	20
17	12	26	40	118	63	39	36	29	91	20	43	19
18	11	134	37	77	52	148	35	34	56	18	34	19
19	11	57	41	152	45	160	34	34	44	19	28	23
20	10	44	41	92	42	78	33	28	39	20	25	25
21	9.9	33	35	68	66	61	31	29	42	21	22	21
22	9.7	25	32	139	173	55	30	28	52	19	20	18
23	9.9	21	63	89	142	50	29	25	51	18	19	17
24	10	20	52	67	84	48	28	23	40	16	16	15
25	15	19	41	72	71	49	27	21	37	16	21	15
26	20	83	36	63	62	92	27	19	35	20	27	14
27	16	54	34	54	57	115	26	18	33	20	21	14
28	13	43	32	50	63	97	25	17	28	19	19	14
29	13	94	31	48	---	174	24	17	26	18	17	14
30	13	287	30	48	---	258	23	16	25	22	15	17
31	13	---	34	45	---	192	---	16	---	46	16	---
TOTAL	361.9	1161	1478	2282	1761	2438	1239	786	1083	778	1178	730
MEAN	11.7	38.7	47.7	73.6	62.9	78.6	41.3	25.4	36.1	25.1	38.0	24.3
MAX	20	287	118	152	173	258	90	34	134	50	262	66
MIN	8.5	12	29	38	38	39	23	16	11	16	15	14
AC-FT	718	2300	2930	4530	3490	4840	2460	1560	2150	1540	2340	1450
CFSM	.69	2.30	2.84	4.38	3.74	4.68	2.46	1.51	2.15	1.49	2.26	1.45
IN.	.80	2.57	3.27	5.05	3.90	5.40	2.74	1.74	2.40	1.72	2.61	1.62
CAL YR 1986	TOTAL 11430.5	MEAN 31.3	MAX 415	MIN 3.0	AC-FT 22670	CFSM 1.86	IN. 25.32					
WTR YR 1987	TOTAL 15275.9	MEAN 41.9	MAX 287	MIN 8.5	AC-FT 30300	CFSM 2.49	IN. 33.82					

OCHLOCKONEE RIVER BASIN

93

02329534 QUINCY CREEK AT S267 AT QUINCY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCARB F.W.H.W. ,FET, (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
JAN 05...	1820	93	45	6.80	10.0	85	26	11.3	16	4	4	4.0
APR 14...	1650	38	50	6.60	20.0	20	8.0	6.5	15	4	4	3.8
JUN 25...	1545	36	46	6.70	27.0	60	8.0	5.7	13	2	2	3.1
AUG 25...	1015	16	51	6.90	27.5	37	6.2	4.5	15	2	2	3.7
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	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)
JAN 05...	1.4	2.5	25	.3	.70	12	3.7	7.3	4.8	<.10	4.9	36
APR 14...	1.4	2.7	27	.3	.40	11	5.4	<.1	5.5	.30	4.7	44
JUN 25...	1.3	2.3	27	.3	.50	11	4.3	--	4.0	.10	5.4	52
AUG 25...	1.5	3.0	29	.3	.50	13	3.2	7.8	4.5	.10	6.2	33
DATE	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
JAN 05...	33	.05	9.0	.39	<.010	.40	--	100	<1	<10	3	1600
APR 14...	--	.06	4.5	.54	.040	.58	<1	<100	1	<10	4	1200
JUN 25...	--	.07	5.1	.26	.010	.27	<1	<100	<1	<10	10	1600
AUG 25...	35	.04	1.4	.39	.010	.40	1	<100	<1	<10	3	1300
DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	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)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	MIREX, TOTAL (UG/L)
JAN 05...	<5	60	--	<.10	--	<1	12	<10	<.1	<.10	<.1	<.01
APR 14...	<5	40	--	<.10	<1	<1	50	<10	--	--	--	--
JUN 25...	5	50	--	<.10	<1	1	40	<10	--	--	--	--
AUG 25...	<5	40	40	.20	--	<1	17	<10	<.1	<.10	<.1	<.01
DATE	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (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)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)
JAN 05...	.030	<.10	<.010	<.010	.030	<.01	<.010	.020	<.010	<.01	<.010	<.010
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	<.010	<.10	<.010	<.010	<.010	<.01	<.010	<.010	<.010	<.01	<.010	<.010

OCHLOCKONEE RIVER BASIN
02329534 QUINCY CREEK AT S267 AT QUINCY, FL--Continued
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	LINDANE TOTAL (UG/L)	MALA- THION, WATER WHOLE TOTAL (UG/L)	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-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN 05...	<.010	<.01	<.01	.09	<.01	.06	<1.0	<.01	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	<.010	<.01	<.01	<.01	<.01	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

OCHLOCKONEE RIVER BASIN
02329600 LITTLE RIVER NEAR MIDWAY, FL

95

LOCATION.--Lat 30°30'44", long 84°31'25", in SW¹/₄ sec.3, T.1 N., R.3 W., Gadsden County, Hydrologic Unit 03120003, at bridge on State Highway 268, 0.5 mi upstream from Monroe Creek, 3.2 mi above mouth, and 3.7 mi west of Midway.

DRAINAGE AREA.--305 mi².

PERIOD OF RECORD.--Annual maximums, water years 1965-85. October 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1985, nonrecording and crest-stage gages at same site and datum.

REMARKS.--No estimated daily discharges. Records good, except those below 200 ft³/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,200 ft³/s Sept. 22, 1969, from rating curve extended above 15,000 ft³/s; gage height, 86.25 ft from floodmarks; minimum measured, 52 ft³/s May 22, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,470 ft³/s Mar. 31, gage height, 76.86 ft; minimum daily, 75 ft³/s Oct. 8, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	108	2670	841	521	1050	4730	169	124	281	246	160
2	91	108	2610	1140	542	1060	3120	166	122	271	258	134
3	100	111	1910	1090	757	1080	2090	165	120	458	200	138
4	92	114	1250	1230	759	1040	1540	167	120	606	163	158
5	84	116	617	1690	775	836	1180	238	128	522	146	194
6	80	118	385	1820	861	600	941	214	129	431	146	252
7	76	119	323	1850	934	523	782	207	127	409	154	227
8	75	117	292	1480	940	803	674	237	119	383	200	295
9	75	114	283	993	833	867	593	224	109	314	202	303
10	77	112	411	703	688	869	535	206	101	238	160	217
11	76	111	762	762	558	794	487	204	94	197	136	188
12	78	114	1060	653	478	698	447	269	90	167	134	174
13	95	110	1180	581	444	625	421	235	95	153	200	167
14	102	102	1110	498	419	567	406	315	160	144	723	178
15	123	99	919	473	403	519	400	280	505	146	1150	171
16	124	99	650	617	925	472	386	308	1250	159	751	147
17	108	110	532	1400	1380	434	369	413	1990	137	360	130
18	96	284	470	1610	1420	584	353	517	2550	125	234	121
19	85	608	426	2030	1520	1700	335	663	1720	113	196	122
20	81	347	481	2390	1130	2280	315	548	1070	109	176	156
21	80	314	439	2540	902	2700	316	420	746	151	141	149
22	78	291	379	2480	1090	1900	310	324	775	162	128	132
23	78	239	445	2230	1890	1210	289	325	774	147	128	117
24	80	211	727	2330	2950	732	259	302	827	131	138	107
25	86	191	734	2240	3080	575	228	221	1020	129	135	98
26	106	297	688	1720	2050	585	213	169	850	129	132	91
27	120	556	536	1280	1420	968	205	146	564	154	138	88
28	115	486	410	977	1050	1400	195	138	408	166	132	81
29	110	571	341	761	---	1650	181	134	361	148	129	78
30	107	1670	317	637	---	3190	171	130	324	146	138	85
31	107	---	314	573	---	4910	---	127	---	177	139	---
TOTAL	2878	7947	23671	41619	30719	37221	22471	8181	17372	7003	7413	4658
MEAN	92.8	265	764	1343	1097	1201	749	264	579	226	239	155
MAX	124	1670	2670	2540	3080	4910	4730	663	2550	606	1150	303
MIN	75	99	283	473	403	434	171	127	90	109	128	78
AC-FT	5710	15760	46950	82550	60930	73830	44570	16230	34460	13890	14700	9240
CFSM	.30	.87	2.50	4.40	3.60	3.94	2.46	.87	1.90	.74	.78	.51
IN.	.35	.97	2.89	5.08	3.75	4.54	2.74	1.00	2.12	.85	.90	.57

CAL YR 1986 TOTAL 176341 MEAN 483 MAX 11000 MIN 56 AC-FT 349800 CFSM 1.58 IN. 21.51
WTR YR 1987 TOTAL 211153 MEAN 579 MAX 4910 MIN 75 AC-FT 418800 CFSM 1.90 IN. 25.75

OCHLOCKONEE RIVER BASIN

02330000 OCHLOCKONEE RIVER NEAR BLOXHAM, FL

LOCATION.--Lat 30°23'10", long 84°38'59", in NE¹/₄ sec.20, T.1 S., R.4 W., Leon County, Hydrologic Unit 03120003, on left bank 900 ft upstream from bridge on State Highway 20, 1,200 ft downstream from Jackson Bluff Dam, 1.5 mi southwest of Bloxham, and 65 mi upstream from mouth.

DRAINAGE AREA.--1,700 mi², approximately.

PERIOD OF RECORD.--June 1926 to current year. Low-flow records not equivalent prior to October 1, 1954, due to undetermined amount of seepage inflow.

REVISED RECORDS.--WSP 1002: 1940-42. WSP 1704: 1958-59. WSP 1905, WDR FL-76-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.69 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 9, 1930, nonrecording gage at site 700 ft upstream at datum 5.00 ft higher. Apr. 9, 1930 to Jan. 19, 1939, water-stage recorder at present site at datum 5.00 ft higher. Jan. 20, 1939 to Sept. 30, 1954, water-stage recorder at site 2,000 ft downstream at datum 5.00 ft higher. Oct. 1, 1954 to Sept. 30, 1985, water-stage recorder at site 2,000 ft downstream at present datum.

REMARKS.--No estimated discharges. Records fair. Flow regulated since 1929 by Jackson Bluff Dam above station and storage in Lake Talquin (02329900). Since October 1981, the publication of adjusted values for storage has been discontinued since the difference between adjusted and the unadjusted values have been minimal.

AVERAGE DISCHARGE.--59 years (water years 1927-82, 85-87), 1,703 ft³/s, 13.60 in/yr, unadjusted; 27 years (water years 1955-81) 1,781 ft³/s 14.23 in/yr, adjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89,400 ft³/s Sept. 23, 1969, gage height, 29.2 ft, from floodmark; minimum discharge, since October 1954, 1.0 ft³/s Nov. 1, 2, 1957, caused by closure of breaks in earth embankment of Jackson Bluff Dam (indeterminate prior to October 1954).

EXTREMES OUTSIDE THE PERIOD OF RECORD.--Maximum stage since 1834, 32.64 ft Sept. 30, 1957, from flood marks established by local resident, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s Apr. 1, gage height, 19.61 ft; minimum, 148 ft³/s Apr. 21, minimum gage height, 3.55 ft Nov. 16, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	453	208	5490	3110	5160	7050	10400	648	454	1690	483	727
2	389	208	4670	3520	4570	6610	9600	640	430	1490	501	744
3	313	208	3470	3250	3760	5570	7910	639	430	1540	755	748
4	318	208	2510	3370	3800	5290	7410	625	429	1910	781	746
5	317	208	1490	4260	4300	5270	7380	617	453	3200	759	930
6	276	208	1440	4430	4640	5280	6860	615	438	2790	488	1550
7	251	242	1540	4330	3900	5300	5770	609	448	1870	598	991
8	229	302	1100	3730	3870	5340	5150	543	456	1800	645	702
9	229	262	741	4050	3630	5320	5070	685	458	1570	687	1100
10	228	261	774	4640	3770	5310	4720	744	466	1120	666	1130
11	224	261	2360	3860	3790	5310	4110	711	419	1010	536	1350
12	223	250	2680	3580	3480	5310	3650	719	389	965	450	1980
13	223	244	2800	3240	3330	5280	2930	879	333	747	792	1540
14	283	237	2170	3420	3440	4780	2660	1190	437	708	2950	792
15	244	249	2780	3590	3280	4090	2580	1620	821	703	6610	661
16	225	214	2610	3970	3840	3740	2310	1300	2940	701	4110	625
17	243	219	2270	5280	4840	3820	2180	955	4800	685	2440	534
18	239	322	1620	4620	5210	4050	2030	1220	4920	503	1580	523
19	235	693	1400	4720	4420	5380	2020	1620	3780	478	1020	506
20	228	753	1560	5540	3850	5360	1880	1650	3550	463	1720	484
21	222	708	1600	6510	4970	5310	531	1610	3290	426	1570	479
22	222	744	1720	7340	5080	5300	1520	1260	2480	419	1120	473
23	221	647	1860	6160	5820	5290	1700	1200	1930	415	665	465
24	221	478	2180	6460	6640	4760	1720	1190	1860	411	680	461
25	221	437	2410	6510	7020	3920	1260	1110	2590	414	905	446
26	212	553	2310	6640	7020	3670	1050	828	2900	435	874	442
27	211	1270	1940	7030	7000	3720	970	508	2480	567	687	368
28	211	1540	1890	7120	7010	4950	969	473	2050	718	653	428
29	211	1850	1610	6830	---	5290	953	465	950	714	648	306
30	209	4250	1330	6050	---	6850	780	463	1020	624	650	156
31	207	---	1430	5330	---	9730	---	462	---	485	647	---
TOTAL	7738	18234	65755	152490	131440	162250	108073	27798	48401	31571	37670	22387
MEAN	250	608	2121	4919	4694	5234	3602	897	1613	1018	1215	746
MAX	453	4250	5490	7340	7020	9730	10400	1650	4920	3200	6610	1980
MIN	207	208	741	3110	3280	3670	531	462	333	411	450	156
AC-FT	15350	36170	130400	302500	260700	321800	214400	55140	96000	62620	74720	44400
CFSM	.15	.36	1.25	2.89	2.76	3.08	2.12	.53	.95	.60	.71	.44
IN.	.17	.40	1.44	3.34	2.88	3.55	2.36	.61	1.06	.69	.82	.49

CAL YR 1986 TOTAL 807710 MEAN 2213 MAX 37600 MIN 99 AC-FT 1602000 CFSM 1.30 IN. 17.67
WTR YR 1987 TOTAL 813807 MEAN 2230 MAX 10400 MIN 156 AC-FT 1614000 CFSM 1.31 IN. 17.81

OCHLOCKONEE RIVER BASIN
02330100 TELOGIA CREEK NEAR BRISTOL, FL

97

LOCATION.--Lat 30°25'35", long 84°55'40", in NW¹/₄ sec.3, T.1 S., R.7 W., Liberty County, Hydrologic Unit 03120003, near left bank at downstream side of bridge on State Highway 20, 600 ft upstream from White Branch, 3.0 mi east of Bristol, and 33 mi upstream from mouth.

DRAINAGE AREA.--126 mi².

PERIOD OF RECORD.--March 1950 to September 1971, October 1974 to September 1979, October 1980 to current year.

REVISED RECORDS.--WSP 1504: 1950-51, 1953 (M), 1955-56.

GAGE.--Water-stage recorder. Datum of gage is 99.50 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--33 years, (water years 1951-71, 1975-79, 1981-87) 224 ft³/s, 24.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,600 ft³/s Sept. 22, 1969, gage height, 16.65 ft, from floodmark; minimum, 28 ft³/s Sept. 14, Oct. 26, 27, 1954, gage height, 1.35 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Dec. 1	1800	*2040	*7.84	Mar. 31	1200	1650	7.78
Mar. 20	0600	1500	7.63	Aug. 15	2300	1610	7.74

Minimum discharge, 72 ft³/s June 12; gage height, 2.92 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	83	1880	215	250	410	1320	103	93	203	177	158
2	91	83	1450	294	258	483	776	99	92	353	215	223
3	94	83	909	404	294	488	528	99	91	410	189	206
4	95	83	577	420	328	354	439	100	86	742	157	173
5	100	81	382	434	340	273	402	124	85	734	147	181
6	95	81	267	579	322	232	351	212	108	586	167	242
7	86	81	209	541	348	229	302	124	114	589	167	240
8	81	81	186	367	362	362	271	130	101	916	137	231
9	76	80	188	275	324	475	247	128	85	782	150	381
10	78	78	302	266	284	462	230	117	79	498	132	335
11	83	77	558	304	238	336	215	129	75	320	111	214
12	85	76	805	329	211	269	204	207	74	227	112	221
13	86	76	927	294	201	255	194	170	108	189	156	274
14	102	76	780	227	191	246	187	142	276	190	447	235
15	154	74	549	210	185	219	184	139	482	238	1220	168
16	139	74	384	288	305	201	179	229	899	196	1340	143
17	110	80	319	608	448	189	171	328	1150	169	734	131
18	95	280	297	953	547	280	165	515	975	154	429	124
19	87	386	272	876	383	767	157	560	714	142	307	122
20	81	268	287	833	269	1300	152	560	662	145	218	144
21	78	264	316	895	299	728	150	408	646	210	177	155
22	75	199	301	722	434	452	142	254	592	226	157	132
23	74	160	284	845	800	335	137	223	620	174	144	117
24	74	131	363	887	1160	275	133	191	533	150	134	109
25	76	117	436	597	709	247	129	153	436	131	136	103
26	94	132	407	484	507	251	124	138	399	124	153	100
27	112	199	293	438	416	307	121	124	393	154	138	98
28	105	252	223	385	361	515	116	112	316	187	182	97
29	92	461	195	319	---	729	110	104	232	175	157	95
30	87	1010	181	285	---	1030	107	100	184	178	135	97
31	84	---	175	269	---	1590	---	95	---	164	128	---
TOTAL	2853	5206	14702	14843	10774	14289	7943	6117	10700	9656	8353	5249
MEAN	92.0	174	474	479	385	461	265	197	357	311	269	175
MAX	154	1010	1880	953	1160	1590	1320	560	1150	916	1340	381
MIN	74	74	175	210	185	189	107	95	74	124	111	95
AC-FT	5660	10330	29160	29440	21370	28340	15750	12130	21220	19150	16570	10410
CFSM	.73	1.38	3.76	3.80	3.05	3.66	2.10	1.57	2.83	2.47	2.14	1.39
IN.	.84	1.54	4.34	4.38	3.18	4.22	2.35	1.81	3.16	2.85	2.47	1.55

CAL YR 1986	TOTAL	94326	MEAN	258	MAX	3050	MIN	49	AC-FT	187100	CFSM	2.05	IN.	27.85
WTR YR 1987	TOTAL	110685	MEAN	303	MAX	1880	MIN	74	AC-FT	219500	CFSM	2.41	IN.	32.63

OCHLOCKONEE RIVER BASIN

02330166 OCHLOCKONEE RIVER NEAR MCINTYRE, FL

LOCATION.--Lat 29°59'19", long 84°30'09", in SE¹/₄ sec.2, T.6 S., R.3 W., Franklin County, Hydrologic Unit 03120003, near left bank on upstream side of bridge on U.S. Highway 319, 1.6 mi northeast of McIntyre and 6.4 mi upstream from mouth.

DRAINAGE AREA.--2,230 mi².

PERIOD OF RECORD.--July 1974 to April 1975 (discharge measurements only), December 1978 to current year (tidal gage heights and discharge measurements).

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).

REMARKS.--Gage heights affected by tide. Gage-height records collected in this vicinity 1941-75, are available in the files of the U.S. Army Corps of Engineers, Mobile District.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 17.21 ft Sept. 1, 1985 (Hurricane Elena); minimum gage height, 7.62 ft Jan. 18, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height since September 1941, 16.99 ft June 19, 1972 (Hurricane Agnes), present site and datum; minimum gage height since September 1941, 7.17 ft Sept. 15, 1975, present site and datum, from information provided by the U.S. Army Corps of Engineers, Mobile District.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.67 ft Mar. 18; minimum gage height, 8.45 ft Feb. 9.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.52	10.09	12.03	9.45	13.03	10.54	12.96	10.07	12.16	10.16	13.24	11.32
2	12.57	10.20	12.07	9.19	12.87	10.49	11.24	8.74	12.69	10.60	12.16	10.50
3	12.66	10.26	12.25	9.24	12.13	9.84	12.14	9.60	12.10	10.28	12.24	10.38
4	12.48	10.01	12.53	9.56	12.05	9.88	13.35	---	12.07	10.14	11.89	10.29
5	12.37	9.69	12.73	9.80	11.61	9.48	10.05	8.89	12.01	10.19	12.06	9.92
6	12.24	9.48	12.54	9.59	11.50	9.32	11.35	9.08	12.07	10.36	11.61	10.08
7	12.44	9.69	12.42	9.78	11.70	9.53	11.79	9.89	11.15	10.07	13.06	9.68
8	12.67	10.01	12.24	9.86	11.94	10.03	11.96	9.92	10.86	8.90	11.70	11.05
9	12.66	10.29	11.82	9.70	12.38	10.80	12.16	9.99	9.96	8.45	11.57	10.19
10	12.54	10.15	11.88	9.90	12.49	10.37	12.09	10.32	10.89	8.61	11.20	9.64
11	12.42	10.19	12.26	10.57	12.37	10.61	10.42	9.01	11.38	8.97	11.86	9.74
12	12.19	9.98	12.29	10.17	12.00	10.46	10.38	8.62	11.84	9.20	11.94	9.91
13	12.54	10.28	12.17	9.27	10.89	8.97	11.41	9.01	11.77	9.19	11.49	9.38
14	12.41	10.05	11.23	9.09	11.49	9.36	11.82	9.41	12.10	9.56	11.83	9.64
15	12.01	9.88	11.59	8.98	11.81	9.52	12.48	10.20	12.47	10.14	12.47	10.32
16	11.70	9.38	12.15	9.56	12.02	9.68	12.60	10.25	13.29	10.96	12.68	10.72
17	11.68	9.33	12.42	9.64	12.37	9.93	12.53	10.40	12.20	10.16	12.84	10.56
18	11.92	9.43	12.41	9.63	12.38	9.82	12.81	10.94	11.75	9.68	13.67	11.03
19	11.41	8.94	12.35	9.58	12.19	9.76	13.06	10.89	11.54	9.33	13.17	11.71
20	11.54	9.09	12.68	10.04	12.28	9.73	11.81	10.23	11.95	9.45	12.74	10.72
21	12.00	9.40	11.78	9.07	11.71	9.35	12.20	10.20	11.84	10.11	12.29	10.50
22	12.30	9.81	11.90	9.62	11.83	9.59	11.37	10.35	12.62	10.15	12.19	10.15
23	12.35	10.28	12.16	10.04	13.06	11.01	10.89	9.33	11.13	9.95	12.00	10.41
24	12.59	10.91	11.99	10.20	12.22	10.54	12.01	9.77	11.74	9.58	13.05	11.45
25	13.11	11.91	12.03	10.62	11.77	10.05	12.71	10.86	11.83	9.84	12.96	11.14
26	---	10.35	12.34	10.64	11.78	9.61	10.97	10.28	12.41	10.40	12.83	10.78
27	12.15	10.10	12.21	10.12	11.83	9.49	---	9.35	12.93	10.83	13.06	11.15
28	11.93	9.69	12.05	9.56	11.30	9.17	11.69	9.65	13.06	11.19	13.30	10.99
29	11.82	9.55	12.55	10.56	11.87	9.05	12.28	10.17	---	---	12.93	10.96
30	11.65	9.70	12.98	10.61	11.96	8.93	12.98	10.64	---	---	13.46	11.40
31	12.11	9.78	---	---	12.25	9.38	12.15	9.91	---	---	11.96	10.77
MAX	---	11.91	12.98	10.64	13.06	11.01	---	---	13.29	11.19	13.67	11.71
MIN	---	8.94	11.23	8.98	10.89	8.93	---	---	9.96	8.45	11.20	9.38

OCHLOCKONEE RIVER BASIN

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02330166 OCHLOCKONEE RIVER NEAR MCINTYRE, FL.--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L	TIDAL H	TIDAL L
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.85	10.17	11.92	8.97	11.87	9.29	12.20	10.17	12.08	9.90	12.25	9.56
2	12.32	10.55	12.10	9.11	11.64	9.26	12.08	10.20	12.10	10.04	12.38	9.88
3	12.26	11.01	11.87	9.31	11.61	9.35	12.20	10.10	12.28	9.94	12.41	9.78
4	11.23	10.61	11.62	9.25	11.54	9.56	12.13	10.42	12.22	9.68	12.32	9.53
5	11.43	10.09	11.37	9.03	11.91	9.85	12.26	10.25	12.22	9.48	12.92	10.69
6	11.25	10.10	11.35	9.23	11.95	9.96	12.41	10.09	12.27	9.31	12.83	11.26
7	11.50	10.02	11.63	9.18	12.20	9.89	12.60	10.11	12.42	9.38	12.69	10.32
8	11.51	10.01	11.62	9.34	12.50	9.89	12.65	10.11	12.50	10.62	12.56	10.13
9	11.39	9.62	11.97	9.79	12.45	9.59	12.65	10.05	12.45	9.36	12.33	9.93
10	11.83	9.72	12.05	9.94	12.52	10.82	12.80	11.12	12.00	9.37	12.20	9.67
11	11.95	9.84	12.19	9.44	12.67	9.54	12.90	10.06	11.82	9.06	12.31	9.96
12	12.29	10.16	12.15	10.15	12.84	9.65	12.69	10.11	11.96	9.30	12.46	10.35
13	12.37	10.43	12.11	9.19	12.80	9.84	12.49	9.84	11.91	9.73	12.43	10.02
14	12.42	10.01	12.27	9.03	12.87	9.80	12.21	9.62	12.01	9.86	12.15	9.91
15	12.21	10.01	12.30	9.19	12.61	10.17	12.13	9.80	12.56	10.26	11.79	9.82
16	11.80	9.33	12.53	9.28	12.31	9.96	11.83	9.85	12.20	10.27	11.70	9.90
17	11.88	9.03	12.74	9.74	11.88	9.82	11.91	9.77	11.76	10.45	11.99	9.86
18	11.82	8.92	12.29	10.00	11.82	9.84	12.26	10.19	11.74	10.36	11.92	9.75
19	11.56	9.02	12.07	9.70	12.07	10.00	12.44	9.95	11.64	10.01	12.01	9.63
20	11.34	8.74	11.89	9.77	12.30	10.49	12.70	10.32	11.81	9.67	12.14	9.68
21	11.25	8.76	11.87	9.73	12.50	10.56	12.34	9.69	12.06	9.84	12.18	9.89
22	11.45	8.88	12.11	9.90	12.47	10.42	12.23	9.55	12.27	9.73	12.11	9.80
23	11.76	9.35	12.27	9.95	12.46	10.33	12.31	9.82	12.25	10.48	11.99	9.62
24	11.73	9.36	12.49	9.99	12.38	11.14	12.33	---	12.28	9.65	12.05	9.63
25	11.50	9.15	12.50	9.82	12.48	10.06	12.37	9.51	12.35	9.79	12.10	9.57
26	11.51	9.49	12.44	10.80	12.30	10.06	12.26	9.58	12.25	9.87	12.16	9.76
27	11.50	8.91	12.42	9.63	12.45	10.03	12.21	9.46	12.27	9.90	12.43	9.80
28	11.68	8.74	12.33	9.66	12.44	10.02	12.12	9.53	12.28	10.06	12.44	9.96
29	11.92	8.88	12.21	9.74	12.41	10.06	11.99	9.60	12.23	9.91	12.28	9.76
30	11.88	8.92	12.06	9.63	12.26	10.25	12.01	9.71	12.32	9.93	12.24	9.72
31	---	---	11.85	9.39	---	---	12.01	9.89	12.41	10.00	---	---
MAX	12.42	11.01	12.74	10.80	12.87	11.14	12.90	---	12.56	10.62	12.92	11.26
MIN	11.23	8.74	11.35	8.97	11.54	9.26	11.83	---	11.64	9.06	11.70	9.53

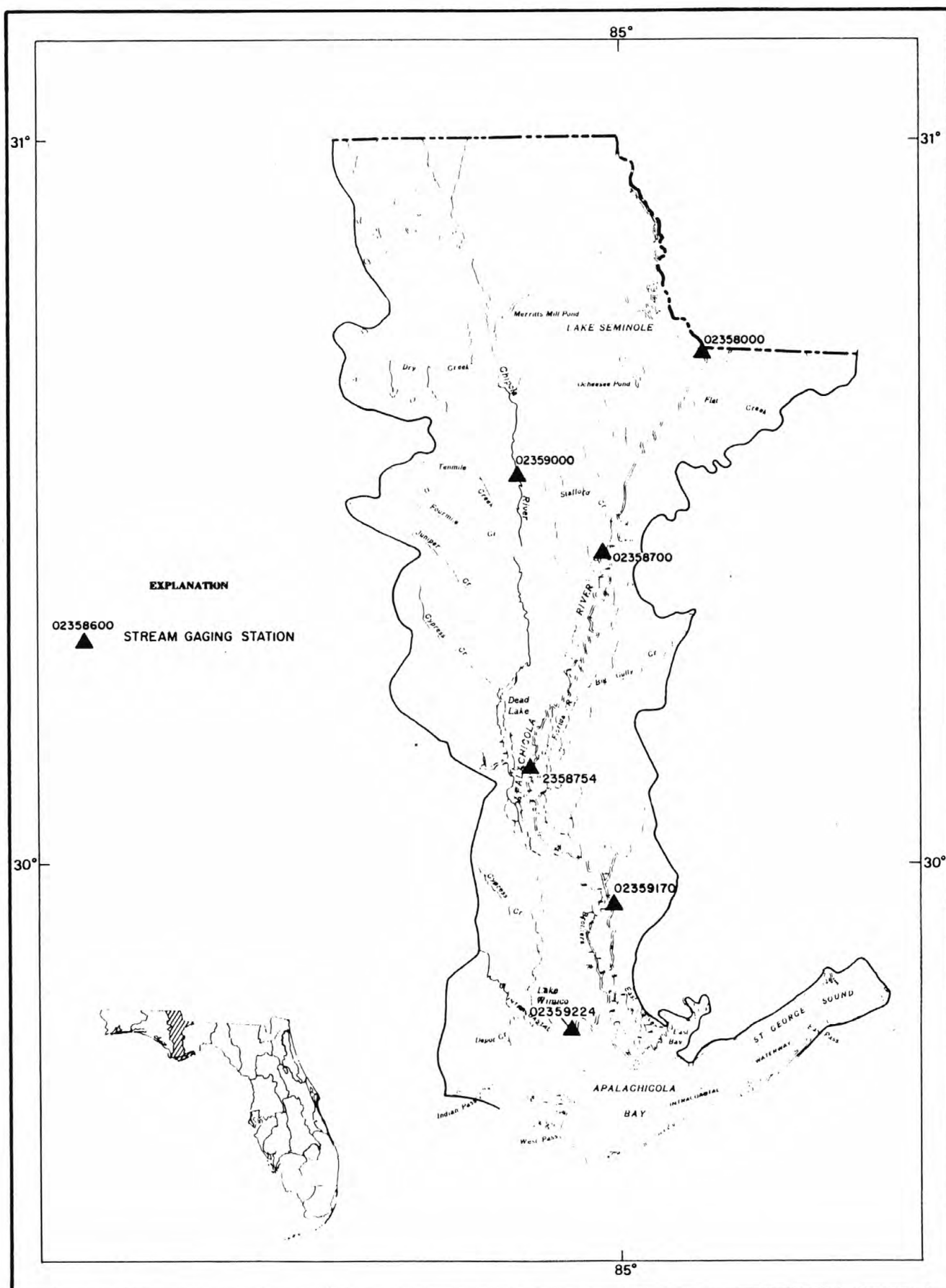


Figure 21.--Location of stream gaging stations in the Apalachicola and Chipola River basins.

APALACHICOLA RIVER BASIN

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02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL
(National stream-quality accounting network station)

LOCATION.--Lat 30°42'03", long 84°51'33", in NW¹/₄ sec.32, T.4 N., R.6 W., Jackson County, Hydrologic Unit 03130011, on downstream side of right main pier on U.S. Highway 90, 0.6 mi downstream from Jim Woodruff Dam, 0.6 mi upstream from Mosquito Creek, 1.0 mi west of Chattahoochee, and 106 mi upstream from mouth.

DRAINAGE AREA.--17,200 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1304. Prior to October 1939, published as "near River Junction." Gage-height records collected at site 0.9 mi down stream October 1919 to September 1925, and at site approximately 100 ft downstream October 1925 to December 1958 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1906: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 40.58 ft above National Geodetic Vertical Datum of 1929 (National Weather Service bench mark). Prior to Dec. 16, 1939, water-stage recorder at site 0.9 mi downstream at datum 4.27 ft higher. Dec. 16, 1939 to June 25, 1952, water-stage recorder, June 26, 1952 to June 2, 1954, nonrecording gage, and June 3, 1954 to Oct. 14, 1958, water-stage recorder, at site approximately 100 ft downstream at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Seminole Reservoir (02357500) 0.6 mi upstream since Feb. 4, 1957, Walter F. George Lake (02343240) since 1962, Bartlett's Ferry Reservoir (02341000) since 1926, West Point Lake (02339400) since October 1974, and Lake Sidney Lanier Reservoir (02334400) since 1956.

AVERAGE DISCHARGE.--59 years, 22,275 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 293,000 ft³/s Mar. 20, 1929, gage height, 38.97 ft, present datum, extended above 193,000 ft³/s; minimum, 2,570 ft³/s Aug. 6, 1986; minimum gage height, -2.12 ft Aug. 31, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81,300 ft³/s Mar. 3, gage height, 22.67 ft; minimum, 2,930 ft³/s Oct. 17; minimum gage height, -2.07 ft; minimum daily discharge, 5,080 ft³/s Oct. 16, 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6160	6110	26200	18400	44200	61200	45200	16700	15900	26700	12000	11600
2	6220	5680	25800	18600	37100	76900	49900	15500	15700	25800	11900	11700
3	6120	6180	26000	18600	36600	80500	49300	15400	15700	24000	11900	11700
4	6090	6190	28000	18500	42300	71700	45600	15300	15600	20300	12000	11600
5	5620	6380	33100	18500	43500	59000	41800	15300	15700	24600	11500	11100
6	6200	6200	29100	20400	39500	58900	40600	14500	15800	29400	10800	10600
7	6110	6260	15400	27200	36300	58000	40500	11300	15700	29900	11200	11000
8	6110	6120	15900	28300	39000	53900	40400	11200	15500	29600	12300	10600
9	6140	8110	19300	27600	40700	51600	38700	13200	15400	28000	12300	10500
10	6160	8640	22000	26600	40800	56000	33800	11900	14600	27100	12300	10900
11	6170	8840	22800	22200	42900	57000	28100	11300	14000	25500	12000	9980
12	5630	8730	23100	20100	47300	53800	24400	12100	14000	23500	12100	10700
13	6100	8640	22200	19000	46300	47200	20600	13100	14000	19600	12400	10600
14	5860	8660	21600	18400	41100	41700	19000	13200	14000	16500	13100	10500
15	5130	8680	20400	16400	30000	37700	19800	14100	14200	16000	13400	10500
16	5080	8660	20900	16600	19600	33900	23000	15000	14500	15900	12600	10500
17	5080	8680	20700	18100	20900	33200	25800	14700	15300	15700	12200	10500
18	6000	8700	20400	18100	33000	33700	25100	15600	16800	15600	11800	10300
19	5620	9050	19900	23900	38100	35700	20600	18600	17300	14700	11600	10100
20	6220	9180	17800	38600	30800	43100	17700	23300	17400	14300	11800	9850
21	6220	10800	16400	50300	28600	43100	19000	21500	18200	13900	12000	10500
22	6350	12200	16200	62800	29900	39600	18800	17300	19700	13600	11400	10300
23	6130	12000	17100	68200	33000	36300	16300	16800	23300	13700	10800	10400
24	6100	13200	18500	74900	33900	35800	17200	16600	26300	13900	11600	11300
25	6070	15100	18400	74600	33900	35800	17600	16500	27300	13900	11600	10500
26	5480	19800	18300	70000	34600	35900	17500	16400	28700	14000	11600	10400
27	6290	29800	18200	64300	34400	34800	17500	16400	29400	14200	11600	10400
28	6220	34400	18200	63800	46400	30700	17600	16200	29300	13900	11600	10200
29	6350	34700	18100	63400	---	28900	17500	15900	29400	13200	11500	10300
30	6150	30700	18200	62100	---	27400	17700	16000	28400	12100	11400	10000
31	6150	---	18300	54000	---	33100	---	16100	---	12000	11400	---
TOTAL	185330	366390	646500	1142500	1024700	1426100	826600	477000	567100	591100	367700	319130
MEAN	5978	12210	20850	36850	36600	46000	27550	15390	18900	19070	11860	10640
MAX	6350	34700	33100	74900	47300	80500	49900	23300	29400	29900	13400	11700
MIN	5080	5680	15400	16400	19600	27400	16300	11200	14000	12000	10800	9850
AC-FT	367600	726700	1282000	2266000	2032000	2829000	1640000	946100	1125000	1172000	729300	633000
CFSM	.35	.71	1.21	2.14	2.13	2.67	1.60	.89	1.10	1.11	.69	.62
IN.	.40	.79	1.40	2.47	2.22	3.08	1.79	1.03	1.23	1.28	.80	.69
CAL YR 1986	TOTAL 5108090	MEAN 13990	MAX 58600	MIN 4430	AC-FT 10130000	CFSM .81	IN. 11.05					
WTR YR 1987	TOTAL 7940150	MEAN 21750	MAX 80500	MIN 5080	AC-FT 15750000	CFSM 1.26	IN. 17.17					

APALACHICOLA RIVER BASIN

02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-.51	-.53	9.03	5.82	14.51	18.51	14.78	5.03	4.67	9.25	2.76	2.54
2	-.48	-.75	8.89	5.83	12.65	21.80	15.92	4.51	4.60	8.91	2.73	2.62
3	-.53	-.50	8.96	5.88	12.52	22.52	15.79	4.44	4.59	8.16	2.69	2.59
4	-.55	-.50	9.77	5.84	14.03	20.75	14.87	4.40	4.56	6.62	2.74	2.58
5	-.78	-.40	11.54	5.86	14.35	18.02	13.91	4.40	4.59	8.39	2.53	2.30
6	-.49	-.49	10.01	6.68	13.31	18.02	13.61	4.00	4.62	10.29	2.14	2.05
7	-.54	-.47	4.44	9.45	12.44	17.80	13.57	2.43	4.57	10.50	2.37	2.24
8	-.54	-.53	4.69	9.86	13.18	16.88	13.53	2.36	4.50	10.37	2.91	2.03
9	-.52	.45	6.18	9.59	13.62	16.33	13.09	3.33	4.46	9.77	2.91	1.98
10	-.51	.72	7.34	9.21	13.65	17.36	11.73	2.70	4.07	9.42	2.91	2.22
11	-.51	.82	7.68	7.42	14.18	17.59	9.78	2.40	3.73	8.78	2.78	1.74
12	-.77	.77	7.79	6.54	15.29	16.84	8.32	2.80	3.74	7.96	2.78	2.08
13	-.54	.72	7.41	6.05	15.06	15.27	6.76	3.31	3.75	6.33	2.96	2.06
14	-.66	.73	7.18	5.83	13.72	13.88	6.08	3.34	3.75	4.96	3.28	2.01
15	-1.01	.74	6.67	4.91	10.41	12.81	6.40	3.80	3.84	4.72	3.43	2.00
16	-1.04	.73	6.88	5.00	6.33	11.77	7.75	4.27	4.02	4.68	3.04	1.99
17	-1.04	.74	6.78	5.67	6.89	11.56	8.91	4.11	4.39	4.57	2.85	2.00
18	-.59	.75	6.69	5.70	11.35	11.72	8.62	4.54	5.11	4.55	2.67	1.92
19	-.78	.93	6.45	8.03	12.92	12.27	6.72	5.91	5.32	4.10	2.55	1.82
20	-.48	1.03	5.55	13.05	10.78	14.24	5.51	7.89	5.36	3.88	2.64	1.68
21	-.48	1.86	4.90	16.00	9.98	14.25	6.08	7.14	5.72	3.73	2.73	2.00
22	-.42	2.59	4.84	18.88	10.45	13.33	5.98	5.35	6.37	3.57	2.43	1.90
23	-.53	2.57	5.24	20.03	11.52	12.44	4.86	5.10	7.87	3.60	2.16	1.93
24	-.54	3.24	5.84	21.40	11.78	12.30	5.28	5.01	9.07	3.68	2.54	2.38
25	-.55	4.18	5.83	21.35	11.77	12.32	5.44	4.95	9.50	3.71	2.57	2.00
26	-.84	6.29	5.75	20.39	11.96	12.33	5.41	4.90	10.01	3.76	2.53	1.95
27	-.45	10.34	5.74	19.21	11.92	12.03	5.39	4.91	10.30	3.87	2.54	1.94
28	-.48	11.90	5.71	19.10	15.02	10.82	5.44	4.82	10.28	3.69	2.55	1.85
29	-.42	11.99	5.69	19.01	---	10.13	5.43	4.69	10.30	3.36	2.49	1.89
30	-.52	10.78	5.74	18.71	---	9.54	5.51	4.74	9.91	2.82	2.46	1.78
31	-.52	---	5.77	16.88	---	11.41	---	4.77	---	2.77	2.45	---
TOTAL	-18.62	70.70	210.98	353.18	345.59	456.84	270.47	136.35	177.57	184.77	83.12	62.07
MEAN	-.60	2.36	6.81	11.4	12.3	14.7	9.02	4.40	5.92	5.96	2.68	2.07
MAX	-.42	11.99	11.54	21.40	15.29	22.52	15.92	7.89	10.30	10.50	3.43	2.62
MIN	-1.04	-.75	4.44	4.91	6.33	9.54	4.86	2.36	3.73	2.77	2.14	1.68
CAL YR 1986	TOTAL 1198.77	MEAN 3.28	MAX 17.95	MIN -1.35								
WTR YR 1987	TOTAL 2332.98	MEAN 6.39	MAX 22.52	MIN -1.04								

APALACHICOLA RIVER BASIN

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02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	
OCT 31...	1700	7020	145	7.70	21.0	5.3	8.5	96	29	47	46	
FEB 18...	1100	33000	84	7.50	13.0	12	11.4	108	67	61	26	
MAY 15...	1320	14600	141	8.00	25.0	3.6	8.8	107	K6	290	56	
AUG 14...	1230	13100	119	7.90	28.0	3.7	5.8	74	96	110	46	
DATE		HARD- NESS, NONCARB F.W.H.W. (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY, CARB., FIELD, INC.T., (MG/L CACO3)
OCT 31...	0	0	16	1.5	11	33	.7	1.8	48	47	47	
FEB 18...	5	5	8.5	1.2	5.0	28	.4	1.6	21	22	21	
MAY 15...	2	2	20	1.4	5.1	16	.3	1.0	54	53	54	
AUG 14...	2	2	16	1.4	6.1	22	.4	1.6	44	46	44	
DATE		CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 31...	1.9	12	7.5	.10	7.0	104	86	.14	1970	<.010	.20	
FEB 18...	1.3	13	4.6	.10	8.0	41	55	.06	3650	<.010	.48	
MAY 15...	1.0	10	4.7	<.10	5.3	75	80	.10	2960	<.010	.42	
AUG 14...	1.1	9.1	4.1	.10	7.9	76	73	.10	2690	<.010	.18	
DATE		NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS., (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
OCT 31...	.040	.040	.05	1.2	1.2	.010	.020	<.010	10	<1	28	
FEB 18...	<.010	.010	.01	--	.50	.040	.010	<.010	40	<1	22	
MAY 15...	.050	.040	.05	.75	.80	.020	.010	<.010	40	<1	21	
AUG 14...	.090	.070	.09	.61	.70	.050	.010	<.010	10	<1	20	
DATE		BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	
OCT 31...	<.5	<1	1	<3	<1	11	<5	<4	<1	.1		
FEB 18...	<.5	1	<1	<3	<1	110	<5	<4	7	<.1		
MAY 15...	<.5	<1	<1	<3	<1	47	<5	10	2	.1		
AUG 14...	<.5	<1	<1	<3	3	19	<5	<4	<1	<.1		

APALACHICOLA RIVER BASIN
02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)
OCT 31...	<10	2	<1	<1	36	<6	9	--	--	--
FEB 18...	<10	<1	<1	<1	27	<6	<3	<.4	.9	1.6
MAY 15...	<10	<1	<1	<1	29	<6	4	--	--	--
AUG 14...	<10	<1	<1	<1	34	<6	<3	<.4	<.4	1.6

DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 31...	--	--	--	--	--	9	171	71
FEB 18...	.7	1.4	.7	.05	.01	--	--	--
MAY 15...	--	--	--	--	--	30	1180	90
AUG 14...	<.4	1.4	<.4	.04	--	22	778	91

APALACHICOLA RIVER BASIN

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02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued

SUSPENDED SEDIMENT DISCHARGE

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV						
24...	1111	3.07	870	13300	12	431
24...	1159	3.28	1090	13700	15	555
24...	1212	3.35	1170	13500	14	510
24...	1214	3.36	1170	13600	16	588
24...	1222	3.40	1230	13600	14	514
24...	1232	3.45	1310	13700	15	555
24...	1235	3.46	1310	13800	17	633
JAN , 1987						
20...	1513	13.07	815	38600	16	1670
20...	1600	13.15	1170	38900	14	1470
20...	1611	13.15	1200	38900	13	1370
20...	1623	13.14	1230	38900	12	1260
20...	1637	13.15	1310	38900	8	840
20...	1639	13.16	1310	38900	7	735
23...	1451	20.52	965	70600	18	3430
23...	1459	20.54	1090	70600	9	1720
23...	1504	20.56	1170	70800	9	1720
23...	1506	20.58	1170	70800	12	2290
23...	1510	20.60	1200	70900	15	2870
23...	1512	20.61	1200	70900	8	1530
23...	1515	20.63	1230	71100	15	2880
23...	1517	20.63	1230	71100	18	3460
26...	1448	19.91	815	67600	14	2560
26...	1452	19.90	815	67600	12	2190
26...	1457	19.89	965	67500	20	3650
26...	1459	19.89	965	67500	15	2730
26...	1503	19.87	1090	67400	26	4730
26...	1506	19.85	1090	67400	10	1820
26...	1509	19.84	1170	67300	10	1820
26...	1511	19.82	1170	67200	11	2000
26...	1512	19.82	1200	67200	10	1810
26...	1514	19.80	1200	67100	10	1810
26...	1518	19.80	1230	67100	9	1630
26...	1521	19.80	1310	67100	8	1450
26...	1524	19.81	1310	67200	10	1810
FEB						
02...	0946	12.68	815	37200	13	1310
02...	0948	12.69	815	37200	10	1000
02...	0959	12.70	965	37200	12	1210
02...	1002	12.69	965	37200	10	1000
02...	1013	12.66	1090	37100	7	701
02...	1038	12.67	1170	37100	8	801
02...	1042	12.67	1170	37100	6	601
02...	1051	12.67	1230	37100	6	601
02...	1053	12.68	1230	37200	5	502
02...	1104	12.67	1310	37100	4	401
MAR						
10...	1514	17.33	815	55900	20	3020
10...	1519	17.34	815	55900	24	3620
10...	1531	17.36	965	56000	29	4380
10...	1534	17.36	965	56000	27	4080
10...	1541	17.35	1090	56000	29	4380
10...	1549	17.36	1170	56000	12	1810
10...	1556	17.37	1170	56000	12	1810
10...	1612	17.37	1200	56000	12	1810
10...	1615	17.37	1200	56000	14	2120
10...	1622	17.36	1230	56000	14	2120
10...	1625	17.36	1230	56000	11	1660
10...	1633	17.37	1310	56000	10	1510
APR						
02...	1206	15.98	815	50100	21	2840
02...	1209	15.97	815	50100	21	2840
02...	1217	15.97	965	50100	18	2430
02...	1221	15.96	965	50000	25	3380
02...	1229	15.96	1090	50000	30	4050
02...	1231	15.96	1090	50000	23	3110
02...	1318	16.00	1170	50200	23	3120
02...	1322	15.98	1170	50100	27	3650
02...	1330	15.97	1230	50100	25	3380
02...	1333	15.97	1230	50100	24	3250
02...	1341	15.97	1310	50100	23	3110
02...	1343	15.97	1310	50100	37	5000

APALACHICOLA RIVER BASIN
02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued
SUSPENDED SEDIMENT DISCHARGE

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MAY						
15...	1225	3.93	815	14400	34	1320
15...	1240	3.95	965	14400	28	1090
15...	1250	3.95	965	14400	18	700
15...	1315	4.10	1090	14700	24	953
15...	1405	4.06	1170	14600	32	1260
15...	1415	4.06	1170	14600	48	1890
15...	1430	4.02	1200	14500	25	979
15...	1435	4.02	1200	14500	35	1370
15...	1455	4.02	1230	14500	29	1140
15...	1500	4.02	1230	14500	29	1140
JUN						
17...	1130	4.34	805	15200	28	1150
17...	1155	4.39	805	15300	16	661
17...	1215	4.48	1000	15500	26	1090
17...	1225	4.55	1000	15600	12	505
17...	1235	4.56	1090	15600	17	716
17...	1250	4.58	1090	15700	15	636
17...	1305	4.51	1190	15500	19	795
17...	1310	4.54	1190	15600	25	1050
17...	1325	4.59	1290	15700	20	848
17...	1330	4.59	1290	15700	24	1020
24...	1305	9.17	1210	26500	31	2220
24...	1315	9.17	1210	26500	26	1860
24...	1405	9.20	1130	26600	24	1720
24...	1410	9.19	1130	26600	29	2080
24...	1425	9.20	1290	26600	29	2080
24...	1435	9.20	1290	26600	35	2510
24...	1510	9.21	1030	26600	25	1800
24...	1520	9.21	1030	26600	24	1720
24...	1525	9.19	925	26600	21	1510
24...	1545	9.20	925	26600	23	1650
24...	1620	9.21	780	26600	25	1800
24...	1625	9.23	780	26600	16	1150
26...	1600	10.22	780	29200	27	2130
26...	1605	10.22	780	29200	28	2210
26...	1610	10.20	930	29100	30	2360
26...	1615	10.20	930	29100	30	2360
26...	1625	10.21	1020	29200	24	1890
26...	1630	10.22	1020	29200	27	2130
26...	1640	10.21	1130	29200	29	2290
26...	1645	10.20	1130	29100	30	2360
26...	1650	10.20	1210	29100	27	2120
26...	1655	10.22	1210	29200	44	3470
26...	1700	10.23	1290	29200	27	2130
26...	1705	10.23	1290	29200	37	2920
29...	1105	10.33	815	29500	23	1830
29...	1125	10.46	815	29800	20	1610
29...	1140	10.37	965	29600	18	1440
29...	1145	10.30	965	29400	17	1350
29...	1150	10.35	1090	29500	23	1830
29...	1155	10.35	1090	29500	27	2150
29...	1215	10.32	1170	29400	14	1110
29...	1225	10.33	1170	29500	16	1270
29...	1325	10.30	1230	29400	19	1510
29...	1330	10.30	1230	29400	24	1910
29...	1340	10.32	1310	29400	21	1670
29...	1345	10.32	1310	29400	22	1750
JUL						
04...	1400	6.44	990	19900	26	1400
04...	1405	6.43	990	19800	15	802
04...	1410	6.42	1130	19800	20	1070
04...	1415	6.42	1130	19800	16	855
04...	1425	6.43	1190	19800	20	1070
04...	1430	6.44	1190	19900	18	967
04...	1432	6.45	1290	19900	27	1450
04...	1435	6.45	1290	19900	13	698
04...	1440	6.40	847	19800	25	1340
04...	1445	6.40	847	19800	12	642
05...	1340	8.97	777	26000	19	1330
05...	1345	8.96	777	26000	22	1540
05...	1355	9.15	925	26400	21	1500
05...	1357	9.16	925	26500	20	1430
05...	1400	9.17	1020	26500	22	1570
05...	1408	9.11	1020	26400	19	1350
05...	1420	9.14	1130	26400	23	1640
05...	1425	9.17	1130	26500	21	1500
05...	1435	9.19	1210	26600	20	1440
05...	1438	9.19	1210	26600	20	1440
05...	1445	9.19	1290	26600	20	1440
05...	1450	9.20	1290	26600	23	1650

APALACHICOLA RIVER BASIN

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02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued

SUSPENDED SEDIMENT DISCHARGE

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

JUL						
06...	1300	10.50	775	29900	11	888
06...	1305	10.40	775	29700	22	1760
06...	1310	10.40	924	29700	14	1120
06...	1315	10.36	924	29600	16	1280
06...	1320	10.36	1020	29600	16	1280
06...	1323	10.35	1020	29500	23	1830
06...	1325	10.34	1130	29500	15	1190
06...	1330	10.34	1130	29500	22	1750
06...	1345	10.34	1210	29500	17	1350
06...	1349	10.36	1210	29600	10	799
06...	1400	10.35	1290	29500	16	1270
06...	1405	10.36	1290	29600	11	879
12...	1225	7.87	955	23300	16	1010
12...	1245	7.82	955	23100	16	998
12...	1420	7.64	833	22700	17	1040
12...	1425	7.63	833	22700	11	674
12...	1440	7.61	1030	22600	19	1160
12...	1445	7.60	1030	22600	11	671
12...	1450	7.60	1150	22600	14	854
12...	1455	7.60	1150	22600	15	915
12...	1458	7.60	1210	22600	20	1220
12...	1500	7.60	1210	22600	14	854
12...	1505	7.58	1290	22600	13	793
12...	1510	7.57	1290	22600	16	976
14...	1205	4.94	806	16400	14	620
14...	1215	4.93	806	16400	12	531
14...	1230	4.92	1000	16400	13	576
14...	1232	4.92	1000	16400	14	620
14...	1235	4.92	1090	16400	16	708
14...	1240	4.93	1090	16400	12	531
14...	1254	4.94	1190	16400	11	487
14...	1255	4.93	1190	16400	13	576
14...	1310	4.92	1290	16400	16	708
14...	1315	4.92	1290	16400	12	531
AUG						
14...	1021	3.18	825	12900	22	766
14...	1036	3.18	825	12900	19	662
14...	1100	3.19	993	12900	28	975
14...	1115	3.19	993	12900	12	418
14...	1125	3.18	1110	12900	17	592
14...	1130	3.18	1110	12900	32	1110
14...	1143	3.19	1210	12900	29	1010
14...	1155	3.20	1300	12900	19	662
14...	1200	3.20	1300	12900	17	592

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE	BED	BED	BED	BED	BED	BED	BED	BED
		LOC-	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
		ATION,	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
		CROSS	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
SECTION	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	
(FT FM	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	THAN	
L BANK)	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	
JUN , 1987										
15...	1410	1090	12	24	36	41	44	51	99	100
15...	1620	965	29	64	94	100	100	100	100	100
24...	1340	965	1	3	8	19	29	40	61	90
24...	1530	1090	0	2	10	21	28	36	54	99
24...	1550	1200	0	1	6	13	23	41	64	95

APALACHICOLA RIVER BASIN

02358700 APALACHICOLA RIVER NEAR BLOUNTSTOWN, FL

LOCATION.--Lat 30°25'30", long 85°01'53", in NE¹/₄ sec.3, T.1 S., R.8 W., Calhoun County, Hydrologic Unit 03130011, on right bank 500 ft upstream from Neal Lumber Company Landing at McNeal, 0.5 mi upstream from Old River cutoff, 1.5 mi southeast of Blountstown, and 78 mi upstream from mouth.

DRAINAGE AREA.--17,600 mi, approximately.

PERIOD OF RECORD.--January 1920 to September 1957 gage-height records collected in this vicinity by the National Weather Service are in the files of the Geological Survey. Miscellaneous discharge measurements from some periods August 1938 to August 1957 are in files of U.S. Army Corps of Engineers, Mobile, Alabama District. October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 26.96 ft above National Geodetic Vertical Datum of 1929 (National Weather Service bench mark). Prior to Sept. 17, 1921, nonrecording gage near present site at different datum. Sept. 17, 1921 to Aug. 28, 1957, nonrecording gage at several sites within 500 ft of present site at present datum. Since Aug. 26, 1960, auxiliary nonrecording gage at site 2.2 mi upstream at bridge on State Highway 20, at present datum.

REMARKS.--Records good, rated by U.S. Army Corps of Engineers.

COOPERATION.--Records from October 1957 to current year, were collected and computed by U.S. Army Corps of Engineers and were reviewed by Geological Survey.

AVERAGE DISCHARGE.--30 years, 23,750 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 172,000 ft³/s Jan. 29, 1978, gage height, 24.75 ft; minimum daily, 4,680 ft³/s (estimated) Aug. 3, 1986; minimum daily gage height, 0.02 ft Aug. 18, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1920, 28.6 ft present datum, Mar. 21, 1929, discharge not determined, from National Weather Service records.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 83,500 ft³/s Mar. 4; minimum daily, 5,460 ft³/s Oct. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6180	6220	24500	19300	50100	48200	39900	17800	16300	29800	13400	11600
2	6220	6140	24400	19400	43100	61400	45000	16400	16100	28500	12300	11800
3	6200	5920	24700	19500	39500	78400	47400	15800	16000	27500	12200	11900
4	6180	6200	e26800	19500	40100	83500	47200	15600	16000	24300	12100	11800
5	6100	6240	e28900	19700	42500	70000	44600	15500	16000	24200	12100	11700
6	5920	6300	e34100	20000	42100	59900	42600	15400	16000	29800	11400	11100
7	6180	6250	e30000	23400	39500	57800	41800	13100	16000	31500	11100	e10900
8	6140	6250	e15900	24600	38600	56000	41300	11600	15800	32200	12100	e11400
9	6140	6780	18400	24500	40200	50700	40900	12500	15600	31200	12400	e10900
10	6200	7940	21500	24300	40700	50900	38300	12800	15400	30200	12500	e10800
11	6310	8420	23000	23900	41100	52900	33500	11900	14300	28700	12200	e11200
12	6240	8520	23900	22100	43500	53500	29400	12000	14000	27100	12200	e10200
13	5900	8460	23500	20700	45300	50100	24700	12900	14100	23600	12600	e11000
14	6320	8440	23200	19900	44300	46000	22000	13200	14200	19300	14100	e10900
15	5860	8370	21900	18400	38500	42200	20600	13500	14600	17400	15800	e10800
16	5580	8390	21600	17700	28600	38300	23100	14900	16000	16700	14500	e10800
17	5460	8460	21700	19600	23000	36400	26400	15300	17000	16400	13200	10700
18	5760	8710	21400	20100	28500	36100	27200	15400	17400	16100	12800	10700
19	6040	8830	21300	21800	36800	37900	24800	18100	17900	15700	12400	10600
20	5940	9050	20000	e23900	35300	40200	20100	22400	18100	14600	12000	10400
21	6200	9390	18100	e38600	32000	43100	19500	24200	19200	14400	12100	10700
22	6240	11500	17400	50300	31500	42400	20700	20400	20500	14000	11900	10700
23	6310	11800	17600	60700	34800	39900	17800	18600	23900	13800	11200	10700
24	6180	12100	19000	71200	35700	38300	17400	17600	27400	13800	11400	11100
25	6180	14400	19500	77400	35800	37900	17900	17300	28900	13800	11600	11000
26	6160	18000	19500	77400	35900	37800	18000	17000	27000	13800	11800	10700
27	5960	23600	19300	69500	36100	37700	18000	16800	31000	14000	11700	10600
28	6320	24800	19000	65500	39200	35600	18000	16800	31200	14100	11800	10600
29	6320	24600	18900	63500	---	33600	18000	16500	31300	14000	11700	10500
30	6280	24900	18900	63400	---	32300	18000	16300	31100	12800	11500	10500
31	6240	---	19000	58000	---	32900	---	16400	---	12500	11500	---
TOTAL	189260	324980	676900	1117800	1062300	1461900	864100	494000	588300	635800	381600	328300
MEAN	6105	10830	21840	36060	37940	47160	28800	15940	19610	20510	12310	10940
MAX	6320	24900	34100	77400	50100	83500	47400	24200	31300	32200	15800	11900
MIN	5460	5920	15900	17700	23000	32300	17400	11600	14000	12500	11100	10200
AC-FT	375400	644600	1343000	2217000	2107000	2900000	1714000	979800	1167000	1261000	756900	651200
CFSM	.35	.62	1.24	2.05	2.16	2.68	1.64	.91	1.11	1.17	.70	.62
IN.	.40	.69	1.43	2.36	2.25	3.09	1.83	1.04	1.24	1.34	.81	.69
CAL YR 1986	TOTAL 5264850	MEAN 14420	MAX 58800	MIN 4680	AC-FT 10440000	CFSM .82	IN. 11.13					
WTR YR 1987	TOTAL 8125240	MEAN 22260	MAX 83500	MIN 5460	AC-FT 16120000	CFSM 1.26	IN. 17.17					

e Estimated

02358754 APALACHICOLA RIVER NEAR WEWAHITCHKA, FL

LOCATION.--Lat 30°08'02", long 85°08'39", NE¹/₄ sec.16, T.45, R.9 W., Gulf County, Hydrologic Unit 03130011, on right bank at George C. Gaskins State Park, 3.7 mi northeast of Wewahitchka and 44.2 mi upstream from mouth.

DRAINAGE AREA.--17,800 mi², approximately.

PERIOD OF RECORD.--January 1950 to February 1954, August 1955 to September 1980, October 1980 to current year. Prior to October 1979, discharge records are available in files of the U.S. Army Corps of Engineers, Mobile, Alabama District.

GAGE.--Water-stage recorder. Datum of gage is 12.136 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Water-stage recorder January 17, 1950, to February 8, 1954, and August 2, 1955, to August 17, 1955, at site 200 ft downstream of present location at datum 3.405 ft higher. Water stage recorder August 17, 1955, to October 18, 1955, at site 200 ft downstream of present location at datum 1.278 ft higher. Water-stage recorder October 18, 1955, to August 30, 1979, at site 200 ft downstream at present datum. Since August 1979, at present site and datum.

REMARKS.--Records good, except for estimated daily discharges, which are fair; rated by U.S. Corps of Engineers.

COOPERATION.--Records from October 1957, to current year, were collected and computed by U.S. Army Corps of Engineers and were reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 137,000 ft³/s Jan. 31, 1978, gage height 14.75 ft; minimum 4,590 ft³/s, Nov. 5, 1981; minimum gage height, -1.56 ft Nov. 5, 1981, Aug. 5, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929, reached a stage of 19.20 ft (from flood profile by U.S. Army Corps of Engineers).

EXTREMES FOR 1986 WATER YEAR.--Maximum daily discharge, 34,700 ft³/s Feb. 15; minimum daily discharge, 5,300 ft³/s Aug. 4, gage height, -1.45 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10600	e12500	e15500	e17200	15800	22700	20300	10900	e9170	e8590	6540	5960
2	e10600	e12900	e15800	e18200	15300	22100	18400	10900	e9250	e8530	5940	5860
3	e10600	e12800	e17000	e18700	15100	19900	17000	10800	e9240	e8560	5710	6220
4	e10400	e12200	e18700	e18600	15000	16100	15800	10900	e9170	e8530	5300	6640
5	e10100	e11600	e19700	e18800	15000	15300	15000	10800	e9060	e8560	5610	6680
6	e9910	e11100	e20300	e19600	15900	16600	13400	10800	e9010	e8600	6440	6900
7	e9860	e10800	e20700	e20100	15700	16600	12600	10700	e8970	e8470	6490	6760
8	10000	e10400	e20700	e20000	20200	16200	12600	10600	e8940	e8390	6560	6190
9	10100	e10200	e19900	e19500	22400	16000	13100	10700	e8980	e8410	6590	6020
10	10100	e10000	e18700	e19200	22400	15900	13400	10700	e8970	e8350	6510	6140
11	10000	e9960	e17800	e19900	27800	15700	13600	10800	e8930	e8080	6060	6580
12	10000	e9880	e17800	e21100	30300	15500	13400	10800	e8880	e7960	6020	7150
13	9970	e9840	e19200	e21500	32400	15300	12900	10800	e8880	e7400	5880	7280
14	9940	e9820	e20800	e21200	34200	16700	12800	10400	e8930	e7400	5760	7270
15	9930	e9820	e22500	e20700	34700	e19200	12700	10100	e9000	e7410	5880	6710
16	10000	e9780	e26400	20700	31900	e22100	12800	9900	e9090	e7370	6040	5890
17	9940	e9750	e27400	20200	30400	e27400	12900	9750	e9020	e7380	5990	5740
18	9870	e9670	e27100	19900	29700	e29400	12800	e9060	e8860	e7410	5510	5920
19	9850	e9590	e23600	19600	29100	29900	12900	e9210	e8890	e7370	5400	6960
20	9620	e9540	e22500	19200	28500	27400	12900	e9300	e8980	e7350	5640	7420
21	9370	e10500	e21900	19100	27700	25300	13000	e9290	e9010	e7310	5910	7470
22	e9210	e15100	e20800	19000	27100	25000	13200	e9140	e9020	e7290	6040	7480
23	e9210	e19700	e19600	18300	26300	26200	13400	e9060	e8970	e7380	5920	7470
24	e9200	e20800	e18700	17300	25500	29100	13600	e9020	e8860	e7980	5940	7450
25	e9170	e20400	e18200	16900	24900	30800	13700	e9010	e8560	e7310	5480	7430
26	e9160	e19200	e17900	16700	24200	30000	13500	e9040	e8470	7430	5450	7380
27	e9170	e17600	e17500	16600	23700	26900	12500	e9060	e8640	7450	5660	7380
28	e9500	e16400	e16700	16500	23200	24800	11400	e9010	e8860	7500	5690	7180
29	e9800	e15600	e16400	16400	---	24100	11100	e8730	e8940	7550	6110	6430
30	e10400	e15400	e16300	16300	---	23600	10900	e8610	e8770	7480	6380	6120
31	e11500	---	e16300	16300	---	22400	---	e9020	---	7180	6410	---
TOTAL	307080	382850	612400	583300	686800	684200	407600	306910	268320	241980	184860	202080
MEAN	9906	12760	19750	18820	24530	22070	13590	9900	8944	7806	5963	6736
MAX	11500	20800	27400	21500	34700	30800	20300	10900	9250	8600	6590	7480
MIN	9160	9540	15500	16300	15000	15300	10900	8610	8470	7180	5300	5740
AC-FT	609100	759400	1215000	1157000	1362000	1357000	808500	608800	532200	480000	366700	400800
CFSM	.56	.72	1.11	1.06	1.38	1.24	.76	.56	.50	.44	.34	.38
IN.	.64	.80	1.28	1.22	1.44	1.43	.85	.64	.56	.51	.39	.42

CAL YR 1985 TOTAL 5479040 MEAN 15010 MAX 49400 MIN 9160 AC-FT 10870000 CFSM .84 IN. 11.45
WTR YR 1986 TOTAL 4868380 MEAN 13340 MAX 34700 MIN 5300 AC-FT 9656000 CFSM .75 IN. 10.17

e Estimated

APALACHICOLA RIVER BASIN
02358754 APALACHICOLA RIVER NEAR WEWAHITCHKA, FL

LOCATION.--Lat 30°08'02", long 85°08'39", NE¹/₄ sec.16, T.45, R.9 W., Gulf County, Hydrologic Unit 03130011, on right bank at George C. Gaskins State Park, 3.7 mi northeast of Wewahitchka and 44.2 mi upstream from mouth.

DRAINAGE AREA.--17,800 mi², approximately.

PERIOD OF RECORD.--January 1950 to February 1954, August 1955 to September 1980, October 1980 to current year. Prior to October 1979, discharge records are available in files of the U.S. Army Corps of Engineers, Mobile, Alabama District.

GAGE.--Water-stage recorder. Datum of gage is 12.136 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Water-stage recorder January 17, 1950, to February 8, 1954, and August 2, 1955, to August 17, 1955, at site 200 ft downstream of present location at datum 3.405 ft higher. Water stage recorder August 17, 1955, to October 18, 1955, at site 200 ft downstream of present location at datum 1.278 ft higher. Water-stage recorder October 18, 1955, to August 30, 1979, at site 200 ft downstream at present datum. Since August 1979, at present site and datum.

REMARKS.--Records good, rated by U.S. Army Corps of Engineers.

COOPERATION.--Records from October 1957, to current year, were collected and computed by U.S. Army Corps of Engineers and were reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 137,000 ft³/s Jan. 31, 1978, gage height 14.75 ft; minimum, 4,590 ft³/s Nov. 5, 1981; minimum gage height, - 1.57 ft Oct. 18, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929, reached a stage of 19.20 ft (from flood profile by U.S. Army Corps of Engineers).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 76,200 ft³/s Mar. 5; minimum daily discharge, 5,840 ft³/s Oct. 18, gage height, -1.47 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6140	6430	25100	17600	62500	e46300	29000	17300	15800	25800	12600	10900
2	6170	6380	25200	17700	57800	e56100	30500	16900	15700	25500	12500	11100
3	6240	6390	24800	17700	49800	e63900	33800	16000	15400	25100	12200	11300
4	6210	6710	24200	18000	42200	e71600	37500	15700	15200	24600	11700	11400
5	6170	6760	24100	18100	39000	e76200	39200	15500	15200	23700	11400	11300
6	6010	6880	24500	18200	38700	66700	38800	15500	15600	23500	11300	11100
7	6070	6830	24600	19000	38700	59600	37000	14800	15500	24400	10800	10900
8	6210	6750	22300	21200	36900	55400	35100	13000	15400	25300	10500	11000
9	6260	6710	19400	22500	34800	52800	34300	12100	15300	26200	10800	11000
10	6310	7520	18900	23400	33500	49800	32800	12800	15200	26400	10900	10900
11	6390	8180	20100	23500	33700	47100	31300	12700	14600	25800	10800	11000
12	6430	8420	21100	22800	35300	46900	29100	12200	13900	25300	10800	11000
13	6260	8430	21700	21400	36600	47300	26100	12400	14200	24500	10800	11200
14	6360	8340	21800	20000	38300	46000	24000	13100	15100	23100	11600	11300
15	6460	8340	21600	19000	39000	36400	22300	13400	16500	20600	14100	11200
16	6090	8380	20900	17900	37500	38400	21000	14400	17400	18600	15700	11100
17	5890	8390	20500	18700	30200	33700	21200	15600	18200	17500	15400	11000
18	5840	8550	20200	19700	25600	31300	22000	16100	18700	16900	14400	e10600
19	6210	8760	19900	20300	25000	31100	22500	17300	e17200	16600	13400	e10300
20	6220	8920	19500	22400	26400	31000	21800	18800	e18300	15600	12300	e10600
21	6360	8950	18400	25200	27900	31500	20300	20600	e19500	14800	11500	e10700
22	6540	9480	17100	29700	28200	33400	19500	21200	e22700	14300	11300	e10600
23	6640	10400	16600	37500	28200	34000	19100	20100	e26000	13800	10900	e11000
24	6630	10600	17000	48000	e34400	33000	17900	18900	e27400	13700	10500	e10900
25	6660	11100	17700	59000	e34600	31400	17400	18100	e25700	13800	10600	e10600
26	6700	12500	17900	67000	e34800	30700	17500	17400	24700	13700	10800	e10600
27	6490	15800	17800	70800	e35000	30600	17400	17000	25400	13700	10800	e10600
28	6580	19900	17700	69400	e35300	30600	17400	16600	25700	13900	10900	e10400
29	6590	22500	17600	71100	---	30300	17400	16300	26000	13900	11000	e10500
30	6610	24200	17400	67900	---	29900	17300	15900	26100	13500	11000	e10500
31	6540	---	17500	65800	---	29100	---	15900	---	12800	10800	---
TOTAL	196280	297500	633100	1010500	1019900	1332100	770500	493600	567600	606900	364100	326600
MEAN	6332	9917	20420	32600	36420	42970	25680	15920	18920	19580	11750	10890
MAX	6700	24200	25200	71100	62500	76200	39200	21200	27400	26400	15700	11400
MIN	5840	6380	16600	17600	25000	29100	17300	12100	13900	12800	10500	10300
AC-FT	389300	590100	1256000	2004000	2023000	2642000	1528000	979100	1126000	1204000	722200	647800
CFSM	.36	.56	1.15	1.83	2.05	2.41	1.44	.89	1.06	1.10	.66	.61
IN.	.41	.62	1.32	2.11	2.13	2.78	1.61	1.03	1.19	1.27	.76	.68

CAL YR 1986 TOTAL 4692930 MEAN 12860 MAX 34700 MIN 5300 AC-FT 9308000 CFSM .72 IN. 9.81
WTR YR 1987 TOTAL 7618680 MEAN 20870 MAX 76200 MIN 5840 AC-FT 15110000 CFSM 1.17 IN. 15.92

e Estimated

APALACHICOLA RIVER BASIN
02359000 CHIPOLA RIVER NEAR ALTHA, FL
(National stream-quality accounting network station)

111

LOCATION.--Lat 30°32'02", long 85°09'55", in NW¹/₄ sec.32, T.2 N., R.9 W., Calhoun County, Hydrologic Unit 03130012, near center of span on downstream side of bridge on State Highway 274, 0.9 mi downstream from Holliman Branch, 3.5 mi southwest of Altha, and 54 mi upstream from mouth.

DRAINAGE AREA.--781 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1912 to December 1913, September 1921 to September 1927, August 1929 to September 1931, March 1943 to current year. Monthly discharge only for some periods published in WSP 1304.

REVISED RECORDS.--WSP 1384: Drainage area. WSP 1504: 1924, 1925 (M), 1926.

GAGE.--Water-stage recorder. Datum of gage is 19.95 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 13, 1950, and Mar. 13, 1978 to Mar. 20, 1979, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--52 years (water years 1922-27, 1930-31, 1944-87), 1,495 ft³/s, 26.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s Sept. 20, 1926, gage height, 33.55 ft, from flood marks, from rating curve extended above 12,800 ft³/s on basis of slope-area measurement of peak flow; minimum, 330 ft³/s Oct. 31, Nov. 1, 2, 1968; minimum gage height, 8.29 ft Nov. 13-15, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,170 ft³/s Mar. 6, gage height, 17.83 ft; minimum, 427 ft³/s Nov. 14, gage height, 8.51 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	510	476	761	e980	e2650	4030	3860	1130	930	1880	1130	e820
2	506	472	759	e1000	e2600	3960	3700	1110	937	1930	1100	e860
3	498	469	748	e1020	e2600	3760	3760	1090	921	2030	1030	e810
4	493	471	730	e1060	e2700	3840	3940	1080	872	2090	1020	e790
5	490	472	713	e1100	e2600	4090	3940	1090	889	2060	1050	e790
6	484	472	696	e1120	e2550	4140	3760	1090	889	2110	1030	e820
7	463	467	679	e1070	e2580	3980	3470	1080	881	2180	991	e800
8	458	462	663	e1020	e2600	3820	3160	1090	877	2640	980	e790
9	462	459	649	e990	e2570	3530	2860	1090	886	2730	947	e780
10	484	459	649	e980	2480	3220	2620	1080	862	2650	914	e780
11	489	454	834	e1030	2380	3030	2430	1110	832	2350	869	e810
12	484	454	1060	e1060	2310	2930	2280	1100	818	2000	872	e860
13	484	444	1100	e1020	2220	2880	2160	1070	847	1700	976	e840
14	527	432	1030	e1000	2110	2740	2050	1050	953	1570	1570	e820
15	519	433	981	e980	1990	2560	1950	1120	1570	1410	2070	e800
16	507	438	987	e1200	2020	2410	1890	1230	2060	1330	2090	e790
17	500	450	1060	e1600	1960	2310	1810	1300	2060	1250	2140	e780
18	496	473	1060	e1700	1900	2490	1730	1320	2040	1190	2090	e780
19	485	469	1030	e2050	1840	2880	1670	1370	1970	1140	1770	e760
20	473	488	1000	e2550	1810	2760	1600	1290	2000	1100	1480	e790
21	467	490	928	e3000	1970	2680	1530	1230	2780	1070	1270	e820
22	464	475	904	e2900	2450	2760	1440	1250	2520	1060	1140	e800
23	455	484	942	e2850	3430	2880	1400	1220	2840	1040	1060	e790
24	455	487	999	e3300	3400	2910	1390	1210	2900	1010	1010	e780
25	510	486	1000	e3250	3360	2760	1280	1210	2990	1010	e965	e770
26	533	564	990	e3200	3460	2530	1230	1180	3010	1000	e950	e770
27	507	569	1020	e3100	3610	2370	1190	1110	2910	989	e910	e760
28	501	562	1030	e2950	3700	2380	1200	1080	2690	985	e870	e760
29	500	629	1030	e2800	---	2630	1160	1110	2380	977	e850	e760
30	490	729	1010	e2750	---	3450	1120	1090	2050	1020	e820	e770
31	485	---	979	e2700	---	3890	---	1010	---	1080	e800	---
TOTAL	15179	14689	28021	57330	71850	96600	67580	35590	51164	48581	36764	23850
MEAN	490	490	904	1849	2566	3116	2253	1148	1705	1567	1186	795
MAX	533	729	1100	3300	3700	4140	3940	1370	3010	2730	2140	860
MIN	455	432	649	980	1810	2310	1120	1010	818	977	800	760
AC-FT	30110	29140	55580	113700	142500	191600	134000	70590	101500	96360	72920	47310
CFSM	.63	.63	1.16	2.37	3.29	3.99	2.88	1.47	2.18	2.01	1.52	1.02
IN.	.72	.70	1.33	2.73	3.42	4.60	3.22	1.70	2.44	2.31	1.75	1.14

CAL YR 1986 TOTAL 482896 MEAN 1323 MAX 8500 MIN 432 AC-FT 957800 CFSM 1.69 IN. 23.00
WTR YR 1987 TOTAL 547198 MEAN 1499 MAX 4140 MIN 432 AC-FT 1085000 CFSM 1.92 IN. 26.06

e Estimated

APALACHICOLA RIVER BASIN
02359000 CHIPOLA RIVER NEAR ALTHA, FL--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1962 to June 1972, October 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCARB F.W.H.W. ,FET, (MG/L CACO3)
OCT 31...	0930	489	222	8.20	19.0	.50	7.8	86	K8	530	120	12
FEB 18...	1650	1930	165	7.90	16.0	3.5	9.4	96	80	K6	86	9
MAY 01...	1645	1110	222	8.30	22.0	3.0	8.4	97	K23	40	110	15
AUG 22...	1030	1150	192	8.00	25.5	1.8	6.7	82	48	230	100	13
DATE	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY, CARB., FIELD, INC. T., (MG/L CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
OCT 31...	12	38	5.1	2.6	5	.1	.50	104	104	104	1.3	
FEB 18...	9	29	3.4	3.3	8	.2	.60	78	78	78	1.9	
MAY 01...	15	37	4.5	2.9	5	.1	.40	96	104	96	.9	
AUG 22...	13	33	4.5	2.9	6	.1	.60	88	92	87	1.7	
DATE	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
OCT 31...	2.4	4.5	<.10	6.9	130	120	.18	172	--	<.010	.92	
FEB 18...	1.2	6.8	<.10	5.1	101	96	.14	526	--	<.010	.74	
MAY 01...	2.1	5.7	<.10	6.3	126	120	.17	378	1.2	.010	1.2	
AUG 22...	5.9	5.4	.10	7.0	118	110	.16	366	--	<.010	.88	
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS., (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	
OCT 31...	.020	.030	.04	--	.38	.40	.020	.020	.010	.03	10	
FEB 18...	.020	.020	.03	--	.68	.70	.030	.010	.010	.03	60	
MAY 01...	<.010	<.010	--	.03	.49	.50	.030	.020	<.010	--	<10	
AUG 22...	.010	.010	.01	--	.59	.60	.020	.030	.010	.03	30	
DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
OCT 31...	<1	13	<.5	<1	<1	<3	1	9	<5	4	7	
FEB 18...	<1	23	<.5	1	<1	3	<1	110	<5	<4	15	
MAY 01...	<1	14	<.5	<1	<1	<3	<1	53	<5	5	6	
AUG 22...	<1	18	<.5	<1	<1	<3	<1	92	<5	<4	9	

APALACHICOLA RIVER BASIN
02359000 CHIPOLA RIVER NEAR ALTHA, FL--Continued

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WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 31...	<.1	<10	4	<1	<1	42	<6	9	4	5.3	--
FEB 18...	<.1	<10	<1	<1	<1	39	<6	15	10	52	60
MAY 01...	<.1	<10	<1	<1	<1	42	<6	15	12	36	67
AUG 22...	<.1	<10	<1	<1	<1	39	<6	<3	12	37	92

APALACHICOLA RIVER BASIN

02359170 APALACHICOLA RIVER NEAR SUMATRA, FL

LOCATION.--Lat 29°56'57", Long 85°00'56", in SW¹/₄ sec.14, T.6 S., R.8 W., Franklin County, Hydrologic Unit 03130011, on left bank at Brickyard Landing, 2.4 mi west of Fort Gadsden, 5.3 mi southwest of Sumatra, and 20.6 mi upstream from mouth.

DRAINAGE AREA.--19,200 mi², approximately.

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

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

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Discharges below 15,000 ft³/s are tide affected.

AVERAGE DISCHARGE.--10 years, 27,290 ft³/s (19.30 in/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 172,000 ft³/s Feb. 2, 1978, gage height, 12.92 ft estimated from U.S. Army Corps of Engineers flood profile, extended above 103,000 ft³/s; minimum daily, 5,800 ft³/s Nov. 4, 5, 1981, estimated; minimum recorded gage height, 1.11 ft Dec. 5, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81,200 ft³/s Jan. 29, gage height, 9.49 ft; minimum daily, 6,280 ft³/s, Oct. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7680	6750	39000	28500	73700	46300	47600	19400	e16600	e40400	e15800	14600
2	7640	6500	40300	27900	71000	46600	46600	19100	e16500	e40200	e15200	15000
3	7770	6560	41100	27800	67300	48000	46900	18500	e16300	e39900	e14800	15100
4	7660	7080	40800	29600	61900	51400	48100	17300	e16100	e38900	e14200	17100
5	7310	7570	40200	29900	55800	59100	49700	16400	e15900	e37000	e13500	17000
6	6990	7480	39700	29100	51600	71000	51200	16100	e16100	e35000	e13200	15900
7	6940	7460	39600	29300	49900	77700	51800	15800	e16300	e33500	e12900	15100
8	7290	7480	39600	30600	49100	77000	51000	15200	e16500	e33200	e12500	14500
9	7460	7310	38000	32700	48400	73300	49500	13200	e16300	e33800	e12200	14300
10	7570	7500	35500	35500	47500	69100	48100	12200	e16100	e35100	e12600	14600
11	7680	8130	35800	37500	47000	65000	46800	12400	e15800	e36700	e13200	15000
12	7720	8840	36100	37900	46900	61600	45500	12200	e15500	e36400	e13000	14900
13	7680	8630	36200	37500	47000	59500	43700	11900	e15700	e35500	e14400	14800
14	7750	7900	36100	36100	47400	58500	41100	12300	e15900	e33700	18700	14500
15	7570	7970	36100	34600	48200	57600	38200	13100	e17400	e31400	e22700	14200
16	6990	8610	36000	33900	49900	55800	34800	13800	e19100	e29500	e27200	13900
17	6470	8760	35400	35600	49700	52900	32100	15400	e20700	e27400	29400	13600
18	6350	8820	34700	35000	47200	51700	30700	17100	e28200	e24900	27100	13500
19	6280	8980	33900	35700	43600	51800	30400	18000	36000	e22600	24000	13200
20	6390	8980	33200	36100	41400	49400	30300	19300	39700	e20500	21400	12800
21	6680	9190	32100	37800	41900	47900	29600	21200	e42000	e19200	19400	12800
22	7100	9580	30200	41100	43100	47500	27700	23000	e41000	e18300	17500	12700
23	7570	10300	29000	44200	44600	47800	26200	23900	e38800	e17600	15700	12400
24	8110	11600	28700	48000	44200	48300	24600	23600	e37100	e17000	14900	12400
25	8480	13200	27900	53600	44200	48400	22700	22700	e36100	e16600	14800	12500
26	8220	15100	27800	61900	44800	47800	21400	21300	e35500	e16300	14800	12500
27	7750	17800	27900	71300	45300	47500	20800	20100	e35200	e16200	14700	12100
28	7270	22800	27800	78600	45700	47700	20300	19200	e35700	e16100	14400	11900
29	6970	30000	27600	81000	---	47700	19900	18200	e37300	e16400	14300	11700
30	6840	36400	27400	79700	---	49700	19600	17100	e39400	e16700	14100	11600
31	6940	---	27300	76700	---	49300	---	e16700	---	e16400	14000	---
TOTAL	227120	333280	1061000	1334700	1398300	1712900	1096900	535700	764800	852400	516600	416200
MEAN	7326	11110	34230	43050	49940	55250	36560	17280	25490	27500	16660	13870
MAX	8480	36400	41100	81000	73700	77700	51800	23900	42000	40400	29400	17100
MIN	6280	6500	27300	27800	41400	46300	19600	11900	15500	16100	12200	11600
AC-FT	450500	661100	2104000	2647000	2774000	3398000	2176000	1063000	1517000	1691000	1025000	825500
CFSM	.38	.58	1.78	2.24	2.60	2.88	1.90	.90	1.33	1.43	.87	.72
IN.	.44	.65	2.06	2.59	2.71	3.32	2.13	1.04	1.48	1.65	1.00	.81

CAL YR 1986 TOTAL 7148460 MEAN 19580 MAX 57700 MIN 6280 AC-FT 14180000 CFSM 1.02 IN. 13.9
WTR YR 1987 TOTAL 10249900 MEAN 28080 MAX 81000 MIN 6280 AC-FT 20330000 CFSM 1.46 IN. 19.9

e Estimated

APALACHICOLA RIVER BASIN

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02359170 APALACHICOLA RIVER NEAR SUMATRA, FL.--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM STAGE (FT ABOVE DATUM)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JAN					
22...	1120	19500	6.99	108	5690
22...	1126	19500	6.99	172	9060
22...	1134	19500	6.99	82	4320
22...	1138	19500	6.99	168	8850
22...	1144	19500	7.00	76	4000
23...	1230	20300	7.24	138	7560
23...	1248	20300	7.24	188	10300
26...	1233	24300	8.37	152	9970
26...	1238	24300	8.37	244	16000
26...	1242	24300	8.37	177	11600
26...	1244	24300	8.37	220	14400
29...	1143	28500	9.46	308	23700
29...	1150	28500	9.46	235	18100
29...	1154	28500	9.46	119	9160
29...	1200	28500	9.46	173	13300
29...	1206	28500	9.46	73	5620

APALACHICOLA RIVER BASIN

02359224 HUCKLEBERRY CREEK NEAR APALACHICOLA, FL

LOCATION.--Lat 29°44'08", long 85°04'42", in SE¹/₄ sec.31, T.8 S., R.8 W., Franklin County, Hydrologic Unit 03130011, at culvert on County Road 385, 0.2 mi upstream from Apalachicola Northern Railroad Bridge, 0.8 mi north of U.S. Highway 98, 3.2 mi upstream from mouth, and 5.8 mi west of Apalachicola courthouse.

DRAINAGE AREA.--0.9 mi², approximately.

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

GAGE.--Water-stage and electromagnetic velocity meter recorders. Elevation of gage is National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Missing records not estimated, records poor. Discharge computed from continuous velocity record obtained from recording electromagnetic velocity meter. Records include flow from Apalachicola Wastewater Treatment Plant. Occasional diurnal fluctuation caused by tide. Extremes may have been exceeded during periods of missing record.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 106 ft³/s Sept. 15, 1986; maximum gage height, 4.73 ft Nov. 22, 1985 (Hurricane Kate); no flow for many days in 1985 and 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 49 ft³/s Mar. 30, gage height, 3.51 ft; minimum, no flow, many days during year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	1.4	13	9.2	1.9	6.9	7.6	.10	.10	---	---	.15
2	.46	1.3	9.9	11	1.4	5.9	4.8	.10	.10	---	---	.64
3	.48	1.2	6.6	7.6	1.3	4.4	5.6	.09	.09	---	---	1.5
4	.45	1.0	4.9	17	1.2	3.0	3.9	.09	.12	---	---	1.4
5	.38	.85	3.4	14	1.4	2.0	2.8	.09	.17	---	---	1.5
6	.43	.89	2.5	9.9	1.5	1.3	1.9	.09	---	---	---	2.0
7	.50	.82	2.2	7.7	1.5	1.2	1.5	.09	---	---	---	1.5
8	.50	.79	1.9	5.6	2.1	1.6	1.2	.09	---	---	---	.99
9	.72	.87	1.6	4.4	2.1	1.9	1.1	.11	---	---	---	.82
10	1.2	.80	6.1	4.7	1.6	1.7	.90	.10	---	---	---	.70
11	3.5	.76	25	4.8	1.4	1.6	.74	.10	---	---	---	.59
12	26	.63	18	4.1	1.1	1.5	.54	.10	---	---	---	.90
13	28	.42	11	3.2	1.1	1.2	.36	.09	---	---	---	.83
14	16	.15	9.6	2.4	1.1	.79	.26	.10	---	---	4.8	.75
15	13	.25	7.0	4.2	.88	.69	.16	.11	---	---	12	.64
16	8.9	.59	6.5	12	.83	.53	.15	.12	---	---	11	.46
17	5.8	.84	6.9	15	1.1	.42	.15	.13	---	---	5.3	.33
18	4.1	.81	5.4	10	1.3	8.9	.13	.12	---	---	1.9	.36
19	3.2	.90	5.0	12	1.2	19	.13	.11	---	---	1.5	.50
20	2.7	.86	5.5	10	1.1	10	.12	.11	---	---	1.2	.55
21	2.1	1.3	3.8	7.5	3.8	6.4	.11	.10	---	---	.83	.45
22	1.7	1.2	3.9	7.3	9.8	5.0	.11	.23	---	---	.60	.33
23	1.5	.98	7.5	6.1	12	3.2	.10	.26	---	---	.44	.27
24	1.3	.89	11	4.9	8.2	1.7	.10	.39	---	---	.27	.27
25	1.4	.82	9.3	5.0	5.7	1.2	.10	.32	---	---	.24	.24
26	2.4	.69	6.6	5.5	4.3	1.2	.10	.21	---	---	.20	.21
27	2.2	.76	5.4	4.3	3.4	9.5	.10	.16	---	---	.18	.23
28	1.9	1.5	4.3	3.7	3.3	23	.10	.12	---	---	.16	.24
29	1.6	10	3.2	3.1	---	18	.10	.12	---	---	.15	.23
30	1.8	17	2.3	1.9	---	40	.10	.11	---	---	.13	.26
31	1.6	---	2.3	1.5	---	17	---	.10	---	---	.13	---
TOTAL	136.29	51.27	211.6	219.6	77.61	200.73	35.06	4.16	---	---	---	19.84
MEAN	4.40	1.71	6.83	7.08	2.77	6.48	1.17	.13	---	---	---	.66
MAX	28	17	25	17	12	40	7.6	.39	---	---	---	2.0
MIN	.38	.15	1.6	1.5	.83	.42	.10	.09	---	---	---	.15
AC-FT	270	102	420	436	154	398	70	8.3	---	---	---	.39
CFSM	4.88	1.90	7.58	7.87	3.08	7.19	1.30	.15	---	---	---	.73
IN.	5.63	2.12	8.75	9.08	3.21	8.30	1.45	.17	---	---	---	.82

CAL YR 1986 TOTAL 1334.53 MEAN 3.66 MAX 42 MIN .12 CFSM 4.07 IN 55.10 AC-FT 2650

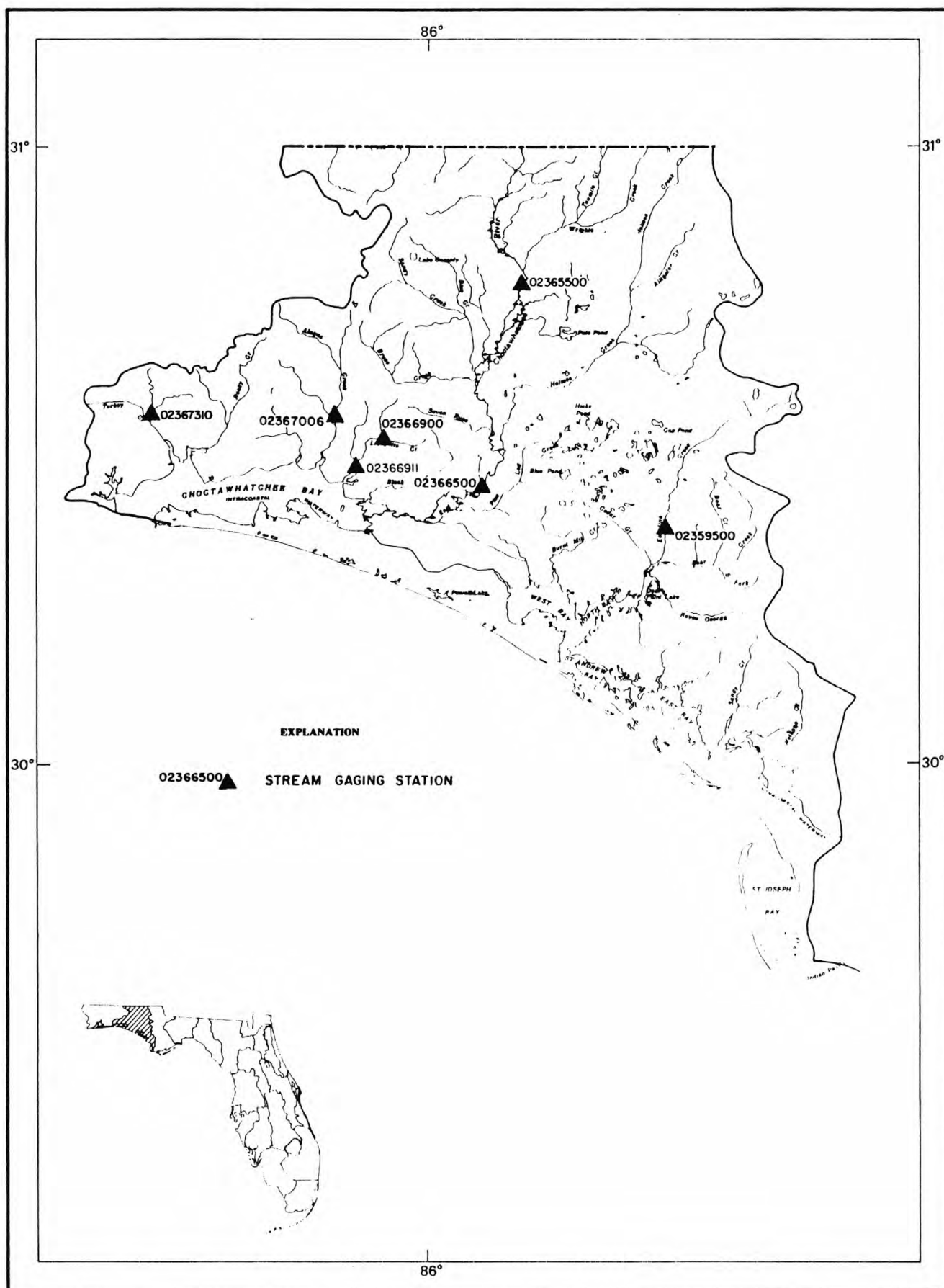


Figure 22.—Location of stream gaging stations in the Econfina Creek, Choctawhatchee River, Lafayette Creek, Alaquia Creek, and Turkey Creek basins.

ECONFINA CREEK BASIN

02359500 ECONFINA CREEK NEAR BENNETT, FL

LOCATION.--Lat 30°23'04", long 85°33'24", in SE¹/₄ sec.20, T.1 S., R.13 W., Bay County, Hydrologic Unit 03140101, near center of span on downstream side of bridge on State Highway 388, 0.5 mi downstream from Old Mill Branch, 1.6 mi southwest of Bennett, and 11 mi upstream from mouth.

DRAINAGE AREA.--122 mi².

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for October and November 1936, published in WSP 1304.

REVISED RECORDS.--WSP 872: 1937. WSP 1906: Drainage area. WRD FL-80-4: 1979.

GAGE.--Water-stage recorder. Datum of gage is 1.03 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 29, 1962, nonrecording gage and Jan. 30, 1962 to June 16, 1966, water-stage recorder at site 150 ft downstream at present datum. June 17, 1966 to Sept. 28, 1966, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow includes large ground-water inflow.

AVERAGE DISCHARGE.--52 years, 536 ft³/s, 59.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,860 ft³/s Apr. 2, 1948, gage height, 12.46 ft observed, from rating curve extended above 2,200 ft³/s; minimum, 307 ft³/s Jan. 9, 1956, gage height, 4.10 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since September 1926, 15.0 ft present datum, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 20	0100	1210	8.51	June 16	2000	1240	8.57
Jan. 24	0900	*1280	*8.70	Aug. 16	1400	1240	8.57
Mar. 31	1000	1180	8.41				

Minimum, 466 ft³/s June 12, 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	529	492	901	576	692	796	1060	541	500	623	540	603
2	520	492	849	620	690	831	839	540	498	627	533	671
3	514	494	680	582	722	745	758	538	492	605	523	642
4	512	492	598	585	710	684	758	537	492	609	507	592
5	515	492	562	669	693	659	736	560	509	601	501	582
6	515	501	540	657	706	644	699	689	500	627	496	643
7	503	498	527	602	709	637	678	622	489	652	498	634
8	496	493	516	565	716	649	665	588	482	711	494	596
9	496	489	512	547	696	667	655	606	477	715	492	601
10	505	486	525	563	663	648	645	603	474	649	492	587
11	505	485	695	644	649	623	638	641	472	599	493	645
12	503	483	898	629	641	614	631	663	469	565	519	737
13	505	479	946	575	635	610	625	709	501	548	582	689
14	574	476	826	551	627	602	621	659	628	558	854	645
15	587	477	669	551	625	595	621	600	882	573	1150	597
16	540	478	638	620	668	588	612	591	1180	546	1210	577
17	514	481	636	810	676	585	603	631	1110	531	1020	567
18	503	524	608	883	644	628	596	683	867	532	745	579
19	495	527	591	984	621	736	590	655	688	572	694	570
20	492	514	595	1120	611	756	585	617	609	526	658	598
21	489	514	578	1000	670	668	580	593	618	533	618	646
22	486	505	560	940	807	622	576	600	664	558	599	585
23	484	496	604	1180	955	600	572	622	692	539	586	559
24	486	496	702	1240	962	589	567	598	756	513	575	548
25	516	492	695	958	819	589	561	631	824	516	569	541
26	587	576	616	839	768	594	556	591	784	555	566	537
27	567	682	576	797	782	615	555	563	810	526	561	533
28	526	598	558	758	754	692	553	550	701	511	561	533
29	506	646	546	728	---	774	547	539	616	523	572	533
30	498	814	538	710	---	994	543	524	593	519	578	563
31	495	---	533	703	---	1170	---	509	---	518	570	---
TOTAL	15963	15672	19818	23186	19911	21204	19225	18593	19377	17780	19356	17933
MEAN	515	522	639	748	711	684	641	600	646	574	624	598
MAX	587	814	946	1240	962	1170	1060	709	1180	715	1210	737
MIN	484	476	512	547	611	585	543	509	469	511	492	533
AC-FT	31660	31090	39310	45990	39490	42060	38130	36880	38430	35270	38390	35570
CFSM	4.22	4.28	5.24	6.13	5.83	5.61	5.25	4.92	5.29	4.70	5.12	4.90
IN.	4.87	4.78	6.04	7.07	6.07	6.47	5.86	5.67	5.91	5.42	5.90	5.47

CAL YR 1986	TOTAL 217501	MEAN 596	MAX 1380	MIN 456	AC-FT 431400	CFSM 4.88	IN. 66.32
WTR YR 1987	TOTAL 228018	MEAN 625	MAX 1240	MIN 469	AC-FT 452300	CFSM 5.12	IN. 69.53

CHOCTAWHATCHEE RIVER BASIN
02365500 CHOCTAWHATCHEE RIVER AT CARYVILLE, FL

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LOCATION.--Lat 30°46'32", long 85°49'40", in NW¹/₄ sec.10, T.4 N., R.16 W., Holmes County, Hydrologic Unit 03140203, near right bank on downstream side of bridge on U.S. Highway 90, 300 ft downstream from Louisville and Nashville Railroad bridge, 0.8 mi west of Caryville, 1.8 mi downstream from Wrights Creek, and 64 mi upstream from mouth.

DRAINAGE AREA.--3,499 mi².

PERIOD OF RECORD.--August 1929 to current year. Gage-height records collected at same site from 1928 to August 1929 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 39.02 ft above National Geodetic Vertical Datum of 1929. Aug. 17 to Oct. 11, 1929, nonrecording gage at same site and datum; Oct. 12, 1929 to Sept. 11, 1951, water-stage recorder at same site and datum; Sept 12, 1951 to Aug. 11, 1976, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--58 years, 5,412 ft³/s, 21.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,000 ft³/s Apr. 13, 1975, gage height, 18.39 ft; minimum, 604 ft³/s Sept. 15,16, 1968; minimum gage height, -0.82 ft Sept. 6, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1850 (from information furnished by U.S. Army Corps of Engineers, Mobile District) 27.1 ft Mar. 17, 1929, from National Weather Service records and floodmarks; discharge, 206,000 ft³/s from rating curve extended above 85,000 ft³/s on basis of slope-area determination of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,100 ft³/s Mar. 4, gage height, 11.74 ft; minimum, 924 ft³/s Oct. 10, gage height, 0.32 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	1290	6270	3140	7180	9290	11400	2050	2170	3760	1580	1180
2	1030	1220	6720	3280	6250	12000	13900	1990	2020	3230	1510	1200
3	1160	1190	6210	3600	5960	14900	15000	2010	1870	3230	1490	1290
4	1140	1170	5050	3710	6530	15900	13400	1990	1770	3620	1470	1250
5	1070	1160	4080	4200	6970	14800	11300	1930	1740	4300	1440	1220
6	1010	1190	3410	5240	6790	12900	9850	1920	2040	5000	1470	1320
7	978	1240	2970	5660	6700	11000	8530	2010	2340	5810	1460	1700
8	953	1270	2640	5280	7010	9070	7150	2820	2130	6080	1470	1810
9	934	1230	2410	4710	7660	7770	6180	4380	1920	5490	1430	1640
10	927	1190	2290	4300	8500	7830	5590	4370	1770	4280	1330	1610
11	942	1170	2400	4020	9080	7930	5140	3430	1610	3470	1240	1660
12	981	1150	3130	3760	8850	7400	4740	2980	1510	2940	1240	1730
13	1060	1190	3990	3420	8040	6810	4440	2830	1460	2530	1680	2210
14	1140	1300	4390	3130	6960	6440	4240	3120	1800	2260	3240	3000
15	1390	1220	4060	3030	5940	6140	4100	3430	3890	2210	6270	2830
16	1700	1140	3540	3320	5370	5750	3960	3700	5530	2170	7180	2370
17	1630	1100	3370	4130	5620	5340	3790	4330	6390	2040	5440	2030
18	1660	1150	3420	5290	6180	5240	3610	5040	6810	1890	3870	1790
19	1540	1240	3320	6180	6060	6030	3460	5670	7060	1740	3000	1670
20	1400	1320	3230	6640	5510	7740	3320	6140	7030	1630	2480	1560
21	1270	1850	3330	6720	5260	9690	3180	6180	6640	1560	2170	1460
22	1180	2570	3260	6970	5980	10700	3040	5860	6670	1550	1950	1380
23	1120	2660	3160	8970	7830	9890	2920	6230	8000	1520	1770	1320
24	1090	2250	3960	11500	9450	8370	2790	5950	9720	1480	1610	1260
25	1100	1980	5300	13300	9990	7120	2660	5240	10200	1460	1490	1210
26	1220	1890	5880	14000	9450	6160	2520	4760	9520	1440	1410	1160
27	1550	2560	5430	13600	8490	5520	2390	4310	7970	1430	1350	1130
28	1700	4440	4640	13100	8270	5310	2290	3620	6930	1580	1300	1110
29	1620	5350	4040	12500	---	5570	2210	3050	5980	1720	1250	1100
30	1510	5680	3600	10800	---	6320	2130	2660	4760	1770	1210	1100
31	1380	---	3300	8690	---	8470	---	2380	---	1640	1180	---
TOTAL	38425	55360	122800	206190	201880	263400	169230	116380	139250	84830	66980	47300
MEAN	1240	1845	3961	6651	7210	8497	5641	3754	4642	2736	2161	1577
MAX	1700	5680	6720	14000	9990	15900	15000	6230	10200	6080	7180	3000
MIN	927	1100	2290	3030	5260	5240	2130	1920	1460	1430	1180	1100
AC-FT	76220	109800	243600	409000	400400	522500	335700	230800	276200	168300	132900	93820
CFSM	.35	.53	1.13	1.90	2.06	2.43	1.61	1.07	1.33	.78	.62	.45
IN.	.41	.59	1.31	2.19	2.15	2.80	1.80	1.24	1.48	.90	.71	.50
CAL YR 1986	TOTAL 1295838	MEAN 3550	MAX 21900	MIN 912	AC-FT 2570000	CFSM 1.01	IN. 13.78					
WTR YR 1987	TOTAL 1512025	MEAN 4143	MAX 15900	MIN 927	AC-FT 2999000	CFSM 1.18	IN. 16.08					

CHOCTAWHATCHEE RIVER BASIN

02366500 CHOCTAWHATCHEE RIVER NEAR BRUCE, FL
(National stream-quality accounting network station)

LOCATION.--Lat 30°27'03", long 85°53'54", in NE 1/4 sec.36, T.1 N., R.17 W., Walton County, Hydrologic Unit 03140203, near center of main channel on upstream side of bridge on State Highway 20, 4.0 mi southeast of Bruce, 5.8 mi downstream from Holmes Creek, and 21 mi upstream from mouth.

DRAINAGE AREA.--4,384 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to March 1983; Apr. 1983 to May 1984 (discharge measurements only); June 1984 to current year.

REVISED RECORDS.--WSP 872: 1937. WSP 1384: Drainage area. WSP 1504: 1931-34.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1983, water-stage recorder at same site at datum 3.94 ft lower. Prior to Apr. 6, 1934, nonrecording gage at site 1.0 mi downstream at datum 4.19 ft lower.

REMARKS.--No estimated daily discharges during water year. Records fair.

AVERAGE DISCHARGE.--55 years (1931-82, 1985-87), 7,048 ft³/s, 21.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 79,900 ft³/s Apr. 15, 1975, gage height, 21.48 ft at present datum; minimum, 1,290 ft³/s Oct. 27, 1968, gage height, 3.46 ft at present datum.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of March 1929 reached a stage of 25.0 ft at former site and datum, from floodmarks, discharge, 220,000 ft³/s, from rating curve extended above 80,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 18,100 ft³/s, Mar. 6, gage height, 13.48 ft; minimum 1,690 ft³/s, Oct. 12, gage height 4.40 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1860	2150	5370	5950	14000	14900	9510	3270	4350	9830	2920	2530
2	1830	2050	6000	5550	12800	14300	10800	3110	3850	8720	2980	2530
3	1810	1990	6600	5380	11300	14200	13400	3090	3450	7940	2830	2510
4	1840	1930	6970	5420	10100	15300	15500	3010	3110	7340	2690	2530
5	1890	1890	7210	5570	9150	17100	16800	3010	2920	6900	2670	2600
6	1830	1910	7140	5830	8800	18100	16400	2990	2750	6850	2610	2780
7	1770	1930	6730	5950	8890	17700	15000	2950	2880	6990	2670	2750
8	1740	1950	5950	6190	8950	16400	13400	3000	3090	7340	2670	3160
9	1730	1950	5200	6450	8980	14700	12000	3450	3090	7940	2670	3250
10	1720	1910	4490	6780	8930	13100	10600	4050	2920	8680	2670	3360
11	1700	1890	4280	6700	9080	11600	9600	4690	2750	8930	2440	3210
12	1690	1850	4500	6480	9370	10600	8680	5130	2600	8720	2370	3360
13	1730	1810	4830	6130	9710	10200	7900	4990	2540	7700	2560	3550
14	1910	1790	5230	5800	10100	9850	7340	4600	2690	6480	3570	3750
15	2090	1850	5520	5440	10000	9370	6880	4380	3210	5770	5790	4090
16	2180	1930	5820	5480	9730	8930	6480	4380	4050	4990	8240	4270
17	2320	1890	5950	5830	9040	8510	6160	4600	5130	4730	10900	4270
18	2370	1890	5820	6160	8320	8300	5880	4890	5850	4320	13000	3880
19	2370	1940	5550	6920	7780	8100	5690	5240	6610	3950	12700	3650
20	2280	2030	5320	7520	7590	8020	5410	5610	7250	3550	11300	3580
21	2190	2180	5120	8100	7980	8100	5110	6000	7900	3320	9260	3270
22	2090	2420	4980	9600	8000	8700	4920	6410	8720	3220	7300	2920
23	1960	2880	4890	10800	8610	9780	4730	6810	9370	3360	5820	2690
24	1900	3230	5010	11800	9170	11100	4490	6990	10900	3050	4860	2600
25	1950	3260	5270	13200	10600	10000	4290	7340	11900	2830	3950	2460
26	2000	3250	5510	14700	13300	11200	4110	7440	12400	2790	3550	2350
27	2020	3240	5800	16200	15100	10400	3930	7340	13000	2750	3160	2250
28	2180	3340	6220	17000	15200	9460	3750	6990	12700	2670	2920	2200
29	2340	3840	6500	16600	---	9150	3550	6480	11800	2750	2750	2080
30	2370	4600	6630	15900	---	8930	3360	5850	10600	2830	2660	2060
31	2260	---	6330	15200	---	8980	---	5060	---	2880	2540	---
TOTAL	61920	70770	176740	270630	280580	355080	245670	153150	184380	170120	149020	90490
MEAN	1997	2359	5701	8730	10020	11450	8189	4940	6146	5488	4807	3016
MAX	2370	4600	7210	17000	15200	18100	16800	7440	13000	9830	13000	4270
MIN	1690	1790	4280	5380	7590	8020	3360	2950	2540	2670	2370	2060
AC-FT	122800	140400	350600	536800	556500	704300	487300	303800	365700	337400	295600	179500
CFSM	.46	.54	1.30	1.99	2.29	2.61	1.87	1.13	1.40	1.25	1.10	.69
IN.	.53	.60	1.50	2.30	2.38	3.01	2.08	1.30	1.56	1.44	1.26	.77

CAL YR 1986 TOTAL 1920210 MEAN 5261 MAX 30600 MIN 1580 AC-FT 3809000 CFSM 1.20 IN. 16.29
WTR YR 1987 TOTAL 2208550 MEAN 6051 MAX 18100 MIN 1690 AC-FT 4381000 CFSM 1.38 IN. 18.74

CHOCTAWHATCHEE RIVER BASIN

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02366500 CHOCTAWHATCHEE RIVER NEAR BRUCE, FL--Continued.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCARB F.WH.W. ,FET, (MG/L CACO3)
OCT 30...	1050	2360	118	7.90	18.5	8.7	8.2	87	33	45	53	4
FEB 19...	1400	7880	72	7.40	13.0	8.8	8.8	83	94	K34	28	5
MAY 01...	1350	3320	126	8.00	22.0	6.0	7.2	83	K22	36	53	5
AUG 21...	1600	9000	60	7.30	27.0	4.5	4.7	59	270	69	26	5
DATE	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LILITY LAB (MG/L AS CACO3)	ALKA- LILITY, CARB., FIELD, INC.T., (MG/L CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
OCT 30...	4	17	2.5	4.5	15	.3	1.0	49	48	47	1.2	
FEB 19...	5	8.8	1.5	2.7	17	.2	.80	23	24	23	1.8	
MAY 01...	5	17	2.6	3.8	13	.2	.70	48	53	47	.9	
AUG 21...	5	8.2	1.3	2.0	14	.2	1.2	21	21	20	2.0	
DATE	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
OCT 30...	4.0	6.1	<.10	7.6	75	72	.10	478	--	<.010	.32	
FEB 19...	6.0	4.5	<.10	5.3	45	44	.06	957	--	<.010	.15	
MAY 01...	6.6	5.6	<.10	6.9	74	73	.10	662	.32	.010	.33	
AUG 21...	12	3.3	.10	5.9	48	47	.07	1170	--	<.010	.10	
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS., (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	
OCT 30...	.040	.050	.06	--	.16	<.20	.020	.030	.020	.06	30	
FEB 19...	.010	.020	.03	--	.69	.70	.020	<.010	<.010	--	60	
MAY 01...	<.010	.010	.01	.03	.39	.40	.040	.020	<.010	--	30	
AUG 21...	.020	.040	.05	--	.68	.70	.040	<.010	<.010	--	80	
DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
OCT 30...	<1	17	<.5	<1	<1	<3	1	160	<5	<4	10	
FEB 19...	<1	19	<.5	<1	<1	<3	1	260	<5	<4	23	
MAY 01...	<1	20	<.5	<1	<1	<3	<1	560	<5	4	32	
AUG 21...	<1	21	<.5	<1	<1	7	<1	330	<5	<4	21	

CHOCTAWHATCHEE RIVER BASIN
02366500 CHOCTAWHATCHEE RIVER NEAR BRUCE, FL--Continued.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	.1	<10	5	<1	<1	42	<6	9	12	76	83
FEB 19...	<.1	<10	<1	<1	<1	24	<6	5	8	170	75
MAY 01...	<.1	<10	<1	<1	<1	42	<6	9	18	161	89
AUG 21...	.1	<10	<1	<1	<1	21	<6	9	13	316	77

LOCATION.--Lat 30°31'48", long 86°05'15", in NW¼ sec.6, T.1 S., R.18 W., Walton County, Hydrologic Unit 03140102, near right bank on downstream side of bridge, 0.5 mi upstream from Lafayette Creek, and 3.5 mi northeast of Freeport.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1968 to September 1971 and October 1974 to September 1978; October 1971 to September 1974 and October 1978 to September 1984 (gage heights, discharge measurements and average discharge); October 1984 to current year (discharge measurements only).

REVISED RECORDS.--WRD FL-77-4: 1969-71, 1975-76 (M).

GAGE.--Nonrecording gage. Datum of gage is 18.31 ft above National Geodetic Vertical Datum of 1929.

AVERAGE DISCHARGE.--13 years (water years 1969-71, 1974-84), 39.1 ft³/s, 47.43 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s Feb. 16, 1970, gage height, 13.62 ft, from rating curve extended above 350 ft³/s on basis of velocity-area study; minimum, 14 ft³/s June 29, 30, July 1, 1974, gage height, 4.63 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

[illegible]

02366911 LAFAYETTE CREEK AT FREEPORT, FL

LOCATION.--Lat 30°29'35", long 86°07'33", Walton County, Hydrologic Unit 03140102, at bridge on State Highway 20 at Freeport.

DRAINAGE AREA.--35.5 mi².

PERIOD OF RECORD.--May 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

[illegible]

02367006 ALAQUA CREEK NEAR PORTLAND, FL

LOCATION.--Lat 30°33'22", long 86°10'45", in NE¹/₄ sec.30, T.1 N., R.19 W., Walton County, Hydrologic Unit 03140102, near center on downstream side of bridge on State Highway S-282, 3.2 mi northeast of Portland, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--83.7 mi².

PERIOD OF RECORD.--May and July 1977, October 1978 to January 1980 (discharge measurements only), February 1980 to current year.

REVISED RECORDS.--WDR FL-85-4: 1980-84(M).

GAGE.--Water-stage recorder. Datum of gage 1.84 ft above National Geodetic Vertical Datum of 1929 (Vitro Corporation of America bench mark). Prior to Feb. 14, 1980, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--7 years, 196 ft³/s, 31.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,320 ft³/s, Feb. 3, 1982, gage height, 12.38 ft, extended above 2,830 ft³/s; minimum discharge, 47 ft³/s June 8, 1985, gage height, 2.67 ft.

EXTREMES FOR CURRENT YEAR--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 23	2200	1,050	9.49	Aug. 15	0500	*2,730	*11.11
July 4	1300	1,200	9.70				

Minimum discharge, 67 ft³/s, Oct. 5, gage height, 3.16 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	78	611	158	212	658	553	112	104	244	288	190
2	76	79	353	152	226	591	315	116	101	384	221	214
3	72	81	213	139	270	375	279	115	98	340	252	184
4	69	78	176	262	215	295	296	113	96	928	295	162
5	74	79	157	395	206	259	241	112	110	736	285	156
6	90	143	144	225	237	240	219	118	103	429	236	173
7	103	111	137	179	221	232	209	148	93	303	296	165
8	75	92	132	166	247	256	199	149	88	266	253	167
9	71	85	131	157	210	257	193	133	86	347	179	179
10	96	82	138	158	185	221	185	239	84	307	161	162
11	92	80	269	152	180	206	179	221	83	214	161	151
12	80	78	417	141	176	207	175	177	82	189	164	290
13	92	76	524	138	172	202	172	166	91	181	259	330
14	251	72	291	136	167	193	170	155	183	238	717	199
15	344	71	200	161	167	187	168	164	434	427	1760	164
16	145	73	247	255	304	184	160	185	657	707	847	149
17	111	88	239	593	306	180	155	217	562	307	554	152
18	98	106	198	482	203	265	151	271	399	205	401	322
19	90	113	190	340	181	512	146	220	379	192	353	207
20	84	126	197	264	171	416	141	164	394	179	280	175
21	80	148	171	220	272	235	139	175	291	176	240	154
22	78	114	157	636	464	207	136	161	607	206	215	142
23	76	102	254	868	740	193	134	149	894	180	201	135
24	77	95	378	561	756	187	130	136	867	159	188	129
25	131	108	238	432	459	189	126	228	516	147	178	126
26	188	254	188	585	612	178	123	214	309	142	169	123
27	118	250	174	427	581	183	121	155	264	229	164	121
28	97	151	163	290	477	251	119	131	248	228	159	119
29	87	199	155	254	---	229	115	121	197	202	162	120
30	83	512	151	241	---	488	113	114	191	172	219	124
31	80	---	147	239	---	715	---	109	---	233	180	---
TOTAL	3293	3724	7140	9406	8617	8991	5562	4988	8611	9197	10037	5184
MEAN	106	124	230	303	308	290	185	161	287	297	324	173
MAX	344	512	611	868	756	715	553	271	894	928	1760	330
MIN	69	71	131	136	167	178	113	109	82	142	159	119
AC-FT	6530	7390	14160	18660	17090	17830	11030	9890	17080	18240	19910	10280
CFSM	1.27	1.48	2.75	3.63	3.68	3.47	2.22	1.92	3.43	3.54	3.87	2.06
IN.	1.46	1.66	3.17	4.18	3.83	4.00	2.47	2.22	3.83	4.09	4.46	2.30

CAL YR 1986 TOTAL 66139 MEAN 181 MAX 1940 MIN 58 AC-FT 131200 CFSM 2.16 IN. 29.40
WTR YR 1987 TOTAL 84750 MEAN 232 MAX 1760 MIN 69 AC-FT 168100 CFSM 2.77 IN. 37.67

TURKEY CREEK BASIN

02367310 JUNIPER CREEK AT STATE HIGHWAY 85, NEAR NICEVILLE, FL

LOCATION.--Lat 30°33'26", long 86°31'11", in NW¹/₄ sec.26, T.1 N., R.23 W., Okaloosa County, Hydrologic Unit 03140102, on left bank 20 ft downstream from southbound bridge on State Highway 85, 0.8 mi upstream from Turkey Creek, and 3.0 mi northwest of Niceville.

DRAINAGE AREA.--27.6 mi².

PERIOD OF RECORD.--March 1966 to September 1975; October 1975 to April 1977 (discharge measurements only); May 1977 to current year.

REVISED RECORDS.--WDR FL-77-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.78 ft above National Geodetic Vertical Datum of 1929. March 1966 to September 1975, water-stage recorder at site 40 ft upstream at present datum. October 1975 to April 1977, nonrecording gage at site 40 ft upstream at present datum.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--19 years, (water years 1967-75, 1978-87), 90.5 ft³/s, 44.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s Sept. 23, 1975, gage height, 9.56 ft, extended above 415 ft³/s; minimum, 37 ft³/s June 6, 1985; minimum gage height, 5.19 ft Sept. 11, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 22	0800	253	7.50	Aug. 2	2200	276	7.56
Feb. 22	2100	304	7.63	Sept. 12	0400	*514	*8.04

Minimum discharge, 54 ft³/s Nov.13, gage height, 6.01 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	59	104	72	80	144	117	92	79	88	77	71
2	58	59	80	68	88	115	113	93	78	87	135	71
3	57	59	74	69	84	110	120	91	77	101	156	68
4	57	58	71	139	82	108	113	92	77	142	95	67
5	76	85	69	83	86	107	109	93	77	108	82	69
6	77	77	68	74	88	106	108	98	75	89	79	93
7	83	63	67	72	90	109	107	96	74	119	76	77
8	62	61	67	71	87	118	106	96	74	91	73	78
9	69	60	68	70	80	109	106	92	73	87	72	89
10	77	59	88	71	79	105	105	103	73	82	71	71
11	64	58	128	69	79	105	104	95	72	81	72	120
12	63	58	124	69	79	107	104	95	72	78	75	312
13	103	57	83	69	78	104	104	98	76	87	91	118
14	144	56	75	69	78	102	105	97	123	122	122	92
15	74	57	76	80	83	102	103	94	183	89	119	84
16	67	61	88	111	107	101	101	97	130	79	83	80
17	64	60	75	116	83	100	100	102	102	76	84	79
18	63	61	72	85	80	176	100	138	90	75	90	82
19	62	61	77	79	79	138	98	108	86	74	82	82
20	62	65	72	74	79	110	98	99	80	74	74	76
21	60	61	69	87	118	107	97	95	99	78	71	73
22	60	58	72	196	176	105	97	89	136	78	70	72
23	59	59	104	99	147	104	96	91	180	78	69	71
24	64	58	80	91	115	105	95	90	114	72	68	70
25	97	73	73	168	115	104	94	88	100	71	67	69
26	69	134	71	106	187	101	94	85	93	71	67	69
27	63	75	70	91	134	105	93	83	94	96	66	68
28	60	74	69	88	147	105	93	82	85	97	66	69
29	60	113	69	87	---	131	91	82	82	81	68	70
30	59	139	68	84	---	191	91	81	82	77	71	71
31	59	---	70	81	---	143	---	80	---	81	72	---
TOTAL	2151	2078	2441	2788	2808	3577	3062	2915	2836	2709	2563	2581
MEAN	69.4	69.3	78.7	89.9	100	115	102	94.0	94.5	87.4	82.7	86.0
MAX	144	139	128	196	187	191	120	138	183	142	156	312
MIN	57	56	67	68	78	100	91	80	72	71	66	67
AC-FT	4270	4120	4840	5530	5570	7090	6070	5780	5630	5370	5080	5120
CFSM	2.51	2.51	2.85	3.26	3.63	4.18	3.70	3.41	3.43	3.17	3.00	3.12
IN.	2.90	2.80	3.29	3.76	3.78	4.82	4.13	3.93	3.82	3.65	3.45	3.48

CAL YR 1986	TOTAL 34692	MEAN 95.0	MAX 408	MIN 56	AC-FT 68810	CFSM 3.44	IN. 46.76
WTR YR 1987	TOTAL 32509	MEAN 89.1	MAX 312	MIN 56	AC-FT 64480	CFSM 3.23	IN. 43.82

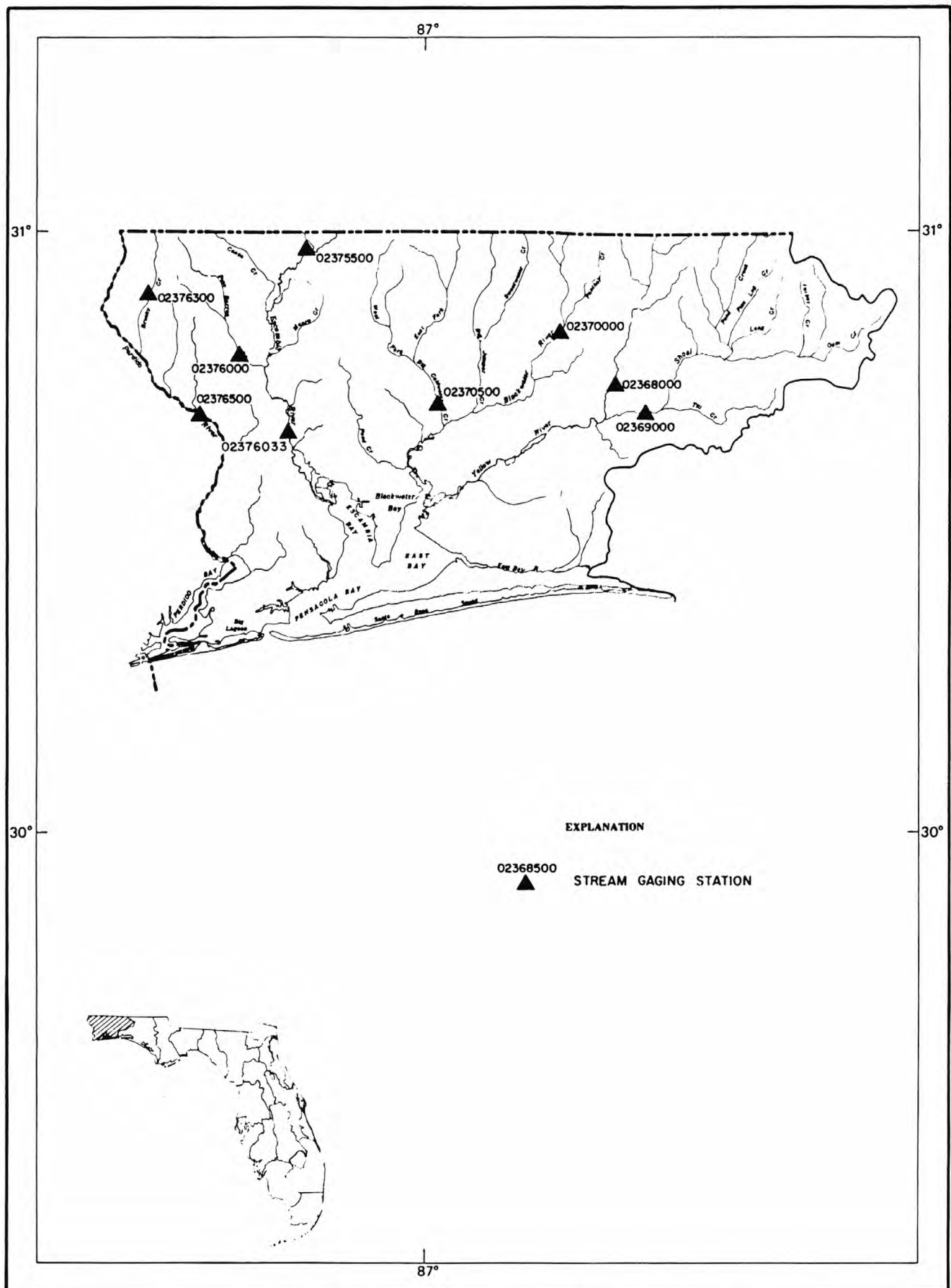


Figure 23.--Location of stream gaging stations in the Yellow, Blackwater, Escambia and Perdido River basins.

YELLOW RIVER BASIN

02368000 YELLOW RIVER AT MILLIGAN, FL
(National stream-quality accounting network station)

LOCATION.--Lat 30°45'10", long 86°37'45" in SE¹/₄ sec. 15, T.3 N., R.24 W., Okaloosa County, Hydrologic Unit 03140103, near center on downstream side of bridge on U.S. Highway 90, 0.5 mi east of Milligan, 0.5 mi upstream from Trammel Creek, 6.7 mi upstream from Shoal River, and 40 mi upstream from mouth.

DRAINAGE AREA.--624 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year.

REVISED RECORDS.--WSP 892: 1938-39. WSP 1384: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 45.00 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 6, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good, except periods of estimated record, which are fair.

AVERAGE DISCHARGE.--49 years, 1,157 ft³/s, 25.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,600 ft³/s Apr. 12, 1975, gage height, 17.71 ft; minimum, 131 ft³/s June 23, 24, 1967 (result of channel work); minimum gage height, 0.59 ft Oct. 21, 22, 24, 25, 30, 1968. Prior to June 23, 1967, minimum discharge, 143 ft³/s Oct. 25, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1929 reached a stage of 26.2 ft, from information by local residents, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,350 ft³/s Apr. 4, gage height, 8.86 ft; minimum, 252 ft³/s Oct. 23, 24, gage height, 1.02 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	362	3280	822	1230	2410	3110	440	e670	745	423	351
2	265	338	2710	798	1160	2810	4160	468	e620	1530	390	339
3	285	320	2530	793	1230	3090	3960	443	e580	957	384	329
4	352	304	2240	1040	1440	3210	2890	423	e540	759	411	325
5	336	318	1810	1250	1690	2720	2150	420	e580	773	425	333
6	314	377	1390	1350	1790	2040	1940	430	e590	909	392	417
7	334	356	1150	1330	1710	1700	e1700	507	e520	1160	429	427
8	283	354	1030	1120	1740	1590	e1490	598	e420	1060	410	405
9	268	363	958	945	1920	1550	e1400	640	e320	805	355	431
10	312	346	957	867	2090	1590	e1300	666	e300	703	329	390
11	291	332	1140	802	2020	1550	e1200	676	269	642	319	428
12	272	367	1360	756	1680	1400	e1150	592	260	547	323	959
13	307	363	1520	720	1400	1270	e1050	568	271	492	865	838
14	428	338	1500	698	1290	1180	e980	556	391	472	1710	583
15	402	345	1300	776	1250	1120	e940	682	724	535	2040	526
16	382	347	1190	945	1410	1050	e880	1290	933	447	1940	474
17	375	409	1150	1230	1540	997	e850	1280	1140	404	1730	433
18	344	613	1170	1380	1680	1190	e780	1230	1280	381	1520	416
19	315	479	1120	1480	1680	1750	e750	e1400	1620	373	1130	387
20	292	479	1110	1310	1420	2110	e710	e1500	1310	350	875	375
21	276	653	1170	1130	1360	2580	e680	e1700	1140	348	790	350
22	265	635	1100	1640	1770	2750	e660	e1600	1550	388	609	328
23	257	600	1180	2060	2030	2160	e630	e1500	1670	394	525	319
24	264	543	1370	2390	2120	1560	e610	e1350	1580	453	473	309
25	422	896	1580	2880	2240	1290	e580	e1400	1470	461	432	300
26	515	1730	1690	2900	2300	1150	e560	e1250	1430	440	403	291
27	525	2130	1480	2580	2180	1070	e540	e1100	1240	548	381	284
28	552	2730	1150	2590	2160	1030	e520	e980	910	798	365	289
29	492	3450	995	2360	---	1090	e490	e880	671	814	357	329
30	434	3900	906	1810	---	1510	e480	e800	578	544	394	335
31	395	---	847	1420	---	2140	---	e720	---	471	382	---
TOTAL	10818	24777	44083	44172	47530	54657	39140	28089	25577	19703	21511	12300
MEAN	349	826	1422	1425	1697	1763	1305	906	853	636	694	410
MAX	552	3900	3280	2900	2300	3210	4160	1700	1670	1530	2040	959
MIN	257	304	847	698	1160	997	480	420	260	348	319	284
AC-FT	21460	49150	87440	87620	94280	108400	77630	55710	50730	39080	42670	24400
CFSM	.56	1.32	2.28	2.28	2.72	2.83	2.09	1.45	1.37	1.02	1.11	.66
IN.	.64	1.48	2.63	2.63	2.83	3.26	2.33	1.67	1.52	1.17	1.28	.73

CAL YR 1986 TOTAL 337823 MEAN 926 MAX 11100 MIN 231 AC-FT 670100 CFSM 1.48 IN. 20.14
WTR YR 1987 TOTAL 372357 MEAN 1020 MAX 4160 MIN 257 AC-FT 738600 CFSM 1.63 IN. 22.20

e Estimated

YELLOW RIVER BASIN

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02368000 YELLOW RIVER AT MILLIGAN, FL.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1962 to June 1972, October 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 29...	1630	476	55	7.40	18.0	11	9.1	96	120	120	21
FEB 20...	0950	1440	45	7.00	11.5	6.2	10.4	96	77	63	17
APR 30...	1630	481	70	7.70	21.5	5.0	8.0	92	20	42	29
AUG 21...	1030	822	42	6.90	26.5	7.9	6.4	80	160	140	18
DATE	HARD- NESS, NONCARB F.WH.W. ,FET, (MG/L CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY, CARB., FIELD, INC.T., (MG/L CACO3)
OCT 29...	4	4	6.1	1.3	2.6	21	.3	.80	17	17	16
FEB 20...	3	3	4.9	1.1	2.1	21	.2	.60	14	14	13
APR 30...	3	3	8.8	1.8	2.2	14	.2	.40	26	28	26
AUG 21...	5	5	5.3	1.2	2.1	19	.2	1.1	13	14	12
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 29...	1.3	5.5	4.5	<.10	7.1	51	38	.07	66	<.010	.14
FEB 20...	2.7	6.0	3.7	<.10	5.3	27	32	.04	105	<.010	.12
APR 30...	1.0	2.6	3.1	<.10	5.7	49	41	.07	64	<.010	.17
AUG 21...	3.2	10	3.3	.10	6.2	38	37	.05	84	<.010	.10
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS., (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 29...	.020	.030	.04	.18	<.20	<.010	.020	.010	.03	20	<1
FEB 20...	<.010	.010	.01	.59	.60	.030	<.010	<.010	--	40	<1
APR 30...	<.010	.020	.03	.29	.30	.030	.020	<.010	--	30	<1
AUG 21...	.020	.010	.01	.28	.30	.040	<.010	<.010	--	50	<1

YELLOW RIVER BASIN

02368000 YELLOW RIVER AT MILLIGAN, FL.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)
OCT 29...	15	<.5	<1	<1	<3	2	36	<5	<4	11	<.1
FEB 20...	16	2.0	<1	<1	<3	<1	190	<5	<4	17	<.1
APR 30...	15	<.5	<1	<1	<3	<1	350	<5	<4	18	<.1
AUG 21...	20	<.5	<1	<1	4	<1	220	<5	<4	28	<.1
	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	
OCT 29...	<10	<1	<1	<1	14	<6	15	30	39	57	
FEB 20...	<10	<1	<1	<1	13	<6	5	17	66	59	
APR 30...	<10	2	<1	1	19	<6	<3	16	21	75	
AUG 21...	<10	<1	<1	<1	15	<6	10	28	62	68	

YELLOW RIVER BASIN

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02369000 SHOAL RIVER NEAR CRESTVIEW, FL

LOCATION.--Lat 30°41'50", long 86°34'15", in SW¹/₄ sec.5, T.2 N., R.23 W., Okaloosa County, Hydrologic Unit 03140103, near center of bridge on downstream side of southbound lane on State Highway 85, 3.5 mi downstream from Titi Creek, 4.2 mi south of Crestview, and 7 mi upstream from mouth.

DRAINAGE AREA.--474 mi².

PERIOD OF RECORD.--July 1938 to current year.

REVISED RECORDS.--WSP 1274: 1939-40, 1944, 1947, 1950. WSP 1384: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 47.21 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 12, 1939 and June 12, 1972 to Aug. 22, 1973, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--49 years, 1,087 ft³/s, 31.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft³/s Aug. 1, 1975, gage height, 15.58 ft; minimum, 240 ft³/s Oct. 17, 18, 1972; minimum gage height, 0.96 ft May 13,14, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 24	1400	*3200	*7.50				

Minimum daily discharge, 375 ft³/s Oct. 5, gage height, 2.58 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	391	416	2280	830	1140	2570	2810	604	668	1090	766	664
2	387	413	1970	853	1110	2640	2070	703	646	1500	764	640
3	400	412	1320	804	1320	2210	1480	708	627	1780	863	605
4	384	405	1010	1060	1310	1630	1410	652	612	1560	972	580
5	375	432	882	1570	1160	1400	1310	634	711	1500	1050	576
6	405	602	805	1430	1330	1280	1180	731	697	1590	834	659
7	582	576	759	1040	1450	1210	1090	892	623	1930	830	716
8	425	481	733	900	1450	1260	1030	930	582	2160	963	e715
9	394	440	727	848	1390	1350	986	946	557	2020	827	e750
10	489	419	745	831	1160	1270	954	1430	544	1490	704	e800
11	485	410	1080	811	1020	1140	925	1180	534	1160	662	e850
12	438	463	1630	775	974	1090	904	940	529	972	651	e1050
13	480	432	1890	749	950	1060	886	984	561	907	846	e950
14	1080	400	1550	734	921	1020	875	1030	1000	925	1590	e880
15	1100	388	1090	824	912	984	869	1060	1710	1400	2050	e820
16	700	408	1060	1090	1200	963	846	1350	1910	1670	1800	e770
17	531	453	1170	1570	1450	943	816	1220	1720	1080	1260	e720
18	469	877	1070	1820	1200	1150	798	1420	1350	886	1420	e695
19	438	818	983	1500	1000	1920	775	2080	1540	851	1180	e670
20	415	635	992	1320	930	2180	754	1970	1470	803	902	e650
21	401	971	955	1130	1080	1550	738	1540	1450	780	805	e625
22	395	923	881	1880	1780	1200	719	1220	2370	851	744	e590
23	389	707	1050	2920	2930	1070	703	1310	2610	891	701	e545
24	398	600	1520	3090	3160	989	683	1390	2730	783	666	e525
25	609	687	1550	2470	2660	962	663	1100	2550	722	639	e515
26	899	1200	1180	2480	2150	931	650	1240	1680	696	617	507
27	746	1620	969	2480	2250	910	641	976	1460	861	599	501
28	552	1270	891	1850	2400	975	632	833	1500	1250	588	501
29	477	1090	846	1420	---	1080	617	770	1140	1210	597	580
30	444	1720	818	1280	---	1870	602	729	936	1030	695	556
31	423	---	799	1220	---	2720	---	695	---	839	665	---
TOTAL	16101	20668	35205	43579	41787	43527	29416	33267	37017	37187	28250	20205
MEAN	519	689	1136	1406	1492	1404	981	1073	1234	1200	911	673
MAX	1100	1720	2280	3090	3160	2720	2810	2080	2730	2160	2050	1050
MIN	375	388	727	734	912	910	602	604	529	696	588	501
AC-FT	31940	40990	69830	86440	82880	86340	58350	65990	73420	73760	56030	40080
CFSM	1.10	1.45	2.40	2.97	3.15	2.96	2.07	2.26	2.60	2.53	1.92	1.42
IN.	1.26	1.62	2.76	3.42	3.28	3.42	2.31	2.61	2.91	2.92	2.22	1.59

CAL YR 1986	TOTAL 358179	MEAN 981	MAX 8580	MIN 356	AC-FT 710400	CFSM 2.07	IN. 28.11
WTR YR 1987	TOTAL 386209	MEAN 1058	MAX 3160	MIN 375	AC-FT 766000	CFSM 2.23	IN. 30.31

e Estimated

BLACKWATER RIVER BASIN
02370000 BLACKWATER RIVER NEAR BAKER, FL

LOCATION.--Lat 30°50'00", long 86°44'05", in SW¹/₄ sec.22, T.4 N., R.25 W., Okaloosa County, Blackwater River State Forest, Hydrologic unit 03140104, near right bank on downstream side of bridge on State Highway 4, 0.3 mi downstream from Red Wash Branch, 3.8 mi northwest of Baker, and 35 mi upstream from mouth.

DRAINAGE AREA.--205 mi².

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

REVISED RECORDS.--WSP 1704: 1950 (M), 1951-52.

GAGE.--Water-stage recorder. Datum of gage is 60.5 ft above National Geodetic Vertical Datum of 1929 (from design datum of bridge curb furnished by Florida Department of Transportation).

REMARKS.--No estimated daily discharge. Records good.

AVERAGE DISCHARGE.--37 years, 342 ft³/s, 22.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft³/s June 4, 1970, gage height, 25.61 ft; minimum, 60 ft³/s Sept. 7, 8, 1954; minimum gage height, 1.77 ft July 18-20, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1300	1930	8.67	Mar. 1	0800	1680	8.01
Jan. 22	1800	1650	7.92	Aug. 15	1100	*5580	*15.38

Minimum daily discharge, 82 ft³/s Oct. 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	106	1460	241	375	1570	992	156	141	328	175	145
2	102	102	959	237	375	1100	676	174	134	453	157	140
3	100	100	661	224	442	766	529	164	129	303	170	137
4	96	97	499	368	402	576	524	149	140	420	154	131
5	93	102	405	511	375	477	463	145	137	517	147	130
6	91	129	337	398	453	419	396	147	134	426	149	200
7	89	138	296	321	471	381	348	153	125	448	156	209
8	86	118	270	278	585	418	311	177	118	377	134	231
9	89	107	257	258	506	440	288	182	115	292	124	223
10	94	101	260	246	411	383	271	274	112	236	118	179
11	93	104	355	232	351	338	256	271	110	205	116	174
12	94	110	478	219	322	325	244	238	110	184	116	361
13	101	106	503	211	303	318	235	219	113	170	307	487
14	138	100	394	205	286	301	230	209	254	164	1610	321
15	180	96	327	241	280	283	223	373	400	176	4740	226
16	135	95	370	321	445	271	215	628	452	156	2430	185
17	111	116	388	497	459	260	207	436	415	144	897	165
18	101	186	345	458	372	443	201	676	346	138	1130	166
19	94	178	324	422	313	1270	195	696	557	135	924	174
20	90	178	369	368	281	979	188	520	500	134	583	163
21	86	420	334	334	364	604	182	385	662	136	418	148
22	84	331	289	1230	548	458	176	479	625	146	320	138
23	82	234	445	1330	800	383	170	376	968	146	262	130
24	98	189	629	895	640	333	164	276	710	132	229	122
25	316	250	509	1070	572	309	159	234	464	126	208	119
26	409	1020	405	1410	676	285	156	267	334	123	193	116
27	281	1080	340	976	712	270	153	219	291	276	181	113
28	189	785	300	674	1430	286	150	191	272	454	170	113
29	145	790	273	537	---	310	145	173	219	458	163	122
30	125	1760	256	470	---	792	142	159	191	245	158	137
31	114	---	246	425	---	1290	---	149	---	185	150	---
TOTAL	4009	9228	13283	15607	13549	16638	8589	8895	9278	7833	16789	5405
MEAN	129	308	428	503	484	537	286	287	309	253	542	180
MAX	409	1760	1460	1410	1430	1570	992	696	968	517	4740	487
MIN	82	95	246	205	280	260	142	145	110	123	116	113
AC-FT	7950	18300	26350	30960	26870	33000	17040	17640	18400	15540	33300	10720
CFSM	.63	1.50	2.09	2.46	2.36	2.62	1.40	1.40	1.51	1.23	2.64	.88
IN.	.73	1.67	2.41	2.83	2.46	3.02	1.56	1.61	1.68	1.42	3.05	.98

CAL YR 1986	TOTAL 108864.8	MEAN 298	MAX 3690	MIN 81	AC-FT 215900	CFSM 1.45	IN. 19.75
WTR YR 1987	TOTAL 129103.8	MEAN 354	MAX 4740	MIN 82	AC-FT 256100	CFSM 1.73	IN. 23.43

BLACKWATER RIVER BASIN

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02370500 BIG COLDWATER CREEK NEAR MILTON, FL

LOCATION.--Lat 30°42'30", long 86°58'20", in SW¹/₄ sec.5, T.2 N., R.27 W., Santa Rosa County, Hydrologic Unit 03140104, near right bank on downstream side of bridge on State Highway 191, 3 mi upstream from mouth, and 6.5 mi northeast of Milton.

DRAINAGE AREA.--237 mi².

PERIOD OF RECORD.--October 1938 to June 1979, October 1979 to September 1980 (gage heights and discharge measurements only), October 1980 to current year. Monthly discharge only for some periods, published in WSP 1304. Prior to October 1956, published as Coldwater Creek near Milton. October 1956 to September 1957, published as Big Coldwater River near Milton.

REVISED RECORDS.--WSP 892: 1939. WSP 1384: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9.10 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 2, 1938, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharge. Records good.

AVERAGE DISCHARGE.--47 years (water years 1938-78, 1981-87), 540 ft³/s 30.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft³/s June 4, 1970, gage height, 21.41 ft, from flood mark; minimum, 156 ft³/s June 10, 11, 1956; minimum gage height, 0.94 ft Dec. 11, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base of 2,700 ft³/s and maximum (*);

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 19	1700	*1800	*7.84				

Minimum daily discharge, 248 ft³/s Oct. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	273	290	1450	424	510	1550	892	296	356	389	478	335
2	274	288	1010	413	520	1260	695	374	342	493	455	324
3	278	284	773	395	605	867	662	364	332	434	711	319
4	264	277	646	578	545	725	702	346	351	497	763	315
5	259	307	567	721	529	655	614	371	388	610	660	318
6	266	399	513	565	604	598	547	438	364	508	514	429
7	254	358	481	473	665	592	515	404	336	545	437	405
8	248	320	459	436	760	687	489	405	330	640	397	415
9	265	296	446	418	653	673	468	383	326	686	372	470
10	334	287	490	416	534	579	451	787	321	579	369	398
11	330	288	650	408	487	520	434	995	315	444	352	441
12	308	329	737	389	466	526	423	737	307	393	375	619
13	338	329	700	380	458	518	420	624	314	363	877	689
14	433	294	569	374	437	490	420	902	572	365	1260	614
15	427	283	501	429	449	467	416	1030	922	705	1280	447
16	347	284	603	497	649	451	400	1210	649	623	892	392
17	310	297	641	663	641	437	386	817	673	432	717	379
18	291	516	557	634	512	844	379	762	587	384	868	460
19	280	597	528	549	459	1650	370	916	1170	374	1030	442
20	270	511	558	483	438	1260	361	796	958	343	988	392
21	264	1000	508	481	555	797	356	635	910	346	687	365
22	263	774	467	1070	850	676	350	557	821	374	533	343
23	260	538	700	1380	1300	604	343	539	990	362	467	327
24	299	447	986	908	1040	551	336	511	745	338	432	317
25	764	472	791	955	872	526	330	478	631	325	405	315
26	760	1010	618	1360	1120	495	327	540	583	321	386	313
27	501	1600	534	1030	1130	477	324	496	492	452	373	313
28	394	1020	492	743	1470	539	320	436	433	614	365	311
29	344	964	463	655	---	553	310	406	390	577	359	317
30	319	1320	444	600	---	977	287	387	372	527	349	336
31	300	---	430	553	---	1210	---	370	---	651	346	---
TOTAL	10517	15979	19312	19380	19258	22754	13327	18312	16280	14694	18497	11860
MEAN	339	533	623	625	688	734	444	591	543	474	597	395
MAX	764	1600	1450	1380	1470	1650	892	1210	1170	705	1280	689
MIN	248	277	430	374	437	437	287	296	307	321	346	311
AC-FT	20860	31690	38310	38440	38200	45130	26430	36320	32290	29150	36690	23520
CFSM	1.43	2.25	2.63	2.64	2.90	3.10	1.87	2.49	2.29	2.00	2.52	1.67
IN.	1.65	2.51	3.03	3.04	3.02	3.57	2.09	2.87	2.56	2.31	2.90	1.86

CAL YR 1986	TOTAL 184159	MEAN 505	MAX 3880	MIN 248	AC-FT 365300	CFSM 2.13	IN. 28.91
WTR YR 1987	TOTAL 200170	MEAN 548	MAX 1650	MIN 248	AC-FT 397000	CFSM 2.31	IN. 31.42

ESCAMBIA RIVER BASIN

02375500 ESCAMBIA RIVER NEAR CENTURY, FL
(National stream-quality accounting network station)

LOCATION.--Lat 30°57'54", long 87°14'03", in NW¹/₄ sec.10, T.5 N., R.30 W., Santa Rosa County, Hydrologic Unit 03140305, on left bank 16 ft downstream from bridge on State Highway 4, 1.2 mi downstream from Escambia Creek, 1.7 mi east of Century, and 52 mi upstream from mouth.

DRAINAGE AREA.--3,817 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.-- WSP 1384: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 28.34 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Jan. 13, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharge. Records fair. Some gage-height fluctuation during periods of low flow are attributed to regulation by power plants at Point-A Dam, 85.4 mi and Gantt Dam, 90.1 mi upstream from the gaging station. Due to lagging intakes, nonrecording gage was used in conjunction with recording gage to determine mean gage heights.

AVERAGE DISCHARGE.--53 years, 6,271 ft³/s, 22.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,300 ft³/s Apr. 12, 1975, gage height, 23.32 ft; minimum, 578 ft³/s Oct. 23, 1968; minimum gage height, 1.30 ft Sept. 15, Oct. 20, 21, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1850, 37.8 ft, March 1929, present datum, discharge not determined, from information by U.S. Army Corps of Engineers, Mobile District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,500 ft³/s Mar. 2, 3, gage height, 16.60 ft; minimum daily, 869 ft³/s Oct. 8, 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	1240	14200	3520	7340	18900	14600	2160	2190	4010	1370	1230
2	1170	1110	13300	3370	6660	22100	14500	2090	1950	3710	1400	1310
3	1140	1110	10600	2800	8290	22000	13000	2090	1780	3420	1550	1370
4	1080	1110	8090	3260	9880	20500	12700	2050	1750	3450	1810	1310
5	1080	1180	6400	4010	9790	18100	13200	2120	1980	4010	1910	1260
6	1000	1460	5470	4150	8700	16000	12200	2160	3010	4700	1750	1230
7	923	1650	4520	3800	7660	14500	11200	2370	2550	4730	1680	1310
8	869	1490	3920	3800	10600	13200	9790	2410	2020	5920	1610	1430
9	869	1400	3430	3620	12600	11900	8060	2620	1780	6550	1810	1460
10	990	1260	3420	3620	13300	10400	6840	3170	1670	6150	1610	1400
11	1080	1230	3460	3580	12600	8960	6010	3380	1550	4890	1550	1340
12	1000	1260	3800	3330	10900	7900	5380	3090	1490	3800	1610	1430
13	1040	1230	4100	3240	9600	7550	4990	3330	1490	3260	3500	1650
14	1520	1230	3750	3010	8330	7020	4750	3750	1940	2620	8220	1850
15	1750	1170	3620	2930	7770	6400	4650	4560	4650	2300	11000	1910
16	1720	1170	4230	2960	11200	5870	4420	6900	6100	2090	7900	1640
17	1310	1230	4060	3820	14900	5720	4050	7980	6200	1850	4470	1430
18	1140	1430	3960	4720	16000	7690	3840	8620	5690	1720	3990	1490
19	1080	1430	4050	4470	14800	14200	3620	7980	5240	1640	5920	1400
20	1030	1520	4190	4650	12500	14500	3580	6300	5200	1580	5920	1460
21	1050	1950	4100	5040	10900	12100	3290	5730	5290	1550	4010	1340
22	1050	2410	3750	7480	11600	9980	3130	5470	7620	1640	2810	1400
23	1030	2190	4640	13400	14500	8220	3130	4940	10400	1850	2420	1230
24	1030	2140	6680	15500	14800	7200	2890	4560	11700	1910	2120	1140
25	1720	2550	7080	15900	14200	6570	2770	4800	11200	1810	1910	1090
26	2190	5550	6180	17800	13000	6150	2580	4610	8460	1640	1750	1080
27	2090	8930	5490	17100	12900	5780	2580	4150	6720	1550	1670	1040
28	1680	8840	4940	15700	15100	5470	2470	3550	5290	1610	1640	1030
29	1340	8310	4630	13200	---	5390	2330	3010	4610	1690	1550	1110
30	1370	11600	4930	10700	---	7620	2160	2510	4280	1550	1340	1230
31	1520	---	4560	8960	---	12200	---	2260	---	1520	1280	---
TOTAL	38891	80380	169550	213440	320420	340090	188710	124720	135800	90720	93080	40600
MEAN	1255	2679	5469	6885	11440	10970	6290	4023	4527	2926	3003	1353
MAX	2190	11600	14200	17800	16000	22100	14600	8620	11700	6550	11000	1910
MIN	869	1110	3420	2800	6660	5390	2160	2050	1490	1520	1280	1030
AC-FT	77140	159400	336300	423400	635600	674600	374300	247400	269400	179900	184600	80530
CFSM	.33	.70	1.43	1.80	3.00	2.87	1.65	1.05	1.19	.77	.79	.35
IN.	.38	.78	1.65	2.08	3.12	3.31	1.84	1.22	1.32	.88	.91	.40
CAL YR 1986	TOTAL 1658690	MEAN 4544	MAX 36600	MIN 869	AC-FT 3290000	CFSM 1.19	IN. 16.17					
WTR YR 1987	TOTAL 1836400	MEAN 5031	MAX 22100	MIN 869	AC-FT 3643000	CFSM 1.32	IN. 17.90					

ESCAMBIA RIVER BASIN

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02375500 ESCAMBIA RIVER NEAR CENTURY, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1952 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCARB F.W.H.W., FET, (MG/L CACO3)
OCT 29...	1200	1340	120	7.50	18.0	5.6	8.7	92	110	160	30	3
DEC 12...	1500	3800	89	7.50	14.0	12	9.1	89	110	160	27	5
FEB 20...	1500	13600	54	7.30	12.0	25	9.8	91	330	180	19	5
APR 29...	1600	2490	129	7.60	23.0	5.8	7.5	88	K28	K36	38	5
JUL 01...	1450	4020	63	7.20	26.0	12	7.2	89	320	220	20	3
AUG 20...	1030	5980	70	7.30	27.0	18	6.4	81	190	92	24	4
DATE	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY, CARB., FIELD, INC.T., (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	
OCT 29...	3	10	1.2	10	41	.8	1.5	27	27	26	1.7	
DEC 12...	5	8.9	1.1	6.1	32	.5	1.1	22	21	21	1.3	
FEB 20...	5	6.2	.90	3.2	25	.3	1.1	14	15	14	1.4	
APR 29...	5	13	1.3	8.7	33	.6	.90	33	35	33	1.6	
JUL 01...	3	6.4	.98	4.3	31	.4	1.0	17	--	17	2.1	
AUG 20...	4	8.1	.87	4.6	29	.4	1.0	20	21	19	1.9	
DATE	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
OCT 29...	11	11	<.10	8.7	96	70	.13	347	--	<.010	.20	
DEC 12...	13	7.7	<.10	8.9	59	60	.08	605	--	<.010	.17	
FEB 20...	10	4.4	<.10	7.0	33	41	.04	1210	--	<.010	.11	
APR 29...	11	14	<.10	7.7	75	77	.10	504	.22	.010	.23	
JUL 01...	11	5.0	<.10	7.8	46	47	.06	499	--	<.010	.21	
AUG 20...	14	4.8	.10	7.7	53	54	.07	856	--	<.010	.11	
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS., (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	
OCT 29...	.080	.080	.10	--	.42	.50	.010	.030	.010	.03	50	
DEC 12...	.040	.040	.05	--	.56	.60	.020	.030	<.010	--	--	
FEB 20...	.040	.050	.06	--	.66	.70	.050	<.010	<.010	--	40	
APR 29...	.030	.040	.05	.03	.87	.90	.030	.020	<.010	--	30	
JUL 01...	.030	.040	.05	--	.67	.70	.030	<.010	.010	.03	--	
AUG 20...	.040	.040	.05	--	.66	.70	.050	<.010	<.010	--	90	

ESCAMBIA RIVER BASIN
02375500 ESCAMBIA RIVER NEAR CENTURY, FL--Continued
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 29...	<1	29	<.5	<1	<1	<3	2	100	<5	<4	35
DEC 12...	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	<1	21	.9	1	<1	<3	<1	62	<5	<4	12
APR 29...	<1	28	1.5	1	<1	<3	<1	360	<5	4	43
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	<1	28	<.5	<1	<1	4	1	220	<5	<4	16
DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, DIS- SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 29...	<.1	<10	<1	<1	<1	37	<6	6	12	43	66
DEC 12...	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	<.1	<10	<1	<1	<1	27	<6	13	59	2170	47
APR 29...	.2	<10	2	<1	1	43	<6	<3	21	141	67
JUL 01...	--	--	--	--	--	--	--	--	31	336	74
AUG 20...	<.1	<10	<1	<1	<1	27	<6	6	51	823	72

02376000 PINE BARREN CREEK NEAR BARTH, FL

LOCATION.--Lat 30°47'55", long 87°22'05", in SW¹/₄ sec.5, T.3 N., R.31 W., Escambia County, Hydrologic Unit 03140305, near right bank 10 ft downstream from Wiggins Bridge on private road, 0.3 mi upstream from Blue Water Creek, 4.0 mi northwest of Barth, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--75.3 mi².

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1384: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 29.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--35 years, 158 ft³/s, 28.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,800 ft³/s, Apr. 14, 1955, from rating extended above 2,100 ft³/s on basis of a slope-area measurement of peak flow; gage height, 18.0 ft from floodmark; minimum, 51 ft³/s June 8, 9, 1956; minimum gage height, 3.13 ft Sept. 3, 4, 1956; Oct. 20, 21, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	2400	889	9.42	Mar. 1	0500	764	8.80
Feb. 16	2400	1310	10.90	Mar. 19	0400	*1740	*11.89
Feb. 22	16	780	8.89	Jun. 22	0800	780	8.89

Minimum daily discharge, 70 ft³/s Oct. 3-7, estimated.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e72	83	632	108	115	657	166	91	85	162	91	85
2	e71	83	239	105	143	309	139	92	83	432	91	85
3	e70	82	157	102	155	169	167	91	82	179	194	84
4	e70	81	130	147	125	142	166	97	82	158	215	82
5	e70	102	118	134	138	132	138	139	86	125	157	84
6	e70	124	111	113	152	127	129	112	82	123	117	90
7	e70	96	108	108	174	148	125	120	79	272	103	92
8	e72	90	107	105	166	237	121	109	79	330	101	89
9	79	88	108	103	132	175	118	102	78	273	93	87
10	141	91	118	108	117	141	116	130	77	139	95	84
11	112	88	172	103	111	129	114	163	77	113	138	87
12	94	91	159	99	108	136	113	120	78	103	171	123
13	109	87	136	99	106	129	114	155	85	96	485	100
14	160	84	121	99	105	123	119	282	164	96	289	91
15	111	84	119	103	117	121	114	313	359	108	333	86
16	90	86	191	127	598	120	110	166	202	96	158	86
17	84	92	150	169	639	118	108	259	137	91	123	85
18	82	126	130	128	172	737	107	260	141	88	198	96
19	80	103	146	116	134	1230	105	182	171	86	179	92
20	79	181	137	106	124	296	104	131	128	84	137	92
21	78	271	117	126	198	173	102	116	242	92	109	87
22	78	140	114	470	452	150	101	158	651	104	100	84
23	78	110	353	390	416	137	99	123	474	93	95	81
24	149	105	341	173	228	133	99	116	191	87	92	80
25	279	172	182	440	216	133	98	104	137	89	90	80
26	148	449	138	558	398	126	97	100	125	88	89	80
27	106	228	126	245	457	127	96	96	134	96	88	80
28	94	190	118	151	438	136	94	92	109	201	87	80
29	88	381	114	135	---	134	92	91	98	167	88	82
30	85	761	111	129	---	275	91	90	95	109	88	86
31	83	---	108	120	---	322	---	86	---	96	86	---
TOTAL	3052	4749	5111	5219	6434	7222	3462	4286	4611	4376	4480	2620
MEAN	98.5	158	165	168	230	233	115	138	154	141	145	87.3
MAX	279	761	632	558	639	1230	167	313	651	432	485	123
MIN	70	81	107	99	105	118	91	86	77	84	86	80
AC-FT	6050	9420	10140	10350	12760	14320	6870	8500	9150	8680	8890	5200
CFSM	1.31	2.10	2.19	2.24	3.05	3.09	1.53	1.84	2.04	1.87	1.92	1.16
IN.	1.51	2.35	2.52	2.58	3.18	3.57	1.71	2.12	2.28	2.16	2.21	1.29

CAL YR 1986 TOTAL 48593 MEAN 133 MAX 1440 MIN 70 AC-FT 96380 CFSM 1.77 IN. 24.01
WTR YR 1987 TOTAL 55622 MEAN 152 MAX 1230 MIN 70 AC-FT 110300 CFSM 2.02 IN. 27.48

e Estimated

ESCAMBIA RIVER BASIN
02376033 ESCAMBIA RIVER NEAR MOLINO, FL

LOCATION.--Lat 30°40'05", long 87°16'00", in SE¹/₄ sec.20, T.2 N., R.20 W., Escambia County, Hydrologic Unit 03140305, near right bank on downstream side of bridge on State Highway 184, 4.1 mi northeast of Cottage Hill, and 5.5 mi southeast of Molino.

DRAINAGE AREA.--4,147 mi².

PERIOD OF RECORD.--April 1960 to September 1981 (gage heights and discharge measurements only), October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Daily discharges not computed for days with instantaneous gage heights below 11.5 ft, which are affected by tide. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum measured discharge, 73,500 ft³/s Apr. 7, 1960, gage height, 23.44 ft; minimum measured, 1,170 ft³/s Oct. 9, 1980, gage height, 10.84 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,700 ft³/s Mar. 5, gage height, 17.13 ft; minimum gage height, 9.86 ft Nov. 13.

DISCHARGE IN CUBIC FEET PER SECOND FOR PERIOD OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	12900	4730	12800	16100	8260	---	---	6080	---	---
2	---	---	13200	3860	11300	16200	11100	---	---	5850	---	---
3	---	---	14000	3770	9810	18200	13600	---	---	5720	---	---
4	---	---	14200	3890	8770	20700	14500	---	---	5060	---	---
5	---	---	13100	3180	9040	21600	14200	---	---	4430	---	---
6	---	---	11200	3270	10200	20600	13700	---	---	4430	---	---
7	---	---	9180	3910	10900	19100	13600	---	---	5020	---	---
8	---	---	7590	4160	10700	17600	13300	---	---	5470	---	---
9	---	---	6240	4160	10200	16100	12700	---	---	5880	---	---
10	---	---	5160	4260	10400	14700	11600	---	---	6730	---	---
11	---	---	4650	3530	11700	13500	10200	3850	---	7470	---	---
12	---	---	4220	3210	12700	12200	8820	3670	---	7330	---	---
13	---	---	3430	3230	12900	10900	7690	3590	---	6160	---	---
14	---	---	3700	3220	12200	9760	6910	3650	---	4660	3770	---
15	---	---	3960	3590	11400	9030	6060	3960	3540	3400	5060	---
16	---	---	4240	3520	10900	8460	5250	4720	4100	---	7220	---
17	---	---	4360	3470	10200	7960	4710	5980	5040	---	9800	---
18	---	---	4290	4200	11300	8420	4260	8200	6360	---	10300	---
19	---	---	4330	4440	13300	9400	3850	9590	7470	---	8930	---
20	---	---	4450	4590	14800	11200	3420	10000	7500	---	6930	---
21	---	---	4360	4880	15300	13300	3160	9690	7130	---	6390	---
22	---	---	4540	6060	15000	14200	3020	8610	7030	---	6220	---
23	---	---	5640	6890	14400	13700	---	7660	7840	---	4930	---
24	3400	3040	6010	8540	13900	12400	---	6900	9320	---	---	---
25	4920	3340	6230	12400	14500	10900	---	6180	11000	---	---	---
26	3730	4680	7190	15700	16300	9510	---	5560	12300	---	---	---
27	3120	4970	7910	16700	16600	8560	---	5300	12200	---	---	---
28	---	6280	7710	17200	16700	7980	---	5060	11000	---	---	---
29	---	9040	7040	17100	---	7390	---	4570	9280	---	---	---
30	---	12100	6200	16200	---	7360	---	3740	7450	---	---	---
31	---	---	5350	14600	---	7070	---	---	---	---	---	---
TOTAL	---	---	216580	212460	348220	394100	---	---	---	---	---	---
MEAN	---	---	6986	6854	12440	12710	---	---	---	---	---	---
MAX	---	---	14200	17200	16700	21600	---	---	---	---	---	---
MIN	---	---	3430	3180	8770	7070	---	---	---	---	---	---
AC-FT	---	---	429600	421400	690700	781700	---	---	---	---	---	---
CFSM	---	---	1.68	1.65	3.00	3.07	---	---	---	---	---	---
IN.	---	---	1.94	1.91	3.12	3.54	---	---	---	---	---	---

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.43	11.10	15.62	12.90	15.59	16.33	14.32	11.10	11.44	13.53	11.02	10.97
2	11.31	10.94	15.70	12.43	15.20	16.34	15.16	11.18	11.28	13.43	10.96	11.03
3	11.38	10.92	15.88	12.38	14.80	16.67	15.79	11.19	11.22	13.37	11.27	11.12
4	11.28	11.08	15.93	12.44	14.49	17.02	16.00	11.16	11.12	13.07	11.67	11.13
5	11.14	11.41	15.68	12.02	14.57	17.12	15.93	10.96	11.08	12.75	11.57	11.12
6	10.97	11.27	15.18	12.07	14.92	17.01	15.82	11.05	11.22	12.75	11.51	11.17
7	10.98	11.33	14.61	12.46	15.11	16.80	15.79	11.23	11.74	13.05	11.30	11.19
8	11.11	11.42	14.09	12.61	15.05	16.58	15.72	11.13	11.85	13.26	11.18	11.14
9	11.32	11.30	13.59	12.61	14.90	16.31	15.56	11.30	11.60	13.44	11.15	10.88
10	11.26	11.01	13.12	12.66	14.98	16.03	15.29	11.92	11.66	13.78	11.04	10.89
11	11.42	11.37	12.87	12.23	15.31	15.75	14.91	12.43	11.35	14.05	10.89	11.01
12	11.46	10.95	12.64	12.03	15.57	15.46	14.50	12.32	11.46	14.01	10.96	11.18
13	11.65	10.33	12.17	12.05	15.61	15.10	14.13	12.27	11.45	13.56	11.53	11.13
14	11.23	10.54	12.34	12.04	15.45	14.78	13.85	12.30	11.73	12.87	12.37	11.08
15	11.13	10.81	12.49	12.27	15.24	14.57	13.52	12.48	12.22	12.16	13.07	11.09
16	11.03	11.04	12.65	12.23	15.10	14.39	13.16	12.89	12.57	11.56	13.95	11.26
17	11.04	11.09	12.72	12.19	14.92	14.22	12.90	13.47	13.06	11.21	14.79	11.36
18	10.86	11.18	12.68	12.63	15.21	14.37	12.66	14.30	13.63	11.17	14.95	11.23
19	10.77	11.15	12.70	12.76	15.71	14.68	12.43	14.73	14.06	11.28	14.53	11.22
20	10.77	11.41	12.76	12.83	16.06	15.18	12.17	14.86	14.07	11.39	13.86	10.95
21	10.84	11.22	12.71	12.98	16.17	15.70	12.00	14.76	13.94	11.45	13.65	11.02
22	10.99	11.47	12.81	13.52	16.11	15.94	11.91	14.44	13.89	11.28	13.58	10.92
23	11.26	11.85	13.34	13.84	15.98	15.81	11.76	14.12	14.18	11.31	13.00	10.85
24	12.15	11.92	13.50	14.40	15.87	15.50	11.46	13.85	14.65	11.35	12.01	10.81
25	12.99	12.12	13.59	15.49	15.99	15.11	11.24	13.56	15.14	11.36	11.46	10.85
26	12.35	12.88	13.95	16.23	16.36	14.71	11.23	13.30	15.47	11.23	11.29	10.79
27	11.98	13.03	14.20	16.44	16.41	14.42	11.17	13.18	15.44	11.11	11.16	10.79
28	11.71	13.60	14.14	16.52	16.45	14.23	11.06	13.07	15.13	11.19	11.17	11.00
29	11.34	14.56	13.90	16.51	---	14.03	11.04	12.83	14.64	11.14	11.12	10.96
30	11.10	15.42	13.57	16.35	---	14.02	11.08	12.37	14.05	11.22	11.08	10.78
31	11.16	---	13.20	16.01	---	13.91	---	11.84	---	11.06	11.02	---
TOTAL	351.41	349.72	424.33	416.13	433.13	478.09	403.56	391.59	386.34	379.39	374.11	330.92
MEAN	11.3	11.7	13.7	13.4	15.5	15.4	13.5	12.6	12.9	12.2	12.1	11.0
MAX	12.99	15.42	15.93	16.52	16.45	17.12	16.00	14.86	15.47	14.05	14.95	11.36
MIN	10.77	10.33	12.17	12.02	14.49	13.91	11.04	10.96	11.08	11.06	10.89	10.78
CAL YR 1986	TOTAL 4556.79		MEAN	12.5	MAX	18.63	MIN 10.33					
WTR YR 1987	TOTAL 4718.64		MEAN	12.9	MAX	17.12	MIN 10.33					

PERDIDO RIVER BASIN

02376300 BRUSHY CREEK NEAR WALNUT HILL, FL

LOCATION.--Lat 30°53'21", long 87°32'24", in SE¹/₄ sec. 4, T.4 N., R.33 W., Escambia County, Hydrologic Unit 03140106, near right bank on downstream side of county road bridge, 1,000 ft downstream from Rocky Creek, 2.0 mi west of Walnut Hill, and 7.9 mi upstream from mouth.

DRAINAGE AREA.--49 mi², approximately.

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

REVISED RECORDS.--WSP 1906: 1958-60. WDR FL-80-4: 1958-59, 1961, 1963-65, 1967-68, 1970, 1973, 1975-79 (M).

GAGE.--Water state recorder. Datum of gage is 118.32 ft above National Geodetic Vertical Datum of 1929. From Aug. 2, 1978, to May 14, 1985, nonrecording gage at same site and datum. From January 1958 to August 1978, water-stage recorder at present site and datum.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--29 years, 106 ft³/s, 29.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,680 ft³/s Mar. 31, 1962, gage height, 14.96 ft from rating curve extended above 2,500 ft³/s; minimum discharge, 36 ft³/s, Sept. 9-16, 1968; minimum gage height, 2.45 ft Oct. 6, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 19	0300	*799	*8.57				

Minimum discharge, 45 ft³/s Oct. 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	50	326	64	71	305	100	59	54	103	53	49
2	48	51	126	62	97	128	87	58	53	122	53	49
3	48	50	91	62	118	99	106	58	52	76	76	49
4	46	50	78	79	85	88	107	59	53	79	159	48
5	46	67	71	75	84	83	87	63	58	67	122	49
6	46	84	67	67	88	80	81	72	55	68	76	50
7	46	62	65	64	99	86	78	77	52	70	64	51
8	46	56	64	62	103	136	76	70	51	125	60	51
9	79	54	63	62	82	105	75	65	51	74	56	50
10	207	54	66	63	74	89	73	70	50	63	56	49
11	75	56	82	62	71	81	72	80	50	58	76	49
12	63	66	81	60	69	83	71	79	52	55	146	49
13	70	58	73	60	67	79	71	85	55	53	130	49
14	126	54	66	60	66	76	75	96	162	53	155	49
15	76	53	65	62	138	74	73	133	209	56	118	49
16	61	53	92	75	439	73	70	96	103	54	77	49
17	55	54	80	103	251	72	69	80	78	52	67	49
18	53	71	73	79	100	480	68	84	75	51	81	49
19	51	64	81	72	84	522	66	84	99	51	73	49
20	50	90	79	67	80	139	65	82	72	50	65	54
21	49	134	70	78	111	103	65	70	113	52	59	52
22	49	77	68	319	165	93	64	65	189	55	55	50
23	49	64	221	312	228	85	64	65	141	53	54	49
24	64	59	251	105	122	84	63	75	82	51	52	49
25	129	74	106	274	118	84	62	64	71	53	51	48
26	92	172	82	433	199	79	62	60	68	63	50	48
27	65	107	74	129	224	79	61	59	66	58	50	47
28	58	92	70	95	412	85	61	58	59	80	50	47
29	54	179	67	84	---	92	59	58	56	65	50	48
30	52	479	66	80	---	250	59	57	60	57	50	49
31	51	---	65	75	---	171	---	56	---	54	49	---
TOTAL	2053	2634	2929	3344	3845	4083	2190	2237	2389	2021	2333	1477
MEAN	66.2	87.8	94.5	108	137	132	73.0	72.2	79.6	65.2	75.3	49.2
MAX	207	479	326	433	439	522	107	133	209	125	159	54
MIN	46	50	63	60	66	72	59	56	50	50	49	47
AC-FT	4070	5220	5810	6630	7630	8100	4340	4440	4740	4010	4630	2930
CFSM	1.35	1.79	1.93	2.20	2.80	2.69	1.49	1.47	1.63	1.33	1.54	1.00
IN.	1.56	2.00	2.22	2.54	2.92	3.10	1.66	1.70	1.81	1.53	1.77	1.12

CAL YR 1986	TOTAL 30710.0	MEAN 84.1	MAX 1150	MIN 46	AC-FT 60910	CFSM 1.72	IN. 23.31
WTR YR 1987	TOTAL 31535.5	MEAN 86.4	MAX 522	MIN 46	AC-FT 62550	CFSM 1.76	IN. 23.94

PERDIDO RIVER BASIN

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02376500 PERDIDO RIVER AT BARRINEAU PARK, FL
(National stream-quality accounting network station)

LOCATION.--Lat 30°41'25", long 87°26'25", in NW¹/₄ sec.23, T.4 S., R.6 E., Baldwin County, Ala., Hydrologic Unit 03140106, on right bank 25 ft downstream from bridge on county road, 1,000 ft downstream from Alligator Creek, 0.5 mi southwest of Barrineau Park, and 27 mi upstream from mouth.

DRAINAGE AREA.--394 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1941 to current year.

REVISED RECORDS.--WSP 1384: Drainage area. WDR FL-76-4: 1973-75 (M).

GAGE.--Water-stage recorder. Datum of gage is 25.77 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 22, 1949, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--46 years, 747 ft³/s 26.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s Apr. 15, 1955, gage height, 23.94 ft, from rating curve extended above 11,400 ft³/s, based on slope-area study made in 1955; minimum, 188 ft³/s Oct. 12-18, 1973; minimum gage height, 1.24 ft Oct. 1-6, 15-17, 20-25, 28-31, Nov. 1-3, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 15, 1929, reached a stage of 25.7 ft present datum, from information by local resident (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 19	1100	*3,550	9.70	Dec. 12	0700	3,540	*9.85

Minimum discharge, 261 ft³/s Oct. 8, gage height, 1.63 ft.

PERDIDO RIVER BASIN

02376500 PERDIDO RIVER AT BARRINEAU PARK, FL--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	325	360	3190	486	642	2870	1650	375	350	647	387	307
2	315	345	3400	468	650	2800	1510	374	338	1430	431	304
3	300	334	2270	454	793	1900	1060	372	328	833	495	297
4	289	323	1210	608	816	1200	1010	371	334	666	738	291
5	279	351	843	696	844	916	911	372	406	646	1110	287
6	273	466	671	647	929	779	824	395	361	804	876	297
7	267	489	581	594	922	742	760	509	337	1250	795	302
8	263	434	530	534	966	1050	677	533	313	946	872	314
9	267	390	510	488	856	1100	617	496	302	883	761	372
10	399	364	552	473	754	1040	582	507	295	768	601	312
11	514	349	700	459	668	968	554	663	291	579	632	398
12	407	363	743	443	600	864	535	569	292	468	563	726
13	424	358	705	431	554	771	524	600	333	415	1080	462
14	602	337	619	423	523	700	530	621	498	387	1380	391
15	694	326	561	429	521	652	531	755	936	396	1550	349
16	608	323	733	479	1540	621	515	870	1110	416	994	327
17	476	328	786	726	1930	601	495	1160	1070	442	911	317
18	391	395	737	760	1670	1640	478	1440	903	452	870	395
19	342	420	741	752	1250	3390	465	1130	1040	396	707	380
20	318	496	764	696	854	3010	454	934	877	352	553	372
21	302	1010	692	615	888	2140	444	1060	827	349	461	362
22	292	925	629	1540	1320	1300	436	875	1820	370	417	331
23	288	784	1230	1830	2180	900	427	625	1610	353	389	308
24	422	586	1690	1760	1740	755	418	610	934	335	369	295
25	1090	540	1580	2220	1770	704	411	599	1330	323	351	284
26	1230	1380	1390	2630	2340	668	405	519	761	330	338	278
27	1350	1460	948	2160	2450	637	399	452	680	363	327	272
28	1000	1440	703	1860	2600	645	393	413	535	412	318	268
29	628	1610	595	1210	---	653	386	390	443	485	324	268
30	454	2610	540	855	---	970	379	375	409	464	328	274
31	390	---	507	720	---	1430	---	364	---	442	316	---
TOTAL	15199	19896	31350	28446	33570	38416	18780	19328	20063	17402	20244	10140
MEAN	490	663	1011	918	1199	1239	626	623	669	561	653	338
MAX	1350	2610	3400	2630	2600	3390	1650	1440	1820	1430	1550	726
MIN	263	323	507	423	521	601	379	364	291	323	316	268
AC-FT	30150	39460	62180	56420	66590	76200	37250	38340	39790	34520	40150	20110
CFSM	1.24	1.68	2.57	2.33	3.04	3.15	1.59	1.58	1.70	1.42	1.66	.86
IN.	1.44	1.88	2.96	2.69	3.17	3.63	1.77	1.82	1.89	1.64	1.91	.96
CAL YR 1986	TOTAL 231919	MEAN 635	MAX 4750	MIN 263	AC-FT 460000	CFSM 1.61	IN. 21.90					
WTR YR 1987	TOTAL 272834	MEAN 747	MAX 3400	MIN 263	AC-FT 541200	CFSM 1.90	IN. 25.76					

PERDIDO RIVER BASIN

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02376500 PERDIDO RIVER AT BARRINEAU PARK, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1957 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 28...	1345	945	26	4.90	16.5	3.3	8.1	83	130	44	5
DEC 12...	0930	744	24	5.20	14.0	4.0	9.2	89	150	190	4
FEB 21...	1100	878	22	5.30	12.0	5.5	9.4	87	100	94	4
APR 29...	0945	387	23	6.50	19.0	2.2	8.7	94	K12	69	5
JUL 01...	1030	508	22	5.80	22.5	4.0	6.7	78	370	57	4
AUG 19...	0900	741	27	5.20	24.0	4.5	6.8	81	210	130	4

DATE	HARD- NESS, NONCARB F.W.H.W. (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY, WHOLE, FIELD, FET, (MG/L CACO3)	ALKA- LITY LAB (MG/L AS CACO3)	ALKA- LITY, CARB., FIELD, INC.T., (MG/L CACO3)
OCT 28...	3	3	.90	.60	1.8	42	.4	.50	1	<1.0	1
DEC 12...	1	1	.70	.50	1.9	49	.4	.40	3	1.0	2
FEB 21...	2	2	.70	.50	1.7	46	.4	.40	2	2.0	1
APR 29...	2	2	.90	.60	2.0	46	.4	.30	3	3.0	2
JUL 01...	0	0	.69	.55	2.0	50	.4	.30	3	2.0	1
AUG 19...	0	0	.77	.52	2.0	46	.4	.80	4	2.0	2

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 28...	32	6.7	3.6	<.10	8.6	37	24	.05	94	<.010	.10
DEC 12...	34	6.2	3.5	<.10	7.8	21	23	.03	42	<.010	.17
FEB 21...	19	4.3	3.0	<.10	6.5	13	19	.02	31	<.010	.16
APR 29...	1.8	3.7	3.4	<.10	6.5	17	19	.02	18	<.010	.22
JUL 01...	9.2	5.3	3.6	.10	7.9	31	22	.04	43	<.010	.19
AUG 19...	44	8.1	3.1	.10	8.5	26	26	.04	52	<.010	.12

DATE	NITRO- GEN, AMMONIA DIS. (MG/L AS N)	NITRO- GEN, NH4, WATER, DIS. (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 28...	.010	.030	.04	.19	<.20	.030	.020	.010	.03	160	<1
DEC 12...	<.010	<.010	--	.39	.40	.020	.020	<.010	--	--	--
FEB 21...	<.010	.020	.03	.69	.70	.020	<.010	<.010	--	110	<1
APR 29...	<.010	<.010	--	.29	.30	.030	.070	.020	.06	30	<1
JUL 01...	.010	.020	.03	.39	.40	.020	<.010	<.010	--	--	--
AUG 19...	.010	<.010	--	.79	.80	.030	<.010	<.010	--	130	<1

02376500 PERDIDO RIVER AT BARRINEAU PARK, FL--Continued

PERDIDO RIVER BASIN
02376500 PERDIDO RIVER AT BARRINEAU PARK, FL--Continued
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)
OCT 28...	32	<.5	1	<1	<3	6	170	<5	<4	56	<.1
DEC 12...	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	23	<.5	<1	<1	<3	<1	110	<5	<4	33	<.1
APR 29...	20	1.1	<1	<1	<3	5	110	<5	<4	11	<.1
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	27	<.5	<1	<1	<3	2	220	<5	<4	39	<.1

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 28...	<10	1	<1	<1	8	<6	11	17	43	61
DEC 12...	--	--	--	--	--	--	--	--	--	--
FEB 21...	<10	<1	<1	<1	6	<6	7	16	38	50
APR 29...	<10	<1	<1	<1	8	<6	9	8	8.4	62
JUL 01...	--	--	--	--	--	--	--	20	27	70
AUG 19...	<10	<1	<1	<1	7	<6	26	17	34	76

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 and flood-hydrograph 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.

Crest-stage and flood-hydrograph partial-record stations

The following table contains annual maximum discharges for crest-stage and flood hydrograph stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A flood hydrograph station is a continual-record station that records the river stage of storm events above a base stage. 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 and flood-hydrograph partial-record stations during water year 1987

Station No.	Station Name	Location	Drainage area (mi ²)	Period of Record	Annual Maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
Alapaha River Basin							
02317630	Alapaha River near Jasper, Fla.	Lat 30°31'42", long 83°02'17", in SE ¹ / ₄ sec.32, T.2 N., R.13 E., Hamilton County, Hydrologic Unit 03110202, at bridge on U.S. Highway 41, 5.4 mi upstream from mouth. Datum of gage is National Geodetic Vertical Datum of 1929.	^{ab} 1720	1948 1966-77 1979-82 1985-87	03-02-87	70.50	8650
Suwannee River Basin							
02320860	Rocky Creek near Hague, Fla.	Lat 29°49'02", long 82°22'17", in SW ¹ / ₄ sec.1, T.8 S., R.19 E., Alachua County, Hydrologic Unit 03110206, at downstream side of bridge on County Road NW18C, 0.9 mi east of SR121, 2.7 mi southwest of LaCrosse, 4.6 mi northeast of Hague, and 5 mi above mouth. Discontinued Sept. 30, 1987.	14.9	1984-87	02-25-87	6.58	382
^c 02322050	Shiloh Run near Alachua, Fla.	Lat 29°49'06", long 82°28'21", in SW ¹ / ₄ sec.1, T.8 S., R.18 E., Alachua County, Hydrologic Unit 03110206, 6 ft upstream from culvert on County Road S-239, 0.7 mi above mouth, and 2.8 mi northeast of Alachua. Elevation of gage is 125 ft above National Geodetic Vertical Datum of 1929, from topographic map. Discontinued Sept. 30, 1987.	0.32	1983-87	02-22-87	4.55	13
Steinhatchee River Basin							
02324065	California Creek at Salem, Fla.	Lat 29°53'04", long 83°25'17", in SE ¹ / ₄ sec.9 T.7S, R.9E., Taylor County, Hydro- logic Unit 03110102, at downstream side of bridge on Fish Creek Road, 0.6 mi west of Salem and 2.8 mi above mouth. Elevation of gage is 37.90 ft above National Geodetic Vertical Datum of 1929, Department of Transportation "TBM". Discontinued Sept. 30, 1987	^a 29	1984-87			^d

See footnotes at end of table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage and flood-hydrograph partial-record stations
during water year 1987--Continued

Station No.	Station Name	Location	Drainage area (mi ²)	Period of Record	Annual Maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
Aucilla River Basin							
02326372	Palmer Mill Branch at Monticello, Fla.	Lat 30°23'37", long 83°50'42", in SE ¹ / ₄ sec.29, T.2 N., R.5E., Jefferson County, Hydrologic Unit 03110103 on right bank 10 feet upstream from culvert on U.S. Highway 90, 1.5 mi above mouth and 1.5 mi east of Jefferson County Courthouse in Monticello. Elevation of gage is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map. Discontinued Sept. 30, 1987.	0.48	1983-87	09-30-85 11-26-86	4.96 6.75	52 ^e 153
St. Marks River Basin							
02326825	Northeast drain- age ditch at Hadley Road at Tallahassee, Fla.	Lat 30°30'12", long 84°14'17", in NW ¹ / ₄ sec.9, T.1 N., R.1 E., Leon County, Hydrologic Unit 03120001, on left bank, 5 ft upstream from culvert on Hadley Road, 0.5 mi west along Raymond Diehl Road from Olson Road, and 5.2 mi north- east of the Florida Capitol Building at Tallahassee. Altitude of gage is 135 ft from topographic map.	0.79	1979-83 1987	06-16-87	3.81	67
02326828	Northeast drain- age ditch at Capital Circle Tallahassee, Fla.	Lat 30°28'42", long 84°14'12", in SW ¹ / ₄ sec.16, T.1 N., R.1 E., Leon County, Hydrologic Unit 03120001, on right bank, 20 ft upstream from culverts on Capital Circle Northeast, 2.6 mi north of the Federal Corrections Institution, and 3.9 mi northeast of the Florida Capitol Building at Tallahassee. Datum of gage is 62.26 ft above National Geodetic Vertical Datum of 1929	3.98	1979-87	10-31-85 06-16-87	17.55 ^e 17.80	181 223
02326834	McCord Park Pond drainage ditch at Tallahassee, Fla.	Lat 30°28'05", long 84°15'51", in SE ¹ / ₄ sec.19, T.1 N., R.1 E., Leon County, Hydrologic Unit 03120001, in right center channel of foot bridge, 2000 ft upstream of McCord Park Pond, 0.8 mi north, northwest of Tallahassee Regional Memorial Hospital at Tallahassee. Datum of gage is 85.67 ft above National Geodetic Vertical Datum of 1929.	1.25	1979-87	06-16-87	6.05	574
02326836	McCord Park Pond drainage ditch at Centerville Road at Talla- hassee, Fla.	Lat 30°28'09", long 84°15'01", in SE ¹ / ₄ sec.20, T.1 N., R.1 E., Leon County, Hydrologic Unit 03120001, on right bank, 20 ft upstream from culvert on Centerville Road, 1.1 mi northeast of Tallahassee Regional Memorial Hospital, and 2.9 mi northeast of the Florida Capitol Building at Tallahassee. Datum of gage is 71.08 ft National Geodetic Vertical Datum of 1929.	2.91	1979-83 1987	06-16-87	74.18	350
0232683603	McCord Park Pond drainage ditch below Centerville Road at Talla- hassee, Fla.	Lat 30°28'07", long 84°14'58", in SE ¹ / ₄ , sec.20, T.1 N., R.1 E., Leon County, Hydrologic Unit 03120001, near right bank, 100 ft downstream from Centerville Road, 1 mi west of Capital Circle East, and 1.2 mi east of Tallahassee Regional memorial Hospital. Datum of gage is National Geodetic Vertical Datum of 1929.	3.44	1987	06-16-87	71.41	385

See footnotes at end of table.

Annual maximum discharge at crest-stage and flood-hydrograph partial-record stations
during water year 1987-Continued

Station No.	Station Name	Location	Drainage area (mi ²)	Period of Record	Annual Maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
St. Marks River Basin--continued							
^c 02326838	Northeast drain- age ditch at Miccosukee Road at Tallahassee, Fla.	Lat 30°27'50", long 84°14'24", in SW ¹ / ₄ sec.21, T.1 N., R.1 E., Leon County, Hydrologic Unit 03120001, on right bank, 20 ft upstream from culverts on Miccosukee Road 0.2 mi east of County Prison Farm, and 3.1 mi northeast of the Florida Capitol Building at Tallahassee. Datum of gage is 58.18 ft above National Geodetic Vertical Datum of 1929.	^f 9.83	1979-87	06-16-87	5.17	374
^c 02326842	Governors Mall drainage ditch at Park Avenue at Tallahassee, Fla.	Lat 30°26'29", long 84°14'41", in SE ¹ / ₄ sec.32, T.1 N, R.1 E., Leon County, Hydrologic Unit 03120001, on left bank on upstream side of culvert on Park Avenue, 1.1 mi west of Federal Corrections Insti- tution, and 2.2 mi east of Florida Capitol Building at Tallahassee. Datum of gage is 76.96 ft National Geodetic Vertical Datum of 1929.	1.04	1979-83 1986-87	06-16-87	5.96	51
^c 02326845	Northeast drain- age ditch at Weems Road at Tallahassee, Fla.	Lat 30°27'19", long 84°13'21", in SW ¹ / ₄ sec.27, T.1 N., R.1 E., Leon County, Hydrologic Unit 03120001, on right bank, 10 ft upstream from concrete weir on Weems Road, 3.6 mi east of Florida Capitol at Tallahassee. Datum of gage is 45.32 ft National Geodetic Vertical Datum of 1929.	17.1 ^g	1979-83 ^h 1986-87	06-16-87	5.55	1120
^c 02326865	Lake Kanturk Outlet at Tallahassee, Fla.	Lat 30°31'37", long 84°11'28", in SW ¹ / ₄ sec.36, T.2 N, R.1 E., Leon County, Hydrologic Unit 03120001, at right bank 30 ft upstream of culvert on Centerville Road, 9 mi north of the State Capitol at Tallahassee, Fla. Datum of gage is 73.89 ft National Geodetic Vertical Datum of 1929.	15.0 ⁱ	1987	03-31-87	3.91	46
^c 0232701150	West drainage ditch at Mission Road at Tallahassee, Fla.	Lat 30°27'25", long 84°20'30", in NW ¹ / ₄ sec.28, T.1 N., R.1 W., Leon County, Hydrologic Unit 03230001, in center of upstream entrance to two pipe arch culverts, 3100 ft south of the inter- section of Mission Road and Tharpe Street, and one and one-half miles west of Godby High School.	4.18	1987	06-16-87	44.22	720
^c 02327012	West drainage ditch at Roberts Avenue at Talla- hassee, Fla.	Lat 30°25'46", long 84°19'46", in NE ¹ / ₄ sec.4, T.1 S., R.1 W., Leon County, Hydrologic Unit 03120001, on left bank 30 ft upstream from bridge on Roberts Avenue, 0.4 mi northeast of Sabal Palm Elementary School, and 2.9 mi west of the Florida Capitol Building at Tallahassee. Datum of gage is 37.69 ft National Geodetic Vertical Datum of 1929.	20.9 ^j	1979-83 1985-87	06-16-87	8.90	875
^c 023270128	Central drainage ditch at Tennessee Street at Tallahassee, Fla.	Lat 30°26'44", long 84°17'44", in NE ¹ / ₄ sec.35, T.1 N, R.1 W., Leon County, Hydrologic Unit 03120001, in center channel, 250 ft upstream from U.S. Highway 90, one mile northwest of the State Capitol Bldg., 3.3 mi above the mouth of Munson Slough.	1.27	1986-87	06-16-87	7.36	529
^c 02327013	Central drainage ditch at Airport Drive at Tallahassee, Fla.	Lat 30°25'59", long 84°18'18", in NW ¹ / ₄ sec.2, T.1 S, R.1 W., Leon County, Hydrologic Unit 03120001, on left bank 5 ft downstream from bridge on Airport Drive, 0.3 mi south of Campbell Stadium, and 1.4 mi west of the Florida Capitol Building at Tallahassee. Altitude of gage is 40 ft from topographic map.	3.29	1979-83 1987	06-16-87	10.25	1630

See footnotes at end of table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage and flood-hydrograph partial-record stations
during water year 1987--Continued

Station No.	Station Name	Location	Drainage area (mi ²)	Period of Record	Annual Maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
St. Marks River Basin--continued							
°0232701370	St. Augustine Branch at Gadsden Street at Tallahassee, Fla.	Lat 30°26'02", long 84°16'41", in NE ¹ / ₄ sec.1, T.1 S., R.1 W., Leon County, Hydrologic Unit 03120001, on right up- stream side of downstream foot bridge, 200 ft east of Gadsden Street, 1800 ft southeast of the State Capitol Building, 1450 ft south of Apalachee Parkway. Datum of gage is 73.07 ft National Geodetic Vertical Datum of 1929.	1.52	1987	06-23-87	20.65	563
°02327014	St. Augustine Branch at Wahnish Way at Talla- hassee, Fla.	Lat 30°25'55", long 84°17'24", in NW ¹ / ₄ sec.1, T.1 S., R.1 W., Leon County, Hydrologic Unit 03120001, on left bank 30 ft upstream from bridge on Wahnish Way, 0.2 mi south of Tallahassee train depot, and 0.6 mi southwest of Florida Capitol Building at Tallahassee. Datum of gage is 64.93 ft above National Geodetic Vertical Datum of 1929.	k2.18	1979-87	06-23-87	7.91	944
°02327015	Central drainage ditch at Orange Avenue at Tallahassee, Fla.	Lat 30°24'48"; long 84°18'18", in NW ¹ / ₄ sec.11, T.1 S., R.1 W., Leon County, Hydrologic Unit 03120001, on right bank 70 ft upstream from culverts on Orange Avenue, 2.2 mi southwest of the Florida Capitol Building at Tallahassee. Datum of gage is 30.58 ft National Geodetic Vertical Datum of 1929. (Florida Department of Transportation bench mark.)	8.23	1979-83 1986-87	06-16-87	9.14	2540
°302549 084152900	East drainage ditch at Apakin Nene at Talla- hassee, Fla.	Lat 30°25'48", long 84°15'29", in NW ¹ / ₄ sec.5, T.1 S., R.1 E., Leon County, Hydrologic Unit 03120001, on left bank, 8 ft up-stream from culvert on Apakin Nene, 0.5 mi southeast of Parkway Shopp- ing Center, and 1.5 mi east of Florida Capitol Building at Tallahassee. Ele- vation of gage is 110 ft above National Geodetical Vertical Datum of 1929, from topographic map.	0.21	1979-87	06-23-87	4.69	96
Ochlockonee River Basin							
°02329181	Mall drainage ditch at Boone Blvd. at Talla- hassee, Fla.	Lat 30°28'01", long 84°17'22", in SW ¹ / ₄ sec.24, T.1 N., R.1 W., Leon County, Hydrologic Unit 03120003, on right bank, 20 ft upstream from culvert and weir, and 0.1 mi west of Northwood Mall on Boone Blvd., 2 mi north of Florida Capitol Building at Tallahassee.	0.26	1979-87	06-16-87	7.16	168
02329490	Willacoochee Cr. near Quincy, Fla.	Lat 30°38'13", long 84°30'02", in NE ¹ / ₄ sec.26, T.3 N., R.3 W., Gadsden County, Hydrologic Unit 03120003, at bridge on State Highway 161, 1.6 mi southwest of Branchville, and 5.6 mi northeast of Quincy. Datum of gage 106.42 ft above National Geodetic Vertical Datum of 1929.	64.9	1974-77 1979-87	01-05-87	6.80	1070
02329877	Ocklawaha Creek near Wetumpka, Fla.	Lat 30°27'01", long 84°38'36", in SW ¹ / ₄ sec.28, T.1 N., R.4 W., Gadsden County, Hydrologic Unit 0312003, at bridge on State Highway 267, 2.5 mi south of Wetumpka. Elevation of gage is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.	28.8	1975-77 1979-87	03-19-87	4.52	396

See footnotes at end of table.

Annual maximum discharge at crest-stage and flood-hydrograph partial-record stations during water year 1987-Continued

Station No.	Station Name	Location	Drainage area (mi ²)	Period of Record	Annual Maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
Ochlockonee River Basin--continued							
02330119	Hosford Branch at Hosford, Fla.	Lat 30°23'48", long 84°48'32", in NW ¹ / ₄ sec.14, T.15., R.6 w., Liberty County, Hydrologic Unit 03120002, on right bank 15 ft upstream from culvert on State Highway 20, 0.8 mi northwest of Hosford, and 1.6 mi above mouth. Elevation of gage is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map. Discontinued Sept. 30, 1987.	0.72	1983-87	04-23-83	8.08	181 ^e
					03-06-84	8.53	251 ^e
					07-12-85	7.26	94 ^e
					11-21-85	8.83	246
					11-18-86	8.39	183
Apalachicola River Basin							
02359035	Fourmile Creek at Clarks- ville, Fla.	Lat 30°26'41", long 85°10'59", in NW ¹ / ₄ sec.31, T.1 N., R.9 W., Calhoun County, Hydrologic Unit 03130012, near right bank on downstream side of bridge on State Highway 73, 0.6 mi north of Clarksville and 1.5 mi above the mouth. Datum of gage is 36.88 ft above National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark).	36.0	1980-87		<9.56	<1080
Choctawhatchee River Basin							
02365435	Wrights Creek near Bonifay, Fla.	Lat 30°51'56", long 85°41'41", in SW ¹ / ₄ sec.1, T.5 N., R.15 W., Holmes County, Hydrologic Unit 03140203, at left bank on downstream side of bridge on State Highway 177, 2.5 mi upstream from Tenmile Creek, 4.9 mi north of Bonifay, and 14.5 mi upstream from mouth.	72.4	1981-87	06-23-87	<11.38	<1880
02365470	Wrights Creek at SR 177A near Bonifay, Fla.	Lat 30°51'25", long 85°45'44", in NW ¹ / ₄ sec.8, T.5 N., R.15 W., Holmes County, Hydrologic Unit 03140203, on right down- stream side of bridge on State High- way 177-A, 7.3 mi upstream of mouth and 7.6 mi northwest of Bonifay. Datum of gage is 50.94 ft above National Geodetic Vertical Datum of 1929. Discontinued September 30, 1987.	148	1983-87	06-21-83	11.09	2320
					03-06-84	13.73	7200
					01-03-85	8.70	1340
					02-06-86	10.46	1950
					06-23-87	10.37	1920
02365700	Sandy Creek at Ponce de Leon, Fla.	Lat 30°43'28", long 85°56'12", in SE ¹ / ₄ sec.28, T.4 N., R.17 W., Holmes County, Hydrologic Unit 03140203, at abandoned bridge downstream from bridge on State Highway 81 at Ponce de Leon and 10 mi upstream from mouth. Datum of gage is 42.94 ft above National Geodetic Vertical Datum of 1929.	^a 80.7	1961-87	03-31-87	9.27	1200
02366000	Holmes Creek near Vernon, Fla.	Lat 30°37'35", long 85°42'45", in NE ¹ / ₄ sec.35, T.3 N., R.15 W., Washington County, Hydrologic Unit 03140203, near left bank on downstream side of bridge on State Highway 79 at Vernon, 0.2 mi downstream from Pippin Mill Creek and 25 mi upstream from mouth. Datum of gage is 10.70 ft above National Geodetic Vertical Datum of 1929.	386	1950-81 ^h 1982-85 ^l 1986-87	03-06-87	17.46	3860

See footnotes at end of table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage and flood-hydrograph partial-record stations
during water year 1987—Continued

Station No.	Station Name	Location	Drainage area (mi ²)	Period of Record	Annual Maximum		
					Date	Gage height (feet)	Dis- charge (ft ³ /s)
Blackwater River Basin							
02370250	Big Juniper Creek near Spring Hill, Fla.	Lat 30°47'06", long 86°53'28" in NE ¹ / ₄ sec.12, T.3 N., R.27 W., Santa Rosa County, Hydrologic Unit 03140104, near center of channel on upstream side of bridge, 2.5 mi downstream from Sweet- water Creek, 3.2 mi east of Spring Hill, 8.3 mi above mouth, and 8.7 mi northwest of Harold. Elevation of gage is 33 ft above National Geodetic Vertical Datum of 1929, from topographic map.	113	1981-87	08-15-87	6.40	d
02370550	Clear Creek near Milton, Fla.	Lat 30°39'55", long 87°00'17" in SW ¹ / ₄ sec.24, T.2 N., R.28 W., Santa Rosa County, Hydrologic Unit 03140104, on downstream side of bridge on State Highway 191, 1.2 mi above mouth and 3.0 mi northwest of Milton. Discontinued Sept. 30, 1987.	24.0	1984-87	08-14-87	6.62	256

- a Approximately
 b Does not include Little Alapaha River
 c Flood-hydrograph Station
 d Not determined
 e Revision
 f Of which 0.19 mi² is noncontributing
 g Of which 1.2 mi² is noncontributing
 h Operated as continual record-gaging station
 i Of which 4.7 mi² is noncontributing
 j Of which 5.0 mi² is noncontributing
 k Of which 0.12 mi² is noncontributing
 l Miscellaneous discharge measurements only

Discharge measurements made at miscellaneous sites during water year 1987

Discharge measurements made at miscellaneous sites during water year 1987						
Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
CARRABELLE RIVER BASIN						
New River (02330400)	Carrabelle River	Lat 30°02'19", long 84°50'38", in SE ¹ / ₄ sec.16, T.5 S., R.6 W., Liberty County, Hydrologic Unit 03130013, at bridge on U.S. Forest Service Road 120, 8.2 mi east of Sumatra and 29 mi upstream from mouth.	157	1965-86 [†]	10-28-86	13
APALACHICOLA RIVER BASIN						
North Mosquito Creek (02358500)	Apalachicola River	Lat 30°42'08", long 84°49'35", in NW ¹ / ₄ sec.34, T.4 N., R.6 W., Gadsden County, Hydrologic Unit 03130011, at bridge on U.S. Highway 90, 0.5 mi east of 1985 Chattahoochee, FL.	57.9	1936-42* 1966-67 1975-77	10-27-86	31
Mosquito Creek (02358519)	Apalachicola River	Lat 30°41'19", long 84°50'30", in NE ¹ / ₄ sec.4, T.3 N., R.6 W., Gadsden County, Hydrologic Unit 03130011, at bridge on State Highway 269, 0.2 mi north of River Junction, FL.	86.2	1975-76 1985-86 1986	10-27-86	52
Flat Creek (02358600)	Apalachicola River	Lat 30°37'43", long 84°50'06", in SE ¹ / ₄ sec.28, T.3 N., R.6 W., Gadsden County, Hydrologic Unit 03130011, at bridge on State Highway 269, 5.3 mi south of Chattahoochee and 6.1 mi upstream from mouth.	24.9	1961-77 [†] 1985-86	10-27-86	17
Ocheesee Creek (02358661)	Apalachicola River	Lat 30°34'31", long 84°59'22", in NW ¹ / ₄ sec.13, T.2 N., R.8 W., Calhoun County, Hydrologic Unit 03130011, at culvert 1.9 mi east of State Highway 19 on Ocheesee Landing Road, 2.0 mi above the mouth, 8.3 mi east of Altha, 9.6 mi north of Blountstown, and 12 mi south of Chattahoochee, FL.	31.4	1984	10-27-86	2.6
Sweetwater Creek (02358673)	Apalachicola River	Lat 30°31'29", long 84°58'22" in SE ¹ / ₄ sec.31, T.2 N., R.7 W., Liberty County, Hydrologic Unit 03130011, at culvert on State Highway 270, 1.5 mi above mouth, 3.8 mi southeast of Rock Bluff, FL.	18.0	1951 1984 1986	10-27-86	26
Graves Creek (02358683)	Apalachicola River	Lat 30°31'44", long 85°01'48" in NW ¹ / ₄ sec.34, T.2 N., R.8 W., Calhoun County, Hydrologic Unit 03130011, at bridge on State Highway 69, 0.5 mi south of Selman, FL.	22.5	1951 1984	10-27-86	8.7
Stafford Creek (02358696)	Apalachicola River	Lat 30°29'54", long 85°02'31" in NW ¹ / ₄ sec.9, T.1 N., R.8 W., Calhoun County, Hydrologic Unit 03130011, at bridge on State Highway 69, 2.8 miles south of Selman, FL.	Not Det.	1951	10-27-86	2.0
Big Gully Creek (02358737)	Apalachicola River	Lat 30°14'51", long 85°00'18", in SE ¹ / ₄ sec.2, T.3 S., R.8 W., Liberty County, Hydrologic Unit 03130011, at bridge on State Highway 12, 1.9 mi northeast of Orange, FL.	32.9	1951 1984	10-28-86	8.0

See footnotes at end of table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1987

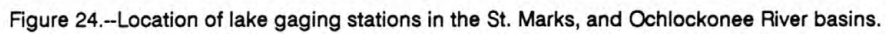
Discharge measurements made at miscellaneous sites during water year 1987						
Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
APALACHICOLA RIVER BASIN--continued						
Marshall Creek (02358760)	Apalachicola River	Lat 30°56'11", long 85°17'48", in SE ¹ / ₄ sec.11, T.6 N., R.11 W., Jackson County, Hydrologic Unit 03130012, at bridge on State Highway 2, 6 miles east of Campbellton, FL.	Not Det.	1966 1967	10-27-86	33
Cowarts Creek (02358772)	Chipola River	Lat 31°56'50", long 85°15'32", in SW ¹ / ₄ sec.5, T.6 N., R.10 W., Jackson County, Hydrologic Unit 03130012, at bridge on State Highway 2, 6 miles west of Malone, FL	Not Det.	1966 1967	10-27-86	19
CHIPOLA RIVER BASIN						
Chipola River (02358789)	Apalachicola River	Lat 30°46'22", long 85°12'59", in SE ¹ / ₄ sec.3, T.4 N., R.10 W., Jackson County, Hydrologic Unit 03130012, at bridge on State Highway 40, 0.6 mi east of Marianna, FL.	464	1913,1923, 1931,1942, 1943,1984	10-27-86	172
Dry Creek (02358900)	Chipola River	Lat 30°40'28", long 84°12'32" in SW ¹ / ₄ sec.11, T.3 N., R.10 W., Jackson County, Hydrologic Unit 03130012, at bridge on dirt road 1.3 mi southeast of State Highway 73, and 3.0 mi southwest of Oakdale, FL.	140	None	10-27-86	89
Holliman Branch (02358998)	Chipola River	Lat 30°32'43", long 85°09'33", in NW ¹ / ₄ sec.29, T.2 N., R.9 W., Calhoun County, Hydrologic Unit 03130012, at culvert on State Highway 274, 0.5 mi upstream from mouth and 2.6 mi southwest of Altha, FL.	2.04	1969-86 [†]	10-28-86	0.9
Tenmile Creek (02359012)	Chipola River	Lat 30°31'01", long 84°12'01", in SW ¹ / ₄ sec.11, T.1 N., R.10 W., Calhoun County, Hydrologic Unit 03130012, at bridge on State High- way 73, 3.8 mi above mouth, and 4.7 mi north of Clarksville, FL.	57.9	None	10-27-86	82
Juniper Creek (02359059)	Chipola River	Lat 30°21'30", long 85°12'45", in NW ¹ / ₄ sec.35, T.1 S., R.10 W., Calhoun County, Hydrologic Unit 03130012, at bridge on State Highway 73, 0.7 mi south of Frink, FL.	Not Det.	1965-67	10-27-86	105
Chipola River at Dead Lake Outlet (02359101)	Apalachicola River	Lat 30°07'38", long 85°10'39", in NE ¹ / ₄ sec.19, T.4 S., R.9 W., Gulf County, Hydrologic Unit 03130012, near right bank on upstream side of bridge on County Road 22A, 50 ft upstream from fixed coffer dam weir, 1.7 mi northeast of intersection of State Highways 22 and 71 in Wewahitchka, FL.	1206	1980-83 [‡] 1984	10-28-86	853

† Operated as a crest-stage partial-record station

‡ Operated as a daily gage height and discharge station

* Operated as a continuous-record gaging station

ELEVATION OF LAKES



ST. MARKS RIVER BASIN

155

02326600 LAKE MICCOSUKEE NEAR MICCOSUKEE, FL

LOCATION.--Lat 30°36'14", long 84°00'15", in NW¹/₄ sec.2, T.2 N., R.3 E., Jefferson County, Hydrologic Unit 03120001, at fish camp on west shore of lake, 2.3 mi northeast of Miccosukee, Leon County.

SURFACE AREA.--6,312 acres (9.86 mi²) at elevation 80 ft above NGVD.

DRAINAGE AREA.--240 mi².

PERIOD OF RECORD.--August 1965 to September 1972 (weekly); October 1972 to November 1983 (periodically); November 1983 to current year (once-daily).

GAGE.--Nonrecording gage. Datum of gage is 66.46 ft National Geodetic Vertical Datum of 1929. Gage readings have been reduced to elevations NGVD.

REMARKS.--Lake elevation is controlled by two structures. The outflow at the south end has fixed timber pile dam. An earthen dam, with a fixed concrete spillway and an underdrain consisting of a 7 ft culvert with lift gate, encircles a sinkhole at north end of lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 82.64 ft Apr. 7, 1973; minimum observed, 72.45 ft Jan. 12, 1972.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	78.86	78.86	79.66	80.18	80.08	80.26	81.06	79.56	79.52	79.84	79.26	79.20
10	78.84	78.84	79.76	80.24	79.98	80.32	80.66	79.50	79.54	79.70	79.22	79.18
15	78.82	78.80	79.94	80.20	79.96	80.24	80.36	79.62	79.72	79.54	79.18	79.16
20	78.74	79.06	79.90	80.32	80.06	80.22	80.06	79.76	79.84	79.46	79.30	79.08
25	78.72	79.12	79.96	80.36	80.28	80.20	79.86	79.64	80.02	79.38	79.22	79.04
EOM	78.86	79.66	79.88	80.16	80.30	81.06	79.66	79.52	79.86	79.32	79.18	79.00
MEAN	78.83	79.01	79.85	80.22	80.09	80.32	80.39	79.60	79.72	79.58	79.25	79.13
MAX	78.94	79.66	79.96	80.36	80.32	81.06	81.16	79.80	80.04	79.92	79.34	79.22
MIN	78.72	78.80	79.66	79.94	79.92	80.18	79.66	79.46	79.46	79.32	79.16	79.00
WTR YR 1987	MEAN	79.66	MAX	81.16	APR 1	AND OTHERS	MIN	78.72	OCT 23	AND OTHERS		

OCHLOCKONEE RIVER BASIN
02327010 LAKE BRADFORD NEAR TALLAHASSEE, FL

LOCATION.--Lat 30°24'10", long 84°20'05", in NE¹/₄ sec.16, T.1 S., R.1 W., Leon County, Hydrologic Unit 03120001, on east shore of lake at Florida State University dock, 4.0 mi southwest of State Capitol Building, Tallahassee. Auxillary staff gage 0.8 mi north.

SURFACE AREA.--182 acres, (0.28 mi²) at elevation 31 ft NGVD.

DRAINAGE AREA.--20.6 mi².

PERIOD OF RECORD.--February to December 1954, (weekly, incomplete); January 1955 to June 1960, (bimonthly, incomplete); July 1960 to November 1961 (monthly); January 1962 to October 1979 (bimonthly); January 1980 to current year (fragmentary). Published since October 1960.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. Apr. 8, 1955 to Mar. 2, 1956, nonrecording gage at site 600 ft northwest at datum 19.53 ft higher. Since January, 1980, an auxillary nonrecording gage 0.8 mi northeast at present datum.

REMARKS.--Lake is a chain of lakes connected by Bradford Brook. When the lake level is high it is connected with two smaller lakes to the northwest - Lake Hiawatha and Lake Minnehaha. Surface outflow to the northeast is through Bradford Brook into Grassy Lake, thence into Munson Slough, and is controlled by three culverts, elevation 31.7 ft. Loss to ground water through sinkholes on the east shore was reduced by plugging in March 1954.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 37.08 ft April 5, 1973; minimum observed, 21.00 ft June 26, 1955.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	33.25	33.23	---	---	32.72	32.73	---	---	---
10	---	---	---	---	33.10	33.37	---	---	---	---	---	---
15	---	---	31.98	33.25	33.03	---	---	---	32.76	---	33.82	---
20	30.80	30.70	---	33.53	33.20	---	33.15	---	---	33.14	---	---
25	---	---	---	---	33.59	33.41	---	---	---	---	33.68	33.08
EOM	30.74	---	32.97	---	---	34.55	32.83	32.87	33.95	33.02	---	32.92
MEAN	30.95	30.68	32.34	33.38	33.32	33.50	33.69	32.93	33.56	33.43	33.59	33.17
MAX	31.29	30.70	32.97	33.60	33.59	34.55	34.81	33.27	34.37	33.84	34.73	33.36
MIN	30.74	30.65	31.07	33.11	33.03	33.20	32.83	32.68	32.73	32.96	32.84	32.92
WTR YR 1987	MEAN	33.08	MAX	34.81	APR 2	MIN	30.65	NOV 7				

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

02328799 LAKE IAMONIA NEAR BRADFORDVILLE, FL

LOCATION.--Lat 30°38'37", long 84°11'45", in SE¹/₄ sec.23, T.3 N., R.1 E., Leon County, Hydrologic Unit 03120003, at south side of drawdown control structure, 2100 ft east of county public landing road, 1.2 mi southeast of Tall Timbers Research Center, and 5.7 mi north of Bradfordville.

SURFACE AREA.--5,680 acres (8.9 mi²) at elevation, 98 ft NGVD.

DRAINAGE AREA.--101 mi².

PERIOD OF RECORD.--April 1919 to June 1937, 1957, 1963 (fragmentary); December 1974 to October 1975 (weekly); November 1975 to September 1977; February 1979 to September 1981 (weekly), October 1981 to September 1982 (monthly), November 1982 to May 1983 (fragmentary), November 1983 to current year. Records published since February 1979.

GAGE.--Water-stage recorder. Datum of gage is 82.00 ft above National Geodetic Vertical Datum of 1929. April 1919 to June 1937, at various sites and datums. December 1974 to October 1975, at site 0.9 mi northwest at datum 13.44 ft higher. November 1975 to September 1977, water-stage recorder at site 0.9 mi northwest at present datum. February 1979 to May 1983, non-recording gage at site 0.9 mi northwest at same datum. November 1983 to May 1985, water-stage recorder at site 0.9 mi northwest at same datum. Gage heights have been reduced to elevations NGVD.

REMARKS.--Ochlockonee River overflows into lake at high stages.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 106.22 ft, Feb. 13, 1986, from floodmarks; minimum, 95.31 ft, Aug. 13, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 4, 1948, reached at stage of 106.97 ft from floodmarks from information by local resident. Lake dry, May 7, 1910, and in 1917 (month unknown), and Nov. 8, 1934, furnished by Dr. Komarek, Tall Timbers Research Center.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	97.10	96.74	97.19	97.55	99.81	101.17	102.00	100.04	99.68	99.74	98.99	98.80
10	97.03	96.66	97.15	97.60	99.82	101.35	101.54	99.95	99.49	99.58	98.96	98.74
15	96.97	96.56	97.27	97.64	99.73	101.08	101.11	100.27	99.57	99.41	98.99	98.71
20	96.85	96.84	97.30	97.90	99.84	100.96	100.77	100.27	99.87	99.24	98.91	98.68
25	96.80	96.80	97.36	98.72	100.34	100.77	100.50	100.11	99.85	99.21	98.79	98.56
EOM	96.79	97.18	97.31	99.79	100.92	101.16	100.23	99.86	99.78	99.08	98.75	98.49
MEAN	96.94	96.77	97.27	98.09	99.98	101.06	101.10	100.09	99.72	99.41	98.91	98.68
MAX	97.17	97.18	97.38	99.79	100.92	101.44	102.00	100.30	99.89	99.75	99.06	98.81
MIN	96.78	96.56	97.14	97.45	99.73	100.74	100.23	99.86	99.41	99.08	98.71	98.47
WTR YR 1987	MEAN	98.99	MAX	102.00	APR 5	MIN	96.56	NOV 15	AND OTHERS			

OCHLOCKONEE RIVER BASIN
02329200 LAKE JACKSON NEAR TALLAHASSEE, FL

LOCATION.--Lat 30°31'43", long 84°21'30", in SW¹/₄ sec.32, T.2 N., R.1 W., Leon County, Hydrologic Unit 03120003, on southwest side of lake, east of U.S. Highway 27, and 6.0 mi northwest of Tallahassee.

SURFACE AREA.--4,001 acres (6.25 mi²), at elevation 87 ft NGVD.

DRAINAGE AREA.--43.2 mi².

PERIOD OF RECORD.--March 1950 to January 1953, March 1954 to August 1956, September 1956 to August 1958 (fragmentary), September 1958 to current year. Records of elevation prior to October 1960 are available in file of the Geological Survey.

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

REMARKS.--Lake has no surface outlet. Some outflow from lake through sinkhole to ground water.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 96.16 ft June 18, 1966 (from recorded range in stage); minimum observed, 75.68 ft Jan. 4, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevations, 88.05 ft July 7; minimum daily 84.11 ft, Nov. 17, 25.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.80	84.30	84.59	85.03	85.53	86.10	87.06	86.73	86.96	88.03	87.68	87.90
10	84.73	84.26	84.57	85.06	85.49	86.15	87.07	86.74	86.82	88.02	87.89	87.95
15	84.64	84.14	84.78	85.07	85.46	86.15	87.05	87.02	87.01	87.92	88.01	87.95
20	84.49	84.16	84.79	85.35	85.68	86.36	87.01	87.06	87.68	87.80	87.96	87.88
25	84.45	84.11	84.85	85.45	85.97	86.36	86.92	87.00	87.91	87.78	87.86	87.76
EOM	84.38	84.66	84.83	85.45	86.00	86.96	86.80	86.85	87.89	87.73	87.85	87.68
MEAN	84.60	84.25	84.74	85.21	85.64	86.28	87.00	86.89	87.31	87.88	87.86	87.87
MAX	84.90	84.66	84.86	85.45	86.00	86.96	87.07	87.07	87.92	88.05	88.01	87.98
MIN	84.38	84.11	84.53	84.93	85.45	86.07	86.80	86.71	86.76	87.73	87.68	87.67
WTR YR 1987	MEAN	86.30	MAX	88.05	JUL 7	MIN	84.11	NOV 17	AND OTHERS			

OCHLOCKONEE RIVER BASIN
02329900 LAKE TALQUIN NEAR BLOXHAM, FL

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LOCATION.--Lat 30°23'15", long 84°38'45", in SW¹/₄ sec. 16, T.1 S., R.4 W., Leon County, Hydrologic Unit 03120003, at left upstream end of Jackson Bluff Dam on Ochlockonee River, 1.0 mi northwest of Bloxham, and 3.5 mi downstream from Oklawaha Creek.

SURFACE AREA.--6,850 acres (10.7 mi²), at elevation 60.0 ft NGVD, from data provided by Florida Power Corporation.

DRAINAGE AREA.--1,700 mi².

PERIOD OF RECORD.--January 1930 to September 1950 (monthend contents only, published only in WSP 1304); October 1951 to September 1960 (month-end elevations and contents); October 1960 to September 1982, March 1985 to current year (month-end elevations, contents and daily elevations).

REVISED RECORDS.--WSP 1905, WDR FL-76-4: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Florida Power Corp.).

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway is equipped with seven taintor gates, each 16 ft high by 25 ft wide. Storage began in June 1929; water in lake first reached minimum operating level January 1930. Usable capacity, 69,800 acre-ft between elevations, 60.0 ft, minimum operating level, and 68.5 ft, top of closed taintor gates. Contents given herein are above minimum operating level. Dead storage is unknown.

COOPERATION.--Records provided by City of Tallahassee, Electric Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 99,400 acre-ft Sept. 22, 1969, elevation, 71.16 ft; maximum instantaneous elevation, 71.60 ft Sept. 22, 1969; minimum daily elevation after January 1930, 48.70 ft Oct. 22, 23, 1957 (earth embankment breached).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 77,000 acre-ft Mar. 31, elevation, 69.20 ft; minimum daily contents, 64,800 acre-ft Jan. 23; elevation, 68.00 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.	30.....	68.28	67,600	--
Oct.	31.....	68.39	68,700	+1,100
Nov.	30.....	68.91	73,900	+5,200
Dec.	31.....	68.55	70,300	-3,600
CAL YR 1986.....				-2,000
Jan.	31.....	68.55	70,300	0
Feb.	28.....	68.33	68,100	-2,200
Mar.	31.....	69.20	77,000	+8,900
Apr.	30.....	68.45	69,300	-7,700
May	31.....	68.54	70,200	+ 900
June	30.....	68.53	70,100	- 100
July	31.....	68.93	74,100	+4,000
Aug.	31.....	68.64	71,200	-2,900
Sept.	30.....	68.42	69,000	-2,200
WTR YR 1987.....				+1,400

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	68.12	68.45	68.52	68.72	68.72	68.32	68.69	68.54	68.60	68.86	68.64	68.63
10	68.11	68.46	68.62	68.39	68.62	68.70	68.44	68.70	68.48	68.55	68.66	68.67
15	68.15	68.42	68.64	68.56	68.52	68.40	68.41	68.53	68.76	68.55	68.99	68.60
20	68.17	68.77	68.53	68.72	68.57	68.85	68.45	68.67	68.48	68.49	68.67	68.55
25	68.23	68.65	68.57	68.20	68.64	68.46	68.47	68.48	68.67	68.56	68.65	68.48
EOM	68.39	68.91	68.55	68.55	68.33	69.20	68.45	68.54	68.53	68.93	68.64	68.42
MEAN	68.20	68.57	68.57	68.52	68.58	68.57	68.52	68.57	68.55	68.59	68.66	68.56
MAX	68.39	68.91	68.84	68.72	68.82	69.20	69.03	68.70	68.86	68.93	68.99	68.67
MIN	68.08	68.39	68.42	68.00	68.33	68.24	68.31	68.41	68.38	68.49	68.46	68.42
WTR YR 1987	MEAN	68.54	MAX	69.20	MAR 31	MIN	68.00	JAN 23				

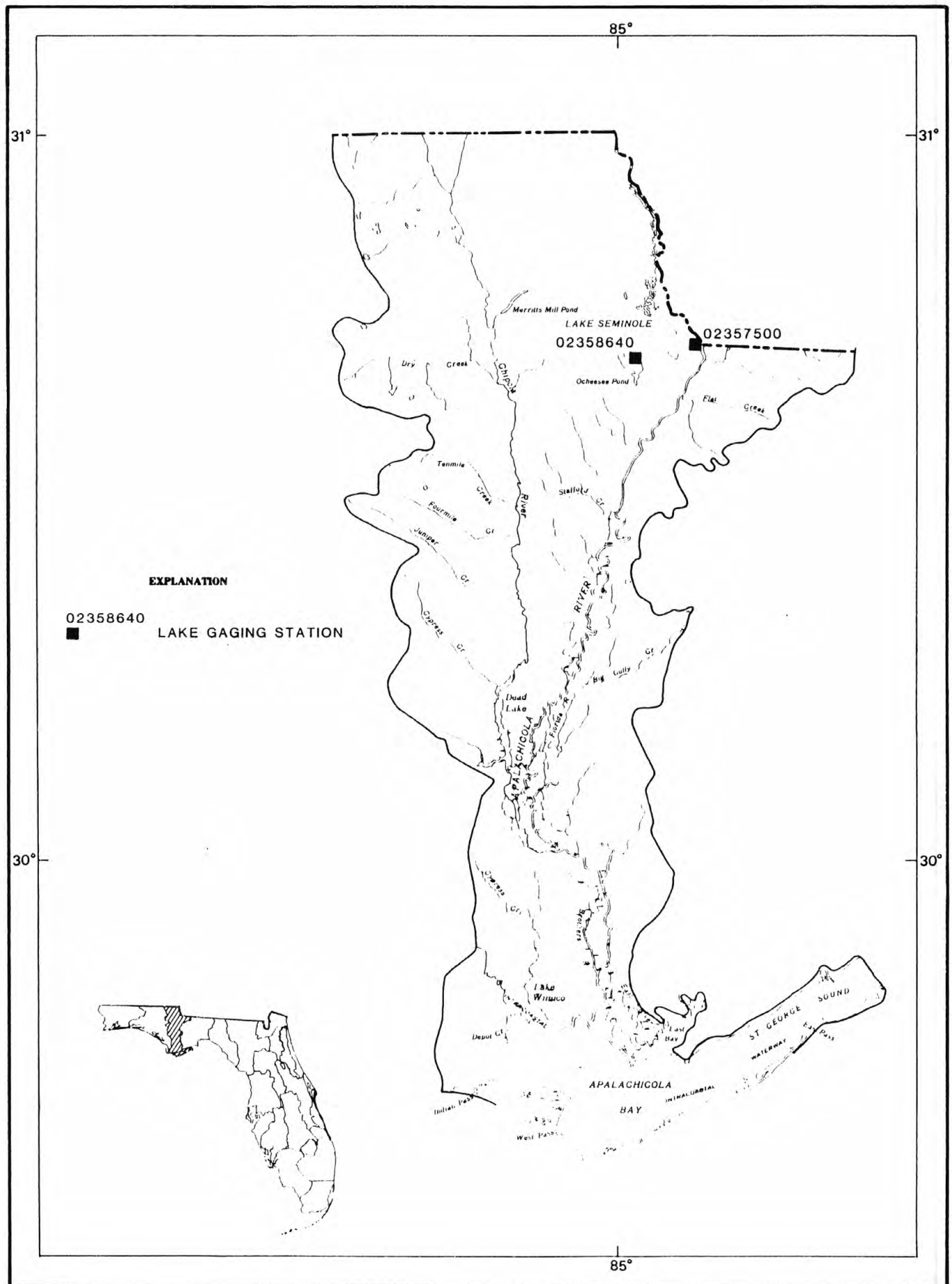


Figure 25.--Location of lake gaging stations in the Apalachicola River basin.

APALACHICOLA RIVER BASIN
02357500 LAKE SEMINOLE AT CHATTAHOOCHEE, FL

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LOCATION.--Lat 30°42'29", long 84°51'56", in NE¹/₄ sec. 31, T.4 N., R.6 W., Jackson County, Hydrologic Unit 03130004, near left bank in the control house of Jim Woodruff Dam on Chattahoochee River, 0.6 mi upstream from bridge on U.S. Highway 90, and 1.5 mi northwest of Chattahoochee.

SURFACE AREA.--37,500 acres (58.6 mi²), at elevation 77.0 ft NGVD, from data provided by U.S. Army Corps of Engineers.

DRAINAGE AREA.--17,100 mi², approximately.

PERIOD OF RECORD.--July 1954 to September 1960 (monthend elevations and contents); October 1960 to current year (daily elevations and contents). Prior to October 1959, published as Jim Woodruff Reservoir at Chattahoochee.

REVISED RECORDS.--WSP 1554: 1955-57, WRD FL-83-4: 1983.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to July 22, 1957, nonrecording gage at same site at datum 53.96 ft higher. Prior to 1981, on right upstream lock wall at same datum.

REMARKS.--Reservoir is formed by earthfill dam with concrete fixed-crest spillway, a center channel spillway with 16 vertical lift gates 40 ft long and 20.5 ft high, and a side channel navigation lock 82 ft wide. Total capacity at elevation 77.0 ft, normal pool, is 367,320 acre-ft, of which 36,170 acre-ft between elevation 77.0 ft and 76.0 ft are used for pondage. Gates closed on May 20, 1954; filling of lake accomplished in several stages between that date and Feb. 4, 1957, when the pool first reached normal operating level, elevation 77.0 ft. Figures given herein represent total contents. Lake is used for navigation and power.

COOPERATION.--Daily and monthend elevations provided by U.S. Army Corps of Engineers, Mobile District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 433,300 acre-ft Apr. 7, 8, 1960, elevation, 78.66 ft; minimum contents after Feb. 4, 1957, 272,100 ft Nov. 27, 1978, elevation, 74.18 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 399,400 acre-ft Feb. 18, elevation, 77.83 ft; minimum contents, 311,700 acre-ft Oct. 13, elevation, 75.43 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.	30.....	76.00	331,200	--
Oct.	31.....	75.83	325,300	- 5,900
Nov.	30.....	76.80	359,900	+34,600
Dec.	31.....	77.10	371,100	+11,200
CAL YR 1986.....				+ 800
Jan.	31.....	77.21	375,200	+ 4,100
Feb.	28.....	77.51	386,800	+11,600
Mar.	31.....	77.53	387,600	+ 800
Apr.	30.....	76.80	359,900	-27,700
May	31.....	76.82	360,600	+ 700
June	30.....	77.10	371,100	+10,500
July	31.....	77.29	378,300	+ 7,200
Aug.	31.....	76.50	348,900	-29,400
Sept.	30.....	76.58	351,800	+ 2,900
WTR YR 1987.....				+20,600

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	75.80	76.11	77.66	77.07	77.21	77.63	77.17	76.39	77.06	77.60	76.76	77.16
10	75.70	76.24	77.48	77.43	77.46	77.56	76.89	77.30	76.45	77.28	76.38	77.03
15	75.79	76.71	76.60	76.96	76.58	77.11	77.44	77.34	76.61	77.23	77.05	76.79
20	75.79	76.77	77.35	77.42	77.47	77.53	76.89	77.60	77.38	76.58	77.05	76.93
25	75.91	77.05	76.88	77.46	77.45	76.96	77.42	77.22	77.45	76.64	76.49	76.51
EOM	75.81	76.95	76.96	77.37	77.58	77.33	76.76	77.01	77.15	77.18	76.51	76.44
MEAN	75.81	76.60	77.09	77.27	77.39	77.20	77.12	77.22	77.03	76.98	76.81	76.76
MAX	76.00	77.54	77.66	77.57	77.69	77.63	77.67	77.68	77.49	77.60	77.20	77.22
MIN	75.54	75.71	76.40	76.54	76.58	76.55	76.58	76.39	76.27	76.21	76.34	76.00
WTR YR 1987	MEAN	76.94	MAX	77.69	FEB 18	MIN	75.54	OCT 13				

APALACHICOLA RIVER BASIN
02358640 OCHEESE POND NEAR SNEADS, FL

LOCATION.--Lat 30°41'32", long 84°58'21", in NW¹/₄ sec.6, T.3 N., R.7 W., Jackson County, Hydrologic Unit 03130004, near north shore of lake, 1.8 mi southeast of Grand Ridge, and 4.2 mi west of Sneads.

SURFACE AREA.--2,230 acres (3.5 mi²).

DRAINAGE AREA.--24.2 mi².

PERIOD OF RECORD.--September and October 1979 (one observation each month); December 1979 to November 1980 (weekly); March 1981 to current year (fragmentary). Records of daily elevations, October 1948 to March 1950, provided by U.S. Army Corps of Engineers, are available in files of the Geological Survey.

GAGE.--Nonrecording gage. Datum of gage is 17.68 ft above National Geodetic Vertical Datum of 1929. Since December 31, 1982, auxiliary nonrecording gage at site 300 ft north at datum 2.02 ft lower. Prior to May 21, 1981, nonrecording gage at different site at datum 89.68 ft higher. October 1948 to March 1950, nonrecording gage established by U.S. Army Corps of Engineers, at site on south shore of lake at datum 86.21 ft higher.

REMARKS.--Outflow from the lake is through two ditches below SR 280 at south end of lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 114.7 ft Mar. 6, 1984, provided by local resident; minimum observed, 105.62 ft Oct. 13, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation observed, 117.97 ft Oct. 22, 1948, provided by U.S. Army Corps of Engineers.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	TEMPER- ATURE (DEG C)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	TEMPER- ATURE (DEG C)
OCT 27...	1445	108.12	26.0	APR 27...	1400	111.66	30.0
JAN 06...	1335	108.29	16.0	JUN 22...	1010	111.56	28.0
MAR 06...	0920	110.94	15.0	AUG 19...	1420	111.26	31.5
APR	----	*112.08	--				

* Estimated from high-water mark.

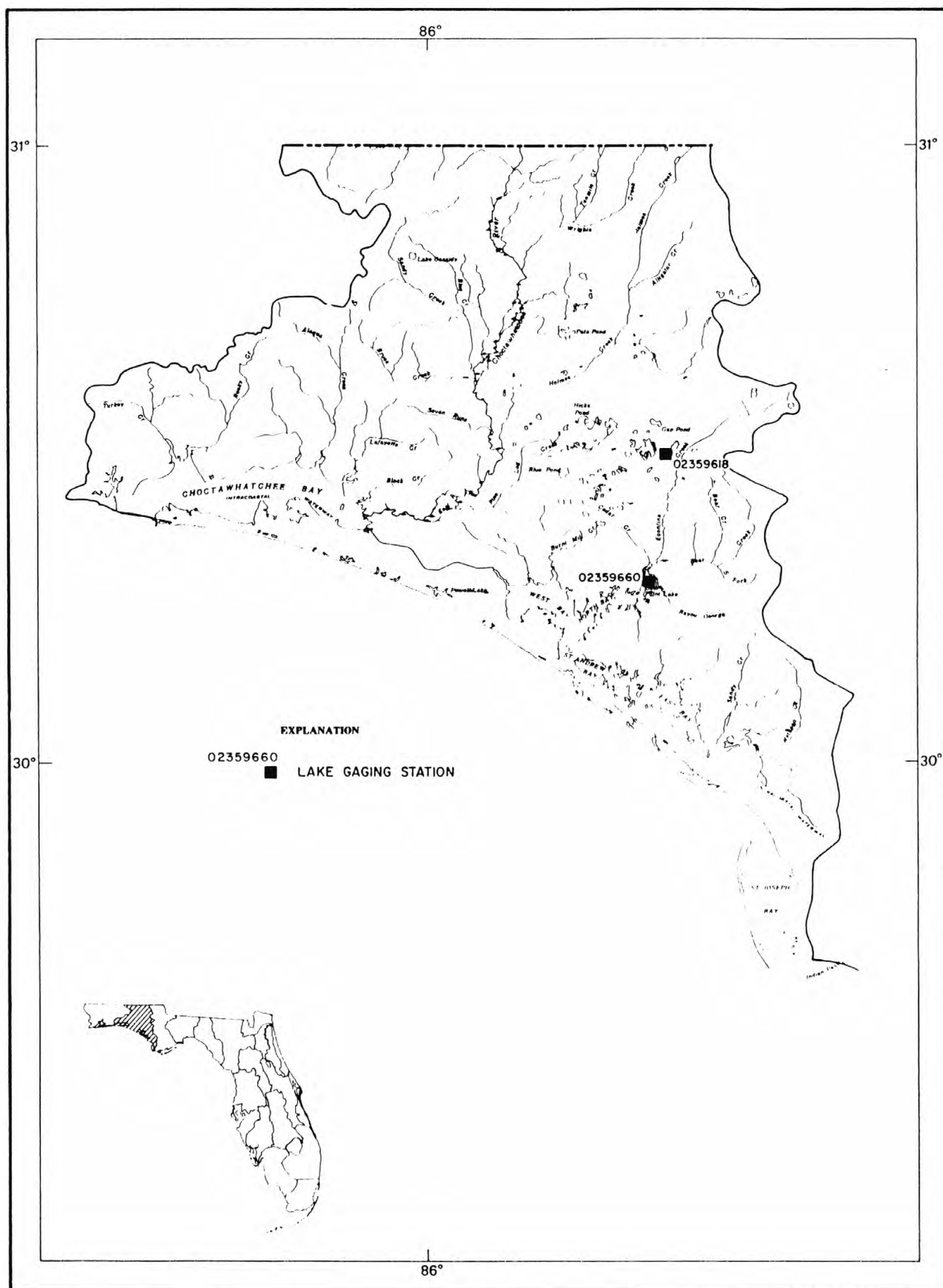


Figure 26.--Location of lake gaging stations in the Econfina Creek basin.

ECONFINA CREEK BASIN
02359618 PORTER LAKE NEAR GREENHEAD, FL

LOCATION.--Lat 30°29'50", long 85°33'05", in SW¹/₄ sec.9, T.1 N., R.13 W., Washington County, Hydrologic Unit 03140101, on west shore near southwest end of lake, 6.6 mi east of Greenhead.

SURFACE AREA.--929 acres (1.45 mi²) at elevation 70 ft NGVD.

DRAINAGE AREA.--7.64 mi².

PERIOD OF RECORD.--January 1961 to September 1970 (weekly), incomplete; October 1970 to current year (periodically).

GAGE.--Nonrecording gage. Datum of gage is 52.27 ft above National Geodetic Vertical Datum of 1929. Gage readings have been reduced to elevations NGVD.

REMARKS.--Lake is in a closed basin of lakes and ponds, fed by White Oak Creek, in the western part of Econfina Creek basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 75.37 ft Mar. 26, 1984; minimum observed, 53.22 ft Dec. 8, 1969.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
21...	1200	69.19	27...	1200	72.75
24...	1200	68.45	MAY		
NOV			26...	1200	73.07
18...	1200	68.49	JUN		
28...	1200	68.57	05...	1200	72.83
DEC			10...	1200	72.63
23...	1200	69.25	25...	1200	73.37
JAN			JUL		
08...	1200	69.41	26...	1200	72.59
25...	1200	70.67	AUG		
FEB			11...	1200	72.53
03...	1200	70.92	24...	1200	73.12
22...	1200	71.45	SEP		
MAR			24...	1200	72.97
23...	1200	72.65			
31...	1200	73.27			

ECONFINA CREEK BASIN

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02359660 DEER POINT LAKE NEAR PANAMA CITY, FLA.

LOCATION.--Lat. 30°17'57", long 85°34'50", in SE¹/₄ sec.19, T.2 S., R.13 W., Bay County, Hydrologic Unit 03140101, on east shore of lake, on private dock 0.3 mi north of public boat landing, 2.4 mi north of Deer Point Dam, and 10 mi northeast of Panama City.

SURFACE AREA.--4,698 acres, 7.34 mi², at elevation 4.3 ft NGVD.

DRAINAGE AREA.--435 mi², of which 43.9 mi² is noncontributing.

PERIOD OF RECORD.--November 1961 to September 1962 (fragmentary); October 1962 to October 1978 (once daily); November to December 1978 (weekly); January to June 1979 (once daily); July 1979 to January 1981 (weekly); February 1981 to current year (once daily).

REVISED RECORD.--WRD FL-78-4: 1962-77.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to June 4, 1965 at site 0.3 mi south at datum then in use.

REMARKS.--Lake is formed by fixed concrete-capped sheet-pile dam with underpass tube and valve; crest of dam is at elevation 4.3 ft. Dam was completed on Nov. 17, 1961, and was filled to normal elevation of 4.6 ft Dec. 2, 1961. Minimum elevation affected by drawdown of lake level.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 7.67 ft July 31, 1975, from high-water mark; minimum elevation, 1.2 ft estimated, Jan. 6, 1981, minimum observed, 1.40 ft Mar. 3, 1986.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.73	4.91	4.32	4.71	4.99	4.53	5.45	4.85	3.58	3.51	3.00	4.92
10	4.76	4.88	3.30	3.49	4.99	3.94	5.06	4.96	4.07	3.89	4.42	4.93
15	4.90	4.81	4.45	3.70	5.05	3.75	4.83	4.95	4.60	3.45	6.16	4.89
20	4.77	4.91	3.30	5.37	4.95	4.89	4.76	4.86	4.32	3.56	4.93	4.92
25	4.78	4.89	2.39	4.48	4.88	4.49	4.81	4.79	3.89	---	4.87	4.88
EOM	4.85	5.15	1.97	4.98	4.80	5.48	4.80	3.93	3.48	---	4.93	4.89
MEAN	4.80	4.91	3.46	4.34	4.95	4.46	5.00	4.80	3.97	3.51	4.57	4.90
MAX	4.96	5.15	5.26	5.78	5.12	5.49	5.45	4.99	4.98	3.89	6.16	4.97
MIN	4.71	4.81	1.79	2.61	4.50	3.61	4.76	3.93	3.33	2.78	2.92	4.83
WTR YR 1987	MEAN	4.50	MAX	6.16	AUG 15	MIN	1.79	DEC 29				

WELL DESCRIPTIONS AND GROUND-WATER DATA

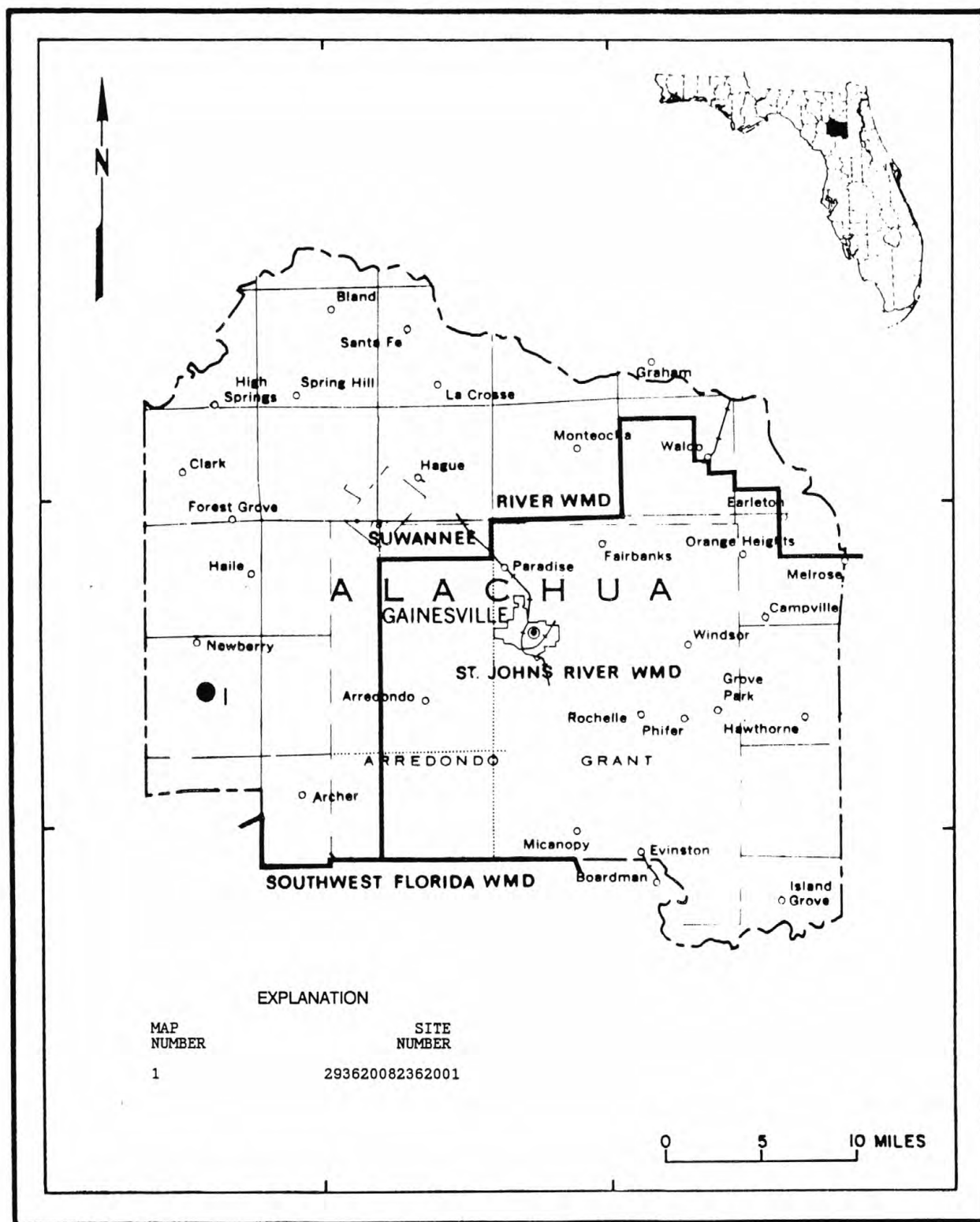


Figure 27.--Location of wells in Alachua County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

169

ALACHUA COUNTY

WELL NUMBER.--293620082362001. USGS Observation Well near Newberry, FL.

LOCATION.--Lat 29°36'20", long 82°36'20", in NW¹/₄SW¹/₄NW¹/₄ sec.22, T.10 S., R.17 E., Hydrologic Unit 03110101, 3.0 mi south of Newberry and 6.5 mi north of Archer.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 8 in., depth 252 ft, cased to 136 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of recorder shelf, 4.00 ft above land-surface datum.

DATUM.--Land-surface datum is 72.27 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.63 ft NGVD, Oct. 7, 1965; lowest, 38.00 ft NGVD, Jan. 15, 1982.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
30...	1255	45.67	28...	1345	49.39
NOV			MAY		
20...	1250	45.26	27...	1310	49.40
DEC			JUN		
30...	1315	44.49	30...	1320	48.76
JAN			JUL		
29...	1225	44.40	28...	1240	48.13
FEB			AUG		
27...	0950	45.21	28...	1220	47.31
MAR			SEP		
31...	1240	47.12	29...	0855	46.61

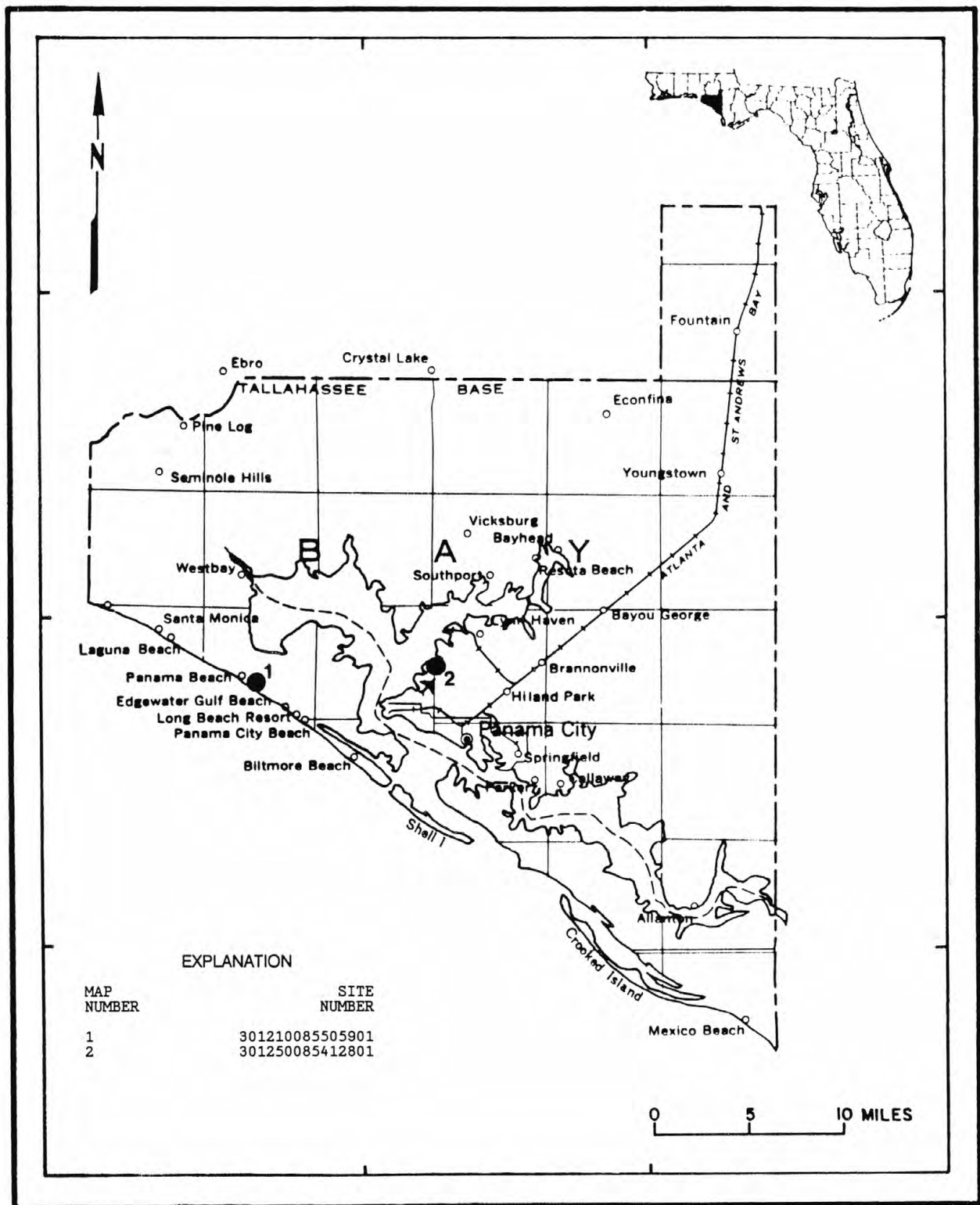


Figure 28.—Location of wells in Bay County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

171

BAY COUNTY

WELL NUMBER.--301210085505901. West Panama City Beach Well at West Panama City Beach, FL.

LOCATION.--Lat 30°12'10", long 85°50'59", in SW¹/₄NE¹/₄NE¹/₄ sec.28, T.3 S., R.16 W., Hydrologic Unit 03140101, about 100 ft west of State Highway 30J and 0.2 mi north of U.S. Highway 98 at Panama City Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 590 ft, cased to 306 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of extended casing, 5.34 ft above land-surface datum.

DATUM.--Land-surface datum is 28.52 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--February 1962 to July 1965; January 1966 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.99 ft NGVD, May 14, 1973; lowest measured, -14.67 ft NGVD, Sept. 1, 1970.

ELEVATION, IN FEET, NGVD, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 22...	0720	0.27	MAR 30...	1700	2.64
DEC 08...	1715	0.40	JUN 05...	0625	2.16
FEB 03...	1420	1.59	AUG 10...	1620	0.76

WELL NUMBER.--301250085412801. Panama City Airport Authority Well, near Panama City, FL.

LOCATION.--Lat 30°12'50", long 85°41'28", in NW¹/₄SW¹/₄NW¹/₄ sec.19, T.3 S., R.14 W., Hydrologic Unit 03140101, 200 ft north of Frankford Ave., 1.4 mi north of State Highway 390 and 3.6 mi northwest of Panama City.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in, depth 345 ft, cased to 326 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 1.50 ft above land-surface datum. Prior to September 1965 water-level recorder at same site and datum.

DATUM.--Land-surface datum is 4.03 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--February 1962 to September 1965; March 1966 to December 1968 (monthly); January 1969 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.84 ft NGVD, Mar. 6, 1969; lowest measured, -9.68 ft NGVD, July 23, 1986.

ELEVATION, IN FEET, NGVD, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 22...	0810	-2.76	MAR 30...	1740	1.51
DEC 09...	0720	-0.51	JUN 04...	1330	-6.63
FEB 04...	0835	0.25	AUG 10...	1525	-8.44

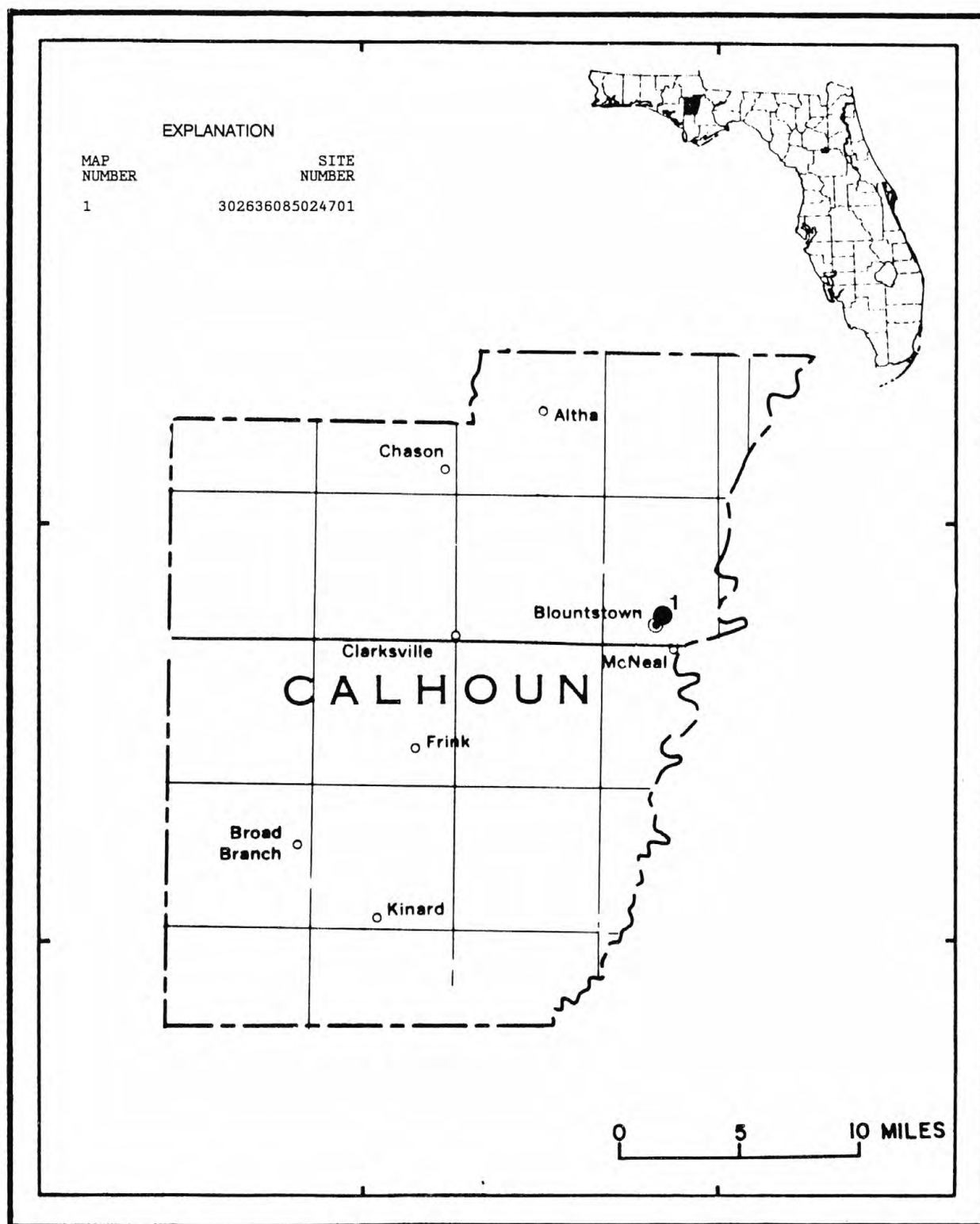


Figure 29.--Location of wells in Calhoun County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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CALHOUN COUNTY

WELL NUMBER.—302636085024701. City of Blountstown Well at Blountstown, FL.

LOCATION.—Lat 30°26'36", long 85°02'47", in SE¹/₄NW¹/₄NW¹/₄ sec.33, T.1 N., R.8 W., Hydrologic Unit 03130011, at City Hall Building in Blountstown.

AQUIFER.—Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.—Drilled, unused, public-supply, artesian well, diameter 6 in., depth 212 ft, cased to 36 ft.

INSTRUMENTATION.—Tape measured. Measuring point: Top of hole in cap at land-surface datum.

DATUM.—Land-surface datum is 58.94 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.—June to November 1961 (monthly); January 1962 to July 1964 (bimonthly); January 1965 to June 1977 (semiannually); November 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 58.54 ft NGVD, Jan. 14, 1966; lowest measured, 44.86 ft NGVD, May 14, 1985.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
28...	0815	47.82	30...	1140	52.79
DEC			JUN		
08...	0845	49.78	03...	0905	48.87
FEB			AUG		
10...	1500	51.15	10...	0940	50.32

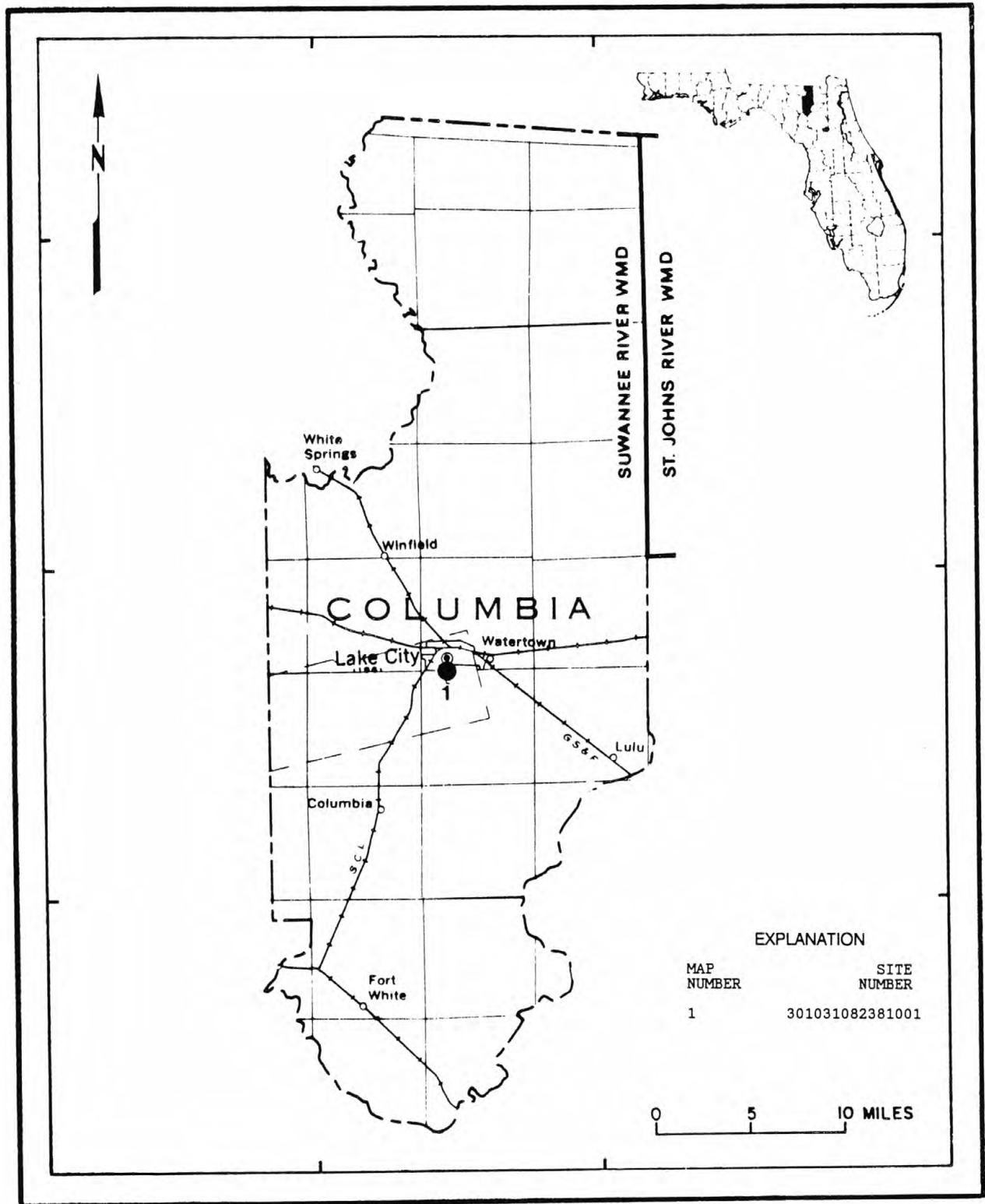


Figure 30.--Location of wells in Columbia County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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COLUMBIA COUNTY

WELL NUMBER.--301031082381001. Local Number Columbia 9. City of Lake City Well at Lake City, FL.

LOCATION.--Lat 30°10'31", long 82°38'10", in SE¹/₄NE¹/₄NW¹/₄ sec.5, T.4 S., R.17 E., Hydrologic Unit 03110206, 0.1 mi east of U.S. Highway 441 and 1.0 mi south of intersection of U.S. Highway 441 and U.S. Highway 90 at Lake City.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 12 in., depth 836 ft, cased to 680 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top edge shelter floor, 1.05 ft above land-surface datum.

DATUM.--Land-surface datum is 143.64 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--July 1942 (annually); June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 64.11 ft NGVD, June 4, 1948; lowest, 46.14 ft NGVD, Jan. 5, 1982.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987 MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	49.70	49.31	48.81	49.30	50.01	51.25	53.29	54.18	53.98	53.31	52.68	52.29
10	49.62	49.12	49.01	49.39	50.08	51.91	53.61	54.18	53.85	53.23	52.52	52.11
15	49.54	49.08	48.86	49.38	---	52.02	53.92	54.27	53.76	53.18	52.50	52.06
20	49.32	49.14	48.98	49.41	---	52.43	53.90	54.23	53.68	52.91	52.34	52.04
25	49.42	48.99	49.10	49.84	---	52.70	54.12	54.15	53.64	52.81	52.20	51.87
EOM	49.27	49.20	49.27	49.79	51.33	53.12	54.16	54.05	53.34	52.72	52.25	52.00
MEAN	49.50	49.12	48.98	49.45	50.33	52.17	53.74	54.18	53.74	53.07	52.44	52.05
MAX	49.88	49.31	49.27	49.93	51.33	53.20	54.18	54.27	54.04	53.40	52.77	52.29
MIN	49.27	48.93	48.77	49.06	49.88	51.25	52.98	54.05	53.34	52.72	52.18	51.74
WTR YR 1987	MEAN	51.60	MAX	54.27	MAY 8	AND OTHERS	MIN	48.77	DEC	6		

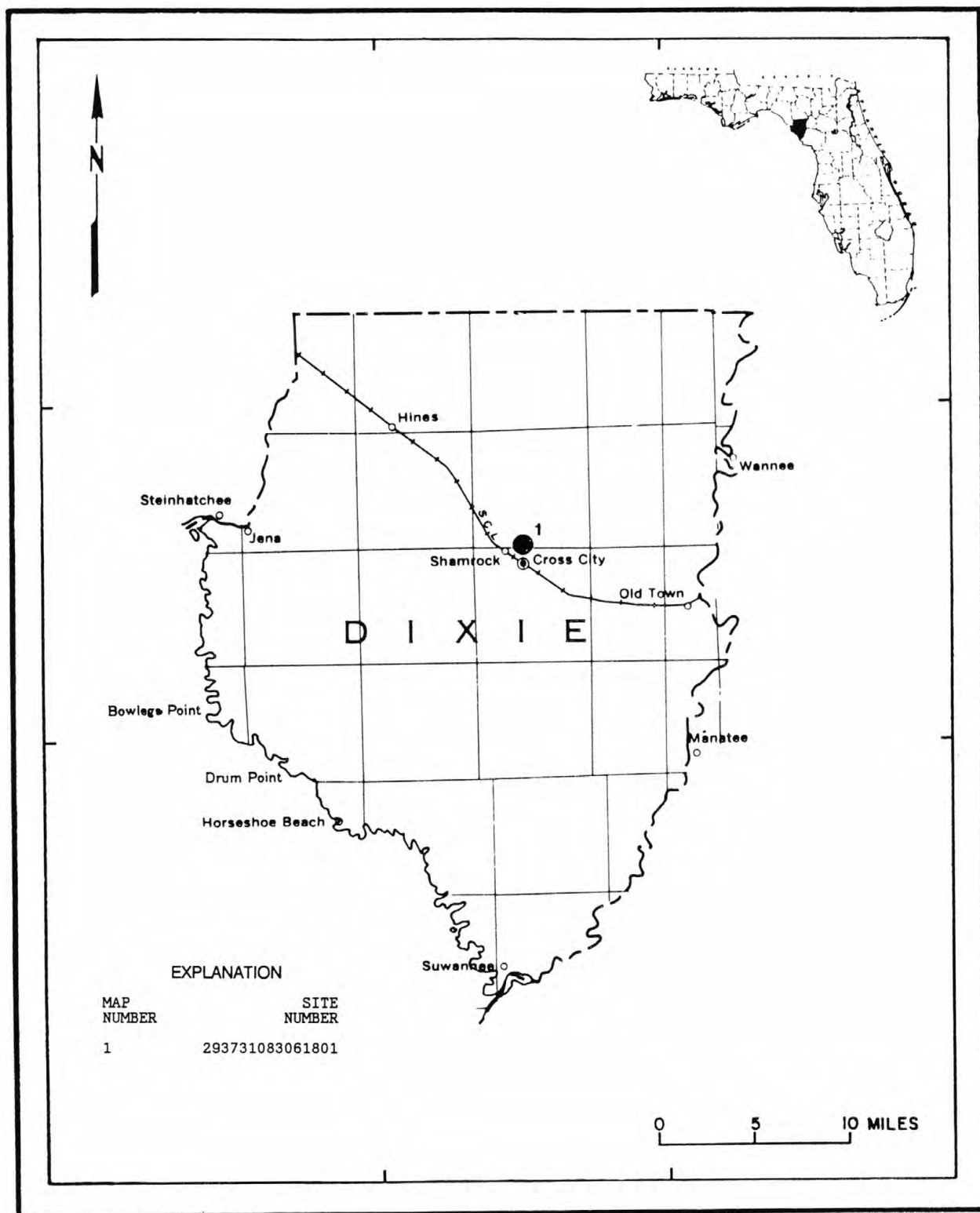


Figure 31.--Location of wells in Dixie County.

DIXIE COUNTY

WELL NUMBER.--293731083061801. Local Number Dixie 15. City of Cross City Well near Cross City, FL.

LOCATION.--Lat 29°37'31", long 83°06'18", in SW¹/₄NE¹/₄SE¹/₄ sec.10, T.10 S., R.12 E., Hydrologic Unit 03110102, 0.1 mi north of U.S. Highway 19 and 1.0 mi east of Cross City.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth 215 ft, cased to 105 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top edge shelter floor, 3.75 ft above land-surface datum.

DATUM.--Land-surface datum is 40.17 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1957 to April 1963; April 1963 to July 1964 (bimonthly); January 1964 to July 1974 (semiannually), January 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.33 ft NGVD, Sept. 19, 1959; lowest, 30.00 ft NGVD, Aug. 18, 19, 1977.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
28...	0810	35.13	21...	0950	36.53
NOV			MAY		
21...	0820	35.00	26...	0945	36.38
DEC			JUN		
29...	1250	36.40	25...	0930	35.51
JAN			JUL		
28...	0905	37.54	31...	1035	35.62
FEB			AUG		
24...	1050	37.65	27...	0855	35.96
MAR			SEP		
26...	1055	36.61	24...	0925	35.69
APR					
14...	1650	37.01			

WATER RESOURCES DATA FOR FLORIDA, 1987
Volume 4: Northwest Florida

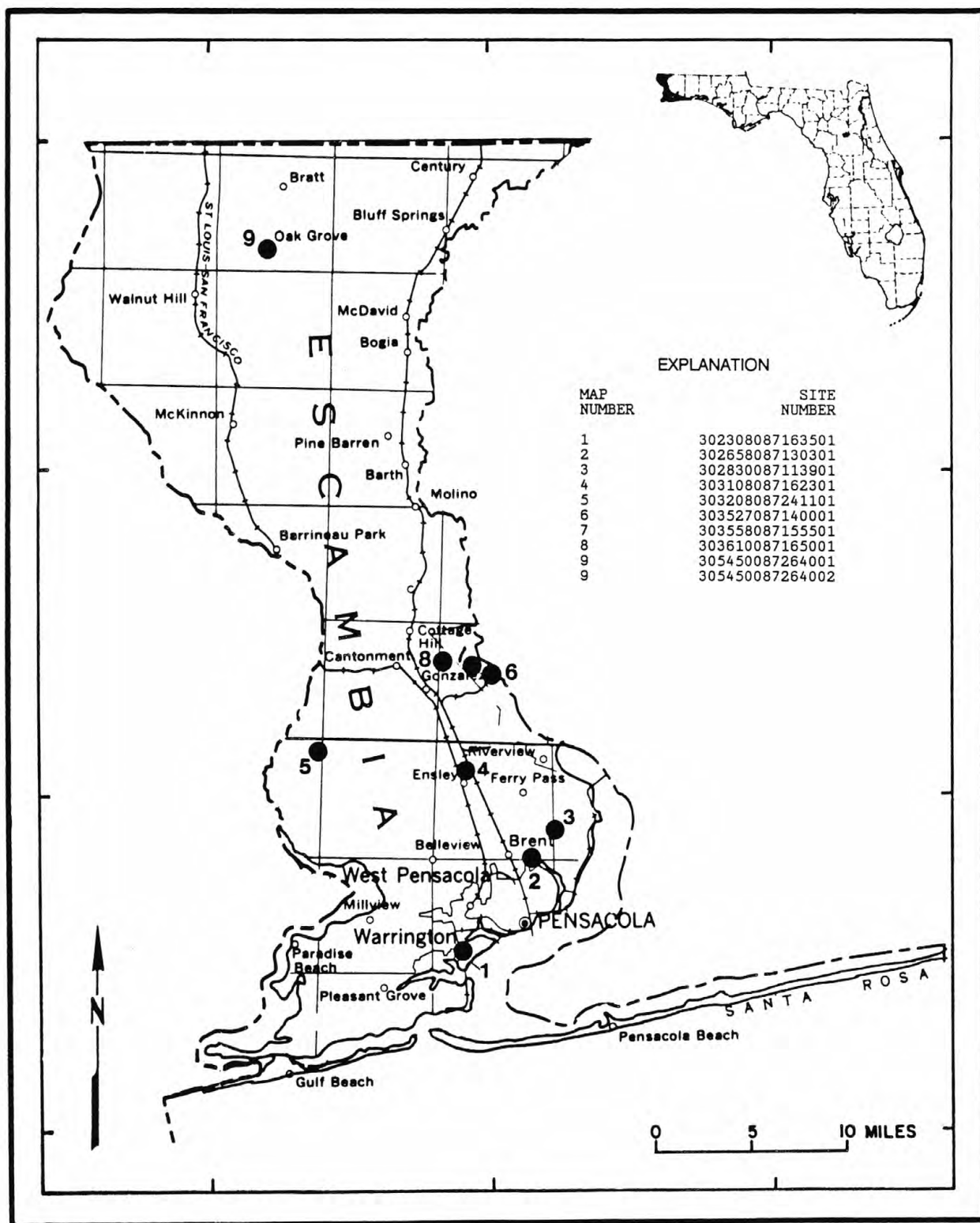


Figure 32.--Location of wells in Escambia County.

ESCAMBIA COUNTY

WELL NUMBER.--302308087163501. Local number 39. Irving B. Hanna Well at Warrington, FL.

LOCATION.--Lat 30°23'08", long 87°16'35", in land grant 51, T.2 S., R.30 W., Hydrologic Unit 03140105, 45 ft north of East Winthrop Avenue and 140 ft east of First Street at Warrington.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 3 in., depth 244 ft, cased to 92 ft, screened 92 to 99 ft, 156 to 170 ft, and 232 to 244 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of coupling, 1.0 ft above land-surface datum.

DATUM.--Land-surface datum is 9.91 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1940 to October 1962 (weekly); October 1962 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.05 ft NGVD, Aug. 13, 1940; lowest measured, -8.35 ft NGVD, Aug. 5, 1968.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			FEB		
13...	0840	1.52	25...	0915	1.96
NOV			APR		
17...	0930	1.70	28...	1125	-1.19
DEC			JUN		
14...	1050	1.23	29...	1035	1.25
JAN			AUG		
13...	0935	0.57	24...	0830	2.19

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ESCAMBIA COUNTY

WELL NUMBER.--302658087130301. Local number 026-713-5. USGS Observation Well at Pensacola, FL.

LOCATION.--Lat 30°26'58", long 87°13'03", in land grant 4, T.2 S., R.30 W., Hydrologic Unit 03140105, 33 ft west of State Highway 291 (Alcaniz Street) and 0.3 mi south of State Highway 289 (Fairfield Drive) at Pensacola.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 149 ft, cased to 144 ft, screened from 144 to 149 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of plug, 2.71 ft above land-surface datum.

DATUM.--Land-surface datum is 89.41 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--July 1959 to July 1962; October 1962 to current year (weekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.69 ft NGVD, Oct. 29, 1979; lowest measured, 19.33 ft NGVD, Feb. 19, 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			JAN		
06...	1155	27.22	05...	1400	28.23
13...	0935	27.41	12...	1030	28.25
20...	1120	27.52	19...	0945	28.39
27...	1130	27.74	26...	1010	28.47
NOV			MAR		
03...	0920	27.81	31...	1120	29.71
10...	1015	27.89	JUN		
17...	1045	27.99	02...	1110	28.55
24...	1010	28.02	JUL		
DEC			27...	1220	28.93
02...	1110	28.15	SEP		
08...	1135	28.10	21...	1045	30.20
14...	1155	28.09			
22...	1055	28.18			
29...	1015	29.19			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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ESCAMBIA COUNTY

WELL NUMBER.--302830087113901. Pensacola Airport Well at Pensacola, FL.

LOCATION.--Lat 30°28'30", long 87°11'39", in NW¹/₄NE¹/₄SW¹/₄ sec. *, T.1 S., R.29 W., Hydrologic Unit 03140105, 160 ft southwest of Pensacola Airport terminal building at Pensacola.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, 120 NFSG.

WELL CHARACTERISTICS.--Drilled, unused, irrigation well, diameter 10 in., depth 210 ft, cased 163 ft, screened from 163 to 210 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 1.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--*Land is not sectionized in this area.

PERIOD OF RECORD.--July 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.01 ft NGVD, May 25, 1980; lowest, 15.70 ft NGVD, Jan. 17, 1982.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 09...	1505	19.77	APR 09...	1715	23.73
DEC 12...	0815	21.40	JUN 10...	1740	22.80
FEB 09...	1515	21.96			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ESCAMBIA COUNTY

WELL NUMBER.--303108087162301. Local number 46. USGS Observation Well at Ensley, FL.

LOCATION.--Lat 30°31'08", long 87°16'23", in SE¹/₄SE¹/₄SW¹/₄ sec.11, T.1 S., R.30 W., Hydrologic Unit 03140107, 24 ft west of Pensacola Boulevard, (U.S. Highway 29), 175 ft north of Detroit Boulevard and 0.4 mi west of State Highway 95A, (Old Palafox Highway), in Ensley.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in, depth 239 ft, cased to 229 ft, screened from 229 to 239 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of flange cover, 1.10 ft above land-surface datum.

DATUM.--Land-surface datum is 131.52 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--December 1939 to June 1940 (weekly); June 1940 to May 1955; January 1955 to current year (weekly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 75.07 ft NGVD, Sept. 23, 1948; lowest measured, 48.27 ft NGVD, Nov. 27, 1972.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			JAN		
06...	1210	49.40	19...	0925	51.23
13...	0950	49.92	26...	0950	51.15
20...	1100	50.29	FEB		
27...	1100	50.65	25...	1025	51.50
NOV			MAR		
03...	0905	50.60	31...	1025	52.12
10...	0955	50.57	APR		
17...	1100	50.82	28...	0900	51.09
24...	0950	50.74	JUN		
DEC			02...	1030	51.58
02...	1130	50.88	29...	1135	53.08
08...	1155	50.71	JUL		
14...	1210	50.48	27...	1130	53.19
22...	1030	50.74	AUG		
29...	1000	50.71	24...	0915	54.25
JAN			SEP		
05...	1420	50.93	21...	1000	54.82
12...	1010	50.80			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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ESCAMBIA COUNTY

WELL NUMBER.--303208087241101. Local number 032-724-1. USGS Observation Well near Ensley, FL.

LOCATION.--Lat 30°32'08", long 87°24'11", in NW¹/₄NW¹/₄NE¹/₄ sec.12, T.1 S., R.32 W., Hydrologic Unit 03140106, 0.3 mi east of intersection of U.S. Highway 90 and U.S. Highway 90 Alternate, 2.8 mi east of Perdido River, and 8 mi west of Ensley.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 170 ft, cased to 165 ft, screened from 165 to 170 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of plug, 2.9 ft above land-surface datum.

DATUM.--Land-surface datum is 123.43 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--July 1958 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.83 ft NGVD, July 8, 1959; lowest measured 28.30 ft NGVD, Dec. 7, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 06...	0925	31.02	DEC 08...	0935	30.46
NOV 03...	1105	30.20	JAN 05...	1120	30.80

WELL NUMBER.--303527087140001. Local number 83. Monsanto Company Well near Cantonment, FL.

LOCATION.--Lat 30°35'27", long 87°14'00", in land grant 30, T.1 N., R.30 W., Hydrologic Unit 03140305, on south bank of Escambia River at Monsanto Plant, 3.5 mi northeast of U.S. Highway 29, and 4.9 mi southeast of Cantonment.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, unused, artesian test well, diameter 4 in., depth 293 ft, cased to 230 ft, screened from 230 to 240 ft and 282 to 292 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 2.90 ft above land-surface datum.

DATUM.--Land-surface datum is 37.5 ft above National Geodetic Vertical Datum of 1929 (levels by Monsanto Company).

PERIOD OF RECORD.--July 1954 to March 1965; March 1965 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.60 ft NGVD, Mar. 29, 1983; lowest measured, -11.45 ft NGVD, Jan. 17, 1973.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 19...	1130	3.56	MAY 20...	1445	3.92
JAN 14...	1120	3.02			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ESCAMBIA COUNTY

WELL NUMBER.--303558087155501. Local Number 73. Monsanto Plant Well near Cantonment, FL.

LOCATION.--Lat 30°35'58", long 87°15'55", in land grant 30, T.1 N., R.30 W., Hydrologic Unit 03140305, on south bank of Escambia River at Monsanto Plant, 3.1 mi northeast of U.S. Highway 29, and 4.4 mi southeast of Cantonment.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 4 to 2.5 in, depth 306 ft, cased to 198 ft, screened from 198 to 208 ft, 294 to 304 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 3.00 ft above land-surface datum.

DATUM.--Land-surface datum is 51.89 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--November 1951 to current year. Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.49 ft NGVD, Nov. 10, 1951; lowest, -13.51 ft NGVD, July 12, 1974.

ELEVATION, IN FEET, NGVD, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 19...	1150	4.11	MAY 20...	1400	4.83
JAN 14...	1140	3.17	JUL 21...	1625	4.52
MAR 05...	1025	4.34	SEP 15...	1645	3.55

WELL NUMBER.--303610087165001. Local Number 74. Monsanto Company well near Cantonment, FL.

LOCATION.--Lat 30°36'10", long 87°16'50", in land grant 30, T.1 N., R.30 W., Hydrologic Unit 03140305, 1.3 mi north of paved road to Monsanto Plant, 1.6 mi east of U.S. Highway 29, and 3.4 mi southeast of Cantonment.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 to 2F in., depth 352 ft, cased to 260 ft, screened from 260 to 270 ft and 340 to 350 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 3.00 ft above land-surface datum.

DATUM.--Land-surface datum is 97.39 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.42 ft NGVD, Nov. 10, 1951; lowest, -2.61 ft NGVD, Jan. 22, 1969.

ELEVATION, IN FEET, NGVD, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 19...	1105	10.43	MAY 20...	1425	11.52
JAN 14...	1405	10.10			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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ESCAMBA COUNTY

WELL NUMBER.--305450087264001. Local Number 054-726-1. U.S. Geological Survey Observation Well at Oak Grove, FL.

LOCATION.--Lat 30°54'50", long 87°26'40", in NE¹/₄NW¹/₄NE¹/₄ sec.33, T.5 N., R.32 W., Hydrologic Unit 03140305, 36 ft west of State Highway 99, 700 ft south of intersection of State Highways 99 and 164 at Oak Grove.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 206 ft, cased to 201 ft, screened from 201 to 206 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of coupling, 3.25 ft above land-surface datum. Prior to October 25, 1962 water-level recorder at same site and datum.

DATUM.--Land-surface datum is 259.27 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--May 1959 to October 1962; November 1962 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 176.54 ft NGVD, July 15, 1980; lowest measured, 166.00 ft NGVD, Mar. 5, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 08...	1340	170.54	APR 09...	0935	170.49
DEC 11...	1525	169.97	JUN 10...	1130	170.93
FEB 04...	1140	169.71	AUG 11...	1245	170.95

WELL NUMBER.--305450087264002. Local Number 054-726-2. U.S. Geological Survey Observation Well at Oak Grove, FL.

LOCATION.--Lat 30°54'50", long 87°26'40", in NE¹/₄NW¹/₄NE¹/₄ sec.33, T.5 N., R.32 W., Hydrologic Unit 03140305, 36 ft west of State Highway 99, 700 ft south of intersection of State Highways 99 and 164 at Oak Grove.

AQUIFER.--Nonartesian sand aquifer of the Tertiary System, Geologic Unit 120 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 4 in., depth 107 ft, cased to 102 ft, screened from 102 to 107 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of nipple, 3.25 ft above land-surface datum.

DATUM.--Land-surface datum is 259.21 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--May 1959 to November 1962 (monthly); January 1963 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 194.71 ft NGVD, July 15, 1980; lowest measured, 179.64 ft NGVD, Mar. 5, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 08...	1345	185.59	APR 09...	0940	184.92
DEC 11...	1520	184.62	JUN 10...	1135	186.44
FEB 04...	1145	184.14	AUG 11...	1250	186.46

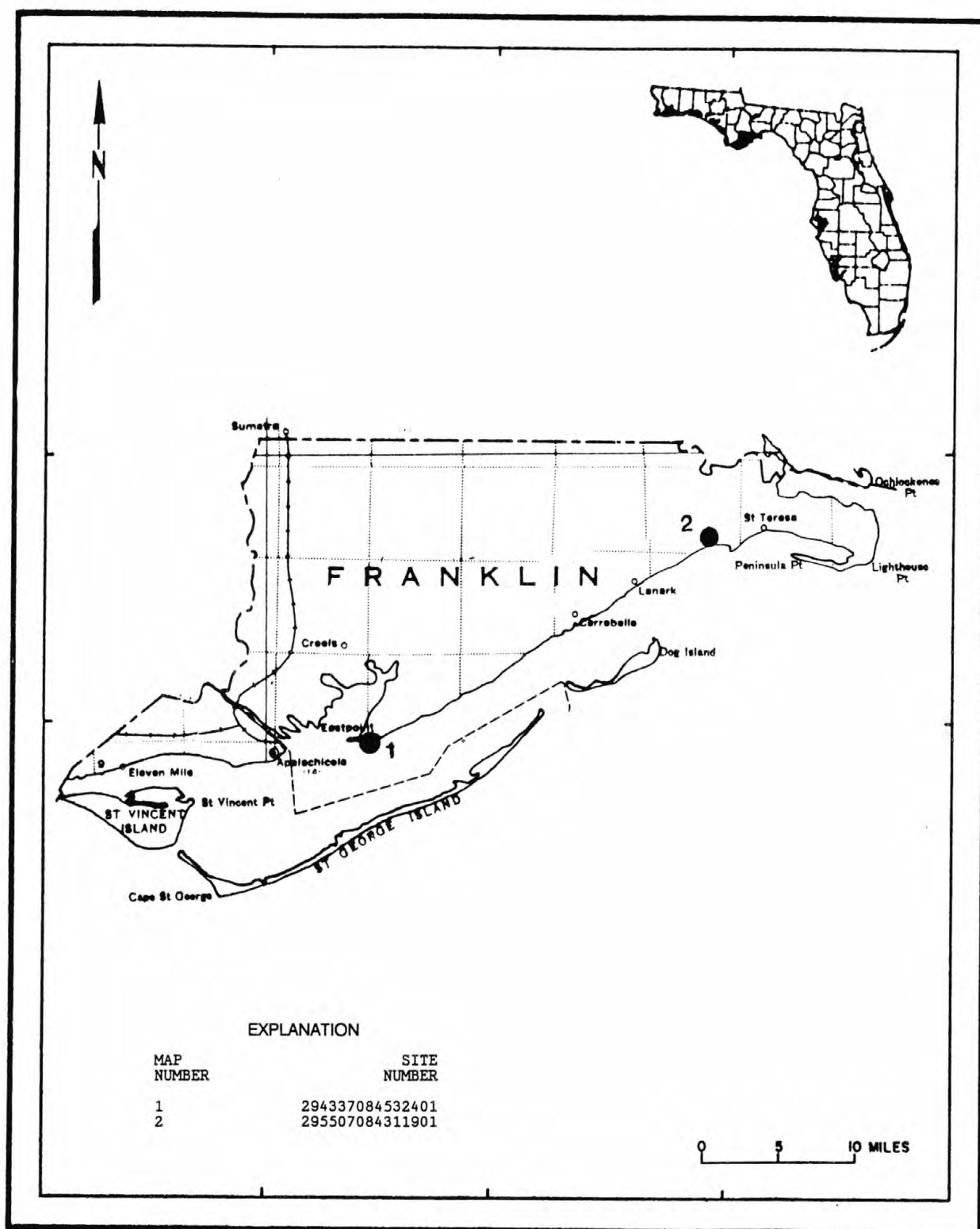


Figure 33.--Location of wells in Franklin County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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FRANKLIN COUNTY

WELL NUMBER.--294337084532401. McCullogh Properties, Inc. well at Eastpoint, FL.

LOCATION.--Lat 29°43'37", long 84°53'24", in NE¹/₄NE¹/₄NE¹/₄ sec.1, T.9 S., R.7 W. Hydrologic Unit 03130013, on south side of State Highway 65 near approach to St. George Island Bridge, .75 mi southwest of Eastpoint.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in, depth 221 ft, cased to 163 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of reducer, 1.70 ft above land-surface datum.

DATUM.--Land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--May 1981 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.07 ft NGVD, May 21, 1986; lowest measured, 7.91 ft NGVD, July 18, 1986.

ELEVATION, CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 28...	1620	8.76	440	21.0	10	JUN 18...	1455	8.29	450	21.0	10

WELL NUMBER.--295507084311901. St. James. St. Joe Paper Company Well near Lanark, FL.

LOCATION.--Lat 29°55'07", long 84°31'19", in NW¹/₄SW¹/₄NE¹/₄ sec.34, T.6 S., R.3 W., Hydrologic Unit 03130013, 500 ft northwest of intersection of U.S. Highway 98 and State Highway 377, 10 miles northeast of Carrabelle.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 10 in, depth 174 ft, cased to 80 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of shelter floor, 1.0 ft above land-surface datum. Prior to September 1980 water-level recorder at same site and datum.

DATUM.--Land-surface datum is 32.09 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977 elevation of land-surface datum was considered to be 30 ft, from topographic map.

PERIOD OF RECORD.--September 1976 to September 1980. October 1980 to current year (bimonthly). The figures of water levels as elevation in feet, National Geodetic Vertical Datum prior to Oct. 1977 are in error. Revised records are in files of the U.S. Geological Survey. See DATUM.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.88 ft NGVD, Apr. 25, 1979; lowest, 8.37 ft NGVD, Dec. 10, 1977.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1545	9.70	APR 28...	1515	10.06
JAN 12...	1645	9.71	JUN 19...	1250	9.92
FEB 26...	1315	9.94	AUG 11...	1245	9.54

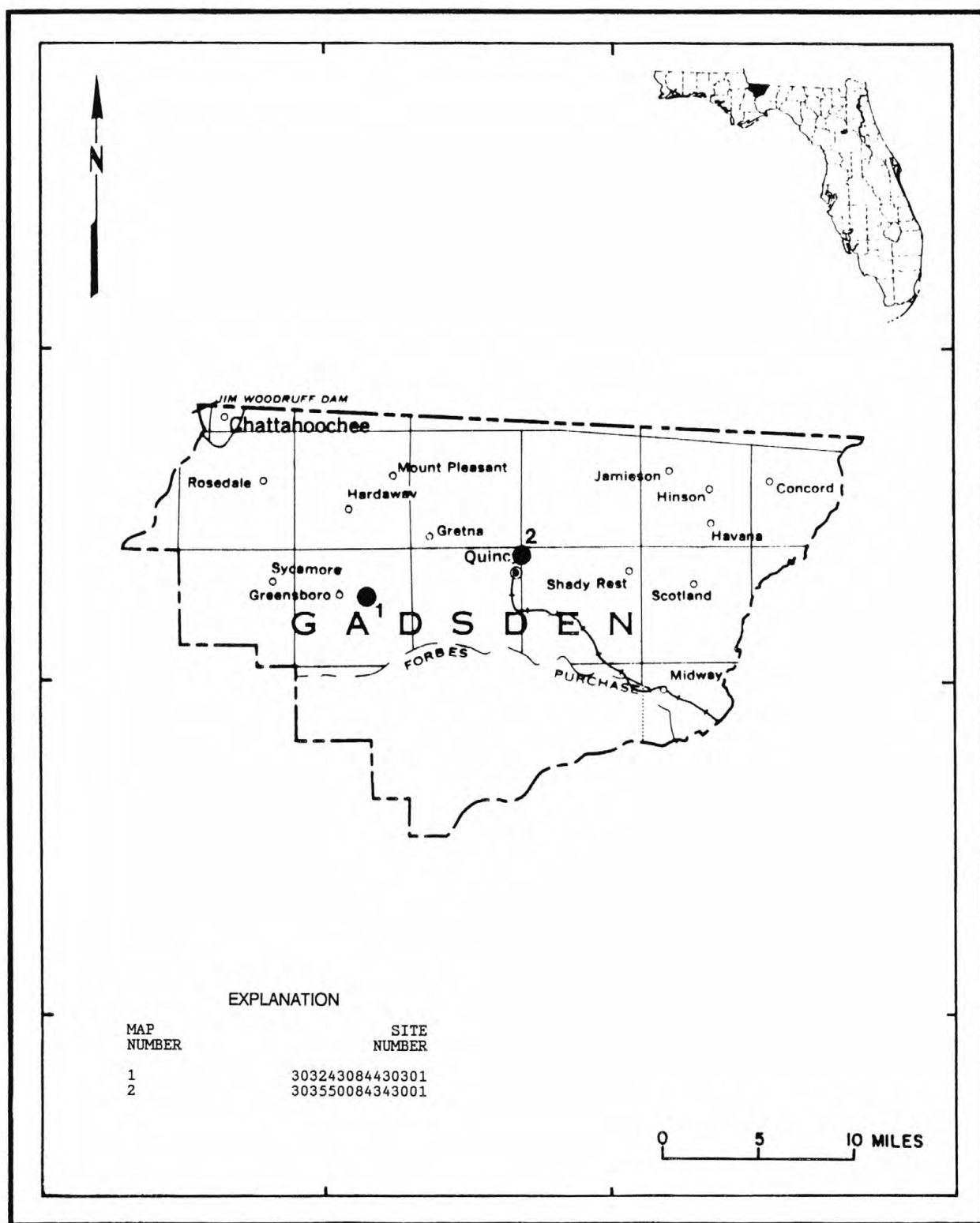


Figure 34.--Location of wells in Gadsden County.

GADSDEN COUNTY

WELL NUMBER.--303243084430301. Franklin Fletcher Well near Greensboro, FL.

LOCATION.--Lat 30°32'43", long 84°43'03", in SW¹/₄NE¹/₄NE¹/₄ sec.27, T.2 N., R.5 W., Hydrologic Unit 03120003, 0.2 mi south of State Highway 274 and 1.9 mi southeast of Greensboro.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, irrigation, artesian well, diameter 8 in, depth 803 ft, cased to 530 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 8 in casing, 0.4 ft above land-surface datum.

DATUM.--Land-surface datum is 250.41 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--November 1974 to September 1977; October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.57 ft NGVD, May 23, 1976; lowest, 71.31 ft NGVD, Sept. 23, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 28...	0955	72.81	APR 27...	1010	74.29
JAN 06...	1300	73.49	JUN 22...	1630	73.81
MAR 05...	1530	74.04	AUG 17...	1650	74.15

WELL NUMBER.--303550084345001. City of Quincy Well No. 3 at Quincy, FL.

LOCATION.--Lat 30°35'50", long 84°35'50", in SE¹/₄NW¹/₄SW¹/₄ sec.6, T.2 N., R.3 W., Hydrologic Unit 0312003, at water plant, 0.8 mi north of intersection of U.S. Highway 90 and State Highway 267 at Quincy.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, public-supply, artesian well, diameter 8 in to 6 in, depth 701 ft, cased to 430 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 6 in tee, 2.00 ft above land-surface datum. Prior to Oct. 1980 water-level recorder at same site and datum.

DATUM.--Land-surface datum is 151.46 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--February 1961 to July 1964 (bimonthly); January 1965 to April 1974 (semiannually); January 1975 to September 1977 (bimonthly); October 1977 to September 1980; October 1980 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.11 ft NGVD, May 7, 1968; lowest, 46.95 ft NGVD, Sept. 21, 1978.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 27...	1010	61.01	APR 14...	1815	62.92
JAN 06...	1200	59.78	JUN 22...	0950	61.81
FEB 23...	1205	61.56	AUG 18...	1010	62.74

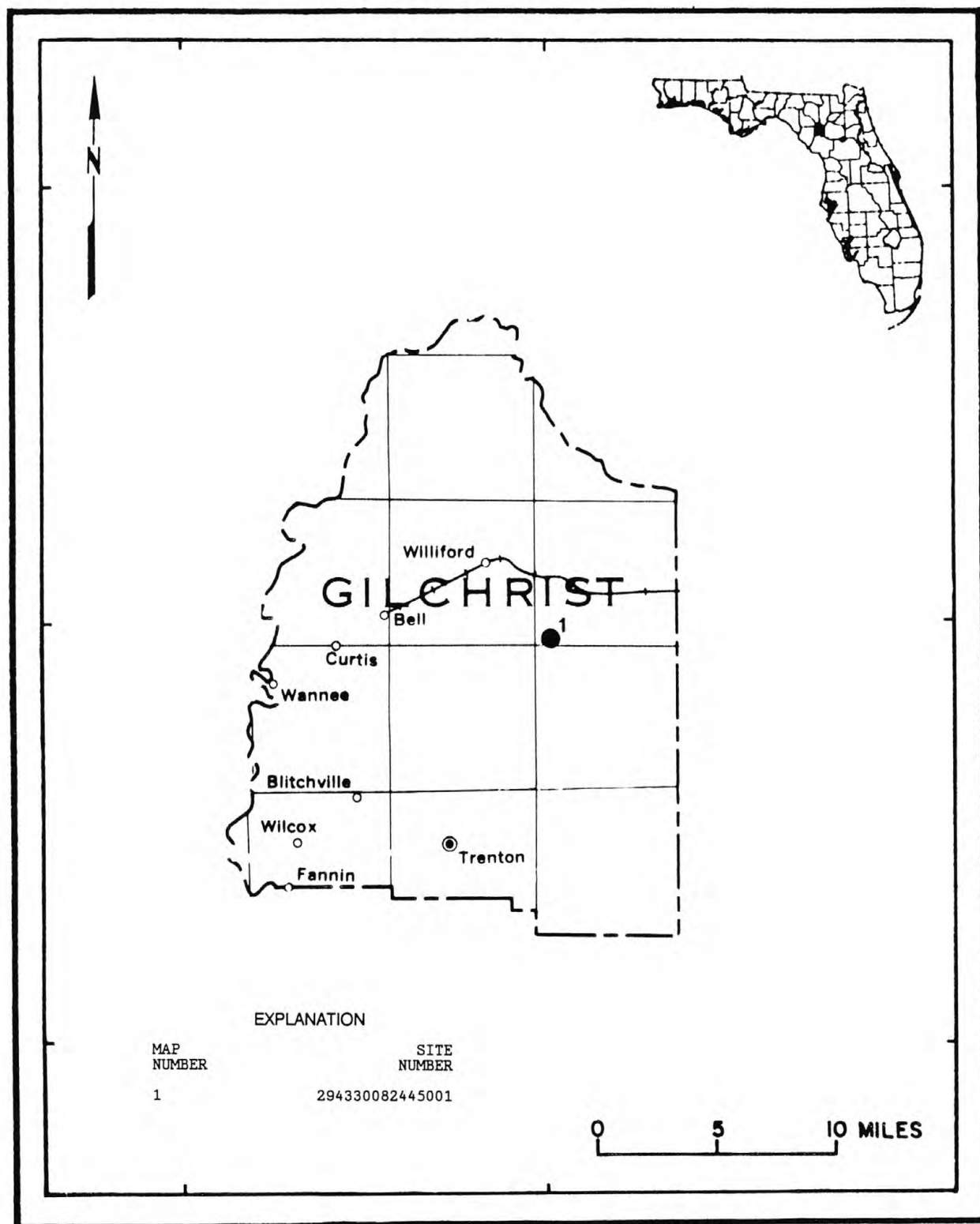


Figure 35.--Location of wells in Gilchrist County.

GILCHRIST COUNTY

WELL NUMBER.--294330082445001. USGS Observation Well near Trenton, FL.

LOCATION.--Lat 29°43'30", long 82°44'50", in NW¹/₄NW¹/₄NE¹/₄ sec.7, T.9 S., R.16 E., Hydrologic Unit 03110206, on southwest corner of intersection of State Highways 47 and 232, 8.5 mi north of Trenton.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 101 ft, cased to 55 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 2.75 ft above land-surface datum.

DATUM.--Land-surface datum is 84.56 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--July 1964 to May 1965 (bimonthly), June 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 74.68 ft NGVD, Oct. 10, 1965; lowest, 44.26 ft NGVD, Jan. 20, 21, 1978.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	59.53	57.30	55.77	55.82	62.16	65.45	69.55	67.60	64.07	61.07	58.95	56.99
10	59.15	56.97	55.56	56.12	62.85	66.20	69.81	67.07	63.47	60.68	58.55	56.67
15	58.78	56.64	55.71	56.26	63.05	66.72	69.62	66.57	62.95	60.40	58.29	56.38
20	58.36	56.35	55.71	56.70	63.06	66.94	69.12	66.04	62.43	60.20	57.98	56.10
25	58.00	56.04	55.57	59.08	64.05	66.88	68.66	65.42	62.02	59.80	57.65	55.83
EOM	57.59	55.79	55.60	61.67	64.72	67.92	68.15	64.66	61.52	59.30	57.29	55.55
MEAN	58.69	56.63	55.66	57.28	63.03	66.46	69.19	66.41	62.95	60.36	58.23	56.36
MAX	59.86	57.48	55.83	61.67	64.72	67.92	69.81	68.05	64.54	61.42	59.23	57.22
MIN	57.59	55.79	55.48	55.60	61.89	64.87	68.15	64.66	61.52	59.30	57.29	55.55
WTR YR 1987	MEAN	60.92	MAX	69.81	APR 9 AND OTHERS	MIN	55.48	DEC 12				

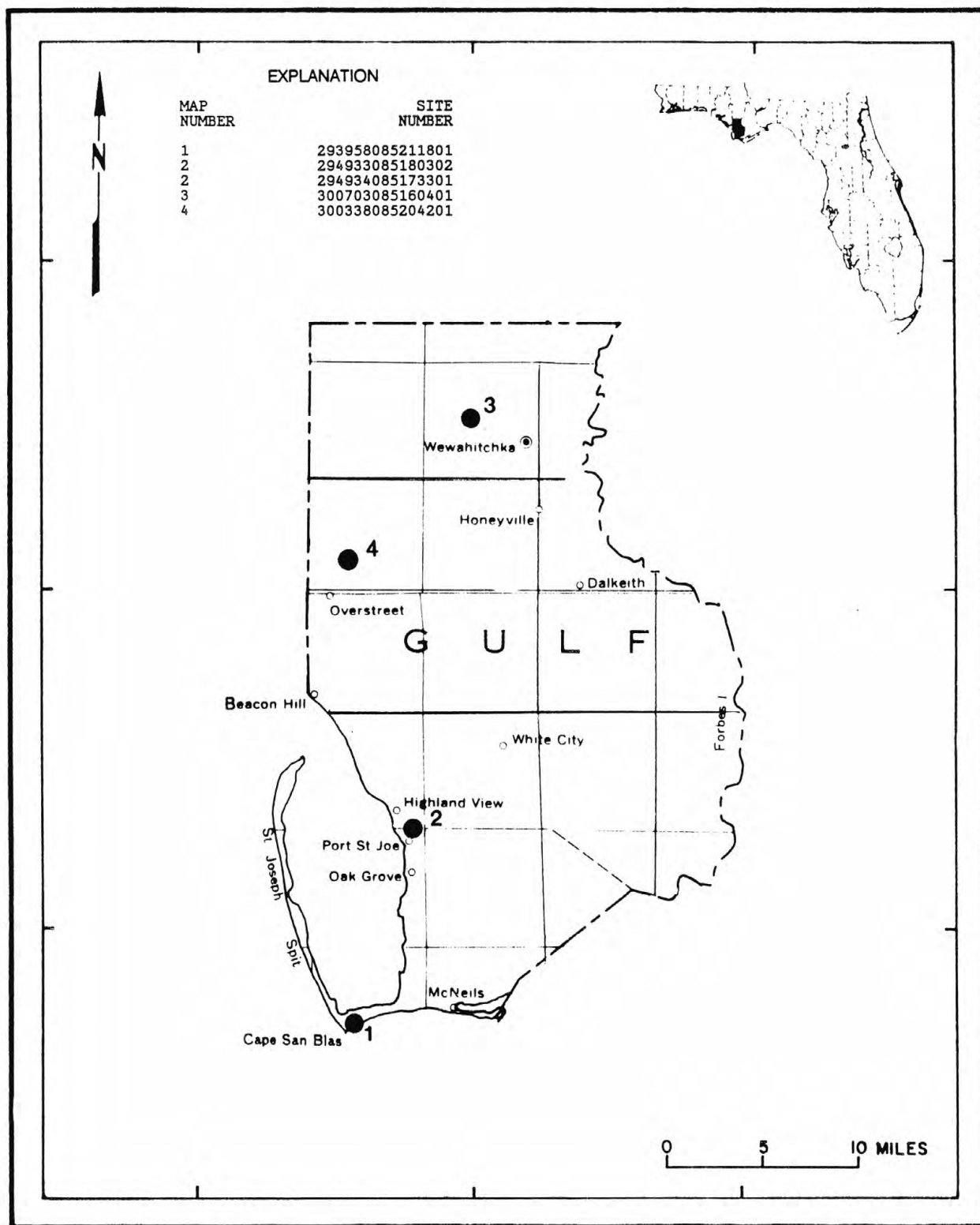
WATER RESOURCES DATA FOR FLORIDA, 1987
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Figure 36.--Location of wells in Gulf County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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GULF COUNTY

WELL NUMBER.--293958085211801. Local Number D3A. U.S. Air Force Well near Port St. Joe, FL.

LOCATION.--Lat 29°39'58", long 85°21'18", in NE¹/₄NE¹/₄SE¹/₄ sec.29, T.9 S., R.11 W., Hydrologic Unit 03140101, 0.3 mi south of Cape San Blas Lighthouse, 3.2 mi west of intersection of State Highway 30E and U.S. Highway 98, and 10 mi southwest of Port St. Joe.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 595 ft, cased to 487 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of bushing, 1.48 ft above land-surface datum.

DATUM.--Land-surface datum is 7.24 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--April 1961 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.44 ft NGVD, Apr. 27, 1961; lowest measured, 6.00 ft NGVD, May 18, 1983.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 22...	1255	7.80	MAR 30...	1555	8.48
DEC 08...	1530	7.86	JUN 04...	1205	7.84
FEB 10...	1150	7.60	AUG 10...	1420	7.86

WELL NUMBER.--294933085180302. Town of Port St. Joe Well Number 1 at Port St. Joe, FL.

LOCATION.--Lat 29°49'33", long 85°18'03", SW¹/₄NE¹/₄NW¹/₄ sec.36, T.7 S., R.11 W., Hydrologic Unit 03140104, in fenced area on east side of water treatment plant at Port St. Joe.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter, depth and length of casing unknown.

DATUM.--Elevation of land-surface datum is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water quality records prior to October 1984 are in the files of the U.S. Geological Survey.

PERIOD OF RECORD.--Water Quality: May 1981 to current year (bimonthly).

CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 08...	1530	665	25.0	13	JUN 04...	1200	682	24.5	20
MAR 30...	1545	695	24.5	20	AUG 10...	1515	725	25.0	19

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

GULF COUNTY

WELL NUMBER.--294934085173301. St. Joe Paper Company Well at Port St. Joe, FL.

LOCATION.--Lat 29°49'34", long 85°17'33", NW¹/₄NE¹/₄SE¹/₄ sec.36, T.7 S., R.11 W., Hydrologic Unit 03140101, about 100 ft south of canal, 0.55 mi northeast of water treatment plant at Port St. Joe.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 16 in, depth and casing length unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 1 in hole in pumpbase 1.3 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--May 1980 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.20 ft NGVD, Jan. 13, 1982, lowest measured -9.25 ft NGVD, May 27, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
22...	1205	-3.62	30...	1530	-2.56
DEC			JUN		
08...	1535	-1.68	04...	1140	-7.64
FEB			AUG		
02...	1505	-2.90	10...	1505	-8.78

WELL NUMBER.--300338085204201. FICO Farms well near Overstreet, FL.

LOCATION.--Lat 30°03'38", long 85°20'42", SW¹/₄NE¹/₄SE¹/₄ sec.9, T.5 S., R.11 W., Hydrologic Unit 03140101, on south side of unpaved farm road about 600 ft east of an irrigation supply well, 1.7 mi east of Wetappo Creek and 8.0 mi northeast of Overstreet.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled unused irrigation, artesian well, diameter 6 in., depth 600 ft., casing length unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 6 in. casing, 1.5 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water levels affected by pumping of nearby wells.

PERIOD OF RECORD.--November 1982 to May 1985 (semiannually). October 1985 to October 1986 (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.08 ft NGVD, May 18, 1983, lowest measured, -11.97 ft NGVD, May 11, 1984.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
28...	0935	18.51	30...	1340	18.88
DEC			JUN		
08...	1225	18.57	03...	1330	18.18
FEB			AUG		
10...	1315	19.08	10...	1210	17.98

GULF COUNTY

WELL NUMBER.--300703085160401. Exxon Supply Well near Wewahitchka, FL.

LOCATION.--Lat 30°07'03", long 85°16'04", in SW¹/₄NE¹/₄SW¹/₄ sec. 20, T.4 S., R.10 W., Hydrologic Unit 03140101, 300 ft east of dirt road, 2.0 mi south of State Highway 22, 4.5 mi west of Wewahitchka.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, supply, unused, artesian well, diameter 8 in., depth 242 ft, cased to 232 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of shelter floor 3.18 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 41 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--November 1980 to April 1981 (bimonthly); May 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 29.60 ft NGVD, Apr. 23, 1983; lowest 17.35 ft NGVD, June 28, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.15	23.20	23.83	25.77	26.59	27.06	27.63	23.17	23.04	24.95	24.75	24.71
10	21.42	23.28	24.44	26.00	26.59	27.37	27.73	22.86	22.60	25.29	24.10	24.80
15	21.96	22.27	24.61	26.11	27.11	27.31	27.71	23.37	22.56	25.58	24.21	25.19
20	22.59	22.38	24.99	26.22	26.91	27.56	26.82	24.12	23.44	24.88	24.71	24.58
25	22.10	23.14	25.30	26.54	27.03	27.62	25.81	24.64	24.17	25.05	25.09	24.75
EOM	22.87	23.66	25.64	26.46	27.27	27.72	24.17	23.82	24.55	25.43	24.77	24.93
MEAN	22.15	22.91	24.69	26.11	26.88	27.44	26.91	23.72	23.33	25.19	24.67	24.78
MAX	22.87	23.66	25.64	26.54	27.27	27.85	27.73	24.64	24.55	25.58	25.25	25.20
MIN	21.30	21.87	23.69	25.54	26.56	27.06	24.17	22.76	22.42	24.68	23.97	24.49
WTR YR 1987	MEAN	24.89	MAX	27.85	MAR 30	MIN	21.30	OCT 11				

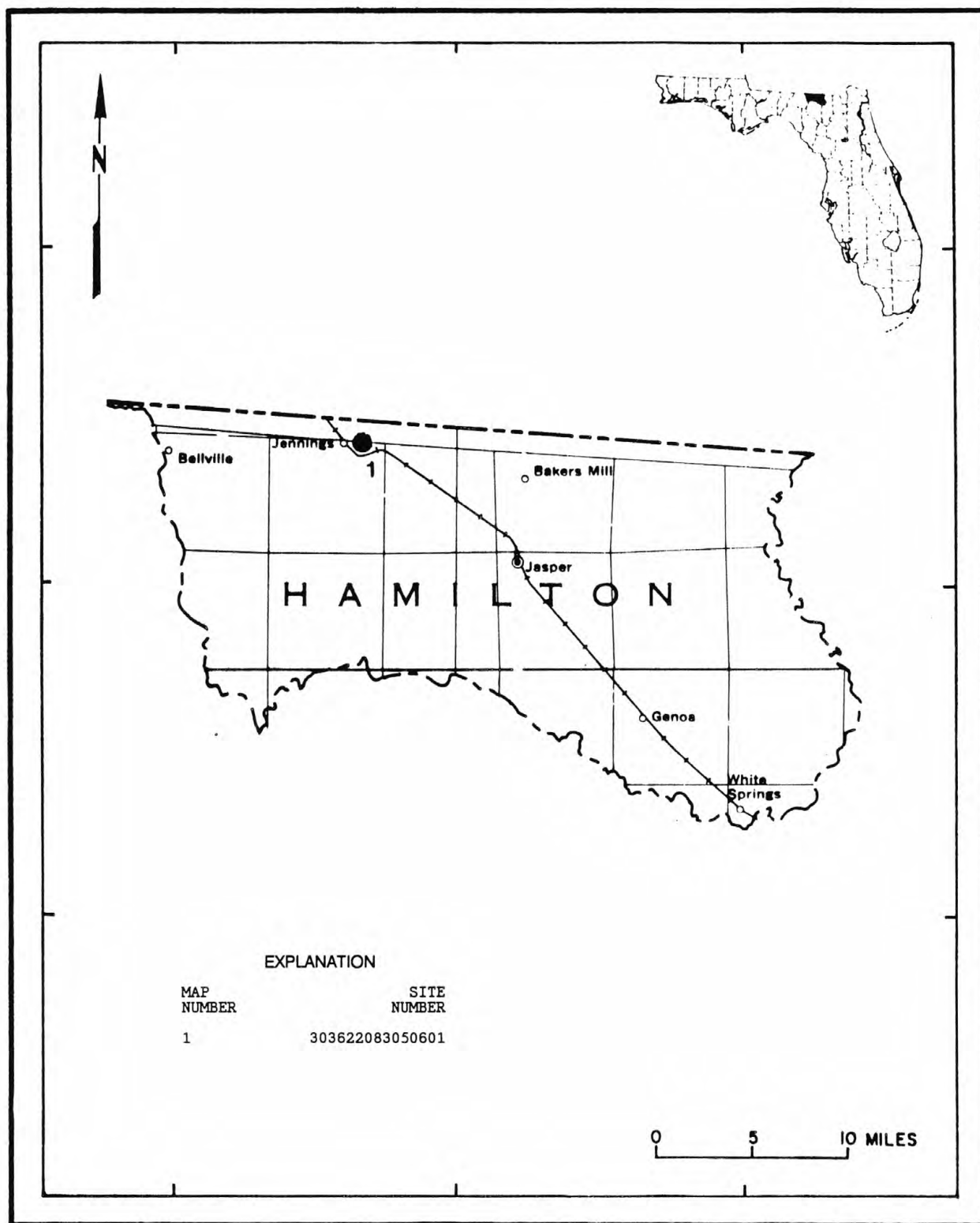


Figure 37.--Location of wells in Hamilton County.

HAMILTON COUNTY

WELL NUMBER.--303622083050601. Ben Bates well at Jennings, FL.

LOCATION.--Lat 30°36'22", long 83°05'06", in NW¹/₄SE¹/₄NE¹/₄ sec.2, T.2 N., R.12 E., Hydrologic Unit 03110202, 0.7 mi northeast of Jennings and 1.3 mi south of Florida - Georgia state line.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 10 in., depth 273 ft, cased to 60 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Bottom of discharge pipe, 2.0 ft above land-surface datum.

DATUM.--Land-surface datum is 147.93 ft above National Geodetic Vertical Datum of 1929. Prior to September 26, 1984, land-surface datum was reported as 148.70 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--January to July 1961 (semiannually); March 1962 to October 1978 (bimonthly); February 1979 to July 1981 (semiannually); April 1982 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.81 ft NGVD, Feb. 19, 1986; lowest 34.91 ft NGVD, October 31, 1978. Water level was lower on Nov. 4, 1968, when water was below pump column.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
DEC			MAY		
22...	1028	44.71	27...	1100	45.78
JAN			JUN		
27...	1240	60.67	23...	0952	40.94
FEB			JUL		
20...	1105	60.87	27...	1417	43.38
MAR			AUG		
27...	1145	60.53	21...	1220	43.50
APR			SEP		
22...	1045	55.60	28...	0922	41.54

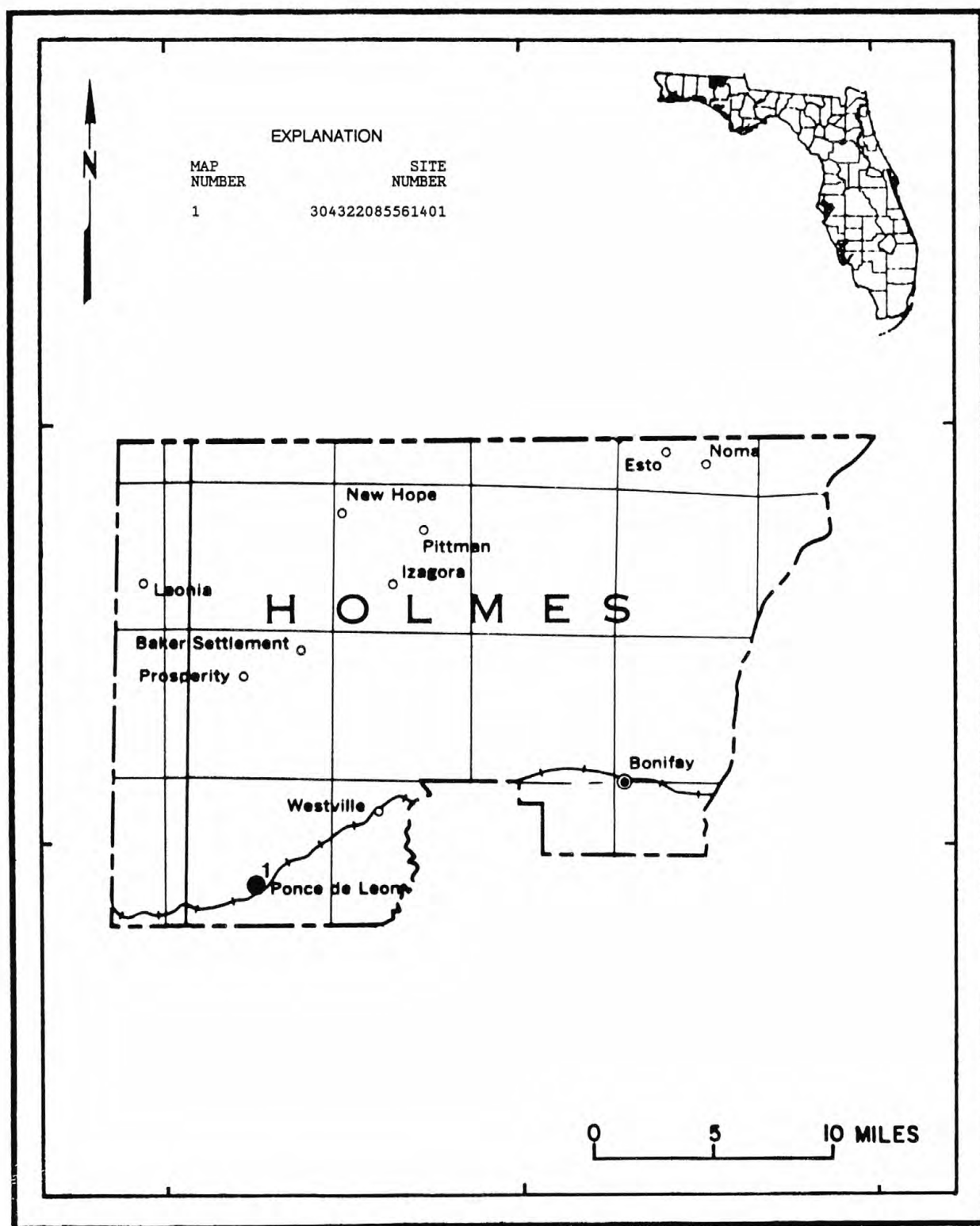


Figure 38.--Location of wells in Holmes County.

HOLMES COUNTY

WELL NUMBER.--304322085561401. Local Number 4. Mrs. Dan Hughes Well at Ponce de Leon, FL.

LOCATION.--Lat 30°43'22", long 85°56'14", in SE¹/₄NE¹/₄SE¹/₄ sec.28, T.4 N., R.17 W., Hydrologic Unit 03140203, at water tower, south of Louisville and Nashville Railroad tracks at Ponce de Leon.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 6 in, depth 187 ft, casing length unknown.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of reducing tee, 1.50 ft above land-surface datum.

DATUM.--Land-surface datum is 62.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water levels affected by pumping at times.

PERIOD OF RECORD.--June 1938 (annually); September 1947 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.08 ft NGVD, May 6, 1964; lowest measured, 62.10 ft NGVD, Dec. 10, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
20...	1555	62.44	31...	1700	66.03
DEC			JUN		
10...	0740	62.10	05...	1255	64.68
FEB			AUG		
02...	1200	63.96	12...	0810	64.38

WATER RESOURCES DATA FOR FLORIDA, 1987
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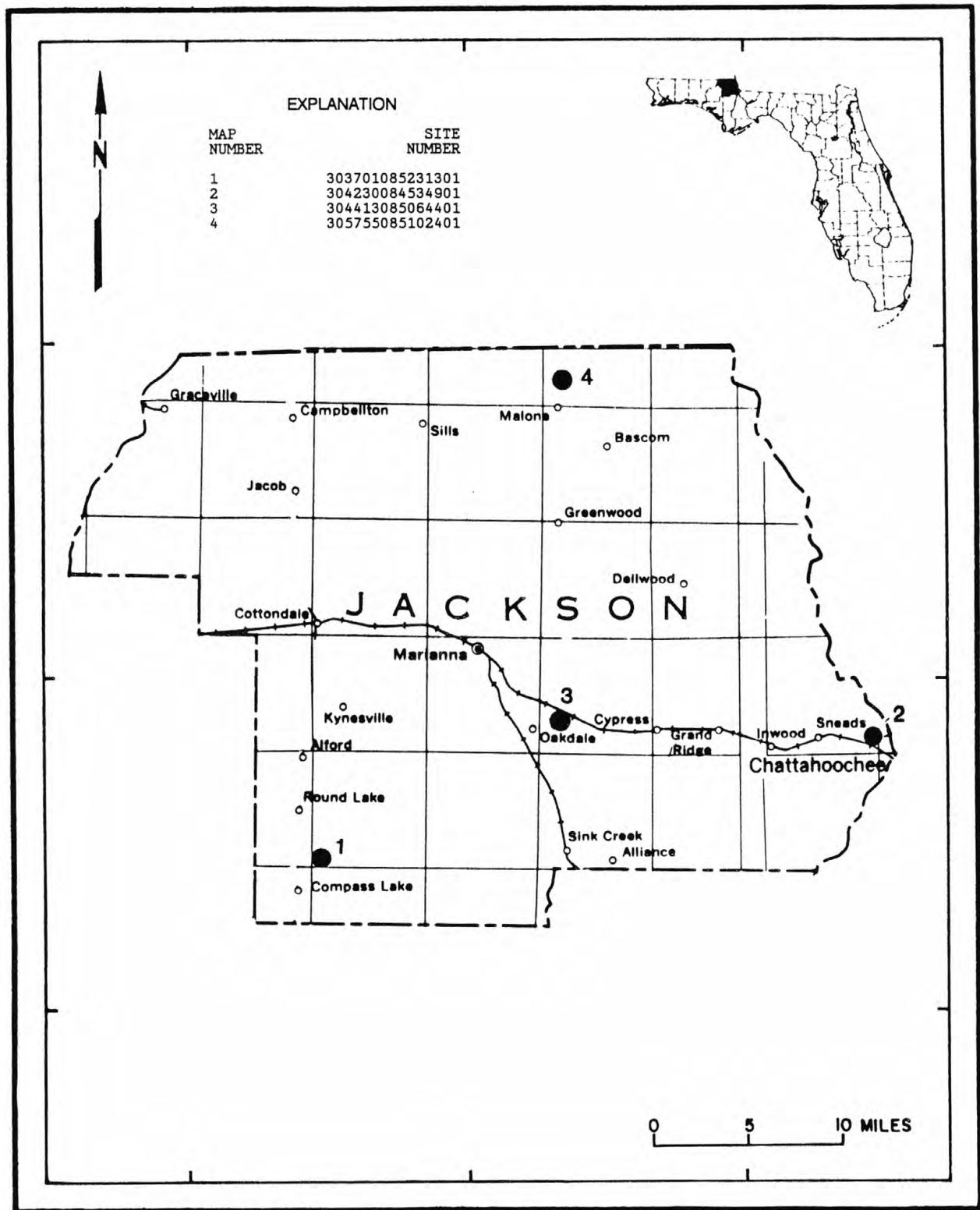


Figure 39.--Location of wells in Jackson County.

JACKSON COUNTY

WELL NUMBER.--303701085231301. Florida Forest Service Observation Well near Compass Lake, FL.

LOCATION.--Lat 30°37'01", long 85°23'13", in NE¹/₄NE¹/₄SE¹/₄ sec.36, T.3 N., R.11 W., Hydrologic Unit 03140101, 100 ft east of U.S. Highway 231, 1.0 mi north of Compass Lake.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, unused, artesian well, diameter 4 in., depth 522 ft, cased to 433 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 4 in. casing, 1.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 305 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--May 1980 (annually); October 1981 to September 1982 (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.90 ft NGVD, June 21, 1984; lowest measured, 97.20 ft NGVD, Jan. 21, 1982.

ELEVATION, IN FEET, NGVD, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
20...	1155	99.32	01...	1300	101.42
DEC			JUL		
10...	1024	98.97	08...	1330	101.26
FEB			AUG		
02...	0745	100.70	12...	1300	102.43

WELL NUMBER.--304230084535901. Homer Hirt well near Sneads, FL.

LOCATION.--Lat 30°42'32", long 84°53'59", in SE¹/₄SW¹/₄SE¹/₄ sec.26, T.4 N., R.7 W., Hydrologic Unit 03130004, 200 ft north of U.S. Highway 90, 1.55 mi east of intersection of U.S. Highway 90 and State Highway 286 at Sneads.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 101 ft, cased to 70 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of coupling, 1.45 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 98 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--November 1982 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.48 ft NGVD, Mar. 1, 1984; lowest measured, 70.96 ft NGVD, Sept. 18, 1986.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
27...	1415	70.58	27...	1345	77.58
JAN			JUN		
06...	1300	73.85	22...	0945	76.18
MAR			AUG		
06...	0900	79.12	19...	1400	76.76

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

JACKSON COUNTY

WELL NUMBER.--304413085064401. Local Number 46. International Paper Corporation Well near Cypress, FL.

LOCATION.--Lat 30°44'13", long 85°06'44", in NW¹/₄NW¹/₄ sec.23, T.4 N., R.9 W., Hydrologic Unit 03130012, 600 ft south of U.S. Highway 90 and 2.0 mi west of intersection of U.S. 90 and SR 275 at Cypress.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, observation, artesian well, diameter 4 in, depth 210 ft, cased to 94 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of steel plate, 1.00 ft above land-surface datum.

DATUM.--Land-surface datum is 166.75 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--February 1961 to July 1964 (bimonthly); January 1965 to May 1977 (semiannually); November 1977 to current year (bimonthly). Records of water levels prior to October 1975 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.89 ft NGVD, May 7, 1984; lowest measured, 82.18 ft NGVD, Jan. 6, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 27...	1525	86.27	APR 27...	1420	100.46
JAN 06...	1350	85.75	JUN 22...	1030	96.50
MAR 06...	0940	96.46	AUG 19...	1500	95.25

WELL NUMBER.--305755085102401. Hollingsworth Well near Malone, FL.

LOCATION.--Lat 30°57'55", long 85°10'24", in SE¹/₄SW¹/₄NW¹/₄ sec.31, T.7 N., R.9 W., Hydrologic Unit 03130012, 0.4 mi north of State Highway 2, and 0.7 mi west of State Highway 71, near Malone.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 90 ft, cased to 60 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 1.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 147 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--November 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 124.65 ft NGVD, May 21, 1983; lowest, 98.63 ft NGVD, Jan. 16, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	102.80	101.06	99.66	98.84	101.18	104.47	108.92	---	108.09	108.03	107.77	106.40
10	102.50	100.79	99.46	98.80	101.48	105.27	109.56	---	107.73	108.38	107.50	106.10
15	102.19	100.53	99.31	98.67	101.82	105.85	109.98	109.31	107.40	108.50	107.28	105.84
20	101.90	100.32	99.18	99.17	101.97	106.41	110.07	109.06	107.06	108.44	107.10	105.59
25	101.67	100.08	99.05	100.36	102.67	106.92	110.09	108.81	107.25	108.28	106.91	105.32
EOM	101.30	99.91	98.93	100.83	103.31	107.77	---	108.42	107.17	108.02	106.64	105.10
MEAN	102.15	100.54	99.32	99.36	101.82	105.88	109.61	108.93	107.53	108.23	107.27	105.83
MAX	103.05	101.23	99.84	100.83	103.31	107.77	110.13	109.40	108.35	108.50	107.99	106.59
MIN	101.30	99.91	98.93	98.67	100.95	103.59	108.10	108.42	107.02	107.16	106.64	105.10
WTR YR 1987	MEAN	104.54	MAX	110.13	APR 23	MIN	98.67	JAN 15				

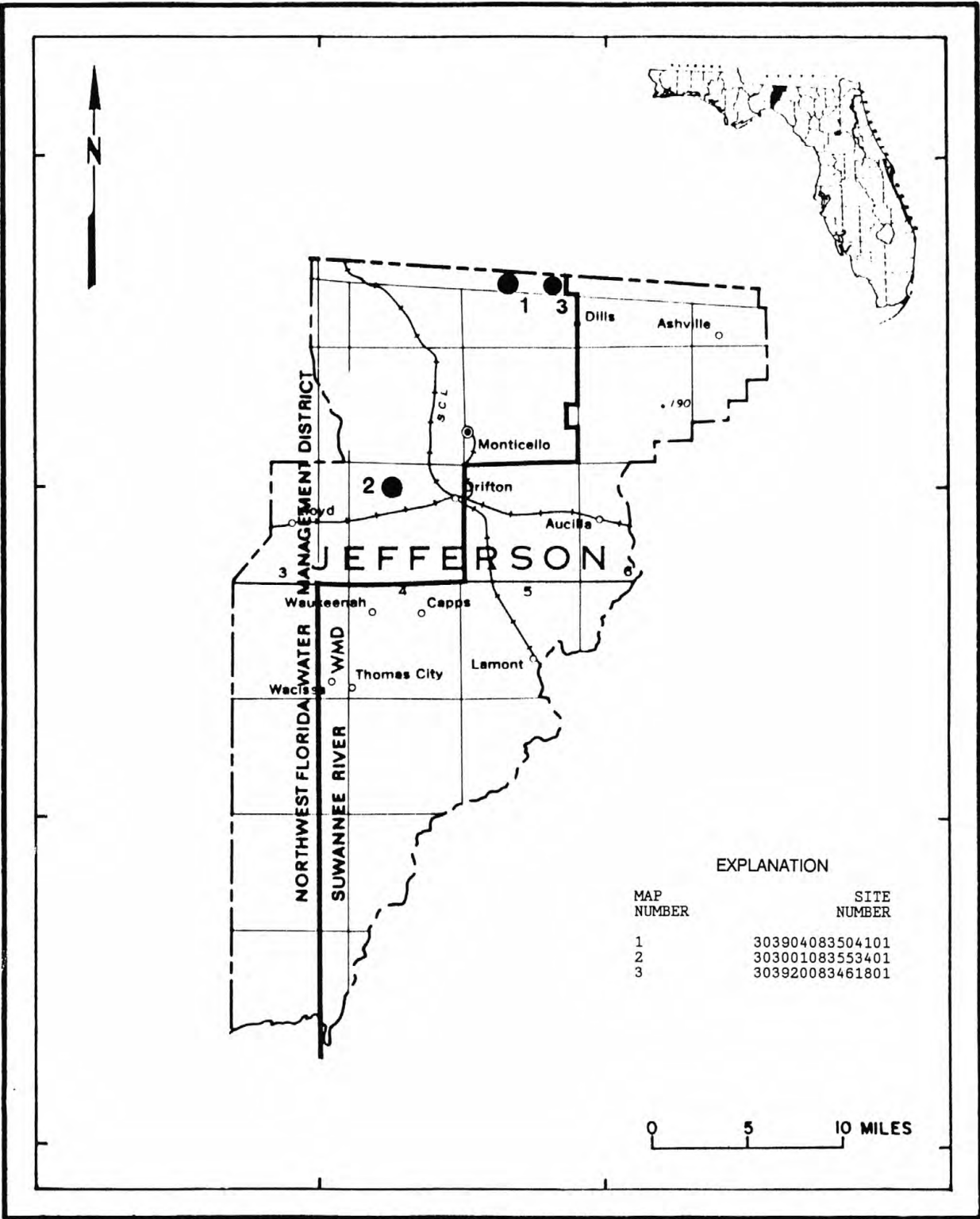


Figure 40.--Location of wells in Jefferson County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

JEFFERSON COUNTY

WELL NUMBER.--303001083553401. Joseph Bellamy Well near Monticello, FL.

LOCATION.--Lat 30°30'01", long 83°55'34", in SW¹/₄SE¹/₄NE¹/₄ sec.9, T.1 N., R.4 E., Hydrologic Unit 03120001, 1.2 mi west of SR 259, 2.1 mi east of S-158, and 4.5 mi southwest of Monticello.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 175 ft, cased to 139 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of sanitary seal, 0.70 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 175 ft, above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--November 1982 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.56 ft NGVD, Apr. 29, 1987; lowest measured, 33.15 ft NGVD, Jan. 4, 1983.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1300	34.58	APR 29...	1030	43.56
JAN 07...	0945	39.27	JUN 16...	0950	39.47
MAR 17...	1530	42.42	AUG 10...	1030	38.30

WELL NUMBER.--303904083504101. Lake Fountain well at Merrily Plantation near Monticello, FL.

LOCATION.--Lat 30°39'04", long 83°50'41", in land grant 150, T.3 N., R.5 E., Hydrologic Unit 03110103, about 0.4 mi. south of Florida-Georgia border, 1.9 mi. west of U.S. Highway 19 and 7.5 mi. northeast of Monticello.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, irrigation, artesian well, diameter 10 in., depth 269 ft., cased to 148 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 1.0 ft. above land-surface datum. Prior to Aug. 28, 1981, tape measured.

DATUM.--Elevation of land-surface datum is 190 ft. above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--June to August 1981 (monthly); August 1981 to current year (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 77.62 ft. NGVD, May 3, 1984; lowest, 65.32 ft. NGVD, Jan. 4, 1983.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	72.14	71.46	70.85	72.17	73.66	74.80	76.70					
10	71.99	71.24	71.16	72.58	73.70	75.36	77.03					
15	71.81	71.19	71.24	72.70	74.35	75.42	77.41					
20	71.66	71.11	71.49	72.86	74.21	75.72	77.28					
25	71.73	70.95	71.63	73.57	74.47	75.85	---					
EOM	71.39	71.10	72.11	73.53	75.00	76.21	---					
MEAN	71.81	71.16	71.34	72.78	74.16	75.53	77.03					
MAX	72.17	71.46	72.11	73.64	75.00	76.40	77.51					
MIN	71.39	70.89	70.78	71.81	73.62	74.75	76.19					

WTR YR 1987 MEAN 73.26 MAX 77.51 APR 16 MIN 70.78 DEC 4

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

205

JEFFERSON COUNTY

WELL NUMBER.--303920083461801. Merrily Plantation Well near Dills, FL.

LOCATION.--Lat 30°39'20", long 83°46'20", in land grant 155, T.3 N., R.6 E., Hydrologic Unit 03110103, 0.3 mi south of Florida-Georgia border, 2.1 mi north of Dills, and 2.5 mi east of S-149.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, irrigation, artesian well, diameter 10 in., depth 300 ft., cased to 185 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 0.55 ft. above land-surface datum.

DATUM.--Land-surface datum is 125.14 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--May to September 1987.

EXTREMES FOR PERIOD OF RECORDED.--Highest water level, 74.14 ft. NGVD, May 19, 20, 1987; lowest, 70.10 ft. NGVD, Sept. 18, 1987.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5								---	73.57	72.87	72.09	71.06
10								---	73.36	72.79	71.92	70.49
15								---	73.21	72.67	71.69	70.67
20								74.14	73.07	72.40	71.52	70.53
25								74.01	73.05	72.32	71.31	70.34
EOM								73.79	72.88	72.17	71.18	70.31
MEAN								73.99	73.24	72.57	71.67	70.63
MAX								74.14	73.74	72.91	72.20	71.14
MIN								73.79	72.88	72.17	71.18	70.20
WTR YR 1987	MEAN	72.23		MAX	74.14	MAY 19 AND OTHERS	MIN	70.20	SEP 28			

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

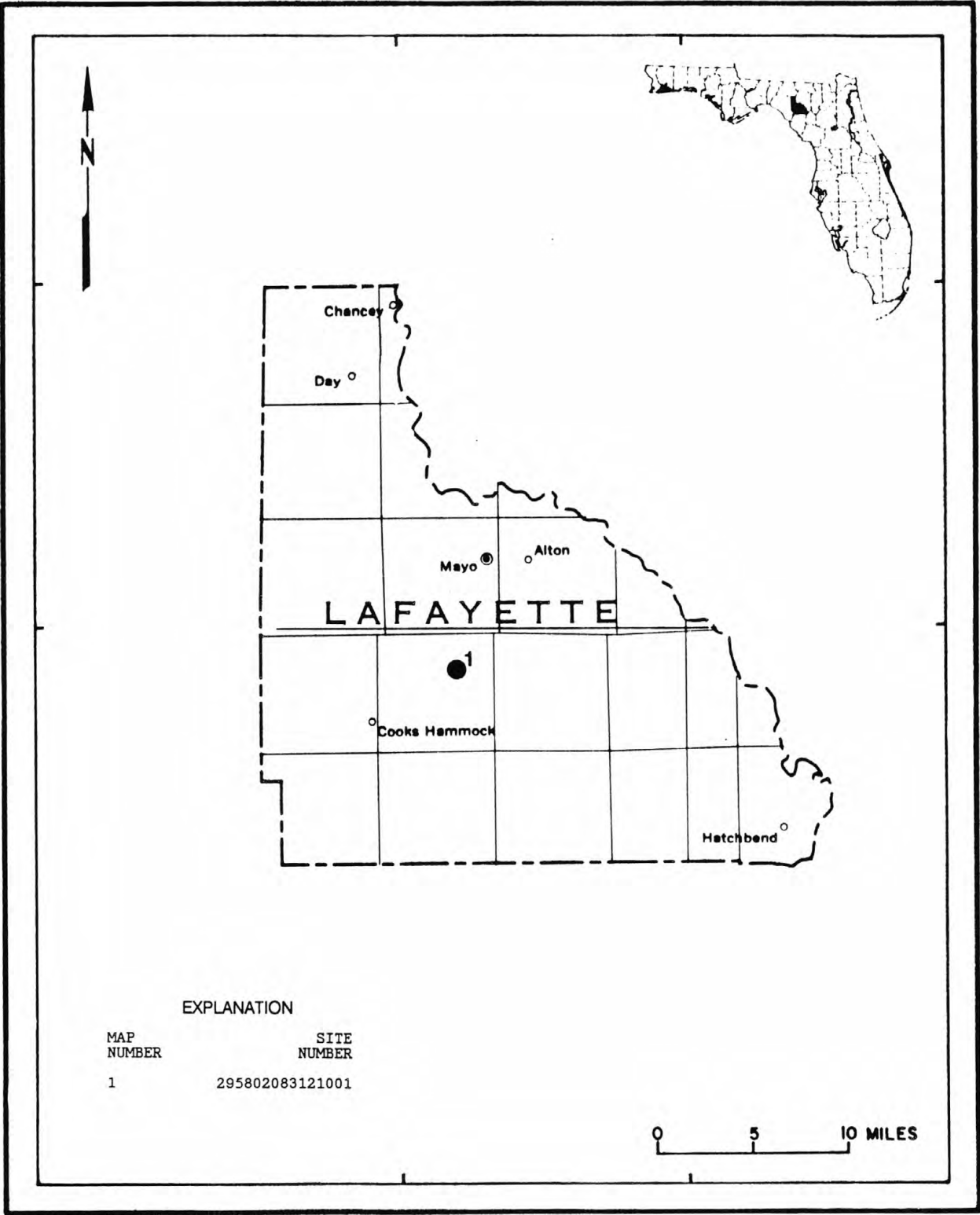


Figure 41.--Location of wells in Lafayette County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

207

LAFAYETTE COUNTY

WELL NUMBER.--295802083121001. Lester McCray Well near Mayo, FL.

LOCATION.--Lat 29°58'02", long 83°12'10", in NW¹/₄NW¹/₄NW¹/₄ sec.14, T.6 S., R.11 E., Hydrologic Unit 03110102, 0.6 mi southeast of State Highway 51, 5.0 mi northeast of Cooks Hammock and 5.8 mi south of Mayo.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 6 in., depth 146 ft, cased to 112 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top edge of recorder shelf, 3.63 ft above land-surface datum.

DATUM.--Land-surface datum is 73.85 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--February 1961 to March 1976 (bimonthly); May 1976 to September 1984; October 1984 to September 1985 (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.71 ft NGVD, Apr. 9, 1983; lowest measured, 62.13 ft NGVD, Nov. 4, 1968.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
28...	1050	65.35	21...	1335	68.13
NOV			MAY		
21...	1035	67.30	26...	1220	68.02
DEC			JUN		
29...	1100	69.41	25...	1245	67.97
JAN			JUL		
28...	1050	69.86	31...	1240	66.39
FEB			AUG		
24...	1350	70.24	25...	1130	67.54
MAR			SEP		
26...	1320	69.03	24...	1230	66.60

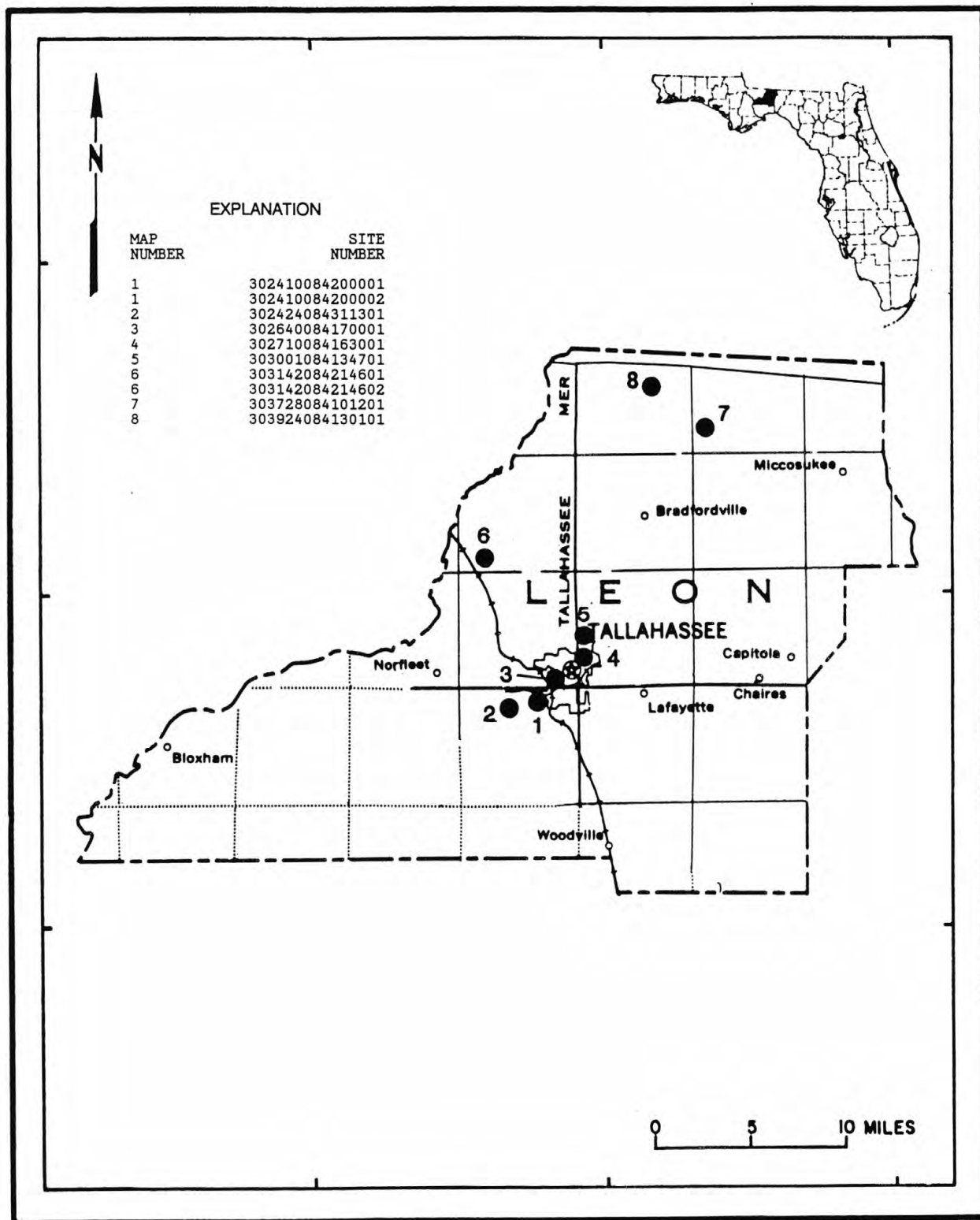


Figure 42.--Location of wells in Leon County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

209

LEON COUNTY

WELL NUMBER.--302410084200001. Local number 150. Florida State University well near Tallahassee, FL.

LOCATION.--Lat 30°24'10", long 84°20'00", in NW¹/₄SW¹/₄NE¹/₄ sec.16, T.1 S., R.1 W., Hydrologic Unit 03120001, 250 ft west of Lake Bradford Road and 4.0 mi southwest of State Capitol in Tallahassee, FL.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 57 ft, cased to 57 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 3.00 ft above land-surface datum.

DATUM.--Land-surface datum is 37.51 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--May 1960 to February 1965; April 1965 to September 1972 (bimonthly); September 1972 to September 1979; October 1979 to May 1981 (semiannually); May 1981 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.95 ft NGVD, Apr. 12, 1973; lowest, 18.20 ft NGVD, June 27, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	1045	25.04	APR 16...	0920	31.60
JAN 06...	1045	28.03	JUN 17...	1455	28.70
FEB 24...	0845	29.29	AUG 11...	1020	29.27

WELL NUMBER.--302410084200002. Local number 150A. Florida State University well near Tallahassee, FL.

LOCATION.--Lat 30°24'10", long 84°20'00", in NW¹/₄SW¹/₄NE¹/₄ sec.16, T.1 S., R.1 W., Hydrologic Unit 03120001, 250 ft west of Lake Bradford Road and 4.0 mi southwest of State Capitol in Tallahassee, FL.

AQUIFER.--Nonartesian sand aquifer of the Quaternary System, Geologic Unit 110 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 1S in., depth 15 ft, cased to 12 ft, well point from 12 to 15 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 3.00 ft above land-surface datum.

DATUM.--Land-surface datum is 37.52 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--May 1960 to October 1979 (bimonthly); October 1979 to May 1981 (semiannually); May 1981 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.16 ft NGVD, Apr. 4, 1973; lowest measured, 25.66 ft NGVD, June 27, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	1050	30.30	APR 16...	0915	33.68
JAN 06...	1050	32.92	JUN 17...	1450	34.72
FEB 24...	0850	33.72	AUG 11...	1015	32.77

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEON COUNTY

WELL NUMBER.--302424084311301. City of Tallahassee Airport Well near Tallahassee, FL.

LOCATION.--Lat 30°24'24", long 84°21'13", in NE¹/₄SE¹/₄SW¹/₄ sec. 8, T.1 S., R.1 W., Hydrologic Unit 03120001, 150 ft west of State Highway 263, 0.7 mi northeast of airport control tower, and 5.0 mi southwest of State Capitol at Tallahassee, FL.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, municipal, artesian well, diameter 10 in., depth 194 ft cased to 190 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 1.65 ft above land-surface datum.

DATUM.--Land-surface datum is 67.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Extremes may have been exceeded during periods of missing record.

PERIOD OF RECORD.--June 1977 to current year (incomplete).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.58 ft NGVD, April 23, 1984; lowest, 20.45 ft NGVD, Nov. 22, 1986.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.85	21.11		---	26.08	26.58	29.02	28.75	26.59	28.04	27.67	28.54
10	22.49	20.84		---	26.11	26.77	29.97	28.35	26.20	28.37	27.38	28.20
15	22.17	20.64		---	26.24	26.79	30.21	28.06	25.88	28.47	27.53	27.89
20	21.81	20.54		---	26.17	26.92	29.97	27.86	26.46	28.37	28.15	27.59
25	21.55	---		---	26.34	27.04	29.65	27.53	27.15	28.15	28.71	27.23
EOM	21.28	---		25.84	26.57	27.59	29.20	27.03	27.69	27.90	28.76	26.86
MEAN	22.12	20.82		25.83	26.21	26.88	29.59	28.05	26.60	28.21	27.99	27.84
MAX	23.08	21.23		25.84	26.57	27.59	30.22	29.13	27.69	28.47	28.82	28.72
MIN	21.28	20.49		25.82	25.93	26.55	27.88	27.03	25.87	27.79	27.21	26.86
WTR YR 1987	MEAN	26.58	MAX	30.22	APR 16	MIN	20.49	NOV 22				

WELL NUMBER.--302640084170001. Leon 152. State of Florida Observation Well at Tallahassee, FL.

LOCATION.--Lat 30°26'40", long 84°17'00", in NW¹/₄SW¹/₄NE¹/₄ sec.35, T.1 N., R.1 W., Hydrologic Unit 03120001, behind Herman Gunter Building, at corner of West Tennessee Street and Woodward Street, 2.7 mi west of State Capitol at Tallahassee.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 to 4 to 3 in, depth 310 ft, cased to 146 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 6 in casing, 0.86 ft above land-surface datum. Since October 15, 1960 water-level recorder, used for display purposes only at Herman Gunter Building.

DATUM.--Land-surface datum is 100.52 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--August 1960 (annually); October 1960 to December 1961; January 1962 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.76 ft NGVD, July 1, 1965; lowest measured, 18.00 ft NGVD, Nov. 18, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 17...	1455	22.06	JUN 11...	0855	27.48
JAN 14...	1555	25.88	JUL 29...	1125	28.54
MAR 16...	1550	28.40			

LEON COUNTY

WELL NUMBER.--302710084163001. Local number 7, City of Tallahassee Test Well at Tallahassee, FL.

LOCATION.--Lat 30°27'10", long 84°16'30", in NE¹/₄SW¹/₄ sec.30, T.1 N., R.1 E., Hydrologic Unit 03120001, in pump house at Lafayette Park, 1.3 mi northeast of State Capitol at Tallahassee.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in, depth 314 ft, cased to 165 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 1.20 ft above land-surface datum.

DATUM.--Land-surface datum is 186.50 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1945 to January 1965; February 1965 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level 37.66 ft NGVD, Apr. 26, 1948; lowest 16.42 ft NGVD, June 14, 1955.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAY		
29...	1045	23.30	28...	0935	29.68
NOV			JUN		
26...	1220	22.72	26...	1410	29.43
DEC			JUL		
29...	1620	25.99	29...	0930	28.11
JAN			AUG		
30...	1000	27.90	28...	1250	28.37
FEB			SEP		
26...	1545	28.71	28...	1020	27.12
APR					
01...	0950	30.14			
30...	0930	29.93			

WELL NUMBER.--303001084134701. City of Tallahassee Olson Road Well at Tallahassee, FL.

LOCATION.--Lat 30°30'01", long 84°13'47", in SW¹/₄SE¹/₄NE¹/₄ sec.9, T.1 N., R.1 E., Hydrologic Unit 03120001, 50 ft east of Olson Road near Interstate Route 10 and 5.2 mi northeast of State Capitol at Tallahassee.

AQUIFER.--Floridan aquifer of the Tertiary system, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 444 ft, cased to 289 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top edge of 3/8 in. hole in casing, 1.00 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Extremes may have been exceeded during periods of missing record. Water level records prior to 1987 are available in the files of the U.S. Geological Survey, Florida District.

PERIOD OF RECORD.--October 1979, December 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 41.89 ft NGVD, Apr. 17, 18, 1984; lowest, 24.81 ft NGVD, Dec. 29, 1981.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.51	31.61	31.83	34.39	36.73	37.87	40.05	40.06	---	---	36.56	---
10	32.36	31.40	32.24	35.03	36.77	38.36	40.62	37.74	---	---	35.84	---
15	32.17	31.27	32.73	35.29	37.25	38.34	41.09	39.83	---	---	36.42	35.11
20	31.92	31.31	33.35	35.59	37.12	38.64	---	38.34	---	36.39	38.08	35.39
25	31.99	31.23	33.53	36.31	37.48	38.73	---	37.24	---	36.83	35.48	34.50
EOM	31.64	31.61	34.06	36.67	37.83	39.03	38.30	36.62	---	36.69	---	---
MEAN	32.16	31.35	32.81	35.37	37.14	38.44	40.19	38.62	36.43	36.99	36.64	34.90
MAX	32.72	31.61	34.06	36.67	37.83	39.20	41.24	40.07	36.43	38.66	38.27	35.39
MIN	31.64	31.16	31.57	34.05	36.70	37.75	38.27	36.62	36.43	36.39	35.47	34.25

WTR YR 1987 MEAN 35.68 MAX 41.24 APR 17 MIN 31.16 NOV 16

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEON COUNTY

WELL NUMBER.--303142084214601. USGS Observation Well at Lake Jackson near Tallahassee, FL.

LOCATION.--Lat 30°31'42", long 84°21'46", in NE¹/₄NE¹/₄SE¹/₄ sec.31, T.2 N., R.1 W., Hydrologic Unit 03120003, 0.3 mi south of U.S. Highway 27 and 12 mi northwest of State Capitol at Tallahassee.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 6 in., depth 225 ft, cased to 100 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 3.09 ft above land-surface datum.

DATUM.--Land-surface datum is 122.20 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.94 ft NGVD, May 3, 1984; lowest, 28.04 ft NGVD, Jan. 7, 1972.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.94	32.81	32.46	34.95	37.03	38.35	40.47	40.50	39.27	40.35	40.21	40.20
10	33.67	32.62	32.91	35.39	37.07	38.85	41.10	40.34	38.81	40.54	40.07	39.93
15	33.30	32.72	33.37	35.63	37.46	38.80	41.43	40.46	38.91	40.61	40.02	39.71
20	33.00	32.67	33.83	36.07	37.74	39.07	41.36	40.53	39.35	40.45	40.11	39.54
25	33.01	32.34	34.18	36.72	38.03	39.28	41.33	40.27	39.79	40.42	40.05	39.16
EOM	32.87	32.70	34.65	36.80	38.47	39.60	40.89	39.56	40.03	40.29	40.16	38.98
MEAN	33.31	32.64	33.46	35.79	37.53	38.95	41.03	40.35	39.28	40.44	40.09	39.63
MAX	33.94	32.93	34.65	36.88	38.47	39.72	41.55	40.79	40.03	40.63	40.31	40.20
MIN	32.71	32.31	32.38	34.69	36.87	38.30	39.75	39.56	38.58	40.13	39.96	38.78
WTR YR 1987	MEAN	37.70	MAX	41.55	APR 16	AND OTHERS	MIN	32.31	NOV 24			

WELL NUMBER.--303142084214602. USGS Observation Well at Lake Jackson near Tallahassee, FL.

LOCATION.--Lat 30°31'42", long 84°21'46", in NE¹/₄NE¹/₄SE¹/₄ sec.31, T.2 N., R.1 W., Hydrologic Unit 03120003, 0.3 mi south of U.S. Highway 27 and 12 mi northwest of State Capitol at Tallahassee.

AQUIFER.--Hawthorn sand-and-gravel aquifer of the Miocene Series, Geologic Unit 122 HTRNS.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 6 in, depth 54 ft, cased to 49 ft, screened from 49 to 54 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 3.11 ft above land-surface datum.

DATUM.--Land-surface datum is 122.26 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--September 1966 to current year. Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 93.85 ft NGVD, Sept. 30, 1966; lowest, 79.43 ft NGVD, Dec. 17, 1972.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	85.73	84.72	83.61	84.45	85.50	86.58	88.50	89.63	89.69	90.38	90.36	90.13
10	85.56	84.37	84.06	84.65	85.49	87.20	89.01	89.65	89.60	90.54	90.31	90.01
15	85.42	84.23	83.91	84.71	86.23	87.24	89.45	89.77	89.61	90.60	90.18	89.99
20	85.11	84.16	84.17	84.69	85.97	87.58	89.36	89.82	89.83	90.46	90.15	90.01
25	85.30	83.91	84.31	85.33	86.22	87.72	89.60	89.81	90.19	90.47	90.11	89.86
EOM	84.88	84.06	84.46	85.37	86.76	88.07	89.67	89.78	90.20	90.41	90.08	89.94
MEAN	85.35	84.27	84.04	84.76	86.00	87.35	89.14	89.75	89.80	90.49	90.21	89.97
MAX	85.73	84.75	84.47	85.40	86.76	88.13	89.67	89.82	90.26	90.63	90.46	90.13
MIN	84.88	83.84	83.61	84.22	85.46	86.54	87.88	89.63	89.52	90.30	90.04	89.67
WTR YR 1987	MEAN	87.60	MAX	90.63	JUL 13	AND OTHERS	MIN	83.61	DEC 5			

LEON COUNTY

WELL NUMBER.--303728084101201. Local number 36A. USGS Observation Well at Dawkins Pond near Bradfordville, FL.

LOCATION.--Lat 30°37'28", long 84°10'12", in SE¹/₄SE¹/₄SW¹/₄ sec.30, T.3 N., R.2 E., Hydrologic Unit 0312003, at Dawkins Pond Church, 100 ft west of U.S. Highway 319, and 5.2 mi north of Bradfordville.

AQUIFER.--Hawthorn sand-and-gravel of the Tertiary System, Geologic Unit 122 HTRNS.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 1¹/₄ in, depth 41 ft, cased to 38 ft, screened from 38 to 41 ft. Well deepened April 1955 from 30 to 41 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 3.85 ft above land-surface datum.

DATUM.--Land-surface datum is 102.12 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--December 1935 to June 1937 (weekly); July 1942 to March 1943 (monthly); March 1943 to December 1943 (weekly); January 1947 to current year (monthly). Prior to January 1955 published as Leon 36.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 104.07 ft NGVD, Apr. 27, 1965; lowest measured, 68.46 ft NGVD, Feb. 28, 1957.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	1525	83.93	APR 29...	1335	97.39
JAN 08...	1040	94.20	JUN 16...	1600	96.22
FEB 24...	1530	98.16	AUG 10...	1500	93.63

WELL NUMBER.--303924084130101. Tall Timbers Research Well near Iamonia, FL.

LOCATION.--Lat 30°39'24", long 84°13'01", in NW¹/₄SW¹/₄SW¹/₄ sec.15, T.3 N., R.1 E., Hydrologic Unit 03120003, about 0.3 mi west of Tall Timbers Research Center office, about 0.4 mi south of State Highway 12, and 2.8 mi southwest of Iamonia.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 8 in., depth 249 ft, cased 221 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top edge of 6 in. horizontal discharge line, 1.8 ft above land-surface datum.

DATUM.--Land-surface datum is 101.42 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--December 1974 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 75.48 ft NGVD, May 3, 1977; lowest measured, 58.82 ft NGVD, Dec. 17, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	1435	65.93	APR 29...	1435	73.18
JAN 08...	1140	66.22	JUN 17...	1230	73.43
FEB 24...	1425	69.40	AUG 10...	1555	70.71

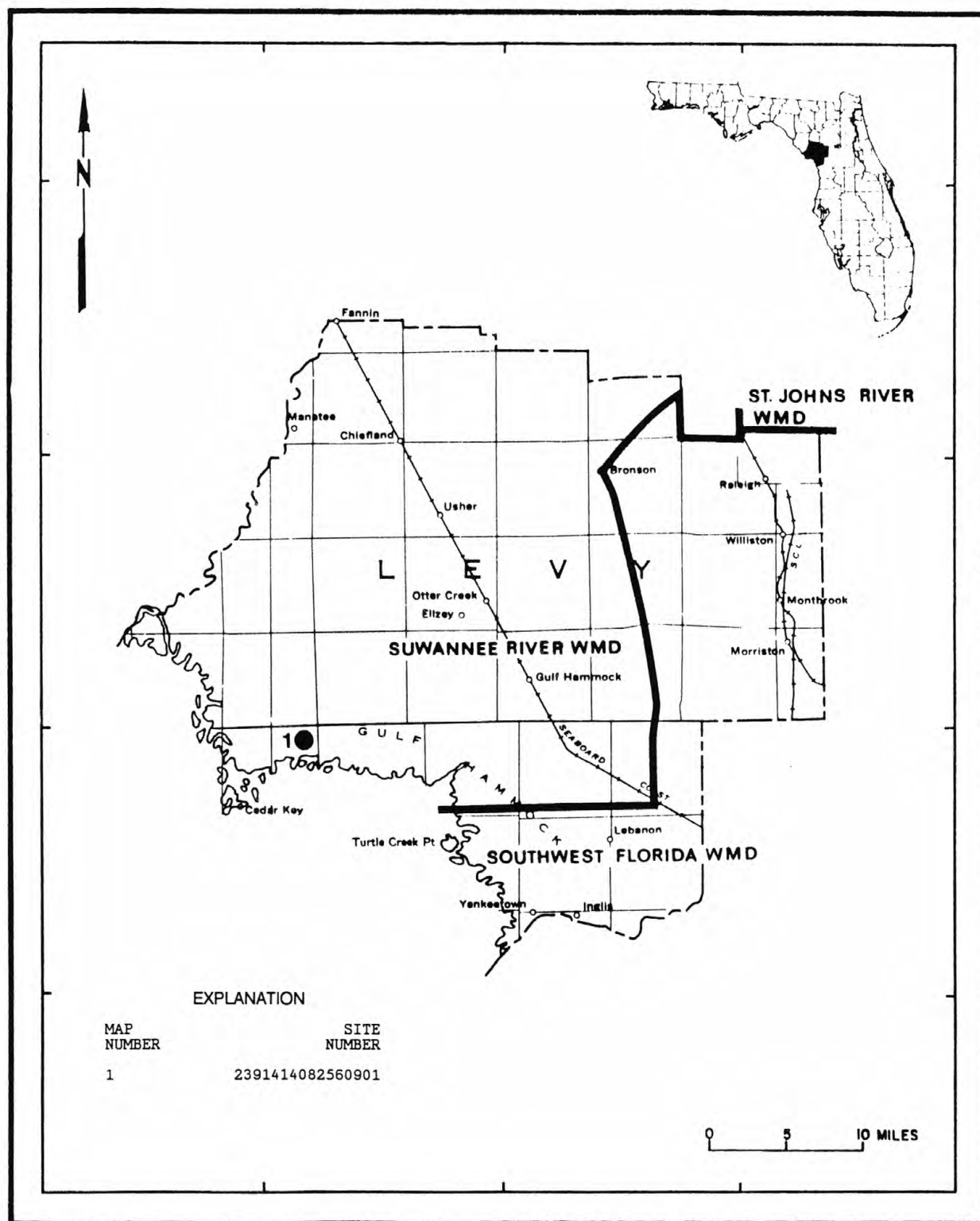


Figure 43.--Location of wells in Levy County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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LEVY COUNTY

WELL NUMBER.--291414082560901. Rosewood Tower Well near Cedar Key, FL.

LOCATION.--Lat 29°14'14", long 82°56'09", in SE¹/₄NW¹/₄NW¹/₄ sec.29, T.14 S., R.14 E., Hydrologic Unit 03110101, 50 ft north of SR 24 at Suwannee Lookout Tower, (Rosewood Tower) 9.4 mi northeast of Cedar Key and 11.6 mi southwest of Otter Creek.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 to 4 in., depth 442 ft, cased to 422 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 2.52 ft above land-surface datum.

DATUM.--Land-surface datum is 16.93 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.98 ft NGVD, Mar. 30, 1987; lowest, 8.59 ft NGVD, July 19, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.11	10.76	10.68	11.20	11.18	11.20	11.65	11.12	---	11.03	11.07	11.19
10	11.06	10.67	10.82	11.15	10.99	11.55	11.64	11.02	---	11.22	11.06	11.26
15	11.03	10.57	10.76	11.05	11.34	11.35	11.69	11.12	---	11.22	---	11.39
20	10.72	10.58	10.86	11.03	11.09	11.54	11.46	11.20	---	11.08	---	11.42
25	10.77	10.46	11.00	11.32	11.23	11.53	11.45	11.33	---	11.12	11.06	11.32
EOM	10.71	10.75	11.20	11.14	11.39	11.85	11.23	11.10	10.75	11.04	11.07	11.43
MEAN	10.90	10.61	10.84	11.11	11.23	11.50	11.55	11.17	10.75	11.12	11.05	11.28
MAX	11.11	10.77	11.20	11.46	11.45	11.98	11.76	11.33	10.75	11.25	11.10	11.43
MIN	10.65	10.46	10.62	10.96	10.99	11.20	11.23	11.01	10.75	10.81	11.01	11.06
WTR YR 1987	MEAN	11.12	MAX	11.98	MAR 30	MIN	10.46	NOV 24	AND OTHERS			

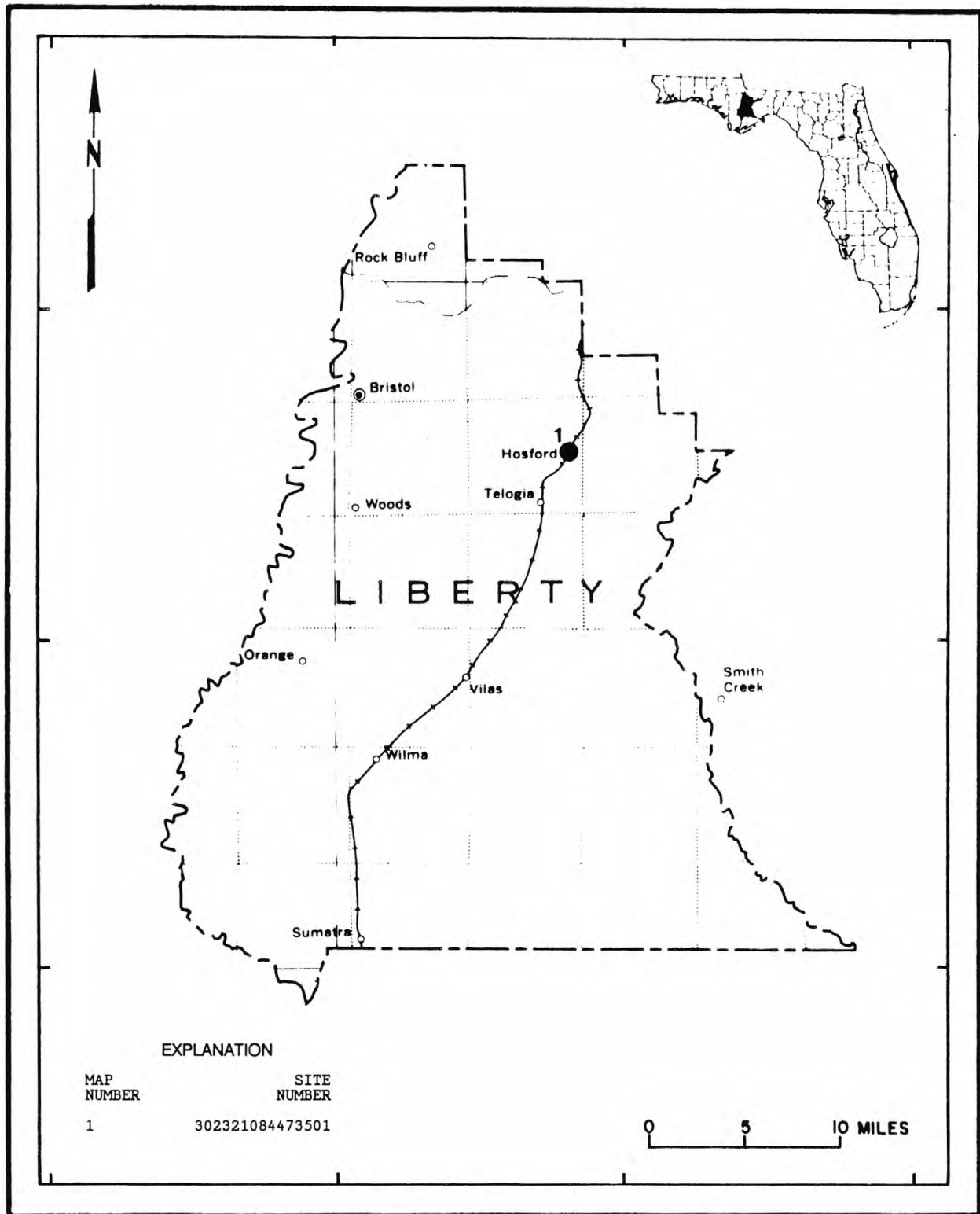


Figure 44.--Location of wells in Liberty County.

LIBERTY COUNTY

WELL NUMBER.--302321084473501. C. W. Roberts Well at Hosford, FL.

LOCATION.--Lat 30°23'21", long 84°47'35", in NE¹/₄NE¹/₄SW¹/₄ sec.13, T.1 S., R.6 W., Hydrologic Unit 03120003, north of State Highway 20, 0.4 mi east of intersection of State Highways 65 and 20 at Hosford.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 3 in., depth 85 ft, cased to 70 ft.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of tee, 0.80 ft above land-surface datum.

DATUM.--Land-surface datum is 87.01 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1961 to July 1964 (bimonthly); January 1965 to December 1974 (semiannually); January 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 91.91 ft NGVD, May 6, 1965; lowest measured, 86.38 ft NGVD, Dec. 16, 1974.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 28...	1415	87.39	APR 28...	1010	87.32
JAN 12...	1045	89.57	JUN 18...	1145	88.61
MAR 03...	1100	90.04	AUG 14...	1030	89.39

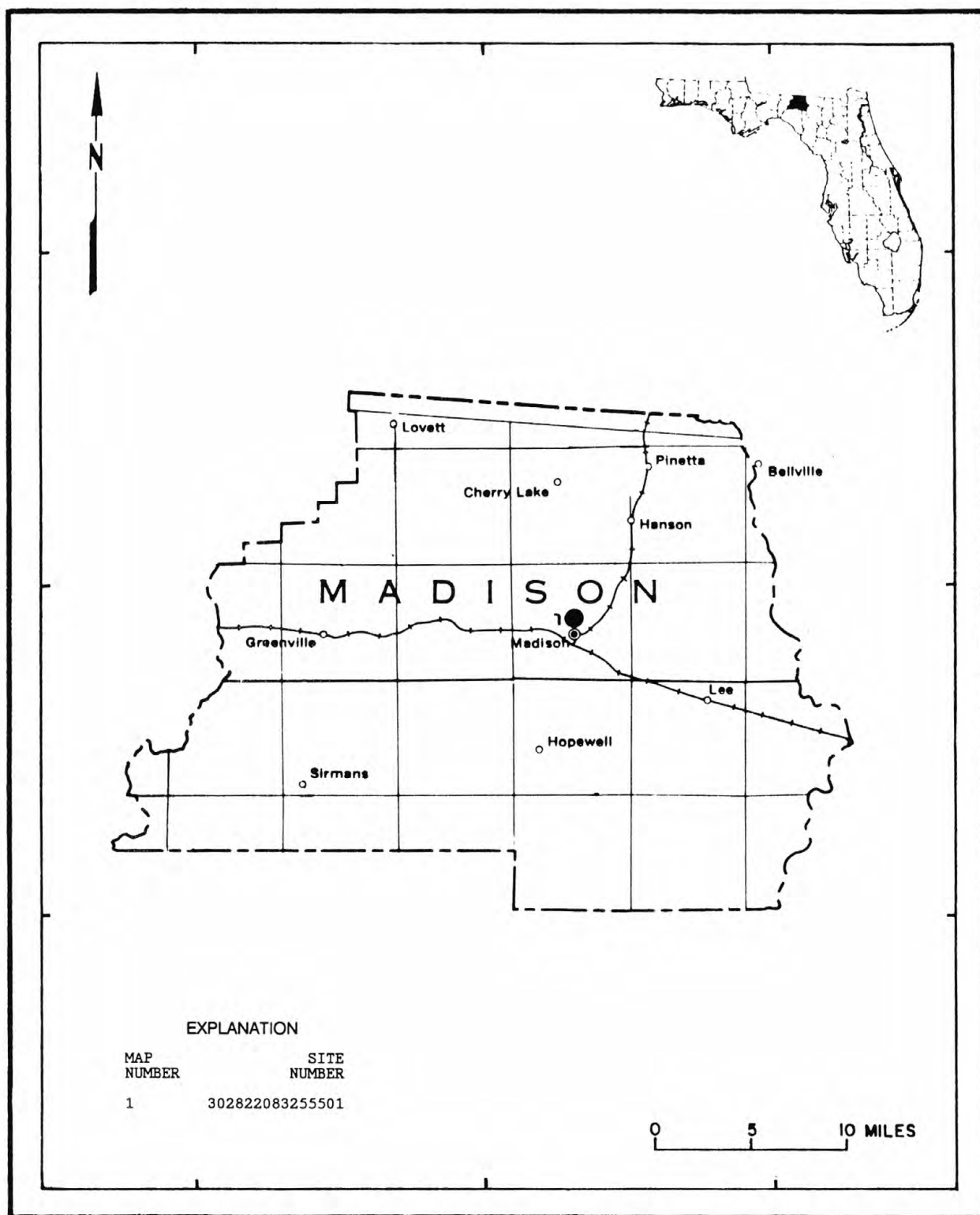


Figure 45.--Location of wells in Madison County.

MADISON COUNTY

WELL NUMBER.--302822083255501. Local number Madison 18. Florida Department of Transportation well at Madison, FL.

LOCATION.--Lat 30°28'22", long 83°25'55", in SW¹/₄SW¹/₄NW¹/₄ sec.21, T.1 N., R.9 E., Hydrologic Unit 03110103, 0.1 mi south of U.S. Highway 90 and 0.9 mi west of intersection of State Highway 53 and U.S. Highway 90 at Madison.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, drainage, artesian well, diameter 4 in., depth 322 ft, cased to 307 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of recorder shelf, 2.5 ft above land-surface datum.

DATUM.--Land surface datum is 100.56 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--April 1952 to July 1954 (bimonthly); July 1954 to December 1964; January 1965 to November 1977 (bimonthly); January 1978 to November 1981 (semiannually); May 1982 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 94.66 ft NGVD, May 10, 1973; lowest, 64.67 ft NGVD, Mar. 27, 1957.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
31...	0910	72.63	24...	1148	89.25
NOV			MAY		
21...	1120	72.20	26...	1410	84.03
DEC			JUN		
23...	1010	77.29	30...	0930	80.49
JAN			JUL		
30...	1043	83.16	31...	0950	78.94
FEB			AUG		
25...	1450	85.19	24...	1220	77.65
MAR			SEP		
31...	1705	88.16	30...	1405	75.70

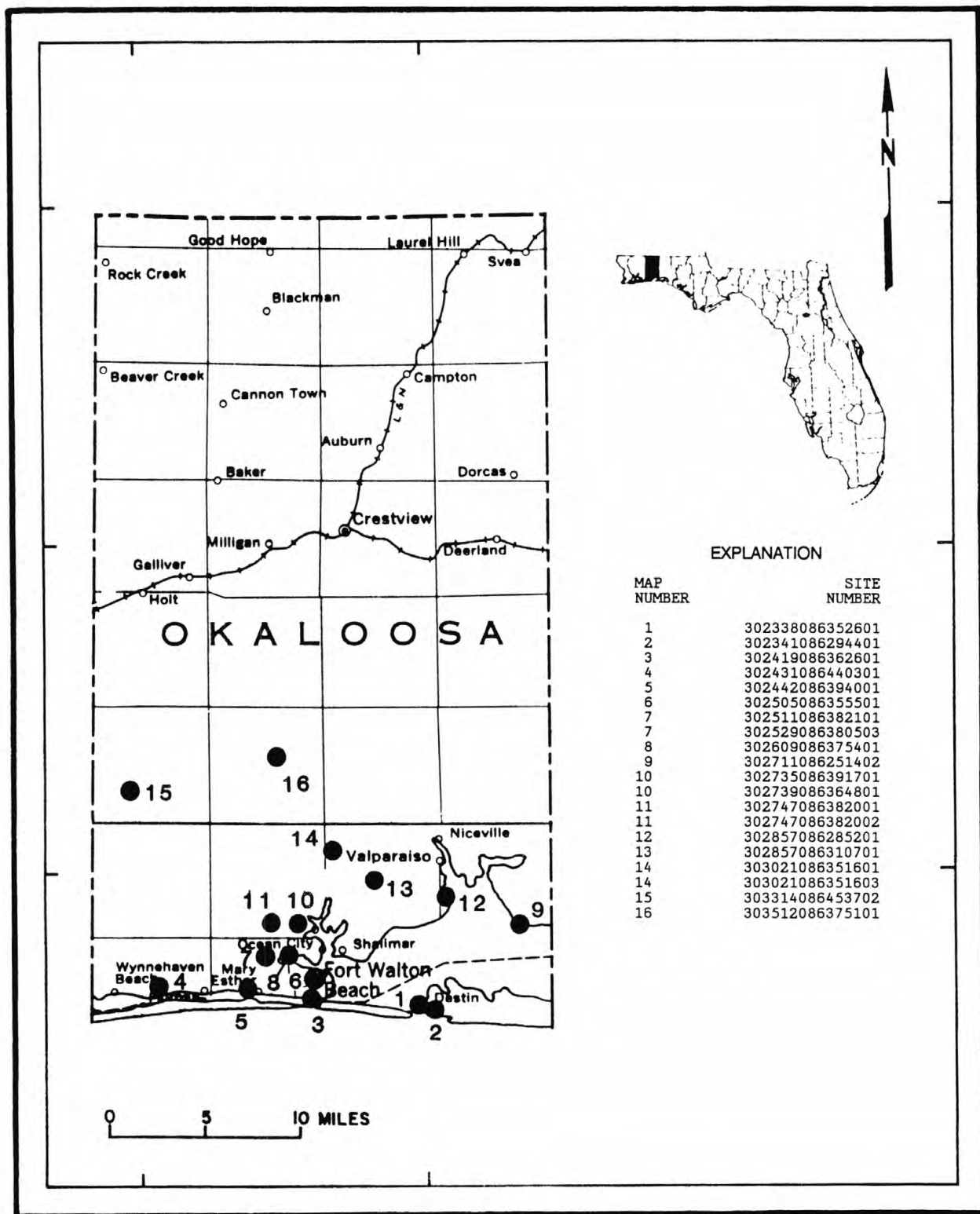


Figure 46.--Location of wells in Okaloosa County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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OKALOOSA COUNTY

WELL NUMBER.--302338086352601. State of Florida Wayside Park Well near Ft. Walton Beach, FL.

LOCATION.--Lat 30°23'38", long 86°35'26", in SE¹/₄NE¹/₄SW¹/₄ sec.19, T.2 S., R.23 W., Hydrologic Unit 03140105, at wayside park, 0.5 mi east of U.S. Highway 98 bridge over Choctawhatchee Bay, and 2.0 mi east of Fort Walton Beach, FL.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 5 in., depth 696 ft, cased to 474 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 1.0 ft above land-surface datum.

DATUM.--Elevation of land-surface is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--July 1966, January 1967 (annually); April 1967 to May 1968; October 1968 to August 1970 (bimonthly); July 1974 (annually); March to November 1979 (bimonthly); July 1981 to March 1982 (semiannually); January 1983 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, -31.60 ft NGVD, Mar. 4, 1968; lowest measured, -132.30 ft NGVD, Sept. 16, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	0820	-109.33	MAY 06...	1025	-117.73
JAN 06...	0810	-107.05	SEP 15...	1250	-117.25
MAR 03...	1015	-111.50			

WELL NUMBER.--302341086294401. Destin Water Users Inc. Well Number 1 at Destin, FL.

LOCATION.--Lat 30°23'41", long 86°29'44", in sec.*, T.2 S., R.23 W., Hydrologic Unit 03140103, in pumphouse, 0.2 mi north of intersection of State Highway 30B and U.S. Highway 98 at Destin.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 10 in., depth 657 ft, cased to 440 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of hole in pump base, 1.0 above land-surface datum.

DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--*Land is not sectionized in this area.

PERIOD OF RECORD ELEVATIONS.--March 1975 to current year (bimonthly).

PERIOD OF RECORD WATER QUALITY.--March 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, -10.22 ft NGVD, Mar. 10, 1975; lowest measured, -64.34 ft NGVD, July 15, 1986.

ELEVATION, CONDUCTANCE AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 05...	0850	-59.28	--	--	MAY 06...	1050	-52.69	--	--
JAN 06...	0830	-47.34	500	48	JUL 08...	1015	-62.70	555	56
MAR 03...	1045	-44.79	545	61	SEP 15...	1320	-63.48	560	58

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OKALOOSA COUNTY

WELL NUMBER.--302419086362601. Local number 3. Okaloosa County School Board Well at Fort Walton Beach, FL.

LOCATION.--Lat 30°24'19", long 86°36'26", in SE¹/₄SE¹/₄SW¹/₄ sec.13, T.2 S., R.24 W., Hydrologic Unit 03140105, at Fort Walton Beach Elementary School near corner of intersection of 1st Street, Windham Avenue, and Eglin Parkway at Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 6 in, depth 668 ft, cased to 503 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of shelter floor, 2.00 ft above land-surface datum.

DATUM.--Land-surface datum is 16.44 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Extremes may have been exceeded during periods of missing record.

PERIOD OF RECORD.--August 1936, November 1946 (annually); April 1947 to July 1968 (bimonthly); January 1969 to May 1970 (semiannually); May 1971, July 1974 (annually); March 1975 to November 1977 (bimonthly); April 1978 to September 1980; October 1980 to September 1982 (bimonthly); October 1982 to current year. Records of water levels prior to November 1946 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.44 ft NGVD, Aug. 19, 1936; lowest, -113.72 ft NGVD, Aug. 10, 1986.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-107.65	---	---	---	-95.52	-92.63	-95.57	---	-111.31	-108.19	-110.72	-111.50
10	---	-103.82	---	-101.80	-94.65	-92.73	-95.40	-105.58	-111.16	-110.60	-111.12	-111.35
15	---	-102.79	---	-99.91	-93.29	-94.10	-95.96	-107.50	-109.55	-111.68	-111.03	-110.39
20	---	-101.68	---	-98.20	-93.60	-94.56	-97.96	-109.13	-106.34	-110.96	-109.85	-110.97
25	---	-100.63	---	-96.64	-93.31	-95.05	-99.66	-109.94	-104.70	-110.42	-110.85	-110.76
EOM	---	-99.20	---	-96.01	-92.63	-95.54	-101.67	-110.88	-105.51	-111.09	-111.91	-111.70
MEAN	-107.40	-102.04	-98.96	-98.67	-94.16	-93.96	-97.26	-107.99	-108.46	-110.18	-110.92	-111.15
MAX	-107.03	-99.20	-98.90	-96.01	-92.63	-92.40	-95.40	-102.26	-104.70	-106.16	-109.77	-110.34
MIN	-107.65	-104.02	-99.06	-101.87	-95.70	-95.54	-101.67	-110.88	-111.31	-112.01	-112.10	-112.12

WTR YR 1987 MEAN -103.66 MAX -92.40 MAR 1 AND OTHERS MIN -112.12 SEP 28

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

WELL NUMBER.--302424086453401. R.V. Tye well near Mary Esther, FL.

LOCATION.--Lat 30°24'24", long 86°45'34", in SE¹/₄NW¹/₄NW¹/₄ sec.21, T.2 S, R.25 W., Hydrologic Unit 03140105, 1.0 mile south of U.S. 98 and 4.5 miles west of Mary Esther.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 808 ft., casing length 652 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, .3 ft above land-surface datum.

DATUM.--Elevation of land-surface is 5.0 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--May 1986 to current year, (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, -49.19 ft NGVD, Mar. 3, 1987; lowest measured, -62.78 ft NGVD, Sept. 15, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1120	-57.22	MAY 06...	0850	-56.93
JAN 06...	1505	-52.54	JUL 08...	0820	-62.20
MAR 03...	0845	-49.19	SEP 15...	1050	-62.78

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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OKALOOSA COUNTY

WELL NUMBER.--302442086394001. Town of Mary Esther Well Number 2 at Mary Esther, FL.

LOCATION.--Lat 30°24'42", long 86°39'40", in NE¹/₄NW¹/₄ sec.16, T.2 S., R.24 W., Hydrologic Unit 30140105, at end of street, 0.3 mi east of water tower, 0.8 mi north of U.S. Highway 98 at Mary Esther.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter unknown, depth 764 ft, cased to 595 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of hole in pump base, 1.5 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS.--February 1968, July 1974 (annually); March 1975 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

WATER QUALITY.--March 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, -36.44 ft NGVD, Mar. 10, 1975; lowest measured, -103.92 ft NGVD, July 8, 1987.

ELEVATION, CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 05...	1030	-93.66	550	58	MAY 06...	1000	-100.58	560	60
JAN 06...	1610	-86.27	555	57	JUL 08...	0850	-103.92	--	--
MAR 03...	1000	-84.70	550	60	SEP 15...	1240	--	565	61

WELL NUMBER.--302505086355501. City Well Number 5 at Fort Walton Beach, FL.

LOCATION.--Lat 30°25'05", long 86°35'55", in NE¹/₄NE¹/₄NE¹/₄ sec.13, T.2 S., R.24 W., Hydrologic Unit 03140102, in pumphouse, near intersection of Hughes Street and Carol Street at Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 24 in., depth 803 ft, cased to 510 ft.

DATUM.--Elevation of land-surface datum is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water quality records prior to October 1984 are in the files of the U. S. Geological Survey.

PERIOD OF RECORD.--Water Quality: May 1975 (annually); June 1978 (annually); July 1979 (annually); May 1984 to current year (semiannually).

CONDUCTANCE AND CHLORIDE DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 07...	0800	580	64	MAY 07...	1000	560	58

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OKALOOSA COUNTY

WELL NUMBER.--302511086382101. City Well Number 3 at Fort Walton Beach, FL.

LOCATION.--Lat 30°25'11", long 86°38'21", in SE¹/₄SE¹/₄SW¹/₄ sec.10, T.2 S., R.24 W., Hydrologic Unit 03140102, in pump-house, southwest corner of intersection of Holmes Street and Wright Avenue at Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 16 in., depth 735 ft, cased to 548 ft.

DATUM.--Land-surface datum is 38.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water quality records prior to October 1984 are in the files of the U. S. Geological Survey.

PERIOD OF RECORD.--Water Quality: May 1975 (annually); June 1978 (annually); July 1979 (annually); May 1984 to current year (semiannually).

CONDUCTANCE AND CHLORIDE DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1986

DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 07...	0810	540	53	MAY 07...	1025	525	52

WELL NUMBER.--302529086380503. City of Fort Walton Beach Cemetary Well at Fort Walton Beach, FL.

LOCATION.--Lat 30°25'29", long 86°38'05", in NE¹/₄NE¹/₄SE¹/₄ sec.10, T.1 S., R.24 W., Hydrologic Unit 03140102, at Memorial Cemetary in Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 6 in. (0-253 ft), 4 in. (253-1015 ft), depth 1149 ft, cased to 1015 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 1.45 ft above land-surface datum.

DATUM.--Land-surface datum is 34.86 ft above National Geodetic Vertical Datum of 1929 (levels by Northwest Florida Water Management District).

REMARKS.--Extremes may have been exceeded during periods of missing record.

PERIOD OF RECORD.--December 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.80 ft NGVD, Mar. 18, 1981; lowest, -16.18 ft NGVD, Sept. 27, 28, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-14.06	-13.93	-13.79	-12.53	-11.64	-10.98	-10.30	-10.92	-12.50	-13.57	-14.61	-15.50
10	-14.13	-14.00	-13.26	-12.18	-11.77	-10.51	-10.10	-11.21	-12.84	-13.76	-14.83	-15.75
15	-14.17	-14.01	-13.43	-12.10	-10.93	-10.58	-9.97	-11.49	-12.93	-13.90	-14.86	-15.84
20	-14.37	-13.73	-13.13	-12.03	-11.27	-10.23	-10.26	-11.61	-13.23	-14.20	-15.13	-15.81
25	-13.90	-13.60	-12.79	-11.58	-11.06	-10.10	-10.32	-11.85	-13.24	-14.39	-15.26	-16.03
EOM	-14.14	-13.21	-12.60	-11.80	-10.60	-10.16	-10.64	-12.15	-13.49	-14.58	-15.40	-15.98
MEAN	-14.14	-13.85	-13.20	-12.11	-11.27	-10.41	-10.23	-11.45	-12.96	-14.00	-14.98	-15.79
MAX	-13.90	-13.21	-12.60	-11.58	-10.60	-9.92	-9.93	-10.64	-12.25	-13.47	-14.57	-15.42
MIN	-14.41	-14.19	-13.79	-12.75	-11.77	-10.98	-10.64	-12.15	-13.49	-14.58	-15.40	-16.15
WTR YR 1987	MEAN	-12.87	MAX	-9.92	MAR 30	MIN	-16.15	SEP 28				

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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OKALOOSA COUNTY

WELL NUMBER.--302609086375401. Okaloosa County School Board Well at Wright, FL.

LOCATION.--Lat 30°26'09", long 86°37'54", in SE¹/₄SE¹/₄SE¹/₄ sec.3, T.2 S., R.24 W., Hydrologic Unit 03140105, at Wright Elementary School at Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 to 4 in, depth 640 ft, cased to 473 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of plywood floor, 1.10 ft above land-surface datum. June 24, 1975 to April 29, 1976, water-level recorder at same site and datum.

DATUM.--Land-surface datum is 20.82 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1975 to April 1976; April 1976 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, -34.30 ft NGVD, Mar. 5, 1976; lowest measured, -95.84 ft NGVD, September 16, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1350	-84.40	MAY 07...	1430	-93.80
JAN 07...	0910	-74.21	SEP 16...	1150	-95.84
MAR 04...	0900	-72.24			

WELL NUMBER.--302711086251402. Local Number 24. U.S. Air Force Well near Villa Tasso, FL.

LOCATION.--Lat 30°27'11", long 86°25'14", SE¹/₄SE¹/₄NW¹/₄ sec.35, T.1 S., R.22 W., Hydrologic Unit 03140102, at White Point Housing area behind Bldg. T-1628 near Villa Tasso.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 4 in., depth 425 ft, casing length unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of steel plate, 0.50 ft below land-surface datum.

DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD:--

ELEVATIONS: September 1977 to current year (bimonthly).

WATER QUALITY: October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, -3.02 ft NGVD, Mar. 9, 1978; lowest measured, -45.70 ft NGVD, July 14, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Water level of 25 ft NGVD reported by driller, May 17, 1957.

ELEVATION, CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1625	-40.52	985	--	JUL 07...	1550	-42.02	585	97
MAR 02...	1610	-29.93	820	180	SEP 17...	0820	-44.28	790	160
MAY 06...	1830	-37.10	525	82					

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OKALOOSA COUNTY

WELL NUMBER.--302735086371701. City Well Number 10 at Fort Walton Beach, FL.

LOCATION.--Lat 30°27'35", long 86°37'17", in NE¹/₄NE¹/₄NW¹/₄ sec.35, T.1 S., R.24 W., Hydrologic Unit 03140102, at City of Fort Walton Beach Golf Course southwest corner of intersection of State Highway 189 and Mooney Road at Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 16 in., depth 800 ft, cased to 487 ft.

DATUM.--Elevation of land-surface datum is 47 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water quality records prior to October 1984 are in the files of the U. S. Geological Survey.

PERIOD OF RECORD.--Water Quality: May 1975 (annually); June 1978 (annually); May 1981 to current year (bimonthly).

CONDUCTANCE AND CHLORIDE DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 05...	1525	385	25	MAY 07...	1115	380	25
JAN 07...	1010	375	22	JUL 09...	1010	390	24
MAR 04...	0950	380	24	SEP 16...	1305	395	24

WELL NUMBER.--302739086364801. City Well Number 6 at Fort Walton Beach, FL.

LOCATION.--Lat 30°27'39", long 86°36'48", in SE¹/₄NE¹/₄NE¹/₄ sec.35, T.1 S., R.24 W., Hydrologic Unit 03140102, near 18th green of Fort Walton Beach golf course, 0.2 mi south of State Highway 189, and about 3 mi north of Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 24 in, depth 750 ft, cased to 500 ft.

DATUM.--Land-surface datum is 36.04 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD WATER QUALITY.--1977 (semiannually); May 1978 to current year (bimonthly).

CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 05...	1515	335	21	MAY 07...	1125	320	15
JAN 07...	1000	320	15	JUL 09...	1000	330	15
MAR 04...	0940	320	19	SEP 16...	1255	330	20

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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OKALOOSA COUNTY

WELL NUMBER.--302747086382001. USGS Observation Well at Wright, FL.

LOCATION.--Lat 30°27'47", long 86°38'20", in NE¹/₄NE¹/₄NW¹/₄ sec.34, T.1 S., R.24 W., Hydrologic Unit 03140102, 200 ft west of North Beal Street, 0.4 mi north of intersection of North Beal Street and State Highway 189, and about 3 mi north of Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 10 in., depth 858 ft, cased to 503 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 3.12 ft above land-surface datum.

DATUM.--Land-surface datum is 57.67 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--August 1966 to February 1981; March 1981 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.60 ft NGVD, Feb. 5, 1967 estimated; lowest measured, -83.93 ft NGVD, Sept. 16, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1505	-74.23	MAY 07...	1415	-79.99
JAN 07...	0945	-64.55	JUL 09...	0935	-83.24
MAR 04...	0925	-64.03	SEP 16...	1240	-83.93

WELL NUMBER.--302747086382002. USGS Observation Well at Wright, FL.

LOCATION.--Lat 30°27'47", long 86°38'20", in NE¹/₄NE¹/₄NW¹/₄ sec.34, T.1 S., R.24 W., Hydrologic Unit 03140102, 200 ft west of North Beal Street, 0.4 mi north of intersection of North Beal Street and State Highway 189, and about 3 mi north of Fort Walton Beach.

AQUIFER.--Northwestern Floridan sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, test, observation well, diameter 2 in, depth 38 ft, cased to 23 ft, screened from 23 to 38 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 0.50 above land-surface datum.

DATUM.--Elevation of land-surface datum is 58 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--July 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.12 ft NGVD, Mar. 9, 1978; lowest measured, 52.01 ft NGVD, September 10, 1986.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1440	53.12	MAY 07...	1410	53.30
JAN 07...	0940	54.70	JUL 09...	0930	53.66
MAR 04...	0920	55.25	SEP 16...	1235	55.05

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OKALOOSA COUNTY

WELL NUMBER.—302857086285201. U.S. Air Force Postil Point Well, near Niceville, FL.

LOCATION.—Lat 30°28'57", long 86°28'52", in NW¹/₄NE¹/₄SE¹/₄ sec.19, T.1 S., R.22 W., Hydrologic Unit 03140102, at Postil Point on Eglin Air Force Base, behind Eglin Kindergarten School, and about 3 mi south of Niceville.

AQUIFER.—Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.—Drilled, unused, artesian well, diameter 6 in., depth 508 ft, cased to 300 ft.

INSTRUMENTATION.—Tape measured. Measuring point: Top of reducer, 2.30 ft above land-surface datum.

DATUM.—Land-surface datum is 7.54 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.—September 1947 to July 1964 (bimonthly); January 1965 to May 1970 (semiannually); January 1971, July 1974 (annually); January 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 37.74 ft NGVD, Sept. 3, 1947; lowest measured -76.33 ft NGVD, July 16, 1986.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1635	-62.98	MAY 05...	1530	-67.24
JAN 07...	1210	-52.40	JUL 08...	1620	-67.96
MAR 03...	1720	-47.38	SEP 16...	1400	-69.66

WELL NUMBER.—302857086310701. U.S. Air Force Hardstand Tower Well near Valpariso, FL.

LOCATION.—Lat 30°28'57", long 86°31'07", in NW¹/₄NW¹/₄SE¹/₄ sec.23, T.1 S., R.23 W., Hydrologic Unit 03140102, on Eglin Air Force Base about 1.5 mi south of Valpariso.

AQUIFER.—Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.—Drilled, public-supply, artesian well, diameter 8 in, depth 702 ft, cased to 404 ft.

INSTRUMENTATION.—Tape measured. Measuring point: Top of hole in steel plate, 1.0 ft above land-surface datum.

DATUM.—Elevation of land-surface datum is 66 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.—March 1978 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, -22.0 ft NGVD, Mar. 7, 1978; lowest measured, -78.55 ft NGVD, July 16, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.—Water level reported as 20.5 ft NGVD by driller in January 1958.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1705	-66.33	MAY 07...	1145	-74.75
JAN 07...	1315	-56.58	JUL 08...	1550	-73.44
MAR 04...	1105	-53.50	SEP 16...	1440	-75.38

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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OKALOOSA COUNTY

WELL NUMBER.--303021086351601. U.S. Air Force Field 4 Well near Fort Walton Beach, FL.

LOCATION.--Lat 30°30'21", long 86°35'16", in NE¹/₄NE¹/₄NW¹/₄ sec.18, T.1 S., R.23 W., Hydrologic Unit 03140102, at auxiliary field 4, about 6 mi north of Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, public-supply, artesian well, diameter 10 in., depth 591 ft, cased to 442 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 1 in. hole in pump base, 1.0 ft above land-surface datum.

DATUM.--Land-surface datum is 89.33 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--Jan. 1948 to Sept. 1967 (bimonthly); March 1978 (annually); Jan. 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.33 ft NGVD, Apr. 14, 1948; lowest measured, -42.07 ft NGVD, Sept. 16, 1987.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 07...	0900	-40.82	MAY 05...	1415	-36.04
JAN 07...	1410	-37.86	JUL 09...	1040	-40.14
MAR 04...	1200	-40.97	SEP 16...	1525	-42.07

WELL NUMBER.--303021086351603. U.S. Air Force Field 4 Deep Well near Fort Walton Beach, FL.

LOCATION.--Lat. 30°30'21", long 86°35'16", in NE¹/₄NE¹/₄NW¹/₄ sec.18, T.1 S., R.23 W., Hydrologic Unit 03140102, at auxiliary field 4, about 6 mi north of Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 4 in, depth 1380 ft, cased to 938 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of plywood shelf, 0.3 ft above land-surface datum. Prior to July 1981, water-level recorder at same site and datum.

DATUM.--Elevation of land-surface datum is 88 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--December 1980 to July 1981; July 1981 to current year (bimonthly). Records of water levels prior to July 1981 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, -7.20 ft NGVD, Mar. 19, 1981; lowest measured -60.07 ft July 9, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 07...	0845	-37.14	MAY 05...	1405	-35.90
JAN 07...	1400	-31.52	JUL 09...	1025	-60.07
MAR 04...	1150	-28.50	SEP 16...	1515	-42.10

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OKALOOSA COUNTY

WELL NUMBER.--303314086453702. U.S. Air Force Metts Tower Well near Fort Walton Beach, FL.

LOCATION.--Lat 30°33'14", long 86°45'37", in SW¹/₄SW¹/₄SE¹/₄ sec.28, T.1 N., R.25 W., Hydrologic Unit 03140103, at Metts Tower on Eglin Air Force Base about 10 mi northwest of Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 796 ft, cased to 600 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of sanitary seal, 0.5 ft below land-surface datum.

DATUM.--Elevation of land-surface datum is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--April 1978 (annually); Nov. 1978 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.75 ft NGVD, Mar. 11, 1979; lowest measured, 9.42 ft NGVD, Sept. 16, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
JAN 07...	1500	13.97	JUL 09...	1100	12.16
MAR 04...	1240	14.97	SEP 16...	1600	9.42
MAY 05...	1335	14.58			

WELL NUMBER.--303512086375101. Local Number 29. U.S. Air Force Observation Well near Fort Walton Beach, FL.

LOCATION.--Lat 30°35'12", long 86°37'51", in NW¹/₄NE¹/₄SE¹/₄ sec.15, T.1 N., R.24 W., Hydrologic Unit 03140102, at U.S.A.F. Field 5, 6.4 mi southwest of State Highway 85, 8.3 mi north of State Highway 189, and 14 mi north of Fort Walton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, public-supply, artesian well, diameter 10 in, depth 710 ft, cased to 524 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 1.06 ft above land-surface datum.

DATUM.--Land-surface datum is 178.03 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Extremes may have been exceeded during periods of missing record.

PERIOD OF RECORD.--October 1947 to May 1966 (bimonthly); May 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 78.23 ft NGVD, Oct. 28, 1947; lowest, -4.91 ft NGVD, Sept. 30, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	2.28	2.92	1.93	-0.36	-1.86	-2.90	---
10	---	---	---	---	---	2.68	3.05	1.47	-0.84	-1.97	-3.17	---
15	---	---	---	---	---	2.62	3.10	1.05	-1.01	-2.17	---	---
20	---	---	---	---	---	2.85	2.82	.75	-1.33	-2.50	---	-4.00
25	---	---	---	---	---	2.93	2.69	---	-1.41	-2.73	---	-4.20
EOM	---	---	---	---	2.56	2.91	2.34	---	-1.79	-2.84	---	-4.23
MEAN		-1.71		-0.10	2.38	2.74	2.87	1.47	-1.09	-2.29	-3.01	-4.14
MAX		-1.71		-0.10	2.56	3.12	3.13	2.30	-0.27	-1.78	-2.82	-3.94
MIN		-1.71		-0.10	2.23	2.27	2.34	.75	-1.79	-2.84	-3.17	-4.33

WTR YR 1987 MEAN .04 MAX 3.13 APR 16 MIN -4.33 SEP 28

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

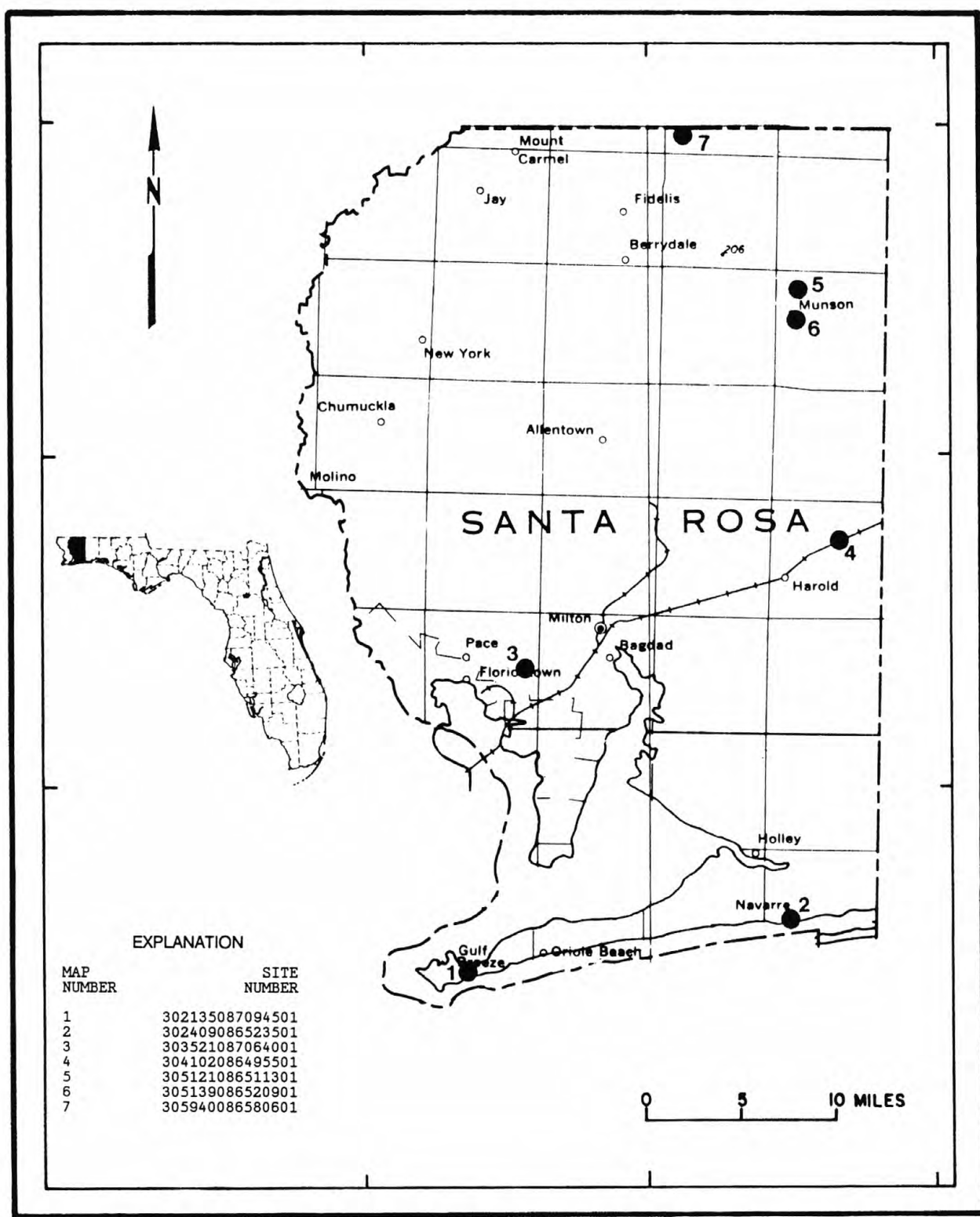


Figure 47.--Location of wells in Santa Rosa County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SANTA ROSA COUNTY

WELL NUMBER.—302135087094501. Local number 102. USGS Observation Well at Gulf Breeze, FL.

LOCATION.—Lat 30°21'35", long 87°09'45", in NE¹/₄SW¹/₄SE¹/₄ sec.4, T.3 S., R.29 W., Hydrologic Unit 03140105, south of McClure Drive, 0.25 mi north of U.S. Highway 98 and McClure Drive intersection at Gulf Breeze.

AQUIFER.—Sand aquifer of Pleistocene series, Geologic Unit 112 SAND.

WELL CHARACTERISTICS.—Drilled, observation, water-table well, diameter 6 in., depth 41 ft, cased to 31 ft, screened from 31 to 41 ft.

INSTRUMENTATION.—Tape measured. Measuring point: Top of cap, 1.09 ft below land-surface datum.

DATUM.—Land-surface datum is 11.56 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.—August 1950 to May 1951 (weekly); May 1951 to September 1964; May 1965 to May 1971 (annually); January 1972 to November 1975 (semiannually); December 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 10.14 ft NGVD, Nov. 15, 1975; lowest, 0.98 ft NGVD, Jan. 17, 1955.

ELEVATION, IN FEET, NGVD, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 25...	0750	5.78	MAY 20...	1545	5.92
JAN 14...	1535	6.55	JUL 23...	1800	6.52
MAR 06...	0825	8.14	SEP 17...	1700	7.30

WELL NUMBER.—302409086523501. Louis Woodham Cement Plant Well at Navarre, FL.

LOCATION.—Lat 30°24'09", long 86°52'35", in NE¹/₄NE¹/₄SW¹/₄ sec.20, T.2 S., R.26 W., Hydrologic Unit 03140105, 200 ft west of intersection of State Highway 87 and U.S. Highway 98, and 450 ft north of U.S. Highway 98 at Navarre.

AQUIFER.—Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.—Drilled, industrial, artesian well, diameter 3 in, depth 940 ft, cased to 800 ft.

INSTRUMENTATION.—Tape measured. Reference point: Top of hole in casing, 0.38 ft below land-surface datum. Prior to May 1975, measuring point: Top of reducer coupling at land surface datum.

DATUM.—Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.—March 1961, July 1966 (annually); November 1966 to May 1968 (bimonthly); May 1969 to May 1974 (semiannually); January 1975 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 60.0 ft NGVD, Mar. 1, 1961; lowest measured, -34.95 ft NGVD, July 8, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1050	-29.68	MAY 06...	0815	-31.48
JAN 06...	1440	-27.04	JUL 08...	0740	-34.95
MAR 03...	0820	-25.05	SEP 15...	1015	-34.30

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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SANTA ROSA COUNTY

WELL NUMBER.--303521087064001. Local number 035-706-1. USGS Observation Well near Milton, FL.

LOCATION.--Lat 30°35'21", long 87°06'40", in SW¹/₄SE¹/₄SW¹/₄ sec.13, T.1 N., R.29 W., Hydrologic Unit 03140104, 0.9 mi south of U.S. Highway 90, 2.25 mi west of intersection of U.S. Highway 90 and State Highway 191A, and 4.9 mi southwest of Milton.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 211 ft, cased to 206 ft, screened from 206 to 211 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 3.00 ft above land-surface datum.

DATUM.--Land-surface datum is 127.28 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--July 1959 to October 1962; November 1962 to February 1967 (monthly); July 1967 to May 1968 (bimonthly); January 1969 to May 1971 (semiannually); January 1972 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.31 ft NGVD, Aug. 26, 27, 1961; lowest measured, 28.44 ft NGVD, July 9, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 20...	1210	34.29	MAY 18...	1210	34.85
JAN 13...	1230	33.94	JUL 21...	1150	34.83
MAR 05...	1235	34.09	SEP 09...	1315	35.39

WELL NUMBER.--304102086495501. Local number 041-649-1. USGS Observation Well at Floridale, FL.

LOCATION.--Lat 30°41'02", long 86°49'55", in NE¹/₄NW¹/₄NE¹/₄ sec.15, T.2 N., R.26 W., Hydrologic Unit 03140103, 22 ft north of U.S. Highway 90, 0.3 mi east of town of Floridale, and 3.3 mi east of Harold.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in, depth 98 ft, cased to 93 ft, screened from 93 to 98 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of coupling, 3.05 ft above land-surface datum. Prior to September 20, 1962 water-level recorder at same site and datum.

DATUM.--Land-surface datum is 155.76 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--August 1959 to September 1962; September 1962 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.04 ft NGVD, Jan. 17, 1976; lowest measured, 82.46 ft NGVD, May 6, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 24...	1030	90.55	MAY 20...	1735	92.05
JAN 15...	1320	90.23	JUL 21...	1005	92.03
MAR 06...	1315	90.83	SEP 18...	1030	93.77

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SANTA ROSA COUNTY

WELL NUMBER.--305121086511301. Local Number Jay 3. U.S. Geological Survey Observation Well near Munson, FL.

LOCATION.--Lat 30°51'21", long 86°51'13", in SW¹/₄NW¹/₄NW¹/₄ sec.16, T.4 N., R.16 W., Hydrologic Unit 03140104, about 50 ft north of State Highway 4, 1.15 mi east of intersection of State Highways 191 and 4 at Munson.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 4 in., depth 46 ft, cased to 41 ft, screened from 41 to 46 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 2.6 ft above land-surface datum.

DATUM.--Land-surface datum is 99.88 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--July 1978 (annually); November 1978 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 97.34 ft NGVD, July 26, 1978; lowest measured 94.04 ft NGVD, Nov. 18, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 07...	1330	94.40	APR 08...	0940	95.05
DEC 11...	1110	94.84	JUN 09...	1230	94.63
FEB 03...	1350	95.01	AUG 10...	1350	94.48

WELL NUMBER.--305139086520901. Local Number Jay 4. Florida Forest Service Well at Munson, FL.

LOCATION.--Lat 30°51'39", long 86°52'09", in SW¹/₄SW¹/₄SW¹/₄ sec.8, T.4 N., R.26 W., Hydrologic Unit 03140104, 0.24 mi north of State Road 4 at Munson Nursery at Munson.

AQUIFER.--Northwestern Florida sand-and-gravel aquifer of the Tertiary System, Geologic Unit 120 NFSG.

WELL CHARACTERISTICS.--Drilled, irrigation well, diameter 18 to 8 in., depth 445 ft, cased to 385 ft, screened from 385 to 435 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 1 in. nipple in pump base, 2.00 ft above land-surface datum.

DATUM.--Land-surface datum is 215.30 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--July 1978 to September 1981 (bimonthly); January 1982 (annually); November 1982 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.90 ft NGVD, Mar. 2, 1984; lowest measured, 52.97 ft NGVD, Jan. 21, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Water level of 103.3 ft NGVD, reported by driller on Apr. 11, 1952.

ELEVATION, IN FEET, NGVD, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 24...	1310	79.15	MAY 21...	1005	78.90
JAN 15...	1045	79.46	SEP 17...	1410	77.21
MAR 05...	1710	79.69			

SANTA ROSA COUNTY

WELL NUMBER.--305940086580601. Florida Forest Service Observation Well near Jay, FL.

LOCATION.--Lat 30°59'40", long 86°58'06", in NW¹/₄SW¹/₄SW¹/₄ sec.29, T.6 N., R.27 W., Hydrologic Unit 03140104, at Camp Henderson Fire Tower, on clay road 5.4 mi east of State Highway 87, and 11 mi northeast of Jay.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 to 3 in., depth 815 ft, cased to 510 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of cap, 0.80 ft above land-surface datum.

DATUM.--Elevation of land surface datum is 280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--July 1961 (annually); July 1966 to November 1967 (bimonthly); January 1968 to May 1969 (semiannually); January 1974 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 128.00 ft NGVD, July 14, 1961; lowest measured, 109.61 ft NGVD, July 23, 1987.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 24...	1400	109.81	MAY 21...	0910	109.88
JAN 15...	0930	109.97	JUL 23...	1400	109.61
MAR 05...	1610	109.91	SEP 17...	1310	109.65

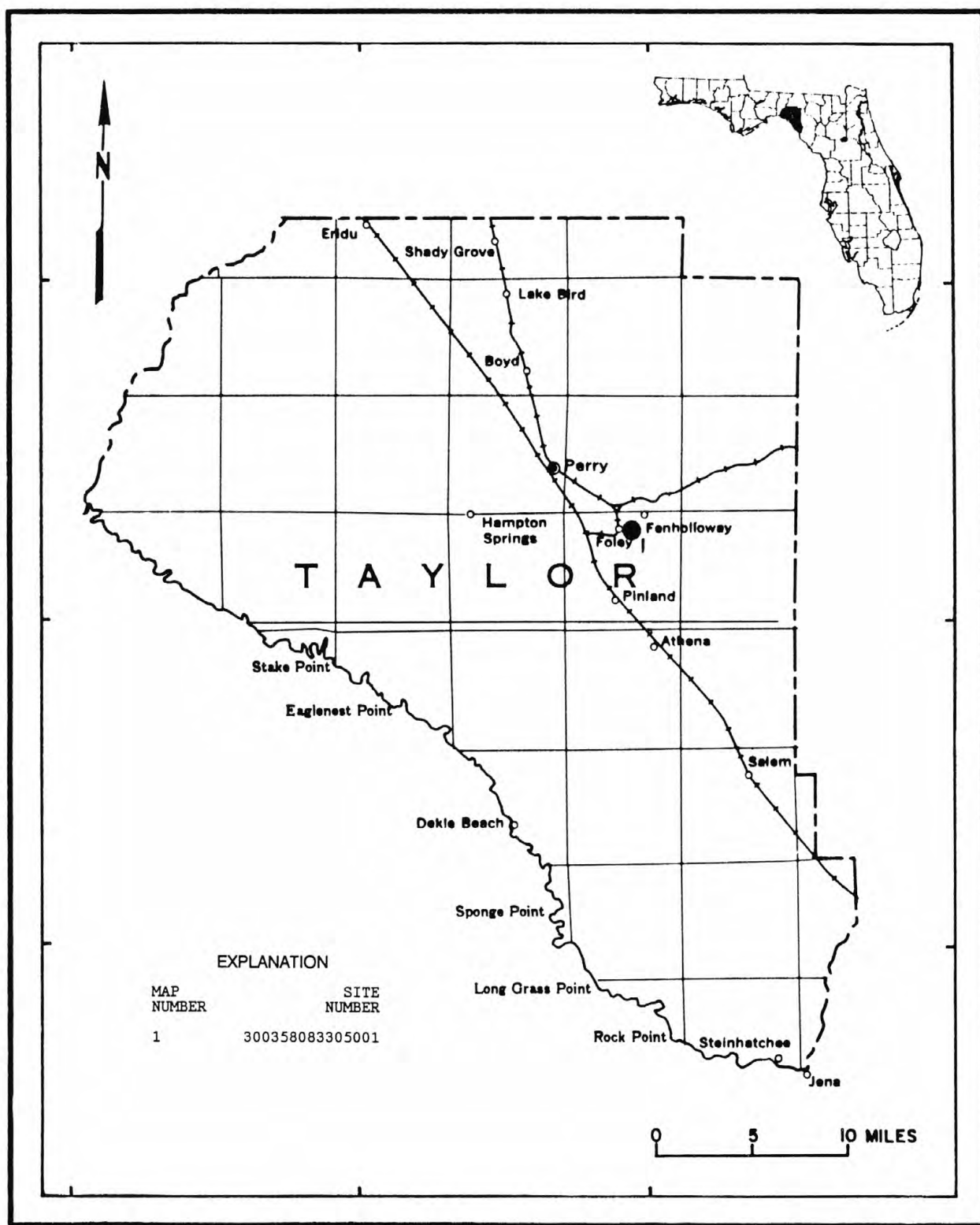


Figure 48.--Location of wells in Taylor County.

TAYLOR COUNTY

WELL NUMBER.--300358083305001. Local Number Taylor 35. Buckeye Cellulose Corporation Well near Fenholloway, FL.

LOCATION.--Lat 30°03'58", long 83°30'50", in NE¹/₄SE¹/₄NW¹/₄ sec.10, T.5 S., R.8 E., Hydrologic Unit 03110102, 1.5 mi southwest of Fenholloway and 5.3 mi southeast of Perry.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 17 to 12 in., depth 230 ft, cased to 189 ft.

INSTRUMENTATION.--Water-level recorder. Reference point: Top of recorder shelf, 2.40 ft above land-surface datum.

DATUM.--Land-surface datum is 54.69 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1946 to current year.

REMARKS.--Water levels affected by pumping of nearby wells.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.38 ft NGVD, Apr. 2, 1948; lowest, 12.19 ft NGVD, May 15, 1974.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.96	26.28	26.90	29.00	30.35	32.33	33.13	31.01	29.38	28.62	28.09	27.61
10	28.29	25.69	27.24	29.25	30.41	32.83	32.93	30.70	29.37	28.78	27.86	27.47
15	27.63	25.47	28.10	29.37	30.63	32.63	32.69	30.58	28.59	28.59	28.10	28.10
20	26.88	25.23	28.44	29.61	30.81	32.55	32.09	30.40	28.24	28.48	28.30	27.23
25	26.46	24.98	28.63	30.18	31.85	32.30	31.77	30.05	29.04	28.21	28.02	27.01
EOM	26.12	26.06	28.85	30.29	32.21	32.92	31.37	29.72	28.51	27.99	27.81	26.70
MEAN	27.61	25.60	28.11	29.54	30.88	32.54	32.44	30.49	29.13	28.46	28.35	27.35
MAX	29.86	26.34	34.50	30.36	32.21	32.92	33.17	31.29	29.04	28.78	27.45	28.10
MIN	26.12	24.95	26.34	28.82	30.25	32.27	31.37	29.72	28.21	27.99	27.81	26.70
WTR YR 1987	MEAN	29.20	MAX	39.04	JUN 25	MIN	24.95	NOV 27				

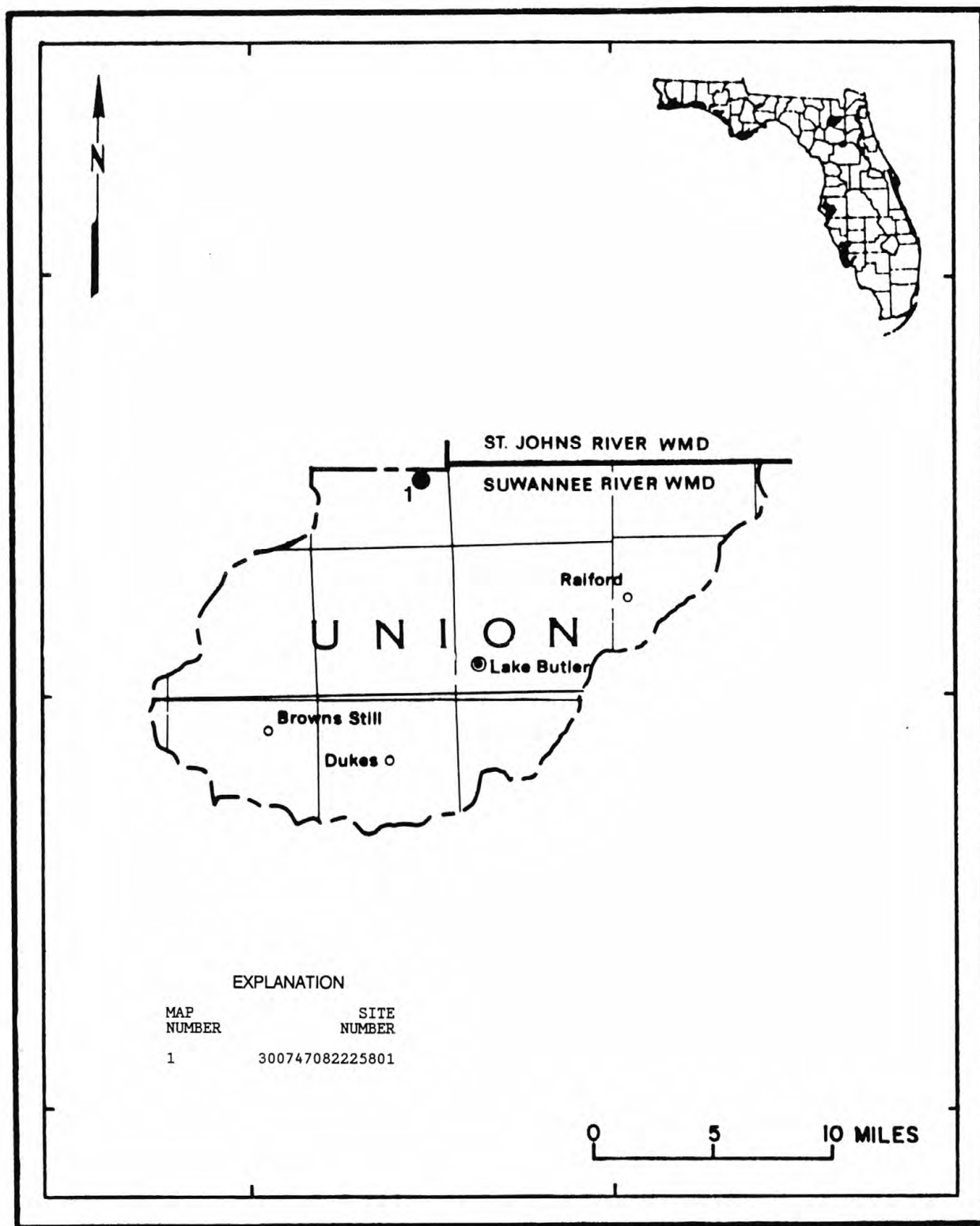


Figure 49.--Location of wells in Union County.

UNION COUNTY

WELL NUMBER.--300747082225801. USGS Observation Well near Lake Butler, FL.

LOCATION.--Lat 30°07'47", long 82°22'58", in SE¹/₄NW¹/₄SE¹/₄ sec.23, T.4 S., R.19 E., Hydrologic Unit 03110206, about 40 ft east of State Highway 231, 0.8 mi south of Union-Baker county line, and 7.6 mi north of Lake Butler.

AQUIFER.--Florida aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 8 in., depth 724 ft, cased to 694 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of recorder shelf, 3.07 ft above land-surface datum.

DATUM.--Land-surface datum is 152.75 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--November 1958 to September 1984; Oct. 1984 to Sept. 1985 (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 66.76 ft NGVD, Mar. 29, 30, 1965; lowest, 53.30 ft NGVD, Aug. 10, 1981.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
23...	0930	55.09	24...	1320	60.81
NOV			MAY		
19...	1000	55.27	21...	1245	59.12
DEC			JUN		
19...	1140	55.87	22...	0900	57.57
JAN			JUL		
27...	0920	57.71	30...	1330	56.78
FEB			AUG		
19...	0940	58.92	20...	1340	56.78
MAR			SEP		
27...	1250	60.72	25...	1000	56.31

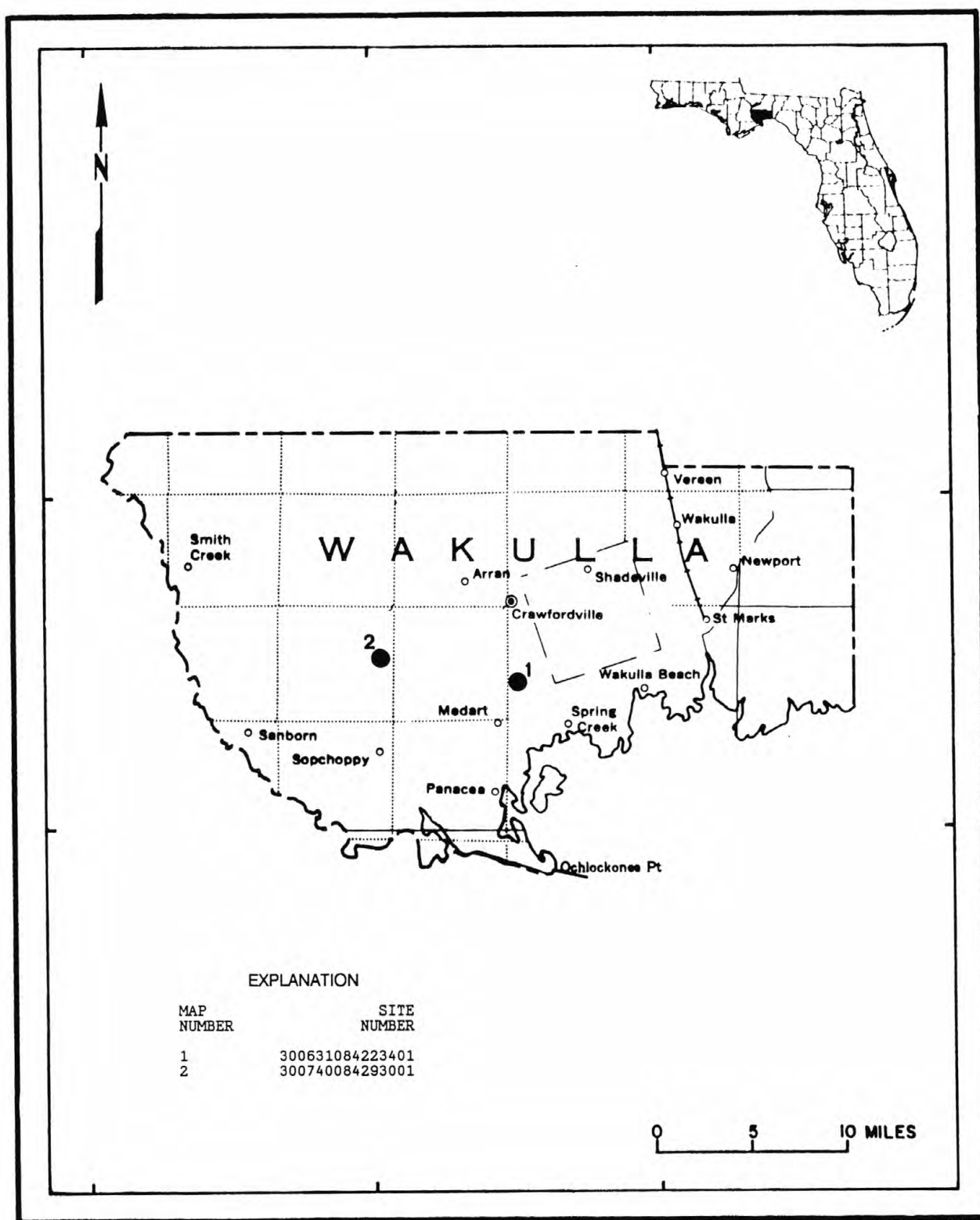


Figure 50.--Location of wells in Wakulla County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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WAKULLA COUNTY

WELL NUMBER.--300631084223401. Wakulla High Test Well. Wakulla County School Board Well near Medart, FL.

LOCATION.--Lat 30°06'31", long 84°22'34", in Land Grant Number 91 of Hartsfield Survey, Hydrologic Unit 03120001, .25 mi east of intersection of U.S. 98 and SR 61, 5 mi south of Crawfordville.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, test, artesian well, diameter 4 in., depth 221 ft, cased 70 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 4 in. casing, 0.8 ft above land-surface datum.

DATUM.--Land-surface datum is 36.15 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--December 1974 to September 1981 (bimonthly); October 1981 to September 1982 (monthly); November 1982 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.52 ft NGVD, Aug. 7, 8, 1982; lowest measured, 3.53 ft NGVD, Feb. 7, 1978.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 05...	1515	5.70	APR 28...	1550	5.54
JAN 12...	1730	4.70	JUN 19...	1415	4.93
FEB 25...	1255	5.02	AUG 11...	1145	4.64

WELL NUMBER.--300740084293001. USGS Observation Well near Crawfordville, FL.

LOCATION.--Lat 30°07'40", long 84°29'30", in NW¹/₄NE¹/₄NW¹/₄ sec.24, T.4 S., R.3 W., Hydrologic Unit 03120003, 400 ft east of Sopchoppy River, 6.6 mi southwest of intersection of Forest Road 365 and State Highway 315, and 7.8 mi west of Crawfordville.

AQUIFER.--Hawthorn Limestone aquifer of the Miocene System, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, bench mark, artesian well, diameter 6 in depth 127 ft, cased to 121 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 2.90 ft above land-surface datum.

DATUM.--Land-surface datum is 46.91 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--January 1967 to current year. Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.91 ft NGVD, July 31, 1975; lowest, 24.42 ft NGVD, Sept. 14, 1966.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.71	31.35	33.25	33.74	33.31	33.58	34.71	31.92	31.92	33.24	32.87	32.50
10	31.60	31.21	33.16	33.60	33.18	33.61	33.83	31.90	31.98	33.12	32.49	32.80
15	31.65	31.10	34.25	33.38	33.03	33.34	33.26	31.80	32.26	32.65	33.36	32.83
20	31.48	31.20	33.67	34.37	33.30	33.92	32.82	32.03	32.61	32.40	34.10	32.55
25	31.43	31.22	33.57	34.14	34.00	33.73	32.47	32.08	33.52	32.04	33.22	32.15
EOM	31.44	32.46	33.34	33.65	33.88	35.49	32.19	31.68	33.26	32.16	32.46	31.88
MEAN	31.56	31.29	33.54	33.84	33.44	33.75	33.46	31.95	32.46	32.64	33.06	32.49
MAX	31.83	32.46	34.32	34.38	34.00	35.49	35.58	32.16	33.57	33.26	34.33	32.85
MIN	31.37	31.07	32.99	33.38	33.03	33.22	32.19	31.68	31.48	31.98	32.24	31.87
WTR YR 1987	MEAN	32.79	MAX	35.58	APR 1	MIN	31.07	NOV 14				

WATER RESOURCES DATA FOR FLORIDA, 1987
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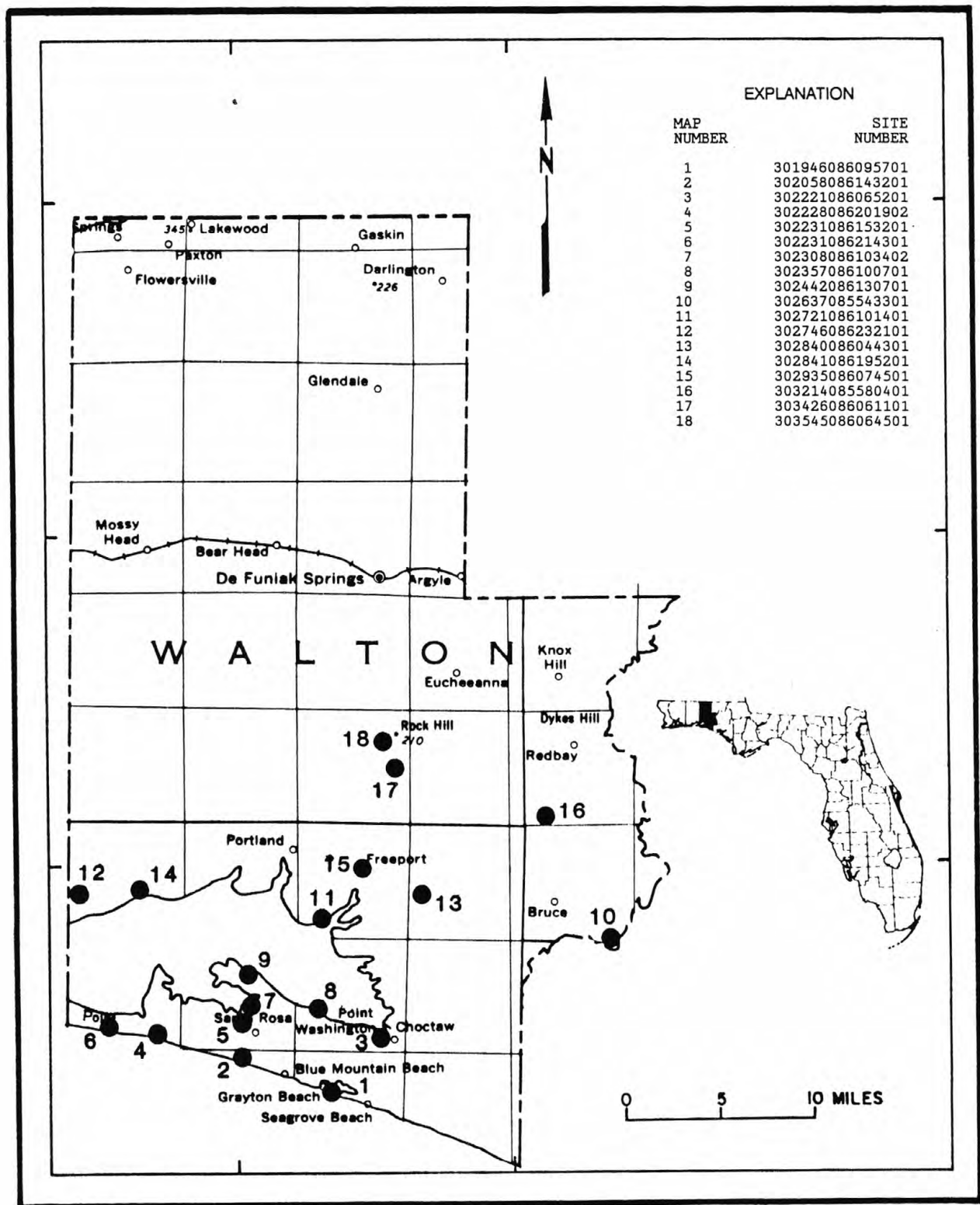


Figure 51.—Location of wells in Walton County.

WALTON COUNTY

WELL NUMBER.--301946086095701. Van R. Butler Well at Grayton Beach, FL.

LOCATION.--Lat 30°19'46", long 86°09'57", in NW¹/₄NE¹/₄NE¹/₄ sec.17, T.3 S., R.19 W., Hydrologic Unit 03140102, about 300 ft north of Gulf of Mexico, 2.2 mi south of U.S. Highway 98, at Grayton Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 4 in., depth 466 ft, cased to 424 ft.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of tee, 1.2 ft above land-surface datum.

DATUM.--Land-surface datum is 7.46 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--

ELEVATIONS: April 1961 to current year (bimonthly).

WATER QUALITY: 1961-1967 (semiannually); January 1968 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.16 ft NGVD, May 8, 1964; lowest measured, 3.92 ft NGVD, Oct. 13, 1972.

ELEVATION, CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1005	10.86	1100	25.0	250	MAR 03...	1355	12.36	1090	25.0	260
JAN 06...	1005	11.46	1090	24.5	240	MAY 06...	1240	11.29	1100	25.0	260

WELL NUMBER.--302058086143201. Eric Allen Well at Dune Allen Beach, FL.

LOCATION.--Lat 30°20'58", long 86°14'32", in SW¹/₄NE¹/₄SW¹/₄ sec.3, T.3 S., R.20 W., Hydrologic Unit 03140102, south of State Highway 30A near Oyster Lake, 0.8 mi west of State Highway 393 and 1.9 mi southwest of Santa Rosa Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 4 in, depth and casing length unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing at land-surface datum.

DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS.--June 1968 to August 1970 (bimonthly); July 1974 (annually); March 1975 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

WATER QUALITY.--May 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.36 ft NGVD, Oct. 29, 1985; lowest measured, -13.72 ft NGVD, July 16, 1980.

ELEVATION, CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	0940	-1.05	295	18	MAY 06...	1225	0.07	295	11
JAN 06...	0945	-0.65	290	18	JUL 08...	1140	-0.82	300	12
MAR 03...	1410	0.90	300	29	SEP 15...	1455	-0.52	305	11

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

WALTON COUNTY

WELL NUMBER.--302221086065201. C. H. McGee, Jr. Well at Point Washington, FL.

LOCATION.--Lat 30°22'21", long 86°06'52", in SW¹/₄NE¹/₄SE¹/₄ sec.26, T.2 S., R.19 W., Hydrologic Unit 03140102, 1.4 mi northeast of intersection of State Highway 395 and U.S. Highway 98 at Point Washington.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 3 in, depth 365 ft, cased to 65 ft.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of reducer, 1.5 ft above land-surface datum.

DATUM.--Land-surface datum is 2.30 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--

ELEVATIONS: March 1970 to March 1984 (bimonthly).

WATER QUALITY: July 1961 (annually); January 1962 to May 1967 (semiannually); January 1968 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.9 ft NGVD, Nov. 21, 1975 and Jan. 27, 1976; lowest measured, 5.24 ft NGVD, Sept. 12, 1972.

CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1050	935	22.0	220	MAY 06...	1300	930	22.0	230
JAN 06...	1115	940	22.0	210	JUL 08...	1230	950	22.0	220
MAR 03...	1330	940	22.0	230	SEP 15...	1605	960	22.0	220

WELL NUMBER.--302228086201902. Holiday Campground Well near Miramar Beach, FL.

LOCATION.--Lat 30°22'28", long 86°20'19", in NW¹/₄NW¹/₄NE¹/₄ sec.34, T.2 S., R.21 W., Hydrologic Unit 03140102, 0.2 mi south of U.S. Highway 98, 3.7 mi east of Okaloosa-Walton County line, 3.5 mi east of Miramar Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 4 in, depth and casing length unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 4 in. casing at land-surface datum.

DATUM.--Elevation of land-surface datum is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: July 1978 (annually); November 1978 to current year (bimonthly).

WATER QUALITY: 1970 (two samples); 1971 (three samples); November 1971 to current year (bi-monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.71 ft NGVD, Mar. 16, 1979; lowest measured -33.24 ft NGVD, July 15, 1986.

ELEVATION, CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	0820	-28.20	330	18	MAY 06...	1135	-22.57	325	17
JAN 06...	0915	-21.49	320	15	JUL 08...	1115	--	335	18
MAR 03...	1115	-20.27	330	15	SEP 15...	1430	-31.39	350	22

WALTON COUNTY

WELL NUMBER.--302231086153201. J. R. Holley Well near Santa Rosa Beach, FL.

LOCATION.--Lat 30°22'32", long 86°15'32", in SW¹/₄SW¹/₄SE¹/₄ sec.28, T.2 S., R.20 W., Hydrologic Unit 03140102, behind residence 150 ft north of U.S. 98, 1.75 mi west of Santa Rosa Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, unused, artesian well, diameter 3 in., depth 545 ft cased to 265 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of 2 in. nipple, 0.85 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: May 1971 (annually); July 1978 to current year (bimonthly).

WATER QUALITY: July 1978 to current year.

REMARKS.--Water quality data collected at adjacent well number 302231086153203.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.60 ft NGVD, Mar. 31, 1983; lowest measured, 6.79 ft NGVD, July 15, 1986.

ELEVATION, CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	0855	7.86	2240	610	MAY 06...	1150	8.72	2180	580
JAN 06...	1310	9.55	2200	610	JUL 08...	1425	9.12	2220	600
MAR 03...	1140	10.22	2240	610	SEP 15...	1510	8.77	2220	580

WELL NUMBER.--302231086214301. M. T. Fontarn Well near Miramar Beach, FL.

LOCATION.--Lat 30°22'31", long 86°21'43", in NE¹/₄NW¹/₄NW¹/₄ sec.33, T.2 S., R.21 W., Hydrologic Unit 03140102, at residence behind Sea and Indian Museum, 2.1 mi east of Okaloosa-Walton county line and 7.2 mi west of Santa Rosa Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in, depth 420 ft, cased to 350 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing at land-surface datum.

DATUM.--Elevation of land-surface datum is 23 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS.--June 1968 to September 1970 (bimonthly); July 1974 (annually); March 1975 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

WATER QUALITY.--July 1968 to August 1969 (bimonthly); 1970 (two samples); March 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.92 ft NGVD, June 5, 1968; lowest measured, -39.67 ft NGVD, Sept. 9, 1986.

ELEVATION, CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	0800	-34.80	MAY 06...	1125	-26.43
JAN 06...	0900	-28.29	JUL 08...	1045	-37.48
MAR 03...	1105	-25.84	SEP 15...	1420	-38.07

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

WALTON COUNTY

WELL NUMBER.--302308086103402. Walter Dannelly Well near Santa Rosa Beach, FL.

LOCATION.--Lat 30°23'08", long 86°10'34", in SE¹/₄NE¹/₄NW¹/₄ sec.29, T.2 S., R. 19 W., Walton Conty, Hydrologic Unit 03140102, in front of residence 0.4 mi east of U.S. Highway 331, and 3.0 mi northeast of Santa Rosa Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in, depth and length of casing unknown.

PERIOD OF RECORD.--January 1978 to current year (bimonthly).

CONDUCTANCE AND CHLORIDE DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1115	2310	650	MAY 06...	1315	2280	660
JAN 06...	1125	2250	660	JUL 08...	1310	2350	670
MAR 03...	1315	2250	660	SEP 15...	1620	2380	660

WELL NUMBER.--302357086100701. Florida Department of Transportation Well near Santa Rosa Beach, FL.

LOCATION.--Lat 30°23'57", long 86°10'07", in SW¹/₄NW¹/₄NE¹/₄ sec.20, T.2 S., R.19 W., Hydrologic Unit 03140102, near south end of U.S. Highway 331 bridge over Choctawhatchee Bay, 2.4 mi north of U.S. Highway 98, and 3.8 mi northeast of Santa Rosa Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 337 ft, casing length unknown.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of coupling 1.10 ft above land-surface datum.

DATUM.--Land-surface datum is 5.00 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--

ELEVATIONS: April 1961 to July 1962, May 1968 to May 1969, April 1970 to current year (bimonthly).

WATER QUALITY: July 1961 (annually); January 1962 to May 1967 (semiannually); January 1968 to July 1969 (bimonthly); June 1970 (annually); 1971 (three samples); November 1971 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.80 ft NGVD, Feb. 28, 1962; lowest measured, 0.86 ft NGVD, Oct. 11, 1972.

ELEVATION, CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1985

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1125	8.46	2120	24.0	590	MAY 06...	1330	9.54	2100	23.0	580
JAN 06...	1145	9.02	2100	22.0	580	JUL 08...	1320	8.79	2120	24.0	580
MAR 03...	1310	9.91	2080	19.0	580	SEP 15...	1630	8.31	2150	25.0	590

WALTON COUNTY

WELL NUMBER.--302442086130701. S. L. Matthews Well near Santa Rosa Beach, FL.

LOCATION.--Lat 30°24'42", long 86°13'07", in NE¹/₄SW¹/₄SW¹/₄ sec.14, T.2 S., R.20 W., Hydrologic Unit 03140102, in front of residence 0.9 mi northeast of SR 393 about 3 mi north of Santa Rosa Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 8 in, depth 330 ft, cased to 165 ft.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of 3 in casing, 1.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: September 1969 (annually); July 1978 to current year (bimonthly).

WATER QUALITY: September 1969 (annually); July 1978 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.53 ft NGVD, Mar. 21, 1979; lowest measured, 1.74 ft NGVD, Sept. 9, 1986.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	0910	2.47	MAY 06...	1210	3.92
JAN 06...	1250	3.40	JUL 08...	1400	2.81
MAR 03...	1440	4.33	SEP 15...	1525	1.92

WELL NUMBER.--302637085543301. William Wilson Well near Bruce, FL.

LOCATION.--Lat 30°26'37", long 85°54'33", in NE¹/₄SE¹/₄SE¹/₄ sec.35, T.1 N., R.17 W., Hydrologic Unit 03140203, at Cowford Fish Camp, 0.7 mi south of State Highway 20, and 3.8 mi southeast of Bruce.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 196 ft, cased to 60 ft.

INSTRUMENTATION.--Pressure gage. Measuring point: Top of reducer, 0.80 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 16 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: June 1968 to current year (bimonthly).

WATER QUALITY: June 1968 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.20 ft NGVD, Nov. 21, 1975; lowest measured, 16.75 ft NGVD, Oct. 12, 1972.

ELEVATION, CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 21...	1220	22.25	120	22.5	3.2	MAR 31...	1350	24.10	119	22.5	3.1
DEC 09...	1325	22.65	120	22.0	3.1	JUN 05...	1020	22.95	118	22.0	3.1
FEB 02...	1515	22.70	118	22.5	3.2	AUG 11...	1315	22.75	124	22.0	3.1

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

WALTON COUNTY

WELL NUMBER.--302721086101401. Selma Madara Well near Freeport, FL.

LOCATION.--Lat 30°27'21", long 86°10'14", in SW¹/₄NE¹/₄NW¹/₄ sec.32, T.1 S., R.19 W., Hydrologic Unit 03140102, near the west bank at mouth of Bear Creek, and 3.5 mi southwest of Freeport.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, industrial, artesian well, diameter 12 in depth 250 ft, cased to 100 ft.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of tee, 2.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: July 1968 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

WATER QUALITY.--August 1968 to May 1969 (bimonthly); 1970 (two samples); 1971 (three samples); 1972 (semiannual); January 1973 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.0 ft NGVD, Mar. 22, 1976; lowest measured, -7.73 ft NGVD, Oct. 11, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--A water level of 27 ft NGVD, was reported by Frank Westendick in 1931, month unknown.

ELEVATION, CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA, OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 04...	1545	13.10	580	20.0	110	MAY 07...	1700	13.20	610	20.5	110
JAN 26...	1445	13.50	590	19.0	110	JUL 15...	1340	11.40	590	22.0	110
MAR 17...	1545	14.00	585	20.0	110	SEP 09...	1640	11.40	550	23.0	110

WELL NUMBER.--302746086232101. Ray Wright Well at Villa Tasso, FL.

LOCATION.--Lat 30°27'46", long 86°23'21", in SE¹/₄SW¹/₄NW¹/₄ sec.30, T.1 S., R.21 W., Hydrologic Unit 03140102, 0.5 mi east of Okaloosa-Walton County line at Villa Tasso Kennels at Villa Tasso.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 440 ft, cased to 220 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of sanitary seal 1.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 19 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: March 1978 to July 1979 (semiannually); November 1980 to current year (bimonthly).

WATER QUALITY: July 1979 (annually); 1981 (semiannually); November 1981 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.75 ft NGVD, Mar. 29, 1978; lowest measured, -24.10 ft NGVD, July 14, 1986.

ELEVATION, CONDUCTANCE AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1610	-20.74	245	4.2	MAY 06...	1815	-18.10	--	--
JAN 05...	1555	-15.30	240	3.8	JUL 07...	1535	-20.08	245	3.5
MAR 02...	1550	-12.47	240	2.6	SEP 17...	0840	-22.12	250	3.0

WALTON COUNTY

WELL NUMBER.--302840086044301. Thomas Miller Well near Freeport, FL.

LOCATION.--Lat 30°28'40", long 86°04'43", in NE¹/₄NE¹/₄NW¹/₄ sec.32, T.1 N., R.18 W., Hydrologic Unit 03140102, at private residence, 2.6 mi east of intersection of State Highway 20 and U.S. Highway 331, 4.0 mi east of Freeport.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL DESCRIPTION.--Drilled, domestic, artesian well, diameter 4 in, depth 200 ft, length of casing unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of sanitary seal, 1.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: 1978 (two measurements); 1979 (three measurements); November 1980 to September 1981 (bimonthly).

WATER QUALITY: 1978, 1979 (annually); May 1981 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.71 ft NGVD, Mar. 15, 1978; lowest measured, 6.62 ft NGVD, July 11, 1979.

ELEVATION, CONDUCTANCE, AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1220	15.03	205	3.3	MAY 13...	1110	16.38	215	3.7
JAN 05...	1305	15.72	220	3.4	JUL 07...	1050	16.25	215	3.5
MAR 05...	1430	16.65	--	--	SEP 17...	1010	15.96	225	3.0

WELL NUMBER.--302841086195201. R. E. Lalonde Well at Choctaw Beach, FL.

LOCATION.--Lat 30°28'41", long 86°19'52", in SW¹/₄NE¹/₄SE¹/₄ sec.22, T.1 S., R.21 W., Hydrologic Unit 03140102, 75 ft north of State Highway 20, 200 ft north of wayside park and 1.2 mi east of Choctaw Beach.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 316 ft, cased to 132 ft.

INSTRUMENTATION.--Pressure gage. Measuring point: Top of casing, 2.0 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 2 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--

ELEVATIONS: December 1969, July 1974 (annually); March 1975 to current year (bimonthly).

QUALITY WATER: May 1975 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.4 ft NGVD, Mar. 4, 1976; lowest measured, -5.55 ft NGVD, July 14 and September 9, 1986.

ELEVATION, IN FEET, NGVD, WATER YEAR, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	1550	-4.67	MAY 06...	1805	-2.23
JAN 05...	1510	-2.49	JUL 07...	1515	-4.00
MAR 02...	1540	-0.79	SEP 17...	0900	-5.47

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

WALTON COUNTY

WELL NUMBER.--302935086074501. Local Number 17. City of Freeport Well at Freeport, FL.

LOCATION.--Lat 30°29'13", long 86°08'12", in SW¹/₄SE¹/₄SW¹/₄ sec.15, T.1 S., R.19 W., Hydrologic Unit 03140102, 81 ft east-northeast of Fourmile Creek and 381 ft north-northwest of confluence of Fourmile and Lafayette Creek, and 0.4 mi southeast of City Hall at Freeport.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in, depth 187 ft, casing length unknown.

INSTRUMENTATION.--Pressure gage or tape measured. Measuring point: Top of tee, 3.50 ft above land-surface datum.

DATUM.--Land-surface datum is 2.70 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--

ELEVATIONS: September 1947 to October 1963 (bimonthly); June 1969 (annually); September 1974 to current year (bimonthly).

WATER QUALITY: November 1974 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.7 ft NGVD, Sept. 3, 1947; lowest measured, -1.60 ft NGVD, June 18, 1969.

ELEVATION, CONDUCTANCE, TEMPERATURE AND CHLORIDE DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 06...	1505	15.40	180	23.0	2.7	MAY 06...	1715	16.00	180	21.0	2.2
JAN 05...	1500	16.50	175	18.0	2.7	JUL 07...	1430	16.40	180	22.0	2.5
MAR 02...	1500	17.20	180	19.5	2.0	SEP 17...	0940	15.90	185	22.0	2.0

WELL NUMBER.--303214085580401. Local Number FAF No. 72. First American Farms Well near Bruce, FL.

LOCATION.--Lat 30°32'14", long 85°58'04", in SW¹/₄SE¹/₄NW¹/₄ sec.32, T.2 N., R.17 W., Hydrologic Unit 03140203, about 4 mi southwest of Redbay and about 4.5 mi north of Bruce.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, irrigation, artesian well, diameter 10 in., depth 506 ft, cased to 218 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 0.50 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 123 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--September 1968 to November 1970; November 1970 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORDS.--Highest water level measured, 31.01 ft NGVD, Nov. 21, 1975; lowest, -51.20 ft NGVD, July 13, 1970.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	1310	26.35	MAY 13...	1140	28.22
JAN 05...	1135	27.37	JUL 07...	1145	28.28
MAR 02...	1355	28.65	SEP 14...	1245	27.80

WALTON COUNTY

WELL NUMBER.--303426086061101. Local Number FAF No. 2. First American Farms Well near Freeport, FL.

LOCATION.--Lat 30°34'26", long 86°06'11", in NE¹/₄NW¹/₄NW¹/₄ sec.24, T.1 N., R.19 W., Hydrologic Unit 03140102, 0.2 mi east of U.S. Highway 331, 1 mi north of clay road, and 5.5 mi north of Freeport.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, irrigation, artesian well, diameter 10 in, depth 440 ft, cased to 172 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing at land-surface datum. Prior to October 7, 1970 water-level recorder at same site and datum.

DATUM.--Land-surface datum is 153.46 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--September 1968 to October 1970; November 1970 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.33 ft NGVD, Nov. 20, 1975; lowest measured, -45.25 ft NGVD, Oct. 11, 1972.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 06...	1350	37.39	MAY 06...	1635	38.83
JAN 05...	1210	37.96	JUL 07...	1230	38.63
MAR 02...	1325	38.79	SEP 14...	1220	38.28

WELL NUMBER.--303545086064601. U.S. Air Force Rock Hill Tower Well at Rock Hill, FL.

LOCATION.--Lat 30°35'45", long 86°06'46", in NE¹/₄NW¹/₄SE¹/₄ sec.11, T. 1 N., R.19 W., Hydrologic Unit 03140102, Rock Hill Tower at Rock Hill, 0.1 mi north of intersection of U.S. Highway 331 and State Highway 282, and 7 mi north of Freeport.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 440 ft, cased 248 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 0.60 ft above land-surface datum.

DATUM.--Land-surface datum is 210.50 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1968 to current year (bimonthly).

REMARKS.--Water levels affected by nearby irrigation pumpage.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 77.60 ft NGVD, Mar. 30, 1983; lowest measured, 8.22 ft NGVD, June 26, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
NOV 04...	1215	46.50	MAY 06...	1620	47.10
JAN 05...	1235	46.98	JUL 07...	1245	46.65
MAR 02...	1310	46.75	SEP 14...	1200	47.47

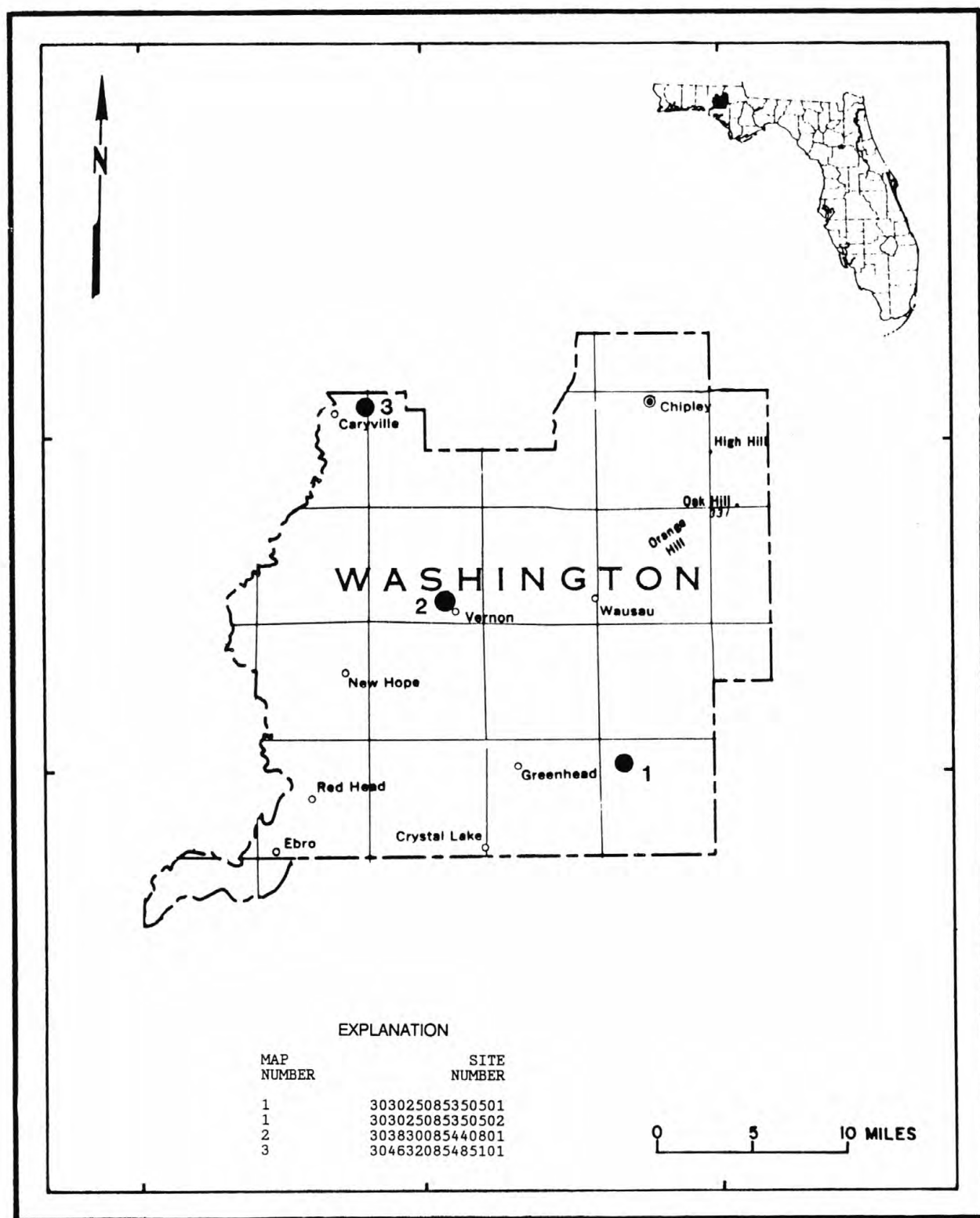


Figure 52.--Location of wells in Washington County.

WASHINGTON COUNTY

WELL NUMBER--303025085350501. Local Number 422A. U.S. Geological Survey Observation Well near Wausau, FL.

LOCATION.--Lat 30°30'25", long 85°35'05", in SE¹/₄NW¹/₄NW¹/₄ sec.7, T.1 N., R.13 W., Hydrologic Unit 03140101, 0.6 mi east of road to Deadening Cemetery, 4.2 mi east of State Highway 77, and 8.6 mi south of Wausau.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 150 ft, cased to 110 ft.

INSTRUMENTATION.--Water-level recorder. Measuring point: Top of recorder shelf, 2.90 ft above land-surface datum.

DATUM.--Land-surface datum is 66.11 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.75 ft NGVD, Oct. 1, 2, 1979; lowest, 48.19 ft NGVD, Feb. 13, 14, 1969.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	58.94	58.27	58.57	58.98	59.78	60.31	60.78	59.87	60.05	60.56	60.11	61.58
10	58.81	58.18	58.55	58.99	59.78	60.23	60.66	59.86	59.81	60.46	59.98	61.61
15	58.81	58.03	58.89	58.93	59.82	60.12	60.55	60.14	60.34	60.36	60.99	62.19
20	58.59	58.07	58.92	59.38	59.77	60.21	60.37	60.26	60.36	60.41	61.24	62.23
25	58.57	57.99	59.00	59.84	60.26	60.10	60.19	60.21	60.60	60.44	61.27	62.14
EOM	58.39	58.50	58.87	59.73	60.43	60.67	60.03	60.05	60.59	60.26	61.45	62.09
MEAN	58.71	58.15	58.79	59.28	59.91	60.25	60.48	60.07	60.22	60.43	60.74	61.95
MAX	59.07	58.50	59.04	59.84	60.43	60.67	60.78	60.27	60.63	60.60	61.45	62.24
MIN	58.39	57.99	58.47	58.83	59.73	60.08	60.03	59.81	59.73	60.26	59.91	61.47
WTR YR 1987	MEAN	59.91	MAX	62.24	SEP 17	AND OTHERS	MIN	57.99	NOV 25			

WELL NUMBER.--303025085350502. Local number 030-535-422B. U.S. Geological Survey Observation Well near Wausau, FL.

LOCATION.--Lat 30°30'25", long 85°35'05", in SE¹/₄NW¹/₄NW¹/₄ sec.7, T.1 N., R.13 W., Hydrologic Unit 03140101, 0.6 mi east of road to Deadening Cemetery, 4.2 mi east of State Highway 77, and 8.6 mi south of Wausau.

AQUIFER.--Nonartesian sand aquifer of the Tertiary System, Geologic Unit 120 NRSD.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 2 in, depth 26 ft, cased to 23 ft, screened from 23 to 26 ft.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 2.80 ft above land-surface datum.

DATUM.--Land-surface datum is 67.48 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--September 1962 to current year (bimonthly). Records of water levels prior to January 1974 are available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.21 ft NGVD, Feb. 20, 1964; lowest measured, 58.55 ft NGVD, Nov. 7, 1972.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 21...	1545	62.31	MAR 31...	1030	65.47
DEC 09...	1050	63.01	JUN 05...	0730	65.20
FEB 03...	0905	65.05	AUG 11...	0935	63.11

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

WASHINGTON COUNTY

WELL NUMBER.--303830085440801. Wayne Weber Well near Vernon, FL.

LOCATION.--Lat 30°38'30", long 85°44'08", in SW¹/₄NW¹/₄NW¹/₄ sec.27, T.3 N., R.15 W., Hydrologic Unit 03140203, about 60 ft east of dirt farm road, 0.2 mi south of county road 170 and 1.6 mi northwest of Vernon.

AQUIFER.--Florida Aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian, stock well, diameter 4 in., depth and casing length unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of sanitary seal, 0.50 ft above land-surface datum.

DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--January 1983 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 33.84 ft NGVD, Mar. 29, 1983; lowest measured 26.78 ft NGVD, Dec. 10, 1984.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			MAR		
21...	1435	27.17	31...	1120	33.18
DEC			JUN		
09...	1135	28.34	05...	0850	30.05
FEB			AUG		
02...	0845	32.66	11...	1110	30.70

WELL NUMBER.--304632085485101. Local number 4. Town of Caryville Well at Caryville, FL.

LOCATION.--Lat 30°46'32", long 85°48'51", in NW¹/₄NE¹/₄NW¹/₄ sec.11, T.4 N., R.16 W., Hydrologic Unit 03140203, at lumber mill, 0.1 mi north of U.S. Highway 90 at Caryville.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 4 in., depth 785 ft, casing length unknown.

INSTRUMENTATION.--Tape measured. Measuring point: Top of casing, 1.00 ft above land-surface datum.

DATUM.--Land-surface datum is 62.97 ft above National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--September 1946 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.17 ft NGVD, Mar. 9, 1966; lowest measured, 44.99 ft NGVD, Nov. 23, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--A water-level of 62.97 ft NGVD, was reported by driller, Dec. 12, 1935.

ELEVATION, IN FEET, NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT			APR		
20...	1330	47.27	01...	1050	53.48
DEC			JUN		
10...	0930	47.72	09...	1400	50.72
FEB			AUG		
02...	1000	52.83	12...	1000	50.06

MISCELLANEOUS WATER LEVEL MEASUREMENTS

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1986 TO SEPTEMBER 1987

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STATION NUMBER	STATION NAME	DATE OF SAMPLE	ELEV- ATION ABOVE NGVD (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	GEO- LOGIC UNIT
BAKER						
302251082194901	B-25 ONF #6 FLORIDAN WELL NEAR TAYLOR, FL.	11-24-86	50.46	77.31	128.00	120FLRD
		12-30-86	51.91	75.86	128.00	
		02-02-87	54.70	73.07	128.00	
		05-11-87	54.90	72.87	128.00	
		05-28-87	54.04	73.73	128.00	
BAY						
300347085345501	LOCAL NO. 003534113	10-22-86	1.25	26.60	28.00	120FLRD
		06-04-87	2.52	25.33	28.00	
301006085413501	WELL BAY 7 AT PANAMA CITY, FLORIDA	10-22-86	-13.74	40.07	26.30	120FLRD
301550085355801	LOCAL NO.015-535-113	10-22-86	8.59	-0.81	7.80	120FLRD
		06-04-87	7.56	0.22	7.80	
CALHOUN						
301437085114901	LOCAL NO.014-511-1	10-28-86	37.50	-5.80	31.70	120FLRD
		06-03-87	38.95	-7.25	31.70	
303024085024701	STAFFORD CR WELL N OF BLOUNTSTOWN,FL	10-28-86	57.88	32.12	90.00	120FLRD
		06-03-87	60.18	29.82	90.00	
DIXIE						
293731083061801	LOCAL NO.15 CROSS CITY	10-28-86	35.13	--	40.20	120FLRD
		11-21-86	35.00	--	40.20	
		12-29-86	36.40	--	40.20	
		01-28-87	37.54	--	40.20	
		02-24-87	37.65	--	40.20	
		03-26-87	36.61	--	40.20	
		04-14-87	37.01	--	40.20	
		04-21-87	36.53	--	40.20	
		05-26-87	36.38	--	40.20	
		06-25-87	35.51	--	40.20	
		07-31-87	35.62	--	40.20	
		08-27-87	35.96	--	40.20	
		09-24-87	35.69	--	40.20	
ESCAMBIA						
302220087205001	USGS TH11 DOG TRACK RD.	10-13-86	--	15.24	22.00	120NFSG
		11-17-86	--	14.16	22.00	
		12-14-86	--	13.80	22.00	
		01-13-87	--	13.68	22.00	
		02-25-87	--	13.50	22.00	
		04-28-87	--	14.31	22.00	
		06-29-87	--	14.29	22.00	
		08-24-87	--	13.85	22.00	
302232087240501	USGS TH108,SE BRONSON FLD	10-13-86	--	18.25	25.00	120NFSG
		11-17-86	--	18.07	25.00	
		12-14-86	--	17.43	25.00	
		01-13-87	--	17.42	25.00	
		02-25-87	--	16.91	25.00	
		04-28-87	--	18.46	25.00	
		06-29-87	--	17.66	25.00	
		08-24-87	--	16.92	25.00	
302302087252501	USGS TH107,BRONSON FLD.	10-13-86	4.83	6.30	11.10	120NFSG
		11-17-86	4.56	6.57	11.10	
		12-14-86	5.45	5.68	11.10	
		01-13-87	5.50	5.63	11.10	

MISCELLANEOUS WATER LEVEL MEASUREMENTS
 OCTOBER 1986 TO SEPTEMBER 1987

STATION NUMBER	STATION NAME	DATE OF SAMPLE	ELEVATION ABOVE NGVD (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	GEO-LOGIC UNIT
ESCAMBIA-Continued						
302302087252502	USGS TH107A, BRONSON FLD.	10-13-86	3.24	7.89	11.10	120NFSG
		11-17-86	4.41	6.72	11.10	
		12-14-86	4.96	6.17	11.10	
		01-13-87	4.71	6.42	11.10	
302320087214601	USGS TH109, TANTON RD	10-13-86	--	16.85	26.00	120NFSG
		11-17-86	--	16.02	26.00	
		12-14-86	--	15.70	26.00	
		01-13-87	--	15.72	26.00	
302354087210501	USGS TH9-FRGSN AIR SERV.	10-13-86	--	17.82	26.00	120NFSG
		11-17-86	--	16.83	26.00	
		12-14-86	--	16.58	26.00	
		01-13-87	--	16.69	26.00	
302354087210502	USGS TH9A-FRGSN AIR.SERV.	10-13-86	--	2.03	26.00	120NFSG
		11-17-86	--	1.59	26.00	
		12-14-86	--	1.02	26.00	
		01-13-87	--	1.32	26.00	
302355087200301	USGS TH31, 1 MI.W.FAIRFLD	10-13-86	--	19.56	28.00	120NFSG
		11-17-86	--	18.28	28.00	
		12-14-86	--	18.02	28.00	
		01-13-87	--	18.33	28.00	
302432087182601	USGS TH3-72ND AVE.S.JKSN	10-13-86	--	16.22	31.00	120NFSG
		11-17-86	--	14.93	31.00	
		12-14-86	--	14.40	31.00	
		01-13-87	--	14.45	31.00	
		02-25-87	--	13.33	31.00	
		04-28-87	--	15.51	31.00	
		06-29-87	--	13.20	31.00	
		08-24-87	--	11.77	31.00	
302435087141601	USGS TH104 ROMANA W.K ST	10-13-86	8.88	13.80	22.70	120NFSG
		11-17-86	9.09	13.59	22.70	
		12-14-86	9.01	13.67	22.70	
		01-13-87	8.80	13.88	22.70	
		02-25-87	9.40	13.28	22.70	
		04-28-87	6.38	16.30	22.70	
		06-29-87	9.08	13.60	22.70	
		08-24-87	8.27	14.41	22.70	
302459087154401	USGS TH103 KEYES COURT	10-13-86	8.97	44.83	53.80	120NFSG
		11-17-86	9.33	44.47	53.80	
		12-14-86	9.67	44.13	53.80	
		01-13-87	9.62	44.18	53.80	
302541087114501	USGS TH1-17TH&GONZALEZ ST	10-13-86	--	55.62	62.00	120NFSG
		11-17-86	--	56.74	62.00	
		12-14-86	--	57.92	62.00	
		01-13-87	--	56.86	62.00	
302541087114502	USGS TH1A-17TH&GONZALEZ	10-13-86	--	56.19	62.00	120NFSG
		11-17-86	--	55.95	62.00	
		12-14-86	--	55.77	62.00	
		01-13-87	--	55.70	62.00	
		02-25-87	--	55.08	62.00	
		04-28-87	--	54.44	62.00	
		06-29-87	--	55.26	62.00	
		08-24-87	--	55.34	62.00	
302958087230001	USGS TH8-HURST HAMMOCK RD	10-06-86	--	79.22	103.00	120NFSG
		11-03-86	--	79.53	103.00	
		12-08-86	--	79.36	103.00	
		01-05-87	--	79.18	103.00	

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1986 TO SEPTEMBER 1987

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STATION NUMBER	STATION NAME	DATE OF SAMPLE	ELEV- ATION ABOVE NGVD (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	GEO- LOGIC UNIT
ESCAMBIA--Continued						
303006087205201	USGS TH7-US 90 S OF JAMES	10-06-86	--	61.45	85.00	120NFSG
		11-03-86	--	61.14	85.00	
		12-08-86	--	60.82	85.00	
		01-05-87	--	60.56	85.00	
303018087192201	USGS TH5 8MI CRK&DUNAWAY	10-06-86	--	52.59	74.00	120NFSG
		11-03-86	--	53.74	74.00	
		12-08-86	--	51.33	74.00	
		01-05-87	--	52.44	74.00	
		03-31-87	--	51.66	74.00	
		06-02-87	--	52.17	74.00	
		07-27-87	--	45.72	74.00	
		09-21-87	--	45.73	74.00	
303018087192202	USGS TH5A 8MI CRK&DUNAWAY	10-06-86	--	39.85	74.00	
		11-03-86	--	39.33	74.00	
		12-08-86	--	38.65	74.00	
		01-05-87	--	38.34	74.00	
		03-31-87	--	37.05	74.00	
		06-02-87	--	36.68	74.00	
		07-27-87	--	36.83	74.00	
		09-21-87	--	36.42	74.00	
303208087132701	USGS TH6 DAVID&BARRINGER	10-06-86	20.21	35.98	56.20	120NFSG
		11-03-86	20.39	35.80	56.20	
		12-08-86	20.40	35.79	56.20	
		01-05-87	20.75	35.44	56.20	
		03-31-87	21.32	34.87	56.20	
		06-02-87	21.08	35.11	56.20	
		07-27-87	21.38	34.81	56.20	
		09-21-87	21.81	34.38	56.20	
303216087194101	USGS TH29-CALICO DRIVE	10-06-86	--	56.66	96.00	120NFSG
		11-03-86	--	56.50	96.00	
		12-08-86	--	56.44	96.00	
		01-05-87	--	55.90	96.00	
		03-31-87	--	55.21	96.00	
		06-02-87	--	54.58	96.00	
		07-27-87	--	54.45	96.00	
		09-21-87	--	53.71	96.00	
303251087150201	USGS TH20,10-MI RD.	10-06-86	31.48	68.63	100.00	120NFSG
		11-03-86	31.47	68.64	100.00	
		12-08-86	31.59	68.52	100.00	
		01-05-87	31.78	68.33	100.00	
		03-31-87	32.28	67.83	100.00	
		06-02-87	32.76	67.35	100.00	
		07-27-87	33.14	66.97	100.00	
		09-21-87	33.64	66.47	100.00	
303346087185401	USGS TH18-W.ROBERTS ROAD	10-06-86	--	77.06	124.00	120NFSG
		11-03-86	--	77.04	124.00	
		12-08-86	--	77.14	124.00	
		01-05-87	--	77.16	124.00	
303642087232301	USGS TH12-N.OF MUSCOGEE	10-06-86	--	74.04	118.00	120NFSG
		11-03-86	--	74.54	118.00	
		12-08-86	--	74.83	118.00	
		01-05-87	--	76.39	118.00	
303659087222001	USGS TH16-FARM HILL S-97	10-06-86	--	88.55	138.00	120NFSG
		11-03-86	--	88.33	138.00	
		12-08-86	--	88.16	138.00	
		01-05-87	--	87.78	138.00	

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1986 TO SEPTEMBER 1987

STATION NUMBER	STATION NAME	DATE OF SAMPLE	ELEVATION ABOVE NGVD (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	GEO-LOGIC UNIT
ESCAMBIA--Continued						
303723087182601	USGS TH28 EDEN RD	10-06-86	--	45.50	74.00	120NFSG
		11-03-86	--	45.19	74.00	
		12-08-86	--	45.49	74.00	
		01-05-87	--	46.22	74.00	
303958087233201	USGS TH13-S.CHRCHSE BR.	10-08-86	62.55	89.45	152.00	120NFSG
		12-10-86	62.71	89.29	152.00	
		02-04-87	62.63	89.37	152.00	
		04-08-87	62.98	89.02	152.00	
		06-10-87	62.41	89.59	152.00	
304008087211601	USGS TH27-4.5MI.N.CNTNMNT	10-06-86	--	115.17	156.00	120NFSG
		11-03-86	--	115.05	156.00	
		12-08-86	--	114.93	156.00	
		01-05-87	--	115.19	156.00	
FRANKLIN						
294337084532401	McCullogh Properties, Inc. well at Eastpoint, Fl	10-28-86	8.76	-2.76	6.00	120FLRD
		06-18-87	8.29	-2.29	6.00	
295046084394301	FRANKLIN NO 10	10-28-86	3.16	1.90	5.10	120FLRD
		06-19-87	2.77	2.29	5.10	
295732084430701	FRANKLIN 41	10-28-86	13.53	-3.52	10.00	120FLRD
		06-19-87	13.45	-3.44	10.00	
GADSDEN						
304056084502501	CITY OF CHATTAHOOCHEE ABAND WELL NR CHATTAHOOCHEE	10-27-86	57.40	60.60	118.00	120FLRD
		06-22-87	60.80	57.20	118.00	
GULF						
300338085204201	FICO FARMS OBS. WELL(600) NR. OVERSTREET FL.	10-28-86	18.51	6.49	--	120FLRD
		12-08-86	18.57	6.43	--	
		02-10-87	19.08	5.92	--	
		03-30-87	18.88	6.12	--	
		06-03-87	18.18	6.82	--	
		08-10-87	17.98	7.02	--	
HAMILTON						
303622083050601	LOCAL NO.036-305-1	12-22-86	44.71	--	149.00	120FLRD
		01-27-87	60.67	--	149.00	
		02-20-87	60.87	--	149.00	
		03-27-87	60.53	--	149.00	
		04-22-87	55.60	--	149.00	
		05-27-87	45.78	--	149.00	
		06-23-87	40.94	--	149.00	
		07-27-87	43.38	--	149.00	
		08-21-87	43.50	--	149.00	
		09-28-87	41.54	--	149.00	
HOLMES						
304626085410301	KINGDOM HALL AT BONIFAY FL	10-20-86	101.22	27.78	129.00	120FLRD
		06-09-87	105.20	23.80	129.00	
305119085561901	LOCAL NO.051-556-1	10-21-86	76.05	209.63	286.00	120FLRD
		06-09-87	76.78	208.90	286.00	
305828085350901	HOLMES 7 BUSH	10-29-86	156.50	17.78	174.00	120FLRD
		06-09-87	158.59	15.69	174.00	
JACKSON						
304142085214101	BRADY FORAN WELL NR ALFORD, FL	07-08-87	70.20	36.80	107.00	120FLRD

MISCELLANEOUS WATER LEVEL MEASUREMENTS
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STATION NUMBER	STATION NAME	DATE OF SAMPLE	ELEV- ATION ABOVE NGVD (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	GEO- LOGIC UNIT
JACKSON-Continued						
304746085223201	CITY OF COTTONDALE NO.3, COTTONDALE, FL	10-29-86 07-08-87	102.18 104.30	30.82 28.70	133.00 133.00	--
304918084565601	NORTH OF SNEADS	10-27-86 06-22-87	87.22 89.20	22.78 20.80	110.00 110.00	120FLRD
304918085124201	RETTIG N. OF MARIANNA	10-29-86 06-09-87	72.45 74.74	27.55 25.26	100.00 100.00	120FLRD
305353085273101	LOCAL NO. 053-527-1	10-29-86 06-09-87	116.39 117.07	78.20 77.52	195.00 195.00	120FLRD
305837085034201	HAGLER WELL NEAR MALONE FL	10-27-86 06-22-87	97.42 102.87	32.58 27.13	130.00 130.00	120FLRD
305947085243001	WELCOME STAT. N OF CAMBELLTON	10-29-86 06-09-87	131.53 135.47	20.47 16.53	152.00 152.00	120FLRD
JEFFERSON						
303001083553401	Joseph Bellamy well near Monticello, Fl.	11-05-86 01-07-87 03-17-87 04-29-87 06-16-87 08-10-87	34.58 39.27 42.42 43.56 39.47 38.30	140.42 135.73 132.58 131.44 135.53 136.70	175.00 175.00 175.00 175.00 175.00 175.00	120FLRD
LEON						
301801084144501	ROY WHITTINGTON WELL NR WOODVILLE, FL	11-06-86 06-17-87	6.77 8.12	27.23 25.88	34.00 34.00	120FLRD
302410084200001	LOCAL NO.024-420-1	11-06-86 01-06-87 02-24-87 04-16-87 06-17-87 08-11-87	25.04 28.03 29.29 31.60 28.70 29.27	12.47 9.48 8.22 5.91 8.81 8.24	37.50 37.50 37.50 37.50 37.50 37.50	120FLRD
302410084200002	LOCAL NO.024-420-2 (150-A)	11-06-86 01-06-87 02-24-87 04-16-87 06-17-87 08-11-87	30.30 32.92 33.72 33.68 34.72 32.77	7.22 4.60 3.80 3.84 2.80 4.75	37.50 37.50 37.50 37.50 37.50 37.50	110NRSD
302518084192401	LOCAL NO.025-419-441	11-06-86 06-17-87	22.28 27.51	67.58 62.35	89.90 89.90	120FLRD
303447084072401	LOCAL NO.034-407-1	11-04-86 06-16-87	52.74 59.38	169.96 163.32	223.00 223.00	120FLRD
LEVY						
292507082560201	A J MIMMS(121420)SR 347 SW OF CHIEFLAND	05-18-87	13.01	--	33.00	120FLRD
LIBERTY						
300152084592701	LOCAL NO.001-459-1	10-28-86 06-18-87	23.32 23.67	6.18 5.83	29.50 29.50	120FLRD
300813084555701	PLACID OIL CO SUPPLY WELL	10-28-86 01-12-87 06-18-87	46.41 48.18 48.04	5.59 3.82 3.96	52.00 52.00 52.00	120FLRD
301035084403701	PORTER LAKE REC AREA	10-28-86 06-19-87	31.37 33.77	-9.10 -11.50	22.30 22.30	120FLRD

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1986 TO SEPTEMBER 1987

STATION NUMBER	STATION NAME	DATE OF SAMPLE	ELEV- ATION ABOVE NGVD (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	GEO- LOGIC UNIT
LIBERTY--Continued						
302823084560601	ST. JOE PAPER CO. WELL N. OF BRISTOL, FLA.	10-28-86 06-22-87	127.22 129.01	87.28 85.49	214.00 214.00	120FLRD
MADISON						
302822083255501	LOCAL NO.18 MADISON	10-31-86 11-21-86 12-23-86 01-30-87 02-25-87 03-31-87 04-24-87 05-26-87 06-30-87 07-31-87 08-24-87 09-30-87	72.63 72.20 77.29 83.16 85.19 88.16 89.25 84.03 80.49 78.94 77.65 75.70	-- -- -- -- -- -- -- -- -- -- -- --	101.00 101.00 101.00 101.00 101.00 101.00 101.00 101.00 101.00 101.00 101.00 101.00	120FLRD
OKALOOSA						
302338086352601	WAYSIDE PARK	11-05-86 01-06-87 03-03-87 05-06-87 09-15-87	-109.33 -107.05 -111.50 -117.73 -117.25	121.33 119.05 123.50 129.73 129.25	12.00 12.00 12.00 12.00 12.00	120FLRD
302857086310701	B-910 EGLIN HARDSTAND 1	11-05-86 01-07-87 03-04-87 05-07-87 07-08-87 09-16-87	-66.33 -56.58 -53.50 -74.75 -73.44 -75.38	132.33 122.58 119.50 140.75 139.44 141.38	66.00 66.00 66.00 66.00 66.00 66.00	120FLRD
303021086351601	B-4204 EGLIN 27 FLD 4-2	11-07-86 01-07-87 03-04-87 05-05-87 07-09-87 09-16-87	-40.82 -37.86 -40.97 -36.04 -40.14 -42.07	130.15 127.19 130.30 125.37 129.47 131.40	89.30 89.30 89.30 89.30 89.30 89.30	120FLRD
303745086442101	B-6204 EGLIN 31	11-07-86 05-05-87	15.57 14.53	119.53 120.57	135.00 135.00	120FLRD
304518086334001	CRESTVIEW NO 4	11-04-86	64.27	165.73	230.00	120FLRD
304801086403101	BAKER NO 1	11-03-86 05-05-87	63.48 64.33	181.52 180.67	245.00 245.00	120FLRD
305530086322701	W.D.FLOURNOY JR. WELL	11-03-86 05-04-87	154.01 154.90	24.99 24.10	179.00 179.00	120FLRD
305615086284801	FLA FOR.SER. LAUREL HILL	11-03-86 05-04-87	170.17 171.60	119.83 118.40	290.00 290.00	120FLRD
WAKULLA						
300540084174001	WAKULLA 19	11-05-86 06-19-87	5.96 5.31	3.03 3.68	9.00 9.00	120FLRD
300917084121301	LOCAL NO.2 ST. MARKS	11-05-86 06-17-87	1.95 1.88	1.80 1.87	3.80 3.80	120FLRD
301115084241201	ARRAN WORK CENTER	11-06-86 06-19-87	28.77 30.24	6.23 4.76	35.00 35.00	120FLRD

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1986 TO SEPTEMBER 1987

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STATION NUMBER	STATION NAME	DATE OF SAMPLE	ELEV- ATION ABOVE NGVD (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	GEO- LOGIC UNIT
WAKULLA--Continued						
301156084103501	LOCAL NO.011-410-1	11-05-86	5.47	1.49	7.00	120FLRD
		06-17-87	5.45	1.51	7.00	
WALTON						
302442086130701	S L MATTHEWS WELL	11-06-86	2.47	2.53	5.00	120FLRD
		01-06-87	3.40	1.60	5.00	
		03-03-87	4.33	0.67	5.00	
		05-06-87	3.92	1.08	5.00	
		07-08-87	2.81	2.19	5.00	
		09-15-87	1.92	3.08	5.00	
303053086075301	J M THOMPSON WELL	11-06-86	16.64	43.15	59.80	120FLRD
		05-06-87	18.09	41.70	59.80	
303434086130301	B-8631 EGLIN AFB	05-06-87	35.42	105.12	141.00	120FLRD
303454085560601	WELL 43	11-06-86	23.47	152.53	176.00	120FLRD
		05-13-87	26.21	149.79	176.00	
303954086133801	USAF EGLIN C-62	11-04-86	78.36	136.52	215.00	120FLRD
		05-06-87	79.24	135.64	215.00	
304334086032401	ARGYLE TOWER FFS	10-21-86	82.14	178.93	261.00	120FLRD
		06-05-87	83.70	177.30	261.00	
304358086120801	BSA CAMP LK EUCHEE WELL	05-03-87	121.75	152.25	274.00	120FLRD
305043086083301	RAY PETER WELL	11-03-86	182.07	96.93	279.00	120FLRD
		05-04-87	184.04	94.96	279.00	
305247086030901	WELL 52	10-21-86	113.23	191.54	305.00	120FLRD
		06-09-87	114.61	190.16	305.00	
305359086122601	JACKSON STILL TOWER	11-03-86	189.55	70.45	260.00	120FLRD
305804086180901	FLA WELCOME STA PAXTON	11-03-86	211.42	112.58	324.00	120FLRD
		05-04-87	213.94	110.06	324.00	
WASHINGTON						
304441085331101	I-10/SR77 S OF CHIPLEY	10-20-86	52.45	70.55	123.00	120FLRD
		06-09-87	56.78	66.22	123.00	

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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