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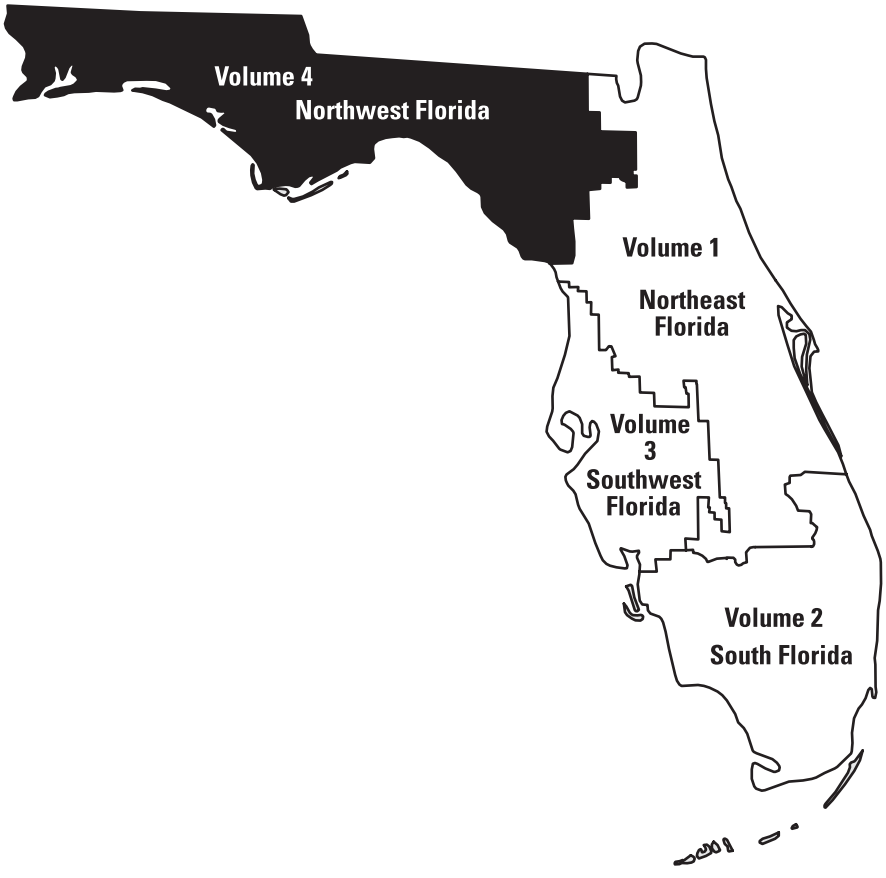
Water Resources Data
Florida
Water Year 2002



U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the
State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 2002

2001

OCTOBER

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2002

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SEPTEMBER

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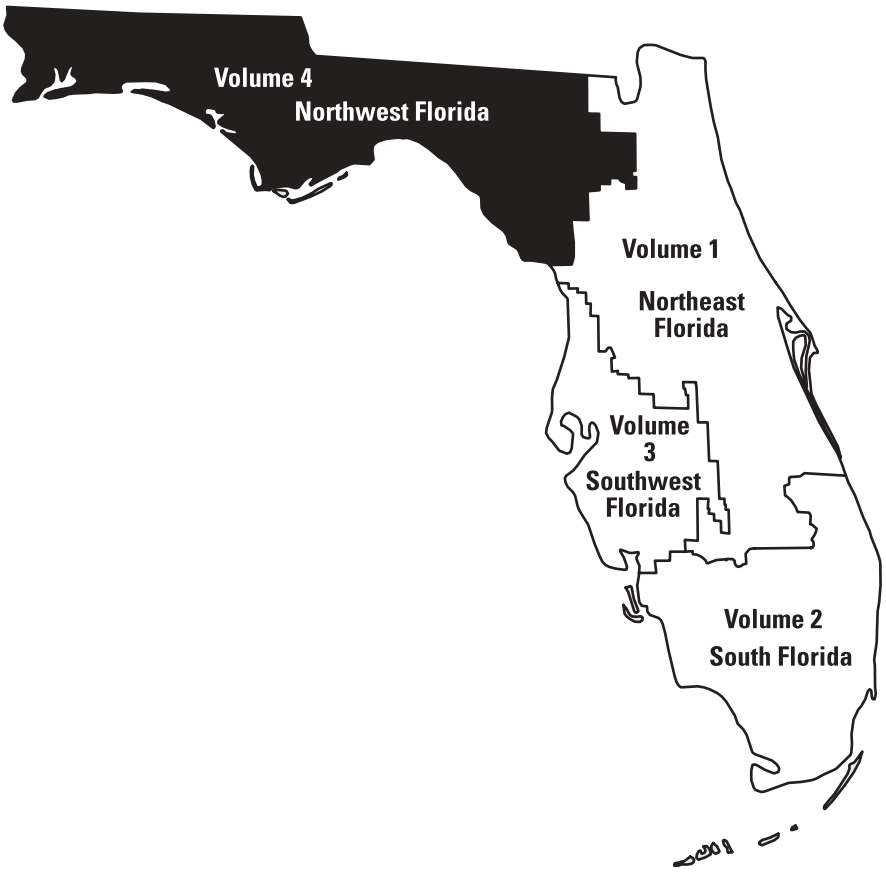
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Florida Water Year 2002

Volume 4. Northwest Florida

Water-Data Report FL-02-4



Prepared in cooperation with the
State of Florida and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

GALE A. NORTON, Secretary

U. S. GEOLOGICAL SURVEY

Charles G. Groat, Director

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

For additional information write to:
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U.S. Geological Survey
2010 Levy Avenue
Tallahassee, Florida 32310

2003

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 was prepared for publication by Darlene A. Blum and A. Ernie Alvarez under the supervision of Stewart A. Tomlinson and James D. Goin. The following individuals contributed significantly to the collection, processing, and tabulation of the data:

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E.L. Rau	S.G. Welch

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13. ABSTRACT *(Maximum 200 words)*

This report series for the 2002 water year for the state of Florida consists of records for continuous or daily discharge for 392 streams, periodic discharge for 15 streams, continuous or daily stage for 191 streams, periodic stage for 13 streams, peak stage and discharge for 33 streams, continuous or daily elevations for 14 lakes, periodic elevations for 49 lakes, continuous ground-water levels for 418 wells, periodic ground-water levels for 1,287 wells, and quality-of-water for 116 surface-water sites and 291 wells.

This volume (Volume 4, Northwest Florida) contains records of continuous or daily discharge for 67 streams, periodic discharge for 1 stream, continuous or daily stage for 16 streams, periodic stage for 1 stream, peak stage and discharge for 29 streams, continuous or daily elevations for 1 lake, periodic elevations for 3 lakes, continuous ground-water levels for 2 wells, periodic ground-water levels for 3 wells, and quality-of-water for 5 surface-water sites and 0 wells.

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

14. SUBJECT TERMS
*Florida, *Hydrologic data, *Surface water, *Ground water, *Water-quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses, Elevations, Water wells

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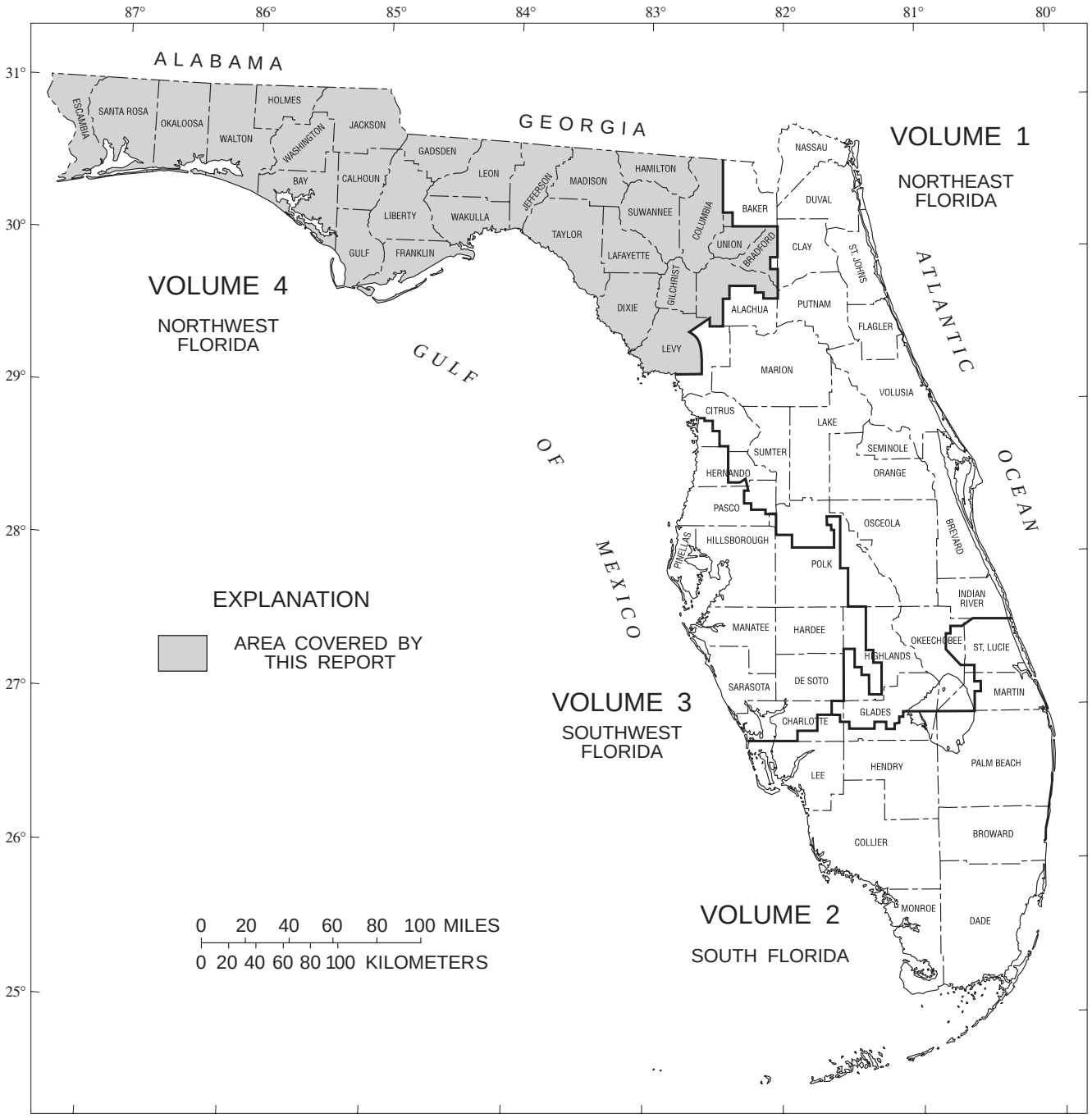

Figure 1. Geographic area covered by this report.

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ILLUSTRATIONS

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

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

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

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

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (gaging stations) in Florida have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.† Includes drainage area for Otter Creek.

Station name	Station number	Drainage area (mi^2)	Period of record
Waccasassa River near Otter Creek, FL	02313500	300†	1944-53
Otter Creek at Otter Creek, FL	02314000		1945-53
Tenmile Creek near Lebanon Station. F:	02314200	26	1963-92
Rocky Creek near Belmont, FL	02314986	50	1976-83
Hunter Creek near Belmont, FL	02315005	25.4	1979-88
Deep Creek near Suwannee Valley, FL	02315200	88.6	1976-81
			1990-98
Robinson Creek near Suwannee Valley, FL	02315392	27.4	1976-81
Swift Creek at Facil, FL	02315520	65.3	1976-88
Suwannee River at Suwannee Springs, FL	02315550	2630	1975-96
Alapha River near Jennings, FL	02317620	1680	1976-84
			1986-87
			2000-01
Santa Fe River near Graham, FL	02320700	94.9	1957-98
Swift Creek near Lake Butler, FL	02321700	46.0	1957-60
Olustee Creek near Providence, FL	02321800	163	1957-60
Pareners Branch near Bland, FL	02321900	4.5	1993-96
Santa Fe River near High Springs, FL	02322000	950	1931-71
Blues Creek near Gainesville, FL	02322016	5.12	1984-94
Cannon Creek near Lake City, FL	02322616	2.33	1992-98
Fenholloway River at Foley, FL	02324500	120	1946-92
			1993-95
Aucilla River at Lamont, FL	02326500	747	1950-79
			2000-01
Aucilla River near Scanlon, FL	02326512	805	1977-97
Northeast Drainage Ditch at Weems Road, FL	02326845	17.1	1979-83
Munson Slough at Capital Circle, FL	02327017	52.9	1979-83
Little River near Quincy, FL	02329500	237	1950-91
Quincy Creek at S267 at Quincy, FL	02329534	16.8	1974-92
Quincy Creek at Quincy, FL	02329542	21.9	1974-78
Rocky Comfort Creek near Quincy, FL	02329700	9.46	1964-81
New River near Wilma, FL	02330300	81.7	1964-81
North Mosquito Creek at Chattahoochee, FL	02358500	57.9	1936-42
Apalachicola River near Wewahitchka, FL	02358754	17800	1950-96
Econfina Creek near Compass Lake, FL	02359350	40.5	1962-65
Econfina Creek near Fountain, FL	02359450	70.2	1965-78
Bear Creek near Youngstown, FL	02359550	67.2	1962-65
Seven Runs Bay near Redbay, FL	02365800	25.8	1969-70
Holmes Creek at Vernon, FL	02366000	386	1950-81

Station name	Station number	Drainage area (mi^2)	Period of record
Magnolia Creek near Freeport, FL	02366900	11.2	1968-83
Alaqua Creek near DeFuniak Springs, FL	02367000	65.6	1951-78
Alaqua Creek near Portland, FL	02367006	83.7	1977-94
Rocky Creek near Portland, FL	02367240	42.4	1980-83
Rocky Creek near Niceville, FL	02367250	67.0	1966-68
Turkey Creek near Niceville, FL	02367305	22.7	1966-68
Turkey Creek at SR123 near Niceville, FL	02367307	30.1	1980-81
Juniper Creek at State Hwy. 85 near Niceville, FL	02367310	27.6	1966-75 1978-93
East Bay River near Wynnehaven Beach, FL	02367320	62.0	1966-68
Turkey Creek at Government RR near Niceville, FL	02367355	60.8	1977-81
Turtle Creek near Ocean City, FL	02367390	22.3	1977-81
Baggett Creek near Milligan, FL	02368300	7.80	1965-82
Pond Creek near Dorcas, FL	02368800	94.8	1966-68
Titi Creek near Crestview, FL	02368990	62.9	1966-68
Yellow River near Holt, FL	02369500	1210	1933-41
Big Juniper Creek near Munson, FL	02370200	36.0	1958-67
West Fork Big Coldwater at Cobbtown, FL	02370300	39.5	1958-62
Pine Barren Creek near Barth, FL	02376000	75.3	1952-94
Eightmile Creek near West Pensacola, FL	02376140	11.2	1988-91
Brushy Creek near Walnut Hill, FL	02376300	49.0	1958-91
Jacks Branch near Muscogee, FL	02376700	23.2	1958-62

† Includes drainage area for Otter Creek

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 for the 2002 water year for the state of Florida consists of records for continuous or daily discharge for 392 streams, periodic discharge for 15 streams, continuous or daily stage for 191 streams, periodic stage for 19 streams, peak stage and discharge for 33 streams, continuous or daily elevations for 14 lakes, periodic elevations for 49 lakes, continuous ground-water levels for 418 wells, periodic ground-water levels for 1,287 wells, and quality-of-water for 116 surface-water sites and 291 wells.

This volume (Volume 4, Northwest Florida) contains records of continuous or daily discharge for 65 streams, periodic discharge for 1 stream, continuous or daily stage for 18 streams, periodic stage for 2 streams, peak stage and discharge for 0 streams, continuous or daily elevations for 1 lake, periodic elevations for 1 lake, continuous ground-water levels for 2 wells, periodic ground-water levels for 3 wells, and quality-of-water for 3 surface-water sites and 0 wells.

This series of annual reports for Florida began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the l975 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, Branch of Information Services, Open-File Reports Section, Box 25286, Federal Center, Denver, CO 80225-00286.

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-02-4." 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 (850) 942-9500.

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 Protection
Florida Department of Transportation
Northwest Florida Water Management District
Suwannee River Water Management District
City of Century
City of Perry
City of Tallahassee
County of Okaloosa
Corps of Engineers, U.S. Army, Mobile District
U. S. Fish and Wildlife Service
County of Santa Rosa
County of Walton

Assistance with funds or services was given by the U.S. Army Corps of Engineer, Mobile District, in collecting records for 5 hydrologic gaging stations throughout northwest Florida.

SUMMARY OF HYDROLOGIC CONDITIONS

Rainfall

Rainfall across northwest Florida during the 2002 water year averaged below normal. Based on rainfall data at 5 National Oceanic and Atmospheric Administration stations, (Perry, Lake City, Tallahassee, De Funiak Springs, and Pensacola), total rainfall for the 12-month period ranged from 43.98 in. at Lake City to 57.85 in. at Perry. The cumulative monthly departures for the water year ranged from -16.12 in. at Tallahassee to -0.30 in. at Perry.

Precipitation during the fall quarter (October-December), one of the dryer periods, was below normal for all 5 locations with departures ranging from -4.46 in. at Perry to -5.63 in. at De Funiak Springs. For the winter quarter (January-March), normally a wet period, the western panhandle received below normal precipitation (6.66 in. below normal at De Funiak Springs), while central to eastern northwest Florida received near normal to just above normal precipitation (1.63 in. above normal at Tallahassee). Rainfall for the spring quarter (April-June) varied from 10.00 in. below normal at Tallahassee, to near normal at De Funiak Springs (0.03 in. below normal), to 3.60 in. above normal at Perry. During the summer quarter (July-September), normally the wet thunderstorm season, precipitation varied from 2.94 in. below normal at Lake City, to near normal at Perry (0.76 in. above normal), to 7.95 in. above normal at Pensacola. The following summary lists the cumulative rainfall and departure from the 30-year normal (1961-90) for each of the stations.

Table 1: Cumulative rainfall and departure from the 30-year normal (1961-90)

Station	October - December		January - March		April - June		July - September		Water Year	
	Total Rain	Departure	Total Rain	Departure	Total Rain	Departure	Total Rain	Departure	Total Rain	Departure
Perry	4.25	-4.46	13.08	-0.20	17.25	3.60	23.27	0.76	57.85	-0.30
Lake City	3.22	-5.03	13.58	0.53	10.17	-4.07	17.01	-2.94	43.98	-11.51
Tallahassee	6.84	-4.98	18.17	1.63	5.42	-10.00	19.16	-2.77	49.59	-16.12
De Funiak Springs	6.98	-5.63	10.11	-6.66	14.63	-0.03	24.25	1.37	55.97	-10.95
Pensacola	6.57	-5.47	11.62	-4.09	8.02	-6.35	28.08	7.95	54.29	-7.96

Surface Water

The drought of the 2000-2001 water years continued through the 2002 water year for most of northwest Florida. Several gages throughout northwestern Florida recorded their lowest annual mean flow, lowest instantaneous low flow, or both for their periods of record in 2002. Table 2 provides some representative gages where these records were surpassed.

Table 2: Representative stations that recorded all time record annual low mean flow, instantaneous low flow or both

Station Number	Station Name	Period of Record	Lowest Annual Mean Flow and the Year Recorded (ft^3/s)		Lowest Instantaneous Flow and Date Recorded (ft^3/s)	
	Representative Streams		(ft^3/s)	Water Year	(ft^3/s)	Date
02319000	Withlacoochee River near Pinetta	1932-2002	236	1955	14	08/13/2002
02320000	Suwannee River at Luraville	1927-1937, 1950-1972, 1977-1981, 1996-2002	1,673	2002	1,040	06/28/2002
02320500	Suwannee River at Branford	1931-2002	1,950	1955	1,320	08/09/2002
02322500	Santa Fe River near Fort White	1928-1930, 1932-2002	589	2002	440	06/02/2002
02323000	Suwannee River near Bell	1932-1965, 2000-2002	3,272	2002	1,920	08/09/2002
02324400	Fenholloway River near Foley, FL	1956-2002	3.90	2002	0.20	06/11/2000
02326900	St. Marks River near Newport, FL	1957-1976, 1977-2002	403	1968	249	10/22/2001
02358000	Apalachicola River at Chattahoochee, FL	1929-2002	8,861	2002	2,570	08/06/1986
02359170	Apalachicola River near Sumatra, FL	1978-2002	10,620	2002	4,860	10/10/2000

Table 2: Representative stations that recorded all time record annual low mean flow, instantaneous low flow or both (cont'd)

Station Number	Station Name	Period of Record	Lowest Annual Mean Flow and the Year Recorded (ft^3/s)		Lowest Instantaneous Flow and Date Recorded (ft^3/s)	
	Representative Streams		(ft^3/s)	Water Year	(ft^3/s)	Date
02365500	Choctawhatchee River at Carryville, FL	1930-1994, 2000-2002	2,090	2002	500	10/30/2000
02368500	Shoal River near Mossy Head, FL	1951-1978, 2000-2002	113	2002	27	06/26/2000

ft^3/s = cubic feet per second

Flows averaged lower in most streams in 2002 than in 2001. At the Santa Fe River near Fort White gage (table 2), the lowest mean annual flow and the lowest instantaneous low flow for the period of record had been recorded in water year 2001, but then those records were broken in water year 2002. Data from other representative sites (table 3) in northwest Florida show this trend as well.

Table 3: Relation of period of record mean annual discharge to mean discharge for the 2001 and 2002 water years

Station Number	Station Name	Mean Annual Discharge		Mean Discharge For Water Year 2001		Mean Discharge For Water Year 2002	
	Representative Streams in Northwest Florida	Period of Record	(ft^3/s)	(ft^3/s)	Departure From Mean (%)	(ft^3/s)	Departure From Mean (%)
02320500	Suwannee River at Branford, FL	1931-2002	6,871	4,018	-42	2,008	-71
02321500	Santa Fe River at Worthington Springs, FL	1932-2002	417	68.6	-84	52.4	-87
02324000	Steinhatchee River near Cross City, FL	1950-2002	308	203	-34	60.5	-80
02329000	Ochlockonee River near Havana, FL	1926-2002	1,035	655	-37	245	-76
02359000	Chipola River near Altha, FL	1913-2002	1,478	961	-35	703	-52
02369000	Shoal River near Crestview, FL	1938-2002	1,106	784	-29	577	-48
02375500	Escambia River near Century, FL	1935-2002	6,231	6,701	7.5	3,103	-50

ft^3/s = cubic feet per second

Discharge hydrographs for 7 representative streams in northwest Florida are shown in figures 2 through 8. The upper graph (A) shows the 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the previous period of record at that site. The lower graph (B) shows the monthly mean discharge for the period 1992-2002.

Ground Water

Data are collected from ground-water wells equipped with data recorders that measure hourly water levels. The daily maximum water-level elevations presented in this report are derived from these hourly measurements.

A hydrograph for the USGS well near Wausau (303025085350501) is shown in figure 9. The upper graph (A) shows the water year 2002 monthly maximum water level compared to the maximum, minimum, and mean monthly maximum water level for the period 1963-2002. The lower graph (B) shows the monthly maximum water level for the period 1998-2002.

From October to March of the 2002 water year water elevation at the USGS well near Wausau steadily declined from the annual daily maximum water elevation of 52.58 ft NGVD 1929 on October 1, 2002, to the annual daily lowest maximum water elevation of 49.19 ft NGVD 1929 on March 1. Several rain events since March 1, caused the elevation to increase on average to the end of the year.

Water Quality

Water-quality data collected during the water year did not provide enough information for general analysis of conditions in north Florida.

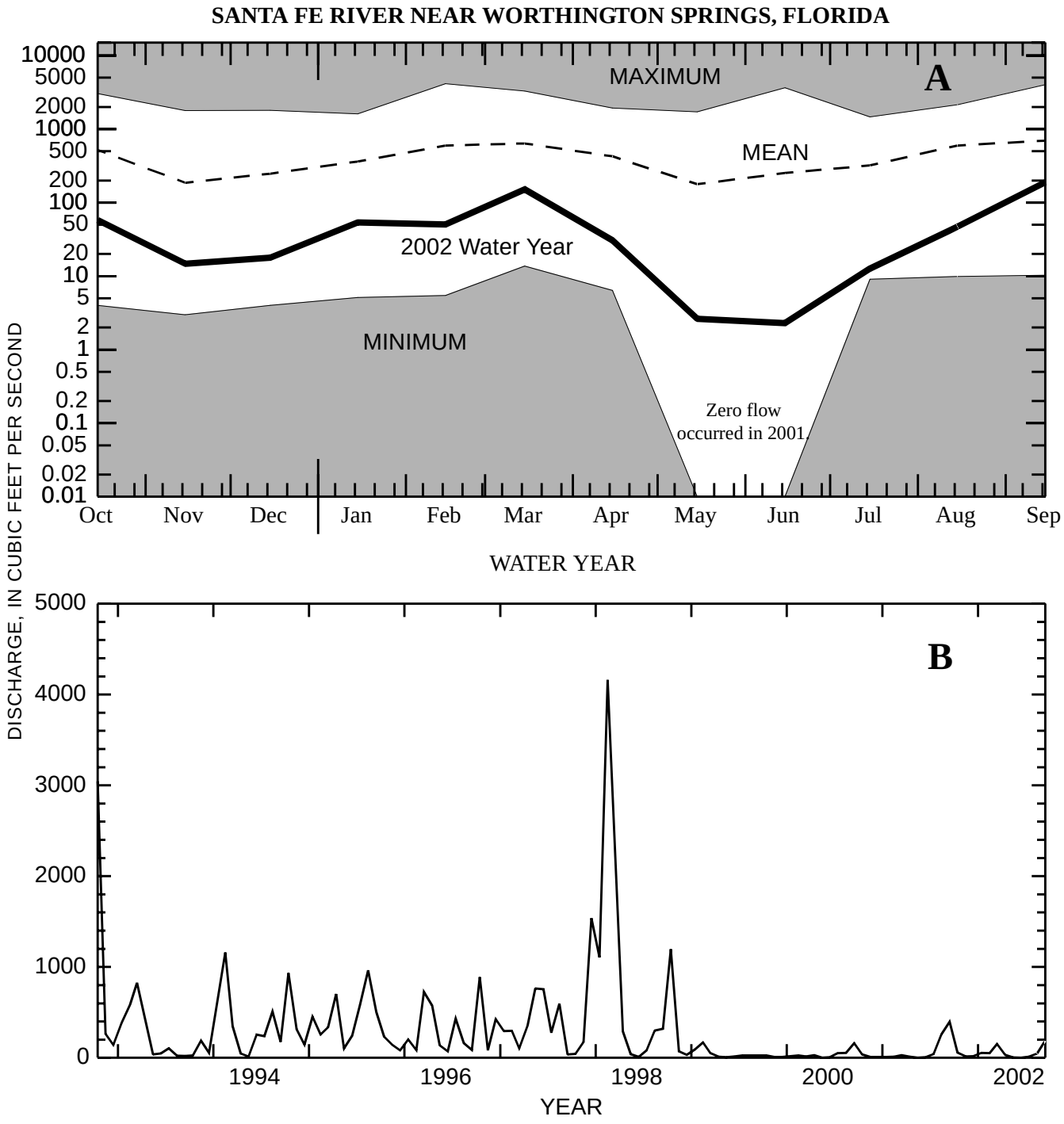


Figure 2. Santa Fe River near Worthington Springs (A) 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the period 1932-2002, and (B) the monthly mean discharge for the period 1993-2002.

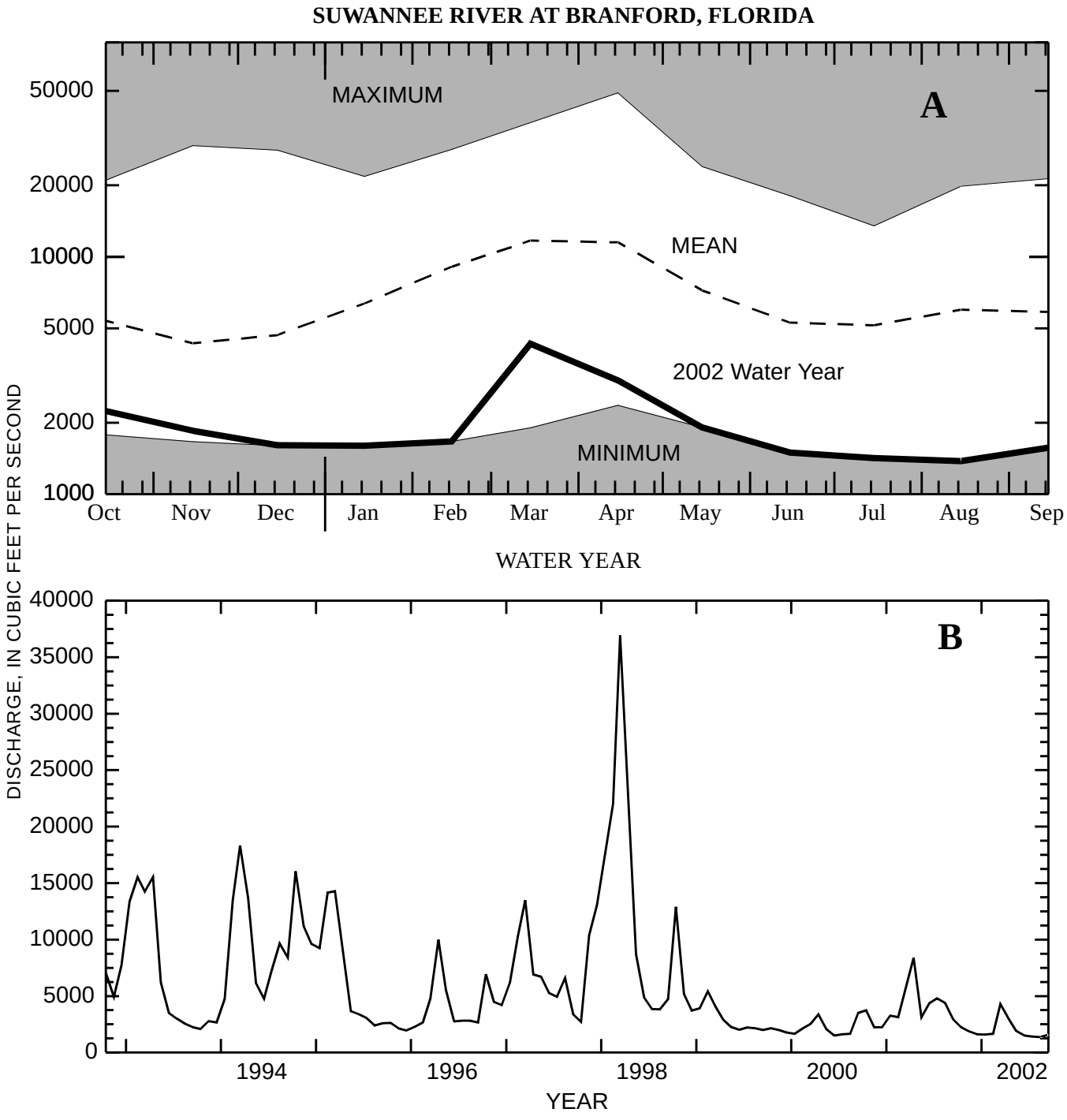


Figure 3. Suwannee River at Branford (A) 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the period 1931-2002, and (B) the monthly mean discharge for the period 1993-2002.

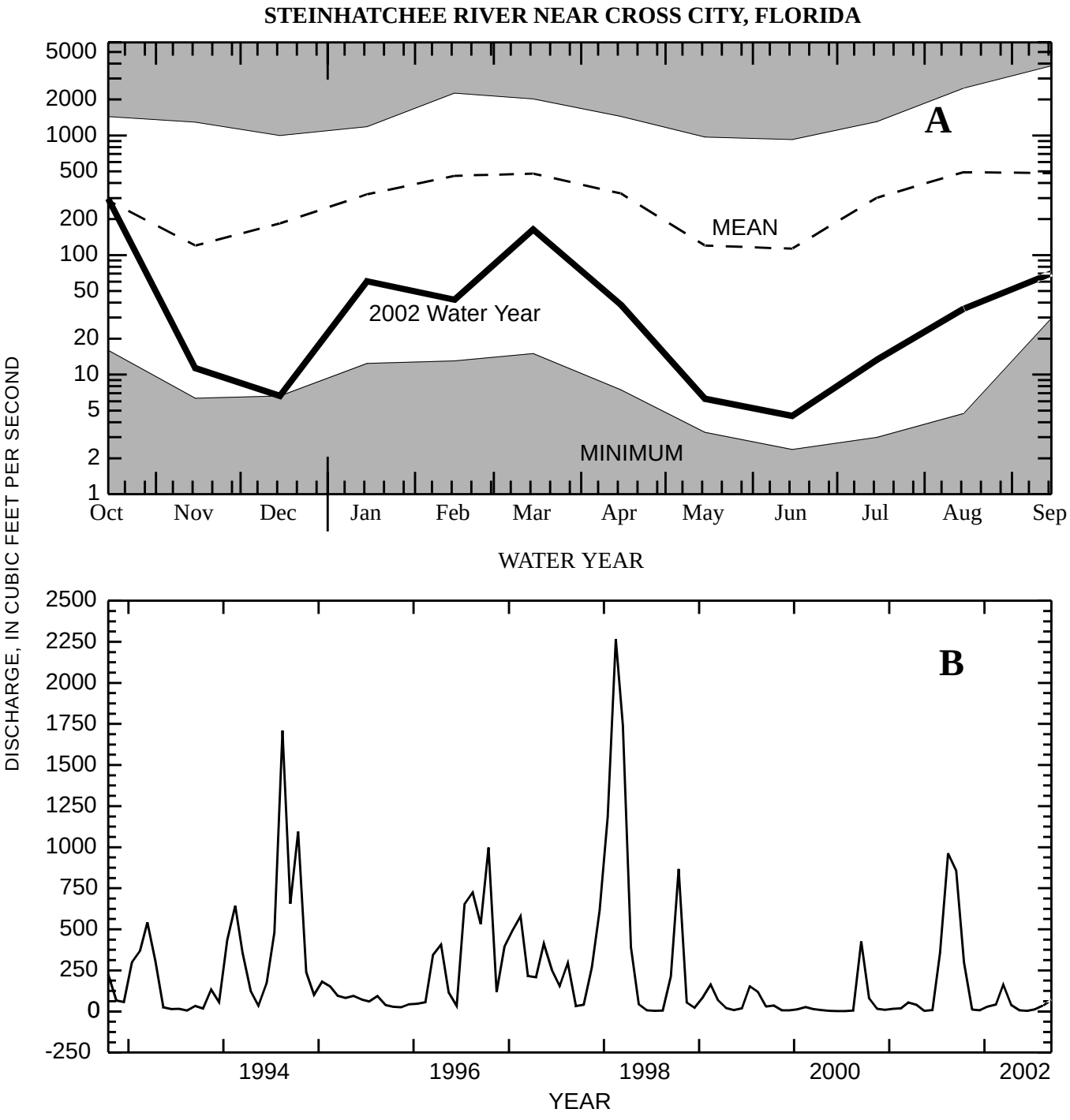


Figure 4. Steinhatchee River near Cross City (A) 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the period 1950-2002, and (B) the monthly mean discharge for the period 1993-2002.

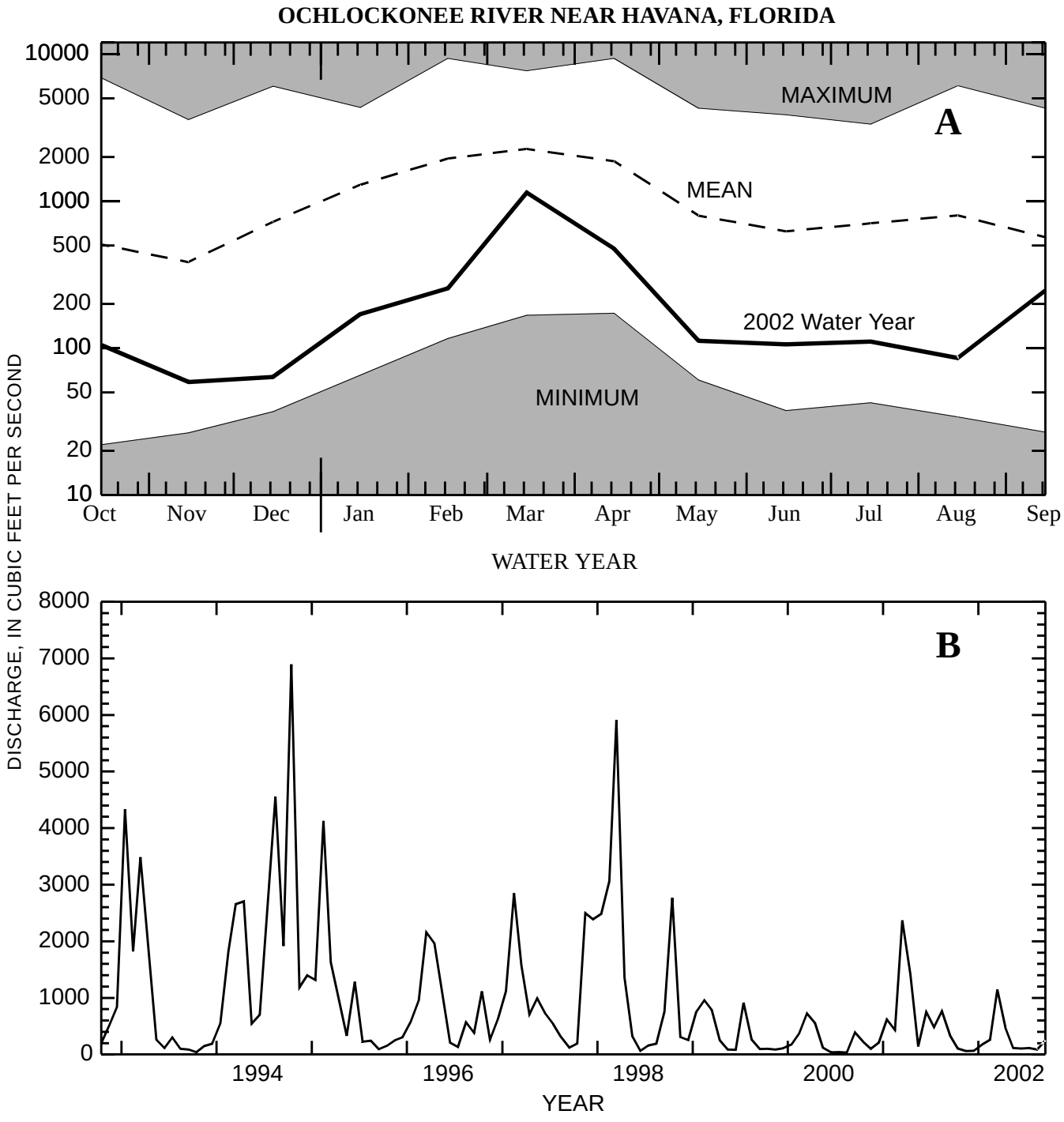


Figure 5. Ochlockonee River near Havana (A) 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the period 1926-2002, and (B) the monthly mean discharge for the period 1993-2002.

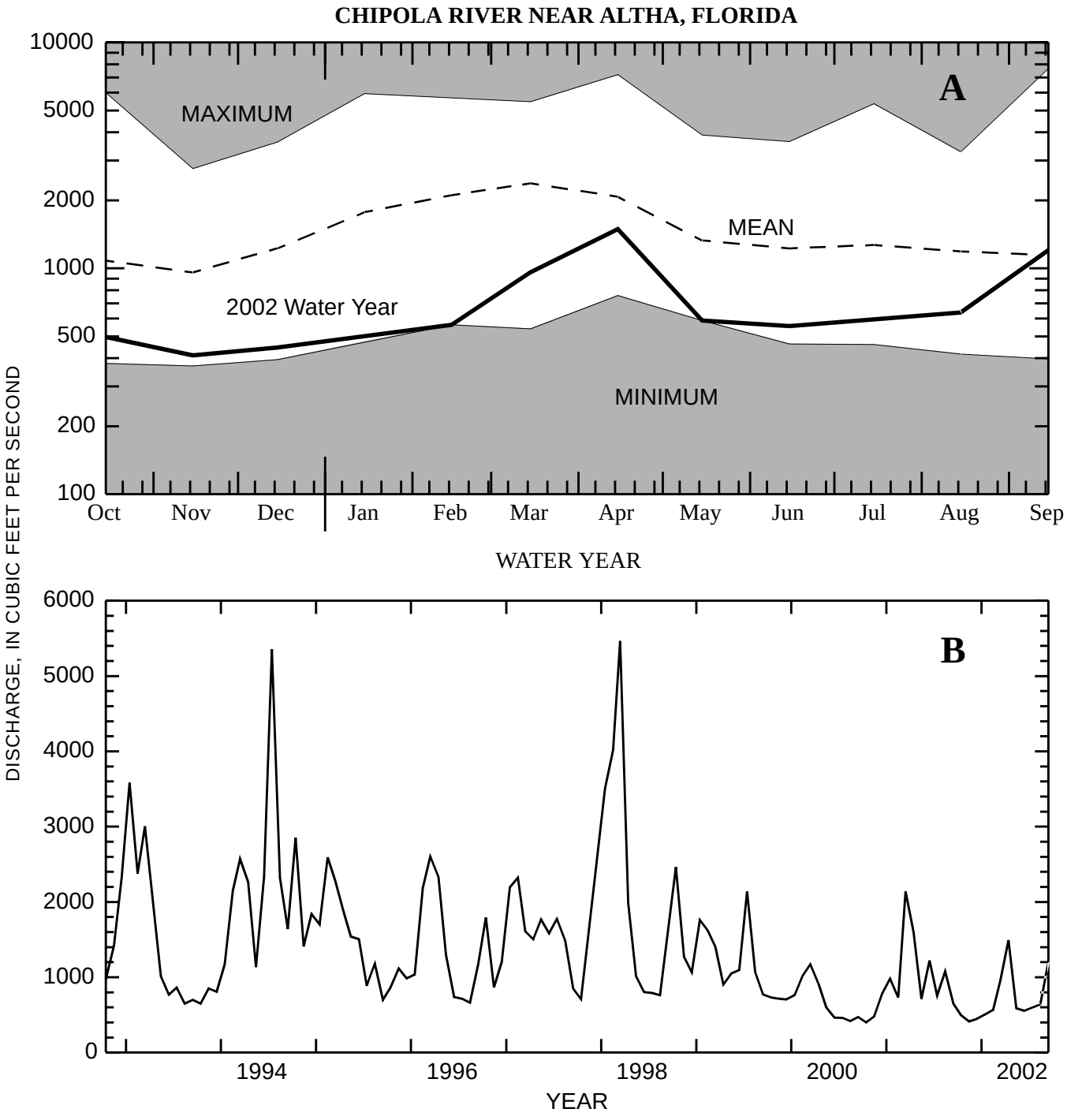


Figure 6. Chipola River near Altha (A) 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the period 1913-2002, and (B) the monthly mean discharge for the period 1993-2002.

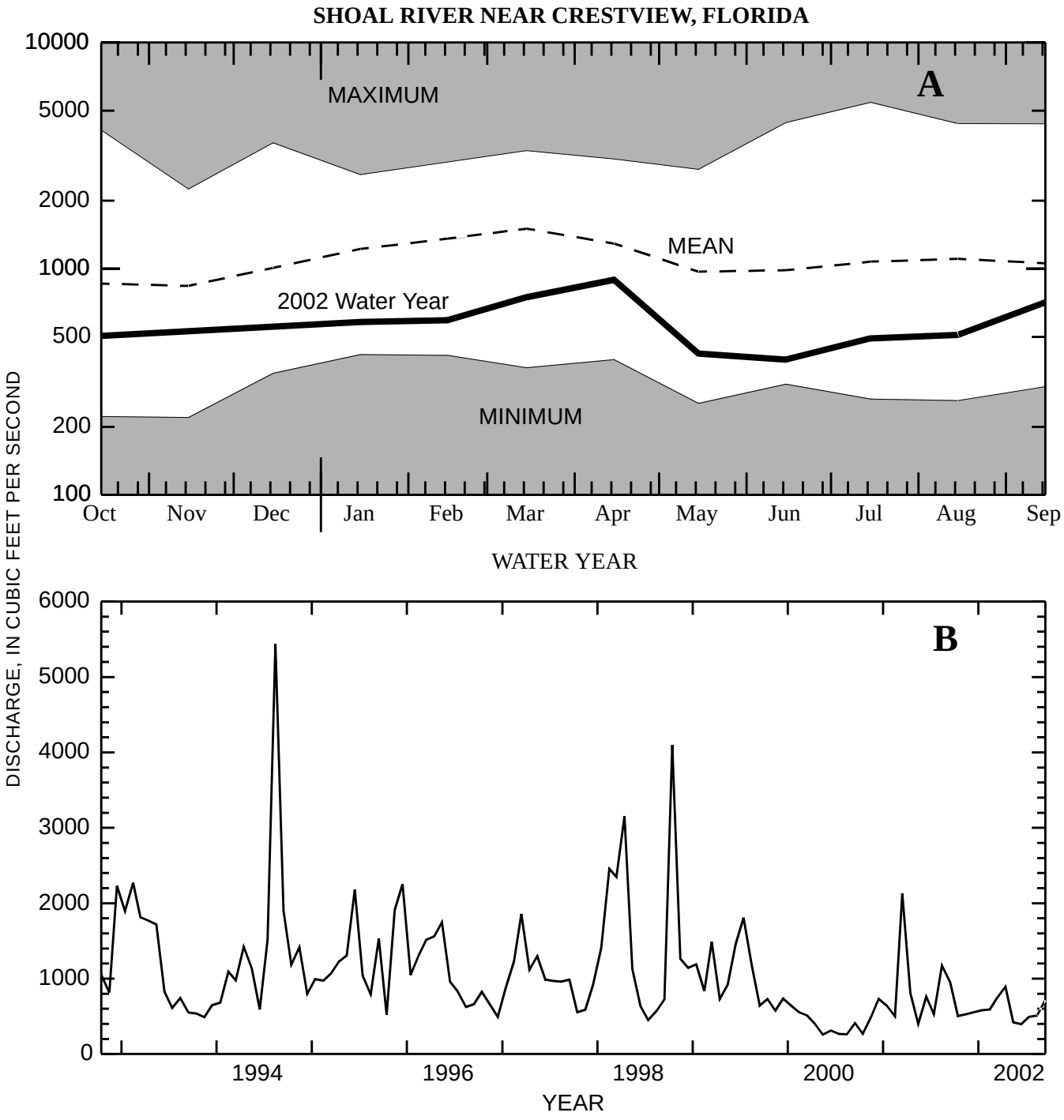


Figure 7. Shoal River near Crestview (A) 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the period 1938-2002, and (B) the monthly mean discharge for the period 1993-2002.

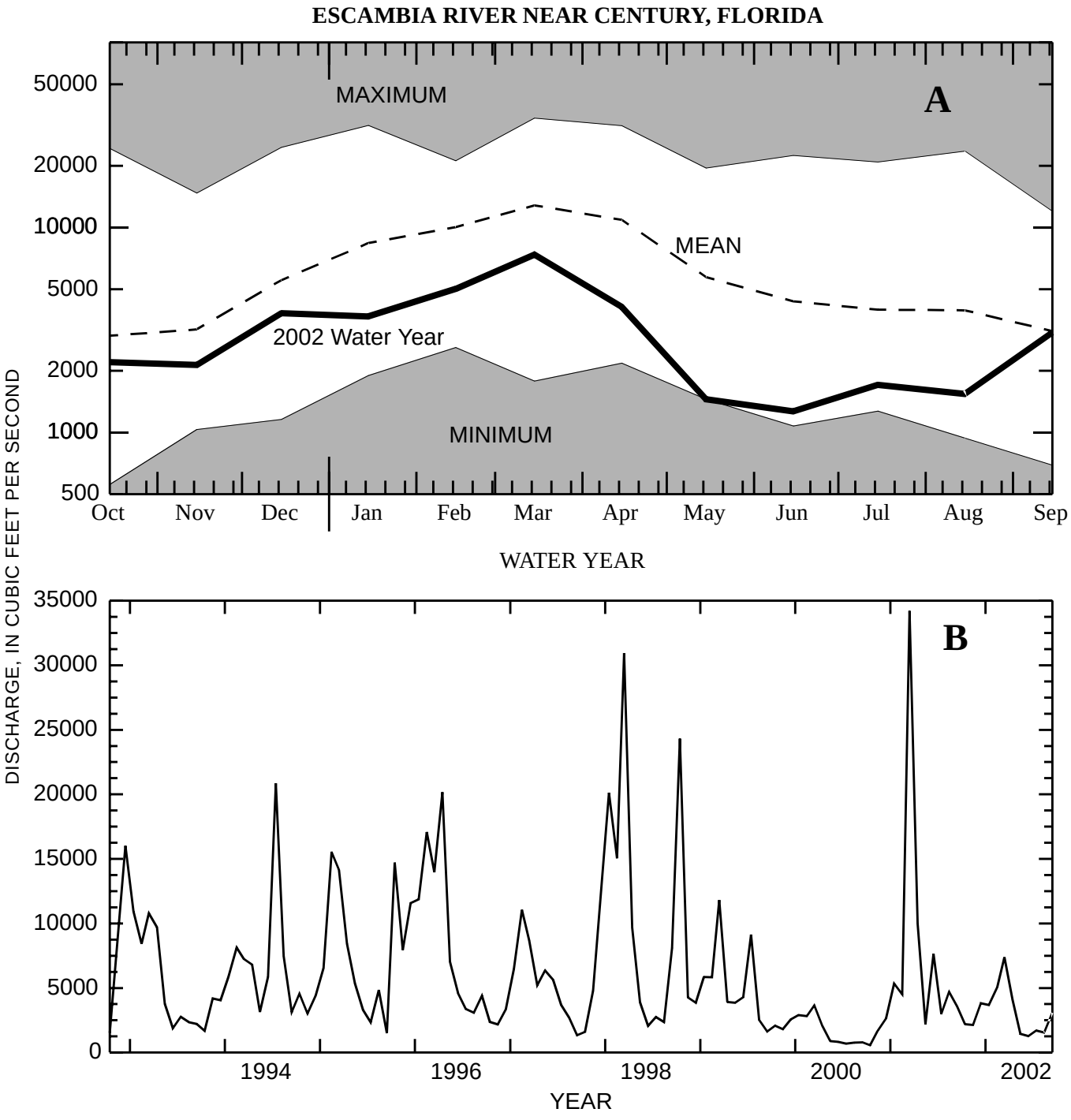


Figure 8. Escambia River near Century (A) 2002 monthly mean discharge compared to the maximum, minimum, and mean monthly mean discharge for the period 1934-2002, and (B) the monthly mean discharge for the period 1993-2002.

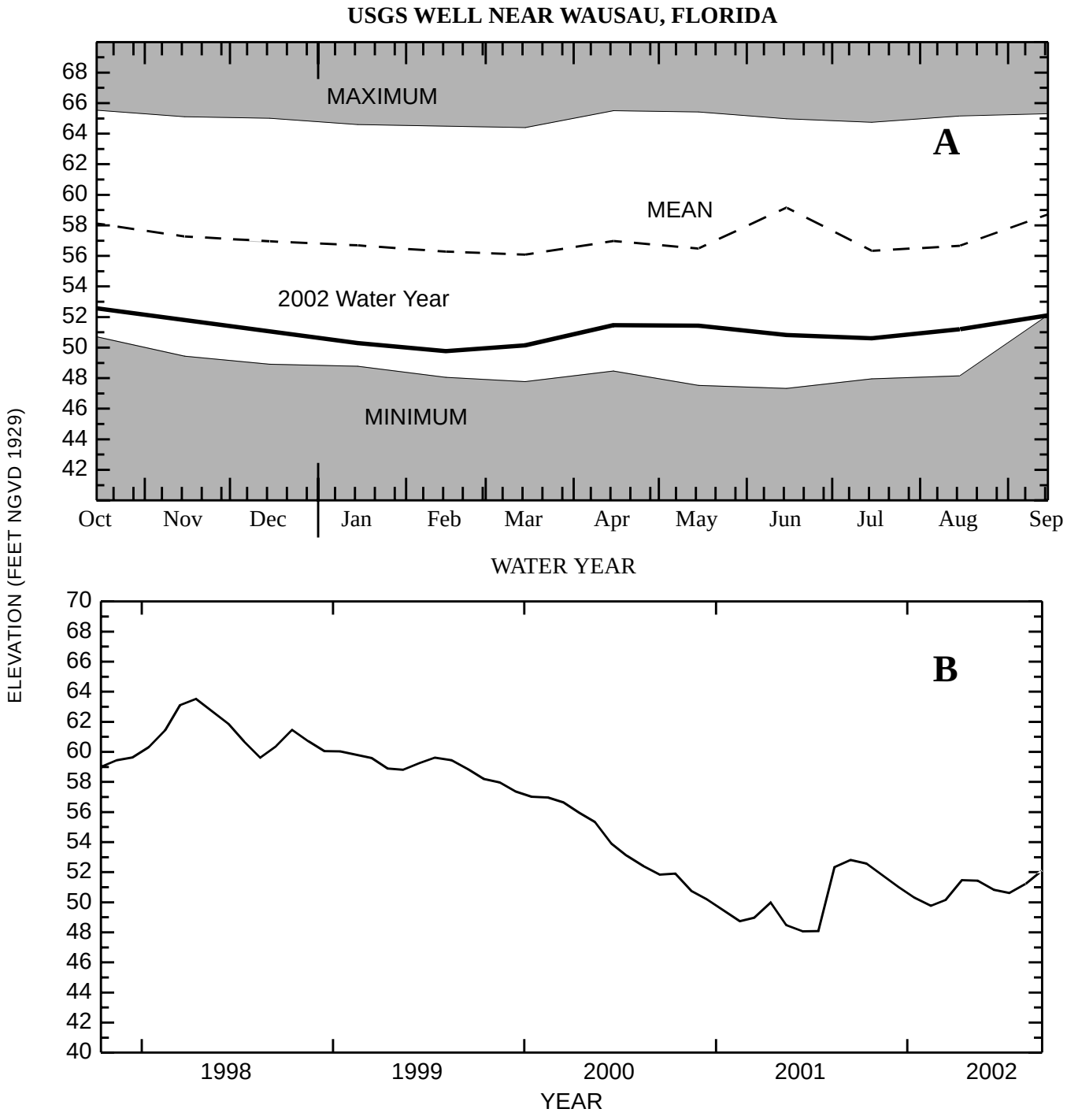


Figure 9. USGS Well near Wausau (A) Monthly maximum water level for the 2002 water year compared to maximum, minimum, and mean monthly maximum water levels for the period 1963-2002 and (B) the monthly maximum water level for the period 1998-2002.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the streamflow representative of undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at http://water.usgs.gov/hbn/.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at http://water.usgs.gov/nasqan/.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at http://bqs.usgs.gov/acidrain/.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic

studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program can be found at http://water.usgs.gov/nawqa/

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 2002 water year that began October 1, 2001, and ended September 30, 2002. 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 10, page 15.)

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

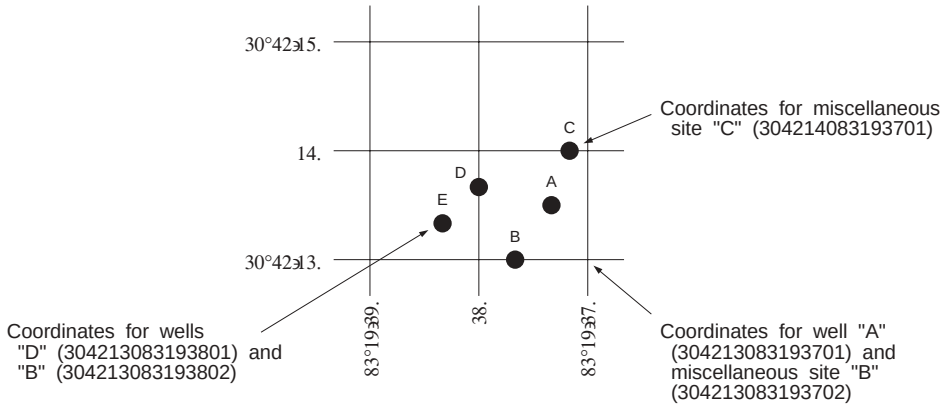


Figure 10. System for numbering wells and miscellaneous sites (latitude and longitude).

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 l and ends on September 30.

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station Manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

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

PERIOD OF RECORD.--This indicates the period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and

whose location was such that flow at it can reasonably be considered equivalent to flow at the present station.

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

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see Definition of Terms, page 25), 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 will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

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.

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

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

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

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for each 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 or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS _____-_____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary Statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-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.

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 the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all the runoff for a given period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that is exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded 90 percent of the time for the designated period.

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.

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 (ft^3/s) for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value.

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.

Onsite 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 Definition of Terms, page 24) 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.

Manuscript

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.

SURFACE-WATER-DISCHARGE AND SURFACE-WATER-QUALITY RECORDS

Remark Codes

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

PRINTED OUTPUT	REMARK
E	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both environmental sample and the associated blanks.
S	Most probable value.

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (∝g/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the ∝g/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Change in National Trends Network Procedures

NOTE: Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differ-

ences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

BLANK SAMPLES—Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank samples for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this District are:

Source solution blank - a blank solution that is transferred to a sample bottle in an area of the office laboratory with an atmosphere that is relatively clean and protected with respect to target analytes.

Ambient blank - a blank solution that is put in the same type of bottle used for an environmental sample, kept with the set of sample bottles before sample collection, and opened at the site and exposed to the ambient conditions.

Field blank - a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank - a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank - a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office.)

Sampler blank - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Pump blank - a blank solution that is processed through the same pump-and-tubing system used for an environmental sample.

Standpipe blank - a blank solution that is poured from the containment vessel (stand-pipe) before the pump is inserted to obtain the pump blank.

Filter blank - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank - a blank solution that is treated with the sampler preservatives used for an environmental sample.

Canister blank - a blank solution that is taken directly from a stainless steel canister just before the VOC sampler is submerged to obtain a field blank sample.

REFERENCE SAMPLES-Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

REPLICATE SAMPLES-Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent sample - a type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating collection of samples into two or more compositing containers.

Sequential sample - a type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample - a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

SPIKE SAMPLES-Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Concurrent sample - a type of spike sample that is collected at the same time with the same sampling and compositing devices then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Split sample - a type of spike sample in which a sample is split into subsamples contemporaneous in time and space then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Records of Ground-Water Levels

Ground-water level data from a statewide network of 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 three parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings of the well description.

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

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

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

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

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

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

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.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows 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 casing.

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 USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at

http://waterdata.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various electronic formats. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (see address on the back of the title page).

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound units to International System (SI) units on the inside of the back cover.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "Annual runoff")

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

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

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "filtered" sample.

Annual runoff is the total quantity of water that is discharged ("runs off") from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that 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 collected. 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. (See also "Substrate")

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. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also "Biomass" and "Dry mass")

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each

station is selected so that an average of about three peak flows per year will be published. (See also "Peak flow")

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 foot) that are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "Bedload," "Dry weight," "Sediment," and "Suspended-sediment discharge")

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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 microorganisms, such as bacteria.

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

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This is also called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved solids content of the pore water and lithology and porosity of the rock.

Cells/volume refers to the number of cells of any organism that 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 volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume ($\propto m^3$) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } 4/3\ \pi r^3 \quad \text{cone } 1/3\ \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

From cell volume, total algal biomass expressed as biovolume ($\propto m^3/mL$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cfs-day (See "Cubic foot per second-day")

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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 BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also "Biochemical oxygen demand (BOD)"]

Clostridium perfringens *(C. perfringens)* is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination

and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also "Bacteria")

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

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

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term "second-foot" sometimes is used synonymously with "cubic foot per second" but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [$(ft^3/s)/d$]) 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, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also "Annual runoff")

Daily mean suspended-sediment concentration is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also "Sediment" and "Suspended-sediment concentration")

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also "Gage datum," "Land-surface datum," "National Geodetic Vertical Datum of 1929," and "North American Vertical Datum of 1988")

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

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent

that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of "dissolved" constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It 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, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i\ 1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n} \ ,$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that contains a drainage system with a common outlet for its surface runoff. (See "Drainage area")

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, 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. (See also "Ash mass," "Biomass," and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

Enterococcus bacteria are commonly found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants. (See also "Bacteria")

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli *(E. coli)* are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Estimated (E) concentration value is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the

result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are 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. (See also "Bacteria")

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that 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. (See also "Bacteria")

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also "Phytoplankton")

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term "stage," although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

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

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat are typically made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Hilsenhoff's Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = sum\frac{(n)(a)}{N} \ ,$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See "Datum")

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it. (See also "Annual runoff")

Instantaneous discharge is the discharge at a particular instant of time. (See also "Discharge")

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-. L} \ ,$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, . is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$. = -\frac{1}{L}\log_e \frac{I}{I_o} \ .$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also "Daily mean suspended-sediment concentration" and "Suspended-sediment concentration")

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

Mean high or **low tide** is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also "Datum")

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

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

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

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

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

Micrograms per gram (UG/G, ∝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 kilogram (UG/KG, ∝g/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, ∝g/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, ∝S/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

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

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined

from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations**,** it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See "North American Vertical Datum of 1988")

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian**,** Mexican, and United States first-order terrestrial leveling networks.

Open or **screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

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

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

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) 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, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement

Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, 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.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** 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, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

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

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

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

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

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

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)]

for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

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

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable from bed (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. (See also "Bed material")

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms "return period" and "recurrence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See "Recurrence interval")

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged ("runs off") from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also "Annual runoff")

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as "fluvial sediment." Sediment 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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also "Annual 7-day minimum" and "Recurrence interval")

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

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. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 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.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See "Gage height")

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

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.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) 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 defined operationally as 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 suspended water-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 directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "Suspended")

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also "Sediment")

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 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "Sediment")

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. 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 directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	*Hexagenia*
Species:	*Hexagenia limbata*

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table descriptions 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 resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (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, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that 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 milliliters of sample. (See also "Bacteria")

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. 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 judge when the results should be reported as "total in bottom material."

Total length (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also "Organism count/volume")

Total recoverable is the amount of a given constituent in a whole-water sample after a 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "Bedload," "Bedload discharge," "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-sediment load," and "Total load")

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective

optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of pathlength of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See "Water-table aquifer")

Vertical datum (See "Datum")

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS 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, 2002, is called the "2002 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.

Wet mass is the mass of living matter plus contained water. (See also "Biomass" and "Dry mass")

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also "Dry weight")

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

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

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The U.S.G.S. 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.G.S., Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a 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 mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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, chap. D1. 1975. 65 p.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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, chap. D1. 1974. 116 p.

2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 p.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 p.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 p.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI book 3. chap. A5. 1967. 29 p.

3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 1p.

3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.

3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.

3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 p.

3-Al0. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.

3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.

3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 p.

3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 p.

3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 p.

3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 p.

3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. p.

3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 p.

3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI book 3, chap. A18. 1989. 52 p.

3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 p.

3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 p.

3-A21 *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995.56 p.

Section B. Ground-Water Techniques

3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 p.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 p.

3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232p.

3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 p.

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

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

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 p.

3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.

3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

4-A1. *Some statistical tools in hydrology,* by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.

4-A2. *Frequency curves,* by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.

4–A3. *Statistical methods in water resources,* by D.R. Helsel and R.M. Hirsch: USGS–TWRI book 4, chap. A3. 1991. Available only online at http://water.usgs.gov/pubs/twri/twri4a3/. (Accessed August 30, 2002.)

Section B. Surface Water

4-B1. *Low-flow investigations,* by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.

4-B2. *Storage analyses for water supply,* by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.

4-B3. *Regional analyses of streamflow characteristics,* by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

4-D1. *Computation of rate and volume of stream depletion by wells,* by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.

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

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

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

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, chap. A5. 1977. 95 p.

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

Section C. Sediment Analysis

5-C1. *Laboratory theory and methods for sediment analysis,* by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

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

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak: USGS–TWRI book 6, chap. A5, 1993. 243 p.

6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A5,1996. 125 p.

6–A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7. 2002. 77 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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, chap. C1. 1976. 116 p.

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

7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 p.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.

8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.

9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.

9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.

9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.

STAGE, DISCHARGE, AND WATER QUALITY OF STREAMS

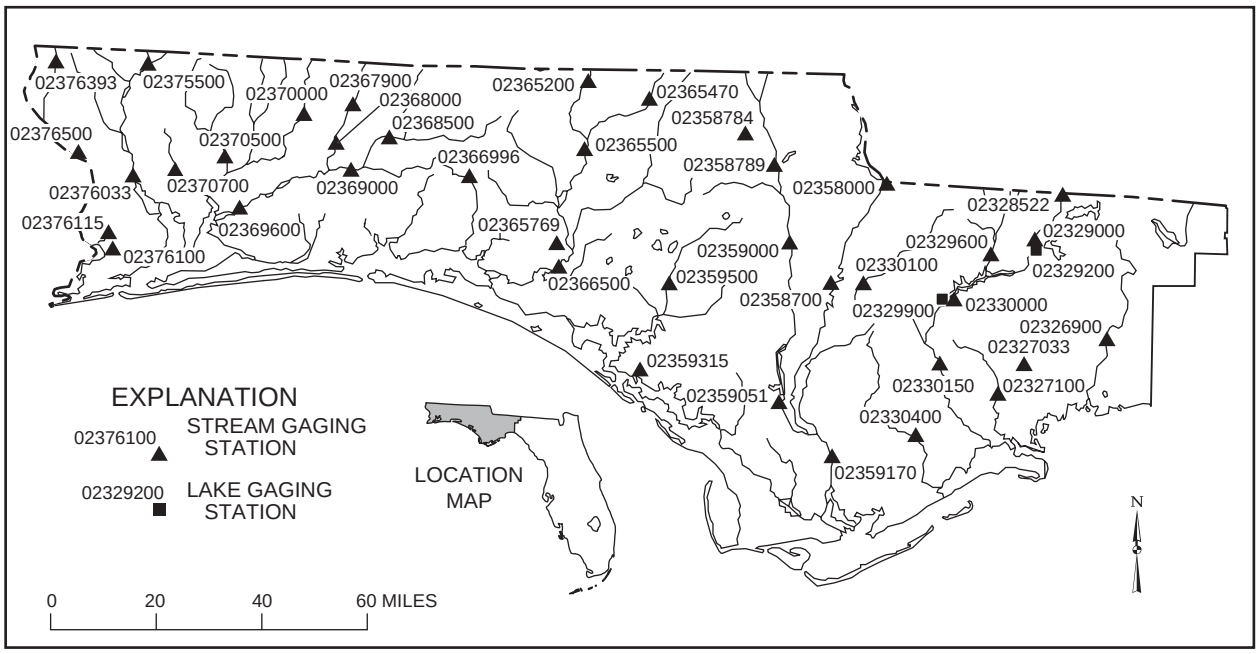


Figure 11. Location of stream gaging and lake gaging stations in Northwest Florida Water Management District.

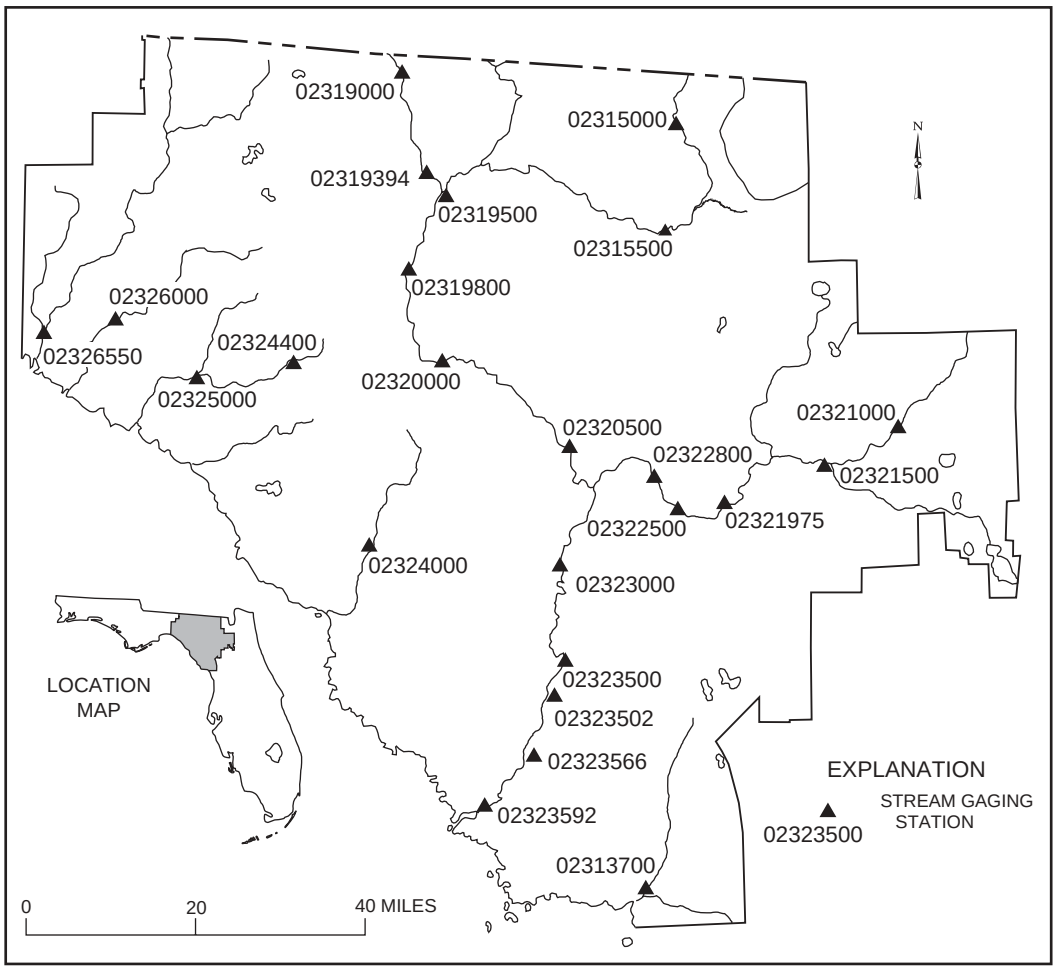


Figure 12. Location of stream gaging stations in Suwannee River Water Management District.

02313700 WACCASASSA RIVER NEAR GULF HAMMOCK, FL

LOCATION.--Lat 29°12'14", long 82°46'09" in SW sec. 2, T. 15 S., R.15 E., Levy County, Hydrologic Unit 03110101, near left 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 mi^2, approximately, including that of Otter Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1963 to September 1978, November 1980 to September 1984 (fragmentary), October 1984 to September 1992, October 1998 to current year.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	-111	14	22	49	104	144	124	143	239	338	262
2	150	-59	-3.6	-16	66	-309	91	168	161	277	309	261
3	99	-70	21	e-48	27	224	86	218	138	230	447	215
4	108	-58	-24	81	127	240	259	153	100	172	606	145
5	84	-25	-35	-79	166	182	287	185	143	223	531	142
6	71	-17	-58	-190	e207	207	123	110	204	254	414	113
7	164	-63	-95	175	288	68	149	112	296	284	412	104
8	166	-130	-210	34	42	-8.7	-5.0	170	263	236	280	150
9	126	-154	-33	-73	50	39	153	143	236	232	205	87
10	78	-96	-89	-91	89	223	198	191	214	181	164	60
11	-8.2	-103	-14	23	108	41	181	178	231	158	137	5.1
12	58	-0.85	4.8	-45	67	89	86	130	133	212	215	102
13	-24	-23	-63	68	84	217	141	104	157	102	245	188
14	-2.6	133	-68	76	115	150	118	150	135	345	256	142
15	188	-15	19	97	50	140	127	143	162	294	312	208
16	105	-8.5	5.2	81	58	139	123	147	205	221	304	209
17	162	0.97	-112	80	49	143	126	129	192	231	342	151
18	125	-35	-24	53	116	102	127	65	240	245	478	126
19	93	-101	-52	-12	63	105	149	391	239	361	607	67
20	65	-116	76	49	-131	70	157	180	273	591	554	10
21	71	-52	102	15	213	129	49	174	284	746	532	19
22	50	-56	56	100	-14	211	91	321	200	619	421	52
23	-15	-41	-445	16	203	119	220	182	186	585	317	67
24	-134	-47	309	-122	31	-66	185	180	212	450	240	94
25	-16	-111	-16	104	126	108	165	160	191	363	154	-30
26	236	-70	47	117	86	206	156	138	183	306	162	-390
27	225	-67	-137	55	91	156	138	176	160	277	113	249
28	104	-79	-97	86	101	174	113	96	217	320	304	90
29	103	-101	-98	69	---	140	113	139	213	313	217	115
30	-17	-115	45	73	---	102	89	153	277	376	275	108
31	-43	---	12	71	---	-15	---	155	---	340	264	---
MEAN	83.0	-59.7	-31.1	28.0	90.2	111	138	163	200	316	328	104
MAX	236	133	309	175	288	240	287	391	296	746	607	262
MIN	-134	-154	-445	-190	-131	-309	-5.0	65	100	102	113	-390
IN.	0.20	-0.14	-0.07	0.07	0.20	0.27	0.32	0.39	0.46	0.76	0.79	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2002, BY WATER YEAR (WY)

MEAN	200	125	169	252	361	346	202	111	146	241	481	386
MAX	771	359	485	707	964	909	814	428	709	1169	1724	2355
(WY)	1966	1986	1965	1965	1965	1978	1970	1964	1966	1964	1965	1964
MIN	46.0	-59.7	-103	-35.5	74.0	59.8	-10.4	-88.5	32.7	55.5	-16.8	29.1
(WY)	1985	2002	2001	2001	2001	1985	2001	2001	1967	1977	1989	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1963 - 2002	
ANNUAL MEAN	70.7		123		268	
HIGHEST ANNUAL MEAN					629	1965
LOWEST ANNUAL MEAN					63.1	2001
HIGHEST DAILY MEAN	1660	Jul 24	746	Jul 21	11400	Sep 12 1964
LOWEST DAILY MEAN	-1310	Jul 23	-445	Dec 23	-2310	Aug 31 1985
ANNUAL SEVEN-DAY MINIMUM	-121	Jan 13	-84	Nov 24	-262	Dec 10 2000
MAXIMUM PEAK FLOW			846	Jul 21	12200	Sep 12 1964
MAXIMUM PEAK STAGE			14.14	Sep 27	16.96	Sep 12 1964
ANNUAL RUNOFF (INCHES)	2.00		3.48		7.57	
10 PERCENT EXCEEDS	236		287		610	
50 PERCENT EXCEEDS	49		123		159	
90 PERCENT EXCEEDS	-101		-58		27	

e Estimated

02313700 WACCASASSA RIVER NEAR GULF HAMMOCK, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 2000 to current year.

REMARKS.--Water temperature and salinity records are fair.

TEMPERATURE, WATER TOP (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	16.6	10.7	17.0	22.2	19.6	21.3	27.1	26.4	24.9	28.2
2	---	---	16.5	10.3	16.1	22.8	19.2	22.1	26.7	26.7	24.3	27.6
3	---	---	11.7	10.2	15.0	23.3	19.3	22.4	27.4	27.4	24.0	27.6
4	---	---	12.2	10.1	14.5	22.4	20.0	22.4	28.2	27.5	24.4	27.6
5	---	---	13.3	10.1	14.6	20.1	21.0	22.7	28.2	27.4	24.9	27.5
6	---	---	12.4	9.7	14.4	18.6	21.8	22.9	27.7	27.3	25.1	27.0
7	---	---	11.9	10.9	14.3	17.9	22.3	22.8	28.3	27.7	25.2	26.5
8	---	---	12.9	12.0	15.6	16.9	23.0	23.2	28.3	27.7	25.7	26.6
9	---	---	16.0	12.6	17.2	15.6	23.4	23.5	28.4	27.5	26.0	26.4
10	---	---	17.3	11.7	18.2	16.2	23.6	23.6	28.4	26.7	26.3	26.2
11	---	---	17.6	11.4	19.4	17.3	24.0	23.7	28.6	25.5	26.8	26.2
12	---	---	19.6	12.9	20.2	19.0	23.7	24.1	28.7	26.2	26.9	26.2
13	---	---	20.8	13.9	20.6	19.8	24.3	24.6	28.3	26.4	27.1	25.6
14	---	---	20.1	14.3	21.1	19.6	24.6	24.9	28.8	26.1	27.4	23.5
15	---	---	20.2	15.3	21.6	20.8	25.0	25.2	28.9	26.0	27.4	22.7
16	---	---	20.8	16.4	22.1	21.2	24.6	25.6	29.1	26.1	27.0	22.9
17	---	---	19.2	16.9	21.7	20.6	23.4	26.0	29.3	26.5	27.3	23.1
18	---	---	15.7	17.7	19.6	17.8	21.4	26.2	29.2	26.7	28.1	23.6
19	---	---	15.0	18.3	20.2	16.8	20.6	26.0	28.6	26.5	28.6	24.3
20	---	---	12.4	18.0	19.8	17.7	20.7	25.4	28.3	26.7	28.3	24.8
21	---	---	11.5	15.4	20.0	16.8	20.9	25.3	28.2	26.1	28.2	25.4
22	---	---	11.8	13.9	20.2	16.9	21.1	26.0	26.0	25.9	27.8	25.8
23	---	---	12.4	14.0	20.5	17.5	22.1	26.0	23.3	26.6	27.7	25.7
24	---	---	13.2	14.0	20.7	18.1	23.0	25.3	24.0	25.2	27.4	25.6
25	---	---	13.3	13.4	21.5	17.8	22.9	25.5	24.9	24.7	27.4	24.9
26	---	---	13.7	13.1	22.3	18.1	21.6	25.8	25.5	24.8	27.4	23.2
27	---	---	14.1	12.8	22.5	17.6	21.2	25.8	25.7	24.8	27.3	22.4
28	---	---	14.5	13.8	22.4	17.3	21.0	26.3	25.7	24.7	27.1	22.5
29	---	---	14.1	15.1	---	17.6	20.8	26.8	25.4	25.2	27.5	21.7
30	---	14.0	12.4	16.1	---	18.2	21.0	26.9	25.8	25.7	27.9	20.7
31	---	---	10.9	17.1	---	19.4	---	27.7	---	25.4	28.3	---
MEAN	---	---	15.0	13.6	19.0	18.8	22.0	24.7	27.4	26.3	26.8	25.1
MAX	---	---	20.8	18.3	22.5	23.3	25.0	27.7	29.3	27.7	28.6	28.2
MIN	---	---	10.9	9.7	14.3	15.6	19.2	21.3	23.3	24.7	24.0	20.7

TEMPERATURE, WATER BOTTOM (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	14.9	12.2	17.1	22.2	19.3	21.3	27.6	26.6	24.9	28.2
2	---	---	15.4	11.7	16.6	22.6	18.9	22.1	26.6	26.7	24.4	27.7
3	---	---	16.0	11.4	15.4	23.1	19.0	22.4	27.4	27.4	24.1	27.7
4	---	---	16.3	11.3	14.7	22.9	19.8	22.4	28.3	27.7	24.3	27.6
5	---	---	16.2	10.6	14.5	19.9	20.8	22.7	28.5	27.4	24.9	27.5
6	---	---	15.0	10.5	14.2	18.5	21.6	22.9	27.8	27.3	25.0	27.0
7	---	---	13.8	10.7	14.1	17.6	22.2	22.8	28.3	27.6	25.1	26.6
8	---	---	13.6	11.5	15.4	16.7	22.8	22.9	28.5	27.8	25.5	26.6
9	---	---	15.1	12.6	16.9	15.8	23.4	23.5	28.6	27.5	25.9	26.4
10	---	---	16.5	11.7	17.9	16.0	23.6	23.5	28.6	27.0	26.3	26.3
11	---	---	17.5	11.2	19.3	17.0	23.9	23.7	28.5	25.6	26.6	26.3
12	---	---	18.3	12.6	20.2	18.5	23.7	24.0	28.8	26.0	26.7	26.5
13	---	---	19.1	13.8	20.5	20.0	24.1	24.5	28.4	26.5	26.9	25.9
14	---	---	19.8	13.9	21.0	19.5	24.4	24.9	28.7	26.2	27.2	23.6
15	---	---	20.1	14.8	21.4	20.4	24.6	25.4	29.3	25.9	27.6	22.6
16	---	---	20.6	15.8	21.9	21.3	24.6	25.8	29.6	26.0	27.1	22.9
17	---	---	20.1	16.6	21.8	20.7	23.7	26.1	29.7	26.5	27.2	23.1
18	---	---	18.4	17.1	20.7	18.4	21.0	26.4	29.3	26.6	28.1	23.7
19	---	---	16.2	17.8	19.9	16.8	20.6	26.1	29.0	26.7	28.7	24.3
20	---	---	13.1	18.4	19.6	17.7	20.2	25.8	28.6	26.7	28.4	24.8
21	---	---	12.4	16.1	19.8	16.9	20.9	25.5	28.5	26.3	28.1	25.4
22	---	---	11.7	14.5	20.1	16.3	21.6	26.1	26.8	25.9	27.8	25.7
23	---	---	12.0	14.1	20.5	17.1	22.6	26.3	23.4	26.4	27.7	25.7
24	---	---	12.7	14.0	20.5	17.8	23.1	25.5	23.8	25.8	27.4	25.6
25	---	---	13.3	13.4	21.3	17.9	22.9	25.5	24.8	24.5	27.2	25.1
26	---	---	13.5	13.1	22.1	18.1	21.6	25.9	25.3	24.7	27.3	23.3
27	---	---	13.7	12.8	22.4	17.6	21.2	25.7	25.6	24.9	27.3	23.3
28	---	---	14.2	13.5	22.4	17.1	21.0	26.1	25.7	24.7	27.1	22.9
29	---	---	14.4	14.7	---	17.6	20.8	26.9	25.7	25.2	27.5	22.1
30	---	---	13.4	15.7	---	18.0	21.0	27.0	25.9	25.6	28.0	21.1
31	---	---	12.6	16.8	---	19.2	---	27.6	---	25.5	28.3	---
MEAN	---	---	15.5	13.7	19.0	18.7	22.0	24.8	27.5	26.3	26.7	25.2
MAX	---	---	20.6	18.4	22.4	23.1	24.6	27.6	29.7	27.8	28.7	28.2
MIN	---	---	11.7	10.5	14.1	15.8	18.9	21.3	23.4	24.5	24.1	21.1

02313700 WACCASASSA RIVER NEAR GULF HAMMOCK, FL--Continued

SALINITY,TOP (PARTS PER THOUSAND), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	2.7	0.46	1.6	0.29	---	9.2	1.6	0.16	2.9
2	---	---	---	2.5	0.50	2.4	0.31	---	8.3	1.6	0.17	3.1
3	---	---	---	2.0	0.48	6.8	0.39	---	6.5	1.5	0.23	3.5
4	---	---	---	2.4	0.86	7.4	0.41	---	6.9	1.9	0.30	3.5
5	---	---	---	6.7	0.58	0.81	0.42	---	6.6	2.3	0.27	3.2
6	---	---	---	4.4	0.64	0.98	0.53	---	5.3	1.9	0.18	2.3
7	---	---	---	6.7	0.70	3.0	0.59	---	6.0	2.0	0.19	2.2
8	---	---	---	5.1	0.74	4.0	0.80	---	5.2	2.0	0.18	1.9
9	---	---	---	1.3	0.68	5.0	0.93	4.6	5.2	2.0	0.19	1.5
10	---	---	---	3.1	0.52	3.0	0.95	6.2	5.5	1.1	0.18	1.1
11	---	---	---	3.6	0.39	3.4	1.6	6.1	7.9	0.79	0.18	0.60
12	---	---	---	2.7	0.47	5.0	1.2	5.5	14.1	0.67	0.18	1.3
13	---	---	---	1.5	0.43	3.4	1.0	4.8	5.2	0.53	0.20	0.89
14	---	---	6.0	1.7	0.35	0.39	0.80	2.4	5.5	0.31	0.23	0.31
15	---	---	5.0	1.8	0.32	1.6	0.56	2.8	4.9	0.31	0.55	0.29
16	---	---	7.2	2.0	0.53	0.38	0.30	4.3	5.2	0.41	0.65	0.79
17	---	---	4.8	2.1	0.28	0.26	0.50	4.9	5.4	1.3	0.88	0.87
18	---	---	1.3	2.9	0.69	0.17	0.79	4.8	5.9	2.0	1.4	1.3
19	---	---	---	5.4	4.4	0.46	1.7	4.4	6.4	1.4	2.3	1.5
20	---	---	---	0.61	3.4	0.32	2.5	5.1	6.5	1.5	2.2	1.7
21	---	---	3.2	1.9	2.7	0.27	2.2	6.1	7.6	1.6	2.0	2.4
22	---	---	2.3	2.1	2.7	0.26	---	7.5	5.7	1.3	1.5	1.4
23	---	---	3.7	2.3	1.4	0.33	---	7.8	1.4	9.5	1.2	0.88
24	---	---	2.7	2.8	1.9	0.34	---	7.6	0.99	6.2	0.83	0.80
25	---	---	3.0	1.3	1.7	0.40	---	9.3	0.97	0.39	0.45	0.24
26	---	---	4.4	2.2	1.4	0.39	---	9.8	0.78	0.22	0.37	0.18
27	---	---	6.4	2.1	1.1	0.29	---	8.2	0.53	0.19	0.49	0.54
28	---	---	8.3	1.7	1.6	0.34	---	8.3	0.55	0.18	0.38	0.97
29	---	---	1.6	2.4	---	2.2	---	8.9	1.2	0.15	0.73	---
30	---	---	1.6	2.7	---	0.47	---	5.5	1.4	0.13	1.2	---
31	---	---	1.7	0.82	---	0.32	---	6.8	---	0.16	1.9	---
MEAN	---	---	---	2.7	1.1	1.8	---	---	5.1	1.5	0.71	---
MAX	---	---	---	6.7	4.4	7.4	---	---	14.1	9.5	2.3	---
MIN	---	---	---	0.61	0.28	0.17	---	---	0.53	0.13	0.16	---

SALINITY, BOTTOM (PARTS PER THOUSAND), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	8.1	0.78	2.0	0.36	---	9.4	2.2	0.17	3.1
2	---	---	---	6.8	0.77	3.0	0.37	---	9.8	1.8	0.18	3.3
3	---	---	---	8.5	0.62	6.3	0.42	---	8.1	1.7	0.24	3.8
4	---	---	---	10.7	0.80	9.3	0.44	---	8.1	2.1	0.33	3.7
5	---	---	---	10.2	0.60	3.7	0.46	---	8.2	2.5	0.28	3.4
6	---	---	---	7.5	0.50	2.8	0.54	---	6.3	2.2	0.19	2.5
7	---	---	---	6.2	0.57	3.6	0.77	---	6.8	2.2	0.18	2.5
8	---	---	---	6.2	0.59	3.1	0.93	---	6.3	2.3	0.19	2.2
9	---	---	---	2.8	0.64	5.2	1.0	5.1	6.5	2.3	0.19	1.7
10	---	---	---	2.0	0.69	4.5	1.1	7.0	6.9	1.3	0.19	1.3
11	---	---	---	3.2	0.44	3.9	1.6	7.3	8.8	0.90	0.19	0.99
12	---	---	---	3.5	0.45	5.3	1.3	7.3	16.4	0.74	0.19	1.8
13	---	---	---	1.5	0.45	4.5	1.1	7.2	10.6	0.62	0.20	1.5
14	---	---	4.6	1.9	0.39	0.53	0.92	7.3	9.1	0.33	0.21	0.41
15	---	---	7.1	1.9	0.37	1.9	0.78	9.2	8.0	0.33	0.62	0.33
16	---	---	8.2	2.3	0.62	0.50	0.47	9.5	8.1	0.54	0.72	0.93
17	---	---	7.2	2.5	0.44	0.35	0.62	7.0	7.3	1.5	0.97	1.0
18	---	---	8.0	3.1	0.82	0.34	0.82	5.7	6.8	2.1	1.5	1.5
19	---	---	8.3	4.1	3.0	0.76	2.1	4.8	7.5	1.7	2.4	1.7
20	---	---	3.4	2.6	3.0	0.68	2.2	5.5	8.0	1.6	2.3	1.8
21	---	---	6.9	1.5	2.3	0.36	2.7	6.7	9.2	1.8	2.1	2.5
22	---	---	5.5	2.7	2.3	0.34	1.8	8.3	6.8	1.4	1.6	1.6
23	---	---	4.3	2.1	2.0	0.36	2.9	9.0	1.6	6.0	1.3	0.99
24	---	---	4.9	2.4	1.0	0.40	---	8.3	1.1	9.5	0.91	0.95
25	---	---	3.8	1.6	1.5	0.45	---	10	1.1	0.48	0.52	0.55
26	---	---	4.0	1.2	1.4	0.46	---	10.5	0.84	0.25	0.44	0.26
27	---	---	5.8	1.8	1.0	0.36	---	9.6	0.58	0.20	0.63	2.7
28	---	---	9.9	1.3	1.7	0.40	---	9.7	0.64	0.20	0.52	1.7
29	---	---	4.1	1.6	---	2.5	---	10.3	1.9	0.17	0.85	0.23
30	---	---	7.0	2.5	---	0.57	---	8.1	2.1	0.14	1.3	0.24
31	---	---	6.1	1.3	---	0.41	---	7.2	---	0.16	2.1	---
MEAN	---	---	---	3.7	1.1	2.2	---	---	6.4	1.7	0.76	1.7
MAX	---	---	---	10.7	3.0	9.3	---	---	16.4	9.5	2.4	3.8
MIN	---	---	---	1.2	0.37	0.34	---	---	0.58	0.14	0.17	0.23

02313700 WACCASASSA RIVER NEAR GULF HAMMOCK, FL--Continued

TEMPERATURE, WATER TOP (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.3	19.9	20.7	13.1	22.1	13.4	24.1	26.1	26.0	25.9	25.8	24.8
2	19.6	21.1	21.0	12.9	21.5	14.4	24.2	26.2	26.8	26.0	25.3	25.6
3	19.7	22.1	20.5	12.3	20.2	16.6	23.2	26.6	27.6	26.2	24.8	26.4
4	20.5	22.3	20.2	11.7	18.3	16.8	21.9	27.0	27.9	25.9	24.7	26.7
5	21.5	21.3	20.4	11.3	17.5	14.7	22.4	27.4	28.3	25.3	25.1	26.1
6	22.6	20.1	20.8	11.3	16.3	14.8	21.9	27.5	28.4	25.6	25.9	25.8
7	23.1	18.9	21.3	12.5	17.2	15.9	21.5	27.7	28.7	26.7	26.2	25.9
8	22.3	18.4	22.0	12.0	17.1	17.2	21.7	27.8	27.2	26.9	25.7	25.7
9	22.0	18.5	22.2	11.5	16.6	18.7	22.7	28.0	26.9	26.2	25.1	26.0
10	22.3	18.3	22.2	12.1	17.0	20.2	23.1	27.9	27.6	25.6	24.7	26.3
11	23.0	18.1	22.1	12.7	17.9	20.4	23.3	27.8	27.4	26.6	25.2	26.2
12	23.3	18.0	22.3	13.6	17.6	20.3	23.3	27.9	27.8	26.5	25.0	25.8
13	23.3	18.2	22.5	14.4	16.3	20.3	23.1	28.1	28.2	25.6	24.3	24.8
14	23.8	18.8	22.2	14.2	16.1	20.1	23.2	27.1	28.8	25.7	24.9	25.1
15	22.7	19.0	22.4	14.9	16.8	20.4	23.7	25.5	29.0	26.6	25.2	25.3
16	22.2	19.2	22.3	15.2	17.5	21.3	24.1	25.2	28.2	27.2	24.8	25.8
17	20.8	19.4	22.1	14.7	17.7	22.4	24.5	25.9	26.9	27.9	25.7	26.2
18	19.5	19.8	21.4	15.1	17.2	23.2	24.1	26.5	25.1	27.8	25.8	26.6
19	20.0	20.3	19.5	15.8	16.6	23.3	24.7	25.4	25.0	27.5	24.9	26.9
20	21.4	20.4	17.9	17.4	16.8	23.5	25.1	24.6	25.5	25.8	24.8	27.0
21	22.3	20.2	15.5	18.7	18.2	23.3	25.2	24.1	25.8	24.5	25.0	27.0
22	23.2	19.6	16.1	19.5	18.7	22.8	25.5	23.2	25.8	23.9	25.4	26.6
23	23.8	19.8	17.0	20.2	17.5	21.1	25.3	23.0	26.0	23.8	25.8	26.2
24	24.7	20.4	17.8	20.4	16.8	20.8	25.0	23.4	26.3	24.7	26.2	25.9
25	25.2	20.9	16.3	20.4	16.4	21.6	25.7	24.0	26.2	25.8	26.9	26.0
26	23.2	21.1	14.6	20.0	16.3	22.3	25.5	24.5	26.7	26.2	27.1	26.9
27	20.6	21.2	14.1	19.4	16.2	23.0	25.6	24.5	27.2	26.5	26.3	27.1
28	18.9	20.8	13.1	20.0	14.7	22.3	26.0	25.0	27.5	25.8	25.5	26.7
29	18.7	20.6	13.5	20.8	---	21.7	25.7	25.4	27.2	25.2	25.1	26.5
30	18.7	20.4	14.4	21.3	---	22.1	25.7	25.4	26.6	25.0	24.7	26.9
31	19.0	---	14.0	21.9	---	23.4	---	25.8	---	25.5	24.5	---
MEAN	21.7	19.9	19.1	15.8	17.5	20.1	24.0	26.0	27.1	25.9	25.4	26.2
MAX	25.2	22.3	22.5	21.9	22.1	23.5	26.0	28.1	29.0	27.9	27.1	27.1
MIN	18.7	18.0	13.1	11.3	14.7	13.4	21.5	23.0	25.0	23.8	24.3	24.8

TEMPERATURE, WATER BOTTOM (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.6	19.9	20.6	14.4	21.7	14.4	23.5	26.1	26.0	25.9	25.8	24.8
2	19.6	21.0	20.8	14.2	21.4	14.8	23.7	26.2	26.8	26.0	25.3	25.6
3	19.7	22.0	20.5	14.0	20.4	16.5	23.4	26.6	27.6	26.2	24.8	26.4
4	20.5	22.3	20.4	13.7	19.3	17.4	21.7	27.0	27.9	25.9	24.7	26.7
5	21.5	21.7	20.6	13.3	18.2	15.8	22.2	27.4	28.3	25.3	25.1	26.1
6	22.6	20.4	20.9	13.0	17.5	15.7	22.3	27.5	28.4	25.6	25.9	25.8
7	23.1	19.2	21.4	13.9	17.5	15.8	21.9	27.7	28.6	26.7	26.2	25.9
8	22.3	18.8	21.9	12.9	17.2	16.1	22.2	27.8	27.2	26.9	25.7	25.7
9	22.0	18.8	22.2	12.0	16.9	17.4	22.5	28.0	26.9	26.2	25.1	26.0
10	22.3	18.6	22.2	12.1	17.3	19.2	22.8	27.9	27.6	25.6	24.7	26.3
11	23.0	18.3	22.1	12.8	17.8	19.6	23.1	27.8	27.4	26.6	25.2	26.2
12	23.3	18.0	22.2	13.7	17.8	20.0	23.0	28.1	27.8	26.5	25.0	25.8
13	23.3	18.3	22.3	14.3	17.0	20.1	22.9	28.2	28.2	25.6	24.3	24.8
14	23.8	18.8	22.2	14.4	16.5	20.0	22.8	27.1	28.8	25.7	24.9	25.1
15	22.7	19.1	22.3	14.9	17.0	20.1	23.1	25.5	29.0	26.6	25.2	25.3
16	22.2	19.3	22.2	15.2	17.6	20.8	23.5	25.2	28.2	27.2	24.8	25.8
17	20.8	19.4	22.1	15.0	17.8	21.8	24.0	25.9	26.9	27.9	25.7	26.2
18	19.5	19.8	21.7	15.3	17.4	22.6	24.2	26.5	25.1	27.8	25.8	26.6
19	20.0	20.3	20.4	15.9	17.2	22.7	24.7	25.4	25.0	27.5	24.9	26.9
20	21.4	20.4	19.3	17.0	17.2	22.9	25.1	24.6	25.5	25.8	24.8	27.0
21	22.3	20.3	18.7	18.1	17.5	23.1	25.2	24.1	25.8	24.5	25.0	27.0
22	23.2	20.3	18.8	18.8	18.2	22.5	25.5	23.2	25.8	23.9	25.4	26.6
23	24.1	20.5	18.4	19.3	18.0	21.6	25.3	23.0	26.0	23.8	25.8	26.2
24	24.9	20.9	18.3	19.8	17.2	21.0	25.0	23.4	26.3	24.7	26.2	25.9
25	25.5	21.1	18.0	20.1	16.7	21.2	25.7	24.0	26.2	25.8	26.9	26.0
26	24.5	21.3	17.1	19.9	16.6	21.9	25.5	24.5	26.7	26.2	27.1	26.9
27	23.3	21.3	15.8	19.5	16.6	22.6	25.6	24.5	27.2	26.5	26.4	27.1
28	21.1	20.9	14.5	19.6	15.4	22.0	26.0	25.0	27.5	25.8	25.5	26.7
29	19.9	20.7	14.3	20.3	---	21.5	25.7	25.4	27.2	25.2	25.1	26.5
30	19.2	20.4	15.0	20.8	---	21.9	25.7	25.4	26.6	25.0	24.7	26.9
31	19.1	---	15.0	21.4	---	22.9	---	25.8	---	25.5	24.5	---
MEAN	22.0	20.1	19.7	16.1	17.7	19.9	23.9	26.0	27.1	25.9	25.4	26.2
MAX	25.5	22.3	22.3	21.4	21.7	23.1	26.0	28.2	29.0	27.9	27.1	27.1
MIN	19.1	18.0	14.3	12.0	15.4	14.4	21.7	23.0	25.0	23.8	24.3	24.8

02313700 WACCASASSA RIVER NEAR GULF HAMMOCK, FL--Continued

SALINITY, TOP (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.0	7.2	5.1	1.9	2.3	6.8	---	---	0.71	0.42	---
2	---	8.4	5.7	4.7	1.2	10.5	6.0	---	---	0.56	0.40	---
3	---	8.9	4.6	5.2	1.2	8.3	5.1	---	---	0.65	0.39	---
4	---	6.0	4.0	3.1	2.0	2.0	1.3	---	---	0.73	0.32	---
5	---	4.6	4.2	4.8	2.4	2.6	0.95	---	---	0.66	0.31	---
6	---	6.8	4.3	11.4	6.8	2.4	2.6	---	5.3	0.75	0.36	---
7	---	7.2	4.7	2.8	6.4	3.3	3.6	---	7.5	0.57	0.39	---
8	---	7.0	6.1	8.7	2.6	3.6	6.7	---	3.4	0.55	0.37	---
9	---	6.6	4.7	4.3	3.9	4.7	8.8	---	3.5	0.71	0.29	---
10	---	6.4	5.3	5.9	3.6	3.5	6.2	---	4.3	0.76	0.31	---
11	---	8.4	4.5	5.9	2.6	2.6	5.3	---	3.9	0.86	0.32	---
12	---	7.0	4.1	5.3	2.1	5.5	5.1	---	5.5	0.96	0.40	---
13	---	4.5	5.1	6.3	1.7	3.8	5.6	---	6.3	1.1	0.26	---
14	---	2.7	6.6	4.5	1.8	2.1	5.0	---	6.7	0.73	0.30	---
15	---	4.5	6.1	2.5	2.0	1.9	4.8	---	7.3	0.64	0.40	---
16	---	4.7	4.5	1.0	2.5	1.9	4.1	---	6.4	0.56	0.28	---
17	---	3.9	6.7	1.1	1.6	1.6	4.2	---	5.9	0.53	0.32	---
18	---	4.2	6.6	1.1	1.7	1.7	---	---	3.5	0.53	0.39	---
19	---	5.2	4.8	1.6	3.1	1.8	---	---	3.9	0.53	0.33	---
20	---	6.9	2.0	1.2	5.8	2.5	---	---	3.0	0.50	0.24	---
21	---	4.6	1.7	1.0	2.9	1.6	---	---	2.9	0.35	0.23	---
22	---	5.9	4.2	1.4	3.3	1.2	---	---	2.9	0.27	0.29	---
23	---	5.9	9.9	2.2	2.0	2.9	---	---	3.0	0.26	0.38	---
24	7.1	5.0	7.8	3.7	3.0	6.0	---	---	2.6	0.33	0.40	---
25	4.6	6.6	5.1	3.5	4.2	7.1	---	---	2.6	0.44	0.42	---
26	1.6	6.9	4.3	1.5	4.8	6.0	---	---	2.9	0.47	0.44	---
27	1.4	6.8	7.2	1.4	5.9	5.7	---	---	3.0	0.49	---	---
28	3.0	6.8	8.6	2.0	2.2	4.4	---	---	2.7	0.46	---	---
29	5.1	8.7	10.0	2.6	---	4.4	---	---	2.0	0.43	---	---
30	6.8	8.8	6.3	2.5	---	5.2	---	---	1.3	0.41	---	---
31	7.0	---	5.4	2.6	---	8.3	---	---	---	0.40	---	---
MEAN	---	6.3	5.6	3.6	3.0	3.9	---	---	---	0.58	---	---
MAX	---	8.9	10.0	11.4	6.8	10.5	---	---	---	1.1	---	---
MIN	---	2.7	1.7	1.0	1.2	1.2	---	---	---	0.26	---	---

SALINITY, BOTTOM (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.6	6.1	4.0	2.1	2.1	4.2	---	---	0.71	0.42	---
2	---	7.7	5.9	3.6	2.0	2.2	4.6	---	---	0.56	0.40	---
3	---	8.1	5.3	3.4	2.0	2.4	4.0	---	---	0.65	0.39	---
4	---	5.9	4.7	3.1	2.0	2.5	3.4	---	---	0.73	0.32	---
5	---	5.2	5.0	3.1	2.1	2.5	3.3	---	---	0.66	0.31	---
6	---	6.9	5.3	3.8	2.3	2.7	3.3	---	---	0.75	0.36	---
7	---	7.9	5.6	3.5	2.5	2.7	3.3	---	7.5	0.57	0.39	---
8	---	9.0	6.3	8.7	2.6	2.6	3.6	---	3.4	0.55	0.37	---
9	---	9.2	6.1	9.3	2.4	2.6	3.8	---	3.5	0.71	0.29	---
10	---	7.8	5.2	8.3	2.2	2.5	3.5	---	4.3	0.76	0.31	---
11	---	8.5	4.9	6.0	2.1	2.4	3.3	---	3.9	0.86	0.32	---
12	---	7.2	4.2	5.9	2.1	2.4	3.1	---	5.5	0.96	0.40	---
13	---	4.6	3.9	7.3	2.0	2.4	3.0	---	6.3	1.1	0.26	---
14	---	3.9	3.7	5.9	2.1	2.2	3.0	---	6.7	0.73	0.30	---
15	---	4.0	3.7	3.5	2.1	2.1	---	---	7.3	0.64	0.40	---
16	---	4.7	3.6	1.8	2.1	2.0	---	---	6.4	0.56	0.28	---
17	---	4.5	3.6	1.7	2.1	1.9	---	---	5.9	0.53	0.32	---
18	---	4.0	3.7	2.1	2.1	1.9	---	---	3.5	0.53	0.39	---
19	---	4.0	3.6	2.1	2.1	1.8	---	---	3.9	0.53	0.33	---
20	---	4.2	3.4	2.4	2.2	2.0	---	---	3.0	0.50	0.24	---
21	---	4.7	3.7	2.7	2.3	2.1	---	---	2.9	0.35	0.23	---
22	---	5.5	4.6	3.3	2.3	2.1	---	---	2.9	0.27	0.29	---
23	---	6.0	4.9	5.5	2.2	2.2	---	---	3.0	0.26	0.38	---
24	10.5	7.3	5.0	5.8	2.1	2.3	---	---	2.6	0.33	0.40	---
25	9.2	8.3	4.5	5.0	2.1	2.5	---	---	2.6	0.44	0.42	---
26	5.7	8.3	4.3	3.0	2.1	2.7	---	---	2.9	0.47	0.44	---
27	8.9	7.6	3.9	2.3	2.3	3.0	---	---	3.0	0.49	0.43	---
28	8.4	6.6	3.9	2.2	2.1	2.9	---	---	2.7	0.46	---	---
29	8.1	6.6	4.4	2.2	---	2.5	---	---	2.0	0.43	---	---
30	8.0	6.5	4.3	2.2	---	2.7	---	---	1.3	0.41	---	---
31	7.7	---	4.1	2.2	---	3.3	---	---	---	0.40	---	---
MEAN	---	6.4	4.6	4.1	2.2	2.4	---	---	---	0.58	---	---
MAX	---	9.2	6.3	9.3	2.6	3.3	---	---	---	1.1	---	---
MIN	---	3.9	3.4	1.7	2.0	1.8	---	---	---	0.26	---	---

0231427398 ALLIGATOR CREEK NEAR FARGO, GA

LOCATION.--Lat 30°48'02", long 82°30'38", Clinch County, Hydrologic Unit 03110201, on upstream side of concrete bridge on Perimeter Road in Superior Forest (private property), and 8.5 mi northeast of Fargo.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--November 1998 to current year, gage height only.

GAGE.--Water-stage recorder.

REMARKS.--No estimated daily gage heights. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 5.77 ft, Jan. 17, 2001; minimum gage height, 1.59 ft, June 24, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.73 ft, Mar. 3; minimum gage height, 2.15 ft, Sept. 24.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.08	3.75	3.55	3.69	3.93	3.88	4.39	3.86	3.52	2.84	2.89	2.54
2	4.06	3.75	3.54	3.75	3.92	4.05	4.37	3.83	3.48	2.79	2.86	2.54
3	4.04	3.75	3.53	3.79	3.91	4.63	4.35	3.80	3.43	2.75	2.89	2.52
4	4.02	3.75	3.52	3.78	3.90	4.69	4.34	3.77	3.39	2.78	2.96	2.49
5	4.01	3.74	3.50	3.77	3.89	4.64	4.32	3.75	3.36	2.83	2.97	2.47
6	4.00	3.72	3.49	3.77	3.89	4.60	4.30	3.74	3.34	2.79	2.94	2.43
7	4.01	3.71	3.49	3.77	3.98	4.56	4.28	3.72	3.35	2.75	2.89	2.39
8	3.99	3.70	3.53	3.76	4.00	4.53	4.26	3.70	3.33	2.87	2.85	2.36
9	3.97	3.69	3.69	3.75	3.98	4.50	4.24	3.67	3.29	3.12	2.80	2.33
10	3.95	3.68	3.71	3.75	3.97	4.47	4.24	3.64	3.25	3.14	2.75	2.29
11	3.95	3.67	3.73	3.75	3.97	4.45	4.25	3.61	3.21	3.11	2.72	2.26
12	3.93	3.66	3.73	3.75	3.96	4.43	4.25	3.58	3.17	3.08	2.67	2.22
13	3.92	3.65	3.73	3.79	3.95	4.44	4.24	3.54	3.12	3.06	2.67	2.20
14	3.91	3.65	3.72	3.86	3.94	4.43	4.23	3.52	3.07	3.03	2.74	2.24
15	3.90	3.65	3.71	3.97	3.93	4.44	4.21	3.48	3.02	2.99	2.80	2.39
16	3.88	3.64	3.70	3.94	3.93	4.45	4.19	3.44	2.96	2.95	2.90	2.38
17	3.87	3.63	3.69	3.92	3.92	4.46	4.17	3.40	2.91	2.91	2.89	2.36
18	3.85	3.62	3.69	3.91	3.91	4.46	4.16	3.45	2.87	3.02	2.85	2.33
19	3.84	3.61	3.68	3.89	3.90	4.46	4.14	3.95	2.89	2.99	2.82	2.31
20	3.82	3.60	3.67	3.89	3.89	4.46	4.12	3.94	3.07	2.95	2.80	2.28
21	3.81	3.59	3.65	3.95	3.90	4.51	4.09	3.89	3.09	2.92	2.77	2.25
22	3.80	3.58	3.64	3.99	3.89	4.53	4.07	3.86	3.09	2.90	2.73	2.22
23	3.79	3.58	3.64	3.97	3.91	4.51	4.05	3.82	3.07	2.95	2.69	2.18
24	3.80	3.60	3.73	3.96	3.92	4.49	4.02	3.79	3.07	3.01	2.65	2.16
25	3.85	3.60	3.74	3.96	3.91	4.47	4.00	3.75	3.04	3.05	2.61	2.21
26	3.83	3.59	3.73	3.96	3.90	4.46	3.97	3.72	3.01	3.04	2.60	2.23
27	3.81	3.59	3.72	3.95	3.89	4.45	3.95	3.69	2.98	3.06	2.57	2.26
28	3.79	3.58	3.71	3.96	3.88	4.43	3.93	3.66	2.94	3.04	2.54	2.24
29	3.78	3.57	3.71	3.95	---	4.42	3.90	3.63	2.92	3.01	2.52	2.21
30	3.77	3.56	3.70	3.94	---	4.41	3.88	3.60	2.88	2.98	2.56	2.19
31	3.76	---	3.69	3.93	---	4.39	---	3.56	---	2.94	2.55	---
MEAN	3.90	3.65	3.65	3.86	3.92	4.45	4.16	3.69	3.14	2.96	2.76	2.32
MAX	4.08	3.75	3.74	3.99	4.00	4.69	4.39	3.95	3.52	3.14	2.97	2.54
MIN	3.76	3.56	3.49	3.69	3.88	3.88	3.88	3.40	2.87	2.75	2.52	2.16

WTR YR 2002 MEAN 3.54 MAX 4.69 MIN 2.16

0231427399 BAY CREEK NEAR FARGO, GA

LOCATION.--Lat 30°47'37", long 82°26'27", Clinch County, Hydrologic Unit 03110201, on right bank, 0.5 mi northeast of Perimeter Road in Superior Forest (private property), and about 10.5 mi northeast of Fargo.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--November 1998 to current year, gage height only.

GAGE.--Water-stage recorder.

REMARKS.--No estimated daily gage heights. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 4.60 ft, Feb. 8, 1999; minimum gage height, .04 ft, Jan. 29-30, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.09 ft, Mar. 3; minimum gage height, .44 ft, Apr. 21 to May 18, May 28 to June 25, July 7-8.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.51	0.52	0.52	0.52	0.52	0.52	0.86	0.44	0.44	0.76	0.87	0.80
2	0.51	0.52	0.52	0.52	0.52	0.67	0.74	0.44	0.44	0.72	0.84	0.79
3	0.51	0.52	0.52	0.52	0.52	2.50	0.65	0.44	0.44	0.71	1.00	0.76
4	0.51	0.52	0.52	0.52	0.52	3.59	0.61	0.44	0.44	0.71	1.19	0.72
5	0.51	0.52	0.52	0.52	0.52	3.66	0.60	0.44	0.44	0.69	1.07	0.70
6	0.51	0.52	0.52	0.52	0.52	3.80	0.58	0.44	0.44	0.67	0.99	0.67
7	0.51	0.52	0.52	0.52	0.60	3.95	0.57	0.44	0.44	0.46	0.92	0.64
8	0.51	0.52	0.52	0.52	0.61	4.04	0.56	0.44	0.44	0.59	0.85	0.62
9	0.51	0.52	0.52	0.52	0.61	4.07	0.54	0.44	0.44	0.99	0.80	0.60
10	0.51	0.52	0.52	0.52	0.61	4.03	0.54	0.44	0.44	1.03	0.77	0.58
11	0.51	0.52	0.52	0.52	0.59	3.91	0.56	0.44	0.44	0.90	0.75	0.56
12	0.51	0.52	0.52	0.52	0.55	3.75	0.56	0.44	0.44	0.86	0.72	0.56
13	0.51	0.52	0.52	0.52	0.52	3.61	0.58	0.44	0.44	0.98	0.79	0.56
14	0.51	0.52	0.52	0.57	0.52	3.43	0.60	0.44	0.44	0.92	0.95	0.61
15	0.51	0.52	0.52	0.52	0.52	3.25	0.66	0.44	0.44	0.87	0.91	0.80
16	0.51	0.52	0.52	0.52	0.52	3.06	0.61	0.44	0.44	0.83	0.85	0.72
17	0.51	0.52	0.52	0.52	0.52	2.87	0.59	0.44	0.44	0.79	0.80	0.68
18	0.51	0.52	0.52	0.52	0.52	2.70	0.56	0.49	0.44	1.21	0.76	0.65
19	0.51	0.52	0.52	0.52	0.52	2.52	0.55	0.80	0.48	1.03	0.74	0.63
20	0.51	0.52	0.52	0.52	0.52	2.34	0.52	0.77	0.49	0.99	0.80	0.61
21	0.51	0.52	0.52	0.58	0.52	2.31	0.46	0.73	0.56	1.11	0.82	0.59
22	0.51	0.52	0.52	0.57	0.52	2.40	0.44	0.70	0.68	1.12	0.75	0.56
23	0.51	0.52	0.52	0.55	0.54	2.22	0.44	0.67	0.66	1.36	0.70	0.56
24	0.51	0.52	0.52	0.52	0.53	2.05	0.44	0.63	0.57	1.50	0.67	0.58
25	0.51	0.52	0.52	0.57	0.52	1.89	0.44	0.44	0.54	1.30	0.64	0.70
26	0.51	0.52	0.52	0.60	0.52	1.73	0.44	0.44	0.76	1.17	0.70	0.68
27	0.51	0.52	0.52	0.57	0.52	1.60	0.44	0.44	0.74	1.14	0.84	0.69
28	0.51	0.52	0.52	0.61	0.52	1.44	0.44	0.44	0.74	1.14	0.86	0.65
29	0.52	0.52	0.52	0.59	---	1.27	0.44	0.44	0.84	1.04	0.81	0.63
30	0.52	0.52	0.52	0.57	---	1.12	0.44	0.44	0.80	0.97	0.88	0.62
31	0.52	---	0.52	0.54	---	0.97	---	0.44	---	0.91	0.84	---
MEAN	0.51	0.52	0.52	0.54	0.54	2.62	0.55	0.50	0.53	0.95	0.83	0.65
MAX	0.52	0.52	0.52	0.61	0.61	4.07	0.86	0.80	0.84	1.50	1.19	0.80
MIN	0.51	0.52	0.52	0.52	0.52	0.52	0.44	0.44	0.44	0.46	0.64	0.56

WTR YR 2002 MEAN 0.78 MAX 4.07 MIN 0.44

02314274 SUWANNEE RIVER AT SILL NEAR FARGO, GA

LOCATION.--Lat 30°48'14", long 82°25'03", in Okefenokee National Wildlife Refuge and Wilderness Area, Charlton County, Hydrologic Unit 03110201, at southern control structure on Okefenokee Swamp Sill, and 12 mi northeast of Fargo.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1998 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	21	14	18	54	33	129	33	20	17	13	27
2	66	21	14	20	52	60	122	30	19	15	12	28
3	63	20	13	24	50	341	116	28	18	15	15	28
4	59	20	13	24	48	458	110	26	17	e13	19	27
5	55	19	13	24	46	471	104	24	15	e14	19	26
6	53	19	12	25	44	501	98	23	16	e11	17	25
7	51	19	12	25	52	529	93	22	20	e10	15	24
8	48	18	12	25	56	544	88	20	22	e9.5	13	23
9	46	17	12	24	54	546	83	20	23	e10	12	22
10	44	17	14	23	53	533	80	18	23	e9.0	11	21
11	43	17	16	23	52	508	79	17	22	e15	11	20
12	42	16	17	22	51	481	78	17	22	e14	11	19
13	40	15	17	24	49	457	77	16	21	e11	10	18
14	39	15	18	30	48	429	77	15	19	e20	11	20
15	38	15	18	46	47	401	81	15	18	e28	13	27
16	36	15	18	47	46	372	82	14	18	e22	15	28
17	34	14	17	48	44	347	82	14	18	e20	16	29
18	33	14	17	48	42	323	80	16	18	e17	17	28
19	32	14	17	48	41	300	79	33	18	e25	17	28
20	31	14	17	47	39	278	76	37	18	e34	17	27
21	30	13	16	54	39	281	72	37	18	e26	18	26
22	29	13	16	62	37	287	68	37	17	e28	17	25
23	28	13	16	61	39	264	64	36	18	e32	15	24
24	27	13	19	59	40	241	59	35	18	e85	14	27
25	28	13	20	59	39	223	54	32	19	e90	14	36
26	27	14	21	60	37	207	50	30	19	e75	20	37
27	26	14	21	60	36	194	46	29	18	22	23	40
28	24	14	20	61	34	177	42	27	21	21	27	40
29	23	14	20	60	---	161	39	25	20	18	25	40
30	23	14	20	58	---	148	36	23	18	16	24	41
31	22	---	19	56	---	135	---	22	---	14	26	---
MEAN	39.03	15.83	16.42	40.81	45.32	330.0	78.13	24.87	19.03	24.40	16.35	27.70
MAX	70	21	21	62	56	546	129	37	23	90	27	41
MIN	22	13	12	18	34	33	36	14	15	9.0	10	18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	414.8	98.47	55.66	87.11	168.0	186.8	99.67	30.04	34.06	92.90	91.40	72.77
MAX	1462	316	147	244	543	330	154	45.4	96.6	225	211	117
(WY)	1999	1999	1999	1999	1999	2002	2001	2000	2001	2001	2001	2000
MIN	39.0	15.8	16.4	22.0	21.8	59.7	69.1	18.0	9.18	24.4	16.4	27.7
(WY)	2002	2002	2002	2001	2001	2000	2000	2001	1999	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	83.65		56.82		119.4	
HIGHEST ANNUAL MEAN					275	1999
LOWEST ANNUAL MEAN					56.8	2002
HIGHEST DAILY MEAN	464	Aug 6	546	Mar 9	e1840	Oct 12 1998
LOWEST DAILY MEAN	3.4	Jun 8	e9.0	Jul 10	3.0	Jun 15 2000
ANNUAL SEVEN-DAY MINIMUM	4.0	Jun 3	11	Jul 4	3.7	Jun 10 2000
MAXIMUM PEAK FLOW			548	Mar 8	e1840	Oct 12 1998
MAXIMUM PEAK STAGE			110.16	Mar 8	110.16	Mar 8 2002
INSTANTANEOUS LOW FLOW			e9.0	Jul 10	2.8	Jun 14 2000
10 PERCENT EXCEEDS	215		91		254	
50 PERCENT EXCEEDS	29		25		51	
90 PERCENT EXCEEDS	13		14		15	

e Estimated

02314274 SUWANNEE RIVER AT SILL NEAR FARGO, GA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 8, 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	GAGE HEIGHT (FEET) (00065)	COLOR (PLATINUM-COBALT UNITS) (00080)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NOV													
28...	1115	20.0	760	105.21	--	98	8.3	3.5	--	--	--	--	--
FEB													
13...	1130	12.9	763	106.12	240	93	8.6	3.8	3.8	10	<.01	<.01	3.0
MAY													
15...	1050	24.0	765	104.90	480	97	7.2	3.8	3.8	<1	<.01	<.01	1.5
JUL													
15...	1130	29.5	762	105.42	240	88	S8.8	3.9	4.0	16	<.01	.01	1.2

Date	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTICULATE TOTAL (MG/L AS C) (00689)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	ARSENIC DISSOLVED (UG/L AS AS) (01000)
NOV													
28...	--	--	52.7	2.1	--	--	--	--	--	--	--	--	--
FEB													
13...	<.020	.02	--	--	.66	.56	4.5	<.10	8.10	.60	<.1	12.0	<1
MAY													
15...	<.020	.02	--	--	.94	.68	4.8	.20	8.50	<.20	<.1	8.50	<1
JUL													
15...	.170	.04	--	--	1.30	.94	5.4	.30	8.40	1.20	<.1	11.0	<1

Date	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, DISSOLVED (UG/L AS CU) (01040)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)
NOV													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
13...	<1	<1	<1	<1.0	<1.0	2.4	<1.0	<1.0	401	<1	<1	<1.0	1.2
MAY													
15...	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	687	<1	<1	<1.0	<1.0
JUL													
15...	2	<1	<1	<1.0	<1.0	1.9	<1.0	<1.0	514	<1	<1	<1.0	<1.0

Date	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SELENIUM, TOTAL (UG/L AS SE) (01147)	TANNIN AND LIGNIN (MG/L) (32240)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)
NOV											
28...	--	--	--	--	--	--	--	--	--	--	--
FEB											
13...	6.6	<1	4	<1	<1	9.8	94	<.010	<.10	<.1	--
MAY											
15...	8.5	<1	11	<1	<1	17.0	126	.020	<.10	<.1	89
JUL											
15...	11.0	2	6	<1	<1	--	113	.030	<.10	<.1	85

023142741 NORTH FORK SUWANNEE RIVER AT SILL NEAR FARGO, GA

LOCATION.--Lat 30°48'58", long 82°24'49", in Okefenokee National Wildlife Refuge and Wilderness Area, Charlton County, Hydrologic Unit 03110201, at northern control structure on Okefenokee Swamp Sill, and 12.5 mi northeast of Fargo.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1998 to current year.

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

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e17	0.86	0.30	2.2	14	34	38	2.4	0.11	0.15	2.3	4.0
2	15	0.88	0.28	2.6	14	203	35	1.7	0.08	0.35	3.8	3.4
3	14	0.83	0.26	2.4	13	216	32	1.2	0.07	0.42	5.3	2.7
4	13	0.70	0.24	2.2	13	229	30	0.82	0.05	0.23	4.9	2.2
5	12	0.65	0.23	2.4	12	252	27	0.64	0.10	0.16	3.6	1.7
6	11	0.62	0.23	2.3	17	270	25	0.54	0.26	0.11	2.5	1.3
7	10	0.59	0.28	2.1	17	276	23	0.47	0.21	0.28	1.8	1.1
8	9.5	0.54	0.60	2.0	16	273	21	0.35	0.15	1.8	1.3	0.88
9	8.9	0.52	1.2	1.9	16	260	21	0.30	0.11	1.4	1.0	0.75
10	8.2	0.51	1.3	1.9	16	240	20	0.23	0.08	0.64	0.86	0.62
11	7.3	0.45	1.2	2.0	16	220	20	0.19	0.07	9.1	0.74	0.51
12	6.6	0.38	1.1	2.8	15	206	20	0.16	0.06	16	0.82	0.46
13	6.0	0.35	0.99	7.2	14	191	19	0.17	0.03	11	1.1	0.90
14	5.3	0.35	0.94	11	14	174	19	0.15	0.0	6.8	1.3	2.0
15	4.8	0.35	0.86	11	14	160	19	0.11	0.00	4.0	1.1	1.8
16	4.2	0.34	0.86	11	13	148	19	0.09	0.00	5.5	0.84	1.4
17	3.6	0.31	0.89	12	12	136	19	0.77	0.00	18	0.69	1.2
18	3.2	0.30	0.83	12	11	122	19	5.7	0.00	11	0.63	0.95
19	2.8	0.28	0.76	12	11	109	17	4.2	0.0	6.5	1.2	0.80
20	2.5	0.26	0.68	17	11	120	16	2.9	0.03	4.8	2.2	0.69
21	2.4	0.25	0.65	18	10	114	15	2.2	0.05	16	1.7	0.57
22	2.1	0.27	0.80	17	12	102	14	1.7	0.08	28	1.3	0.47
23	2.1	0.30	1.8	17	12	91	13	1.5	0.09	26	0.99	0.89
24	2.2	0.31	1.8	17	11	82	11	1.2	0.28	20	1.5	1.7
25	1.9	0.33	1.6	17	10	75	9.8	0.89	0.34	15	5.5	2.3
26	1.6	0.34	1.5	17	9.8	69	8.6	0.63	0.22	12	7.0	2.8
27	1.4	0.34	1.4	17	8.8	61	7.5	0.46	0.54	9.8	6.9	3.0
28	1.2	0.32	1.4	17	8.0	55	6.1	0.35	0.61	7.1	5.3	3.0
29	1.1	0.30	1.3	16	---	49	4.7	0.27	0.34	5.1	4.6	3.1
30	0.98	0.30	1.3	16	---	45	3.4	0.20	0.21	3.8	4.6	3.1
31	0.93	---	1.2	16	---	42	---	0.15	---	2.8	4.3	---
MEAN	5.897	0.438	0.928	9.839	12.88	149.2	18.40	1.053	0.139	7.866	2.635	1.676
MAX	17	0.88	1.8	18	17	276	38	5.7	0.61	28	7.0	4.0
MIN	0.93	0.25	0.23	1.9	8.0	34	3.4	0.09	0.00	0.11	0.63	0.46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	83.51	23.92	16.48	29.57	47.67	109.0	51.79	8.988	11.69	37.58	37.36	21.94
MAX	274	52.3	22.8	49.7	99.4	212	137	17.6	34.9	90.5	90.5	30.5
(WY)	1999	1999	2000	2001	1999	2001	2001	2000	2001	2001	2001	2001
MIN	5.90	0.44	0.93	9.84	12.9	22.1	18.4	1.05	0.14	7.87	2.63	1.68
(WY)	2002	2002	2002	2002	2002	2000	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	59.41		17.75		40.03	
HIGHEST ANNUAL MEAN					64.2	2001
LOWEST ANNUAL MEAN					17.8	2002
HIGHEST DAILY MEAN	395	Mar 26	276	Mar 7	395	Mar 26 2001
LOWEST DAILY MEAN	0.00	May 28	0.00	Jun 14	0.00	Jun 1 2000
ANNUAL SEVEN-DAY MINIMUM	0.01	Jun 2	0.00	Jun 13	0.00	Jun 13 2002
MAXIMUM PEAK FLOW			276	Mar 7	396	Mar 26 2001
MAXIMUM PEAK STAGE			110.73	Mar 7	111.33	Mar 26 2001
INSTANTANEOUS LOW FLOW			0.00	Jun 14	0.00	May 30 2000
10 PERCENT EXCEEDS	166		27		85	
50 PERCENT EXCEEDS	35		2.2		23	
90 PERCENT EXCEEDS	0.30		0.23		0.74	

e Estimated

023142741 NORTH FORK SUWANNEE RIVER AT SILL NEAR FARGO, GA--Continued

WATER-QUALITY RECORD

PERIOD OF RECORD.--February 8, 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	GAGE HEIGHT (FEET) (00065)	COLOR (PLATINUM-COBALT UNITS) (00080)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NOV													
28...	0940	22.0	760	106.45	--	97	3.9	3.7	--	--	--	--	--
FEB													
13...	1100	11.8	763	107.54	200	95	8.7	3.8	3.8	6	<.01	<.01	5.2
MAY													
15...	1015	24.0	764	106.41	400	97	4.0	4.3	4.0	10	.02	<.01	2.2
JUL													
15...	1025	27.3	762	107.25	200	87	S7.2	3.9	3.9	13	.06	.01	1.7

Date	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTICULATE TOTAL (MG/L AS C) (00689)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	ARSENIC DISSOLVED (UG/L AS AS) (01000)
NOV													
28...	--	--	58.3	.8	--	--	--	--	--	--	--	--	--
FEB													
13...	<.020	.02	--	--	.93	.77	5.5	<.10	9.50	1.00	<.1	12.0	<1
MAY													
15...	<.020	.04	--	--	2.20	1.00	7.0	.40	12.0	.50	<.1	.84	<1
JUL													
15...	.030	.04	--	--	.80	.75	4.8	.20	8.20	3.10	<.1	8.90	<1

Date	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, DISSOLVED (UG/L AS CU) (01040)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)
NOV													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
13...	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	461	<1	<1	1.4	<1.0
MAY													
15...	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	1390	<1	1	<1.0	<1.0
JUL													
15...	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	631	<1	<1	<1.0	<1.0

Date	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SELENIUM, TOTAL (UG/L AS SE) (01147)	TANNIN AND LIGNIN (MG/L) (32240)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)
NOV											
28...	--	--	--	--	--	--	--	--	--	--	--
FEB											
13...	9.7	<1	5	<1	<1	8.5	110	<.010	<.10	<.1	102
MAY											
15...	14.0	1	12	<1	<1	14.0	132	.030	<.10	<.1	93
JUL											
15...	7.9	1	5	<1	<1	--	121	.010	<.10	<.1	86

303902082315200 CYPRESS CREEK NEAR EDITH, GA

LOCATION.--Lat 30°39'02", long 82°31'52", Clinch County, Hydrologic Unit 03110201, reference point at downstream side of bridge on State Highway 94, 2.2 mi east of Edith, 3.0 mi south of Fargo, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--December 1998 to current year, gage height and discharge measurements only.

GAGE.--Nonrecording gage. Elevation of gage is 117.00 ft above National Geodetic Vertical Datum of 1929,from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum measured discharge, 40.9 ft^3/s, Apr. 4, 2001; maximum observed gage height, 109.07 ft, Mar. 26, 2001; minimum measured discharge, dry for several days in 2001-02.

EXTREMES FOR CURRENT YEAR.-- Maximum measured discharge, no flow for several days; maximum observed gage height, 106.50 ft, Jan. 23; minimum measured discharge, dry for several days.

DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	STREAM STAGE	DISCHARGE IN FT3/S
Nov. 20	0800	Dry	
Jan. 23	0850	106.50	No Flow
May 28	1215	Dry	
Aug. 5	1420	102.80	No Flow
Aug. 28	0800	Dry	

02315000 SUWANNEE RIVER NEAR BENTON, FL

LOCATION.--Lat 30°30'26", long 82°42'59", in NE¼ 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 mi^2, approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

PERIOD OF RECORD.--October 1975 to September 2002 (discontinued). 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, nonrecording gage at same site and datum. Dec. 8, 1931 to June 30, 1934, nonrecording gage at site 2.0 mi upstream, datum unknown.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge measured, 27,700 ft^3/s Apr. 6, 1973, gage height, 102.80 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	28	17	22	79	48	414	e24	28	28	33	43
2	135	27	17	26	77	66	378	e23	26	25	29	42
3	124	27	16	26	74	660	344	e23	25	23	28	42
4	115	27	16	25	70	1900	311	e22	25	22	26	41
5	108	25	16	26	68	2030	284	e21	27	20	27	41
6	101	24	16	28	64	1860	254	e20	25	21	34	40
7	96	23	16	28	67	1720	221	e20	21	18	38	37
8	89	22	16	28	67	1640	188	e20	20	17	32	34
9	85	22	16	28	76	1580	157	e20	24	17	28	32
10	80	22	16	28	81	1540	135	e19	27	18	25	30
11	77	21	17	27	80	1490	118	e19	27	17	23	28
12	72	20	17	27	80	1440	113	e19	26	22	23	26
13	68	19	18	30	78	1400	109	e19	26	21	25	25
14	64	19	19	37	76	1350	108	e18	25	18	23	30
15	60	19	21	44	73	1300	104	e18	24	27	23	47
16	56	19	21	47	70	1230	96	e18	23	36	22	38
17	53	18	20	60	68	1160	93	e19	20	29	23	37
18	50	18	21	63	65	1090	89	e21	20	28	27	39
19	46	17	20	64	61	1020	84	e22	21	24	29	39
20	44	17	20	65	58	952	78	e23	22	33	30	38
21	42	17	19	73	57	898	68	e35	21	42	29	37
22	40	16	19	73	55	868	59	e45	26	34	27	35
23	39	17	19	78	56	839	54	48	25	36	27	33
24	39	18	23	84	55	798	45	47	24	40	27	34
25	40	17	21	86	55	752	35	46	24	93	24	33
26	37	17	20	83	56	708	30	44	26	98	22	34
27	34	17	22	81	54	660	e28	41	23	85	21	45
28	33	17	23	83	51	605	e27	39	23	64	23	50
29	31	17	23	82	---	550	e26	36	28	49	34	51
30	30	17	24	83	---	497	e25	34	25	42	40	53
31	28	---	23	81	---	449	---	33	---	38	53	---
MEAN	66.6	20.1	19.1	52.1	66.8	1068	136	27.6	24.2	35.0	28.2	37.8
MAX	149	28	24	86	81	2030	414	48	28	98	53	53
MIN	28	16	16	22	51	48	25	18	20	17	21	25
IN.	0.04	0.01	0.01	0.03	0.03	0.59	0.07	0.02	0.01	0.02	0.02	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

MEAN	762	493	1043	1626	3009	3501	2185	697	535	638	933	667
MAX	3877	2824	9472	6679	10200	10750	12760	2979	3194	2966	5545	2738
(WY)	1995	1998	1977	1977	1998	1984	1984	1983	1976	1991	1991	1985
MIN	9.77	8.18	9.76	17.9	66.8	116	136	27.6	16.2	22.5	14.0	13.3
(WY)	1979	1979	1979	1979	2002	2000	2002	2002	2000	1990	1990	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002	
ANNUAL MEAN	369		133		1332	
HIGHEST ANNUAL MEAN					3297	1984
LOWEST ANNUAL MEAN					111	2000
HIGHEST DAILY MEAN	1700	Aug 7	2030	Mar 5	18200	Apr 6 1984
LOWEST DAILY MEAN	11	Jun 7	16	Nov 22	1.3	Oct 9 1990
ANNUAL SEVEN-DAY MINIMUM	12	Jun 2	16	Dec 3	3.3	Oct 3 1990
MAXIMUM PEAK FLOW			2090	Mar 4	18300	Apr 6 1984
MAXIMUM PEAK STAGE			82.68	Mar 4	99.90	Apr 6 1984
INSTANTANEOUS LOW FLOW			15	Dec 5	1.3	Oct 9 1990
ANNUAL RUNOFF (INCHES)	2.40		0.87		8.66	
10 PERCENT EXCEEDS	1160		201		3630	
50 PERCENT EXCEEDS	141		33		474	
90 PERCENT EXCEEDS	17		19		35	

e Estimated

02315000 SUWANNEE RIVER NEAR BENTON, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75.28	74.37	74.24	74.38	74.89	74.66	76.53	---	74.53	74.53	74.58	74.69
2	75.20	74.36	74.24	74.43	74.87	74.79	76.38	---	74.50	74.49	74.54	74.68
3	75.13	74.36	74.24	74.42	74.85	77.40	76.23	---	74.49	74.45	74.53	74.68
4	75.06	74.35	74.23	74.41	74.83	82.06	76.08	---	74.49	74.44	74.50	74.68
5	75.01	74.34	74.23	74.43	74.81	82.48	75.95	---	74.51	74.40	74.52	74.68
6	74.96	74.32	74.23	74.46	74.79	81.90	75.80	---	74.48	74.43	74.59	74.67
7	74.92	74.31	74.22	74.47	74.81	81.43	75.66	---	74.42	74.38	74.63	74.64
8	74.87	74.30	74.22	74.47	74.81	81.18	75.53	---	74.41	74.36	74.57	74.62
9	74.83	74.29	74.23	74.47	74.87	80.98	75.41	---	74.47	74.35	74.53	74.60
10	74.79	74.29	74.23	74.46	74.91	80.81	75.31	---	74.51	74.37	74.48	74.58
11	74.76	74.28	74.26	74.46	74.90	80.63	75.24	---	74.51	74.36	74.45	74.55
12	74.73	74.27	74.26	74.46	74.90	80.46	75.21	---	74.50	74.44	74.45	74.54
13	74.70	74.26	74.27	74.49	74.88	80.32	75.19	---	74.50	74.43	74.48	74.53
14	74.68	74.26	74.29	74.56	74.86	80.15	75.18	---	74.48	74.37	74.46	74.58
15	74.65	74.25	74.32	74.63	74.85	79.94	75.15	---	74.46	74.51	74.45	74.76
16	74.62	74.24	74.33	74.66	74.83	79.70	75.09	---	74.45	74.61	74.44	74.68
17	74.59	74.24	74.32	74.76	74.81	79.44	75.07	---	74.41	74.54	74.46	74.67
18	74.57	74.24	74.33	74.78	74.79	79.18	75.04	---	74.41	74.53	74.51	74.69
19	74.54	74.23	74.33	74.78	74.76	78.91	74.99	---	74.43	74.48	74.54	74.69
20	74.52	74.23	74.32	74.79	74.75	78.63	74.95	---	74.44	74.57	74.55	74.69
21	74.50	74.23	74.31	74.85	74.74	78.41	74.87	---	74.43	74.67	74.54	74.68
22	74.48	74.22	74.31	74.85	74.72	78.29	74.81	---	74.50	74.59	74.52	74.66
23	74.47	74.23	74.31	74.88	74.73	78.17	74.77	74.72	74.49	74.61	74.52	74.65
24	74.47	74.24	74.38	74.93	74.72	78.00	74.70	74.71	74.47	74.64	74.52	74.66
25	74.48	74.24	74.35	74.95	74.72	77.81	74.60	74.70	74.47	75.06	74.47	74.65
26	74.45	74.23	74.34	74.93	74.72	77.62	74.56	74.69	74.51	75.11	74.44	74.66
27	74.42	74.22	74.35	74.91	74.71	77.44	---	74.66	74.45	75.00	74.42	74.77
28	74.41	74.22	74.38	74.92	74.69	77.25	---	74.64	74.46	74.85	74.45	74.82
29	74.40	74.23	74.38	74.92	---	77.05	---	74.61	74.53	74.73	74.59	74.83
30	74.39	74.23	74.39	74.92	---	76.86	---	74.59	74.48	74.67	74.65	74.84
31	74.37	---	74.39	74.91	---	76.67	---	74.58	---	74.63	74.77	---
TOTAL	2315.25	2228.08	2303.23	2314.74	2094.52	2448.62	---	---	2234.19	2311.60	2310.15	2240.12
MEAN	74.69	74.27	74.30	74.67	74.80	78.99	---	---	74.47	74.57	74.52	74.67
MAX	75.28	74.37	74.39	74.95	74.91	82.48	---	---	74.53	75.11	74.77	74.84
MIN	74.37	74.22	74.22	74.38	74.69	74.66	---	---	74.41	74.35	74.42	74.53

02315500 SUWANNEE RIVER AT WHITE SPRINGS, FL

LOCATION.--Lat 30°19'32", long 82°44'18", in SW¼ 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 mi^2, approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

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. Aug. 1, 1932 to Oct. 10, 1979, water-stage recorder, at present site, at datum 48.54 ft. Oct. 11, 1979 to Dec. 1, 1983, non-recording gage at site 2.2 miles downstream at NGVD. Dec. 2, 1983 to June 30, 1996, nonrecording gage, at present site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	32	21	27	133	66	597	75	31	23	32	58
2	178	32	21	33	127	90	538	65	28	22	28	48
3	161	32	20	35	118	596	489	59	26	22	27	42
4	147	32	20	32	112	2000	444	51	24	20	29	41
5	136	30	20	30	104	2530	395	46	25	20	25	40
6	128	28	20	33	100	2340	354	40	46	18	23	39
7	122	26	20	36	102	2090	317	36	33	17	25	38
8	112	26	19	36	101	1940	285	33	26	17	28	36
9	105	24	20	35	102	1850	257	31	23	17	27	34
10	99	24	22	36	108	1770	233	29	25	16	24	33
11	95	24	22	36	110	1690	214	27	26	15	22	31
12	91	24	22	36	107	1620	201	25	25	14	20	30
13	87	23	22	41	104	1580	198	23	25	19	22	28
14	83	24	22	50	103	1510	194	21	24	22	24	28
15	80	24	22	86	99	1440	196	20	22	21	24	48
16	72	23	25	80	96	1370	206	19	21	20	23	62
17	65	23	26	80	93	1300	204	18	19	27	22	50
18	60	21	28	87	89	1230	201	19	18	28	22	44
19	57	21	26	87	86	1160	196	22	18	25	24	44
20	55	21	25	89	83	1090	184	21	19	25	32	44
21	52	20	24	116	84	1030	172	22	21	30	32	44
22	50	20	23	155	80	990	160	37	23	38	29	43
23	47	20	23	152	79	955	149	47	25	34	27	41
24	46	22	36	151	80	921	142	49	25	37	27	41
25	49	22	34	152	76	880	131	48	24	46	27	43
26	45	22	28	153	78	842	119	45	25	91	25	44
27	40	21	25	147	76	806	107	42	25	97	24	46
28	36	20	25	146	70	768	98	40	24	89	28	54
29	34	20	28	143	---	728	91	36	26	62	30	60
30	33	20	28	139	---	691	84	35	26	44	34	61
31	33	---	28	137	---	651	---	33	---	36	43	---
MEAN	83.8	24.0	24.0	83.7	96.4	1243	239	35.9	24.9	32.6	26.7	43.2
MAX	200	32	36	155	133	2530	597	75	46	97	43	62
MIN	33	20	19	27	70	66	84	18	18	14	20	28
IN.	0.04	0.01	0.01	0.04	0.04	0.59	0.11	0.02	0.01	0.02	0.01	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2002, BY WATER YEAR (WY)

MEAN	1706	852	1029	1787	2717	3273	3010	1096	828	1221	1898	1840
MAX	13100	16450	9103	8401	12950	14200	23910	8288	6317	5274	10870	13310
(WY)	1929	1948	1977	1942	1998	1998	1973	1964	1973	1906	1945	1964
MIN	8.55	6.63	8.68	11.8	13.2	35.5	22.2	10.5	11.8	19.6	15.8	8.82
(WY)	1932	1932	1932	1932	1932	1932	1932	1932	1935	1955	1990	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1906 - 2002	
ANNUAL MEAN	393		164		1772	
HIGHEST ANNUAL MEAN					6806	1948
LOWEST ANNUAL MEAN					144	2000
HIGHEST DAILY MEAN	1740	Aug 7	2530	Mar 5	38000	Apr 10 1973
LOWEST DAILY MEAN	12	Jun 9	14	Jul 12	2.8	Sep 26 1990
ANNUAL SEVEN-DAY MINIMUM	14	Jun 3	16	Jul 6	3.4	Sep 26 1990
MAXIMUM PEAK FLOW			2560	Mar 5	38100	Apr 10 1973
MAXIMUM PEAK STAGE			59.58	Mar 5	88.56	Apr 10 1973
INSTANTANEOUS LOW FLOW			14	Jul 12	2.8	Sep 26 1990
ANNUAL RUNOFF (INCHES)	2.20		0.92		9.91	
10 PERCENT EXCEEDS	1180		298		4900	
50 PERCENT EXCEEDS	141		36		680	
90 PERCENT EXCEEDS	21		21		55	

02315500 SUWANNEE RIVER AT WHITE SPRINGS, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51.43	50.07	49.89	50.00	50.99	50.40	52.87	50.40	50.01	49.89	50.02	50.28
2	51.30	50.07	49.89	50.08	50.94	50.61	52.70	50.34	49.97	49.87	49.98	50.20
3	51.19	50.06	49.88	50.11	50.87	52.96	52.57	50.29	49.94	49.87	49.96	50.14
4	51.09	50.06	49.88	50.07	50.81	57.97	52.42	50.23	49.92	49.84	49.99	50.13
5	51.01	50.04	49.87	50.04	50.74	59.48	52.26	50.18	49.92	49.84	49.92	50.12
6	50.95	50.01	49.87	50.08	50.70	58.96	52.11	50.12	50.18	49.80	49.89	50.11
7	50.90	49.99	49.87	50.12	50.72	58.23	51.96	50.08	50.03	49.79	49.92	50.10
8	50.82	49.98	49.86	50.11	50.72	57.81	51.82	50.04	49.95	49.77	49.97	50.07
9	50.75	49.95	49.89	50.11	50.72	57.53	51.68	50.02	49.90	49.77	49.95	50.06
10	50.70	49.95	49.91	50.11	50.78	57.29	51.57	49.99	49.92	49.74	49.91	50.04
11	50.66	49.95	49.91	50.11	50.80	57.06	51.47	49.96	49.94	49.72	49.87	50.02
12	50.62	49.94	49.92	50.12	50.77	56.84	51.39	49.93	49.93	49.71	49.84	50.00
13	50.58	49.94	49.92	50.17	50.75	56.69	51.37	49.89	49.92	49.82	49.87	49.98
14	50.54	49.95	49.92	50.25	50.73	56.50	51.35	49.86	49.91	49.88	49.92	49.97
15	50.50	49.95	49.92	50.57	50.70	56.27	51.36	49.84	49.88	49.85	49.90	50.20
16	50.44	49.94	49.96	50.50	50.67	56.04	51.42	49.81	49.85	49.83	49.90	50.31
17	50.39	49.93	49.98	50.51	50.64	55.79	51.41	49.80	49.82	49.95	49.87	50.21
18	50.35	49.90	50.01	50.58	50.60	55.52	51.39	49.81	49.80	49.98	49.87	50.16
19	50.32	49.90	49.98	50.58	50.56	55.24	51.36	49.87	49.80	49.93	49.91	50.16
20	50.30	49.89	49.96	50.60	50.54	54.96	51.28	49.86	49.83	49.93	50.02	50.17
21	50.28	49.88	49.95	50.84	50.55	54.72	51.21	49.88	49.86	50.00	50.02	50.16
22	50.26	49.88	49.93	51.15	50.50	54.56	51.13	50.08	49.89	50.10	49.98	50.15
23	50.23	49.89	49.94	51.13	50.50	54.41	51.06	50.19	49.93	50.05	49.96	50.13
24	50.22	49.91	50.12	51.12	50.50	54.26	50.99	50.21	49.92	50.09	49.95	50.13
25	50.25	49.91	50.09	51.13	50.48	54.09	50.92	50.20	49.91	50.17	49.95	50.15
26	50.21	49.91	50.01	51.13	50.49	53.92	50.82	50.17	49.92	50.54	49.93	50.16
27	50.16	49.90	49.97	51.09	50.48	53.75	50.71	50.14	49.92	50.61	49.91	50.18
28	50.12	49.89	49.97	51.09	50.43	53.58	50.62	50.12	49.91	50.53	49.97	50.25
29	50.10	49.88	50.01	51.07	---	53.39	50.54	50.08	49.94	50.31	49.99	50.30
30	50.09	49.89	50.02	51.03	---	53.20	50.47	50.06	49.95	50.16	50.05	50.31
31	50.07	---	50.01	51.02	---	53.02	---	50.04	---	50.08	50.15	---
TOTAL	1566.83	1498.41	1548.31	1566.62	1418.68	1715.05	1544.23	1551.49	1497.57	1549.42	1548.34	1504.35
MEAN	50.54	49.95	49.95	50.54	50.67	55.32	51.47	50.05	49.92	49.98	49.95	50.15
MAX	51.43	50.07	50.12	51.15	50.99	59.48	52.87	50.40	50.18	50.61	50.15	50.31
MIN	50.07	49.88	49.86	50.00	50.43	50.40	50.47	49.80	49.80	49.71	49.84	49.97

CAL YR 2001 TOTAL 18944.63 MEAN 51.90 MAX 57.19 MIN 49.72
WTR YR 2002 TOTAL 18509.30 MEAN 50.71 MAX 59.48 MIN 49.71

02319000 WITHLACOOCHEE RIVER NEAR PINETTA, FL

LOCATION.--Lat 30°35'43", long 83°15'35", in NW¼ sec. 7, T. 2 N., R. 11 E., Madison County, Hydrologic Unit 03110203, on right bank 300 ft downstream from County Road 150 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 mi^2, approximately.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1928 reached a stage of 36.75 ft from floodmarks, discharge, 53,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	106	103	85	196	137	999	250	94	e125	83	647
2	121	109	103	96	178	191	917	237	95	117	87	468
3	117	108	102	102	163	890	840	232	91	106	92	330
4	115	108	99	94	151	2590	777	226	92	93	101	255
5	115	108	98	102	138	3310	730	204	93	122	85	209
6	118	105	97	113	136	3590	697	194	97	182	63	189
7	116	103	102	115	149	3750	663	185	94	134	61	168
8	113	104	104	110	183	3810	659	177	119	90	54	147
9	112	105	109	106	283	3680	691	170	145	69	42	131
10	114	103	106	106	338	3400	730	164	159	61	33	121
11	115	105	100	105	372	3170	747	155	135	56	29	115
12	115	104	103	104	408	e2600	769	141	118	86	25	106
13	115	103	103	107	424	e2100	784	138	110	92	25	95
14	115	104	105	132	430	1830	739	130	96	88	19	93
15	115	105	103	175	437	1670	649	115	79	134	28	96
16	112	104	97	167	434	1510	606	110	73	156	29	103
17	113	103	97	158	407	1400	604	114	69	113	28	149
18	112	102	103	144	357	1320	624	122	71	80	73	155
19	112	103	101	136	317	1250	680	151	78	50	67	137
20	112	103	96	133	291	1170	758	204	67	35	68	772
21	113	103	91	134	276	1120	695	259	61	31	48	586
22	123	101	89	136	260	1260	635	209	66	33	59	348
23	126	102	91	188	253	1320	533	172	74	34	106	223
24	125	104	97	222	234	1340	466	152	e90	37	88	178
25	121	104	93	227	210	1370	416	136	e85	53	62	192
26	113	103	90	222	185	1400	374	123	e110	48	53	235
27	110	106	88	233	163	1390	332	114	e130	48	70	248
28	105	106	90	238	142	1330	306	107	e150	53	74	233
29	103	103	94	221	---	1240	287	106	e140	47	124	210
30	105	104	90	215	---	1160	267	106	e135	48	250	180
31	106	---	86	207	---	1070	---	98	---	65	506	---
MEAN	115	104	97.7	149	268	1851	632	161	101	80.2	81.7	237
MAX	126	109	109	238	437	3810	999	259	159	182	506	772
MIN	103	101	86	85	136	137	267	98	61	31	19	93
IN.	0.06	0.05	0.05	0.08	0.13	1.01	0.33	0.09	0.05	0.04	0.04	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	719	577	1225	2120	3484	4076	3181	1308	971	1000	1119	786
MAX	8178	9450	11280	8134	14720	12530	17320	8154	6043	6003	6759	6625
(WY)	1995	1948	1965	1993	1986	1998	1948	1964	1973	1991	1991	1935
MIN	85.7	78.1	92.4	116	133	238	253	161	101	80.2	81.7	96.5
(WY)	1955	1955	1955	1934	1934	1955	1968	2002	2002	2002	2002	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL MEAN	1153		324		1704	
HIGHEST ANNUAL MEAN					5364	1948
LOWEST ANNUAL MEAN					236	1955
HIGHEST DAILY MEAN	10000	Mar 24	3810	Mar 8	73600	Apr 5 1948
LOWEST DAILY MEAN	86	Dec 31	19	Aug 14	19	Aug 14 2002
ANNUAL SEVEN-DAY MINIMUM	90	Dec 25	26	Aug 11	26	Aug 11 2002
MAXIMUM PEAK FLOW			3820	Mar 8	79400	Apr 5 1948
MAXIMUM PEAK STAGE			12.78	Mar 8	38.64	Apr 5 1948
INSTANTANEOUS LOW FLOW			14	Aug 13	14	Aug 13 2002
ANNUAL RUNOFF (INCHES)	7.39		2.08		10.92	
10 PERCENT EXCEEDS	3220		762		4560	
50 PERCENT EXCEEDS	576		115		601	
90 PERCENT EXCEEDS	103		69		144	

e Estimated

02319394 WITHLACOOCHEE RIVER NEAR LEE, FL

LOCATION.--Lat 30°24'37", long 83°10'49", in SW¼ sec.12, T. 1 S., R. 11 E., Madison County, Hydrologic Unit 03110203, near right bank on downstream side of bridge on County Road 141 and Myrrh Road, 2.3 mi upstream from mouth, and 7.3 mi east of Lee.

DRAINAGE AREA.--2,330 mi^2.

PERIOD OF RECORD.--November 2000 to current year.

GAGE.--Water-stage and water-current meter recorders. Datum of gage is undetermined.

REMARKS.--Records fair. Flow affected by backwater from the Suwannee River.

REVISIONS.--Daily and monthly discharges for the water year 2001 were revised.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	e650	904	1520	1640	891	5230	1200	591	1330	1150	626
2	---	e625	872	1670	1590	861	4950	1160	572	1250	1140	609
3	---	e605	846	1810	1550	858	4830	1120	575	1250	1120	628
4	---	e593	811	1970	1510	895	4830	1080	569	1250	1070	627
5	---	e588	794	2120	1460	935	4880	1040	558	1360	1030	631
6	---	e581	788	2230	1450	1010	5010	1010	564	1530	1000	675
7	---	e577	752	2260	1420	1110	5180	972	545	1880	1220	681
8	---	564	718	2200	1420	1280	5160	948	542	2090	1300	668
9	---	565	708	2020	1410	1540	4910	926	549	2030	1250	659
10	---	562	690	1820	1360	1870	4670	882	568	1820	1190	651
11	---	550	669	1720	1310	2300	4360	863	547	1620	1140	639
12	---	549	657	1660	1260	2840	4130	830	938	1530	1140	636
13	---	558	627	1620	1220	3270	3950	797	3100	1470	1160	659
14	---	524	640	1620	1180	3510	3710	781	4540	1370	1150	689
15	---	554	646	1590	1160	3600	3380	774	4990	1310	1090	708
16	---	555	647	1560	1150	3640	3060	753	4750	1240	1030	682
17	---	542	690	1490	1140	3670	2730	735	4110	1180	1010	625
18	---	549	758	1470	1130	3860	2500	714	3610	1120	1030	603
19	---	540	846	1410	1150	4150	2310	699	3280	1110	1050	582
20	---	535	863	1380	1130	4880	2180	701	3110	1080	996	569
21	---	524	869	1310	1100	5640	2090	677	2950	1040	967	558
22	---	526	876	1270	1050	6390	2000	656	2690	973	915	545
23	---	525	876	1270	1010	6900	1880	643	2400	904	883	533
24	---	523	892	1300	997	7320	1780	643	2150	899	840	549
25	---	558	880	1340	974	7230	1690	625	2000	889	801	505
26	---	581	881	1440	961	6880	1580	618	1960	949	766	494
27	---	722	863	1550	928	6630	1500	609	1900	1020	717	494
28	---	861	867	1700	900	6220	1410	592	1800	999	676	486
29	---	916	860	1810	---	6010	1330	594	1660	1030	658	495
30	---	927	1090	1840	---	5650	1260	589	1480	1060	641	501
31	---	---	1320	1750	---	5420	---	575	---	1090	628	---
MEAN	---	601	813	1668	1234	3783	3283	800	1987	1280	992	600
MAX	---	927	1320	2260	1640	7320	5230	1200	4990	2090	1300	708
MIN	---	523	627	1270	900	858	1260	575	542	889	628	486

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2001, BY WATER YEAR (WY)

MEAN	---	601	813	1668	1234	3783	3283	800	1987	1280	992	600
MAX	---	601	813	1668	1234	3783	3283	800	1987	1280	992	600
(WY)	---	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
MIN	---	601	813	1668	1234	3783	3283	800	1987	1280	992	600
(WY)	---	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001

e Estimated

02319394 WITHLACOOCHEE RIVER NEAR LEE, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	395	382	331	451	420	1330	558	324	353	332	613
2	508	383	379	326	451	441	1260	538	361	351	326	613
3	519	367	380	315	437	609	1190	535	349	336	324	533
4	508	380	371	339	424	1600	1120	519	345	344	344	478
5	513	422	372	342	422	2380	1100	514	344	342	347	445
6	512	414	364	330	408	2820	1060	472	337	337	342	431
7	512	414	363	341	423	3070	1010	402	338	357	327	404
8	503	405	382	332	418	3180	987	312	356	345	320	400
9	501	402	373	343	443	3220	978	273	360	333	327	391
10	490	400	377	332	497	3190	1020	445	364	333	335	381
11	499	406	380	347	528	3040	1010	440	346	333	335	393
12	492	400	375	346	551	2910	1030	436	347	339	339	381
13	490	393	381	356	569	2710	1040	409	351	344	331	380
14	487	403	380	361	586	2440	1020	388	352	337	344	384
15	480	387	382	397	597	2190	962	335	343	348	336	377
16	474	384	370	398	608	2000	913	288	334	353	339	367
17	467	393	375	405	588	1840	881	254	344	349	329	363
18	465	381	372	388	573	1750	892	266	338	349	332	355
19	452	379	372	375	558	1640	912	356	342	339	334	340
20	456	382	359	394	543	1550	964	283	345	327	330	458
21	439	375	352	400	520	1470	923	256	341	325	349	681
22	456	386	354	390	509	1520	883	247	338	345	333	572
23	469	398	355	404	496	1570	831	215	343	330	324	510
24	469	387	362	423	483	1570	787	243	346	340	336	475
25	456	392	363	451	477	1620	735	217	342	331	337	452
26	429	388	327	441	465	1630	696	256	356	331	319	462
27	428	391	342	454	443	1640	669	276	345	306	332	476
28	428	386	340	470	427	1610	622	304	345	320	336	469
29	413	381	353	465	---	1540	624	290	359	328	334	456
30	392	382	338	460	---	1460	592	281	355	338	354	441
31	389	---	334	466	---	1390	---	303	---	328	466	---
MEAN	470	392	365	385	496	1936	935	352	346	338	338	449
MAX	519	422	382	470	608	3220	1330	558	364	357	466	681
MIN	389	367	327	315	408	420	592	215	324	306	319	340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	470	496	589	1026	865	2859	2109	576	1166	809	665	525
MAX	470	601	813	1668	1234	3783	3283	800	1987	1280	992	600
(WY)	2002	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
MIN	470	392	365	385	496	1936	935	352	346	338	338	449
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL MEAN	1404		568		568	
HIGHEST ANNUAL MEAN					568	2002
LOWEST ANNUAL MEAN					568	2002
HIGHEST DAILY MEAN	7320	Mar 24	3220	Mar 9	7320	Mar 24 2001
LOWEST DAILY MEAN	327	Dec 26	215	May 23	215	May 23 2002
ANNUAL SEVEN-DAY MINIMUM	342	Dec 25	244	May 21	244	May 21 2002
MAXIMUM PEAK FLOW			3400	Mar 9	7840	Mar 24 2001
MAXIMUM PEAK STAGE			35.40	Mar 9	41.83	Mar 26 2001
INSTANTANEOUS LOW FLOW			157	May 20	157	May 20 2002
10 PERCENT EXCEEDS	3550		1020		1020	
50 PERCENT EXCEEDS	973		389		389	
90 PERCENT EXCEEDS	382		330		330	

02319500 SUWANNEE RIVER AT ELLAVILLE, FL

LOCATION.--Lat 30°23'04", long 83°10'19", in NE¼ 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, 900ft upstream from bridge on U.S. Highway 90, and 127 mi upstream from mouth.

DRAINAGE AREA.--6,970 mi^2, 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 2.67ft lower, used as supplementary gage when flow was less than 4,800 ft^3/s.

REMARKS.--Records good above 5,000 cfs, and fair below. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	1090	853	775	1470	1160	3660	2040	e1090	944	1050	1550
2	1580	1070	846	816	1440	1250	3490	1970	e1080	954	1050	1570
3	1530	1070	845	756	1410	1920	3370	1920	1080	937	1020	1450
4	1490	1060	834	772	1380	4030	3270	1870	1060	951	985	1340
5	1480	1060	834	775	1340	5750	3200	1810	1100	938	966	1250
6	1460	1060	834	788	1310	6730	3120	1760	1100	917	949	1160
7	1450	1050	834	787	1330	7040	3050	1710	1100	925	941	1110
8	1390	1050	825	778	1320	7060	2990	1670	1110	904	920	1070
9	1360	1040	823	772	1360	7040	2950	1620	1100	887	912	1040
10	1330	1020	825	775	1440	6970	2930	1580	1070	922	905	936
11	1340	1010	830	890	1480	6830	2900	1540	1060	917	894	854
12	1360	991	822	1020	1520	6670	2880	1500	1040	906	875	840
13	1360	970	822	1040	1540	6450	2880	1470	1010	906	870	803
14	1350	965	822	1110	1560	6130	2880	1430	995	905	862	785
15	1320	956	816	1240	1570	5800	2840	1380	978	884	858	778
16	1300	938	803	1290	1590	5510	2770	1340	957	902	858	763
17	1270	924	799	1300	1590	5260	2720	1320	953	908	858	763
18	1250	917	805	1280	1560	5060	2690	1310	957	892	847	853
19	1240	917	795	1260	1520	4810	2680	1330	941	885	848	893
20	1220	917	787	1240	1500	4620	2710	1310	974	877	858	1050
21	1210	917	778	1280	1480	4460	2680	e1290	965	872	855	1470
22	1210	902	768	1320	1470	4350	2620	e1300	941	877	846	1290
23	1210	898	770	1410	1460	4390	2550	e1350	921	870	855	1160
24	1210	895	800	1470	1440	4370	2480	e1330	901	870	858	1080
25	1120	894	787	1490	1420	4310	2400	e1290	898	896	852	1050
26	1090	886	781	1480	1410	4250	2330	e1260	923	924	846	1080
27	1150	882	771	1490	1320	4190	2270	e1220	914	985	859	1130
28	1130	882	767	1510	1200	4090	2210	e1180	905	1070	854	1130
29	1110	875	756	1510	---	3980	2160	e1140	945	1110	840	1100
30	1100	863	753	1500	---	3880	2090	e1120	958	1110	878	1080
31	1090	---	764	1490	---	3790	---	e1100	---	1080	1120	---
MEAN	1302	966	805	1142	1444	4908	2792	1466	1001	933	903	1081
MAX	1640	1090	853	1510	1590	7060	3660	2040	1110	1110	1120	1570
MIN	1090	863	753	756	1200	1160	2090	1100	898	870	840	763
IN.	0.22	0.15	0.13	0.19	0.22	0.81	0.45	0.24	0.16	0.15	0.15	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2002, BY WATER YEAR (WY)

MEAN	4857	3433	4133	6180	9207	11720	11040	6012	4159	4385	5618	5143
MAX	32940	35590	30600	21150	30720	36610	53180	25380	17800	14380	34990	30760
(WY)	1929	1948	1948	1977	1991	1998	1948	1928	1973	1991	1928	1928
MIN	1006	895	805	882	1189	1240	1702	1245	792	877	903	1081
(WY)	1991	2000	2002	2000	1957	1955	1968	1932	2000	2000	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1927 - 2002	
ANNUAL MEAN	3211		1564		6348	
HIGHEST ANNUAL MEAN					19710	1948
LOWEST ANNUAL MEAN					1296	1955
HIGHEST DAILY MEAN	13200	Mar 28	7060	Mar 8	94700	Apr 8 1948
LOWEST DAILY MEAN	753	Dec 30	753	Dec 30	720	Jun 20 2000
ANNUAL SEVEN-DAY MINIMUM	768	Dec 25	767	Dec 26	740	Jun 16 2000
MAXIMUM PEAK FLOW			7070	Mar 7	95300	Apr 7 1948
MAXIMUM PEAK STAGE			7.19	Mar 7	40.88	Apr 7 1948
INSTANTANEOUS LOW FLOW			715	Jan 3	703	Jun 20 2000
ANNUAL RUNOFF (INCHES)	6.26		3.05		12.37	
10 PERCENT EXCEEDS	6920		2970		14600	
50 PERCENT EXCEEDS	2340		1100		3810	
90 PERCENT EXCEEDS	891		824		1450	

e Estimated

02319500 SUWANNEE RIVER AT ELLAVILLE, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.38	2.00	1.80	1.73	2.11	1.85	3.91	2.43	---	1.48	1.50	1.97
2	2.33	1.98	1.79	1.75	2.09	1.92	3.73	2.37	---	1.49	1.49	2.00
3	2.28	1.98	1.79	1.54	2.06	2.47	3.62	2.32	1.60	1.48	1.47	1.89
4	2.25	1.97	1.78	1.52	2.03	4.36	3.53	2.28	1.58	1.49	1.44	1.80
5	2.24	1.97	1.78	1.52	2.00	5.96	3.46	2.23	1.61	1.48	1.42	1.73
6	2.23	1.97	1.78	1.53	1.97	6.87	3.39	2.18	1.61	1.46	1.41	1.66
7	2.21	1.97	1.78	1.53	1.99	7.16	3.33	2.14	1.61	1.47	1.40	1.62
8	2.16	1.96	1.77	1.52	1.98	7.18	3.27	2.10	1.63	1.45	1.38	1.58
9	2.14	1.95	1.77	1.52	2.02	7.16	3.23	2.06	1.61	1.43	1.38	1.56
10	2.11	1.93	1.77	1.52	2.09	7.09	3.22	2.03	1.59	1.46	1.37	1.48
11	2.12	1.93	1.78	1.62	2.12	6.97	3.20	1.99	1.58	1.46	1.36	1.41
12	2.14	1.91	1.77	1.73	2.15	6.81	3.17	1.95	1.56	1.45	1.34	1.39
13	2.14	1.89	1.77	1.74	2.18	6.61	3.18	1.93	1.54	1.45	1.34	1.37
14	2.13	1.89	1.77	1.80	2.19	6.31	3.17	1.90	1.53	1.45	1.34	1.36
15	2.10	1.88	1.76	1.92	2.20	6.01	3.14	1.85	1.51	1.43	1.34	1.35
16	2.08	1.87	1.75	1.96	2.21	5.74	3.08	1.82	1.49	1.45	1.34	1.34
17	2.06	1.86	1.75	1.97	2.21	5.52	3.03	1.80	1.49	1.45	1.34	1.35
18	2.04	1.85	1.76	1.95	2.19	5.33	3.01	1.80	1.49	1.44	1.34	1.43
19	2.03	1.85	1.75	1.93	2.16	5.10	3.00	1.82	1.48	1.43	1.34	1.46
20	2.02	1.85	1.74	1.92	2.14	4.91	3.02	1.80	1.51	1.43	1.35	1.60
21	2.01	1.85	1.73	1.95	2.12	4.74	3.00	---	1.50	1.42	1.35	1.96
22	2.01	1.84	1.72	1.98	2.11	4.63	2.94	---	1.48	1.43	1.35	1.81
23	2.01	1.83	1.73	2.06	2.10	4.67	2.88	---	1.46	1.42	1.36	1.70
24	2.01	1.83	1.75	2.11	2.09	4.65	2.81	---	1.45	1.42	1.36	1.63
25	1.93	1.83	1.74	2.13	2.07	4.59	2.75	---	1.44	1.44	1.36	1.62
26	1.93	1.82	1.74	2.12	2.06	4.53	2.69	---	1.46	1.45	1.36	1.64
27	2.05	1.82	1.73	2.13	1.99	4.46	2.63	---	1.46	1.47	1.37	1.68
28	2.03	1.82	1.72	2.15	1.88	4.36	2.58	---	1.45	1.52	1.37	1.69
29	2.01	1.81	1.71	2.15	---	4.24	2.54	---	1.48	1.54	1.36	1.67
30	2.00	1.80	1.71	2.14	---	4.13	2.48	---	1.49	1.54	1.40	1.65
31	2.00	---	1.72	2.13	---	4.04	---	---	---	1.51	1.60	---
TOTAL	65.18	56.71	54.41	57.27	58.51	160.37	92.99	---	---	45.29	42.93	48.40
MEAN	2.10	1.89	1.76	1.85	2.09	5.17	3.10	---	---	1.46	1.38	1.61
MAX	2.38	2.00	1.80	2.15	2.21	7.18	3.91	---	---	1.54	1.60	2.00
MIN	1.93	1.80	1.71	1.52	1.88	1.85	2.48	---	---	1.42	1.34	1.34

CAL YR 2001 TOTAL 1394.75 MEAN 3.82 MAX 12.97 MIN 1.71

02319800 SUWANNEE RIVER AT DOWLING PARK, FL

LOCATION.--Lat 30°14'41", long 83°14'59", in NW¼ sec. 8, T. 3 S., R. 11 E., Lafayette County, Hydrologic Unit 03110205, at bridge on County Road 250 at Dowling Park, and 112 mi upstream from mouth.

DRAINAGE AREA.--7,190 mi^2, approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

PERIOD OF RECORD.--March 1950 to August 1954 and November 1975 to October 1977 (annual maximum discharge and gage-height), October 1996 to current year.

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 7, 1948, reached a stage of 61.46 ft, from floodmarks; discharge, 92,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	1190	1020	965	1220	1100	3340	1720	1130	942	1010	1170
2	1620	1180	1010	991	1200	1160	3220	1670	1110	956	1010	1270
3	1590	1170	1010	993	1170	1360	3110	1620	1100	971	992	1220
4	1550	1160	1010	989	1150	2530	3020	1580	1090	988	974	1150
5	1540	1160	1000	985	1140	4190	2930	1530	1090	967	957	1100
6	1520	1160	1000	991	1120	5210	2850	1490	1100	953	937	1060
7	1500	1170	999	983	1130	5680	2780	1460	1100	959	942	1040
8	1490	1170	998	977	1120	5790	2710	1430	1100	965	928	1010
9	1480	1160	997	974	1140	5820	2650	1400	1100	952	920	1000
10	1460	1140	998	973	1180	5810	2610	1370	1090	945	924	1000
11	1450	1130	1000	964	1210	5760	2580	1350	1090	942	923	1000
12	1440	1120	991	966	1230	5680	2540	1310	1080	946	918	999
13	1430	1110	991	978	1250	5570	2530	1290	1080	947	944	998
14	1410	1100	990	1010	1270	5370	2540	1270	1060	950	945	991
15	1390	1090	987	1070	1280	5140	2510	1250	1060	938	946	980
16	1370	1070	981	1110	1280	4930	2440	1220	1040	934	950	950
17	1350	1070	977	1120	1290	4740	2380	1210	1020	933	924	943
18	1350	1060	983	1110	1280	4590	2340	1210	1010	923	906	977
19	1340	1060	972	1100	1260	4450	2320	1220	1000	907	910	1020
20	1320	1060	969	1090	1240	4320	2320	1200	999	910	921	1040
21	1310	1060	963	1120	1220	4180	2310	1220	990	899	911	1310
22	1310	1060	961	1120	1200	4050	2250	1260	966	877	908	1330
23	1310	1060	967	1170	1200	4020	2190	1250	975	875	906	1240
24	1310	1060	986	1210	1190	3990	2120	1220	966	891	918	1180
25	1310	1050	973	1240	1170	3940	2050	1200	955	910	920	1160
26	1270	1050	970	1230	1170	3880	1990	1190	973	931	921	1160
27	1250	1040	972	1230	1150	3820	1920	1170	957	952	924	1170
28	1240	1040	971	1250	1140	3740	1870	1160	936	983	904	1170
29	1220	1030	965	1250	---	3640	1830	1140	940	1010	905	1160
30	1200	1030	955	1240	---	3540	1770	1130	942	1010	916	1140
31	1200	---	959	1230	---	3450	---	1140	---	1000	1010	---
MEAN	1393	1100	985	1085	1200	4240	2467	1319	1035	944	936	1098
MAX	1660	1190	1020	1250	1290	5820	3340	1720	1130	1010	1010	1330
MIN	1200	1030	955	964	1120	1100	1770	1130	936	875	904	943
IN.	0.22	0.17	0.16	0.17	0.17	0.68	0.38	0.21	0.16	0.15	0.15	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	4103	3574	3786	5327	7214	10940	6230	2975	2363	2223	2423	2246
MAX	10700	10650	13190	18280	22750	38110	17010	6430	4165	3995	5699	3675
(WY)	1999	1998	1998	1998	1998	1998	1998	1998	1997	1997	1997	2000
MIN	1388	1100	985	1085	1200	1938	2047	1319	1030	944	936	1098
(WY)	2000	2002	2002	2002	2002	2000	1999	2002	2000	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL MEAN	3019		1487		4438	
HIGHEST ANNUAL MEAN					11550	1998
LOWEST ANNUAL MEAN					1487	2002
HIGHEST DAILY MEAN	10800	Mar 29	5820	Mar 9	53100	Mar 20 1998
LOWEST DAILY MEAN	955	Dec 30	875	Jul 23	875	Jul 23 2002
ANNUAL SEVEN-DAY MINIMUM	966	Dec 25	896	Jul 19	896	Jul 19 2002
MAXIMUM PEAK FLOW			5830	Mar 9	53500	Mar 20 1998
MAXIMUM PEAK STAGE			27.91	Mar 9	54.07	Mar 20 1998
INSTANTANEOUS LOW FLOW			859	Jul 23	859	Jul 23 2002
ANNUAL RUNOFF (INCHES)	5.70		2.81		8.39	
10 PERCENT EXCEEDS	5910		2630		10500	
50 PERCENT EXCEEDS	2350		1130		2350	
90 PERCENT EXCEEDS	1050		942		1060	

02319800 SUWANNEE RIVER AT DOWLING PARK, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.25	21.53	21.26	21.16	21.60	21.41	24.67	22.31	21.35	21.15	21.39	21.66
2	22.19	21.51	21.25	21.21	21.57	21.51	24.49	22.23	21.32	21.18	21.38	21.83
3	22.14	21.50	21.24	21.21	21.53	21.84	24.33	22.15	21.29	21.21	21.35	21.74
4	22.09	21.49	21.24	21.21	21.49	23.60	24.18	22.08	21.27	21.24	21.32	21.62
5	22.06	21.48	21.23	21.20	21.46	25.91	24.05	22.01	21.26	21.22	21.29	21.54
6	22.04	21.49	21.23	21.21	21.44	27.19	23.95	21.95	21.30	21.19	21.25	21.48
7	22.01	21.50	21.23	21.19	21.45	27.73	23.85	21.89	21.29	21.21	21.26	21.43
8	21.99	21.50	21.22	21.19	21.44	27.87	23.76	21.84	21.31	21.22	21.24	21.39
9	21.97	21.48	21.22	21.18	21.46	27.91	23.67	21.80	21.31	21.21	21.22	21.37
10	21.95	21.46	21.22	21.18	21.54	27.89	23.62	21.74	21.30	21.20	21.23	21.37
11	21.93	21.45	21.23	21.16	21.59	27.83	23.58	21.71	21.30	21.20	21.23	21.37
12	21.91	21.43	21.21	21.17	21.62	27.74	23.52	21.65	21.30	21.21	21.22	21.37
13	21.90	21.40	21.21	21.19	21.66	27.60	23.51	21.61	21.29	21.22	21.27	21.36
14	21.88	21.39	21.21	21.24	21.69	27.37	23.52	21.58	21.28	21.23	21.27	21.35
15	21.84	21.37	21.20	21.35	21.70	27.11	23.47	21.54	21.27	21.21	21.27	21.33
16	21.81	21.35	21.19	21.42	21.71	26.85	23.38	21.51	21.24	21.21	21.27	21.28
17	21.78	21.35	21.19	21.44	21.71	26.63	23.29	21.48	21.22	21.22	21.23	21.26
18	21.77	21.34	21.20	21.43	21.70	26.42	23.23	21.48	21.21	21.20	21.20	21.32
19	21.75	21.33	21.18	21.40	21.67	26.24	23.20	21.50	21.19	21.18	21.20	21.40
20	21.74	21.34	21.17	21.38	21.65	26.05	23.21	21.47	21.19	21.19	21.22	21.44
21	21.72	21.33	21.16	21.44	21.61	25.86	23.19	21.50	21.18	21.17	21.20	21.90
22	21.71	21.33	21.16	21.44	21.58	25.68	23.11	21.57	21.14	21.14	21.20	21.92
23	21.72	21.34	21.17	21.52	21.57	25.63	23.02	21.54	21.16	21.14	21.20	21.78
24	21.72	21.34	21.20	21.59	21.55	25.59	22.92	21.50	21.15	21.17	21.22	21.69
25	21.72	21.32	21.18	21.64	21.53	25.53	22.82	21.47	21.14	21.20	21.22	21.64
26	21.66	21.31	21.17	21.63	21.51	25.44	22.72	21.44	21.18	21.24	21.22	21.65
27	21.62	21.30	21.18	21.63	21.48	25.36	22.62	21.41	21.15	21.28	21.23	21.67
28	21.61	21.29	21.17	21.65	21.46	25.25	22.54	21.39	21.12	21.33	21.19	21.67
29	21.58	21.28	21.16	21.65	---	25.10	22.47	21.36	21.13	21.38	21.19	21.64
30	21.54	21.27	21.15	21.64	---	24.95	22.39	21.34	21.14	21.38	21.21	21.61
31	21.54	---	21.15	21.63	---	24.82	---	21.36	---	21.37	21.39	---
MEAN	21.84	21.39	21.20	21.37	21.57	25.87	23.41	21.66	21.23	21.22	21.25	21.54
MAX	22.25	21.53	21.26	21.65	21.71	27.91	24.67	22.31	21.35	21.38	21.39	21.92
MIN	21.54	21.27	21.15	21.16	21.44	21.41	22.39	21.34	21.12	21.14	21.19	21.26

WTR YR 2002 MEAN 21.97 MAX 27.91 MIN 21.12

02320000 SUWANNEE RIVER AT LURAVILLE, FL

LOCATION.--Lat 30°05'59", long 83°10'18", in NE$^1/_4$ sec. 36, T. 4 S., R. 11 E., Suwannee County, Hydrologic Unit 03110205, at bridge on State Highway 51, 1.6 mi south of Luraville, 3.0 mi north of Mayo, and 97 mi upstream from mouth.

DRAINAGE AREA.--7,330 mi^2, approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

PERIOD OF RECORD.--February 1927 to December 1937, March 1950 to October 1972 and October 1977 to September 1981 (annual maximum discharge and gage-height), October 1996 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2060	1580	1270	1240	1320	1250	3560	1610	1230	1100	1200	1260
2	2020	1570	1270	1230	1330	1240	3440	1550	1200	1110	1210	1370
3	1980	1560	1280	1210	1330	1330	3300	1500	1190	1130	1200	1350
4	1920	1520	1290	1220	1330	2190	3230	1440	1200	1170	1190	1290
5	1910	1520	1280	1230	1330	3870	3160	1390	1200	1150	1180	1240
6	1900	1520	1270	1210	1310	4840	3070	1390	1210	1130	1170	1210
7	1900	1520	1260	1220	1290	5370	3020	1380	1210	1130	1160	1180
8	1890	1520	1250	1220	1290	5620	2970	1350	1210	1150	1150	1160
9	1880	1510	1240	1210	1290	5760	2920	1320	1200	1160	1150	1150
10	1860	1500	1240	1170	1330	5810	2900	1340	1170	1150	1140	1130
11	1840	1490	1250	1150	1380	5830	2870	1400	1160	1140	1150	1130
12	1820	1480	1240	1140	1400	5810	2840	1390	1150	1140	1140	1130
13	1810	1480	1250	1170	1440	5710	2800	1370	1130	1150	1160	1130
14	1790	1460	1240	1190	1460	5530	2790	1380	1120	1170	1180	1130
15	1780	1450	1230	1230	1470	5320	2710	1360	1130	1170	1180	1130
16	1760	1440	1230	1280	1480	5120	2590	1350	1110	1170	1190	1120
17	1750	1430	1230	1300	1480	4910	2490	1320	1120	1170	1170	1100
18	1740	1410	1250	1280	1480	4780	2400	1310	1120	1160	1150	1110
19	1720	1390	1250	1250	1460	4620	2340	1340	1110	1150	1160	1130
20	1710	1400	1250	1270	1430	4460	2310	1320	1130	1150	1170	1150
21	1700	1400	1250	1290	1410	4340	2290	1330	1130	1170	1160	1280
22	1680	1400	1250	1290	1400	4230	2200	1390	1120	1160	1150	1380
23	1670	1370	1250	1300	1400	4200	2180	1390	1120	1140	1140	1340
24	1670	1340	1270	1330	1390	4170	2120	1350	1130	1130	1140	1300
25	1670	1330	1260	1330	1370	4130	2010	1310	1120	1140	1140	1290
26	1650	1310	1250	1330	1350	4060	1940	1290	1140	1140	1140	1280
27	1620	1290	1250	1330	1360	4010	1860	1280	1090	1170	1140	1290
28	1620	1270	1250	1350	1320	3950	1800	1260	1050	1180	1140	1290
29	1610	1260	1240	1340	---	3860	1750	1250	1070	1210	1140	1280
30	1600	1260	1230	1340	---	3740	1670	1230	1090	1210	1120	1270
31	1590	---	1230	1330	---	3660	---	1230	---	1200	1160	---
MEAN	1778	1433	1252	1257	1380	4314	2584	1359	1145	1155	1160	1220
MAX	2060	1580	1290	1350	1480	5830	3560	1610	1230	1210	1210	1380
MIN	1590	1260	1230	1140	1290	1240	1670	1230	1050	1100	1120	1100
IN.	0.28	0.22	0.20	0.20	0.20	0.68	0.40	0.22	0.18	0.18	0.18	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2002, BY WATER YEAR (WY)

MEAN	7300	4324	3931	5100	7612	9966	9393	5971	3672	3768	5990	6190
MAX	31460	12180	13710	18570	22980	34680	24050	24060	8453	11430	32590	28650
(WY)	1929	1929	1998	1998	1998	1998	1930	1928	1928	1928	1928	1928
MIN	1529	1316	1173	1176	1380	1969	2248	1359	1101	1112	1160	1220
(WY)	2000	2000	2000	2000	2002	2000	1934	2002	2000	2000	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1927 - 2002	
ANNUAL MEAN	3308		1673		6224	
HIGHEST ANNUAL MEAN					12570	1929
LOWEST ANNUAL MEAN					1673	2002
HIGHEST DAILY MEAN	11300	Mar 29	5830	Mar 11	66000	Aug 24 1928
LOWEST DAILY MEAN	1230	Dec 15	1050	Jun 28	1050	Jun 20 2000
ANNUAL SEVEN-DAY MINIMUM	1240	Dec 11	1090	Jun 27	1070	Jun 14 2000
MAXIMUM PEAK FLOW			5850	Mar 11	90000	Apr 8 1948
MAXIMUM PEAK STAGE			22.69	Mar 11	53.50	Apr 8 1948
INSTANTANEOUS LOW FLOW			1040	Jun 28	1040	Jun 28 2002
ANNUAL RUNOFF (INCHES)	6.17		3.12		11.62	
10 PERCENT EXCEEDS	6230		2910		14700	
50 PERCENT EXCEEDS	2480		1290		3660	
90 PERCENT EXCEEDS	1320		1140		1470	

02320000 SUWANNEE RIVER AT LURAVILLE, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.28	17.61	17.16	17.31	17.48	17.36	20.30	17.94	17.32	17.08	17.27	17.38
2	18.22	17.60	17.18	17.30	17.51	17.34	20.16	17.85	17.27	17.10	17.28	17.56
3	18.16	17.58	17.20	17.26	17.49	17.50	19.99	17.77	17.26	17.14	17.26	17.53
4	18.06	17.51	17.24	17.29	17.50	18.65	19.90	17.69	17.27	17.22	17.25	17.43
5	18.04	17.52	17.23	17.31	17.50	20.67	19.81	17.60	17.27	17.17	17.23	17.34
6	18.04	17.51	17.20	17.27	17.47	21.73	19.68	17.59	17.29	17.13	17.21	17.29
7	18.05	17.53	17.18	17.30	17.43	22.24	19.61	17.58	17.29	17.14	17.19	17.24
8	18.03	17.52	17.17	17.31	17.42	22.48	19.55	17.54	17.29	17.18	17.18	17.19
9	18.02	17.52	17.16	17.31	17.44	22.61	19.48	17.49	17.27	17.19	17.17	17.17
10	17.99	17.51	17.17	17.23	17.51	22.66	19.45	17.51	17.22	17.18	17.16	17.15
11	17.96	17.49	17.19	17.18	17.59	22.68	19.42	17.61	17.20	17.17	17.17	17.14
12	17.93	17.48	17.18	17.16	17.62	22.65	19.39	17.59	17.18	17.16	17.16	17.13
13	17.91	17.48	17.21	17.22	17.67	22.56	19.36	17.56	17.14	17.19	17.19	17.14
14	17.88	17.44	17.19	17.25	17.72	22.39	19.34	17.58	17.12	17.22	17.23	17.13
15	17.88	17.44	17.18	17.32	17.72	22.20	19.27	17.55	17.13	17.22	17.23	17.14
16	17.84	17.43	17.19	17.41	17.74	22.00	19.14	17.53	17.11	17.21	17.25	17.12
17	17.82	17.40	17.18	17.44	17.74	21.80	19.03	17.49	17.11	17.21	17.22	17.09
18	17.81	17.38	17.23	17.41	17.74	21.66	18.93	17.47	17.12	17.20	17.18	17.10
19	17.79	17.35	17.24	17.36	17.71	21.50	18.87	17.51	17.10	17.19	17.19	17.15
20	17.78	17.36	17.25	17.40	17.66	21.33	18.84	17.48	17.13	17.18	17.21	17.18
21	17.76	17.38	17.25	17.43	17.64	21.20	18.81	17.50	17.13	17.22	17.19	17.41
22	17.73	17.37	17.26	17.43	17.62	21.08	18.71	17.60	17.11	17.19	17.18	17.59
23	17.71	17.32	17.28	17.44	17.61	21.05	18.69	17.59	17.13	17.15	17.16	17.51
24	17.72	17.27	17.34	17.49	17.60	21.02	18.61	17.53	17.14	17.15	17.15	17.45
25	17.73	17.25	17.30	17.49	17.56	20.98	18.48	17.46	17.12	17.15	17.15	17.43
26	17.70	17.23	17.30	17.50	17.54	20.89	18.39	17.44	17.15	17.17	17.16	17.42
27	17.65	17.19	17.30	17.50	17.55	20.84	18.29	17.41	17.06	17.21	17.16	17.43
28	17.66	17.15	17.30	17.53	17.48	20.77	18.21	17.38	16.99	17.24	17.16	17.43
29	17.64	17.13	17.30	17.52	---	20.66	18.13	17.35	17.03	17.28	17.16	17.42
30	17.62	17.14	17.28	17.52	---	20.52	18.03	17.33	17.07	17.29	17.12	17.39
31	17.61	---	17.28	17.50	---	20.43	---	17.33	---	17.27	17.19	---
TOTAL	554.02	522.09	534.12	538.39	492.26	653.45	573.87	543.85	515.02	532.80	533.01	519.08
MEAN	17.87	17.40	17.23	17.37	17.58	21.08	19.13	17.54	17.17	17.19	17.19	17.30
MAX	18.28	17.61	17.34	17.53	17.74	22.68	20.30	17.94	17.32	17.29	17.28	17.59
MIN	17.61	17.13	17.16	17.16	17.42	17.34	18.03	17.33	16.99	17.08	17.12	17.09

CAL YR 2001 TOTAL 7192.46 MEAN 19.71 MAX 27.44 MIN 17.13
WTR YR 2002 TOTAL 6511.96 MEAN 17.84 MAX 22.68 MIN 16.99

02320500 SUWANNEE RIVER AT BRANFORD, FL

LOCATION.--Lat 29°57'20", long 82°55'40", in NE¼ 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 mi^2, approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

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

REVISED RECORDS.--WSP 1905: WDR FL-75-1: Drainage area. WDR FL-96-4:1995.

GAGE.--Water-stage recorder. Datum of gage is 4.81 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1928 reached a stage of 32.0 ft, from floodmark; discharge, 65,000 ft^3/s computed on basis of measured crest flow at Ellaville (station 02319500).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2610	1950	1780	1520	1650	1620	3880	2350	1660	1450	1400	e1440
2	2580	1950	1770	1530	1600	1690	3760	2300	e1620	1430	1410	e1490
3	2550	1950	1750	1540	1620	1850	3660	2250	e1580	1440	1410	e1670
4	2520	1950	1710	1520	1620	2030	3570	2200	e1560	1500	1400	e1630
5	2480	1930	1670	1520	1590	3010	3460	2160	e1540	1490	1390	e1570
6	2460	1920	1660	1540	1600	3960	3370	2110	e1530	1450	1370	e1520
7	2430	1910	1660	1530	1640	4620	3290	2080	e1520	1430	1350	e1500
8	2380	1910	1660	1510	1620	5000	3230	2050	e1510	1430	1340	e1480
9	2350	1900	1660	1500	1610	5210	3180	2030	e1510	1440	1330	e1470
10	2330	1890	1660	1510	1630	5350	3150	2000	e1520	1450	1330	e1460
11	2320	1880	1650	1520	1660	5410	3110	1970	e1520	1440	1330	e1450
12	2310	1870	1640	1520	1670	5460	3080	1940	1520	1440	1340	e1450
13	2290	1860	1630	1540	1700	5490	3060	1920	1510	1440	1340	e1450
14	2300	1840	1620	1550	1710	5420	3040	1900	1500	1460	1350	e1450
15	2260	1820	1620	1590	1720	5330	3030	1860	1490	1450	1370	e1460
16	2210	1810	1610	1590	1740	5200	2980	1830	1460	1420	1390	e1470
17	2170	1810	1590	1610	1740	5080	2930	1820	1450	1410	1380	e1500
18	2140	1800	1580	1620	1730	4960	2890	1820	1450	1400	1370	e1480
19	2140	1800	1560	1620	1720	4850	2850	1830	1450	1400	1370	e1470
20	2130	1800	1530	1610	1720	4740	2830	1800	1440	1400	1400	e1470
21	2120	1810	1510	1630	1730	4630	2820	1760	1430	1410	1390	e1580
22	2100	1810	1520	1630	1700	4500	2790	1740	1430	1370	1390	e1700
23	2100	1820	1530	1630	1680	4390	2740	1760	1440	1350	1390	e1750
24	2100	1830	1590	1660	1670	4360	2690	1750	1460	1360	1380	e1730
25	2090	1810	1560	1700	1670	4350	2650	1760	1450	1350	1390	e1720
26	2040	1790	1540	1710	1660	4320	2590	1750	1470	1350	1400	1750
27	1980	1780	1530	1700	1650	4270	2530	1720	1480	1380	e1410	1770
28	1970	1780	1540	1710	1640	4200	2490	1690	1450	1400	e1410	1760
29	1970	1790	1540	1710	---	4130	2440	1670	1450	1410	e1410	1750
30	1960	1790	1540	1710	---	4030	2400	1670	1460	1420	e1410	1740
31	1950	---	1520	1710	---	3950	---	1660	---	1420	e1420	---
MEAN	2237	1852	1611	1596	1668	4304	3016	1908	1495	1419	1380	1571
MAX	2610	1950	1780	1710	1740	5490	3880	2350	1660	1500	1420	1770
MIN	1950	1780	1510	1500	1590	1620	2400	1660	1430	1350	1330	1440
MED	2210	1820	1610	1590	1670	4500	3000	1830	1480	1420	1390	1500
IN.	0.33	0.26	0.24	0.23	0.22	0.63	0.43	0.28	0.21	0.21	0.20	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	5379	4323	4682	6355	9083	11700	11510	7220	5281	5149	5984	5863
MAX	21020	29380	28130	21830	28370	36930	49040	24020	18120	13510	19810	21340
(WY)	1965	1948	1948	1948	1991	1998	1948	1973	1973	1991	1945	1964
MIN	1778	1666	1602	1596	1668	1905	2366	1908	1495	1419	1380	1571
(WY)	1991	1991	1991	2002	2002	1955	1955	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL MEAN	3806		2008		6871	
HIGHEST ANNUAL MEAN					19260	1948
LOWEST ANNUAL MEAN					1950	1955
HIGHEST DAILY MEAN	10800	Mar 30	5490	Mar 13	82800	Apr 11 1948
LOWEST DAILY MEAN	1510	Dec 21	1330	Aug 9	1330	Aug 9 2002
ANNUAL SEVEN-DAY MINIMUM	1540	Dec 25	1340	Aug 7	1340	Aug 7 2002
MAXIMUM PEAK FLOW			5530	Mar 12	83900	Apr 11 1948
MAXIMUM PEAK STAGE			8.45	Mar 12	34.07	Apr 11 1948
INSTANTANEOUS LOW FLOW			1320	Aug 9	1320	Aug 9 2002
ANNUAL RUNOFF (INCHES)	6.56		3.46		11.85	
10 PERCENT EXCEEDS	6540		3130		14300	
50 PERCENT EXCEEDS	3100		1670		4820	
90 PERCENT EXCEEDS	1800		1410		2240	

e Estimated

02320500 SUWANNEE RIVER AT BRANFORD, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.00	2.89	2.71	2.29	2.66	2.59	6.37	3.88	2.44	2.05	2.10	---
2	3.95	2.89	2.69	2.33	2.55	2.76	6.20	3.79	---	2.02	2.12	---
3	3.90	2.89	2.66	2.35	2.59	3.12	6.05	3.70	---	2.04	2.12	---
4	3.85	2.90	2.57	2.33	2.58	3.47	5.91	3.60	---	2.20	2.11	---
5	3.79	2.86	2.47	2.31	2.53	5.22	5.75	3.51	---	2.19	2.09	---
6	3.74	2.84	2.47	2.37	2.54	6.64	5.61	3.41	---	2.09	2.04	---
7	3.69	2.84	2.46	2.37	2.64	7.49	5.49	3.35	---	2.04	2.00	---
8	3.61	2.84	2.48	2.32	2.60	7.93	5.40	3.29	---	2.05	1.96	---
9	3.56	2.84	2.49	2.30	2.57	8.16	5.33	3.24	---	2.08	1.95	---
10	3.53	2.81	2.48	2.33	2.61	8.30	5.26	3.19	---	2.10	1.94	---
11	3.51	2.79	2.48	2.36	2.69	8.35	5.21	3.13	---	2.08	1.95	---
12	3.49	2.78	2.45	2.35	2.72	8.38	5.16	3.05	2.14	2.08	1.98	---
13	3.46	2.75	2.44	2.40	2.77	8.41	5.12	3.01	2.13	2.09	2.00	---
14	3.48	2.74	2.43	2.43	2.80	8.33	5.10	2.96	2.11	2.15	2.02	---
15	3.42	2.69	2.43	2.53	2.82	8.22	5.07	2.88	2.07	2.12	2.07	---
16	3.32	2.68	2.40	2.53	2.86	8.08	5.00	2.82	2.02	2.06	2.11	---
17	3.26	2.68	2.38	2.58	2.86	7.93	4.91	2.79	1.99	2.03	2.08	---
18	3.20	2.67	2.35	2.60	2.84	7.79	4.83	2.80	2.00	2.03	2.05	---
19	3.19	2.68	2.32	2.59	2.82	7.64	4.78	2.81	1.99	2.01	2.06	---
20	3.18	2.69	2.25	2.56	2.83	7.51	4.74	2.75	1.98	2.02	2.13	---
21	3.17	2.71	2.21	2.62	2.84	7.37	4.72	2.66	1.96	2.06	2.12	---
22	3.14	2.71	2.23	2.63	2.77	7.20	4.68	2.63	1.96	1.97	2.10	---
23	3.14	2.73	2.27	2.61	2.75	7.06	4.59	2.66	2.00	1.93	2.10	---
24	3.15	2.76	2.42	2.68	2.72	7.02	4.49	2.65	2.06	1.94	2.10	---
25	3.13	2.73	2.36	2.78	2.70	7.01	4.42	2.66	2.04	1.93	2.11	---
26	3.02	2.70	2.31	2.81	2.69	6.97	4.32	2.64	2.09	1.94	2.12	2.92
27	2.91	2.68	2.30	2.77	2.68	6.90	4.21	2.58	2.12	2.00	---	2.95
28	2.90	2.69	2.32	2.81	2.63	6.81	4.15	2.51	2.05	2.07	---	2.93
29	2.90	2.70	2.34	2.81	---	6.71	4.05	2.47	2.05	2.10	---	2.90
30	2.89	2.73	2.34	2.80	---	6.57	3.97	2.45	2.07	2.13	---	2.88
31	2.88	---	2.30	2.79	---	6.46	---	2.43	---	2.12	---	---
TOTAL	104.36	82.89	74.81	78.34	75.66	212.40	150.89	92.30	---	63.72	---	---
MEAN	3.37	2.76	2.41	2.53	2.70	6.85	5.03	2.98	---	2.06	---	---
MAX	4.00	2.90	2.71	2.81	2.86	8.41	6.37	3.88	---	2.20	---	---
MIN	2.88	2.67	2.21	2.29	2.53	2.59	3.97	2.43	---	1.93	---	---

02321000 NEW RIVER NEAR LAKE BUTLER, FL

LOCATION.--Lat 29°59'53", long 82°16'27", in SW¼ sec. 2, T. 6. S., R. 20 E., Union County, Hydrologic Unit 03110206, near right bank on downstream side of bridge on State Highway 100, and 4.4 miles southeast of Lake Butler.

DRAINAGE AREA.--191 mi^2.

PERIOD OF RECORD.--January 1950 to September 1971, June 1973 to May 1977, periodic discharge measurements. October 1990 to September 1991, October 1992 to current year.

REVISED RECORDS.--WRD FLA. 1968 Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 83.8 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	6.0	4.7	4.3	40	13	15	3.3	2.0	12	37	133
2	37	6.1	5.0	4.5	37	15	14	3.8	3.6	4.5	25	181
3	32	6.0	5.0	4.7	33	46	17	3.5	1.5	3.0	26	198
4	29	5.6	4.7	4.7	29	108	20	2.7	0.88	2.8	57	198
5	27	5.4	4.7	4.6	26	143	19	2.2	0.66	2.6	56	171
6	25	5.2	4.6	4.8	23	143	19	1.9	0.55	2.0	68	133
7	24	4.9	4.4	5.1	23	134	18	1.6	0.47	1.6	81	102
8	22	4.7	4.4	4.7	23	123	16	1.4	0.89	1.0	74	80
9	21	4.6	5.4	4.7	22	108	14	1.1	0.55	1.4	62	63
10	19	4.3	9.3	4.7	21	91	12	1.0	0.54	6.1	50	50
11	19	4.0	13	4.6	20	75	14	0.87	0.46	6.2	38	41
12	18	4.0	12	4.6	18	61	19	0.74	0.39	3.1	30	34
13	17	4.0	12	4.9	18	56	20	0.67	0.30	3.1	25	31
14	16	5.9	11	10	17	53	25	0.71	0.22	1.9	20	35
15	15	8.1	10	41	16	49	31	0.67	0.14	1.5	18	59
16	14	8.5	9.7	54	15	44	30	0.60	0.09	1.1	15	120
17	13	8.6	8.8	38	14	39	26	0.49	0.07	0.71	14	298
18	12	8.2	8.5	30	13	35	23	1.4	0.07	0.52	13	600
19	11	7.7	8.2	26	12	32	21	8.0	0.09	0.35	11	648
20	11	7.1	7.7	24	12	29	19	13	0.12	0.27	11	491
21	10	6.9	7.2	25	11	27	16	5.3	0.15	0.41	19	319
22	9.8	6.8	6.7	31	11	26	14	2.7	0.52	0.96	19	216
23	9.4	6.6	6.2	33	13	25	11	1.7	1.5	1.0	17	156
24	9.2	6.5	6.1	30	17	23	9.1	1.2	1.3	2.2	15	120
25	9.5	6.3	6.1	30	18	21	7.7	0.95	0.95	1.9	12	104
26	8.8	6.0	5.9	40	18	19	6.4	0.81	1.2	1.0	9.3	106
27	8.0	5.6	5.7	47	16	19	5.3	0.68	0.93	19	7.4	116
28	7.3	5.3	5.2	43	14	19	4.7	0.60	0.64	46	6.6	119
29	6.9	5.1	5.0	41	---	18	4.1	0.56	1.7	76	5.9	113
30	6.5	4.8	4.9	40	---	18	3.6	0.49	15	110	13	106
31	6.2	---	4.6	42	---	16	---	0.83	---	74	65	---
MEAN	16.6	5.96	6.99	22.1	19.6	52.5	15.8	2.11	1.25	12.5	29.7	171
MAX	42	8.6	13	54	40	143	31	13	15	110	81	648
MIN	6.2	4.0	4.4	4.3	11	13	3.6	0.49	0.07	0.27	5.9	31
IN.	0.10	0.03	0.04	0.13	0.11	0.32	0.09	0.01	0.01	0.08	0.18	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	235	43.5	106	126	259	250	130	97.4	75.9	141	243	244
MAX	1461	459	781	607	1836	1491	1014	801	556	519	772	1845
(WY)	1993	1970	1954	1970	1998	1959	1991	1959	1957	1950	1970	1964
MIN	1.53	0.37	1.54	3.23	2.80	3.17	2.52	0.045	0.52	1.06	1.32	0.73
(WY)	1991	2000	2000	2000	2001	2000	1956	2000	1998	1999	1999	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL MEAN	33.7		29.6		162	
HIGHEST ANNUAL MEAN					457	1970
LOWEST ANNUAL MEAN					9.66	1962
HIGHEST DAILY MEAN	1250	Sep 17	648	Sep 19	10400	Sep 13 1964
LOWEST DAILY MEAN	0.00	Jun 2	0.07	Jun 17	0.00	May 16 2000
ANNUAL SEVEN-DAY MINIMUM	0.01	May 29	0.10	Jun 15	0.00	May 16 2000
MAXIMUM PEAK FLOW			679	Sep 19	11400	Sep 12 1964
MAXIMUM PEAK STAGE			7.51	Sep 19	15.33	Sep 12 1964
INSTANTANEOUS LOW FLOW			0.07	Jun 16	0.00	May 16 2000
ANNUAL RUNOFF (INCHES)	2.40		2.10		11.54	
10 PERCENT EXCEEDS	51		70		411	
50 PERCENT EXCEEDS	5.4		11		28	
90 PERCENT EXCEEDS	0.19		0.88		2.6	

02321500 SANTA FE RIVER AT WORTHINGTON SPRINGS, FL

LOCATION.--Lat 29°55'18", long 82°25'35", in SE¼ 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 mi^2.

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. Records do not include diversions during periods of high stages from Santa Fe Lake to Lochloosa Creek in St. Johns River Basin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	19	10	12	106	34	39	7.3	5.0	9.1	73	57
2	141	18	10	12	95	38	37	6.4	4.2	16	62	87
3	122	18	9.3	12	85	122	40	5.5	3.6	15	50	125
4	107	17	9.4	13	75	315	44	4.8	3.6	14	40	156
5	96	17	9.3	12	66	355	e48	4.3	3.7	20	52	183
6	88	16	9.1	13	60	342	e45	4.0	3.0	22	80	197
7	81	15	9.0	13	58	324	e41	3.5	2.8	14	78	190
8	74	14	9.0	13	58	304	e37	3.0	2.5	7.8	81	155
9	69	13	13	13	55	289	e33	2.6	2.3	5.9	82	119
10	64	12	19	12	52	268	e32	2.1	2.3	5.8	75	92
11	62	12	25	12	50	239	30	1.7	2.5	7.4	64	72
12	58	11	28	12	47	209	28	1.3	2.4	6.3	52	58
13	54	10	30	13	44	186	31	1.4	2.2	7.0	46	51
14	51	13	30	20	42	170	37	1.3	2.1	8.3	39	51
15	49	19	29	74	40	158	40	0.66	1.4	9.3	35	85
16	45	24	28	94	38	146	41	0.32	0.68	7.6	44	122
17	42	20	26	93	37	134	43	0.21	0.27	5.5	46	138
18	39	18	26	88	34	125	40	0.36	0.14	6.0	37	194
19	37	16	24	70	32	111	36	1.0	0.06	3.8	38	277
20	35	16	23	58	31	100	32	1.5	0.00	2.8	35	384
21	33	15	21	54	30	92	29	3.7	0.00	12	29	495
22	33	14	19	61	30	88	25	6.0	0.00	22	31	500
23	32	13	18	64	33	80	22	5.3	0.06	14	32	419
24	32	13	18	64	44	73	19	3.9	0.54	9.4	30	327
25	32	12	16	64	49	68	16	2.9	1.6	7.4	26	273
26	31	12	15	68	46	62	14	2.1	3.4	7.2	23	220
27	28	12	14	70	42	57	12	1.6	3.4	9.6	20	162
28	25	11	14	81	37	52	11	1.1	3.4	10	21	155
29	23	11	14	174	---	48	9.2	0.59	5.5	13	40	157
30	21	10	13	172	---	45	8.2	0.35	6.4	36	48	155
31	20	---	12	130	---	42	---	0.73	---	59	49	---
MEAN	57.6	14.7	17.7	53.6	50.6	151	30.6	2.63	2.30	12.7	47.0	189
MAX	163	24	30	174	106	355	48	7.3	6.4	59	82	500
MIN	20	10	9.0	12	30	34	8.2	0.21	0.00	2.8	20	51
IN.	0.12	0.03	0.04	0.11	0.09	0.30	0.06	0.01	0.00	0.03	0.09	0.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	519	186	248	362	599	638	426	178	253	320	599	696
MAX	3043	1788	1801	1607	4161	3303	1927	1716	3646	1459	2137	4033
(WY)	1993	1948	1954	1970	1998	1959	1973	1959	1934	1946	1978	1964
MIN	4.00	2.98	4.00	5.12	5.44	13.7	6.41	0.47	2.30	9.05	9.86	10.3
(WY)	1932	1932	1932	1932	1932	2000	1935	2001	2002	1981	1954	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL MEAN	71.5		52.4		417	
HIGHEST ANNUAL MEAN					1163	1948
LOWEST ANNUAL MEAN					33.2	2000
HIGHEST DAILY MEAN	1510	Sep 19	500	Sep 22	19000	Sep 13 1964
LOWEST DAILY MEAN	0.00	May 17	0.00	Jun 20	0.00	May 20 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	May 17	0.08	Jun 17	0.00	May 30 2000
MAXIMUM PEAK FLOW			517	Sep 21	20000	Sep 13 1964
MAXIMUM PEAK STAGE			13.09	Sep 21	28.40	Sep 13 1964
INSTANTANEOUS LOW FLOW			0.00	Jun 19	0.00	May 19 2000
ANNUAL RUNOFF (INCHES)	1.69		1.24		9.86	
10 PERCENT EXCEEDS	133		136		1090	
50 PERCENT EXCEEDS	16		29		132	
90 PERCENT EXCEEDS	0.20		2.7		15	

e Estimated

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

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.28	7.79	7.50	7.58	9.42	8.20	8.21	7.31	7.21	7.40	8.89	8.62
2	10.00	7.76	7.50	7.60	9.27	8.26	8.17	7.26	7.16	7.64	8.70	9.11
3	9.76	7.75	7.48	7.61	9.12	9.53	8.24	7.22	7.12	7.62	8.47	9.63
4	9.55	7.74	7.48	7.63	8.97	11.54	8.32	7.19	7.13	7.58	8.29	10.01
5	9.39	7.73	7.48	7.62	8.83	11.87	---	7.16	7.13	7.77	8.51	10.31
6	9.26	7.69	7.47	7.63	8.71	11.76	---	7.14	7.09	7.84	8.99	10.45
7	9.14	7.66	7.47	7.65	8.69	11.61	---	7.11	7.07	7.58	8.97	10.38
8	9.03	7.63	7.47	7.65	8.68	11.44	---	7.08	7.05	7.36	9.02	9.99
9	8.93	7.60	7.60	7.63	8.63	11.30	---	7.05	7.04	7.27	9.04	9.56
10	8.85	7.57	7.81	7.61	8.58	11.12	---	7.02	7.04	7.27	8.93	9.18
11	8.80	7.55	7.97	7.60	8.54	10.85	8.00	6.98	7.05	7.35	8.74	8.87
12	8.73	7.52	8.04	7.59	8.49	10.54	7.96	6.95	7.06	7.30	8.53	8.64
13	8.66	7.49	8.09	7.63	8.43	10.30	8.03	6.96	7.04	7.33	8.42	8.51
14	8.59	7.61	8.09	7.83	8.39	10.12	8.17	6.95	7.04	7.39	8.27	8.50
15	8.53	7.80	8.07	8.95	8.35	9.98	8.24	6.90	6.98	7.43	8.18	9.08
16	8.46	7.92	8.05	9.25	8.31	9.84	8.26	6.86	6.92	7.36	8.38	9.60
17	8.38	7.84	8.01	9.25	8.27	9.70	8.29	6.85	6.88	7.26	8.41	9.80
18	8.31	7.77	8.00	9.18	8.23	9.58	8.24	6.86	6.85	7.28	8.24	10.42
19	8.26	7.72	7.97	8.89	8.18	9.40	8.15	6.93	6.83	7.17	8.25	11.22
20	8.22	7.69	7.93	8.68	8.14	9.25	8.05	6.96	6.81	7.11	8.18	12.12
21	8.18	7.67	7.87	8.61	8.12	9.14	7.98	7.12	6.77	7.51	---	12.93
22	8.16	7.64	7.83	8.74	8.11	9.08	7.89	7.24	6.75	7.85	8.09	12.97
23	8.13	7.62	7.79	8.80	8.18	8.96	7.79	7.21	6.81	7.59	8.11	12.38
24	8.12	7.60	7.77	8.80	8.42	8.85	7.71	7.13	6.91	7.43	8.06	11.65
25	8.12	7.59	7.73	8.80	8.52	8.75	7.63	7.07	6.99	7.36	7.97	11.19
26	8.08	7.58	7.70	8.86	8.47	8.66	7.56	7.01	7.13	7.35	7.88	10.69
27	8.01	7.56	7.67	8.90	8.38	8.57	7.50	6.97	7.13	7.44	7.81	10.07
28	7.94	7.54	7.65	9.06	8.28	8.47	7.44	6.93	7.13	7.48	7.84	9.99
29	7.88	7.52	7.65	10.23	---	8.40	7.39	6.90	7.25	7.58	8.29	10.02
30	7.84	7.51	7.62	10.22	---	8.34	7.35	6.88	7.29	8.20	8.45	10.00
31	7.82	---	7.60	9.73	---	8.27	---	6.91	---	8.64	8.47	---
TOTAL	267.41	229.66	240.36	261.81	238.71	301.68	---	218.11	210.66	232.74	---	305.89
MEAN	8.63	7.66	7.75	8.45	8.53	9.73	---	7.04	7.02	7.51	---	10.20
MAX	10.28	7.92	8.09	10.23	9.42	11.87	---	7.31	7.29	8.64	---	12.97
MIN	7.82	7.49	7.47	7.58	8.11	8.20	---	6.85	6.75	7.11	---	8.50

CAL YR 2001 TOTAL 3009.80 MEAN 8.25 MAX 15.94 MIN 5.98

02321975 SANTA FE RIVER AT US HWY 441 NEAR HIGH SPRINGS, FL

LOCATION.--Lat 29°51'09", long 82°36'31", in NW¼ sec. 27, T. 7 S., R. 17 E., Columbia County, Hydrologic Unit 03110206, at highway bridge on U.S. 441, 1.9 mi northwest of the intersection of U.S. 441 and U.S. 27, and 28.1 mi upstream from mouth.

DRAINAGE AREA.--859 mi^2.

PERIOD OF RECORD.--October 1992 to September 2002 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida Department of Transportation bench mark). Prior to Mar. 17, 1998, nonrecording gage at same site and datum.

REMARKS.--Records poor. Maximum discharge, 170 ft^3/s, Oct. 1, gage height, 32.25 ft, occurred on recession following peak of Sept. 25, 2001; maximum independent peak discharge, 97 ft^3/s, Sept. 23, 2002, gage height, 31.76 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	52	14	6.1	14	5.8	e15	3.0	0.00	0.00	0.00	0.91
2	153	52	14	6.5	14	7.1	e14	2.7	0.00	0.00	0.00	1.2
3	146	49	14	6.2	14	8.9	e15	2.4	0.03	0.00	0.00	1.4
4	139	48	13	5.0	14	9.4	e16	2.1	0.08	0.00	0.00	2.0
5	132	46	12	5.4	12	15	e17	1.8	0.00	0.00	0.00	2.9
6	126	42	12	6.1	13	25	e16	1.7	0.00	0.00	0.00	3.8
7	118	40	12	4.8	13	31	e15	1.6	0.00	0.00	0.00	5.3
8	112	39	12	4.4	11	34	e14	1.5	0.00	0.00	0.00	7.7
9	106	37	11	4.4	11	34	e13	1.3	0.00	0.00	0.00	9.4
10	104	35	11	4.4	11	34	e12	1.1	0.00	0.00	0.00	10
11	103	34	11	4.4	11	34	11	0.93	0.00	0.00	0.00	10
12	100	32	10	4.5	11	34	11	0.85	0.00	0.00	0.18	9.8
13	97	30	11	4.6	10	33	11	0.85	0.00	0.00	0.20	9.5
14	93	32	11	5.6	9.5	30	11	0.80	0.00	0.00	0.15	9.7
15	87	30	10	5.5	9.1	29	9.8	0.59	0.00	0.00	0.13	11
16	85	27	10	5.2	8.7	28	9.7	0.52	0.00	0.00	0.12	12
17	81	26	11	6.2	7.8	27	9.6	0.51	0.00	0.00	0.11	13
18	80	25	11	6.8	6.8	26	9.5	0.50	0.00	0.00	0.32	15
19	79	26	9.6	7.5	6.9	26	9.2	0.48	0.00	0.00	0.44	18
20	75	25	8.7	7.5	6.8	25	8.8	0.36	0.00	0.00	0.39	21
21	73	23	8.4	8.1	6.6	25	8.1	0.26	0.00	0.00	0.39	26
22	74	22	8.3	7.9	6.4	23	7.3	0.20	0.00	0.00	0.36	32
23	73	22	8.6	8.2	7.0	22	6.5	0.18	0.00	0.00	0.37	36
24	70	21	8.3	8.6	6.0	22	5.8	0.15	0.00	0.00	0.38	35
25	67	20	8.2	9.0	6.3	22	5.4	0.13	0.00	0.00	0.31	32
26	64	19	7.7	9.2	6.7	21	5.0	0.04	0.00	0.00	0.28	29
27	63	18	7.4	9.5	5.8	20	4.5	0.02	0.00	0.00	0.31	26
28	59	16	7.5	9.5	5.5	e19	4.1	0.00	0.00	0.00	0.45	22
29	57	16	7.0	10	---	e18	3.9	0.00	0.05	0.00	0.41	21
30	56	15	6.2	13	---	e17	3.4	0.00	0.04	0.00	0.60	20
31	54	---	6.3	14	---	e16	---	0.00	---	0.00	0.80	---
MEAN	93.2	30.6	10.1	7.04	9.46	23.3	10.1	0.86	0.007	0.000	0.22	15.1
MAX	163	52	14	14	14	34	17	3.0	0.08	0.00	0.80	36
MIN	54	15	6.2	4.4	5.5	5.8	3.4	0.00	0.00	0.00	0.00	0.91
IN.	0.13	0.04	0.01	0.01	0.01	0.03	0.01	0.00	0.00	0.00	0.00	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

MEAN	988	394	391	501	866	810	531	371	302	356	437	378
MAX	3505	1006	934	1075	4110	3531	1226	1172	852	745	877	828
(WY)	1993	1993	1998	1998	1998	1998	1993	1997	1997	1996	1997	1995
MIN	93.2	30.6	10.1	7.04	9.46	23.3	10.1	0.86	0.007	0.000	0.22	15.1
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1993 - 2002	
ANNUAL MEAN	44.7		16.7		526	
HIGHEST ANNUAL MEAN					1219	1998
LOWEST ANNUAL MEAN					16.7	2002
HIGHEST DAILY MEAN	266	Sep 25	163	Oct 1	9150	Feb 25 1998
LOWEST DAILY MEAN	1.4	Jun 18	0.00	May 28	0.00	May 28 2002
ANNUAL SEVEN-DAY MINIMUM	1.5	Jun 15	0.00	Jun 5	0.00	Jun 5 2002
MAXIMUM PEAK FLOW			97	Sep 23	10100	Oct 6 1992
MAXIMUM PEAK STAGE			31.76	Sep 23	45.23	Oct 6 1992
INSTANTANEOUS LOW FLOW			0.00	May 26	0.00	May 26 2002
ANNUAL RUNOFF (INCHES)	0.71		0.26		8.32	
10 PERCENT EXCEEDS	118		44		1070	
50 PERCENT EXCEEDS	25		8.1		349	
90 PERCENT EXCEEDS	3.6		0.00		15	

e Estimated

02322500 SANTA FE RIVER NEAR FORT WHITE, FL

LOCATION.--Lat 29°50'55", long 82°42'55", in SE¼ 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 mi^2.

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 discharges. Records fair. Maximum discharge, 1,020 ft^3/s, Oct. 1, gage height, 1.02 ft, occurred on recession following peak of Sept. 25, 2001; maximum independent peak discharge, 988 ft^3/s, Sept. 25, 2002, gage height, 0.61 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	999	706	588	560	553	507	642	532	461	554	546	522
2	966	700	585	560	557	530	636	528	450	549	550	520
3	940	693	584	559	557	571	632	526	447	550	539	516
4	920	690	584	559	551	558	624	526	446	548	561	509
5	901	682	582	556	550	555	624	525	471	546	574	514
6	888	675	578	560	551	585	622	515	501	550	562	515
7	871	664	576	558	559	618	616	513	484	547	558	510
8	849	657	576	555	547	642	611	512	478	544	553	510
9	832	650	577	552	544	664	603	512	475	545	548	510
10	823	648	576	552	544	675	607	507	474	541	545	511
11	819	642	576	552	544	684	612	502	472	533	548	509
12	810	638	576	544	542	687	614	502	485	537	553	503
13	801	632	576	546	536	694	623	519	491	542	555	505
14	796	640	576	567	536	693	622	512	490	545	551	504
15	785	634	576	567	536	692	619	502	485	537	560	504
16	777	629	576	551	534	692	616	502	478	526	556	504
17	766	624	576	544	523	686	614	501	485	519	551	506
18	761	623	576	547	520	686	607	506	488	521	545	503
19	766	617	576	549	516	687	606	505	496	518	551	504
20	761	616	570	552	518	687	598	502	508	548	548	539
21	758	616	568	546	520	689	593	500	510	565	543	605
22	757	612	568	540	511	682	581	494	513	550	540	680
23	758	609	568	536	516	679	573	493	516	542	534	771
24	758	608	568	541	514	681	568	482	512	545	528	870
25	752	602	567	542	512	679	567	477	519	542	521	948
26	743	600	566	536	510	673	562	475	516	560	514	980
27	734	598	567	536	509	675	548	473	522	566	512	966
28	726	594	566	542	509	669	542	468	540	555	531	950
29	720	592	563	544	---	664	542	462	563	545	523	929
30	715	592	560	542	---	655	540	461	568	546	518	913
31	710	---	560	551	---	647	---	463	---	541	527	---
MEAN	805	636	574	550	533	651	599	500	495	544	543	628
MAX	999	706	588	567	559	694	642	532	568	566	574	980
MIN	710	592	560	536	509	507	540	461	446	518	512	503
IN.	0.91	0.70	0.65	0.62	0.55	0.74	0.66	0.57	0.54	0.62	0.62	0.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	1778	1380	1272	1389	1583	1791	1701	1392	1304	1375	1662	1898
MAX	4357	3840	2778	3415	4810	5345	4668	3409	4063	2728	3545	6344
(WY)	1993	1948	1965	1942	1998	1948	1948	1959	1959	1972	1928	1964
MIN	730	636	543	496	480	537	564	500	495	544	543	628
(WY)	1956	2002	2001	2001	2001	2001	2001	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL MEAN	626		589		1542	
HIGHEST ANNUAL MEAN					3112	1948
LOWEST ANNUAL MEAN					589	2002
HIGHEST DAILY MEAN	1230	Sep 25	999	Oct 1	16900	Sep 16 1964
LOWEST DAILY MEAN	468	Feb 2	446	Jun 4	446	Jun 4 2002
ANNUAL SEVEN-DAY MINIMUM	471	Jan 28	456	May 29	456	May 29 2002
MAXIMUM PEAK FLOW			988	Sep 25	17000	Sep 16 1964
MAXIMUM PEAK STAGE			0.61	Sep 25	15.34	Sep 16 1964
INSTANTANEOUS LOW FLOW			440	Jun 2	440	Jun 2 2002
ANNUAL RUNOFF (INCHES)	8.35		7.86		20.61	
10 PERCENT EXCEEDS	839		722		2560	
50 PERCENT EXCEEDS	574		555		1270	
90 PERCENT EXCEEDS	488		503		838	

02322800 SANTA FE RIVER NEAR HILDRETH, FL

LOCATION.--Lat 29°54'41", long 82°51'38", in NE sec. 1, T. 7 S., R. 14 E., Gilchrist County, Hydrologic Unit 03110206, near left bank on downstream side of bridge of U.S. Highway 129 and State Highway 49, 1.7 mi upsteam from mouth, and 8.6 mi west of Fort White.

DRAINAGE AREA.--1,376 mi^2, approximately.

PERIOD OF RECORD.--October 1947 to October 2000 (gage heights only), November 2000 to current year. Published as "near Fort White (auxiliary)" prior to September 1965.

GAGE.--Water-stage and water-current meter recorders. Datum of gage is 3.5 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 11, 1949, nonrecording gage at same sites and datum. Since October 1947 used as auxiliary gage for Santa Fe River near Fort White (station 02322500).

REMARKS.--Records fair. Maximum discharge, 1,420 ft3/s, Oct. 1, gage height, 3.76 ft, occurred on recession following peak of Sept. 25, 2001; maximum independent peak discharge, 1,130 ft3/s, Sept. 28, 2002, gage height, 3.31 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1120	1040	1020	1020	993	917	852	808	e912	932	1030
2	1320	1130	1050	1020	1040	1030	909	853	809	895	937	1000
3	1300	1110	1040	1010	1040	1070	914	867	802	897	957	998
4	1270	1100	1040	1010	1050	1080	924	849	782	909	943	1000
5	1290	1090	1030	1010	1030	935	908	850	797	897	985	993
6	1260	1090	1030	1000	1010	881	889	830	884	881	982	989
7	1240	1090	1040	1020	1050	821	904	850	844	885	943	984
8	1230	1080	1040	1030	1040	809	914	837	820	891	947	1010
9	1220	1090	1030	1010	1030	837	901	844	819	883	936	1010
10	1220	1090	1040	1000	1040	817	912	825	802	889	936	974
11	1220	1080	1040	1020	1030	835	898	825	810	900	939	968
12	1220	1070	1040	1030	1030	842	885	834	802	886	953	955
13	1190	1070	1020	1030	1020	861	893	817	813	899	941	857
14	1190	1080	1050	1050	1010	862	900	818	817	898	954	743
15	1200	1080	1040	1060	1020	884	911	809	813	904	974	806
16	1190	1080	1030	1040	1020	889	905	819	816	911	995	826
17	1170	1070	1040	1020	1010	876	910	769	818	900	1020	857
18	1170	1080	1040	1020	997	872	917	790	822	899	1030	794
19	1170	1060	1040	1030	998	906	924	789	815	896	1050	878
20	1160	1070	1040	1040	994	904	909	817	813	921	1050	951
21	1180	1060	1030	1040	1010	907	923	825	818	934	1020	949
22	1160	1060	1030	1020	1000	901	926	776	818	931	1020	970
23	1160	1060	1040	1020	1000	894	882	778	818	923	1010	1010
24	1170	1060	1030	1030	992	892	892	752	e823	919	1010	1020
25	1180	1060	1020	1030	991	888	891	782	e830	925	1000	1030
26	1170	1050	1030	1030	992	884	889	802	e839	938	1020	1040
27	1160	1050	1010	1020	999	915	895	795	e846	922	1020	1030
28	1140	1050	1010	1020	1000	894	877	799	e851	937	1020	1040
29	1130	1050	1000	1030	---	893	887	798	e888	930	1020	1060
30	1120	1040	1020	1010	---	889	866	796	e916	936	1020	1050
31	1130	---	1020	1030	---	882	---	805	---	936	1040	---
TOTAL	37250	32270	32000	31750	28463	27843	27072	25252	24753	28184	30604	28822
MEAN	1202	1076	1032	1024	1017	898	902	815	825	909	987	961
MAX	1320	1130	1050	1060	1050	1080	926	867	916	938	1050	1060
MIN	1120	1040	1000	1000	991	809	866	752	782	881	932	743
AC-FT	73890	64010	63470	62980	56460	55230	53700	50090	49100	55900	60700	57170
CFSM	0.87	0.78	0.75	0.75	0.74	0.65	0.66	0.59	0.60	0.66	0.72	0.70
IN.	1.01	0.87	0.87	0.86	0.77	0.75	0.73	0.68	0.67	0.76	0.83	0.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	1202	1149	1075	1002	987	868	865	902	864	932	1086	1100
MAX	1202	1222	1119	1024	1017	898	902	989	903	955	1185	1240
(WY)	2002	2001	2001	2002	2002	2002	2002	2001	2001	2001	2001	2001
MIN	1202	1076	1032	980	957	837	828	815	825	909	987	961
(WY)	2002	2002	2002	2001	2001	2001	2001	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	370765		354263			
ANNUAL MEAN	1016		971		971	
HIGHEST ANNUAL MEAN					971	2002
LOWEST ANNUAL MEAN					971	2002
HIGHEST DAILY MEAN	1420	Sep 25	1320	Oct 1	1420	Sep 25 2001
LOWEST DAILY MEAN	589	Mar 28	743	Sep 14	589	Mar 28 2001
ANNUAL SEVEN-DAY MINIMUM	616	Mar 24	783	May 22	616	Mar 24 2001
MAXIMUM PEAK FLOW			1130	Sep 28	1510	Sep 25 2001
MAXIMUM PEAK STAGE			6.60	Mar 13	30.69	Apr 12 1948
INSTANTANEOUS LOW FLOW			488	May 17	54	Jul 30 2001
ANNUAL RUNOFF (AC-FT)	735400		702700		703100	
ANNUAL RUNOFF (CFSM)	0.74		0.71		0.71	
ANNUAL RUNOFF (INCHES)	10.04		9.59		9.60	
10 PERCENT EXCEEDS	1200		1090		1090	
50 PERCENT EXCEEDS	1010		993		993	
90 PERCENT EXCEEDS	834		818		818	

e Estimated

02323000 SUWANNEE RIVER NEAR BELL, FL

LOCATION.--Lat 29°47'28", long 82°55'28", in NW¼ sec. 16, T. 8 S., R. 14 E., Gilchrist County, Hydrologic Unit 03110205, on downstream side of bridge on State Road 340, 4.5 mi northwest of Bell, 10.4 mi downstream from Santa Fe River, and 55 mi upstream from mouth.

DRAINAGE AREA.--9,390 mi^2, approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

PERIOD OF RECORD.--June 1932 to November 1956, November 1975 to October 1977 (annual maximum elevation), November 1996 to January 1999 (gage-heights only), October 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Suwannee River Water Management District). June 1, 1932 to Nov. 16, 1956, water-stage recorder at site .4 mi downstream at datum 3.60 ft higher, Nov. 18, 1975 to Oct. 10, 1977, nonrecording gage at present site at datum 3.60 ft higher, Nov. 1, 1996 to Jan. 31, 1999 and since Aug. 3, 2000, water-stage recorder at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 28, 1928, reached a stage of 25.9 ft, from floodmarks; discharge, 74,000 ft^3/s.

Discharge, cubic feet per second, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3780	3020	2810	2370	2630	2350	5520	e3520	2610	e2390	2160	2140
2	3790	3080	2700	2370	2540	2670	5330	e3470	2530	e2380	2170	2280
3	3830	3060	2620	2400	2430	3200	5250	e3380	2460	2360	2260	2480
4	3850	3000	2540	2240	2390	3020	5110	e3200	2380	2390	2280	2580
5	3850	2840	2510	2220	2270	3510	4890	e3130	2360	2410	2250	2550
6	3840	2800	2480	2530	2320	4740	4730	e2990	2510	2350	2200	2620
7	3770	2870	2500	2490	2770	5690	4640	e3040	2510	2350	2190	2580
8	3530	2890	2560	2220	2480	6270	4610	e3030	2510	2340	2090	2500
9	3440	2900	2640	2210	2370	6580	4660	e3010	2440	2390	2050	2420
10	3400	2890	2590	2290	2430	6740	4600	e2980	2390	2490	2060	2460
11	3470	2930	2640	2410	2500	6810	4550	e2960	2380	2500	2080	2510
12	3570	2950	2590	2420	2470	6950	4480	e2860	2410	e2350	2070	2590
13	3630	2810	2590	2520	2510	7070	4470	e2880	2480	e2280	2140	2630
14	3780	2730	2650	2470	2500	7010	4460	e2820	2500	e2250	2180	2540
15	3600	2640	2650	2600	2490	6930	4450	e2630	2490	e2230	2180	2510
16	3400	2650	2560	2420	2590	6840	4340	e2610	2410	e2240	2180	2450
17	3280	2650	2560	2420	2570	6720	e4340	e2570	2360	e2250	2130	2430
18	3160	2630	2680	2440	2460	6590	e4190	e2530	2380	2200	2130	2420
19	3150	2660	2520	2460	2470	6470	e4140	e2440	2270	2230	2150	2500
20	3240	2740	2410	2490	2620	6370	e4090	e2330	2140	2300	2200	2610
21	3240	2740	2260	2490	2740	6290	e4050	e2440	2110	2280	2210	2720
22	3240	2710	2250	2450	2570	6100	e4000	2430	2160	2290	2210	2880
23	3230	2710	2410	2390	2510	5910	e3950	2460	2350	2270	2180	2960
24	3250	2740	2680	2470	2400	5880	e3900	2640	2420	2270	2170	3000
25	3270	2720	2420	2650	2470	5930	e3810	2800	2420	2240	2200	2980
26	3070	2690	2360	2570	2600	5940	e3870	2820	2450	2230	2190	3120
27	2860	2680	2320	2520	2670	5890	e3780	2770	2450	2230	2260	3350
28	2770	2740	2490	2590	2400	5790	e3650	2670	2420	2230	2310	3050
29	2780	2820	2650	2650	---	5710	e3690	2660	2400	2210	2200	2820
30	2820	2860	2580	2660	---	5640	e3600	2660	e2390	2250	2200	2710
31	2910	---	2420	2650	---	5590	---	2640	---	2200	2140	---
TOTAL	104800	84150	78640	76080	70170	177200	131150	87370	72090	71380	67420	79390
MEAN	3381	2805	2537	2454	2506	5716	4372	2818	2403	2303	2175	2646
MAX	3850	3080	2810	2660	2770	7070	5520	3520	2610	2500	2310	3350
MIN	2770	2630	2250	2210	2270	2350	3600	2330	2110	2200	2050	2140
MED	3400	2770	2560	2460	2490	5940	4390	2800	2420	2280	2180	2580
AC-FT	207900	166900	156000	150900	139200	351500	260100	173300	143000	141600	133700	157500
CFSM	0.36	0.30	0.27	0.26	0.27	0.61	0.47	0.30	0.26	0.25	0.23	0.28
IN.	0.42	0.33	0.31	0.30	0.28	0.70	0.52	0.35	0.29	0.28	0.27	0.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	8218	7158	6647	7800	8433	10660	12130	8072	6006	6254	7947	8419
MAX	18550	34280	32940	26750	21170	33390	59430	20050	10740	10400	22260	19960
(WY)	1948	1948	1948	1948	1948	1948	1948	1948	1948	1946	1945	1945
MIN	3381	2805	2537	2454	2506	3544	3882	2818	2403	2303	2175	2646
(WY)	2002	2002	2002	2002	2002	1955	1955	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL TOTAL	1793930		1099840			
ANNUAL MEAN	4915		3013		8176	
HIGHEST ANNUAL MEAN					24140	1948
LOWEST ANNUAL MEAN					3013	2002
HIGHEST DAILY MEAN	11600	Mar 31	7070	Mar 13	82300	Apr 13 1948
LOWEST DAILY MEAN	2250	Dec 22	2050	Aug 9	2050	Aug 9 2002
ANNUAL SEVEN-DAY MINIMUM	2390	Dec 21	2100	Aug 8	2100	Aug 8 2002
MAXIMUM PEAK FLOW			7110	Mar 13	82300	Apr 13 1948
MAXIMUM PEAK STAGE			8.41	Mar 13	27.43	Apr 13 1948
INSTANTANEOUS LOW FLOW			1920	Aug 9	1920	Aug 9 2002
ANNUAL RUNOFF (AC-FT)	3558000		2182000		5923000	
ANNUAL RUNOFF (CFSM)	0.52		0.32		0.87	
ANNUAL RUNOFF (INCHES)	7.11		4.36		11.83	
10 PERCENT EXCEEDS	7930		4570		15100	
50 PERCENT EXCEEDS	4250		2590		6420	
90 PERCENT EXCEEDS	2700		2230		3500	

e Estimated

02323500 SUWANNEE RIVER NEAR WILCOX, FL

LOCATION.--Lat 29°35'22", long 82°56'12", in NW¼ 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.--9,671 mi^2, revised, approximately, includes part of watershed in Okefenokee Swamp which is indeterminate.

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. WDR FL-97-4: 1996.

GAGE.--Water-stage and water-current meter recorders. 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. Feb. 1, 1951 to Dec. 9, 1999, auxiliary water-stage recorder about 9.0 mi downstream from base gage. Datum of auxiliary gage is 2.99 ft below National Geodetic Vertical Datum of 1929. Water-current meter since Dec. 9, 1999.

REMARKS.--Records poor. Flow generally affected by tide when discharge is less than 17,500 ft^3/s. Discharge computed from continuous velocity record obtained from water-current meter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4120	3310	e2970	2170	2460	e3270	5920	3510	2830	2860	e2850	3010
2	3820	3460	e2830	2340	2590	e2670	5450	3530	2780	2730	e2730	3080
3	3870	3520	e2690	2830	2390	e3740	5440	3640	2840	2700	e2710	2960
4	e3810	3820	e2570	2380	2800	e4130	5380	3660	2970	2920	e2810	3310
5	e3750	3690	e2350	1400	2490	3740	5570	3770	2700	2840	e2980	3620
6	e3760	3240	e2780	1660	1070	4680	5210	3470	2850	2960	3470	3430
7	e3890	3230	e2650	3150	2830	5750	4930	3260	2840	2700	2750	3560
8	e3710	3120	e2790	2340	2740	6420	4410	3090	2850	2830	2830	3640
9	e3680	3330	e2830	1680	2240	6820	4440	3010	3060	2640	2660	3460
10	e3610	3230	e2950	1600	2160	7470	4840	3090	2760	2620	2740	3310
11	e3530	3000	e2950	1930	2570	7010	4790	3070	2690	2410	2860	3080
12	e3430	3380	e3320	1690	2270	6970	4700	2970	2510	2500	2780	3070
13	e3270	3660	e3100	2210	2500	7310	e4670	2620	2450	2640	2440	3430
14	e3600	3690	e2660	1970	2460	7130	e4610	3380	2440	2980	2630	3270
15	e3860	3410	e2970	2460	2210	7090	e4540	3130	2850	3250	2810	3200
16	e3630	3270	e3000	2120	2270	6990	e4350	e3020	2710	2990	2780	3180
17	e3230	3170	e3080	2160	2740	7040	e4390	e2870	2450	3020	2720	3180
18	e3390	3030	e3000	2100	2380	6760	4320	e2450	2720	2810	2820	2950
19	e3450	2770	2310	1730	1750	6640	4360	e3220	2790	2630	2790	2880
20	e3250	2850	2830	2340	1640	6470	4550	2930	2870	2720	2760	3000
21	e3080	3030	2290	2140	2660	6740	4530	3220	2880	2820	2580	3220
22	e3360	2740	1690	2420	2540	7060	4350	3320	2300	2650	2660	3340
23	3700	2860	1580	2040	2920	6310	4470	2930	2510	2530	2840	3310
24	3540	2800	2920	1790	2320	6070	4020	2540	2600	2640	2960	3600
25	4030	2860	2460	2390	1930	5990	3680	2770	2510	2740	2920	3120
26	4320	e3050	2070	2690	1790	6080	3860	3020	2670	2660	2850	2720
27	4100	e3150	1870	2450	2680	6300	3900	3190	2650	2870	2510	3570
28	3830	e3200	1710	2310	e3830	6040	3660	2820	2780	2920	2940	3770
29	3630	e3190	2110	2260	---	5840	3770	2900	2860	2740	2690	3530
30	3530	e3150	2420	2320	---	5760	3600	2810	2900	2850	3040	3370
31	3560	---	2270	2160	---	5530	---	2840	---	e2830	3020	---
TOTAL	113340	96210	80020	67230	67230	185820	136710	96050	81620	86000	86930	98170
MEAN	3656	3207	2581	2169	2401	5994	4557	3098	2721	2774	2804	3272
MAX	4320	3820	3320	3150	3830	7470	5920	3770	3060	3250	3470	3770
MIN	3080	2740	1580	1400	1070	2670	3600	2450	2300	2410	2440	2720
IN.	0.44	0.37	0.31	0.26	0.26	0.72	0.53	0.37	0.31	0.33	0.34	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	8581	7492	7833	9817	12420	15230	15410	10840	8293	8068	8894	8957
MAX	25810	33030	32630	27320	27450	40960	57260	28690	21690	17550	22190	27910
(WY)	1965	1948	1948	1948	1998	1998	1948	1973	1959	1973	1991	1964
MIN	3553	3207	2581	2169	2401	3638	4557	3098	2462	2421	2610	3272
(WY)	2000	2002	2002	2002	2002	2000	2002	2002	2000	2000	2000	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL TOTAL	1850890		1195330			
ANNUAL MEAN	5071		3275		10140	
HIGHEST ANNUAL MEAN					24560	1948
LOWEST ANNUAL MEAN					3275	2002
HIGHEST DAILY MEAN	12200	Apr 1	7470	Mar 10	84700	Apr 14 1948
LOWEST DAILY MEAN	1580	Dec 23	1070	Feb 6	1070	Feb 6 2002
ANNUAL SEVEN-DAY MINIMUM	2040	Dec 22	1920	Jan 8	1920	Jan 8 2002
MAXIMUM PEAK FLOW			8430	Mar 10	84700	Apr 14 1948
MAXIMUM PEAK STAGE			4.36	Sep 27	22.32	Apr 14 1948
ANNUAL RUNOFF (INCHES)	7.14		4.61		14.29	
10 PERCENT EXCEEDS	7950		4670		18300	
50 PERCENT EXCEEDS	4460		2960		8030	
90 PERCENT EXCEEDS	3020		2300		4430	

e Estimated

02323500 SUWANNEE RIVER NEAR WILCOX, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.43	2.73	2.91	2.22	2.40	1.89	3.44	2.87	2.42	2.13	2.37	2.24
2	2.73	2.87	2.71	2.13	2.15	2.96	3.21	2.82	2.35	2.08	2.36	2.46
3	2.98	2.89	2.54	2.07	1.88	3.35	3.23	2.55	2.31	2.12	2.60	2.83
4	2.82	2.67	2.33	1.36	1.72	1.81	2.97	2.36	2.17	2.18	2.66	2.96
5	---	2.26	2.27	1.61	1.49	1.15	2.35	2.14	2.34	2.14	2.56	2.89
6	---	2.35	2.21	2.75	1.95	1.98	2.24	2.11	2.50	2.24	2.53	3.10
7	---	2.57	2.29	2.03	2.85	2.65	2.28	2.36	2.60	2.38	2.62	3.02
8	---	2.57	2.54	1.46	1.90	3.07	2.67	2.60	2.58	2.35	2.38	2.75
9	2.58	2.57	2.66	1.55	1.91	3.29	3.11	2.81	2.37	2.52	2.38	2.62
10	2.38	2.63	2.62	1.97	2.15	3.22	2.91	2.81	2.41	2.74	2.43	2.82
11	---	2.84	2.71	2.31	2.17	3.10	2.82	2.76	2.41	2.79	2.49	2.87
12	3.29	2.83	2.59	2.32	2.02	3.67	2.87	2.76	2.61	2.81	2.50	3.14
13	3.48	2.41	2.99	2.50	2.06	3.84	3.15	2.91	2.76	3.04	2.71	2.88
14	3.87	2.16	2.71	2.44	1.97	3.69	3.14	2.68	2.84	2.93	2.66	2.71
15	3.08	1.99	2.82	2.52	1.88	3.67	3.10	2.16	2.89	2.57	2.58	2.57
16	3.00	2.16	2.59	2.03	2.29	3.65	2.93	2.24	2.62	2.25	2.48	2.45
17	2.52	2.12	2.75	1.99	2.01	3.58	2.87	2.40	2.65	2.26	2.51	2.43
18	2.52	2.09	2.76	2.04	1.70	3.52	2.74	2.82	2.52	2.30	2.60	2.54
19	---	2.32	2.43	2.14	1.94	3.39	2.57	2.13	2.29	2.53	2.67	2.68
20	---	2.57	2.03	2.12	2.67	3.45	2.48	1.33	1.98	2.67	2.69	2.82
21	---	2.48	1.54	2.12	2.39	3.46	2.50	1.43	2.01	2.46	2.73	3.00
22	---	2.50	1.71	1.83	2.04	2.88	2.57	1.23	2.27	2.69	2.75	3.03
23	2.77	2.52	2.43	1.84	1.69	2.72	2.57	1.47	2.68	2.66	2.68	3.01
24	2.88	2.52	2.83	2.13	1.56	3.00	2.61	2.43	2.61	2.66	2.73	2.99
25	2.88	2.50	2.08	2.45	2.12	3.38	3.12	2.79	2.63	2.59	2.80	3.04
26	2.25	2.47	2.10	2.07	2.56	3.50	3.09	2.84	2.63	2.58	2.77	3.74
27	1.68	2.69	2.05	2.05	2.48	3.45	3.00	2.65	2.61	2.55	2.93	3.79
28	1.48	2.85	2.58	2.30	1.69	3.31	3.08	2.60	2.49	2.47	2.78	2.86
29	1.63	3.07	2.91	2.45	---	3.33	3.01	2.61	2.42	2.49	2.55	2.39
30	1.92	3.09	2.62	2.46	---	3.40	2.85	2.62	2.34	2.52	2.45	2.28
31	2.41	---	2.31	2.48	---	3.56	---	2.58	---	2.38	2.34	---
TOTAL	---	76.29	76.62	65.74	57.64	96.92	85.48	74.87	74.31	77.08	80.29	84.91
MEAN	---	2.54	2.47	2.12	2.06	3.13	2.85	2.42	2.48	2.49	2.59	2.83
MAX	---	3.09	2.99	2.75	2.85	3.84	3.44	2.91	2.89	3.04	2.93	3.79
MIN	---	1.99	1.54	1.36	1.49	1.15	2.24	1.23	1.98	2.08	2.34	2.24

02323502 FANNING SPRING NEAR WILCOX, FL

LOCATION.--Lat 29°35'20", long 82°56'00", in NW 1/4 sec. 29, T. 10 S., R.14 E., Levy County, Hydrologic Unit 03110205, on left bank of spring run, .75 mi downstream of spring vent, and 1.8 mi southwest of Wilcox.

DRAINAGE AREA.--Inderterminate.

PERIOD OF RECORD.--October 1930 to June 1998 (miscellaneous discharge measurements), June 2001 to September 2002.

GAGE.--Water-stage and water-current meter recorders. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Discharge computed from continuous velocity record obtained from water-current meter. Flow affected by tide. The Suwannee River flow can back up into the spring run during periods of high flow producing negative velocities and discharges. Flows recorded during these periods could contain a mixture of river and spring flow, or be totally river flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	40	37	76	59
2	---	---	---	---	---	---	---	---	33	32	69	65
3	---	---	---	---	---	---	---	---	49	32	e65	65
4	---	---	---	---	---	---	---	---	48	33	e55	63
5	---	---	---	---	---	---	---	---	46	28	e50	65
6	---	---	---	---	---	---	---	---	46	19	e45	67
7	---	---	---	---	---	---	---	---	51	22	e42	66
8	---	---	---	---	---	---	---	---	60	29	e39	68
9	---	---	---	---	---	---	---	---	62	20	e45	67
10	---	---	---	---	---	---	---	---	52	25	56	73
11	---	---	---	---	---	---	---	---	44	19	e48	83
12	---	---	---	---	---	---	---	---	13	23	e43	74
13	---	---	---	---	---	---	---	---	60	21	e39	73
14	---	---	---	---	---	---	---	---	52	38	e37	102
15	---	---	---	---	---	---	---	---	17	45	35	106
16	---	---	---	---	---	---	---	---	3.4	39	43	65
17	---	---	---	---	---	---	---	---	-5.9	35	44	46
18	---	---	---	---	---	---	---	---	-16	29	44	46
19	---	---	---	---	---	---	---	---	3.4	33	42	39
20	---	---	---	---	---	---	---	---	1.3	35	46	41
21	---	---	---	---	---	---	---	---	8.2	30	47	42
22	---	---	---	---	---	---	---	---	6.7	40	63	57
23	---	---	---	---	---	---	---	---	-3.5	21	64	60
24	---	---	---	---	---	---	---	---	11	2.2	74	61
25	---	---	---	---	---	---	---	---	18	52	86	71
26	---	---	---	---	---	---	---	---	25	60	86	83
27	---	---	---	---	---	---	---	43	32	69	79	76
28	---	---	---	---	---	---	---	50	33	67	83	61
29	---	---	---	---	---	---	---	41	34	80	82	79
30	---	---	---	---	---	---	---	50	31	77	73	97
31	---	---	---	---	---	---	---	64	---	73	67	---
MEAN	---	---	---	---	---	---	---	---	28.5	37.6	57.0	67.3
MAX	---	---	---	---	---	---	---	---	62	80	86	106
MIN	---	---	---	---	---	---	---	---	-16	2.2	35	39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2001, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	28.5	37.6	57.0	67.3
MAX	---	---	---	---	---	---	---	---	28.5	37.6	57.0	67.3
(WY)	---	---	---	---	---	---	---	---	2001	2001	2001	2001
MIN	---	---	---	---	---	---	---	---	28.5	37.6	57.0	67.3
(WY)	---	---	---	---	---	---	---	---	2001	2001	2001	2001

e Estimated

02323502 FANNING SPRING NEAR WILCOX, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	27	41	53	36	65	24	40	54	67	73	e53
2	59	26	48	57	65	-20	29	48	57	68	73	e54
3	48	32	50	53	68	0.13	28	69	58	60	54	e49
4	39	50	55	63	85	83	45	75	63	58	56	47
5	41	69	55	63	53	92	67	85	53	63	68	45
6	41	55	53	13	42	57	65	76	43	58	69	41
7	57	45	58	71	16	29	61	60	39	44	52	47
8	81	50	50	61	80	12	38	48	43	47	69	60
9	75	50	46	68	67	6.5	18	37	58	39	66	59
10	70	44	44	54	50	18	36	36	49	32	67	56
11	42	31	39	43	59	19	39	38	51	33	63	52
12	24	39	51	39	59	-17	38	32	36	41	61	40
13	19	58	44	32	58	-23	32	24	33	24	56	62
14	4.7	78	34	50	62	-0.35	37	45	36	39	61	63
15	49	69	40	46	67	-0.65	35	62	38	56	66	73
16	49	59	51	64	51	1.4	44	62	52	71	70	76
17	78	65	31	59	64	6.3	52	48	39	67	70	78
18	74	65	37	55	77	16	59	27	48	60	66	69
19	74	55	54	53	55	23	58	72	60	50	56	63
20	59	43	70	56	22	16	62	98	78	47	60	60
21	64	50	74	47	45	21	61	90	67	57	59	51
22	59	51	58	63	54	56	56	94	44	46	60	49
23	56	52	45	61	70	58	58	83	29	50	70	48
24	48	47	25	46	71	38	50	23	39	52	70	55
25	51	50	58	34	47	16	22	8.8	40	59	59	48
26	62	40	58	51	27	14	29	12	43	57	60	7.6
27	67	37	57	49	28	16	38	35	47	61	55	9.1
28	70	27	31	47	73	24	31	30	56	64	64	65
29	42	9.9	7.7	39	---	22	38	32	56	63	e58	91
30	35	24	37	45	---	16	46	33	56	65	e66	87
31	32	---	50	43	---	4.8	---	46	---	76	e61	---
MEAN	53.0	46.6	46.8	50.9	55.4	21.6	43.2	50.6	48.8	54.0	63.2	55.3
MAX	81	78	74	71	85	92	67	98	78	76	73	91
MIN	4.7	9.9	7.7	13	16	-23	18	8.8	29	24	52	7.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	53.0	46.6	46.8	50.9	55.4	21.6	43.2	50.6	38.7	45.8	60.1	61.3
MAX	53.0	46.6	46.8	50.9	55.4	21.6	43.2	50.6	48.8	54.0	63.2	67.3
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2001
MIN	53.0	46.6	46.8	50.9	55.4	21.6	43.2	50.6	28.5	37.6	57.0	55.3
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2001	2001	2001	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL MEAN	49.1		49.1	
HIGHEST ANNUAL MEAN			49.1	2002
LOWEST ANNUAL MEAN			49.1	2002
HIGHEST DAILY MEAN	98	May 20	106	Sep 15 2001
LOWEST DAILY MEAN	-23	Mar 13	-23	Mar 13 2002
ANNUAL SEVEN-DAY MINIMUM	-2.5	Mar 12	-2.5	Mar 12 2002
MAXIMUM PEAK FLOW	154	Jul 31	202	Jul 27 2001
MAXIMUM PEAK STAGE	4.38	Sep 27	4.77	Jul 23 2001
10 PERCENT EXCEEDS	70		70	
50 PERCENT EXCEEDS	51		51	
90 PERCENT EXCEEDS	24		24	

e Estimated

02323566 MANATEE SPRING NEAR CHIEFLAND, FL

LOCATION.--Lat 29°29'24", long 82°58'37", in SE 1/4 sec. 26, T. 11 S., R.13 E., Levy County, Hydrologic Unit 03110205, on left bank of Suwannee River at Manatee Spring State Park, and 7.2 mi west of Chiefland.

DRAINAGE AREA.--Inderterminate.

PERIOD OF RECORD.--March 1932 to June 1998 (miscellaneous measurements), January 2000 to September 2002.

GAGE.--Water-stage and water-current meter recorders. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow affected by tide. Discharge computed from continuous velocity record obtained from water-current meter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	96	96	95	104	97	97	114	107
2	---	---	---	---	103	95	88	97	99	96	110	109
3	---	---	---	---	106	97	89	96	105	99	103	111
4	---	---	---	---	104	99	93	103	97	103	99	113
5	---	---	---	---	98	104	90	101	99	101	92	109
6	---	---	---	---	98	117	87	99	96	103	95	105
7	---	---	---	---	95	110	90	96	98	108	111	106
8	---	---	---	---	97	102	85	98	103	105	108	110
9	---	---	---	---	97	91	93	95	105	94	110	108
10	---	---	---	---	97	96	89	96	105	94	106	103
11	---	---	---	---	100	93	90	94	101	95	109	113
12	---	---	---	---	98	95	93	101	94	98	117	109
13	---	---	---	---	101	93	96	105	99	99	110	110
14	---	---	---	---	99	100	96	106	101	109	108	140
15	---	---	---	---	101	92	92	101	101	108	106	147
16	---	---	---	---	98	93	93	99	94	102	103	109
17	---	---	---	---	104	99	91	98	90	99	106	93
18	---	---	---	---	113	102	102	99	92	97	112	106
19	---	---	---	---	98	102	97	103	88	96	100	105
20	---	---	---	---	95	96	92	100	89	101	101	97
21	---	---	---	---	93	94	98	94	88	104	110	106
22	---	---	---	---	95	101	100	89	92	103	108	105
23	---	---	---	---	96	96	94	90	93	99	117	110
24	---	---	---	---	101	94	96	99	100	96	115	108
25	---	---	---	104	101	93	87	99	98	110	115	104
26	---	---	---	103	95	92	99	100	100	117	112	112
27	---	---	---	98	103	96	101	106	99	119	110	104
28	---	---	---	99	100	95	104	107	98	129	109	98
29	---	---	---	94	---	91	105	98	95	128	111	114
30	---	---	---	92	---	e92	104	99	99	122	104	130
31	---	---	---	99	---	95	---	102	---	118	103	---
MEAN	---	---	---	---	99.4	97.1	94.3	99.2	97.2	105	108	110
MAX	---	---	---	---	113	117	105	107	105	129	117	147
MIN	---	---	---	---	93	91	85	89	88	94	92	93

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2001, BY WATER YEAR (WY)

MEAN	---	---	---	---	99.4	97.1	94.3	99.2	97.2	105	108	110
MAX	---	---	---	---	99.4	97.1	94.3	99.2	97.2	105	108	110
(WY)	---	---	---	---	2001	2001	2001	2001	2001	2001	2001	2001
MIN	---	---	---	---	99.4	97.1	94.3	99.2	97.2	105	108	110
(WY)	---	---	---	---	2001	2001	2001	2001	2001	2001	2001	2001

e Estimated

02323566 MANATEE SPRING NEAR CHIEFLAND, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	97	104	110	101	107	98	100	91	86	82	84
2	95	96	106	110	110	98	100	99	93	85	84	85
3	100	98	106	e125	113	94	100	104	90	84	86	85
4	97	109	112	169	119	129	104	112	89	84	85	86
5	97	113	110	110	157	163	116	114	88	84	86	89
6	100	101	105	100	111	115	115	107	88	84	82	85
7	104	97	103	120	93	104	113	100	85	83	90	85
8	111	97	98	162	117	92	96	102	86	86	87	80
9	115	105	107	117	115	102	94	99	93	84	86	83
10	106	103	99	108	109	101	94	96	86	85	84	83
11	100	96	97	98	113	103	92	95	78	82	84	82
12	92	101	97	99	109	90	103	106	83	83	83	86
13	89	110	103	98	98	90	99	95	87	83	83	83
14	100	124	92	108	104	104	98	102	84	85	83	79
15	105	115	99	114	109	102	95	108	83	83	84	87
16	103	117	102	110	108	100	105	e113	83	85	84	81
17	123	127	101	109	110	99	107	98	83	85	83	85
18	106	117	104	105	128	103	107	98	89	85	82	83
19	111	109	95	107	109	102	105	99	80	87	82	87
20	102	104	114	110	95	99	112	e100	82	84	85	83
21	100	99	130	105	107	94	109	e103	82	82	86	87
22	98	101	106	110	99	114	101	e105	80	85	87	84
23	98	101	91	115	132	113	100	100	85	83	85	83
24	98	104	97	104	121	104	102	96	83	82	82	86
25	92	99	106	100	100	100	91	101	87	84	85	86
26	119	100	112	112	96	99	95	93	81	87	83	86
27	132	99	113	113	110	101	102	101	86	82	86	87
28	144	98	103	103	117	104	102	94	82	86	82	82
29	120	95	98	97	---	101	96	97	83	85	82	85
30	117	95	104	96	---	101	100	101	85	85	86	86
31	101	---	106	94	---	95	---	94	---	85	83	---
MEAN	106	104	104	111	111	104	102	101	85.2	84.3	84.3	84.4
MAX	144	127	130	169	157	163	116	114	93	87	90	89
MIN	89	95	91	94	93	90	91	93	78	82	82	79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	106	104	104	111	105	101	98.0	100	91.2	94.5	95.9	97.2
MAX	106	104	104	111	111	104	102	101	97.2	105	108	110
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2001	2001	2001	2001
MIN	106	104	104	111	99.4	97.1	94.3	99.2	85.2	84.3	84.3	84.4
(WY)	2002	2002	2002	2002	2001	2001	2001	2001	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL MEAN	98.3		98.3	
HIGHEST ANNUAL MEAN			98.3	2002
LOWEST ANNUAL MEAN			98.3	2002
HIGHEST DAILY MEAN	169	Jan 4	169	Jan 4 2002
LOWEST DAILY MEAN	78	Jun 11	78	Jun 11 2002
ANNUAL SEVEN-DAY MINIMUM	82	Sep 8	82	Sep 8 2002
MAXIMUM PEAK FLOW	234	Jan 4	234	Jan 4 2002
MAXIMUM PEAK STAGE	3.29	Sep 27	3.29	Sep 27 2002
INSTANTANEOUS LOW FLOW	20	Jun 21	20	Jun 21 2002
10 PERCENT EXCEEDS	113		113	
50 PERCENT EXCEEDS	98		98	
90 PERCENT EXCEEDS	83		83	

e Estimated

02323592 SUWANNEE RIVER ABOVE GOPHER RIVER NEAR SUWANNEE, FL

LOCATION.-- Lat 29°20'19", long 83°05'13", in NE$^1/_4$ sec. 22, T. 13S., R. 12E., Dixie County, Hydrologic Unit 03110205, on right bank, 0.6 mi downstream of Flag Creek, 1.9 mi upstream of Gopher River, 4.8 mi upstream of the town of Suwannee, and 7.6 mi above the mouth.

DRAINAGE AREA.--9,973 mi^2, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- June 1999 to current year.

GAGE.--Water-stage and water-current meter recorders. Datum of gage is 2.10 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow affected by tide.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4350	3620	4240	3570	3220	2720	6130	3100	2530	210	2810	2670
2	4090	4220	3890	2410	3180	1240	5280	3330	2380	2580	2390	2940
3	4120	4060	3690	3730	2580	4840	4940	3630	2490	2960	2810	3100
4	4550	4410	3300	2520	3370	5280	5770	2900	2240	2660	3200	3420
5	4670	3530	3150	1590	2730	3080	5480	3710	2090	2840	3270	3010
6	4800	3150	2720	2810	-335	4430	4330	2940	2560	3040	2990	1620
7	5580	3600	2900	4710	6060	5020	4870	2810	2880	3150	2940	1910
8	4300	3190	2200	1860	2970	6250	3510	3240	2920	3430	2410	2120
9	4200	3010	3950	2020	2920	6330	4580	3290	2800	2790	2260	1400
10	3350	3180	2820	2360	3000	7630	5080	3650	2050	2870	2380	1570
11	3480	3390	3340	3280	3940	6090	5030	3620	2010	2810	2470	1090
12	4200	4310	3390	2630	3140	6840	4400	3100	1650	2770	2660	1440
13	3750	4000	3320	4190	3260	7220	4370	2720	1940	3040	2540	2960
14	5300	4080	3610	3200	3580	7440	4320	3790	2100	4160	2760	1830
15	5610	3030	4050	4600	2290	7470	4310	3030	2610	3640	2970	2070
16	4220	3270	3670	3350	3050	7150	4190	2570	2620	2650	3000	2190
17	4860	3640	2320	2870	3230	7170	4020	1890	2320	2590	2490	2040
18	3880	3050	4780	3040	3040	6800	4150	1540	3160	2620	2910	1710
19	3400	3160	3110	2080	2130	6610	3880	4840	3180	2760	3010	1500
20	3920	3080	3970	3510	1530	5970	4100	1890	2680	4190	3060	1710
21	3930	3310	2710	3100	4190	6380	3520	2510	2990	3370	2560	1920
22	4020	2860	2260	3340	2650	7170	3700	3000	1590	3100	2830	2370
23	3730	2690	610	1920	3710	5540	4660	1930	2820	3120	2720	2210
24	3640	2840	6150	1570	2090	4590	3860	2460	2870	2890	2480	2500
25	5000	3220	2350	3960	2820	5600	4070	2800	2480	2770	2710	1340
26	5460	3420	3590	3250	3070	6300	4500	2780	2500	2680	2950	1150
27	4310	3170	1800	2820	5520	6770	3740	2680	2550	2840	2780	5400
28	2880	3350	2610	3350	5420	6560	3570	2120	2670	2870	3890	3580
29	3530	4020	3860	3700	---	6130	3660	2450	3000	2660	3070	2780
30	3090	4180	4180	3730	---	5550	3400	2680	3910	3040	3520	2200
31	3570	---	3370	3360	---	4700	---	2620	---	2580	2920	---
MEAN	4187	3468	3287	3046	3156	5835	4381	2891	2553	2893	2831	2258
MAX	5610	4410	6150	4710	6060	7630	6130	4840	3910	4190	3890	5400
MIN	2880	2690	610	1570	-335	1240	3400	1540	1590	210	2260	1090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	4920	3760	3546	3742	3752	5535	6500	3805	3784	4471	4761	4676
MAX	6044	3970	3948	4218	4494	6089	9300	4302	5430	6379	7245	6564
(WY)	2001	2000	2000	2000	2000	2001	2001	2000	2001	2001	2001	2000
MIN	4187	3468	3287	3046	3156	4682	4381	2891	2553	2893	2831	2258
(WY)	2002	2002	2002	2002	2002	2000	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	3403		4429	
HIGHEST ANNUAL MEAN			5421	2001
LOWEST ANNUAL MEAN			3403	2002
HIGHEST DAILY MEAN	7630	Mar 10	12000	Mar 31 2001
LOWEST DAILY MEAN	-335	Feb 6	-335	Feb 6 2002
ANNUAL SEVEN-DAY MINIMUM	1590	Sep 6	1590	Sep 6 2002
MAXIMUM PEAK FLOW	22100	Mar 2	22100	Mar 2 2002
MAXIMUM PEAK STAGE	5.69	Sep 27	5.86	Jul 23 2001
INSTANTANEOUS LOW FLOW	-14800	Sep 27	-16400	Jul 23 2001
10 PERCENT EXCEEDS	5160		6910	
50 PERCENT EXCEEDS	3140		4020	
90 PERCENT EXCEEDS	2090		2630	

02323592 SUWANNEE RIVER ABOVE GOPHER RIVER NEAR SUWANNEE, FL--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	1.11	0.98	0.30	0.57	0.24	1.23	1.26	0.97	0.86	0.91	0.96
2	0.80	1.22	0.71	0.43	0.29	1.80	1.09	1.29	0.94	0.63	1.02	1.07
3	1.17	1.27	0.53	0.20	0.20	1.70	1.25	0.97	0.88	0.62	1.15	1.42
4	1.38	0.86	0.35	-0.73	-0.19	-0.38	0.73	0.85	0.75	0.72	1.14	1.53
5	1.59	0.36	0.42	0.29	-0.62	-0.95	0.14	0.61	0.95	0.65	0.97	1.38
6	1.59	0.76	0.47	1.38	0.78	-0.21	0.21	0.55	1.02	0.72	0.95	1.73
7	1.06	1.06	0.61	-0.26	1.21	0.36	0.28	0.79	1.07	0.87	1.09	1.57
8	0.31	1.10	1.06	-0.59	-0.01	0.51	1.03	0.99	1.08	0.81	0.85	1.16
9	0.29	1.02	0.90	0.00	0.19	0.57	1.44	1.25	0.85	1.09	0.90	1.09
10	0.60	1.00	0.93	0.35	0.42	0.06	1.02	1.18	0.95	1.30	0.93	1.33
11	1.27	1.30	0.93	0.54	0.17	0.10	0.92	1.17	0.98	1.36	0.98	1.50
12	1.65	1.11	0.76	0.65	0.22	1.00	0.99	1.22	1.24	1.41	0.98	1.92
13	2.02	0.45	0.89	0.59	0.20	1.14	1.15	1.45	1.39	1.76	1.28	1.53
14	2.29	0.13	1.08	0.73	0.08	0.85	1.09	1.05	1.47	1.41	1.22	1.48
15	0.95	0.23	0.96	0.39	0.20	0.87	1.03	0.53	1.55	0.96	1.15	1.21
16	1.05	0.31	0.70	0.06	0.58	0.96	0.83	0.63	1.19	0.70	1.03	1.02
17	0.10	0.19	1.21	0.15	0.21	0.86	0.86	0.94	1.31	0.77	1.11	0.95
18	0.28	0.35	0.90	0.29	-0.20	0.85	0.76	1.48	1.13	0.82	1.13	1.02
19	0.52	0.72	0.91	0.56	0.51	0.75	0.77	0.33	0.83	1.07	1.18	1.20
20	1.06	1.11	0.08	0.36	1.33	1.04	0.68	-0.19	0.47	1.08	1.18	1.40
21	1.04	1.01	-0.19	0.55	1.01	1.05	0.73	-0.19	0.41	0.96	1.27	1.66
22	1.18	1.17	0.48	0.17	0.68	-0.11	0.71	-0.49	0.96	1.25	1.27	1.63
23	1.31	1.22	1.36	0.34	0.01	0.08	0.62	-0.06	1.25	1.17	1.15	1.60
24	1.55	1.26	1.02	0.59	0.08	0.62	0.71	0.93	1.18	1.17	1.24	1.51
25	1.33	0.99	0.43	0.66	0.52	1.02	1.30	1.30	1.19	1.06	1.31	1.80
26	-0.02	0.82	0.15	0.17	1.00	1.04	1.20	1.36	1.16	1.09	1.31	2.74
27	-0.41	0.96	0.44	0.26	0.59	0.93	1.17	1.13	1.11	1.03	1.61	2.36
28	-0.55	1.09	1.06	0.43	-0.33	0.74	1.36	1.19	0.96	0.94	1.32	1.30
29	-0.25	1.40	1.35	0.59	---	0.85	1.30	1.19	0.93	1.04	1.14	0.81
30	0.19	1.36	0.77	0.59	---	1.09	1.11	1.20	0.82	1.05	1.04	0.83
31	0.64	---	0.49	0.70	---	1.51	---	1.17	---	0.91	0.94	---
MEAN	0.85	0.90	0.73	0.35	0.35	0.68	0.92	0.87	1.03	1.01	1.12	1.42
MAX	2.29	1.40	1.36	1.38	1.33	1.80	1.44	1.48	1.55	1.76	1.61	2.74
MIN	-0.55	0.13	-0.19	-0.73	-0.62	-0.95	0.14	-0.49	0.41	0.62	0.85	0.81

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1999 to current year.

REMARKS.--Water temperature records fair; salinity records good. Water-quality measured at two elevations, 1.95 ft (top) and 10.02 ft (bottom) below NGVD of 1929.

TEMPERATURE, WATER TOP (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.9	20.1	21.9	15.0	21.9	14.3	23.7	27.2	27.8	28.5	29.8	28.3
2	22.9	20.7	21.9	14.6	22.0	16.4	23.9	27.3	28.4	29.0	29.6	28.3
3	22.9	21.4	21.7	14.1	21.6	17.1	23.9	27.7	28.8	29.0	28.8	28.5
4	23.1	21.9	21.4	13.5	21.0	17.2	23.4	28.2	29.0	29.0	28.8	28.6
5	23.4	21.8	21.3	13.1	19.2	16.2	23.4	28.3	29.1	28.5	29.0	28.3
6	23.9	21.1	21.3	13.2	18.3	16.4	23.2	28.3	29.1	28.5	29.2	27.9
7	24.2	20.8	21.5	13.4	18.2	17.2	22.9	28.4	29.3	29.0	29.2	27.9
8	23.8	20.6	21.6	13.3	17.6	17.7	22.9	28.5	29.1	29.1	28.7	28.0
9	23.5	20.5	21.8	13.1	17.5	18.2	23.0	28.6	28.5	28.7	28.3	28.2
10	23.4	20.3	21.9	13.4	17.6	18.4	23.1	28.7	28.3	28.5	28.1	28.6
11	23.6	20.1	22.0	14.1	17.9	17.5	23.1	28.8	28.3	28.8	28.3	28.8
12	23.7	20.0	22.1	14.9	18.1	18.1	23.1	28.7	28.3	28.7	28.3	28.6
13	23.7	19.8	22.3	15.3	17.9	18.3	23.3	28.7	28.7	28.2	28.1	28.2
14	23.9	19.6	22.4	15.7	17.8	18.7	23.6	28.4	29.1	28.1	28.4	27.9
15	23.7	19.4	22.6	15.9	17.9	19.2	24.0	27.8	29.4	28.6	28.4	27.7
16	23.6	19.4	22.6	16.2	18.4	20.1	24.4	27.4	29.4	29.4	28.3	28.0
17	22.8	19.5	22.6	16.4	18.4	20.9	24.8	27.7	29.5	30.3	28.6	28.3
18	22.1	19.8	22.3	16.6	18.1	21.3	25.1	27.6	29.0	30.6	28.6	28.5
19	21.9	20.2	21.5	17.0	17.8	21.7	25.8	26.6	28.5	30.8	28.5	28.6
20	22.4	20.5	20.6	17.8	18.1	22.5	26.4	25.1	28.2	30.2	28.4	28.6
21	22.7	20.6	19.5	18.4	18.6	22.6	26.6	24.5	27.8	29.4	28.4	28.6
22	23.2	20.5	18.8	19.0	18.9	22.3	26.9	24.0	27.3	28.7	28.7	28.6
23	23.6	20.5	18.6	19.6	18.5	21.6	26.8	23.7	27.1	28.3	29.1	28.6
24	24.1	20.6	18.5	20.1	18.0	21.4	26.7	24.0	26.9	28.3	29.6	28.4
25	24.8	21.0	17.6	20.4	18.0	21.8	26.8	24.5	26.8	28.7	30.0	28.0
26	24.6	21.2	16.6	20.3	18.1	22.3	26.9	25.1	27.2	29.3	30.0	27.8
27	23.3	21.5	15.7	19.9	18.0	22.6	27.0	25.7	27.6	29.6	29.5	27.7
28	21.6	21.6	15.4	20.1	13.5	22.5	27.2	26.2	28.1	29.5	29.3	27.6
29	20.4	21.6	15.6	20.5	---	22.6	27.0	26.5	28.4	29.1	29.1	27.8
30	19.8	21.7	15.8	20.9	---	22.8	27.1	27.0	28.3	29.1	28.9	27.8
31	19.7	---	15.6	21.4	---	23.2	---	27.4	---	29.4	28.4	---
MEAN	23.0	20.6	20.2	16.7	18.5	19.8	24.9	27.0	28.4	29.1	28.9	28.2
MAX	24.8	21.9	22.6	21.4	22.0	23.2	27.2	28.8	29.5	30.8	30.0	28.8
MIN	19.7	19.4	15.4	13.1	13.5	14.3	22.9	23.7	26.8	28.1	28.1	27.6

SUWANNEE RIVER BASIN

02323592 SUWANNEE RIVER ABOVE GOPHER RIVER NEAR SUWANNEE, FL--Continued

TEMPERATURE, WATER BOTTOM (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	20.0	21.8	14.9	21.8	14.2	23.4	27.1	27.7	28.4	29.7	28.2
2	22.8	20.6	21.8	14.5	21.9	16.3	23.5	27.1	28.2	28.9	29.5	28.2
3	22.8	21.3	21.6	14.0	21.6	17.1	2.4	27.4	28.6	29.2	28.7	28.4
4	23.0	21.8	21.3	13.4	20.9	17.2	23.2	27.7	28.9	28.9	28.6	28.5
5	23.3	21.7	21.2	13.0	19.2	16.1	23.1	28.0	29.0	28.4	28.9	28.2
6	23.8	21.0	21.2	13.1	18.5	16.3	22.9	28.1	29.0	28.3	29.1	27.8
7	24.1	20.6	21.4	13.3	18.2	17.1	22.7	28.2	29.2	28.8	29.1	27.8
8	23.8	20.5	21.5	13.0	17.5	17.7	22.7	28.3	29.0	29.0	28.6	27.9
9	23.4	20.4	21.7	13.1	17.4	18.1	22.9	28.5	28.4	28.6	28.2	28.1
10	23.3	20.2	21.8	13.4	17.6	18.3	23.0	28.6	28.2	28.4	28.0	28.5
11	23.5	20.0	21.9	14.0	17.8	17.4	23.0	28.6	28.2	28.7	28.1	28.6
12	23.6	19.9	22.0	14.8	18.0	18.0	23.0	28.6	28.2	28.6	28.2	28.5
13	23.6	19.7	22.2	15.2	17.8	18.2	23.2	28.5	28.6	28.0	27.9	28.1
14	23.9	19.5	22.3	15.6	17.7	18.7	23.4	28.2	29.0	28.0	28.3	27.8
15	23.7	19.3	22.5	15.8	17.8	19.2	23.8	27.7	29.3	28.5	28.3	27.6
16	23.5	19.4	22.6	16.2	18.3	20.0	24.3	27.3	29.5	29.3	28.2	27.9
17	22.8	19.4	22.5	16.3	18.3	20.8	24.7	27.5	29.4	30.1	28.5	28.2
18	22.0	19.8	22.2	16.5	18.0	21.2	25.0	27.5	28.9	30.5	28.5	28.4
19	21.8	20.1	21.4	17.0	17.7	21.6	25.5	26.5	28.4	30.7	28.4	28.5
20	22.3	20.4	20.5	17.8	18.1	22.4	26.0	25.0	28.1	30.1	28.3	28.5
21	22.6	20.5	19.4	18.4	18.6	22.6	26.4	24.4	27.7	29.3	28.3	28.5
22	23.1	20.5	18.7	19.0	18.8	22.2	26.7	23.9	27.2	28.6	28.6	28.6
23	23.5	20.4	18.5	19.6	18.5	21.5	26.7	23.6	27.0	28.2	28.9	28.5
24	24.0	20.6	18.4	20.1	17.9	21.3	26.5	24.0	26.8	28.2	29.4	28.3
25	24.7	20.8	17.5	20.3	17.9	21.7	26.6	24.4	26.7	28.6	29.8	27.9
26	24.5	21.1	16.5	20.3	18.2	22.2	26.7	24.9	27.1	29.1	29.9	27.7
27	23.3	21.4	15.6	19.9	17.9	22.5	26.9	25.5	27.5	29.4	29.3	27.6
28	21.5	21.5	15.2	20.1	15.4	22.4	27.0	26.1	28.0	29.4	29.2	27.5
29	20.4	21.5	15.4	20.4	---	22.5	26.9	26.4	28.3	29.0	29.0	27.7
30	19.7	21.6	15.7	20.8	---	22.7	27.0	26.9	28.2	29.0	28.7	27.8
31	19.6	---	15.5	21.3	---	22.9	---	27.3	---	29.3	28.3	---
MEAN	22.9	20.5	20.1	16.6	18.5	19.7	24.0	26.8	28.3	29.0	28.7	28.1
MAX	24.7	21.8	22.6	21.3	21.9	22.9	27.0	28.6	29.5	30.7	29.9	28.6
MIN	19.6	19.3	15.2	13.0	15.4	14.2	2.4	23.6	26.7	28.0	27.9	27.5

SALINITY, TOP (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	0.18	0.18	0.18	0.18	0.15	0.11	0.15	0.17	0.14	0.16	0.17
2	0.16	0.18	0.18	0.18	0.18	1.1	0.11	0.15	0.17	0.15	0.16	0.17
3	0.16	0.18	0.18	0.18	0.18	0.17	0.12	0.15	0.17	0.16	0.16	0.17
4	0.16	0.18	0.18	0.19	0.18	0.16	0.12	0.16	0.17	0.16	0.16	0.17
5	0.16	0.18	0.18	0.19	0.18	0.16	0.12	0.16	0.17	0.16	0.16	0.17
6	0.16	0.18	0.18	0.67	0.57	0.16	0.13	0.16	0.17	0.17	0.16	0.19
7	0.16	0.18	0.18	0.19	0.32	0.16	0.13	0.16	0.17	0.17	0.16	0.18
8	0.16	0.18	0.18	0.19	0.18	0.16	0.13	0.16	0.17	0.17	0.16	0.17
9	0.16	0.18	0.18	0.18	0.18	0.12	0.14	0.16	0.17	0.17	0.17	0.17
10	0.17	0.18	0.18	0.18	0.17	0.08	0.14	0.16	0.17	0.17	0.17	0.17
11	0.17	0.18	0.18	0.18	0.17	0.07	0.14	0.16	0.17	0.17	0.17	0.17
12	0.17	0.18	0.18	0.18	0.18	0.07	0.14	0.16	0.17	0.17	0.17	0.17
13	0.17	0.18	0.18	0.18	0.18	0.07	0.14	0.17	0.18	0.17	0.17	0.17
14	0.19	0.18	0.18	0.18	0.18	0.07	0.14	0.17	0.17	0.16	0.17	0.17
15	0.17	0.18	0.18	0.18	0.18	0.07	0.14	0.17	0.17	0.17	0.17	0.17
16	0.17	0.18	0.18	0.18	0.17	0.08	0.14	0.17	0.17	0.17	0.17	0.17
17	0.17	0.18	0.18	0.18	0.17	0.08	0.15	0.17	0.17	0.17	0.17	0.17
18	0.17	0.18	0.18	0.18	0.17	0.08	0.15	0.17	0.16	0.17	0.17	0.17
19	0.17	0.18	0.18	0.18	0.17	0.09	0.15	0.17	0.16	0.17	0.17	0.17
20	0.17	0.18	0.18	0.18	0.17	0.09	0.15	0.17	0.16	0.16	0.17	0.17
21	0.18	0.18	0.19	0.18	0.17	0.09	0.15	0.17	0.16	0.16	0.17	0.17
22	0.18	0.18	0.18	0.18	0.17	0.10	0.15	0.17	0.17	0.16	0.17	0.17
23	0.18	0.18	0.49	0.18	0.17	0.10	0.15	0.17	0.16	0.16	0.17	0.17
24	0.18	0.20	0.36	0.18	0.17	0.10	0.15	0.18	0.16	0.16	0.17	0.17
25	0.18	0.24	0.19	0.18	0.17	0.10	0.15	0.19	0.16	0.16	0.17	0.17
26	0.18	0.22	0.19	0.18	0.17	0.11	0.15	0.18	0.16	0.16	0.17	0.80
27	0.18	0.19	0.19	0.18	0.23	0.11	0.15	0.17	0.16	0.16	0.17	1.4
28	0.18	0.18	0.20	0.18	0.12	0.11	0.15	0.17	0.15	0.16	0.17	0.17
29	0.18	0.18	0.26	0.18	---	0.11	0.15	0.17	0.15	0.16	0.17	0.17
30	0.18	0.18	0.19	0.18	---	0.11	0.15	0.17	0.14	0.16	0.17	0.17
31	0.18	---	0.18	0.18	---	0.11	---	0.17	---	0.16	0.17	---
MEAN	0.17	0.18	0.20	0.20	0.19	0.14	0.14	0.17	0.17	0.16	0.17	0.23
MAX	0.19	0.24	0.49	0.67	0.57	1.1	0.15	0.19	0.18	0.17	0.17	1.4
MIN	0.16	0.18	0.18	0.18	0.12	0.07	0.11	0.15	0.14	0.14	0.16	0.17

SUWANNEE RIVER BASIN

02323592 SUWANNEE RIVER ABOVE GOPHER RIVER NEAR SUWANNEE, FL--Continued

SALINITY, BOTTOM (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	0.18	0.19	0.19	0.18	0.15	0.11	0.15	0.18	0.16	0.18	0.18
2	0.16	0.18	0.19	0.19	0.18	1.5	0.12	0.15	0.18	0.17	0.18	0.18
3	0.16	0.18	0.19	0.19	0.18	0.17	0.12	0.16	0.18	0.17	0.17	0.18
4	0.16	0.18	0.19	0.19	0.18	0.17	0.12	0.16	0.17	0.17	0.17	0.18
5	0.16	0.18	0.19	0.19	0.18	0.17	0.12	0.16	0.17	0.17	0.17	0.18
6	0.16	0.18	0.19	0.96	0.62	0.17	0.13	0.16	0.17	0.17	0.17	0.20
7	0.16	0.18	0.19	0.19	0.47	0.17	0.13	0.16	0.17	0.17	0.17	0.19
8	0.16	0.18	0.19	0.19	0.18	0.16	0.14	0.16	0.17	0.18	0.17	0.18
9	0.17	0.18	0.19	0.19	0.18	0.12	0.14	0.17	0.17	0.18	0.17	0.17
10	0.17	0.18	0.19	0.19	0.18	0.08	0.14	0.17	0.17	0.18	0.17	0.18
11	0.17	0.18	0.19	0.19	0.18	0.07	0.14	0.17	0.17	0.18	0.17	0.18
12	0.17	0.18	0.19	0.19	0.18	0.07	0.14	0.17	0.18	0.17	0.17	0.18
13	0.17	0.18	0.19	0.19	0.18	0.07	0.14	0.17	0.19	0.17	0.17	0.18
14	0.21	0.18	0.19	0.19	0.18	0.07	0.14	0.17	0.18	0.17	0.17	0.18
15	0.17	0.18	0.19	0.18	0.18	0.07	0.15	0.17	0.17	0.17	0.18	0.18
16	0.17	0.18	0.19	0.18	0.18	0.08	0.15	0.17	0.17	0.18	0.17	0.18
17	0.17	0.18	0.19	0.19	0.18	0.08	0.15	0.18	0.17	0.18	0.18	0.18
18	0.17	0.18	0.19	0.19	0.18	0.08	0.15	0.17	0.17	0.18	0.17	0.18
19	0.17	0.18	0.19	0.19	0.18	0.09	0.15	0.18	0.17	0.18	0.17	0.18
20	0.18	0.18	0.19	0.19	0.18	0.09	0.15	0.18	0.17	0.17	0.18	0.18
21	0.18	0.18	0.19	0.19	0.18	0.09	0.15	0.18	0.17	0.18	0.17	0.18
22	0.18	0.18	0.19	0.19	0.17	0.10	0.15	0.18	0.18	0.18	0.18	0.18
23	0.18	0.18	0.66	0.19	0.17	0.10	0.15	0.18	0.18	0.18	0.17	0.18
24	0.18	1.6	0.71	0.19	0.17	0.10	0.15	0.19	0.17	0.17	0.17	0.18
25	0.18	1.0	0.19	0.19	0.17	0.11	0.15	0.20	0.17	0.18	0.17	0.18
26	0.18	0.34	0.19	0.19	0.17	0.11	0.15	0.19	0.17	0.18	0.17	0.71
27	0.18	0.20	0.19	0.19	0.24	0.11	0.15	0.18	0.17	0.18	0.17	1.2
28	0.18	0.19	0.20	0.19	0.12	0.11	0.15	0.18	0.17	0.18	0.17	0.18
29	0.18	0.19	0.32	0.19	---	0.11	0.15	0.18	0.17	0.18	0.17	0.17
30	0.18	0.19	0.19	0.19	---	0.11	0.15	0.18	0.16	0.18	1.5	0.17
31	0.18	---	0.19	0.19	---	0.11	---	0.18	---	0.18	0.17	---
MEAN	0.17	0.26	0.23	0.21	0.20	0.15	0.14	0.17	0.17	0.18	0.21	0.23
MAX	0.21	1.6	0.71	0.96	0.62	1.5	0.15	0.20	0.19	0.18	1.5	1.2
MIN	0.16	0.18	0.19	0.18	0.12	0.07	0.11	0.15	0.16	0.16	0.17	0.17

02324000 STEINHATCHEE RIVER NEAR CROSS CITY, FL

LOCATION.--Lat 29°47'11", long 83°19'18", in NE¼ 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 mi^2, 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 good, except for estimated daily discharges, which are poor. Below about 500 ft^3/s, all flow enters sinkhole 0.5 mi downstream from gage. Above about 4,000 ft^3/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 mi^2. Maximum discharge, 655 ft^3/s estimated, occurred on recession following peak of Sept. 9, 2001; maximum independent peak discharge, 450 ft^3/s, Mar. 4, 2002, gage height, 5.34 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e655	e40	6.3	5.7	53	30	43	12	4.5	7.5	17	109
2	e630	e35	6.4	6.0	51	70	41	11	4.0	7.4	24	98
3	e600	e30	6.3	5.5	49	251	41	10	4.1	7.2	23	84
4	e575	e25	6.0	5.5	47	430	45	9.3	4.0	7.3	22	71
5	e545	e20	6.1	5.7	45	438	42	8.7	4.2	7.8	22	62
6	e515	e14	6.1	6.1	43	385	39	8.1	6.1	10	20	67
7	e485	e10	6.1	5.9	50	340	35	7.7	4.5	12	18	63
8	e455	e8.0	6.1	6.0	50	302	30	7.1	4.5	12	15	59
9	e430	e7.5	6.4	6.4	49	265	26	6.8	4.3	11	13	54
10	e405	e7.5	6.6	6.5	48	228	24	6.4	4.1	11	11	50
11	e375	e7.5	6.6	6.6	47	194	25	6.0	4.4	10	9.2	47
12	e350	e7.4	6.6	6.8	44	173	40	5.6	4.4	9.6	8.7	45
13	e325	e7.3	6.6	8.5	43	210	42	5.4	4.0	11	9.1	63
14	e305	e7.3	6.2	13	42	191	88	5.7	4.0	15	9.4	65
15	e285	e7.3	6.2	37	41	175	70	5.4	4.2	15	17	76
16	e260	e7.2	6.2	42	40	160	54	5.3	4.0	14	28	77
17	e235	e7.2	6.2	47	38	146	46	5.2	4.0	12	32	70
18	e225	e7.2	6.6	47	37	132	50	5.5	4.6	9.9	31	63
19	e210	7.1	6.3	44	35	118	62	5.4	4.3	8.0	31	56
20	e190	7.1	6.2	41	34	106	54	5.3	4.2	7.5	44	49
21	e170	6.6	6.2	43	35	100	45	5.0	4.0	12	48	45
22	e155	6.6	6.2	49	36	95	40	4.8	3.9	17	54	42
23	e135	7.1	6.2	50	37	83	36	4.9	4.3	22	57	38
24	e130	7.3	6.6	52	41	76	29	5.0	4.7	25	47	36
25	e115	6.9	5.8	52	40	70	25	5.3	5.8	23	39	50
26	e100	6.6	5.5	52	39	64	22	5.3	8.1	19	34	72
27	e90	6.6	5.4	52	36	60	18	5.2	6.6	20	49	91
28	e75	6.6	5.6	55	32	55	16	5.2	6.7	24	58	96
29	e65	6.4	5.8	55	---	52	14	5.1	7.5	22	69	94
30	e60	6.2	5.6	55	---	49	13	5.7	7.7	23	96	96
31	e48	---	5.7	54	---	46	---	5.2	---	22	106	---
MEAN	297	11.2	6.15	29.7	42.2	164	38.5	6.41	4.86	14.0	34.2	66.3
MAX	655	40	6.6	55	53	438	88	12	8.1	25	106	109
MIN	48	6.2	5.4	5.5	32	30	13	4.8	3.9	7.2	8.7	36
IN.	0.98	0.04	0.02	0.10	0.13	0.54	0.12	0.02	0.02	0.05	0.11	0.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	286	120	184	322	460	480	328	120	113	301	495	484
MAX	1436	1291	998	1186	2266	2022	1443	972	925	1305	2496	3820
(WY)	1958	1952	1954	1998	1998	1991	1982	1978	1957	1964	1970	1964
MIN	16.0	6.34	6.15	12.4	13.0	15.1	8.21	4.45	2.37	2.99	4.75	29.5
(WY)	1956	2000	2002	2000	1957	2000	2000	2001	2000	2000	1998	1956

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL MEAN	221		60.0		308	
HIGHEST ANNUAL MEAN					901	1964
LOWEST ANNUAL MEAN					35.4	1956
HIGHEST DAILY MEAN	1350	Jul 26	e655	Oct 1	16400	Sep 14 1964
LOWEST DAILY MEAN	2.4	Jun 16	3.9	Jun 22	1.5	Jun 13 2000
ANNUAL SEVEN-DAY MINIMUM	2.6	Jun 15	4.1	Jun 11	1.6	Jun 8 2000
MAXIMUM PEAK FLOW			450	Mar 4	17600	Sep 13 1964
MAXIMUM PEAK STAGE			5.34	Mar 4	18.90	Sep 13 1964
INSTANTANEOUS LOW FLOW			3.7	Jun 22	1.4	Jun 11 2000
ANNUAL RUNOFF (INCHES)	8.57		2.33		11.97	
10 PERCENT EXCEEDS	902		150		846	
50 PERCENT EXCEEDS	21		24		110	
90 PERCENT EXCEEDS	4.2		5.4		13	

e Estimated

02324400 FENHOLLOWAY RIVER NEAR FOLEY, FL

LOCATION.--Lat 30°05'53", long 83°28'19", in NE¼ 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 mi^2, approximately.

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

REVISED RECORDS.--WSP 1905: Drainage area: WDR FL-92-4: 1991.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	0.70	1.2	0.81	4.7	0.73	6.9	1.0	0.68	1.0	3.0	9.2
2	2.3	0.72	1.2	0.93	4.2	4.9	7.0	0.96	0.63	0.99	2.2	8.4
3	1.9	0.71	1.1	0.96	3.5	51	6.3	0.91	0.62	0.95	1.9	6.7
4	1.6	0.77	1.3	0.89	3.1	53	5.8	0.86	0.60	0.94	1.8	5.2
5	1.5	0.81	1.3	0.92	2.8	46	5.1	0.80	0.60	0.95	2.0	3.9
6	1.4	0.80	1.2	0.94	2.6	47	4.3	0.75	0.59	1.1	1.8	3.2
7	1.5	0.82	1.2	0.97	2.9	43	3.6	0.73	0.62	1.1	1.6	2.7
8	1.4	0.78	1.2	0.95	3.1	37	3.1	0.73	0.68	0.96	1.2	2.1
9	1.3	0.79	1.3	0.94	3.1	33	2.7	0.76	0.73	0.94	1.0	1.7
10	1.2	0.80	1.4	0.95	2.8	29	2.8	0.79	0.67	0.97	0.91	1.4
11	1.2	0.74	1.3	0.96	2.6	25	4.3	0.75	0.65	0.97	0.85	1.2
12	1.1	0.74	1.2	0.98	2.1	23	6.2	0.77	0.64	0.92	0.82	1.0
13	1.1	0.79	1.1	1.0	1.9	27	6.1	0.76	0.63	0.91	0.83	1.0
14	1.1	0.85	0.98	1.4	1.7	28	10	0.75	0.62	1.8	0.84	1.1
15	1.0	0.92	0.97	2.7	1.6	25	11	0.72	0.59	3.4	0.94	1.8
16	0.94	0.93	0.92	2.0	1.5	22	11	0.72	0.58	2.9	1.3	6.0
17	0.88	0.94	0.90	1.7	1.4	20	12	0.73	0.56	2.0	1.6	5.9
18	0.88	1.0	0.91	1.6	1.4	18	11	0.72	0.56	1.5	3.9	4.4
19	0.87	1.1	0.87	1.6	1.1	17	10	0.72	0.64	1.2	3.8	3.4
20	0.85	1.1	0.88	1.8	1.2	15	9.7	0.69	1.0	1.2	9.7	2.8
21	0.83	1.2	0.88	2.9	1.5	14	8.3	0.69	0.99	2.4	15	2.3
22	0.76	1.2	0.82	6.3	1.7	14	6.6	0.67	0.94	5.0	12	1.8
23	0.77	1.4	0.83	4.4	1.7	18	5.3	0.66	0.99	4.2	8.6	1.4
24	0.73	1.6	1.2	3.7	1.2	18	3.9	0.66	2.1	3.0	6.2	1.2
25	0.76	1.3	0.97	3.7	0.92	14	3.1	0.66	2.4	2.1	4.4	1.3
26	0.77	1.3	0.90	5.1	0.81	12	2.4	0.67	2.3	1.7	3.2	2.0
27	0.72	1.2	0.87	4.8	0.79	11	1.9	0.66	2.6	1.5	2.7	3.4
28	0.71	1.2	0.85	5.8	0.72	9.6	1.6	0.66	1.9	1.4	2.9	3.4
29	0.70	1.2	0.85	6.6	---	8.3	1.4	0.64	1.3	1.4	3.0	2.6
30	0.75	1.2	0.83	6.1	---	7.2	1.2	0.65	1.1	7.6	2.6	2.2
31	0.71	---	0.80	5.4	---	6.4	---	0.68	---	4.9	4.3	---
MEAN	1.12	0.99	1.04	2.57	2.09	22.5	5.82	0.74	0.98	2.00	3.45	3.16
MAX	2.6	1.6	1.4	6.6	4.7	53	12	1.0	2.6	7.6	15	9.2
MIN	0.70	0.70	0.80	0.81	0.72	0.73	1.2	0.64	0.56	0.91	0.82	1.0
IN.	0.02	0.02	0.02	0.05	0.04	0.43	0.11	0.01	0.02	0.04	0.07	0.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2002, BY WATER YEAR (WY)

MEAN	37.2	12.6	25.0	45.1	70.7	84.9	68.1	24.5	29.9	46.2	76.9	57.2
MAX	389	81.5	185	179	259	377	413	147	478	194	580	560
(WY)	1958	1977	1977	1987	1998	1991	1973	1964	1957	1964	1970	1964
MIN	0.53	0.70	0.58	0.52	0.47	1.17	0.50	0.31	0.32	0.36	0.50	0.64
(WY)	1994	1969	2001	2001	2001	2000	2000	2000	2000	2000	1993	1993

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1956 - 2002	
ANNUAL MEAN	11.3		3.90		48.1	
HIGHEST ANNUAL MEAN					154	1964
LOWEST ANNUAL MEAN					3.90	2002
HIGHEST DAILY MEAN	106	Jul 25	53	Mar 4	2710	Sep 12 1964
LOWEST DAILY MEAN	0.40	May 25	0.56	Jun 17	0.20	Jun 16 2000
ANNUAL SEVEN-DAY MINIMUM	0.44	May 23	0.60	Jun 12	0.21	Jun 10 2000
MAXIMUM PEAK FLOW			79	Mar 3	3210	Sep 12 1964
MAXIMUM PEAK STAGE			4.56	Mar 3	15.21	Sep 12 1964
INSTANTANEOUS LOW FLOW			0.55	Jun 17	0.20	Jun 11 2000
ANNUAL RUNOFF (INCHES)	2.57		0.88		10.89	
10 PERCENT EXCEEDS	45		9.4		133	
50 PERCENT EXCEEDS	1.2		1.3		14	
90 PERCENT EXCEEDS	0.48		0.72		1.2	

02325000 FENHOLLOWAY RIVER NEAR PERRY, FL

LOCATION.--Lat 30°04'16", long 83°39'45", in SE¼ sec. 6, T. 5 S., R. 7 E., Taylor County, Hydrologic Unit 03110102, near right bank on downstream side of old bridge at State Highway 356, 1.0 mi southwest of the community of Hampton Springs, 5.5 mi southwest of Perry and, 14 mi upstream from mouth.

DRAINAGE AREA.--160 mi^2, approximately.

PERIOD OF RECORD.--August 1946 to June 1952 (discharge measurements only); August 1952 to October 1954 (gage heights and discharge measurements only); November 1964 to July 1977 (crest-stage and periodic discharge measurements only); August 1977 to September 1984. May 1986 to current year.

REVISED RECORDS.--WSP 1905: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. August 13, 1946 to October 1954, nonrecording gage at same site at datum 5.00 ft higher. November 1964 to July 1977, nonrecording gage at same site and datum.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Natural flow of stream affected by large ground-water withdrawals by cellulose plant about 10 mi upstream. Flow affected by backwater from Spring Creek at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	e66	e65	66	104	86	116	103	90	107	112	151
2	94	e66	e65	68	104	97	114	101	83	111	126	146
3	e89	e65	e66	69	96	e111	114	100	77	106	123	141
4	e86	e66	e65	66	103	e125	113	101	74	109	124	140
5	e81	e64	e65	67	101	e134	112	98	73	110	133	137
6	e80	e65	e65	70	101	e141	111	93	68	110	122	140
7	e79	e65	e65	67	100	139	110	92	72	105	118	138
8	e78	e67	e66	65	104	137	109	92	72	107	117	133
9	e78	e65	e67	65	102	135	108	92	82	112	115	129
10	e77	e64	e68	59	100	133	112	90	74	112	113	127
11	e76	e64	e68	67	99	131	109	92	71	109	111	123
12	e76	e65	e66	67	95	131	114	91	73	107	110	121
13	e75	e64	e64	71	93	139	115	91	69	105	120	126
14	e75	e64	e65	76	93	136	123	91	70	115	142	131
15	e74	e65	e66	87	94	133	124	88	69	123	151	173
16	e73	e64	e65	79	94	131	115	86	67	114	149	183
17	e72	e64	e65	77	91	128	113	85	67	110	142	175
18	e73	e65	e65	79	90	125	114	88	67	100	141	164
19	e72	e64	e65	79	88	123	121	92	70	103	143	156
20	e72	e64	e66	81	89	121	112	86	81	101	159	152
21	e71	e65	e66	90	94	122	111	85	75	113	151	147
22	e71	e66	e67	97	92	122	112	83	73	116	144	141
23	e70	e66	e66	89	90	121	111	82	74	115	139	136
24	e70	e66	e69	92	91	117	108	82	75	115	132	136
25	e69	e67	e67	96	90	117	97	82	77	112	132	140
26	e69	e66	67	99	87	117	103	81	90	111	133	141
27	e69	e64	67	98	87	116	107	80	98	110	152	144
28	e69	e66	65	100	84	115	107	79	90	112	153	136
29	e68	e64	67	104	---	113	106	75	89	116	157	133
30	e67	e65	66	105	---	113	103	79	106	116	148	132
31	e67	---	67	100	---	113	---	81	---	117	151	---
MEAN	75.3	65.0	66.0	80.5	94.9	123	111	88.4	77.2	111	134	142
MAX	95	67	69	105	104	141	124	103	106	123	159	183
MIN	67	64	64	59	84	86	97	75	67	100	110	121
IN.	0.54	0.45	0.48	0.58	0.62	0.89	0.78	0.64	0.54	0.80	0.97	0.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

MEAN	167	136	144	180	227	262	243	152	136	182	220	174
MAX	451	266	369	476	495	699	652	316	317	475	492	310
(WY)	1995	1981	1987	1987	1987	1991	1983	1983	1983	1984	1991	1988
MIN	75.3	65.0	66.0	72.6	71.7	80.0	81.8	77.1	76.1	85.9	82.8	94.2
(WY)	2002	2002	2002	2001	2001	2000	2000	2001	2001	2000	1993	1993

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1977 - 2002	
ANNUAL MEAN	89.5		97.5		186	
HIGHEST ANNUAL MEAN					317	1983
LOWEST ANNUAL MEAN					91.9	2000
HIGHEST DAILY MEAN	169	Aug 20	183	Sep 16	1130	Jul 31 1982
LOWEST DAILY MEAN	62	Jun 8	59	Jan 10	35	Oct 8 1990
ANNUAL SEVEN-DAY MINIMUM	64	Nov 10	64	Nov 10	48	Oct 4 1990
MAXIMUM PEAK FLOW			208	Sep 15	1360	Sep 18 1964
MAXIMUM PEAK STAGE			14.67	Sep 15	24.39	Sep 13 1964
INSTANTANEOUS LOW FLOW			56	Jan 10	35	Oct 8 1990
ANNUAL RUNOFF (INCHES)	7.60		8.27		15.77	
10 PERCENT EXCEEDS	128		137		337	
50 PERCENT EXCEEDS	77		94		142	
90 PERCENT EXCEEDS	65		66		90	

e Estimated

02326000 ECONFINA RIVER NEAR PERRY, FL

LOCATION.--Lat 30°10'14", long 83°49'26", in NE$^1/_4$ 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 mi^2.

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

REVISIONS.--Daily and monthly discharges for the water year 2001 were revised.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	21	24	21	18	18	139	33	e15	e113	e65	e50
2	51	21	24	20	19	18	137	31	e15	e110	e68	e48
3	49	20	23	19	20	18	130	30	e15	e116	e63	e46
4	47	20	23	19	20	20	124	29	e15	e120	e61	e43
5	45	20	23	19	20	21	118	28	e15	e119	e60	e45
6	44	19	22	19	19	24	111	27	e15	e115	e60	e45
7	49	19	22	19	19	26	105	26	e15	e108	e60	e46
8	50	19	21	19	19	24	99	25	e14	e105	e62	e47
9	48	19	21	18	19	23	93	24	e14	e99	e66	e49
10	46	19	21	18	19	24	88	24	e14	e95	e69	e50
11	43	19	21	18	19	25	83	23	e19	e90	e72	e50
12	41	19	21	18	19	28	78	23	e23	e86	e71	e54
13	38	18	21	18	19	37	73	22	e28	e81	e68	e54
14	37	19	20	18	19	43	69	21	e35	e78	e68	e52
15	35	18	20	18	19	54	66	e20	e43	e73	e66	e52
16	34	18	20	18	19	60	62	e19	e53	e71	e66	e49
17	32	18	20	17	19	58	59	e19	e67	e69	e66	e47
18	31	18	20	17	18	61	55	e18	e83	e67	e71	e45
19	30	18	20	17	18	68	52	e18	e103	e65	e76	e43
20	29	18	20	18	18	79	50	e18	e137	e64	e74	e41
21	28	18	20	18	18	92	47	e18	e134	e64	e74	e40
22	27	18	20	18	18	100	44	e17	e129	e66	e71	e38
23	26	17	19	18	18	101	42	e17	e132	e67	e68	e37
24	25	18	19	18	18	98	40	e17	e138	e66	e65	e37
25	25	21	19	18	18	96	39	e17	e137	e66	e62	e40
26	24	22	18	17	18	95	39	e16	e134	e66	e61	e39
27	23	24	18	17	18	93	39	e16	e128	e68	e59	e37
28	23	25	19	17	18	90	37	e16	e125	e66	e58	e35
29	22	25	19	17	---	101	36	e16	e122	e64	e56	e34
30	22	25	20	17	---	124	34	e16	e118	e64	e54	e32
31	21	---	20	18	---	134	---	e16	---	e62	e53	---
MEAN	35.4	19.8	20.6	18.1	18.7	59.8	72.9	21.3	67.8	82.7	64.9	44.2
MAX	53	25	24	21	20	134	139	33	138	120	76	54
MIN	21	17	18	17	18	18	34	16	14	62	53	32
IN.	0.21	0.11	0.12	0.11	0.10	0.35	0.41	0.12	0.38	0.48	0.38	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2001, BY WATER YEAR (WY)

MEAN	115	64.4	97.4	139	218	247	217	85.7	87.4	110	169	140
MAX	816	305	771	624	813	828	1176	379	432	381	756	1266
(WY)	1995	1998	1977	1987	1986	1991	1973	1964	1957	1958	1991	1957
MIN	6.26	8.18	6.22	9.47	7.50	9.97	13.2	7.73	4.80	4.49	8.31	9.12
(WY)	1994	1969	1991	1957	1957	1957	1955	1955	1955	1955	1993	1993

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1951 - 2001	
ANNUAL MEAN	21.5		44.0		140	
HIGHEST ANNUAL MEAN					317	1991
LOWEST ANNUAL MEAN					18.1	1955
HIGHEST DAILY MEAN	59	Sep 25	139	Apr 1	2480	Sep 18 1957
LOWEST DAILY MEAN	3.4	Jul 11	e14	Jun 8	2.4	Jul 8 1955
ANNUAL SEVEN-DAY MINIMUM	4.0	Jul 7	e15	Jun 4	2.6	Jul 3 1955
MAXIMUM PEAK FLOW			139	Apr 1	2540	Sep 17 1957
MAXIMUM PEAK STAGE			4.74	Apr 1	12.78	Sep 17 1957
INSTANTANEOUS LOW FLOW			e14	Jun 8	2.3	Jul 8 1955
ANNUAL RUNOFF (INCHES)	1.48		3.02		9.63	
10 PERCENT EXCEEDS	32		95		368	
50 PERCENT EXCEEDS	21		28		60	
90 PERCENT EXCEEDS	8.8		18		18	

e Estimated

02326000 ECONFINA RIVER NEAR PERRY, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e29	19	15	15	39	28	39	28	15	23	47	88
2	25	18	15	17	38	33	39	28	15	28	44	124
3	25	18	15	16	36	62	38	27	14	36	41	147
4	24	18	15	17	35	91	37	26	14	36	40	146
5	24	18	15	17	34	110	36	25	14	34	41	134
6	25	17	15	18	33	129	35	25	14	35	40	121
7	25	17	15	17	34	125	34	24	14	36	40	110
8	25	17	14	18	35	105	33	24	15	34	37	99
9	24	17	15	18	36	90	32	23	16	32	33	88
10	23	17	15	18	36	81	33	23	15	31	31	79
11	23	17	15	18	36	74	36	22	15	32	29	71
12	23	16	15	18	35	70	39	22	15	31	27	64
13	23	16	16	19	34	75	49	21	14	30	27	59
14	24	16	16	21	33	79	48	21	14	29	31	57
15	23	16	16	24	32	82	48	21	13	28	35	62
16	23	16	15	27	32	82	55	20	13	26	41	74
17	22	15	15	31	31	76	56	20	12	25	46	79
18	22	15	15	30	30	71	53	20	13	24	50	82
19	22	15	15	29	30	66	49	21	13	26	45	84
20	22	15	15	28	30	62	45	20	13	25	44	80
21	21	15	14	30	30	59	43	19	14	26	46	74
22	21	15	14	32	29	57	40	19	14	30	51	69
23	21	15	15	36	29	55	37	18	16	33	52	64
24	21	16	16	38	29	54	36	18	16	36	47	60
25	21	15	15	37	28	52	34	17	17	41	42	57
26	20	15	16	37	28	49	33	17	18	44	39	59
27	20	15	16	37	28	48	31	16	21	48	40	62
28	19	15	16	39	28	46	30	16	24	52	39	64
29	19	15	16	40	---	44	30	16	24	52	41	70
30	19	15	16	41	---	42	29	15	23	51	46	75
31	19	---	16	40	---	41	---	16	---	50	61	---
MEAN	22.5	16.1	15.2	26.5	32.4	69.0	39.2	20.9	15.6	34.3	41.1	83.4
MAX	29	19	16	41	39	129	56	28	24	52	61	147
MIN	19	15	14	15	28	28	29	15	12	23	27	57
IN.	0.13	0.09	0.09	0.15	0.17	0.40	0.22	0.12	0.09	0.20	0.24	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

MEAN	113	63.4	95.8	136	214	243	213	84.4	86.0	109	167	139
MAX	816	305	771	624	813	828	1176	379	432	381	756	1266
(WY)	1995	1998	1977	1987	1986	1991	1973	1964	1957	1958	1991	1957
MIN	6.26	8.18	6.22	9.47	7.50	9.97	13.2	7.73	4.80	4.49	8.31	9.12
(WY)	1994	1969	1991	1957	1957	1957	1955	1955	1955	1955	1993	1993

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL MEAN	42.1		34.7		138	
HIGHEST ANNUAL MEAN					317	1991
LOWEST ANNUAL MEAN					18.1	1955
HIGHEST DAILY MEAN	139	Apr 1	147	Sep 3	2480	Sep 18 1957
LOWEST DAILY MEAN	14	Jun 8	12	Jun 17	2.4	Jul 8 1955
ANNUAL SEVEN-DAY MINIMUM	15	Jun 4	13	Jun 14	2.6	Jul 3 1955
MAXIMUM PEAK FLOW			150	Sep 3	2540	Sep 17 1957
MAXIMUM PEAK STAGE			4.92	Sep 3	12.78	Sep 17 1957
INSTANTANEOUS LOW FLOW			12	Jun 16	2.3	Jul 8 1955
ANNUAL RUNOFF (INCHES)	2.89		2.38		9.49	
10 PERCENT EXCEEDS	95		65		363	
50 PERCENT EXCEEDS	24		28		58	
90 PERCENT EXCEEDS	15		15		17	

e Estimated

02326550 AUCILLA RIVER NEAR MOUTH NEAR NUTALL RISE, FL

LOCATION.--Lat 30°06'54", long 83°58'47", in SW sec.24, T. 4 S., R.4 E., Taylor County, Hydrologic Unit 03110103, on left bank approximately 300 ft below county boat ramp, and 2.6 mi upstream from mouth.

DRAINAGE AREA.-- 939 mi^2

WATER-DISCHARGES RECORDS

PERIOD OF RECORD.--May 2001 to current year (fragmentary).

GAGE.--Water-stage and water-current meter recorders. Datum of gage is indeterminate.

REMARKS.--No estimated daily discharges. Records poor. Flow affected by tide. Discharge computed from continuous velocity record obtained from water-current meter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	559	1410	1100	854
2	---	---	---	---	---	---	---	---	534	1300	873	850
3	---	---	---	---	---	---	---	---	865	1350	907	1080
4	---	---	---	---	---	---	---	356	758	1460	826	890
5	---	---	---	---	---	---	---	721	712	1520	1200	792
6	---	---	---	---	---	---	---	871	740	1380	1060	1070
7	---	---	---	---	---	---	---	812	775	1260	1070	920
8	---	---	---	---	---	---	---	499	690	1140	753	818
9	---	---	---	---	---	---	---	477	694	1160	864	879
10	---	---	---	---	---	---	---	---	792	1240	806	801
11	---	---	---	---	---	---	---	---	656	1000	834	903
12	---	---	---	---	---	---	---	474	673	894	703	837
13	---	---	---	---	---	---	---	384	1450	843	856	799
14	---	---	---	---	---	---	---	---	1460	1080	659	946
15	---	---	---	---	---	---	---	---	1520	872	706	848
16	---	---	---	---	---	---	---	718	1810	852	969	911
17	---	---	---	---	---	---	---	---	1810	823	1090	868
18	---	---	---	---	---	---	---	841	1790	904	846	936
19	---	---	---	---	---	---	---	---	1800	925	1200	913
20	---	---	---	---	---	---	---	---	1860	1350	1100	860
21	---	---	---	---	---	---	---	---	1860	997	1030	997
22	---	---	---	---	---	---	---	---	2110	853	907	844
23	---	---	---	---	---	---	---	---	2310	916	953	888
24	---	---	---	---	---	---	---	---	2390	773	878	1010
25	---	---	---	---	---	---	---	---	1730	789	681	803
26	---	---	---	---	---	---	---	---	1660	702	928	894
27	---	---	---	---	---	---	---	---	1430	876	986	997
28	---	---	---	---	---	---	---	---	1560	954	971	912
29	---	---	---	---	---	---	---	---	1550	881	966	875
30	---	---	---	---	---	---	---	---	1150	906	861	809
31	---	---	---	---	---	---	---	625	---	830	869	---
MEAN	---	---	---	---	---	---	---	---	1323	1040	918	893
MAX	---	---	---	---	---	---	---	---	2390	1520	1200	1080
MIN	---	---	---	---	---	---	---	---	534	702	659	792

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2001, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	1323	1040	918	893
MAX	---	---	---	---	---	---	---	---	1323	1040	918	893
(WY)	---	---	---	---	---	---	---	---	2001	2001	2001	2001
MIN	---	---	---	---	---	---	---	---	1323	1040	918	893
(WY)	---	---	---	---	---	---	---	---	2001	2001	2001	2001

02326550 AUCILLA RIVER NEAR MOUTH NEAR NUTALL RISE, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	875	944	939	888	1020	950	1330	---	965	966	995	883
2	851	937	931	856	796	1050	959	1060	944	917	948	1000
3	915	924	895	881	1060	1260	955	1010	875	1010	1060	1020
4	999	794	855	950	1200	1720	814	1050	895	1010	1000	984
5	956	873	939	1000	972	1560	1020	983	1020	1150	1060	1010
6	988	918	881	1040	926	984	989	1000	1050	1040	1060	1040
7	805	1020	957	919	1340	647	883	1060	987	1010	1000	967
8	836	965	930	999	1040	812	933	1050	935	1130	1050	847
9	830	878	884	950	920	1340	926	1020	873	1010	932	924
10	850	900	942	969	1060	1760	---	988	990	1140	1040	962
11	926	962	759	985	1010	1250	---	957	884	979	968	950
12	942	1040	977	874	1110	1450	---	1120	938	1020	1020	941
13	989	779	885	939	841	1540	---	1010	1060	995	1050	998
14	1090	791	1020	931	1070	1070	---	1010	1000	1050	1140	1170
15	975	940	1010	1110	938	840	---	943	894	937	1030	1600
16	865	913	971	1060	975	1020	---	1040	1020	1000	1080	1560
17	862	906	1000	988	880	871	---	1010	915	942	976	1620
18	907	937	891	963	894	950	---	916	1000	861	1030	1600
19	852	949	955	951	1020	968	---	1090	935	973	1020	1420
20	855	924	970	951	1030	1050	---	886	892	1040	1100	1360
21	819	904	894	929	970	868	---	867	897	1010	1120	1200
22	951	1010	1030	966	968	1090	---	949	889	1100	1020	1130
23	1030	895	921	1070	952	906	---	876	968	903	995	885
24	927	943	867	887	964	807	982	1010	914	1090	1020	901
25	928	962	886	1110	934	1020	1120	1040	1090	1100	1040	897
26	1020	906	885	893	1070	1010	949	1030	977	1080	1060	944
27	932	937	957	844	996	1230	1180	905	957	1090	1120	1620
28	825	960	949	970	881	1060	---	1100	1060	1010	984	1270
29	822	960	939	988	---	926	---	942	1010	1040	986	1060
30	868	991	931	1030	---	629	---	979	1040	1050	928	869
31	925	---	875	571	---	1050	---	1010	---	1030	935	---
MEAN	910	925	927	950	994	1087	---	---	962	1022	1025	1121
MAX	1090	1040	1030	1110	1340	1760	---	---	1090	1150	1140	1620
MIN	805	779	759	571	796	629	---	---	873	861	928	847

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	910	925	927	950	994	1087	---	---	1143	1031	971	1007
MAX	910	925	927	950	994	1087	---	---	1323	1040	1025	1121
(WY)	2002	2002	2002	2002	2002	2002	---	---	2001	2001	2002	2002
MIN	910	925	927	950	994	1087	---	---	962	1022	918	893
(WY)	2002	2002	2002	2002	2002	2002	---	---	2002	2002	2001	2001

SUMMARY STATISTICS	WATER YEARS 2001 - 2002	
HIGHEST DAILY MEAN	2390	Jun 24 2001
LOWEST DAILY MEAN	356	May 4 2001
ANNUAL SEVEN-DAY MINIMUM	685	May 31 2001
MAXIMUM PEAK FLOW	4960	Aug 11 2001
MAXIMUM PEAK STAGE	14.41	Oct 14 2001

02326550 AUCILLA RIVER NEAR MOUTH NEAR NUTALL RISE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 2001 to current year.

REMARKS.--Water temperature and salinity records fair.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	16.9	---	25.5	23.8	25.1	26.2
2	---	---	---	---	---	---	16.8	---	25.1	23.8	24.7	25.6
3	---	---	---	---	---	---	16.8	---	25.9	23.8	24.9	25.1
4	---	---	---	---	---	---	17.3	22.0	26.4	23.9	24.7	24.4
5	---	---	---	---	---	---	17.8	22.2	26.7	24.3	24.3	24.5
6	---	---	---	---	---	---	18.5	22.4	27.2	24.4	23.5	24.9
7	---	---	---	---	---	---	19.2	22.1	27.4	24.8	23.8	24.9
8	---	---	---	---	---	---	19.8	22.0	27.5	25.3	24.2	25.1
9	---	---	---	---	---	---	20.1	22.1	26.9	25.5	24.5	25.5
10	---	---	---	---	---	---	20.7	---	25.7	25.4	24.8	26.2
11	---	---	---	---	---	---	20.9	---	25.3	25.3	24.7	26.7
12	---	---	---	---	---	---	21.2	23.3	24.7	25.5	24.6	27.4
13	---	---	---	---	---	---	21.5	24.0	24.2	25.6	24.8	27.1
14	---	---	---	---	---	---	21.5	---	24.1	25.6	24.8	25.7
15	---	---	---	---	---	---	22.1	---	24.4	26.6	24.8	23.3
16	---	---	---	---	---	---	22.2	24.9	24.4	26.4	25.2	23.5
17	---	---	---	---	---	---	21.4	---	24.4	26.4	25.5	23.1
18	---	---	---	---	---	---	---	25.2	24.5	26.5	26.0	23.2
19	---	---	---	---	---	---	19.3	---	24.3	26.4	25.6	23.8
20	---	---	---	---	---	---	19.3	---	24.4	26.2	25.2	24.5
21	---	---	---	---	---	---	19.7	---	24.4	25.9	25.1	25.0
22	---	---	---	---	---	---	20.1	---	24.4	26.0	25.1	25.5
23	---	---	---	---	---	---	20.6	---	24.2	26.2	25.1	26.1
24	---	---	---	---	---	---	---	---	24.0	25.7	25.3	26.6
25	---	---	---	---	---	---	---	---	23.8	25.2	26.0	26.4
26	---	---	---	---	---	---	---	---	23.8	25.2	26.4	25.9
27	---	---	---	---	---	---	---	---	23.9	25.5	27.2	25.2
28	---	---	---	---	---	---	---	---	24.0	25.6	27.4	24.3
29	---	---	---	---	---	---	---	---	23.9	26.0	27.2	22.7
30	---	---	---	---	---	---	---	---	24.0	26.2	27.2	21.6
31	---	---	---	---	---	15.9	---	25.6	---	25.8	26.9	---
MEAN	---	---	---	---	---	---	---	---	25.0	25.4	25.3	25.0

SALINITY, TOP (PARTS PER THOUSAND), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	4.2	0.2	0.3	2.2
2	---	---	---	---	---	---	---	---	3.3	0.1	0.6	1.7
3	---	---	---	---	---	---	---	---	1.5	0.1	2.4	1.9
4	---	---	---	---	---	---	---	2.3	2.2	0.1	1.5	0.5
5	---	---	---	---	---	---	---	2.6	3.2	0.1	1.6	0.5
6	---	---	---	---	---	---	---	1.3	3.2	0.1	0.2	0.3
7	---	---	---	---	---	---	---	0.9	3.2	0.1	0.2	0.3
8	---	---	---	---	---	---	---	2.0	2.6	0.1	0.2	0.3
9	---	---	---	---	---	---	---	2.1	2.7	0.1	0.2	0.9
10	---	---	---	---	---	---	---	---	1.2	0.1	0.2	2.2
11	---	---	---	---	---	---	---	---	2.8	0.2	0.2	1.9
12	---	---	---	---	---	---	---	1.7	1.1	0.2	0.2	6.3
13	---	---	---	---	---	---	---	1.0	0.2	0.2	0.2	7.8
14	---	---	---	---	---	---	---	---	0.2	0.3	0.2	2.3
15	---	---	---	---	---	---	---	---	0.3	1.2	0.2	0.3
16	---	---	---	---	---	---	---	2.2	0.2	1.0	0.2	3.8
17	---	---	---	---	---	---	---	---	0.1	2.4	0.2	3.9
18	---	---	---	---	---	---	---	2.0	0.1	2.0	0.4	3.7
19	---	---	---	---	---	---	---	---	0.1	1.3	0.7	3.5
20	---	---	---	---	---	---	---	---	0.1	1.1	0.5	3.3
21	---	---	---	---	---	---	---	---	0.1	0.7	0.2	3.1
22	---	---	---	---	---	---	---	---	0.1	2.3	0.2	2.4
23	---	---	---	---	---	---	---	---	0.1	4.9	0.2	3.3
24	---	---	---	---	---	---	---	---	0.1	1.3	0.2	6.8
25	---	---	---	---	---	---	---	---	0.1	0.2	0.3	5.3
26	---	---	---	---	---	---	---	---	0.1	0.2	0.6	5.8
27	---	---	---	---	---	---	---	---	0.1	0.2	1.2	8.3
28	---	---	---	---	---	---	---	---	0.1	0.2	0.8	10.8
29	---	---	---	---	---	---	---	---	0.1	0.3	1.7	5.3
30	---	---	---	---	---	---	---	---	0.2	0.3	2.4	1.6
31	---	---	---	---	---	---	---	3.8	---	0.3	2.1	---
MEAN	---	---	---	---	---	---	---	---	1.1	0.7	0.7	3.3
MAX	---	---	---	---	---	---	---	---	4.2	4.9	2.4	10.8
MIN	---	---	---	---	---	---	---	---	0.1	0.1	0.2	0.3

02326550 AUCILLA RIVER NEAR MOUTH NEAR NUTALL RISE, FL--Continued

SALINITY, BOTTOM (PARTS PER THOUSAND), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	0.1	---	5.8	0.3	1.2	2.7
2	---	---	---	---	---	---	0.1	---	3.9	0.3	1.7	2.2
3	---	---	---	---	---	---	0.1	---	2.4	0.3	3.2	2.3
4	---	---	---	---	---	---	0.0	4.1	3.5	0.2	2.3	1.0
5	---	---	---	---	---	---	0.0	3.5	4.4	0.1	1.9	0.9
6	---	---	---	---	---	---	0.1	2.7	5.6	0.1	0.2	0.3
7	---	---	---	---	---	---	0.1	2.2	5.0	0.1	0.2	0.3
8	---	---	---	---	---	---	0.0	3.7	3.8	0.1	0.2	0.6
9	---	---	---	---	---	---	0.0	5.5	4.5	0.1	0.1	2.0
10	---	---	---	---	---	---	0.0	---	2.8	0.1	0.2	4.9
11	---	---	---	---	---	---	0.1	---	4.4	0.2	0.2	7.0
12	---	---	---	---	---	---	0.1	5.1	1.2	0.2	0.2	11.5
13	---	---	---	---	---	---	0.1	6.4	0.2	0.2	0.2	13.4
14	---	---	---	---	---	---	0.1	---	0.2	0.4	0.2	9.7
15	---	---	---	---	---	---	0.1	---	0.4	5.2	0.2	0.7
16	---	---	---	---	---	---	0.1	8.2	0.2	4.1	0.6	5.3
17	---	---	---	---	---	---	0.1	---	0.1	4.1	0.2	4.7
18	---	---	---	---	---	---	0.0	4.8	0.2	3.6	0.6	4.5
19	---	---	---	---	---	---	0.0	---	0.1	2.5	0.8	4.3
20	---	---	---	---	---	---	0.6	---	0.1	1.7	0.8	3.9
21	---	---	---	---	---	---	0.7	---	0.1	1.9	0.3	3.6
22	---	---	---	---	---	---	0.2	---	0.1	3.0	0.2	3.0
23	---	---	---	---	---	---	---	---	0.1	5.0	0.2	5.3
24	---	---	---	---	---	---	---	---	0.1	1.5	0.2	11.7
25	---	---	---	---	---	---	---	---	0.1	0.2	1.1	13.6
26	---	---	---	---	---	---	---	---	0.1	0.2	2.8	15.8
27	---	---	---	---	---	---	---	---	0.1	0.3	4.8	17.4
28	---	---	---	---	---	---	---	---	0.1	0.4	5.4	17.2
29	---	---	---	---	---	---	---	---	0.1	1.0	4.8	9.8
30	---	---	---	---	---	---	---	---	0.9	0.8	4.8	5.5
31	---	---	---	---	---	0.1	---	7.1	---	0.9	3.5	---
MEAN	---	---	---	---	---	---	---	---	1.7	1.3	1.4	6.2
MAX	---	---	---	---	---	---	---	---	5.8	5.2	5.4	17.4
MIN	---	---	---	---	---	---	---	---	0.1	0.1	0.1	0.3

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.4	17.2	19.7	13.1	---	14.1	---	13.9	27.0	---	27.0	27.6
2	20.7	18.3	19.5	12.4	---	---	---	25.1	27.9	28.3	27.7	27.8
3	20.7	19.5	19.2	---	---	---	---	25.3	28.2	28.8	27.7	27.8
4	21.2	20.5	19.1	11.4	17.6	---	---	25.7	28.6	28.8	28.0	27.4
5	22.0	20.9	19.3	10.7	16.1	---	21.2	26.1	29.1	28.8	27.1	27.1
6	22.7	20.4	19.5	10.5	---	---	20.4	26.8	29.1	28.9	26.7	27.1
7	23.1	20.0	19.8	11.7	---	---	20.3	27.1	28.7	28.8	27.1	27.0
8	23.2	19.9	20.3	12.2	---	---	20.8	27.2	28.2	28.2	26.9	26.8
9	22.9	19.9	20.1	11.9	---	---	21.0	27.3	27.0	27.4	26.5	27.0
10	22.7	19.5	20.0	11.8	---	---	---	27.2	27.0	26.8	26.3	27.4
11	22.6	18.9	20.5	12.7	---	17.3	---	27.3	27.0	27.2	26.4	27.7
12	22.6	18.1	20.5	13.8	---	17.9	---	27.0	27.3	27.5	26.7	28.2
13	22.7	17.6	20.4	14.9	16.0	---	---	27.2	28.0	27.6	27.0	27.4
14	22.9	17.5	20.6	14.8	---	---	---	26.0	28.6	27.7	27.3	26.8
15	21.9	17.5	21.2	14.5	---	---	---	25.1	28.7	27.1	28.0	24.9
16	21.5	17.9	21.5	14.1	---	---	---	---	28.4	27.5	21.9	24.7
17	19.9	18.2	21.8	13.8	16.8	---	---	---	28.5	28.4	29.6	25.0
18	19.0	18.6	21.7	14.1	16.6	---	---	25.1	27.7	29.5	29.5	25.5
19	19.1	18.9	21.0	15.0	16.3	---	---	23.4	27.4	30.8	29.2	26.0
20	19.8	19.1	20.0	16.0	16.0	---	---	22.7	27.0	30.4	28.2	26.3
21	20.9	19.4	19.3	16.7	---	---	---	22.6	27.0	28.6	27.7	26.4
22	22.0	19.7	19.0	16.8	16.7	---	---	21.9	26.2	27.5	27.9	26.3
23	23.0	19.5	17.9	16.9	16.6	19.8	---	21.9	26.6	26.5	27.8	26.2
24	23.6	19.2	16.7	17.2	---	---	23.9	22.8	26.5	26.6	28.2	26.3
25	23.9	19.2	16.3	---	15.6	---	---	23.9	26.0	26.8	28.5	25.8
26	22.7	19.2	15.1	---	---	---	---	24.6	26.3	27.2	28.3	26.3
27	20.7	19.5	14.0	---	---	---	---	25.0	26.9	27.2	27.9	26.0
28	19.1	19.6	12.9	---	14.9	---	---	25.7	27.5	27.3	27.9	25.8
29	17.3	19.7	13.1	---	---	---	---	26.1	27.8	27.4	28.2	26.6
30	16.4	19.6	13.6	---	---	---	---	26.5	28.3	26.8	28.0	27.4
31	16.3	---	13.5	---	---	---	---	26.5	---	26.6	27.5	---
MEAN	21.2	19.1	18.6	---	---	---	---	---	27.6	---	27.5	26.6

02326550 AUCILLA RIVER NEAR MOUTH NEAR NUTALL RISE, FL--Continued

SALINITY, TOP (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	7.8	5.5	4.4	---	---	---	0.4	4.2	---	1.3	6.8
2	6.5	6.6	4.7	3.5	---	---	---	0.3	2.9	2.2	3.1	9.1
3	5.3	6.6	4.2	---	---	---	---	0.2	3.4	3.0	4.3	10.2
4	5.5	5.8	5.1	0.2	---	---	---	0.2	5.1	3.9	5.1	8.1
5	5.7	6.0	6.8	2.7	---	---	---	0.8	8.7	3.5	3.1	5.8
6	4.2	8.4	7.6	10.0	---	---	---	4.6	8.3	4.3	2.7	7.4
7	2.5	10.4	7.9	0.5	---	---	---	5.0	7.1	4.4	3.4	5.2
8	3.0	11.8	12.2	0.3	---	---	4.6	4.1	6.8	3.5	3.5	3.9
9	3.6	9.6	9.7	1.0	---	---	---	3.7	4.0	3.5	3.6	3.3
10	7.0	9.5	10.2	2.5	---	---	---	2.9	4.7	2.9	3.9	3.3
11	14.6	9.4	-0.5	2.9	---	---	---	3.2	6.5	2.9	3.8	3.5
12	13.6	5.6	5.7	3.3	---	---	---	3.6	7.2	3.0	3.3	6.2
13	13.7	3.0	4.7	0.9	---	---	---	4.7	6.8	3.1	3.9	4.3
14	10.8	2.3	5.1	1.8	---	---	---	1.5	6.4	1.1	2.4	6.3
15	0.4	2.9	3.3	2.1	---	---	---	2.2	5.6	0.4	3.3	0.2
16	1.9	4.3	4.6	0.3	---	---	---	---	3.8	0.5	4.7	0.2
17	0.3	5.7	6.8	0.3	---	---	---	---	4.5	0.8	5.8	0.2
18	1.2	7.2	2.5	0.4	---	---	---	2.2	5.4	2.2	5.6	0.2
19	1.9	9.2	6.4	0.9	---	---	---	0.4	6.2	4.5	5.2	0.5
20	5.1	11.8	1.7	---	5.6	---	---	0.8	4.6	3.4	3.5	1.0
21	5.8	12.1	1.6	1.2	---	---	---	2.4	3.8	2.3	3.2	2.0
22	7.9	16.3	8.5	---	---	---	---	1.6	6.5	2.1	3.0	1.7
23	9.1	16.5	18.2	---	---	---	---	2.9	8.4	1.1	2.5	2.8
24	8.8	8.2	6.0	---	---	---	---	6.8	6.9	1.4	2.8	2.9
25	3.5	5.4	6.7	---	---	---	---	6.7	4.8	1.0	3.0	5.1
26	2.0	7.6	2.9	---	---	---	---	6.2	3.2	1.3	2.1	18.6
27	0.8	8.0	5.0	---	---	---	---	5.2	3.4	1.1	1.3	5.9
28	1.6	7.3	8.8	---	---	---	---	6.3	2.3	0.7	2.1	0.5
29	3.3	8.1	7.5	---	---	---	---	6.9	2.6	1.1	4.2	1.9
30	5.3	6.0	4.9	---	---	---	---	6.9	2.7	1.4	5.1	3.3
31	7.5	---	5.1	---	---	---	---	4.9	---	0.9	5.6	---
MEAN	5.4	8.0	6.1	---	---	---	---	---	5.2	---	3.6	4.3
MAX	14.6	16.5	18.2	---	---	---	---	---	8.7	---	5.8	18.6
MIN	0.3	2.3	-0.5	---	---	---	---	---	2.3	---	1.3	0.2

SALINITY, BOTTOM (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	9.0	7.1	6.9	---	4.1	---	0.4	8.3	---	5.6	12.4
2	8.9	7.5	6.3	6.5	---	---	---	0.2	6.2	5.9	8.3	15.1
3	6.6	7.9	7.0	---	---	---	---	0.2	8.2	6.2	9.1	14.1
4	6.3	8.9	8.5	0.4	0.3	---	---	0.2	13.3	6.6	10.7	10.0
5	6.7	10.0	11.7	10.7	0.9	---	---	4.5	14.6	6.9	6.9	7.3
6	5.2	13.1	14.2	14.8	---	---	---	11.4	11.5	7.6	5.2	8.6
7	4.5	14.8	16.1	1.3	---	---	5.9	10.2	9.5	6.8	5.4	6.0
8	6.9	16.8	19.8	0.9	---	---	8.6	6.9	8.2	4.9	5.0	4.5
9	7.0	18.1	16.4	5.6	---	---	---	5.1	5.6	4.5	5.1	4.3
10	12.6	14.3	15.2	7.0	---	---	---	3.7	6.2	3.9	5.3	4.4
11	17.7	11.1	3.4	5.5	---	---	---	3.6	7.7	4.0	5.1	4.7
12	16.1	6.7	8.9	4.9	---	---	---	4.2	8.3	4.0	4.9	8.5
13	15.0	4.2	6.5	1.8	2.1	---	---	5.0	8.2	4.2	5.2	5.7
14	10.5	4.0	5.9	3.2	---	---	---	2.1	7.4	1.8	3.4	8.8
15	0.6	5.3	4.6	3.2	---	---	---	3.0	7.3	0.5	5.3	0.2
16	2.9	9.0	6.4	0.3	---	---	---	---	6.5	0.7	7.8	0.2
17	0.4	9.9	8.9	0.4	2.4	---	---	---	8.2	2.0	9.9	0.2
18	2.0	12.2	8.7	1.2	4.6	---	---	3.6	9.7	4.5	8.9	0.2
19	4.7	14.9	11.4	3.2	12.8	---	---	0.5	10.2	7.4	8.1	1.2
20	7.1	16.8	10.3	4.0	17.5	---	---	3.0	6.8	6.1	5.2	1.8
21	9.9	20.9	12.0	4.9	---	---	---	6.1	6.8	3.8	4.3	2.9
22	12.5	24.5	21.7	8.3	13.9	---	---	4.2	8.6	2.8	4.1	2.6
23	15.1	26.2	25.6	7.7	8.5	---	---	4.5	10.6	1.6	3.5	4.2
24	16.5	20.9	13.2	7.8	---	---	5.3	8.4	8.7	2.1	3.6	5.9
25	17.7	20.0	16.6	---	6.4	---	---	7.9	5.9	1.8	3.9	7.6
26	6.6	15.2	12.0	---	---	---	---	7.3	4.7	1.8	2.4	19.5
27	2.5	11.9	12.7	---	---	---	---	6.1	4.9	1.6	1.8	6.7
28	5.2	8.8	12.4	---	1.4	---	---	8.0	4.0	0.8	4.8	0.8
29	6.8	9.2	9.6	---	---	---	---	8.8	4.6	1.7	7.8	7.0
30	9.4	7.1	7.0	---	---	---	---	9.5	5.4	1.7	9.4	11.6
31	9.9	---	7.8	---	---	---	---	9.3	---	2.5	9.8	---
MEAN	8.5	12.6	11.2	---	---	---	---	---	7.9	---	6.0	6.2
MAX	17.7	26.2	25.6	---	---	---	---	---	14.6	---	10.7	19.5
MIN	0.4	4.0	3.4	---	---	---	---	---	4.0	---	1.8	0.2

304308083555200 WARD CREEK BL MITCHELL POND NEAR METCALF, GA

LOCATION.--Lat 30°43'08", long 83°55'52", in Thomas County, Hydrologic Unit 03120001, on downstream side of bridge on New Hope road, and 3.6 mi east of Metcalf.

DRAINAGE AREA.--15.1 mi^2.

PERIOD OF RECORD.--October 1998 to September 2000, October 2000 to September 2001 (gage heights and discharge measurements only), January to September 2002.

GAGE.--Water-stage recorder.

REMARKS.--Records poor. Gage height record not available during October through January, when datalogger failed. Channel bed dry for prolonged drought periods.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 29 ft^3/s, Mar. 3, gage height, 4.71 ft; minimum, dry, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00
2	---	---	---	---	0.07	1.6	0.00	0.00	0.00	0.00	0.00	0.00
3	---	---	---	---	0.07	25	0.00	0.00	0.00	0.00	0.00	0.00
4	---	---	---	---	0.07	23	0.00	0.00	0.00	0.00	0.00	0.00
5	---	---	---	---	0.07	17	0.00	0.00	0.00	0.00	0.00	0.00
6	---	---	---	---	0.07	13	0.00	0.00	0.00	0.00	0.00	0.00
7	---	---	---	---	0.07	11	0.00	0.00	0.00	0.00	0.00	0.00
8	---	---	---	---	0.07	10	0.00	0.00	0.00	0.00	0.00	0.00
9	---	---	---	---	0.07	9.7	0.00	0.00	0.00	0.00	0.00	0.00
10	---	---	---	---	0.07	9.2	0.00	0.00	0.00	0.00	0.00	0.00
11	---	---	---	---	0.07	8.5	0.00	0.00	0.00	0.00	0.00	0.00
12	---	---	---	---	0.07	8.9	0.00	0.00	0.00	0.00	0.00	0.00
13	---	---	---	---	0.07	11	0.00	0.00	0.00	0.00	0.00	0.00
14	---	---	---	---	0.07	8.8	0.00	0.00	0.00	0.00	0.00	0.00
15	---	---	---	---	0.07	7.7	0.00	0.00	0.00	0.00	0.00	0.00
16	---	---	---	0.07	0.07	7.1	0.00	0.00	0.00	0.00	0.00	0.00
17	---	---	---	0.07	0.07	6.4	0.00	0.00	0.00	0.00	0.00	0.00
18	---	---	---	0.07	0.07	5.0	0.00	0.00	0.00	0.00	0.00	0.00
19	---	---	---	0.07	0.07	1.5	0.00	0.00	0.00	0.00	0.00	0.00
20	---	---	---	0.07	0.07	0.19	0.00	0.00	0.00	0.00	0.00	0.00
21	---	---	---	0.07	0.07	0.39	0.00	0.00	0.00	0.00	0.00	0.00
22	---	---	---	0.07	0.07	0.18	0.00	0.00	0.00	0.00	0.00	0.00
23	---	---	---	0.07	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00
24	---	---	---	0.07	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00
25	---	---	---	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	---	---	---	0.07	0.07	0.01	0.00	0.00	0.00	0.00	0.00	1.5
27	---	---	---	0.07	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.31
28	---	---	---	0.07	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00
29	---	---	---	0.07	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	---	---	---	0.07	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	---	---	---	0.07	---	0.00	---	0.00	---	0.00	0.00	---
MEAN	---	---	---	---	0.071	5.98	0.000	0.000	0.000	0.000	0.000	0.060
MAX	---	---	---	---	0.11	25	0.00	0.00	0.00	0.00	0.00	1.5
MIN	---	---	---	---	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	4.51	0.14	0.000	1.72	2.70	3.39	0.81	0.37	1.17	3.48	0.45	0.062
MAX	13.5	0.43	0.000	3.44	8.09	5.98	2.41	1.25	3.49	10.4	1.34	0.093
(WY)	1999	1999	1999	1999	1999	2002	2000	1999	1999	1999	1999	2000
MIN	0.000	0.000	0.000	0.000	0.031	1.67	0.000	0.000	0.000	0.000	0.000	0.031
(WY)	2001	2000	1999	2000	2000	2000	2002	2001	2002	2002	2000	1999

SUMMARY STATISTICS WATER YEARS 1999 - 2002

ANNUAL MEAN	2.04		
HIGHEST ANNUAL MEAN	3.71		1999
LOWEST ANNUAL MEAN	0.37		2000
HIGHEST DAILY MEAN	e100	Oct 1	1998
LOWEST DAILY MEAN	0.00	Nov 23	1998
ANNUAL SEVEN-DAY MINIMUM	0.00	Nov 23	1998
MAXIMUM PEAK FLOW	e100	Oct 1	1998
MAXIMUM PEAK STAGE	6.23	Apr 26	2000
INSTANTANEOUS LOW FLOW	0.00	Nov 23	1998
10 PERCENT EXCEEDS	5.3		
50 PERCENT EXCEEDS	0.02		
90 PERCENT EXCEEDS	0.00		

e Estimated

02326900 ST. MARKS RIVER NEAR NEWPORT, FL

LOCATION.--Lat 30°16'00", long 84°09'00", in SE¼ 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 mi^2 including 240 mi^2 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 September 1990; October 1990 to September 1991 (gage heights and peak discharge only); October 1991 to September 1994; July 1996 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 discharge. Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	284	270	295	438	421	529	530	509	501	592	521
2	287	281	268	305	437	460	527	531	509	495	642	524
3	283	277	266	308	428	1080	533	531	508	498	611	525
4	280	274	265	308	422	1450	538	528	508	511	611	522
5	278	271	265	307	421	2090	529	528	506	513	607	519
6	278	268	265	317	420	1960	525	526	506	504	600	524
7	275	266	265	314	436	1650	523	528	508	502	591	524
8	270	264	268	313	443	1450	525	529	509	518	580	513
9	267	262	270	312	444	1230	524	529	509	540	572	506
10	265	259	271	312	444	1010	528	529	509	532	562	501
11	264	259	276	314	442	867	532	529	508	523	554	500
12	265	257	276	316	441	782	533	529	508	519	548	506
13	265	255	280	320	439	744	535	530	508	521	544	640
14	287	254	282	336	436	700	535	528	509	520	545	802
15	274	254	282	359	433	670	534	526	508	514	544	1130
16	269	253	282	357	430	650	532	525	505	507	535	1180
17	264	252	286	355	423	632	531	523	502	501	528	1120
18	261	251	286	355	421	612	535	523	502	498	522	1010
19	260	251	286	357	418	594	539	521	502	494	520	895
20	257	254	283	356	420	579	536	520	500	494	520	817
21	254	253	281	380	424	577	534	519	500	496	515	755
22	252	254	282	394	424	570	529	519	500	500	512	706
23	251	260	288	397	424	561	527	519	503	498	508	667
24	343	266	295	401	424	555	528	519	501	505	505	646
25	384	265	292	407	424	551	528	520	511	513	504	644
26	329	267	293	413	424	546	528	519	513	515	507	683
27	313	266	292	419	423	544	528	515	508	515	504	719
28	301	267	293	432	421	539	529	512	506	556	505	682
29	295	267	296	438	---	534	528	515	502	605	509	657
30	290	269	294	438	---	529	529	512	503	578	511	631
31	287	---	294	438	---	530	---	509	---	571	514	---
MEAN	282	263	280	357	429	828	530	523	506	518	546	686
MAX	384	284	296	438	444	2090	539	531	513	605	642	1180
MIN	251	251	265	295	418	421	523	509	500	494	504	500
IN.	0.61	0.55	0.60	0.77	0.84	1.78	1.11	1.13	1.06	1.12	1.18	1.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

MEAN	643	542	573	624	731	873	838	667	673	712	766	733
MAX	1375	976	1470	1360	1680	2520	2760	1474	1465	1440	2220	1563
(WY)	1958	1960	1965	1987	1986	1991	1973	1965	1965	1994	1994	1957
MIN	282	263	280	345	335	338	378	371	355	360	370	336
(WY)	2002	2002	2002	1957	1957	1957	1968	1968	1968	1968	1968	1968

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1957 - 2002	
ANNUAL MEAN	454		479		699	
HIGHEST ANNUAL MEAN					1148	1994
LOWEST ANNUAL MEAN					403	1968
HIGHEST DAILY MEAN	1490	Aug 9	2090	Mar 5	4700	Apr 6 1973
LOWEST DAILY MEAN	251	Oct 23	251	Oct 23	251	Oct 23 2001
ANNUAL SEVEN-DAY MINIMUM	253	Nov 15	253	Nov 15	253	Nov 15 2001
MAXIMUM PEAK FLOW			2200	Mar 5	4750	Apr 7 1973
MAXIMUM PEAK STAGE			8.46	Mar 5	11.81	Apr 7 1973
INSTANTANEOUS LOW FLOW			249	Oct 22	249	Oct 22 2001
ANNUAL RUNOFF (INCHES)	11.51		12.16		17.75	
10 PERCENT EXCEEDS	616		611		1070	
50 PERCENT EXCEEDS	403		505		620	
90 PERCENT EXCEEDS	267		267		401	

02327033 LOST CREEK AT ARRAN, FL

LOCATION.--Lat 30°11'17", long 84°24'30", in SE¼ sec. 26, T. 3 S., R. 2 W., Wakulla County, Hydrologic Unit 03120001, on downstream side of bridge on State Highway 368, and 0.5 mi east of Arran.

DRAINAGE AREA.--70.4 mi^2.

PERIOD OF RECORD.--October 1928 to May 1981, miscellaneous discharge measurements only; October 1998 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records Poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	e13	e9.0	138	20	e53	e7.5	2.5	106	318	51
2	27	24	e12	e20	122	87	e50	5.8	2.4	101	303	41
3	23	21	e11	e36	106	717	e50	4.8	2.0	84	275	36
4	21	20	e10	e40	90	e2700	e100	4.0	2.0	71	291	35
5	19	18	e9.5	e38	76	2370	e87	3.5	2.2	76	245	26
6	18	16	e9.0	e40	66	1680	e75	3.1	2.3	126	308	22
7	20	15	e8.5	e53	75	1270	e65	2.9	2.6	110	269	18
8	21	14	e8.0	e66	98	838	e55	2.8	2.8	77	210	15
9	20	14	e8.5	e68	105	598	e47	2.8	2.8	100	171	14
10	19	13	e8.0	e62	99	456	e39	2.8	2.4	94	129	11
11	17	12	e7.7	e56	88	337	e32	2.5	2.4	76	98	11
12	16	12	e7.5	e50	77	283	e27	2.5	2.2	60	75	10
13	15	11	e7.3	e60	67	276	e25	2.5	2.1	49	61	100
14	49	11	e7.0	e85	58	260	e23	2.5	2.2	48	56	875
15	75	10	e6.8	e140	51	241	e21	2.7	2.1	37	47	2080
16	e70	9.9	e6.5	e150	45	216	e19	2.4	2.1	32	37	2030
17	e54	9.7	e6.2	e140	40	191	e18	2.4	2.2	27	32	1450
18	e43	9.5	e7.0	e110	35	165	e29	2.5	2.8	23	26	866
19	e37	9.4	e7.5	e85	31	141	e31	2.9	4.9	19	25	506
20	e32	9.3	e8.0	e70	28	121	e22	3.1	3.9	18	24	352
21	e27	9.0	e7.5	e110	31	109	e17	2.7	3.3	22	20	254
22	e22	8.9	e7.0	e165	34	102	e13	2.4	3.5	54	19	193
23	20	10	e10	e180	36	93	e11	2.4	126	62	16	153
24	21	e13	e18	e170	35	87	e9.0	2.4	369	187	14	131
25	75	e16	e16	e150	32	78	e8.0	2.5	252	370	12	131
26	64	e20	e14	e130	29	e72	e7.0	2.6	160	378	12	161
27	52	e20	e12	e115	27	e70	e6.0	2.3	196	260	14	243
28	43	e16	e11	177	23	e70	e5.8	2.4	173	217	44	275
29	37	e14	e10	179	---	e65	e5.5	2.4	122	342	87	267
30	33	e13	e10	170	---	e60	e10	2.3	96	460	113	229
31	29	---	e9.5	154	---	e55	---	2.6	---	453	68	---
MEAN	33.8	14.2	9.48	99.3	62.2	446	32.0	3.00	51.7	134	110	353
MAX	75	26	18	180	138	2700	100	7.5	369	460	318	2080
MIN	15	8.9	6.2	9.0	23	20	5.5	2.3	2.0	18	12	10
IN.	0.55	0.22	0.16	1.63	0.92	7.31	0.51	0.05	0.82	2.19	1.81	5.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	111	16.6	14.2	57.1	43.1	213	34.4	2.83	73.6	105	207	283
MAX	277	36.3	27.5	99.3	62.2	446	82.9	4.10	230	188	652	596
(WY)	1999	2000	2001	2002	2002	2002	2001	1999	2001	2001	2001	2000
MIN	33.8	2.67	2.56	32.8	31.9	32.1	4.11	1.52	1.27	1.20	10.5	78.4
(WY)	2002	1999	1999	2000	2000	2000	1999	2000	2000	2000	2000	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	145		113		97.1	
HIGHEST ANNUAL MEAN					149	2001
LOWEST ANNUAL MEAN					57.0	1999
HIGHEST DAILY MEAN	2830	Aug 7	e2700	Mar 4	3960	Sep 23 2000
LOWEST DAILY MEAN	1.5	May 26	2.0	Jun 3	0.56	Aug 25 2000
ANNUAL SEVEN-DAY MINIMUM	1.6	May 25	2.2	Jun 11	0.78	Aug 20 2000
MAXIMUM PEAK FLOW			e2700	Mar 4	4170	Sep 23 2000
MAXIMUM PEAK STAGE					18.19	Sep 23 2000
INSTANTANEOUS LOW FLOW			1.8	Jun 3	0.47	Aug 25 2000
ANNUAL RUNOFF (INCHES)	27.92		21.75		18.75	
10 PERCENT EXCEEDS	381		248		194	
50 PERCENT EXCEEDS	40		31		23	
90 PERCENT EXCEEDS	3.4		2.8		2.0	

e Estimated

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

LOCATION.--Lat 30°07'45", long 84°29'40", in NW¼ 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 343, 4.7 mi north of Sopchoppy, 5.2 mi upstream from Duval Branch, and 24 mi upstream from mouth.

DRAINAGE AREA.--102 mi^2.

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

REVISED RECORDS.--WSP 1905, WRD 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, nonrecording gage and crest-stage gage at same site at datum 9.63 ft higher.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	11	14	7.5	244	22	43	9.9	2.8	231	529	156
2	41	9.5	13	18	213	88	42	8.4	2.7	178	692	123
3	32	8.4	12	39	181	1310	42	7.3	2.6	138	760	95
4	24	7.4	9.8	42	152	4350	148	6.2	2.6	108	718	73
5	20	6.5	8.8	41	126	3930	110	5.5	2.6	126	642	54
6	17	5.7	8.1	43	106	2830	79	5.0	2.6	215	530	39
7	17	5.2	7.5	59	123	1900	60	4.7	2.7	162	413	28
8	24	4.8	7.2	76	161	1240	47	4.5	3.0	129	307	21
9	30	4.4	7.3	78	160	806	38	4.3	3.7	111	218	16
10	25	4.1	7.0	72	149	593	31	4.0	3.2	104	151	12
11	21	3.9	6.8	65	132	452	26	3.9	2.7	79	106	8.8
12	17	3.7	6.4	58	115	359	23	3.7	2.5	57	76	7.3
13	15	3.5	6.3	68	98	366	20	3.6	2.3	41	56	196
14	51	3.3	6.2	98	87	369	17	3.6	2.4	31	47	895
15	76	3.3	6.0	216	76	342	15	3.4	2.3	23	36	1700
16	71	3.2	5.8	232	66	298	13	3.4	2.1	15	28	1950
17	59	3.1	5.8	222	57	254	12	3.4	2.1	9.4	21	1720
18	46	3.1	6.2	199	48	216	30	3.6	2.2	5.7	20	1240
19	36	3.1	6.5	177	41	181	33	4.0	3.1	4.2	24	823
20	30	3.1	6.9	163	36	151	25	3.8	3.0	28	22	605
21	24	3.0	6.5	208	43	131	20	3.6	5.2	116	19	564
22	20	3.0	6.2	308	52	119	15	3.4	3.1	147	15	519
23	16	6.2	8.0	328	50	105	12	3.3	e540	212	12	414
24	18	13	22	318	44	91	10	3.3	e1400	329	9.6	330
25	51	17	19	296	39	79	8.8	3.3	862	896	7.9	318
26	44	20	15	280	34	69	7.7	3.2	556	1120	6.9	329
27	34	21	13	258	29	67	6.6	3.2	610	1080	45	426
28	27	17	11	316	25	66	6.0	3.1	510	916	170	447
29	21	15	10	328	---	61	5.7	3.1	363	806	154	401
30	16	14	9.1	309	---	53	12	3.0	255	729	153	334
31	13	---	8.2	277	---	46	---	2.9	---	630	198	---
MEAN	31.9	7.65	9.21	168	96.0	676	31.9	4.25	172	283	200	461
MAX	76	21	22	328	244	4350	148	9.9	1400	1120	760	1950
MIN	13	3.0	5.8	7.5	25	22	5.7	2.9	2.1	4.2	6.9	7.3
MED	25	5.0	7.5	177	81	216	22	3.6	2.9	129	76	329
IN.	0.36	0.08	0.10	1.90	0.98	7.64	0.35	0.05	1.88	3.20	2.26	5.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	116	57.8	142	249	283	314	170	61.5	137	245	307	232
MAX	783	470	843	849	753	957	1065	424	520	763	1005	1084
(WY)	1995	1986	1965	1991	1986	1991	1973	1991	1982	1975	1994	2000
MIN	1.86	1.58	2.87	11.1	22.4	27.6	8.81	1.70	1.31	3.06	6.14	4.76
(WY)	1994	1991	1992	1985	1989	2000	1966	1992	2000	1977	1990	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1964 - 2002	
ANNUAL MEAN	201		179		192	
HIGHEST ANNUAL MEAN					334	1991
LOWEST ANNUAL MEAN					43.4	1968
HIGHEST DAILY MEAN	3250	Aug 7	4350	Mar 4	6610	Sep 23 2000
LOWEST DAILY MEAN	1.8	May 27	2.1	Jun 16	0.69	Jul 7 2000
ANNUAL SEVEN-DAY MINIMUM	2.0	May 22	2.3	Jun 12	0.79	Jul 2 2000
MAXIMUM PEAK FLOW			4680	Mar 4	7100	Sep 23 2000
MAXIMUM PEAK STAGE			32.19	Mar 4	34.47	Jul 31 1975
INSTANTANEOUS LOW FLOW			2.1	Jun 15	0.63	Jul 7 2000
ANNUAL RUNOFF (INCHES)	26.72		23.85		25.52	
10 PERCENT EXCEEDS	586		475		509	
50 PERCENT EXCEEDS	44		32		60	
90 PERCENT EXCEEDS	3.1		3.3		3.2	

e Estimated

02328522 OCHLOCKONEE RIVER NEAR CONCORD, FL

LOCATION.--Lat 30°40'08", long 84°18'19", in SW¼ sec. 11, T. 3 N., R. 1 W., Gadsden County, Hydrologic Unit 03120003, near center of stream on downstream side of bridge on State Highway 12, and 3.7 mi east of Concord.

DRAINAGE AREA.--1002 mi^2.

PERIOD OF RECORD.--November 1920 to October 1990 (miscellaneous discharge measurements), October 1998 to current year.

GAGE.--Water-stage recorder.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	54	70	62	216	167	822	130	43	63	186	54
2	131	54	71	64	198	245	755	119	41	51	179	50
3	117	52	71	72	184	1190	680	109	40	43	162	47
4	106	52	72	104	171	1780	619	99	38	40	157	46
5	98	51	71	116	159	2290	616	100	38	87	150	44
6	94	50	70	113	150	2410	605	99	37	88	139	42
7	89	48	69	115	176	2390	551	93	37	121	131	39
8	85	46	69	127	287	2330	480	85	49	163	120	37
9	84	45	68	129	377	2120	419	79	104	161	105	38
10	81	44	67	122	388	1880	381	73	244	137	91	36
11	77	44	66	115	383	1640	414	68	205	112	80	35
12	74	43	66	114	379	1410	504	63	126	94	71	33
13	71	42	69	142	357	1240	588	60	88	82	65	33
14	76	42	70	196	319	1130	693	58	72	73	60	36
15	85	42	71	230	283	1060	756	55	64	65	57	50
16	102	42	71	240	253	964	700	53	60	65	55	91
17	106	42	71	240	232	886	609	51	57	62	52	128
18	98	41	70	231	212	820	534	49	52	65	49	150
19	93	41	68	218	194	744	463	53	49	114	47	214
20	92	40	71	204	182	665	426	85	45	155	50	354
21	89	39	72	194	196	654	439	129	42	151	64	496
22	84	39	73	194	237	779	411	117	37	126	60	625
23	78	41	73	198	247	906	353	95	34	104	60	750
24	74	49	71	207	231	881	298	79	31	93	55	871
25	71	75	70	210	216	839	255	72	28	91	49	979
26	68	95	69	227	204	828	220	67	32	90	45	1040
27	66	86	68	263	190	830	195	61	37	93	44	1020
28	63	81	65	260	179	874	174	55	49	129	44	888
29	60	77	63	254	---	918	157	51	67	153	57	745
30	58	73	62	250	---	917	142	47	74	186	57	646
31	56	---	63	233	---	886	---	46	---	195	57	---
MEAN	86.3	52.3	69.0	176	243	1183	475	77.4	64.0	105	83.8	321
MAX	148	95	73	263	388	2410	822	130	244	195	186	1040
MIN	56	39	62	62	150	167	142	46	28	40	44	33
IN.	0.10	0.06	0.08	0.20	0.25	1.36	0.53	0.09	0.07	0.12	0.10	0.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	683	113	145	430	477	1349	661	86.4	234	436	327	313
MAX	2357	230	205	702	841	2698	1448	107	752	1084	966	495
(WY)	1999	1999	2001	1999	1999	2001	2001	2001	2001	1999	2001	2000
MIN	86.3	52.3	69.0	176	243	677	178	67.8	35.7	40.1	30.0	80.4
(WY)	2002	2002	2002	2002	2002	1999	1999	1999	2000	2000	2000	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	0.000		245		439	
HIGHEST ANNUAL MEAN					703	2001
LOWEST ANNUAL MEAN					245	2002
HIGHEST DAILY MEAN	148	Oct 1	2410	Mar 6	11500	Oct 2 1998
LOWEST DAILY MEAN	39	Nov 21	28	Jun 25	14	Aug 29 2000
ANNUAL SEVEN-DAY MINIMUM	40	Nov 17	34	Jun 21	15	Aug 26 2000
MAXIMUM PEAK FLOW			2430	Mar 5	11500	Oct 2 1998
MAXIMUM PEAK STAGE			33.76	Mar 5	39.69	Oct 2 1998
INSTANTANEOUS LOW FLOW			27	Jun 25	14	Aug 29 2000
ANNUAL RUNOFF (INCHES)	0.00		3.32		5.95	
10 PERCENT EXCEEDS	95		744		994	
50 PERCENT EXCEEDS	70		92		180	
90 PERCENT EXCEEDS	42		43		46	

02329000 OCHLOCKONEE RIVER NEAR HAVANA, FL

LOCATION.--Lat 30°33'14", long 84°23'03", in SE¼ sec. 24,T.2N.,R.2W., Leon County, Hydrologic Unit 03120003, near center of 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 mi^2, approximately. At site used prior to January 1929, 1,220 mi^2, approximately.

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.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	72	75	52	241	192	773	200	64	117	185	54
2	130	71	71	57	221	308	725	193	61	117	e180	53
3	120	70	69	60	204	1640	680	177	59	97	e160	50
4	114	70	69	65	188	1780	626	168	60	86	e150	47
5	104	66	68	81	173	1770	580	169	58	78	141	46
6	114	60	68	101	164	1950	566	162	58	98	134	47
7	117	60	68	103	210	2080	549	155	65	105	123	45
8	108	59	66	103	240	2120	511	142	68	119	114	43
9	108	59	66	111	306	2100	462	131	122	144	105	40
10	100	57	66	114	360	2020	418	121	182	143	95	38
11	106	59	64	109	370	1850	394	111	263	128	87	38
12	103	e54	64	105	371	1590	422	101	240	112	79	37
13	98	47	65	124	366	1390	491	93	189	100	73	41
14	106	e47	67	158	349	1200	554	86	161	92	74	49
15	103	e46	66	206	319	1060	616	81	147	84	75	59
16	105	e46	65	226	290	977	656	78	136	81	66	67
17	114	e46	64	231	261	895	625	74	129	80	62	77
18	121	e46	64	229	239	825	563	74	119	79	57	104
19	117	e45	63	224	220	764	502	81	108	81	55	125
20	113	45	60	215	211	704	446	77	98	106	54	173
21	111	43	61	215	232	673	419	92	90	133	52	273
22	109	43	61	212	230	679	419	118	83	137	59	382
23	105	44	62	203	253	725	398	116	77	125	58	472
24	101	e50	63	201	256	786	358	103	69	110	57	563
25	98	e60	61	231	241	780	312	94	65	106	53	667
26	92	73	59	239	225	756	274	88	70	105	51	742
27	86	82	59	243	211	769	249	83	71	106	49	814
28	81	83	58	270	198	754	224	78	72	110	51	821
29	78	79	56	272	---	766	207	74	86	133	47	766
30	75	78	54	263	---	787	207	70	101	156	52	680
31	73	---	53	253	---	786	---	67	---	175	53	---
MEAN	105	58.7	63.7	170	255	1144	474	112	106	111	85.5	247
MAX	141	83	75	272	371	2120	773	200	263	175	185	821
MIN	73	43	53	52	164	192	207	67	58	78	47	37
MED	106	59	64	203	240	825	477	94	84	106	66	63
IN.	0.11	0.06	0.06	0.17	0.23	1.16	0.46	0.11	0.10	0.11	0.09	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2002, BY WATER YEAR (WY)

MEAN	508	385	722	1293	1949	2264	1868	797	624	706	800	568
MAX	6892	3594	6057	4332	9355	7718	9368	4282	3867	3345	6098	4279
(WY)	1995	1948	1965	1993	1986	1984	1948	1964	1973	1991	1928	1935
MIN	22.0	26.5	37.0	65.5	116	167	173	60.6	37.6	42.5	34.1	26.8
(WY)	1955	1934	1934	1934	1957	1955	1927	1927	2000	2000	2000	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1926 - 2002	
ANNUAL MEAN	629		245		1035	
HIGHEST ANNUAL MEAN					2854	1948
LOWEST ANNUAL MEAN					209	1968
HIGHEST DAILY MEAN	6170	Mar 20	2120	Mar 8	53100	Apr 4 1948
LOWEST DAILY MEAN	43	Nov 21	37	Sep 12	17	Oct 23 1954
ANNUAL SEVEN-DAY MINIMUM	45	Nov 17	40	Sep 7	17	Oct 22 1954
MAXIMUM PEAK FLOW			2120	Mar 8	55900	Apr 4 1948
MAXIMUM PEAK STAGE			22.05	Mar 8	35.08	Apr 4 1948
INSTANTANEOUS LOW FLOW			34	Sep 12	17	Oct 23 1954
ANNUAL RUNOFF (INCHES)	7.49		2.91		12.34	
10 PERCENT EXCEEDS	1410		675		2540	
50 PERCENT EXCEEDS	366		108		444	
90 PERCENT EXCEEDS	64		54		82	

e Estimated

02329000 OCHLOCKONEE RIVER NEAR HAVANA, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.66	12.00	12.14	11.86	13.69	13.29	17.28	13.36	12.00	12.40	12.99	11.84
2	12.54	11.99	12.09	11.92	13.53	14.16	17.01	13.29	11.98	12.40	---	11.83
3	12.44	11.98	12.07	11.97	13.38	20.59	16.74	13.15	11.95	12.17	---	11.79
4	12.36	11.99	12.07	12.02	13.25	21.10	16.41	13.07	11.96	12.04	---	11.75
5	12.26	11.95	12.06	12.21	13.12	21.05	16.12	13.08	11.94	11.94	12.80	11.72
6	12.36	11.88	12.06	12.42	13.04	21.58	16.04	13.03	11.94	12.19	12.74	11.75
7	12.40	11.87	12.06	12.45	13.43	21.95	15.92	12.96	12.03	12.27	12.62	11.71
8	12.30	11.88	12.04	12.45	13.69	22.04	15.67	12.84	12.06	12.42	12.53	11.67
9	12.29	11.88	12.04	12.53	14.17	21.99	15.33	12.73	12.60	12.69	12.43	11.63
10	12.22	11.86	12.03	12.56	14.56	21.78	15.01	12.63	13.12	12.68	12.33	11.61
11	12.29	11.89	12.01	12.51	14.64	21.30	14.83	12.53	13.80	12.53	12.23	11.60
12	12.26	---	12.00	12.47	14.65	20.62	15.04	12.43	13.60	12.34	12.15	11.58
13	12.20	11.74	12.02	12.66	14.61	20.02	15.53	12.34	13.13	12.21	12.08	11.64
14	12.30	---	12.04	12.99	14.48	19.32	15.96	12.26	12.86	12.11	12.09	11.76
15	12.27	---	12.04	13.40	14.27	18.75	16.35	12.21	12.72	12.01	12.10	11.91
16	12.30	---	12.02	13.57	14.06	18.34	16.60	12.17	12.61	11.98	11.99	12.00
17	12.41	---	12.00	13.61	13.85	17.93	16.41	12.13	12.53	11.97	11.94	12.12
18	12.49	---	12.01	13.60	13.68	17.56	16.01	12.13	12.42	11.96	11.88	12.42
19	12.45	---	11.99	13.55	13.52	17.23	15.61	12.21	12.30	11.97	11.86	12.64
20	12.41	11.76	11.97	13.48	13.45	16.89	15.21	12.16	12.19	12.28	11.84	13.09
21	12.40	11.73	11.97	13.48	13.62	16.70	15.01	12.33	12.09	12.57	11.82	13.92
22	12.38	11.73	11.97	13.45	13.60	16.74	15.01	12.60	12.00	12.61	11.91	14.73
23	12.33	11.74	11.98	13.38	13.78	17.01	14.86	12.58	11.93	12.46	11.90	15.39
24	12.29	---	11.99	13.36	13.81	17.35	14.55	12.45	11.83	12.26	11.88	16.01
25	12.27	---	11.97	13.60	13.69	17.32	14.22	12.35	11.77	12.19	11.83	16.66
26	12.20	12.11	11.95	13.68	13.56	17.19	13.94	12.29	11.84	12.14	11.80	17.11
27	12.14	12.23	11.95	13.71	13.44	17.26	13.76	12.23	11.85	12.12	11.77	17.50
28	12.08	12.22	11.94	13.91	13.34	17.18	13.56	12.18	11.86	12.15	11.80	17.54
29	12.05	12.19	11.91	13.93	---	17.24	13.41	12.12	12.04	12.43	11.74	17.24
30	12.03	12.17	11.89	13.86	---	17.36	13.41	12.08	12.22	12.68	11.82	16.74
31	12.01	---	11.87	13.79	---	17.35	---	12.04	---	12.89	11.83	---
MEAN	12.30	---	12.00	13.04	13.78	18.59	15.36	12.51	12.31	12.29	---	13.36
MAX	12.66	---	12.14	13.93	14.65	22.04	17.28	13.36	13.80	12.89	---	17.54
MIN	12.01	---	11.87	11.86	13.04	13.29	13.41	12.04	11.77	11.94	---	11.58

02329600 LITTLE RIVER NEAR MIDWAY, FL

LOCATION.--Lat 30°30'44", long 84°31'25", in SW$^1/_4$ sec. 3, T.1N., R. 3W., 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 mi^2.

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

GAGE.--Water-stage recorder and crest-stage. 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.--Records good, except those below 200 ft^3/s, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	79	19	54	19	226	64	17	75	150	34
2	13	13	78	34	27	e997	265	61	17	72	226	32
3	13	12	76	82	24	e3020	238	56	15	63	90	30
4	14	12	73	92	21	3870	238	51	13	60	47	27
5	16	12	70	84	18	3030	249	45	13	56	39	25
6	51	12	60	95	20	1800	222	43	13	51	42	24
7	167	11	56	112	232	579	101	41	14	47	45	24
8	82	11	48	107	300	333	100	40	14	52	43	22
9	68	11	45	100	258	293	247	39	64	65	39	20
10	61	11	41	92	160	258	549	37	221	75	36	19
11	56	11	34	89	81	235	389	36	216	69	34	17
12	49	11	34	92	39	232	294	34	79	63	33	16
13	50	10	37	206	25	339	285	32	47	59	31	34
14	79	10	38	254	24	338	262	28	43	64	46	197
15	89	10	33	251	24	287	244	25	40	65	62	351
16	85	10	30	185	24	248	229	24	36	59	36	322
17	78	10	32	89	23	236	172	22	32	54	35	309
18	70	10	28	40	21	228	128	20	31	50	34	230
19	56	9.9	31	30	20	220	151	46	32	46	41	141
20	45	9.9	24	24	38	213	138	72	25	44	71	106
21	38	9.8	23	61	236	249	98	50	23	42	63	112
22	31	9.8	22	105	239	430	87	31	23	41	42	102
23	26	14	22	90	149	499	79	25	38	42	38	91
24	26	72	23	81	84	310	71	24	45	48	35	126
25	25	84	23	152	31	240	66	22	47	54	33	407
26	22	82	23	224	24	229	67	21	54	60	29	363
27	20	77	22	192	23	254	65	18	119	61	28	404
28	16	77	21	151	21	254	65	17	132	70	36	335
29	15	79	21	99	---	237	65	16	167	89	36	245
30	14	79	20	82	---	218	63	16	73	133	36	185
31	13	---	19	70	---	185	---	18	---	121	34	---
MEAN	45.2	26.8	38.3	109	80.0	641	182	34.6	56.8	62.9	51.3	145
MAX	167	84	79	254	300	3870	549	72	221	133	226	407
MIN	12	9.8	19	19	18	19	63	16	13	41	28	16
IN.	0.17	0.10	0.14	0.41	0.27	2.42	0.67	0.13	0.21	0.24	0.19	0.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2002, BY WATER YEAR (WY)

MEAN	338	302	326	601	688	775	336	208	302	272	322	262
MAX	2542	1497	876	1694	2139	1791	756	1136	875	1003	1617	1249
(WY)	1995	1998	1986	1991	1986	1991	1994	1991	1989	1994	1994	1994
MIN	24.0	26.8	38.3	96.0	80.0	213	116	15.5	9.25	21.2	47.0	49.3
(WY)	1991	2002	2002	1989	2002	2000	1999	2001	2000	2000	2000	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1986 - 2002	
ANNUAL MEAN	199		123		393	
HIGHEST ANNUAL MEAN					709	1991
LOWEST ANNUAL MEAN					106	2000
HIGHEST DAILY MEAN	3180	Jun 13	3870	Mar 4	30300	Oct 3 1994
LOWEST DAILY MEAN	9.8	Nov 21	9.8	Nov 21	4.3	Jun 12 2000
ANNUAL SEVEN-DAY MINIMUM	9.9	Nov 16	9.9	Nov 16	4.4	Jun 10 2000
MAXIMUM PEAK FLOW			4130	Mar 4	49200	Sep 22 1969
MAXIMUM PEAK STAGE			75.89	Mar 4	86.25	Sep 22 1969
INSTANTANEOUS LOW FLOW			9.7	Nov 20	3.8	Jun 14 2000
ANNUAL RUNOFF (INCHES)	8.87		5.49		17.52	
10 PERCENT EXCEEDS	396		248		879	
50 PERCENT EXCEEDS	73		50		194	
90 PERCENT EXCEEDS	12		16		47	

e Estimated

02330000 OCHLOCKONEE RIVER NEAR BLOXHAM, FL

LOCATION.--Lat 30°22'59", long 84°39'18", in NE¼ sec. 20, T. 1 S., R. 4 W., Leon County, Hydrologic Unit 03120003, on left bank at Old State Highway 20(Crooked Road), 3,000 ft downstream from C.H. Corn Hydroelectric Dam, 1.5 mi southwest of Bloxham, and 65 mi upstream from mouth.

DRAINAGE AREA.--1,700 mi^2, 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, WRD 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 2,700 ft upstream at datum 5.00 ft higher, Apr. 9, 1930 to Jan. 19, 1939, water-stage recorder at site 2,000 ft upstream at datum 5.00ft higher, Jan. 20, 1939 to Sept. 30, 1954, water-stage recorder at present site at datum 5.00 ft higher, Oct. 1, 1954 to Sept. 30, 1985, water-stage recorder at present site and datum, Oct. 1, 1985 to Aug. 27, 1997, at site 2,000 ft upstream at present datum.

REMARKS.--Records fair, except those below 150 ft^3/s, which are poor. Flow regulated since 1929 by C.H. Corn Hydroelectric Dam (formerly 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. Maximum discharge, 89,400 ft^3/s, Sept. 23, 1969, gage height, 29.2 ft, from floodmark; minimum discharge, since October 1954, 1.0 ft^3/s, Nov. 1, 1957, caused by closure of breaks in earth embankment of C.H. Corn Hydroelectric 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	196	265	207	533	507	1660	265	179	213	244	180
2	198	196	266	213	521	1260	1410	263	196	212	944	181
3	166	196	264	214	520	11100	1120	261	198	214	1320	181
4	151	197	263	247	517	9110	1240	240	199	219	831	182
5	148	180	262	277	514	5790	1240	182	200	220	441	181
6	205	165	262	290	519	4520	1080	158	202	215	185	182
7	976	170	261	384	802	3570	954	161	189	214	178	180
8	741	165	261	400	1000	3240	777	164	164	218	177	e179
9	359	166	253	399	1040	2920	727	164	166	221	178	e178
10	244	168	241	358	995	3360	501	162	189	236	178	e177
11	266	169	240	335	847	2480	636	155	209	238	177	176
12	268	170	240	336	720	2680	1320	169	223	238	182	140
13	255	161	241	424	535	2620	e1450	171	225	229	176	600
14	277	145	243	1310	522	2830	e1600	167	205	203	180	3100
15	298	144	242	1260	520	2240	e1650	166	204	203	180	1270
16	306	145	241	886	520	1940	e1750	166	204	191	177	261
17	305	144	245	792	518	1600	e1550	170	205	180	180	711
18	304	144	246	623	518	1200	e1250	173	205	182	179	1090
19	297	144	239	551	519	1490	e1000	172	204	185	178	672
20	280	144	227	528	534	1160	728	172	202	202	180	583
21	271	133	227	549	759	1410	632	175	202	190	180	538
22	271	129	228	576	861	1420	566	178	201	182	180	501
23	258	135	231	588	860	1520	559	180	209	183	181	499
24	262	132	230	535	646	1550	559	182	227	183	183	811
25	247	128	223	611	564	1180	531	183	223	183	185	2270
26	244	127	224	727	514	1330	489	173	217	183	184	1640
27	238	126	225	831	507	1580	338	195	214	182	184	1780
28	232	127	221	1030	506	1700	304	181	213	184	181	1740
29	207	134	222	981	---	1280	260	184	212	186	179	1340
30	191	208	223	705	---	1100	266	169	211	193	180	1540
31	191	---	212	631	---	1260	---	171	---	225	180	---
MEAN	286	156	241	574	640	2611	938	183	203	203	273	769
MAX	976	208	266	1310	1040	11100	1750	265	227	238	1320	3100
MIN	148	126	212	207	506	507	260	155	164	180	176	140
IN.	0.19	0.10	0.16	0.39	0.39	1.77	0.62	0.12	0.13	0.14	0.19	0.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2002, BY WATER YEAR (WY)

MEAN	1012	778	1312	2020	2842	3308	2767	1337	1173	1273	1461	1270
MAX	10550	4943	8913	5671	12290	9313	13240	4880	4942	4007	6835	7890
(WY)	1995	1948	1965	1993	1986	1984	1948	1964	1973	1991	1928	1969
MIN	50.0	52.5	82.6	222	243	296	327	172	73.5	66.3	116	120
(WY)	1955	1955	1959	1935	1957	1955	1999	1927	2000	2000	2000	1958

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1926 - 2002	
ANNUAL MEAN	1163		590		1683	
HIGHEST ANNUAL MEAN					4516	1948
LOWEST ANNUAL MEAN					315	1955
HIGHEST DAILY MEAN	7600	Jun 12	11100	Mar 3	73200	Sep 23 1969
LOWEST DAILY MEAN	126	Nov 27	126	Nov 27	1.0	Jul 14 1931
ANNUAL SEVEN-DAY MINIMUM	129	Nov 22	129	Nov 22	2.6	Sep 26 1958
MAXIMUM PEAK FLOW			12400	Mar 3	89400	Sep 25 1969
MAXIMUM PEAK STAGE			20.47	Mar 3	29.20	Sep 23 1969
INSTANTANEOUS LOW FLOW			122	Nov 25	1.0	Nov 1 1957
ANNUAL RUNOFF (INCHES)	9.29		4.71		13.45	
10 PERCENT EXCEEDS	2930		1330		4120	
50 PERCENT EXCEEDS	654		239		959	
90 PERCENT EXCEEDS	184		169		156	

e Estimated

02330100 TELOGIA CREEK NEAR BRISTOL, FL

LOCATION.--Lat 30°25'35", long 84°55'40", in NW¼ 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.

DRAINGAGE AREA.--126 mi^2.

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 good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	69	86	64	91	74	150	81	72	110	126	47
2	80	68	86	89	85	173	193	77	62	123	119	45
3	77	68	80	149	79	2060	190	72	53	114	91	43
4	74	68	76	159	73	3030	205	69	49	89	89	40
5	73	68	73	118	69	1060	253	67	49	78	97	36
6	99	67	72	124	72	533	213	65	52	107	137	34
7	383	66	72	158	145	291	158	63	71	76	111	33
8	744	65	73	144	243	205	139	62	77	63	74	33
9	289	65	73	108	216	189	125	62	96	61	61	33
10	150	65	73	92	130	179	127	58	118	61	53	33
11	125	64	73	86	107	169	175	56	82	88	49	32
12	113	64	74	84	94	164	1030	56	64	86	47	31
13	104	63	75	119	85	212	989	54	57	61	45	36
14	120	62	76	181	80	285	516	55	53	54	45	92
15	158	62	74	205	76	221	280	61	53	56	42	177
16	149	61	71	179	71	176	207	60	68	70	40	184
17	119	61	70	133	70	171	196	55	59	62	44	157
18	97	61	73	107	68	188	172	54	53	49	47	104
19	90	61	76	96	65	168	157	63	51	45	57	74
20	88	61	73	97	73	154	155	100	49	47	52	77
21	85	62	68	101	158	150	143	86	47	71	54	129
22	82	62	65	105	205	172	126	69	47	80	53	89
23	78	74	66	102	148	201	114	61	48	104	47	68
24	77	137	77	91	105	163	103	55	62	149	42	60
25	79	175	88	98	90	147	97	53	82	146	38	69
26	79	157	80	138	82	139	91	50	80	136	36	128
27	74	122	73	152	81	156	86	48	89	95	43	267
28	71	100	70	134	82	174	83	47	113	77	52	401
29	72	88	69	134	---	154	82	58	92	73	50	240
30	71	85	67	118	---	127	82	74	112	86	46	134
31	69	---	65	101	---	119	---	66	---	130	52	---
MEAN	131	78.4	73.8	121	105	368	221	63.1	68.7	85.4	62.5	97.5
MAX	744	175	88	205	243	3030	1030	100	118	149	137	401
MIN	69	61	65	64	65	74	82	47	47	45	36	31
IN.	1.20	0.69	0.68	1.11	0.87	3.37	1.96	0.58	0.61	0.78	0.57	0.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	176	159	195	255	292	330	231	157	168	204	217	211
MAX	867	642	749	766	812	1100	615	788	605	510	726	1268
(WY)	1995	1998	1965	1991	1986	1991	1958	1991	1965	1956	1994	1969
MIN	35.4	46.9	69.3	71.1	59.7	45.1	61.0	28.4	28.6	45.9	47.0	38.4
(WY)	1955	1991	1991	1989	2001	1955	1999	2001	2000	2000	1954	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL MEAN	161		123		216	
HIGHEST ANNUAL MEAN					478	1965
LOWEST ANNUAL MEAN					78.9	2000
HIGHEST DAILY MEAN	2770	Aug 7	3030	Mar 4	16600	Sep 22 1969
LOWEST DAILY MEAN	21	Jun 7	31	Sep 12	21	Jun 7 2001
ANNUAL SEVEN-DAY MINIMUM	24	Jun 2	33	Sep 6	23	Jun 7 2000
MAXIMUM PEAK FLOW			4460	Mar 4	20600	Sep 22 1969
MAXIMUM PEAK STAGE			9.37	Mar 4	16.65	Sep 22 1969
INSTANTANEOUS LOW FLOW			31	Sep 11	21	Jun 12 2000
ANNUAL RUNOFF (INCHES)	17.36		13.28		23.30	
10 PERCENT EXCEEDS	391		179		429	
50 PERCENT EXCEEDS	79		80		128	
90 PERCENT EXCEEDS	36		49		59	

02330150 OCHLOCKONEE RIVER NEAR SMITH CREEK, FL

LOCATION.--Lat 30°10'35", long 84°40'05", in NE$^{1}/_{4}$ sec. 31, T. 3 S., R. 4 W., Wakulla County, Hydrologic Unit 03120002, at bridge on County Road 368 and Forest Road FH-13, 1.3 mi upstream from Smith Creek, 2.0 mi southwest of community of Smith Creek, and 39 mi upstream from mouth.

DRAINAGE AREA.--2,080 mi^{2}.

PERIOD OF RECORD.--November 1964 to November 1992 (annual peak stage); October 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is undetermined. Prior to Nov. 29, 1972, crest-stage gage at NGVD of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage-height, 29.75 ft above NGVD of 1929, Sept. 25, 1969, discharge not determined.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	793	355	395	362	1320	620	1820	422	295	411	718	398
2	582	353	417	380	1060	818	2030	415	303	420	648	365
3	461	353	421	417	836	8350	2080	408	306	403	812	340
4	404	351	418	447	698	25000	1860	403	306	395	1160	320
5	379	348	415	468	662	19800	1820	392	302	412	1190	303
6	374	339	411	534	640	12800	1940	364	296	441	1020	288
7	446	330	407	627	687	9460	1940	341	303	447	755	277
8	713	323	404	665	1160	7070	1770	333	310	445	606	268
9	926	320	403	667	1630	5700	1500	329	316	438	498	262
10	680	318	400	643	1790	4820	1340	324	319	418	421	249
11	579	317	394	611	1730	4490	1000	319	334	402	376	250
12	628	315	392	572	1570	4190	898	311	347	384	345	259
13	635	314	392	568	1370	3960	1400	312	346	374	326	345
14	608	311	392	670	1040	3910	1670	312	334	374	315	1220
15	580	303	392	1500	744	3940	1790	309	308	368	308	2060
16	577	296	391	2070	663	3740	2170	306	290	361	302	2030
17	559	293	391	1910	636	3230	2390	305	281	349	303	1410
18	536	291	399	1640	618	2820	2270	308	281	331	325	1170
19	526	290	402	1380	604	2350	1930	323	286	324	320	1210
20	510	289	398	1170	602	2210	1840	330	285	320	308	1210
21	478	289	386	1180	678	2090	1500	330	280	363	315	1200
22	448	286	380	1390	1050	2040	1130	323	277	441	328	1060
23	430	314	380	1380	1310	2160	848	326	399	547	318	929
24	423	393	393	1260	1330	2170	693	325	408	1010	303	822
25	427	411	394	1110	1170	2190	664	316	379	1030	293	926
26	412	411	392	1080	973	2010	636	308	380	877	283	1380
27	400	395	387	1200	751	2000	596	298	397	747	305	1730
28	392	391	385	1490	653	2150	525	301	394	659	388	1790
29	386	395	381	1800	---	2290	478	314	385	675	505	1730
30	375	392	375	1860	---	2130	440	304	389	928	521	1600
31	360	---	370	1600	---	1820	---	297	---	848	452	---
MEAN	517	336	395	1053	999	4914	1432	333	328	514	486	913
MAX	926	411	421	2070	1790	25000	2390	422	408	1030	1190	2060
MIN	360	286	370	362	602	620	440	297	277	320	283	249
IN.	0.29	0.18	0.22	0.58	0.50	2.72	0.77	0.18	0.18	0.29	0.27	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

MEAN	1708	1192	1381	1722	2036	4054	1317	660	879	1098	1448	1163
MAX	5932	4505	3954	3655	4510	10090	1879	1956	2609	2027	5076	2619
(WY)	1999	1998	1998	1998	1998	1998	1998	1997	2001	2001	2001	1998
MIN	480	336	395	573	774	1277	614	291	156	181	243	353
(WY)	2000	2002	2002	2000	2001	2000	1999	2001	2000	2000	2000	1997

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1996 - 2002	
ANNUAL MEAN	1777		1021		1558	
HIGHEST ANNUAL MEAN					2798	1998
LOWEST ANNUAL MEAN					591	2000
HIGHEST DAILY MEAN	17800	Aug 7	25000	Mar 4	31800	Oct 2 1998
LOWEST DAILY MEAN	256	Jun 6	249	Sep 10	128	Jul 22 2000
ANNUAL SEVEN-DAY MINIMUM	261	Jun 4	265	Sep 6	135	Jun 11 2000
MAXIMUM PEAK FLOW			27000	Mar 4	33000	Oct 2 1998
MAXIMUM PEAK STAGE			17.54	Mar 4	18.30	Oct 2 1998
INSTANTANEOUS LOW FLOW			242	Sep 10	125	Jul 22 2000
ANNUAL RUNOFF (INCHES)	11.60		6.67		10.18	
10 PERCENT EXCEEDS	4500		1960		3540	
50 PERCENT EXCEEDS	755		422		850	
90 PERCENT EXCEEDS	303		304		281	

02330400 NEW RIVER NEAR SUMATRA, FL

LOCATION.--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, on left bank 1,000 ft downstream from closed Owens bridge and dead ends of Forest Road 125 at river, 1.8 mi downstream from Cat Branch, 4.6 mi west of Tate Fire Tower, and 8.2 mi east of Sumatra.

DRAINAGE AREA.--157 mi^2.

PERIOD OF RECORD.-November 1964 to October 1986 (annual maximum discharge and gage-height), December 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929; from USGS Benchmark "TT 24 S"; elevation, 25.587 ft above NGVD of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,670 ft^3/s, Sept. 23, 1969, gage height 27.38 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	4.2	264	21	461	69	90	3.5	1.5	124	193	344
2	75	4.0	214	61	433	134	79	8.8	1.3	101	201	328
3	57	3.8	167	81	394	629	71	17	1.2	96	259	296
4	42	3.6	132	76	349	2360	64	12	1.1	91	324	246
5	31	3.3	104	88	297	3120	50	7.0	1.0	88	399	189
6	29	3.1	81	118	246	3130	38	4.7	0.92	204	436	145
7	38	3.0	64	150	236	2840	28	3.9	1.3	261	438	115
8	26	3.0	52	188	244	2440	22	3.3	1.8	265	495	88
9	29	2.9	43	234	235	2010	17	2.8	2.0	220	544	64
10	29	2.8	36	253	238	1610	19	2.6	2.3	150	531	54
11	25	2.8	31	241	239	1270	18	2.2	1.8	92	480	39
12	20	2.7	27	218	227	1010	14	2.0	1.8	57	417	29
13	17	2.7	25	199	209	837	14	1.8	2.5	41	342	160
14	34	2.7	22	205	189	705	13	1.6	2.7	59	259	386
15	35	2.7	20	287	167	604	12	1.3	2.4	39	182	672
16	30	2.7	17	328	148	529	12	1.2	2.0	36	133	823
17	46	2.6	16	365	130	472	12	1.1	1.7	28	110	854
18	43	2.6	14	391	112	422	26	1.1	1.6	16	131	794
19	33	2.6	11	392	96	371	29	1.4	2.0	10	174	713
20	25	2.6	10	372	87	317	22	1.3	1.8	16	186	701
21	19	2.5	11	359	103	268	16	1.2	4.6	30	199	721
22	13	2.5	10	371	97	225	11	1.0	4.8	43	188	685
23	10	4.7	28	377	103	185	7.4	0.95	26	93	167	624
24	8.7	9.1	117	402	109	155	5.4	0.84	66	115	138	583
25	18	59	82	429	106	134	4.6	0.71	63	128	108	598
26	14	112	60	434	99	120	3.9	0.58	41	120	85	603
27	7.1	129	54	424	90	132	3.4	0.43	55	123	74	637
28	5.6	215	46	451	78	122	3.1	0.64	74	139	178	675
29	5.1	278	38	466	---	109	2.9	0.56	110	181	213	685
30	4.7	291	31	473	---	99	2.9	1.00	122	205	298	663
31	4.4	---	25	475	---	87	---	1.8	---	203	333	---
MEAN	28.1	38.8	59.7	288	197	855	23.7	2.91	20.0	109	265	450
MAX	96	291	264	475	461	3130	90	17	122	265	544	854
MIN	4.4	2.5	10	21	78	69	2.9	0.43	0.92	10	74	29
IN.	0.21	0.28	0.44	2.12	1.31	6.28	0.17	0.02	0.14	0.80	1.95	3.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	305	66.4	34.6	156	111	432	67.0	99.7	119	282	507	450
MAX	865	202	59.7	288	197	855	194	359	362	751	1521	845
(WY)	1999	2000	2002	2002	2002	2002	2001	1997	2001	2001	2001	1998
MIN	28.1	9.72	14.3	75.7	58.8	56.3	9.19	0.001	0.080	0.49	103	73.2
(WY)	2002	1999	1999	2000	2000	2000	1999	2000	2000	2000	2000	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL MEAN	341		195		213	
HIGHEST ANNUAL MEAN					347	2001
LOWEST ANNUAL MEAN					113	2000
HIGHEST DAILY MEAN	5370	Aug 8	3130	Mar 6	5370	Aug 8 2001
LOWEST DAILY MEAN	0.00	May 17	0.43	May 27	0.00	Jun 5 1998
ANNUAL SEVEN-DAY MINIMUM	0.00	May 17	0.67	May 23	0.00	Jun 12 1998
MAXIMUM PEAK FLOW			3210	Mar 5	5430	Aug 8 2001
MAXIMUM PEAK STAGE			24.38	Mar 5	26.31	Aug 8 2001
INSTANTANEOUS LOW FLOW			0.33	May 27	0.00	Sep 11 1997
ANNUAL RUNOFF (INCHES)	29.52		16.91		18.42	
10 PERCENT EXCEEDS	975		472		565	
50 PERCENT EXCEEDS	94		74		69	
90 PERCENT EXCEEDS	1.0		2.1		0.84	

02357150 SPRING CREEK NEAR REYNOLDSVILLE, GA

LOCATION.--Lat 30°54'14", long 84°44'57", Decatur County, Hydrologic Unit 03130010, on right bank, 1 mi upstream of Smith Landing, and 3 mi north-northeast of Reynoldsville.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage and velocity recorder.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	179	184	190	143	161	300	270	147	137	330	164
2	169	170	212	197	125	192	298	265	148	145	363	155
3	168	165	202	186	145	182	307	248	152	137	385	158
4	176	160	214	178	149	202	305	242	138	144	404	151
5	171	155	237	184	151	207	314	228	150	151	420	161
6	176	166	228	179	153	252	318	225	137	154	371	157
7	150	173	216	186	158	298	319	208	141	174	351	153
8	163	162	221	178	184	316	295	195	140	171	327	153
9	167	166	221	169	e200	322	298	200	148	159	286	144
10	172	170	219	173	e220	288	289	183	168	158	258	130
11	165	165	215	172	e230	258	293	179	198	159	222	138
12	170	156	217	172	e240	262	324	191	194	146	208	138
13	176	168	215	175	e230	273	344	195	174	154	201	141
14	174	157	220	168	e210	267	373	163	159	160	196	148
15	158	158	202	175	e200	277	414	160	157	147	186	581
16	163	161	202	168	188	292	416	164	154	139	180	2290
17	161	159	205	167	178	305	450	177	147	133	185	3430
18	168	161	192	169	175	286	486	179	146	118	178	3630
19	161	155	198	174	173	277	492	143	138	116	172	3000
20	180	158	205	161	169	256	486	147	141	117	169	2200
21	166	162	197	169	156	254	436	149	129	128	172	1650
22	163	162	209	151	149	251	404	146	134	138	159	1280
23	162	170	205	165	147	243	357	149	138	141	170	1030
24	180	165	201	159	171	301	357	142	137	150	168	872
25	149	177	195	148	174	318	328	145	141	186	174	815
26	159	165	197	127	172	324	314	144	148	217	167	762
27	169	173	187	162	162	316	306	150	150	256	153	754
28	171	164	190	168	168	329	297	144	139	283	147	788
29	163	182	176	164	---	333	299	147	135	283	163	825
30	169	184	188	155	---	324	286	147	137	273	147	854
31	167	---	193	152	---	312	---	141	---	266	150	---
MEAN	167	166	205	169	176	273	350	180	149	169	231	895
MAX	180	184	237	197	240	333	492	270	198	283	420	3630
MIN	149	155	176	127	125	161	286	141	129	116	147	130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	469	273	268	380	435	662	609	263	213	280	213	347
MAX	1417	618	498	780	868	1274	1287	406	392	511	289	895
(WY)	1999	1999	1999	1999	1999	2001	2001	2001	2001	1999	1999	2002
MIN	136	146	175	169	176	273	350	180	121	121	97.1	114
(WY)	2001	2001	2001	2002	2002	2002	2002	2002	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	439		260		367	
HIGHEST ANNUAL MEAN					561	1999
LOWEST ANNUAL MEAN					216	2000
HIGHEST DAILY MEAN	3040	Mar 24	3630	Sep 18	4260	Oct 3 1998
LOWEST DAILY MEAN	149	Oct 25	116	Jul 19	45	Sep 13 2000
ANNUAL SEVEN-DAY MINIMUM	158	Nov 14	127	Jul 16	73	Aug 18 2000
MAXIMUM PEAK FLOW			4020	Sep 18	4470	Oct 3 1998
MAXIMUM PEAK STAGE			80.44	Sep 18	81.82	Oct 3 1998
10 PERCENT EXCEEDS	914		329		696	
50 PERCENT EXCEEDS	287		174		237	
90 PERCENT EXCEEDS	166		144		137	

e Estimated

02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL

LOCATION.--Lat 30°42'03", long 84°51'33", in NW¼ sec. 32, T.4 N., R.6 W., Jackson County, Hydrologic Unit 03130011, on downstream side of abandoned bridge downstream of 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 mi^2, 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 downstream 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 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 44.85 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 45.58 ft. Oct. 15, 1958 to Sept. 30, 1987, water-stage recorder at datum 40.58 ft.

REMARKS.--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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6310	6320	7350	7310	11400	9130	16400	7400	7600	6080	6270	5410
2	6330	6210	7340	7330	12600	9460	16400	7290	7610	6000	6350	5470
3	6310	6220	7280	7430	12700	10200	16400	7130	7570	5880	6370	5450
4	6290	6380	7310	7430	12700	11500	16400	7110	7370	5920	6380	5460
5	6350	6830	7330	7430	12700	16500	16100	7060	7010	5850	6390	5460
6	6340	6570	7340	7440	12700	19300	14300	7640	6500	5940	6430	5480
7	6370	6880	7340	7410	12800	18700	13600	8390	6630	5790	6410	5490
8	6330	6790	7320	7370	14400	17400	11300	9860	6500	5780	6360	5510
9	6290	6330	7320	7390	19400	17000	12500	10800	6600	5800	6340	5520
10	6300	5720	7330	7410	22600	15600	14900	10800	6510	5830	6350	5530
11	6160	5650	7380	7270	23200	14600	16400	10800	6040	5930	6200	5580
12	e6110	5680	7470	6600	23300	13400	16600	10800	6280	6040	5820	5550
13	e6120	5600	7560	6620	22000	13300	16500	10400	6660	6000	5300	5500
14	e6140	5520	7590	6600	19800	13200	16600	9730	6530	6050	5250	5540
15	e6150	5590	7480	6640	18500	13100	18000	9940	6540	6050	5310	5880
16	6050	5560	7460	6720	16900	14600	19800	9510	6610	6050	5380	5860
17	5900	5580	7420	6860	14200	15100	19200	8710	6470	6060	5370	7320
18	6060	5690	7330	6890	12900	12500	18500	8210	6510	6100	5470	8440
19	6060	5750	7340	6860	10600	10700	17600	8200	6630	6020	5440	10100
20	6100	5720	7260	6810	8920	10500	16000	7990	6480	5890	5290	10400
21	5940	5560	7240	6830	8780	12700	13200	7870	6540	5830	5310	9960
22	5810	5360	7270	8350	8550	16100	10800	7520	6490	5750	5350	9430
23	5770	5400	7300	9750	8780	16300	10500	7390	6500	5740	5400	9020
24	5790	5420	7240	9960	8990	16400	9820	7260	6440	5950	5410	8110
25	5720	5450	7250	12300	9100	16400	8530	7170	6340	6810	5410	7930
26	5990	5480	7250	15900	8890	17000	8370	6930	6030	6880	5370	8300
27	6490	5470	7260	21200	9030	18200	8460	6720	6110	6850	5390	8270
28	6300	5970	7220	17900	9160	18300	8010	7140	6100	6560	5450	8020
29	6180	7260	7300	13700	---	17900	7840	7310	6060	6450	5400	7930
30	5980	7290	7270	11600	---	16500	7720	7460	6090	6390	5430	7810
31	5990	---	7290	10800	---	16300	---	7560	---	6340	5390	---
MEAN	6130	5975	7337	9036	13770	14770	13890	8326	6578	6084	5735	6991
MAX	6490	7290	7590	21200	23300	19300	19800	10800	7610	6880	6430	10400
MIN	5720	5360	7220	6600	8550	9130	7720	6720	6030	5740	5250	5410
MED	6140	5700	7320	7410	12700	15600	15400	7640	6500	6000	5430	5870
IN.	0.41	0.39	0.49	0.61	0.83	0.99	0.90	0.56	0.43	0.41	0.38	0.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

MEAN	12450	13210	20090	27610	33560	40840	33960	21550	16340	16610	14810	12050
MAX	38500	31790	70390	62470	67310	171600	80700	53260	39460	87780	31950	25440
(WY)	1965	1993	1949	1936	1998	1929	1944	1964	1973	1994	1994	1994
MIN	5319	5524	7337	7262	10420	12780	10880	8326	4826	5117	4750	5889
(WY)	1955	1932	2002	1956	1989	1955	1999	2002	2000	2000	1988	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1929 - 2002	
ANNUAL MEAN	16060		8681		21870	
HIGHEST ANNUAL MEAN					35680	1929
LOWEST ANNUAL MEAN					8681	2002
HIGHEST DAILY MEAN	98600	Mar 23	23300	Feb 12	291000	Mar 20 1929
LOWEST DAILY MEAN	5360	Nov 22	5250	Aug 14	3900	Nov 15 1987
ANNUAL SEVEN-DAY MINIMUM	5450	Nov 21	5360	Aug 14	4530	Aug 10 1988
MAXIMUM PEAK FLOW			23400	Feb 11	293000	Mar 20 1929
MAXIMUM PEAK STAGE			47.90	Feb 12	79.55	Mar 20 1929
INSTANTANEOUS LOW FLOW			5130	Jun 11	2570	Aug 6 1986
ANNUAL RUNOFF (INCHES)	12.68		6.85		17.27	
10 PERCENT EXCEEDS	36200		16300		43400	
50 PERCENT EXCEEDS	10700		7240		15900	
90 PERCENT EXCEEDS	6150		5530		8470	

e Estimated

02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.90	39.90	40.51	40.49	42.70	41.51	45.01	40.54	40.66	39.76	39.87	39.33
2	39.91	39.83	40.51	40.51	43.27	41.68	45.01	40.48	40.66	39.71	39.92	39.37
3	39.90	39.84	40.48	40.56	43.30	42.07	45.00	40.38	40.64	39.63	39.93	39.36
4	39.88	39.94	40.49	40.56	43.29	42.71	45.03	40.37	40.53	39.66	39.94	39.37
5	39.92	40.21	40.51	40.56	43.29	45.06	44.85	40.34	40.32	39.61	39.95	39.37
6	39.92	40.05	40.51	40.57	43.31	46.26	44.05	40.68	40.01	39.67	39.97	39.38
7	39.93	40.24	40.51	40.55	43.37	45.99	43.75	41.10	40.09	39.58	39.96	39.38
8	39.91	40.19	40.50	40.53	44.07	45.44	42.63	41.88	40.02	39.57	39.93	39.40
9	39.89	39.91	40.50	40.54	46.29	45.26	43.21	42.36	40.07	39.58	39.92	39.41
10	39.89	39.53	40.51	40.55	47.59	44.65	44.32	42.35	40.02	39.60	39.92	39.41
11	39.80	39.49	40.53	40.47	47.80	44.18	45.00	42.36	39.73	39.66	39.83	39.45
12	---	39.51	40.58	40.07	47.84	43.64	45.09	42.39	39.88	39.73	39.60	39.42
13	---	39.45	40.63	40.09	47.33	43.61	45.05	42.19	40.11	39.71	39.26	39.39
14	---	39.41	40.65	40.07	46.46	43.56	45.08	41.83	40.03	39.74	39.23	39.42
15	---	39.45	40.59	40.10	45.92	43.49	45.68	41.94	40.03	39.74	39.27	39.63
16	39.74	39.43	40.58	40.14	45.22	44.19	46.42	41.71	40.08	39.74	39.31	39.62
17	39.65	39.44	40.56	40.23	44.01	44.43	46.21	41.28	40.00	39.74	39.31	40.49
18	39.74	39.51	40.50	40.25	43.40	43.23	45.90	41.00	40.02	39.77	39.37	41.13
19	39.75	39.55	40.51	40.23	42.29	42.34	45.54	41.00	40.09	39.72	39.36	42.03
20	39.77	39.53	40.46	40.20	41.39	42.21	44.81	40.88	40.00	39.64	39.26	42.18
21	39.67	39.43	40.45	40.21	41.32	43.28	43.54	40.81	40.04	39.60	39.27	41.95
22	39.59	39.30	40.47	41.07	41.19	44.88	42.37	40.61	40.01	39.55	39.29	41.67
23	39.56	39.33	40.48	41.83	41.32	44.97	42.24	40.54	40.01	39.54	39.32	41.45
24	39.58	39.34	40.45	41.94	41.43	45.00	41.87	40.47	39.98	39.67	39.33	40.94
25	39.53	39.36	40.46	43.11	41.49	44.99	41.18	40.41	39.92	40.20	39.34	40.84
26	39.70	39.38	40.46	44.76	41.38	45.26	41.09	40.27	39.72	40.24	39.31	41.06
27	40.01	39.37	40.46	47.02	41.45	45.77	41.14	40.14	39.78	40.22	39.32	41.04
28	39.89	39.68	40.44	45.67	41.52	45.81	40.89	40.39	39.77	40.05	39.36	40.90
29	39.82	40.46	40.49	43.79	---	45.67	40.79	40.49	39.74	39.98	39.33	40.85
30	39.69	40.48	40.47	42.78	---	45.06	40.73	40.58	39.76	39.95	39.34	40.78
31	39.70	---	40.48	42.36	---	44.98	---	40.64	---	39.91	39.32	---
MEAN	---	39.68	40.51	41.35	43.69	44.23	43.78	41.05	40.06	39.76	39.54	40.27
MAX	---	40.48	40.65	47.02	47.84	46.26	46.42	42.39	40.66	40.24	39.97	42.18
MIN	---	39.30	40.44	40.07	41.19	41.51	40.73	40.14	39.72	39.54	39.23	39.33

02358000 APALACHICOLA RIVER AT CHATTAHOOCHEE, FL--Continued

WATER-QUALITY RECORDS

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

SUSPENDED SEDIMENT DISHCARGE

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

Date	Time	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)
JUL						
18...	0850	900	41.27	48.6	11	8700
18...	0851	900	41.27	72.0	7	8700
18...	0853	1050	41.28	100.0	4	8700
18...	0856	1050	41.28	88.2	5	8700
18...	0859	1150	41.28	100.0	4	8710
18...	0901	1150	41.28	100.0	3	8710
18...	0904	1200	41.28	100.0	4	8710
18...	0906	1200	41.28	100.0	4	8720
18...	0909	1280	41.29	100.0	4	8720
18...	0911	1280	41.29	100.0	5	8720

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)
DEC						
06...	1450	905	40.59	36.4	12	7490
06...	1452	905	40.59	50.0	9	7490
06...	1456	1060	40.60	100.0	3	7500
06...	1458	1150	40.60	90.0	5	7500
06...	1500	1150	40.61	100.0	2	7510
06...	1502	1200	40.61	100.0	2	7510
06...	1504	1200	40.60	100.0	3	7500
06...	1506	1270	40.60	68.7	4	7500
MAR						
14...	1150	883	43.55	97.1	20	13200
14...	1152	883	43.55	95.7	19	13200
14...	1155	1040	43.55	93.8	17	13200
14...	1157	1040	43.55	91.2	15	13200
14...	1200	1150	43.55	94.4	19	13200
14...	1202	1150	43.56	100.0	15	13200
14...	1205	1200	43.56	100.0	13	13200
14...	1207	1200	43.56	100.0	12	13200
14...	1209	1290	43.56	97.9	13	13200
14...	1211	1290	43.56	100.0	14	13200
AUG						
14...	1040	915	39.35	90.9	5	5430
14...	1042	915	39.35	100.0	6	5430
14...	1046	1070	39.35	90.5	6	5430
14...	1048	1070	39.35	100.0	3	5430
14...	1052	1150	34.35	100.0	4	5430
14...	1055	1150	34.35	100.0	3	5430
14...	1103	1200	39.35	100.0	4	5430
14...	1105	1200	39.36	100.0	4	5440
14...	1110	1260	39.36	100.0	4	5450
14...	1113	1260	39.37	100.0	2	5460

02358700 APALACHICOLA RIVER NEAR BLOUNTSTOWN, FL

LOCATION.--Lat 30°25'30", long 85°01'53", in NE¼ 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^2, 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 the 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 benchmark). 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.--No estimated daily discharges. Records good.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 266,000 ft^3/s, Mar. 13, 1998; maximum gage height, 27.23 ft, Mar. 13, 1998; minimum daily discharge, 4,680 ft^3/s (estimated), Aug. 3, 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, 23,100 ft^3/s, Feb. 13, gage height, 10.08 ft; minimum daily, 5,690 ft^3/s, Sept. 13.

MAIN CHANNEL ONLY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5930	6050	7260	7180	11400	9160	17000	8570	7980	6450	6730	5860
2	5880	6130	7330	7190	10800	9160	17100	8260	7950	6460	6730	5800
3	5910	6270	7330	7310	11900	9550	17100	8050	7910	6450	6700	5780
4	5910	6250	7330	7370	12400	12300	17100	7830	7900	6380	6690	5780
5	5890	6280	7310	7380	12400	12500	17900	7730	7840	6400	6670	5730
6	5910	6430	7310	7350	12400	14800	17800	7690	7640	6440	6730	5700
7	6100	6720	7340	7470	12500	18400	16200	7760	7190	6370	6760	5700
8	6250	6580	7340	7410	12800	19400	15000	8580	7050	6340	6690	5730
9	6130	6750	7340	7330	12900	18200	13100	9140	7100	6280	6630	5740
10	6030	6670	7330	7290	17000	17700	12400	10800	7130	6300	6580	5730
11	6000	6140	7330	7260	20500	16400	14400	11000	7080	6320	6570	5710
12	5950	5920	7350	7290	22600	15600	16900	11100	6640	6270	6530	5700
13	5900	5870	7430	6980	23100	14100	17600	11200	6580	6380	6340	5690
14	5960	5870	7490	6750	22900	13900	17600	11100	6810	6430	5950	5750
15	6000	5850	7540	6750	20900	13700	17500	10500	6910	6440	5760	5870
16	6030	5830	7510	6730	19600	13400	17900	10300	6880	6450	5740	6260
17	5990	5810	7420	6690	18100	13900	20200	10300	6900	6330	5790	6520
18	5930	5790	7430	6700	15600	15300	20500	9590	6910	6270	5850	6560
19	5920	5810	7350	6780	14000	14100	19700	9010	6880	6260	5880	7530
20	5980	5890	7300	6850	12300	12100	19200	8930	6900	6270	5850	8580
21	5970	5920	7290	6860	10300	11000	17800	8800	6940	6170	5790	9710
22	5960	5920	7250	6860	9450	11200	15700	8450	6810	6170	5730	9730
23	5830	5790	7250	7010	9100	15000	12700	8290	7000	6190	5720	9170
24	5810	5840	7270	8840	8870	16500	11500	8080	6880	6130	5700	8810
25	5810	5970	7260	9340	9020	16700	11100	7810	6900	6130	5700	8450
26	5810	5870	7250	10200	9070	16700	9870	7640	6890	6650	5700	7860
27	5790	5830	7230	13400	9040	16800	9230	7620	6620	7010	5710	8000
28	6280	5800	7230	18200	8950	18200	9140	7210	6530	7050	5810	8310
29	6320	5770	7230	19400	---	18700	8960	7450	6500	6900	5910	8120
30	6280	6650	7190	15900	---	18700	8640	7640	6470	6840	5880	7760
31	6110	---	7190	13100	---	17600	---	7840	---	6730	5910	---
MEAN	5986	6076	7323	8747	13920	14860	15230	8847	7057	6428	6153	6921
MAX	6320	6750	7540	19400	23100	19400	20500	11200	7980	7050	6760	9730
MIN	5790	5770	7190	6690	8870	9160	8640	7210	6470	6130	5700	5690
IN.	0.39	0.39	0.48	0.57	0.82	0.97	0.97	0.58	0.45	0.42	0.40	0.44

CAL YR 2001 MEAN 15470 MAX 75200 MIN 5770 IN. 11.94
WTR YR 2002 MEAN 8924 MAX 23100 MIN 5690 IN. 6.88

02358700 APALACHICOLA RIVER NEAR BLOUNTSTOWN, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.98	0.82	1.60	1.66	4.50	3.11	7.29	2.36	1.95	0.82	1.09	0.36
2	0.92	0.88	1.65	1.67	4.13	3.11	7.35	2.14	1.93	0.84	1.09	0.30
3	0.94	0.99	1.66	1.77	4.80	3.37	7.32	1.99	1.90	0.83	1.07	0.27
4	0.93	0.96	1.66	1.81	5.07	5.01	7.32	1.82	1.90	0.77	1.06	0.27
5	0.91	0.99	1.65	1.82	5.10	5.13	7.70	1.74	1.86	0.79	1.04	0.21
6	0.92	1.10	1.66	1.81	5.10	6.34	7.66	1.71	1.71	0.82	1.09	0.18
7	1.07	1.33	1.68	1.90	5.14	8.11	6.87	1.75	1.38	0.77	1.12	0.18
8	1.19	1.21	1.69	1.85	5.28	8.54	6.27	2.34	1.27	0.75	1.06	0.21
9	1.08	1.34	1.69	1.80	5.38	8.01	5.29	2.72	1.31	0.70	1.01	0.23
10	0.98	1.26	1.68	1.77	7.44	7.76	4.88	3.79	1.34	0.71	0.97	0.21
11	0.96	0.82	1.69	1.76	9.02	7.16	5.94	3.92	1.30	0.73	0.96	0.20
12	0.90	0.62	1.71	1.78	9.90	6.79	7.16	3.96	0.95	0.70	0.93	0.20
13	0.85	0.56	1.77	1.54	10.08	6.01	7.52	3.99	0.90	0.79	0.77	0.20
14	0.89	0.54	1.82	1.37	10.02	5.91	7.48	3.98	1.09	0.83	0.43	0.28
15	0.92	0.51	1.86	1.37	9.16	5.79	7.45	3.59	1.17	0.84	0.23	0.42
16	0.93	0.48	1.84	1.35	8.63	5.61	7.62	3.50	1.15	0.85	0.20	0.78
17	0.90	0.45	1.78	1.32	7.96	5.85	8.65	3.47	1.17	0.76	0.27	1.01
18	0.84	0.42	1.79	1.33	6.78	6.60	8.75	3.02	1.18	0.71	0.34	1.05
19	0.82	0.44	1.74	1.39	5.94	5.96	8.41	2.64	1.15	0.70	0.38	1.82
20	0.86	0.52	1.70	1.45	5.02	4.87	8.18	2.60	1.17	0.71	0.34	2.58
21	0.84	0.54	1.69	1.46	3.83	4.23	7.53	2.51	1.20	0.62	0.27	3.35
22	0.82	0.53	1.67	1.46	3.30	4.33	6.52	2.27	1.11	0.62	0.20	3.37
23	0.69	0.37	1.67	1.58	3.07	6.37	4.97	2.16	1.26	0.64	0.19	3.02
24	0.66	0.43	1.69	2.90	2.92	7.11	4.29	2.01	1.16	0.59	0.17	2.79
25	0.65	0.55	1.69	3.23	3.02	7.20	4.04	1.82	1.18	0.59	0.17	2.55
26	0.64	0.45	1.68	3.77	3.05	7.20	3.26	1.70	1.17	1.03	0.17	2.14
27	0.60	0.39	1.68	5.64	3.03	7.26	2.84	1.69	0.95	1.32	0.18	2.25
28	1.05	0.36	1.68	8.02	2.97	7.90	2.77	1.38	0.89	1.35	0.30	2.48
29	1.08	0.33	1.68	8.55	---	8.11	2.65	1.56	0.86	1.23	0.41	2.36
30	1.04	1.12	1.66	6.93	---	8.11	2.42	1.70	0.84	1.18	0.38	2.11
31	0.88	---	1.66	5.46	---	7.61	---	1.85	---	1.09	0.41	---
TOTAL	27.74	21.31	52.77	81.52	159.64	194.47	186.40	77.68	38.40	25.68	18.30	37.38
MEAN	0.89	0.71	1.70	2.63	5.70	6.27	6.21	2.51	1.28	0.83	0.59	1.25
MAX	1.19	1.34	1.86	8.55	10.08	8.54	8.75	3.99	1.95	1.35	1.12	3.37
MIN	0.60	0.33	1.60	1.32	2.92	3.11	2.42	1.38	0.84	0.59	0.17	0.18

CAL YR 2001 TOTAL 1946.58 MEAN 5.33 MAX 21.51 MIN 0.33
WTR YR 2002 TOTAL 921.29 MEAN 2.52 MAX 10.08 MIN 0.17

02358784 MUDDY BRANCH NEAR MARIANNA, FL

LOCATION.--Lat 30°49'58", long 85°12'31", in SW¼ sec. 14, T. 5N., R. 10W., Jackson County, Hydrologic Unit 03130012, at downstream side of culvert at County Road 167, 1.4 mi west of Marianna Municipal Airport, 1.4 mi north of State Highway 166, 2.4 mi upstream from Chipola River, and 4.2 mi north of Marianna.

DRAINAGE AREA.--10.4 mi^2.

PERIOD OF RECORD.--October 1998 to September 1999, October 1999 to September 2000 (gage heights only), October 2000 to current year.

GAGE.--Water-stage recorder.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	3.1	0.95	0.00	0.00	1.00	0.00
2	0.00	0.00	0.00	0.00	0.00	3.9	1.7	0.84	0.00	0.00	2.2	0.00
3	0.00	0.00	0.00	0.00	0.00	8.2	1.5	0.76	0.00	0.00	1.3	0.00
4	0.00	0.00	0.00	0.00	0.00	2.6	4.7	0.72	0.00	3.3	0.93	0.00
5	0.00	0.00	0.00	0.00	0.00	1.2	2.1	0.79	0.00	6.4	0.82	0.00
6	0.40	0.00	0.00	0.00	0.00	0.42	1.5	0.93	0.00	1.2	0.78	0.00
7	0.72	0.00	0.00	0.00	0.00	0.03	1.2	1.0	0.00	0.41	0.69	0.00
8	0.21	0.00	0.00	0.00	0.00	0.00	1.0	0.97	0.00	0.06	0.56	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	2.4	0.90	0.00	0.00	0.43	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	4.0	0.82	0.00	0.00	0.34	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	15	0.75	0.00	0.00	0.27	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	7.3	0.69	0.00	0.00	0.17	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	3.6	0.66	0.00	0.00	0.02	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	4.0	1.1	0.00	0.00	0.00	0.81
15	0.00	0.00	0.00	0.00	0.00	0.00	3.9	0.54	0.00	0.00	0.00	139
16	0.00	0.00	0.00	0.00	0.00	0.00	4.6	0.08	0.00	0.00	0.00	6.0
17	0.00	0.00	0.00	0.00	0.00	0.00	3.1	0.00	0.00	0.00	0.12	2.5
18	0.00	0.00	0.00	0.00	0.00	0.00	2.6	0.00	0.00	0.00	0.41	1.9
19	0.00	0.00	0.00	0.00	0.00	0.00	2.3	0.00	0.00	0.00	0.32	1.5
20	0.00	0.00	0.00	0.00	0.00	0.00	2.1	0.00	0.00	0.00	0.40	1.4
21	0.00	0.00	0.00	0.00	0.00	0.13	2.0	0.00	0.00	0.00	0.27	1.2
22	0.00	0.00	0.00	0.00	0.00	0.27	1.9	0.00	0.00	0.06	0.07	1.0
23	0.00	0.00	0.00	0.00	0.00	0.05	1.7	0.00	0.00	0.88	0.08	0.91
24	0.00	0.00	0.00	0.00	0.00	0.00	1.5	0.00	0.00	16	0.00	2.2
25	0.00	0.00	0.00	0.00	0.00	0.00	1.5	0.00	0.00	17	0.00	3.5
26	0.00	0.00	0.00	0.00	0.00	1.2	1.3	0.00	0.00	2.6	0.00	2.1
27	0.00	0.00	0.00	0.00	0.00	3.1	1.2	0.00	0.00	2.0	0.26	2.8
28	0.00	0.00	0.00	0.00	0.00	1.0	1.1	0.00	0.00	1.5	1.3	1.7
29	0.00	0.00	0.00	0.00	---	0.53	1.1	0.22	0.00	1.2	0.29	1.3
30	0.00	0.00	0.00	0.00	---	0.64	1.0	0.05	0.00	1.2	0.0	1.1
31	0.00	---	0.00	0.00	---	1.1	---	0.00	---	0.95	0.00	---
MEAN	0.043	0.000	0.000	0.000	0.000	0.79	2.87	0.41	0.000	1.77	0.42	5.70
MAX	0.72	0.00	0.00	0.00	0.00	8.2	15	1.1	0.00	17	2.2	139
MIN	0.00	0.00	0.00	0.00	0.00	0.00	1.0	0.00	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	1.24	0.38	0.18	0.58	0.41	1.26	1.29	0.60	0.41	0.83	0.22	1.51
MAX	4.50	1.40	0.67	1.74	1.06	3.48	2.87	1.58	0.84	1.77	0.42	5.70
(WY)	1999	1999	1999	1999	1999	2001	2002	1999	2001	2002	2002	2002
MIN	0.000	0.000	0.000	0.000	0.000	0.31	0.38	0.000	0.000	0.005	0.001	0.099
(WY)	2001	2001	2001	2001	2001	2000	2000	2000	2002	2000	2000	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	0.57		1.00		0.92	
HIGHEST ANNUAL MEAN					1.19	1999
LOWEST ANNUAL MEAN					0.57	2001
HIGHEST DAILY MEAN	21	Mar 15	139	Sep 15	139	Sep 15 2002
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Apr 21 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 9	0.00	Sep 3 1999
MAXIMUM PEAK FLOW			285	Sep 15	285	Sep 15 2002
MAXIMUM PEAK STAGE			7.01	Sep 15	7.01	Sep 15 2002
INSTANTANEOUS LOW FLOW			0.00	Oct 1	0.00	Apr 21 1999
10 PERCENT EXCEEDS	1.7		1.8		2.0	
50 PERCENT EXCEEDS	0.00		0.00		0.10	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

02358789 CHIPOLA RIVER AT MARIANNA, FL

LOCATION.--Lat 30°46'22", long 85°12'59", in SE $^{1}/_{4}$ sec. 3, T.4N., R.10W. Jackson County, Hydrologic Unit 03130012, at bridge on downstream side of U.S. Highway 90, 0.6 mi east of courthouse in Marianna, and 78.5 mi upstream from mouth.

DRAINAGE AREA.--464 mi^{2}.

PERIOD OF RECORD.--April 1913 to October 1986 (miscellaneous discharge measurements), October 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 56 ft above National Geodetic Vertical Datum of 1929, from Topographic map. Prior to Oct. 1, 1999, nonrecording gage at same site at different datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	161	188	178	238	267	817	375	230	213	435	272
2	194	161	186	187	239	346	823	350	218	217	489	247
3	189	161	186	208	236	564	906	325	199	223	509	231
4	186	160	183	220	232	666	1060	303	179	235	450	216
5	183	159	178	221	226	704	1130	283	170	338	466	202
6	185	157	176	219	228	813	969	269	176	309	434	188
7	198	155	174	221	275	918	738	258	209	278	361	179
8	199	153	173	220	327	845	602	252	251	259	313	170
9	193	151	173	214	351	657	614	243	305	276	279	163
10	187	150	174	206	383	553	922	232	418	305	252	158
11	182	149	190	198	399	508	1270	221	439	319	231	154
12	182	148	205	200	348	493	1510	212	421	287	212	150
13	190	147	224	223	306	509	1850	210	327	274	197	151
14	199	146	226	250	287	514	2030	221	271	286	186	177
15	210	146	214	262	274	515	1990	243	250	303	183	1030
16	207	147	205	275	268	549	1810	243	254	297	193	1430
17	203	146	200	275	263	559	1550	229	265	270	232	1690
18	194	146	198	268	257	507	1310	222	256	236	225	1650
19	186	146	202	253	252	459	1130	236	251	211	202	1480
20	185	146	211	251	268	428	975	231	252	198	202	1110
21	214	147	216	262	303	425	832	216	246	194	195	752
22	223	146	205	267	324	478	728	202	224	219	185	619
23	218	153	196	269	348	522	653	190	223	253	178	564
24	208	171	195	262	365	618	594	182	221	349	177	566
25	190	181	198	266	335	698	545	175	215	339	173	652
26	181	187	198	267	301	657	509	171	251	350	164	753
27	174	191	194	263	287	565	473	166	231	443	190	876
28	169	192	188	262	276	563	439	167	229	491	243	916
29	165	188	184	256	---	672	414	181	215	470	331	906
30	163	187	182	245	---	830	395	196	215	465	353	861
31	162	---	180	237	---	889	---	212	---	442	316	---
MEAN	191	159	194	239	293	590	986	233	254	302	276	617
MAX	223	192	226	275	399	918	2030	375	439	491	509	1690
MIN	162	146	173	178	226	267	395	166	170	194	164	150
CFSM	0.41	0.34	0.42	0.51	0.63	1.27	2.13	0.50	0.55	0.65	0.59	1.33
IN.	0.47	0.38	0.48	0.59	0.66	1.47	2.37	0.58	0.61	0.75	0.69	1.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	199	219	345	435	419	1028	858	261	385	279	362	361
MAX	266	280	566	715	490	1821	1187	356	751	387	669	617
(WY)	2000	2000	2001	2001	2000	2001	2001	2001	2001	2001	2001	2002
MIN	141	159	194	239	293	590	400	194	151	149	142	159
(WY)	2001	2002	2002	2002	2002	2002	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL MEAN	602		360		429	
HIGHEST ANNUAL MEAN					634	2001
LOWEST ANNUAL MEAN					294	2000
HIGHEST DAILY MEAN	3760	Mar 19	2030	Apr 14	3760	Mar 19 2001
LOWEST DAILY MEAN	146	Nov 14	146	Nov 14	124	Aug 24 2000
ANNUAL SEVEN-DAY MINIMUM	146	Nov 14	146	Nov 14	125	Oct 31 2000
MAXIMUM PEAK FLOW			2040	Apr 14	3790	Mar 19 2001
MAXIMUM PEAK STAGE			12.28	Apr 14	15.65	Mar 19 2001
INSTANTANEOUS LOW FLOW			145	Nov 14	120	Aug 25 2000
ANNUAL RUNOFF (CFSM)	1.30		0.78		0.92	
ANNUAL RUNOFF (INCHES)	17.62		10.54		12.56	
10 PERCENT EXCEEDS	1350		732		846	
50 PERCENT EXCEEDS	410		237		278	
90 PERCENT EXCEEDS	181		170		148	

02359000 CHIPOLA RIVER NEAR ALTHA, FL

LOCATION.--Lat 30°32'02", long 85°09'55", in NW¼ sec. 32, T.2 N., R.9 W., Calhoun County, Hydrologic Unit 03130012, on right downstream bank at 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 mi^2.

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.-No estimated daily discharges. Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	482	430	458	413	510	516	1240	797	549	490	805	678
2	493	430	451	457	501	735	1190	768	539	470	836	630
3	481	434	448	451	489	1270	1240	738	523	502	870	604
4	479	425	427	464	482	1210	1440	709	515	510	831	581
5	473	418	440	473	471	1140	1480	682	491	580	811	555
6	613	404	436	497	480	1140	1410	658	486	617	827	526
7	644	402	433	478	546	1230	1170	652	529	572	755	509
8	548	402	433	471	591	1240	994	637	609	531	692	487
9	527	410	430	466	622	1100	938	624	632	527	649	472
10	506	405	424	460	646	955	1180	610	675	559	613	472
11	494	386	436	453	673	889	1980	590	736	582	578	467
12	496	379	454	453	651	869	2270	574	723	578	550	454
13	502	380	473	494	602	914	2370	564	678	555	532	497
14	539	393	491	516	562	894	2540	599	603	580	512	564
15	520	370	491	535	539	884	2670	592	553	580	504	2360
16	519	367	464	537	526	895	2590	598	531	569	507	3210
17	500	392	462	542	514	915	2370	589	550	542	563	2830
18	486	374	464	538	502	884	2110	588	553	493	630	2590
19	477	372	449	526	494	829	1860	587	533	454	571	2320
20	469	378	449	518	549	794	1630	578	531	425	558	1990
21	483	396	455	520	622	831	1410	553	523	415	548	1530
22	509	388	450	524	617	838	1230	530	506	441	527	1220
23	524	441	447	524	624	851	1110	508	493	481	512	1100
24	517	461	441	521	644	896	1020	491	503	590	503	1050
25	497	448	443	575	633	972	964	477	488	904	488	1180
26	465	451	440	554	590	1010	930	461	524	734	508	1240
27	446	453	436	540	553	1010	889	451	558	781	581	1440
28	432	448	431	534	533	927	855	452	506	845	698	1540
29	425	459	428	521	---	947	827	496	538	837	727	1500
30	435	468	424	505	---	1050	811	515	484	840	769	1420
31	430	---	416	493	---	1140	---	522	---	838	731	---
MEAN	497	412	446	502	563	960	1491	587	555	594	638	1201
MAX	644	468	491	575	673	1270	2670	797	736	904	870	3210
MIN	425	367	416	413	471	516	811	451	484	415	488	454
IN.	0.73	0.59	0.66	0.74	0.75	1.42	2.13	0.87	0.79	0.88	0.94	1.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)

MEAN	1080	957	1225	1769	2107	2375	2074	1327	1224	1267	1186	1141
MAX	6000	2763	3617	5936	5687	5465	7200	3890	3636	5353	3273	7642
(WY)	1927	1948	1948	1926	1926	1998	1948	1964	1989	1994	1946	1926
MIN	379	370	394	473	563	540	757	587	462	460	417	397
(WY)	1969	1991	1956	1956	2002	1955	1968	2002	2000	2000	2000	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1913 - 2002	
ANNUAL MEAN	936		703		1478	
HIGHEST ANNUAL MEAN					2977	1948
LOWEST ANNUAL MEAN					613	1955
HIGHEST DAILY MEAN	3860	Mar 21	3210	Sep 16	21000	Sep 19 1926
LOWEST DAILY MEAN	367	Nov 16	367	Nov 16	312	Jun 18 1972
ANNUAL SEVEN-DAY MINIMUM	378	Nov 14	378	Nov 14	336	Oct 27 1968
MAXIMUM PEAK FLOW			3430	Sep 15	25000	Sep 20 1926
MAXIMUM PEAK STAGE			16.08	Sep 16	33.55	Sep 20 1926
INSTANTANEOUS LOW FLOW			362	Nov 15	309	Nov 18 1990
ANNUAL RUNOFF (INCHES)	16.27		12.22		25.71	
10 PERCENT EXCEEDS	1870		1180		2750	
50 PERCENT EXCEEDS	741		538		1100	
90 PERCENT EXCEEDS	436		434		604	

02359051 CHIPOLA RIVER AT COCKRAN LANDING NEAR WEWAHITCHKA, FL

LOCATION.--Lat 30°06'01", long 85°10'53", NE$^1/_4$ sec.30, T.4 S., R.9 W., Gulf County, Hydrologic Unit 03130012, on left bank at Cockran Landing, 2.34 mi downstream from Dead Lake, 1.45 mi southeast of Wewahitchka and 11.5 mi upstream from mouth.

DRAINAGE AREA.--1,206 mi^2, approximately.

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

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

REMARKS.--Records good. Discharge for main channel only and includes flow diverted from the Apalachicola River through the Chipola Cutoff.

COOPERATION.--Records from October 1987 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, not determined, July 12, 1994, gage height 25.16 ft; minimum discharge 2,460 ft^3/s, Aug. 9, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of January 1978 reached a stage of 25.64 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 8,490 ft^3/s, Apr. 19, gage height, 16.26 ft, Apr. 18; minimum daily discharge, 2,950 ft^3/s, Sept. 12.

MAIN CHANNEL ONLY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3300	3160	---	---	---	---	6680	4500	4040	3440	3980	3240
2	3270	3170	---	---	---	---	6690	4420	4030	3460	4020	3220
3	3250	3190	---	---	---	---	6700	4350	4020	3410	3990	3190
4	3230	3200	---	---	---	---	6760	4260	4000	3400	3950	3160
5	3220	3210	---	---	---	---	6890	4190	3990	3450	3950	3110
6	3220	3250	---	---	---	---	6950	4150	3910	3490	4070	3080
7	3280	3300	---	---	---	---	6830	4160	3840	3500	4020	3050
8	3340	3320	---	---	---	---	6510	4300	3800	3520	3950	3030
9	3350	3340	---	---	---	---	6170	4470	3820	3490	3830	3020
10	3320	3320	---	---	---	---	5950	4730	3830	3440	3740	3000
11	3290	3200	---	---	---	---	6050	4920	3820	3420	3660	2960
12	3260	3120	---	---	---	---	6430	5010	3740	3400	3570	2950
13	3230	3080	---	---	---	---	6920	5100	3690	3420	3460	2960
14	3270	3060	---	---	---	5760	7290	5080	3710	3470	3320	3050
15	3300	3030	---	---	---	5730	7550	4980	3700	3500	3210	3150
16	3320	3020	---	---	---	5540	7860	4920	3660	3500	3150	3410
17	3290	3010	---	---	---	5530	8210	4890	3640	3450	3150	3770
18	3240	3010	---	---	---	5610	8460	4790	3620	3430	3180	4210
19	3210	3020	---	---	---	5520	8490	4630	3610	3390	3200	4590
20	3200	3040	---	---	---	5230	8370	4510	3630	3350	3220	4960
21	3190	3060	---	---	---	4950	8040	4410	3630	3330	3190	5150
22	3180	3050	---	---	---	4920	7520	4310	3610	3340	3170	5140
23	3140	3090	---	---	---	5210	6800	4220	3620	3360	3150	4970
24	3130	3180	---	---	---	5550	6280	4120	3600	3400	3110	4800
25	3130	3230	---	---	---	5800	5860	4040	3600	3440	3080	4660
26	3120	3280	---	---	---	5970	5420	3960	3590	3600	3060	4490
27	3100	3260	---	---	---	6150	5110	3910	3570	3760	3050	4500
28	3170	3230	---	---	---	6400	4880	3830	3550	3850	3090	4540
29	3200	e3220	---	---	---	6580	4730	3840	3500	3870	3180	4540
30	3200	e3200	---	---	---	6690	4590	3920	3460	3880	3210	4500
31	3170	---	---	---	---	6680	---	4030	---	3940	3220	---
MEAN	3230	3162	---	---	---	---	6700	4418	3728	3506	3456	3813
MAX	3350	3340	---	---	---	---	8490	5100	4040	3940	4070	5150
MIN	3100	3010	---	---	---	---	4590	3830	3460	3330	3050	2950
IN.	3.09	2.93	---	---	---	---	6.20	4.22	3.45	3.35	3.30	3.53

e Estimated

02359051 CHIPOLA RIVER AT COCKRAN LANDING NEAR WEWAHITCHKA, FL--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.27	9.74	---	---	---	---	15.22	11.70	10.85	9.94	11.06	9.85
2	10.20	9.76	---	---	---	---	15.20	11.55	10.84	9.97	11.12	9.82
3	10.15	9.81	---	---	---	---	15.18	11.40	10.83	9.88	11.09	9.76
4	10.10	9.82	---	---	---	---	15.22	11.24	10.81	9.86	11.03	9.70
5	10.08	9.83	---	---	---	---	15.33	11.10	10.78	9.98	11.04	9.61
6	10.08	9.89	---	---	---	---	15.36	11.00	10.67	10.05	11.23	9.54
7	10.18	10.00	---	---	---	---	15.21	11.00	10.55	10.08	11.16	9.48
8	10.30	10.03	---	---	---	---	14.84	11.18	10.48	10.11	11.05	9.45
9	10.31	10.06	---	---	---	---	14.45	11.42	10.52	10.06	10.86	9.43
10	10.24	10.00	---	---	---	---	14.18	11.80	10.55	9.98	10.69	9.39
11	10.17	9.77	---	---	---	---	14.27	12.06	10.54	9.94	10.55	9.33
12	10.10	9.59	---	---	---	---	14.65	12.20	10.40	9.90	10.38	9.31
13	10.04	9.50	---	---	---	---	15.13	12.32	10.31	9.96	10.20	9.34
14	10.11	9.44	---	---	---	14.71	15.44	12.30	10.35	10.06	9.92	9.51
15	10.17	9.37	---	---	---	14.66	15.64	12.17	10.33	10.11	9.71	9.74
16	10.19	9.35	---	---	---	14.40	15.88	12.10	10.28	10.11	9.59	10.25
17	10.13	9.32	---	---	---	14.35	16.13	12.05	10.23	10.04	9.59	10.93
18	10.03	9.30	---	---	---	14.42	16.26	11.93	10.21	10.00	9.66	11.66
19	9.96	9.32	---	---	---	14.28	16.25	11.70	10.20	9.93	9.71	12.24
20	9.93	9.36	---	---	---	13.90	16.14	11.54	10.23	9.86	9.75	12.76
21	9.90	9.38	---	---	---	13.50	15.89	11.39	10.24	9.83	9.70	13.02
22	9.87	9.36	---	---	---	13.42	15.42	11.25	10.22	9.84	9.65	13.00
23	9.78	9.45	---	---	---	13.79	14.73	11.10	10.23	9.90	9.62	12.79
24	9.74	9.63	---	---	---	14.18	14.15	10.95	10.21	9.96	9.55	12.55
25	9.74	9.71	---	---	---	14.45	13.64	10.82	10.21	10.06	9.49	12.35
26	9.71	9.81	---	---	---	14.64	13.08	10.70	10.20	10.35	9.45	12.11
27	9.66	9.76	---	---	---	14.81	12.65	10.61	10.15	10.66	9.43	12.13
28	9.81	9.70	---	---	---	15.04	12.32	10.49	10.13	10.82	9.52	12.20
29	9.86	---	---	---	---	15.21	12.08	10.51	10.03	10.86	9.72	12.19
30	9.86	---	---	---	---	15.29	11.86	10.65	9.98	10.88	9.78	12.14
31	9.79	---	---	---	---	15.25	---	10.83	---	10.99	9.82	---
MEAN	10.01	---	---	---	---	---	14.73	11.39	10.39	10.13	10.17	10.85
MAX	10.31	---	---	---	---	---	16.26	12.32	10.85	10.99	11.23	13.02
MIN	9.66	---	---	---	---	---	11.86	10.49	9.98	9.83	9.43	9.31

02359170 APALACHICOLA RIVER NEAR SUMATRA, FL

LOCATION.--Lat 29°56'57", Long 85°00'56", in SW¼ sec.14, T.6 S., R.8 W., Franklin County, Hydrologic Unit 03130011, on left bank at Brickyard Landing, 0.5 mi north of Fort Gadsden, 5.3 mi southwest of Sumatra, and 20.6 mi upstream from mouth.

DRAINAGE AREA.--19,200 mi^2, approximately.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD FL-98-4: 1994-97.

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

REMARKS.--Records good. Discharges below 15,000 ft^3/s are tide affected.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6770	6720	7270	7950	13300	10500	21700	10300	9250	7490	8890	7490
2	6800	6860	7220	8430	12700	11000	21200	10100	9090	7300	9120	7440
3	7080	7020	7270	8240	12600	21300	21000	9770	8970	7220	9220	7410
4	7300	6660	7330	7740	12600	28400	20800	9420	9070	7250	9220	7660
5	7710	6230	7440	8270	12500	27700	20800	9090	9200	7220	9220	7660
6	7550	6660	7440	9600	12600	26900	20900	9090	9140	7190	9070	7490
7	7020	7080	7520	8680	13300	26900	20700	9120	8860	7270	e9030	8220
8	6880	7110	8080	8240	13100	27100	20200	9550	8710	7330	e8990	7600
9	6880	6940	7920	8480	13100	26800	19100	9770	8760	7360	e8960	7020
10	6970	6970	8030	8630	13500	25900	16900	10400	8560	7920	e8850	6770
11	7220	7110	7870	8890	18300	24400	15800	11000	8500	7820	e8550	6770
12	7820	6690	7760	8810	21400	23400	17000	11300	8500	7710	e8240	8030
13	8240	6140	8000	8560	23700	22300	19000	11500	8290	7760	e7950	8790
14	8810	5480	8270	9120	25100	20400	20400	11500	8320	7710	e7660	8920
15	7380	4890	8160	9090	25700	19000	21400	11200	8430	7330	7470	8290
16	7140	4980	8160	8790	25500	17700	22400	11100	8190	7270	7080	8240
17	5870	4820	8760	8710	24400	16900	23500	11000	8160	7250	7110	8400
18	6080	4980	8000	8790	22300	17100	24800	11000	8430	7080	7270	9270
19	6310	5540	8160	9020	20000	16800	25300	10400	8270	7160	7160	10200
20	6800	5960	7440	8760	17700	15300	25300	9820	7950	7380	7220	11100
21	6740	6110	7520	9170	13300	13200	24600	9570	7900	7190	7220	12300
22	6740	6460	8000	9040	12500	12700	23100	9140	7710	7080	7220	12800
23	6860	7330	8990	9020	11600	12900	20400	9220	8140	7550	7250	12500
24	7250	7360	8790	9870	11000	13800	16900	9170	8400	7440	7050	12500
25	6540	7110	8160	10800	10900	16900	13200	9370	8160	7470	7110	12500
26	5170	6800	8000	11000	11000	18200	12400	9220	8110	7660	7020	12600
27	4980	6540	7760	11800	10400	19000	11800	9120	7950	8190	7020	13100
28	4980	6740	8400	13100	10300	19700	11400	8760	7760	8480	7110	12000
29	5870	7410	8890	18600	---	20600	11000	8810	7570	8630	7410	11200
30	6200	7680	8290	19400	---	21300	10500	8890	7570	8810	7630	11000
31	6520	---	8110	17500	---	21700	---	9250	---	8790	7790	---
MEAN	6790	6479	7968	10070	15870	19860	19120	9902	8397	7591	7939	9509
MAX	8810	7680	8990	19400	25700	28400	25300	11500	9250	8810	9220	13100
MIN	4980	4820	7220	7740	10300	10500	10500	8760	7570	7080	7020	6770
IN.	0.41	0.38	0.48	0.60	0.86	1.19	1.11	0.59	0.49	0.46	0.48	0.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2002, BY WATER YEAR (WY)

MEAN	14720	15640	23200	29460	40110	46110	35570	23600	18950	20640	18530	15640
MAX	40720	32420	52700	62310	71920	95690	78430	46350	29450	81670	42360	33700
(WY)	1995	1978	1993	1998	1998	1998	1980	1991	1980	1994	1994	1994
MIN	6515	6479	7968	10070	10130	16740	15610	9902	6085	5631	5878	7302
(WY)	2001	2002	2002	2002	1989	2000	1999	2002	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1978 - 2002	
ANNUAL MEAN	17660		10750		25110	
HIGHEST ANNUAL MEAN					38760	1998
LOWEST ANNUAL MEAN					10750	2002
HIGHEST DAILY MEAN	91900	Mar 26	28400	Mar 4	178000	Mar 24 1990
LOWEST DAILY MEAN	4820	Nov 17	4820	Nov 17	4820	Nov 17 2001
ANNUAL SEVEN-DAY MINIMUM	5240	Nov 14	5240	Nov 14	5240	Nov 14 2001
MAXIMUM PEAK FLOW			28800	Mar 4	179000	Mar 24 1990
MAXIMUM PEAK STAGE			6.13	Mar 4	15.36	Mar 15 1998
INSTANTANEOUS LOW FLOW			4820	Nov 17	4820	Nov 17 2001
ANNUAL RUNOFF (INCHES)	12.49		7.60		17.77	
10 PERCENT EXCEEDS	36200		20500		48000	
50 PERCENT EXCEEDS	11900		8680		19100	
90 PERCENT EXCEEDS	6880		6860		8830	

e Estimated

02359170 APALACHICOLA RIVER NEAR SUMATRA, FL--Continued

MAIN CHANNEL ONLY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6770	6720	7270	7950	13300	10500	16400	10300	9250	7490	8890	7490
2	6800	6860	7220	8430	12700	11000	16200	10100	9090	7300	9120	7440
3	7080	7020	7270	8240	12600	16100	16100	9770	8970	7220	9220	7410
4	7300	6660	7330	7740	12600	18400	16100	9420	9070	7250	9220	7660
5	7710	6230	7440	8270	12500	18200	16100	9090	9200	7220	9220	7660
6	7550	6660	7440	9600	12600	17900	16100	9090	9140	7190	9070	7490
7	7020	7080	7520	8680	13300	17900	16000	9120	8860	7270	e9030	8220
8	6880	7110	8080	8240	13100	18000	15900	9550	8710	7330	e8990	7600
9	6880	6940	7920	8480	13100	17900	15500	9770	8760	7360	e8960	7020
10	6970	6970	8030	8630	13500	17600	14800	10400	8560	7920	e8850	6770
11	7220	7110	7870	8890	15200	17200	14300	11000	8500	7820	e8550	6770
12	7820	6690	7760	8810	16300	16900	14800	11300	8500	7710	e8240	8030
13	8240	6140	8000	8560	17000	16600	15500	11500	8290	7760	e7950	8790
14	8810	5480	8270	9120	17400	15900	15900	11500	8320	7710	e7660	8920
15	7380	4890	8160	9090	17600	15500	16300	11200	8430	7330	7470	8290
16	7140	4980	8160	8790	17500	15000	16600	11100	8190	7270	7080	8240
17	5870	4820	8760	8710	17200	14800	16900	11000	8160	7250	7110	8400
18	6080	4980	8000	8790	16500	14800	17300	11000	8430	7080	7270	9270
19	6310	5540	8160	9020	15800	14700	17500	10400	8270	7160	7160	10200
20	6800	5960	7440	8760	15000	14200	17400	9820	7950	7380	7220	11100
21	6740	6110	7520	9170	13300	13200	17300	9570	7900	7190	7220	12300
22	6740	6460	8000	9040	12500	12700	16800	9140	7710	7080	7220	12800
23	6860	7330	8990	9020	11600	12900	15900	9220	8140	7550	7250	12500
24	7250	7360	8790	9870	11000	13600	14800	9170	8400	7440	7050	12500
25	6540	7110	8160	10800	10900	14800	13200	9370	8160	7470	7110	12500
26	5170	6800	8000	11000	11000	15200	12400	9220	8110	7660	7020	12600
27	4980	6540	7760	11800	10400	15500	11800	9120	7950	8190	7020	13100
28	4980	6740	8400	13100	10300	15700	11400	8760	7760	8480	7110	12000
29	5870	7410	8890	15300	---	16000	11000	8810	7570	8630	7410	11200
30	6200	7680	8290	15600	---	16200	10500	8890	7570	8810	7630	11000
31	6520	---	8110	15000	---	16400	---	9250	---	8790	7790	---
MEAN	6790	6479	7968	9758	13780	15530	15230	9902	8397	7591	7939	9509
MAX	8810	7680	8990	15600	17600	18400	17500	11500	9250	8810	9220	13100
MIN	4980	4820	7220	7740	10300	10500	10500	8760	7570	7080	7020	6770

CAL YR 2001 MEAN 12720 MAX 27800 MIN 4820
WTR YR 2002 MEAN 9874 MAX 18400 MIN 4820

e Estimated

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.16	2.28	2.52	2.38	4.62	3.07	5.44	3.04	2.65	2.07	2.58	2.32
2	2.21	2.40	2.46	2.47	4.22	3.79	5.39	2.97	2.57	1.96	2.72	2.31
3	2.32	2.45	2.43	2.50	4.05	5.34	5.37	2.83	2.52	1.92	2.83	2.44
4	2.45	2.36	2.44	2.12	4.02	6.10	5.35	2.70	2.49	1.96	2.87	2.47
5	2.59	2.22	2.44	2.34	4.00	6.04	5.34	2.56	2.57	1.99	2.87	2.37
6	2.60	2.29	2.41	3.13	4.16	5.96	5.36	2.55	2.61	2.06	2.81	2.50
7	2.40	2.44	2.42	2.53	4.45	5.96	5.33	2.57	2.54	2.12	---	2.52
8	2.31	2.44	2.52	2.27	4.32	5.98	5.28	2.71	2.57	2.16	---	2.25
9	2.36	2.40	2.55	2.40	4.35	5.95	5.16	2.90	2.52	2.33	---	2.07
10	2.37	2.35	2.54	2.50	4.66	5.87	4.92	3.17	2.50	2.43	---	2.04
11	2.65	2.36	2.52	2.60	5.07	5.72	4.78	3.38	2.52	2.39	---	2.06
12	2.85	2.21	2.50	2.60	5.41	5.62	4.92	3.55	2.52	2.34	---	2.41
13	2.99	2.08	2.60	2.50	5.65	5.51	5.15	3.60	2.46	2.35	---	2.82
14	3.23	1.87	2.72	2.56	5.79	5.30	5.31	3.52	2.46	2.18	---	2.97
15	2.49	1.72	2.66	2.67	5.85	5.14	5.41	3.39	2.48	2.05	2.27	2.81
16	2.34	1.77	2.64	2.44	5.83	5.00	5.51	3.37	2.36	1.97	2.25	2.53
17	1.98	1.71	2.83	2.41	5.71	4.92	5.63	3.35	2.32	1.98	2.23	2.67
18	2.02	1.76	2.60	2.42	5.50	4.94	5.76	3.34	2.37	1.97	2.26	3.02
19	2.15	1.93	2.52	2.45	5.26	4.91	5.81	3.04	2.35	2.15	2.27	3.34
20	2.32	2.06	2.29	2.41	5.01	4.73	5.81	2.78	2.25	2.23	2.28	3.77
21	2.35	2.10	2.19	2.55	4.62	4.46	5.74	2.69	2.22	2.17	2.25	4.08
22	2.35	2.17	2.36	2.49	4.08	4.17	5.59	2.53	2.24	2.25	2.21	4.20
23	2.37	2.39	2.86	2.56	3.64	4.31	5.30	2.53	2.60	2.27	2.13	4.12
24	2.47	2.49	2.83	2.90	3.32	4.67	4.92	2.72	2.50	2.27	2.08	4.07
25	2.39	2.30	2.45	3.21	3.29	4.92	4.56	2.76	2.45	2.25	2.05	4.07
26	1.84	2.20	2.37	3.34	3.35	5.06	4.16	2.74	2.40	2.31	2.01	4.52
27	1.56	2.20	2.31	3.87	3.15	5.15	3.76	2.69	2.32	2.45	1.99	4.58
28	1.62	2.31	2.61	4.62	2.96	5.23	3.53	2.61	2.23	2.51	2.05	4.08
29	1.93	2.57	2.80	5.10	---	5.32	3.31	2.62	2.14	2.56	2.13	3.71
30	2.02	2.68	2.60	5.19	---	5.40	3.14	2.67	2.10	2.59	2.25	3.55
31	2.14	---	2.47	4.98	---	5.44	---	2.72	---	2.55	2.38	---
TOTAL	71.83	66.51	78.46	90.51	126.34	159.98	151.04	90.60	72.83	68.79	---	92.67
MEAN	2.32	2.22	2.53	2.92	4.51	5.16	5.03	2.92	2.43	2.22	---	3.09
MAX	3.23	2.68	2.86	5.19	5.85	6.10	5.81	3.60	2.65	2.59	---	4.58
MIN	1.56	1.71	2.19	2.12	2.96	3.07	3.14	2.53	2.10	1.92	---	2.04

WATER-QUALITY RECORDS

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

REMARKS.--Discharge for sediment samples represent main channel only.

MAIN CHANNEL ONLY
WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

Date	Time	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)
JUL						
18...	1315	91	4.05	100.0	16	12700
18...	1317	91	4.05	100.0	15	12700
18...	1320	196	4.05	100.0	17	12700
18...	1322	196	4.05	100.0	16	12700
18...	1325	296	4.05	97.3	19	12700
18...	1327	296	4.05	97.3	20	12700
18...	1330	393	4.05	97.3	19	12700
18...	1332	393	4.05	100.0	18	12700
18...	1335	497	4.05	100.0	17	12700
18...	1337	497	4.05	100.0	16	12700

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	GAGE HEIGHT (FEET) (00065)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)
DEC						
06...	1139	87	2.47	57.1	14	8110
06...	1141	87	2.47	81.0	12	8110
06...	1147	156	2.47	93.3	10	8110
06...	1150	254	2.47	77.5	13	8110
06...	1152	254	2.47	100.0	9	8110
06...	1155	365	2.47	100.0	7	8110
06...	1157	365	2.47	100.0	9	8110
06...	1200	484	2.47	100.0	7	8110
06...	1203	484	2.47	100.0	8	8110
APR						
05...	1137	97	5.33	58.1	38	16000
05...	1140	184	5.33	71.0	34	16000
05...	1145	272	5.33	64.4	34	16000
05...	1152	368	5.33	34.9	69	16000
05...	1154	481	5.33	66.7	32	16000
05...	1156	481	5.33	86.6	24	16000
AUG						
14...	1448	70	2.39	100.0	9	8500
14...	1450	70	2.39	100.0	9	8500
14...	1452	155	2.38	100.0	10	8480
14...	1453	155	2.38	100.0	10	8480
14...	1455	254	2.38	100.0	11	8480
14...	1457	254	2.38	100.0	9	8480
14...	1459	365	2.37	100.0	11	8450
14...	1501	365	2.37	100.0	12	8450
14...	1504	484	2.37	100.0	9	8450
14...	1506	484	2.37	100.0	10	8450

02359315 MARTIN BAYOU AT US 98 AT SPRINGFIELD, FL

LOCATION.--Lat 30°08'06", long 85°36'56", in SE¼ sec. 14, T. 4 S., R. 14 W., Bay County, Hydrologic Unit 03140101, at upstream side of concrete weir control structure above U.S. Highway 98, at boundary of Parker and Springfield communities, 0.9 mi west of State Road 22-A, and 1.2 mi south of State Highway 22.

DRAINAGE AREA.--3.96 mi^2.

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder and crest-stage gage.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	17	24	30	16	12	17	12	16	8.9	8.2	6.2
2	30	17	29	38	15	27	16	12	11	7.8	10	6.0
3	28	18	33	36	14	66	16	11	8.2	8.7	12	6.4
4	27	18	33	32	13	47	15	10	7.3	8.2	13	6.6
5	27	19	35	29	13	34	14	10	6.7	7.6	15	6.6
6	23	22	34	25	15	28	12	10	7.1	7.6	12	8.0
7	22	24	33	22	24	24	10	8.9	7.8	7.5	18	7.5
8	20	26	34	20	21	21	10	9.5	10	8.4	43	7.1
9	19	26	36	17	18	19	37	9.2	9.4	7.8	25	8.6
10	18	27	36	18	17	17	61	8.3	8.2	7.8	13	7.8
11	19	27	37	18	16	15	54	7.3	7.0	7.5	10	7.8
12	17	27	36	19	15	17	58	7.1	6.6	7.8	9.0	7.6
13	20	27	36	22	15	20	53	6.4	6.0	9.1	8.1	7.6
14	23	26	36	25	14	18	65	6.1	5.5	8.3	7.7	17
15	22	24	37	28	13	16	51	5.0	4.9	7.5	7.4	25
16	22	25	38	23	13	15	38	4.3	4.2	7.3	7.8	23
17	20	26	37	20	13	15	29	4.2	5.3	6.9	9.1	18
18	20	25	39	19	13	15	23	5.0	5.8	6.4	9.1	15
19	19	26	35	18	12	15	19	5.4	5.7	6.1	9.1	12
20	16	26	32	18	17	14	17	3.9	6.2	6.0	8.3	12
21	16	26	31	20	23	15	17	3.5	6.4	5.4	8.3	13
22	17	26	31	20	20	14	16	3.0	6.8	5.3	9.2	12
23	18	34	36	18	17	12	16	2.1	5.9	5.0	11	10
24	16	33	42	18	15	13	15	1.9	5.2	4.9	9.7	11
25	14	37	38	18	14	14	14	2.3	10	6.4	8.5	12
26	16	35	36	17	14	15	14	2.2	15	6.8	7.6	30
27	17	34	34	17	12	17	13	2.6	14	6.2	6.5	33
28	15	32	32	20	12	15	13	2.7	10	5.8	6.9	21
29	16	31	31	18	---	14	13	2.7	8.3	5.1	6.3	15
30	16	27	31	17	---	14	12	13	8.1	5.6	6.4	13
31	16	---	29	17	---	14	---	21	---	7.0	6.9	---
MEAN	20.0	26.3	34.2	21.8	15.5	19.7	25.3	6.86	7.95	6.99	11.0	12.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	20.3	17.7	16.3	16.9	10.7	17.5	15.9	10.7	12.0	13.5	15.3	18.2

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	24.9		17.4		15.5	
HIGHEST DAILY MEAN	117	Sep 25	66	Mar 3	e480	Oct 1 1998
LOWEST DAILY MEAN	7.6	Jan 10	1.9	May 24	1.4	Jul 22 2000
ANNUAL SEVEN-DAY MINIMUM	8.8	Jan 9	2.4	May 23	2.1	Jul 17 2000
MAXIMUM PEAK FLOW			74	Mar 3	e480	Oct 1 1998
MAXIMUM PEAK STAGE			10.62	Mar 3	10.92	Jun 11 2001
INSTANTANEOUS LOW FLOW			1.3	May 23	0.90	Jul 21 2000
10 PERCENT EXCEEDS	40		34		33	
50 PERCENT EXCEEDS	23		15		10	
90 PERCENT EXCEEDS	10		6.2		4.2	

e Estimated

02359500 ECONFINA CREEK NEAR BENNETT, FL.

LOCATION.--Lat 30°23'04", long 85°33'24", in SE$^1/_4$ 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 mi^2.

PERIOD OF RECORD.--October 1935 to September 1994. Monthly discharge only for October and November 1936, published in WSP1304. October 1998 to current year.

REVISED RECORDS.--WSP 872: 1937. WSP 1906: Drainage area. WRD FL-80-4: 1979. WRD FL-93-4: 1948 (M), 1989 (M).

GAGE.--Water-stage recorder. Datum of gage is 1.03 ft above National Geodetic Vertical Datum of 1929. Nov. 11, 1935 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 and Oct. 1, 1966 to Sept. 30, 1994, water-stage recorder at present site and datum.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	396	353	395	339	326	330	404	414	456	405	539	473
2	392	350	376	377	326	551	434	390	397	390	685	434
3	384	352	357	420	327	964	389	381	374	373	684	421
4	382	352	353	386	330	768	382	377	370	389	539	409
5	381	349	350	357	330	559	371	371	369	389	550	391
6	400	346	347	367	331	469	365	371	372	396	531	384
7	443	346	346	364	371	434	361	369	376	384	497	384
8	446	343	346	346	416	417	357	368	426	384	455	383
9	418	343	346	334	371	399	542	368	493	382	431	375
10	388	344	343	327	348	388	728	364	496	368	416	378
11	373	343	343	323	341	382	711	364	409	364	402	378
12	374	343	343	320	337	395	663	365	381	363	396	377
13	390	343	345	326	334	453	543	364	371	375	401	376
14	429	343	346	344	333	447	556	380	372	423	404	446
15	419	343	348	351	330	411	531	381	386	416	408	769
16	390	339	349	345	330	391	477	371	371	379	424	1580
17	366	339	352	335	330	382	456	368	367	366	416	1220
18	363	339	353	328	326	375	439	366	366	364	467	734
19	368	339	357	323	326	371	431	370	370	357	459	574
20	370	339	351	321	352	370	424	368	370	351	464	523
21	370	339	345	325	451	379	408	365	368	358	462	507
22	366	339	343	329	442	387	397	362	364	442	443	495
23	364	380	347	324	360	378	390	357	365	504	426	477
24	365	422	353	320	343	371	384	354	364	495	400	468
25	366	454	351	320	337	368	382	353	376	737	400	542
26	357	437	346	322	335	378	378	350	394	729	410	629
27	353	397	344	326	332	408	373	350	445	536	405	654
28	350	376	343	326	330	401	371	347	425	523	391	622
29	351	367	343	326	---	376	383	373	374	576	395	537
30	354	382	341	326	---	371	435	496	369	563	487	493
31	354	---	339	326	---	369	---	524	---	515	541	---
MEAN	381	359	350	339	348	434	449	377	391	439	462	548
MAX	446	454	395	420	451	964	728	524	496	737	685	1580
MIN	350	339	339	320	326	330	357	347	364	351	391	375
IN.	3.60	3.29	3.31	3.20	2.97	4.10	4.11	3.57	3.58	4.15	4.37	5.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2002, BY WATER YEAR (WY)

MEAN	505	499	509	534	544	578	560	504	513	553	572	557
MAX	769	890	818	780	838	1045	1176	789	958	1005	962	824
(WY)	1965	1948	1948	1993	1986	1991	1948	1946	1989	1994	1939	1937
MIN	301	323	317	326	306	358	332	272	334	337	339	344
(WY)	2001	1956	1956	2001	2001	1956	1956	2001	2000	2000	2000	1955

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1936 - 2002	
ANNUAL MEAN	374		407		536	
HIGHEST ANNUAL MEAN					758	1948
LOWEST ANNUAL MEAN					363	2001
HIGHEST DAILY MEAN	969	Aug 7	1580	Sep 16	4670	Mar 3 1991
LOWEST DAILY MEAN	252	May 28	320	Jan 12	252	May 28 2001
ANNUAL SEVEN-DAY MINIMUM	257	May 24	323	Jan 20	257	May 24 2001
MAXIMUM PEAK FLOW			1830	Sep 16	5850	Mar 3 1991
MAXIMUM PEAK STAGE			9.72	Sep 16	14.37	Mar 3 1991
INSTANTANEOUS LOW FLOW			317	Jan 25	250	May 28 2001
ANNUAL RUNOFF (INCHES)	41.63		45.25		59.66	
10 PERCENT EXCEEDS	490		518		702	
50 PERCENT EXCEEDS	346		374		505	
90 PERCENT EXCEEDS	292		335		392	

02365200 CHOCTAWHATCHEE RIVER NEAR PITTMAN, FL

LOCATION.--Lat 30°56'59", long 85°50'35", in NW¼ sec. 9, T. 6 N., R. 16 W., Holmes County, Hydrologic Unit 03140203, on downstream side of bridge on State Highway 2, 1.5 mi west of Pittman, 3.8 mi downstream from Florida-Alabama State line, and 84 mi upstream from mouth.

DRAINAGE AREA.--3,209 mi^2.

PERIOD OF RECORD.--May 1957, April 1960 and October 1975 to June 1976 (gage height and discharge measurements only), July 1976 to September 1981, October 1996 to September 1998 (gage height and discharge measurements only), October 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 51.83 ft above National Geodetic Vertical Datum of 1929 (levels by Northwest Florida Water Management District). Apr. 8, 1957 to Sept. 15, 1976, nonrecording gage at same site and datum, July 1, 1976 to Sept. 30, 1981, water stage recorder, Oct. 1, 1996 to Sept. 30, 1998, nonrecording gage.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	956	835	2760	1300	1790	1620	4200	1260	1230	932	1510	932
2	954	852	2370	1320	1740	2270	4150	1210	1050	1010	1490	839
3	851	874	2010	1480	1710	5210	3750	1150	1010	1170	2220	786
4	822	822	1810	1650	1610	6550	3140	1100	1250	1050	1540	e716
5	912	852	1650	1670	1520	5740	2700	1100	1090	935	1120	e658
6	849	831	1510	1680	1560	4520	2300	1130	1020	909	1000	e592
7	915	842	1450	1800	3020	3770	2050	1110	1080	791	914	559
8	899	830	1400	1840	5810	3300	1870	1000	1120	821	849	535
9	888	e834	1350	1760	6370	2940	3190	1020	1430	998	722	505
10	921	e836	1320	1710	5710	2670	8620	925	1150	1040	659	471
11	833	e810	1380	1620	4890	2890	9810	911	936	947	622	481
12	904	e819	1420	1560	4220	2840	11600	854	806	819	569	460
13	1010	e834	1460	1700	3660	3870	10400	819	697	794	e548	456
14	1390	e843	1530	2130	2980	5940	8690	1050	710	1050	e529	507
15	1950	e848	1590	2380	2450	5540	7310	1210	677	991	e536	640
16	2020	841	1670	2420	2190	4540	6620	1060	643	803	e563	762
17	1700	827	1640	2170	2000	3910	5780	816	690	660	590	717
18	1470	827	2060	1940	1880	3500	4870	867	800	618	677	599
19	1280	834	2450	1770	1790	3170	4100	993	861	546	761	579
20	1170	862	2090	1980	1870	2720	3420	1030	675	559	690	548
21	1140	846	1860	2670	2650	3100	2800	904	576	651	672	551
22	1060	863	1770	2630	3170	5090	2380	747	572	610	780	582
23	1000	913	1620	2480	2750	5140	2100	822	566	586	802	571
24	945	1130	1690	2340	2400	4960	1880	734	546	919	841	599
25	929	1550	1720	2260	2110	4900	1750	716	574	1220	732	1350
26	933	1780	1620	2420	1940	4650	1620	669	557	1610	710	2060
27	888	3190	1500	2440	1800	4990	1510	646	612	1550	637	3120
28	890	4050	1450	2250	1710	4710	1410	653	650	1480	e641	3110
29	814	4150	1410	2090	---	3570	1360	633	718	1590	e663	2250
30	860	3460	1360	1970	---	2970	1290	739	716	1650	753	1650
31	798	---	1330	1830	---	2910	---	1130	---	1550	942	---
MEAN	1063	1290	1685	1976	2761	4016	4222	936	834	995	848	940
MAX	2020	4150	2760	2670	6370	6550	11600	1260	1430	1650	2220	3120
MIN	798	810	1320	1300	1520	1620	1290	633	546	546	529	456
IN.	0.38	0.45	0.61	0.71	0.90	1.44	1.47	0.34	0.29	0.36	0.30	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

MEAN	2781	2754	3743	5665	6038	9696	6365	3929	2860	2473	2196	1846
MAX	9492	5727	10700	15520	12730	18540	15910	12040	6725	5871	3933	3777
(WY)	1999	1978	1977	1978	1979	1980	1980	1978	1978	1999	1978	1977
MIN	547	1290	1685	1971	2625	3024	1727	622	534	432	568	747
(WY)	2001	2002	2002	1981	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002	
ANNUAL MEAN	3748		1789		4170	
HIGHEST ANNUAL MEAN					7220	1978
LOWEST ANNUAL MEAN					1480	2000
HIGHEST DAILY MEAN	30800	Mar 7	11600	Apr 12	64000	Jan 28 1978
LOWEST DAILY MEAN	798	Oct 31	456	Sep 13	327	Jul 21 2000
ANNUAL SEVEN-DAY MINIMUM	829	Nov 6	488	Sep 8	355	Jul 17 2000
MAXIMUM PEAK FLOW			11900	Apr 12	64700	Jan 28 1978
MAXIMUM PEAK STAGE			17.29	Apr 12	28.56	Jan 28 1978
INSTANTANEOUS LOW FLOW			364	Jun 24	308	Jul 21 2000
ANNUAL RUNOFF (INCHES)	15.86		7.57		17.66	
10 PERCENT EXCEEDS	9080		3760		9280	
50 PERCENT EXCEEDS	2020		1230		2420	
90 PERCENT EXCEEDS	913		635		904	

e Estimated

02365470 WRIGHTS CREEK AT SH 177A NEAR BONIFAY, FL

LOCATION.--Lat 30°51'25", long 85°45'44", in NW¼ sec. 8, T. 5 N., R. 17 S., Holmes County, Hydrologic Unit 03140203, on downstream side of bridge on U.S. Highway 177A, 0.4 mi above Caney Branch, 7.3 mi upstream of mouth, and 7.6 mi northwest of Bonifay.

DRAINAGE AREA.--148 mi^2.

PERIOD OF RECORD.--March 1983 to September 1987, discharge measurements and annual maximum discharge, October 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 42.94 ft above National Geodetic Vertical Datum of 1929. Mar. 23, 1983 to Sept. 30, 1987, nonrecording gage and crest-stage gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	39	53	46	60	62	665	75	49	46	71	40
2	47	38	53	52	59	144	842	71	46	43	54	42
3	46	40	51	59	58	403	677	68	44	41	46	40
4	45	39	50	59	56	478	475	64	42	42	43	38
5	44	39	48	56	54	414	328	61	44	47	42	36
6	48	38	48	55	60	297	258	58	53	96	46	34
7	48	38	47	56	101	228	219	56	64	55	43	33
8	48	38	47	55	151	198	192	54	67	45	39	32
9	46	38	46	53	139	172	285	52	75	41	36	31
10	45	38	52	52	105	154	918	51	85	40	34	29
11	44	39	64	51	88	145	1270	51	64	40	33	29
12	44	39	65	53	79	146	1280	51	54	39	32	29
13	45	38	59	61	73	247	1030	58	49	40	31	31
14	52	38	56	71	71	310	769	127	47	39	32	42
15	51	38	55	77	68	275	586	149	54	37	35	104
16	49	38	53	77	65	222	490	90	61	35	36	184
17	48	38	53	69	62	197	460	72	52	35	40	142
18	47	37	55	63	60	175	387	68	49	35	52	78
19	46	37	60	64	59	146	316	70	47	32	47	63
20	45	37	58	75	67	132	263	65	48	34	43	56
21	45	38	55	85	100	156	222	59	47	37	45	52
22	44	38	51	76	126	285	188	55	45	35	45	50
23	43	49	52	70	103	325	161	53	44	44	42	47
24	42	62	55	66	83	249	139	51	43	44	41	49
25	42	73	56	66	75	186	120	49	43	46	38	78
26	40	67	55	68	73	199	107	47	42	52	38	191
27	39	58	51	68	67	430	97	46	46	47	38	289
28	39	53	50	64	65	583	89	45	44	52	41	265
29	39	51	49	63	---	544	83	46	44	64	45	187
30	39	52	48	61	---	370	78	52	48	59	42	124
31	39	---	47	60	---	303	---	53	---	54	40	---
MEAN	44.7	43.5	53.0	62.9	79.5	264	433	63.5	51.3	45.0	41.6	81.5
MAX	52	73	65	85	151	583	1280	149	85	96	71	289
MIN	39	37	46	46	54	62	78	45	42	32	31	29
IN.	0.35	0.33	0.41	0.49	0.56	2.05	3.27	0.49	0.39	0.35	0.32	0.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	90.0	79.1	126	170	132	348	206	46.4	140	127	115	63.1
MAX	249	150	246	351	223	724	433	63.5	282	365	323	93.1
(WY)	1999	1999	2001	1999	1999	2001	2002	2002	2001	1999	2001	2001
MIN	29.6	38.0	44.1	60.5	79.5	202	67.9	28.5	31.6	29.8	21.5	38.4
(WY)	2001	2000	2000	2000	2002	2000	1999	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	189		105		137	
HIGHEST ANNUAL MEAN					208	2001
LOWEST ANNUAL MEAN					57.9	2000
HIGHEST DAILY MEAN	1930	Mar 16	1280	Apr 12	1930	Mar 16 2001
LOWEST DAILY MEAN	33	May 31	29	Sep 10	16	Aug 18 2000
ANNUAL SEVEN-DAY MINIMUM	35	May 25	31	Sep 7	17	Aug 15 2000
MAXIMUM PEAK FLOW			1420	Apr 12	7200	Mar 6 1984
MAXIMUM PEAK STAGE			8.92	Apr 12	13.73	Mar 6 1984
INSTANTANEOUS LOW FLOW			27	Sep 10	15	Aug 21 2000
ANNUAL RUNOFF (INCHES)	17.38		9.63		12.59	
10 PERCENT EXCEEDS	448		224		319	
50 PERCENT EXCEEDS	91		53		62	
90 PERCENT EXCEEDS	39		38		31	

02365500 CHOCTAWHATCHEE RIVER AT CARYVILLE, FL

LOCATION.--Lat 30°46'32", long 85°49'40", in NW¼ 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 mi^2.

PERIOD OF RECORD.--August 1929 to September 1994, October 1994 to September 1996(gage height only), October 1996 to September 1997, October 1997 to September 1998(gage height only), October 2000 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.--No estimated daily discharges. Records good.

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 ft^3/s from rating curve extended above 160,000 ft^3/s on basis of slope-area determination of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	944	3330	1480	2050	1960	4140	1960	1610	1160	1890	1150
2	1200	978	2800	1480	1990	2150	4870	1860	1610	1270	1840	1110
3	1120	994	2450	1570	1950	3530	4930	1780	1400	1360	2040	1030
4	1030	987	2160	1740	1880	5240	4430	1690	1510	1420	2260	983
5	1030	953	1970	1850	1760	5900	3790	1640	1620	1300	1760	896
6	1080	973	1820	1880	1730	5580	3240	1640	1460	1200	1420	834
7	1050	954	1700	1940	2120	4760	2820	1630	1480	1180	1220	799
8	1120	950	1630	2020	3750	4100	2550	1550	1500	1100	1150	757
9	1060	956	1570	2000	5120	3620	2760	1490	1670	1180	1050	736
10	1080	952	1560	1940	5520	3290	5310	1430	1780	1280	951	713
11	1060	944	1540	1880	5290	3130	8670	1360	1520	1290	865	685
12	1020	898	1600	1800	4770	3210	12500	1320	1320	1160	825	688
13	1060	905	1640	1800	4230	3460	14800	1260	1150	1070	787	680
14	1290	922	1690	2050	3690	4490	13900	1430	1080	1170	743	739
15	1690	927	1730	2410	3070	5390	11000	1720	1080	1310	744	911
16	2160	922	1800	2560	2650	5260	8400	1760	1020	1180	765	1020
17	2070	917	1860	2510	2420	4650	7180	1450	993	1010	786	1120
18	1840	917	1950	2300	2250	4130	6190	1300	1050	901	845	1010
19	1620	914	2370	2100	2140	3790	5340	1380	1150	841	938	874
20	1460	922	2460	2080	2120	3400	4630	1490	1130	802	958	840
21	1370	937	2200	2410	2410	3170	3960	1460	973	865	887	805
22	1290	943	2050	2760	3070	3940	3390	1250	895	890	936	800
23	1250	999	1950	2690	3210	4910	2950	1170	885	836	996	820
24	1200	1100	1890	2570	2860	5020	2700	1170	875	946	1020	788
25	1110	1400	1940	2510	2570	4970	2550	1120	883	1270	1010	1020
26	1110	1730	1910	2480	2360	4890	2420	1080	887	1580	962	1860
27	1050	2230	1790	2610	2180	4910	2310	1040	870	1950	898	2590
28	1070	3250	1700	2530	2070	5150	2220	1000	943	1830	905	3120
29	997	3810	1630	2400	---	4880	2150	1010	1000	1880	878	2950
30	982	3880	1570	2260	---	4150	2060	1030	1020	1990	918	2450
31	992	---	1530	2140	---	3600	---	1250	---	1970	1000	---
MEAN	1250	1304	1929	2153	2901	4214	5272	1410	1212	1264	1105	1159
MAX	2160	3880	3330	2760	5520	5900	14800	1960	1780	1990	2260	3120
MIN	982	898	1530	1480	1730	1960	2060	1000	870	802	743	680
IN.	0.41	0.42	0.64	0.71	0.86	1.39	1.68	0.46	0.39	0.42	0.36	0.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)

MEAN	3059	3384	5276	7361	8373	10070	8522	4772	3739	4178	3867	3087
MAX	17160	11790	24150	23510	16190	29190	22900	15700	12450	42530	17120	16650
(WY)	1999	1990	1954	1936	1982	1998	1975	1946	1989	1994	1939	1937
MIN	607	992	1395	1925	2846	1777	2343	1410	1107	1187	856	905
(WY)	2001	1932	1956	1956	2001	1955	1967	2002	1988	1986	2000	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1930 - 2002	
ANNUAL MEAN	4064		2090		5431	
HIGHEST ANNUAL MEAN					9163	1946
LOWEST ANNUAL MEAN					2090	2002
HIGHEST DAILY MEAN	30000	Mar 8	14800	Apr 13	162000	Jul 9 1994
LOWEST DAILY MEAN	898	Nov 12	680	Sep 13	503	Oct 30 2000
ANNUAL SEVEN-DAY MINIMUM	915	Nov 12	714	Sep 8	505	Oct 26 2000
MAXIMUM PEAK FLOW			15200	Apr 13	164000	Jul 9 1994
MAXIMUM PEAK STAGE			11.33	Apr 13	23.85	Jul 9 1994
INSTANTANEOUS LOW FLOW			647	Sep 13	500	Oct 30 2000
ANNUAL RUNOFF (INCHES)	15.77		8.11		21.09	
10 PERCENT EXCEEDS	9390		4130		11300	
50 PERCENT EXCEEDS	2300		1580		3590	
90 PERCENT EXCEEDS	1080		896		1410	

02365769 BRUCE CREEK AT SH 81 NEAR REDBAY, FL

LOCATION.--Lat 30°37'28", long 85°56'33", in NE¼ sec. 33, T. 3 N., R. 17 W., Walton County, Hydrologic Unit 03140203, on downstream side of bridge on State Highway 81, 0.6 mi north of Bruce Creek School, 1.4 mi south of Knox Hill, and 2.4 mi north of Redbay.

DRAINAGE AREA.--82.4 mi^2.

PERIOD OF RECORD.--October 1998 to current year.

REVISED RECORDS.--WRD FL-01-4:2000.

GAGE.--Water-stage recorder.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e43	e23	70	27	40	41	250	70	17	16	145	16
2	e42	e22	64	37	44	151	303	58	16	20	101	15
3	e41	e22	48	79	42	713	179	50	14	21	67	15
4	e40	e21	42	68	36	975	138	44	14	37	52	13
5	e41	e21	38	49	32	376	117	40	15	52	67	13
6	e43	e20	36	44	33	215	92	38	23	62	85	12
7	e45	e19	35	52	86	181	72	37	42	60	78	11
8	e43	e19	34	51	172	156	58	35	56	43	49	10
9	e42	e18	33	42	105	132	197	32	32	59	35	9.9
10	e40	18	35	37	77	114	2800	29	23	70	28	10
11	e39	17	34	35	77	97	2250	27	19	85	23	9.9
12	e38	17	33	36	80	91	1170	25	16	70	20	9.2
13	e39	17	33	64	75	230	1030	24	14	39	19	11
14	e42	17	33	77	63	264	749	27	12	54	17	42
15	e40	23	36	85	50	168	457	39	90	88	17	549
16	e38	18	38	87	39	134	319	33	205	67	30	1440
17	e37	16	35	61	35	125	258	26	72	39	27	573
18	e35	17	32	50	32	114	219	25	41	28	26	220
19	e34	16	31	46	30	98	188	32	36	22	24	117
20	e33	17	30	47	64	84	162	41	39	18	21	89
21	e32	16	28	52	227	96	140	31	49	18	24	80
22	e30	16	26	49	188	160	119	25	32	19	23	72
23	e29	26	29	43	95	111	101	22	25	21	19	64
24	e27	66	57	40	70	89	84	20	22	35	18	56
25	e26	120	65	45	58	88	73	19	21	81	15	82
26	e25	283	45	59	51	89	125	17	21	149	22	209
27	e24	175	36	55	48	116	152	17	24	96	32	560
28	e24	76	33	46	44	120	92	16	26	83	22	697
29	e25	58	31	43	---	96	74	18	20	150	25	291
30	e25	55	30	43	---	86	77	20	17	158	21	160
31	e24	---	28	41	---	82	---	18	---	145	17	---
MEAN	35.0	42.3	38.0	51.3	71.2	180	402	30.8	35.1	61.5	37.7	182
MAX	45	283	70	87	227	975	2800	70	205	158	145	1440
MIN	24	16	26	27	30	41	58	16	12	16	15	9.2
IN.	0.49	0.57	0.53	0.72	0.90	2.52	5.44	0.43	0.48	0.86	0.53	2.46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	149	70.9	100	120	84.5	221	157	27.7	94.7	120	162	96.5
MAX	504	149	184	231	127	371	402	55.2	185	292	455	182
(WY)	1999	1999	1999	1999	1999	2001	2002	1999	1999	1999	2001	2002
MIN	19.2	30.7	38.0	51.3	69.6	74.8	34.4	10.1	9.58	12.7	16.2	33.2
(WY)	2001	2000	2002	2002	2000	2000	2000	2000	2000	2000	2000	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	140		96.7		117	
HIGHEST ANNUAL MEAN					185	1999
LOWEST ANNUAL MEAN					39.0	2000
HIGHEST DAILY MEAN	2540	Aug 7	2800	Apr 10	4550	Oct 1 1998
LOWEST DAILY MEAN	8.2	May 29	9.2	Sep 12	3.9	Jul 23 2000
ANNUAL SEVEN-DAY MINIMUM	9.2	May 24	10	Sep 7	4.3	Jul 19 2000
MAXIMUM PEAK FLOW			4120	Apr 10	4550	Oct 1 1998
MAXIMUM PEAK STAGE			18.88	Apr 10	18.88	Apr 10 2002
INSTANTANEOUS LOW FLOW			9.0	Sep 12	3.7	Jul 23 2000
ANNUAL RUNOFF (INCHES)	23.15		15.93		19.36	
10 PERCENT EXCEEDS	321		164		260	
50 PERCENT EXCEEDS	63		41		48	
90 PERCENT EXCEEDS	18		17		14	

e Estimated

02366500 CHOCTAWHATCHEE RIVER NEAR BRUCE, FL

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 mi^2.

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.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Apr. 1, 1983 to May 14, 1999, nonrecording gage at same site and datum. Apr. 6, 1934 to Mar. 31, 1983, water-stage recorder at same site at datum 3.94 ft lower. Oct. 1, 1930 to Apr. 5, 1934, nonrecording gage at site 1.0 mi downstream at datum 4.19 ft lower.

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

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 ft^3/s, from rating curve extended above 145,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2350	1780	3760	2310	3050	3070	5710	3320	2060	1810	2960	1740
2	2230	1770	3990	2330	2940	3280	5490	3140	2230	1850	2960	1850
3	2110	1780	4060	2380	2840	4040	5410	2990	2330	1960	2900	1910
4	2040	1790	3810	2400	2750	4550	5500	2850	2270	2050	2880	1870
5	1960	1790	3440	2450	2670	5000	5710	2720	2250	2140	3050	1820
6	2020	1760	3110	2570	2620	5460	5730	2620	2340	2180	2990	1750
7	2200	1740	2870	2650	2700	6060	5430	2540	2400	2130	2750	1670
8	2190	1730	2690	2660	2880	6560	4890	2520	2500	2120	2520	1620
9	2110	1730	2550	2680	3290	6660	4670	2490	2510	2050	2270	1560
10	2050	1720	2510	2700	3810	6220	4930	2410	2490	2040	2080	1530
11	2000	1710	2540	2700	4310	5550	5640	2310	2530	2130	1930	1500
12	2000	1710	2490	2670	4780	5030	7510	2230	2470	2170	1820	1470
13	1980	1670	2440	2700	5160	4800	10400	2190	2310	2160	1730	1520
14	2110	1650	2460	2720	5340	4670	14300	2170	2150	2060	1660	1700
15	2280	1640	2490	2820	5230	4690	17000	2190	2040	2030	1610	2450
16	2440	1650	2520	3020	4880	4880	17400	2340	2040	2100	1600	3180
17	2660	1640	2550	3180	4360	5210	16100	2460	2030	2050	1670	3570
18	2790	1630	2630	3250	3830	5550	14000	2560	1920	1890	1690	3690
19	2740	1630	2650	3200	3410	5700	12100	2460	1900	1750	1730	3940
20	2600	1630	2780	3100	3290	5490	10500	2330	1930	1660	1800	3940
21	2430	1640	2970	2960	3480	5200	9230	2310	1930	1670	1880	3650
22	2300	1660	2980	2990	3580	4830	8100	2280	1860	1720	1860	3190
23	2230	1750	2920	3150	3680	4580	6960	2160	1760	1730	1830	2720
24	2150	1880	2880	3290	3820	4570	5910	2040	1730	1720	1840	2410
25	2100	2090	2800	3380	3870	4820	5090	2000	1720	1810	1850	2230
26	2000	2320	2740	3390	3760	5170	4530	1960	1730	2050	1870	2400
27	1920	2580	2700	3360	3530	5410	4130	1910	1720	2310	1850	3150
28	1850	2760	2630	3340	3280	5520	3820	1900	1710	2550	1790	3730
29	1820	3030	2530	3340	---	5600	3570	1860	1720	2680	1730	4220
30	1800	3450	2450	3270	---	5630	3430	1850	1760	2800	1710	4510
31	1780	---	2370	3160	---	5740	---	1930	---	2900	1690	---
MEAN	2169	1910	2849	2907	3684	5146	7773	2356	2078	2073	2081	2550
MAX	2790	3450	4060	3390	5340	6660	17400	3320	2530	2900	3050	4510
MIN	1780	1630	2370	2310	2620	3070	3430	1850	1710	1660	1600	1470
IN.	0.57	0.49	0.75	0.76	0.88	1.35	1.98	0.62	0.53	0.55	0.55	0.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	4448	4311	6287	9005	10400	12270	10740	6260	5084	5567	5777	4501
MAX	24890	13870	25970	29400	20460	31510	27220	20870	18080	48020	26770	24000
(WY)	1999	1931	1954	1936	1978	1998	1975	1946	1973	1994	1939	1937
MIN	1399	1742	1945	2344	3684	2534	3476	1774	1430	1368	1420	1626
(WY)	1969	1955	1956	1956	2002	1955	2000	2000	2000	2000	2000	1968

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL MEAN	5343		3103		7037	
HIGHEST ANNUAL MEAN					11620	1948
LOWEST ANNUAL MEAN					2711	2000
HIGHEST DAILY MEAN	29900	Mar 19	17400	Apr 16	164000	Jul 11 1994
LOWEST DAILY MEAN	1570	Nov 19	1470	Sep 12	1100	Jul 23 2000
ANNUAL SEVEN-DAY MINIMUM	1590	Nov 14	1550	Sep 7	1120	Jul 20 2000
MAXIMUM PEAK FLOW			17700	Apr 15	165000	Jul 11 1994
MAXIMUM PEAK STAGE			12.99	Apr 16	26.76	Jul 11 1994
INSTANTANEOUS LOW FLOW			1450	Sep 12	1070	Jul 23 2000
ANNUAL RUNOFF (INCHES)	16.55		9.61		21.81	
10 PERCENT EXCEEDS	10700		5270		14000	
50 PERCENT EXCEEDS	3510		2480		4930	
90 PERCENT EXCEEDS	2080		1720		2270	

02366996 ALAQUA CREEK NEAR PLEASANT RIDGE, FL

LOCATION.--Lat 30°40'08", long 86°11'12", in SW¼ sec. 18, T. 2 N., R. 19 W., Walton County, Hydrologic unit 03140102, at bridge on Nelson Road, 0.3 mi downstream from Cosson Mill Creek, 0.6 mi upstream from Oakie Creek, 1.5 mi southwest of Sconiers Mill, and 1.9 mi south of Pleasant Ridge.

DRAINAGE AREA.--39.1 mi^2.

PERIOD OF RECORD.--October 1998 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	43	49	39	40	38	238	54	40	35	54	37
2	48	43	46	60	40	241	73	51	38	54	53	36
3	47	42	44	52	37	191	60	50	38	44	44	36
4	47	42	44	44	37	79	54	50	40	68	42	35
5	48	41	43	42	36	64	49	48	48	66	58	34
6	53	40	43	60	52	58	46	49	64	57	65	31
7	50	40	42	50	99	55	45	48	49	43	46	31
8	48	41	42	44	59	51	44	46	44	48	40	31
9	47	41	42	42	48	49	616	45	41	53	37	29
10	46	40	42	41	44	48	429	44	38	43	35	29
11	46	40	42	40	42	45	160	43	36	41	34	29
12	68	40	42	41	40	72	169	43	35	37	33	28
13	117	40	42	64	39	157	226	45	34	40	34	56
14	153	39	44	53	39	67	228	55	41	44	35	130
15	72	39	43	61	38	58	117	46	56	39	41	136
16	57	39	41	46	37	54	95	43	39	37	36	63
17	51	39	41	43	36	51	86	43	39	33	50	51
18	50	39	44	42	36	48	80	58	37	32	42	57
19	49	39	41	42	36	46	76	51	36	31	40	56
20	48	40	39	52	87	45	72	45	36	30	63	77
21	47	40	39	45	88	52	69	43	34	31	42	50
22	46	40	39	42	49	46	66	42	34	33	37	44
23	45	50	57	41	43	43	63	41	35	40	34	40
24	45	51	64	40	40	43	60	41	38	68	33	40
25	45	109	46	47	39	42	61	41	64	167	34	92
26	43	73	43	43	39	49	64	40	45	63	130	334
27	43	52	42	40	38	64	59	39	39	52	62	375
28	43	47	42	42	37	46	57	39	36	67	48	104
29	44	46	42	41	---	42	56	44	35	73	41	80
30	44	58	40	39	---	41	56	47	37	79	40	72
31	43	---	39	39	---	71	---	44	---	84	39	---
MEAN	54.2	45.8	43.5	45.7	46.2	66.3	119	45.7	40.9	52.6	45.9	74.8
MAX	153	109	64	64	99	241	616	58	64	167	130	375
MIN	43	39	39	39	36	38	44	39	34	30	33	28
IN.	1.60	1.31	1.28	1.35	1.23	1.96	3.40	1.35	1.17	1.55	1.35	2.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	164	79.0	90.2	87.3	71.8	108	80.6	49.9	63.0	69.4	72.9	68.5
MAX	491	151	137	139	96.3	156	119	73.9	102	140	111	79.7
(WY)	1999	1999	1999	1999	1999	1999	2002	1999	1999	1999	2001	1999
MIN	30.6	45.8	43.5	45.7	46.2	66.3	47.1	33.0	35.7	32.1	31.1	48.7
(WY)	2001	2002	2002	2002	2002	2002	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	73.4		56.7		84.0	
HIGHEST ANNUAL MEAN					147	1999
LOWEST ANNUAL MEAN					55.4	2000
HIGHEST DAILY MEAN	568	Mar 20	616	Apr 9	e4400	Oct 1 1998
LOWEST DAILY MEAN	37	Jun 6	28	Sep 12	22	Aug 13 2000
ANNUAL SEVEN-DAY MINIMUM	39	Nov 13	30	Sep 6	23	Aug 13 2000
MAXIMUM PEAK FLOW			884	Apr 9	e4400	Oct 1 1998
MAXIMUM PEAK STAGE			52.69	Apr 9	52.69	Apr 9 2002
INSTANTANEOUS LOW FLOW			26	Sep 13	21	Aug 18 2000
ANNUAL RUNOFF (INCHES)	25.48		19.68		29.19	
10 PERCENT EXCEEDS	115		73		145	
50 PERCENT EXCEEDS	58		44		59	
90 PERCENT EXCEEDS	41		36		34	

e Estimated

02367900 YELLOW RIVER NEAR OAK GROVE, FL

LOCATION.--Lat 30°55'34", long 86°33'34", in SE¼ sec. 17, T. 5 N., R. 23 W., Okaloosa County, Hydrologic Unit 03140103, at bridge on downstream side at State Highway 2, 0.7 mi east of Oak Grove, and 58 mi above mouth.

DRAINAGE AREA.--525 mi^2, approximately.

PERIOD OF RECORD.--September 1966 to October 1968, (annual maximum and gage height only), October 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1968, nonrecording gage at same site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1998 reached a stage of 108.42 ft, present datum, from floodmarks, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	204	389	232	338	355	461	237	168	232	248	168
2	231	200	420	251	325	627	560	230	170	215	271	209
3	224	198	388	273	323	1180	534	219	164	197	234	346
4	217	195	342	308	314	1360	468	210	159	201	195	202
5	218	191	316	320	311	1090	421	202	154	201	183	174
6	229	189	293	336	385	735	390	195	159	182	187	158
7	226	189	279	334	770	595	367	189	156	193	178	146
8	231	188	274	338	1180	532	366	186	154	177	159	139
9	235	186	267	322	1200	495	513	180	144	191	145	133
10	231	187	253	295	906	513	1010	175	137	204	135	128
11	222	188	238	276	636	598	1250	169	131	193	127	122
12	216	189	238	271	519	704	1150	165	125	217	120	116
13	228	188	247	326	451	1330	1100	162	121	212	115	128
14	412	187	312	373	405	1730	1260	163	123	244	118	197
15	672	186	405	440	387	1660	1090	164	183	219	120	235
16	711	186	446	405	379	1180	834	167	218	187	140	199
17	553	186	396	359	368	828	670	171	176	174	193	257
18	415	184	368	322	353	698	568	172	168	152	262	282
19	343	183	351	305	344	622	489	179	176	136	283	248
20	305	182	336	357	424	571	437	187	198	133	265	215
21	284	184	311	502	692	726	398	188	188	158	249	189
22	276	187	283	547	816	853	364	177	166	137	279	178
23	264	228	289	467	672	748	338	166	153	154	251	165
24	254	292	289	400	531	632	316	159	148	184	208	161
25	246	508	295	391	441	554	299	154	144	330	195	226
26	235	434	307	409	393	517	281	148	149	219	272	981
27	229	433	284	452	377	518	267	142	173	185	219	1600
28	224	441	260	412	366	537	258	139	159	179	216	1440
29	218	401	248	364	---	507	250	153	214	213	197	1190
30	215	378	238	342	---	479	245	164	239	266	176	794
31	211	---	233	335	---	456	---	165	---	272	171	---
MEAN	291	242	310	357	522	772	565	177	164	199	197	358
MAX	711	508	446	547	1200	1730	1260	237	239	330	283	1600
MIN	211	182	233	232	311	355	245	139	121	133	115	116
IN.	0.66	0.53	0.70	0.81	1.07	1.75	1.24	0.40	0.36	0.45	0.45	0.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	1689	467	524	721	568	1498	607	317	518	520	400	332
MAX	6104	1093	901	1385	668	3455	1005	632	908	1391	871	623
(WY)	1999	1999	1999	1999	1999	2001	2001	1999	2001	1999	2001	2001
MIN	102	242	310	357	520	558	405	176	157	117	136	140
(WY)	2001	2002	2002	2002	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	798		345		683	
HIGHEST ANNUAL MEAN					1286	1999
LOWEST ANNUAL MEAN					305	2000
HIGHEST DAILY MEAN	10900	Mar 6	1730	Mar 14	e66100	Oct 1 1998
LOWEST DAILY MEAN	177	Jun 8	115	Aug 13	86	Oct 31 2000
ANNUAL SEVEN-DAY MINIMUM	184	Nov 15	125	Aug 10	86	Oct 30 2000
MAXIMUM PEAK FLOW			1810	Mar 14	11300	Mar 6 2001
MAXIMUM PEAK STAGE			85.06	Mar 14	92.53	Mar 6 2001
INSTANTANEOUS LOW FLOW			111	Aug 13	84	Oct 31 2000
ANNUAL RUNOFF (INCHES)	21.24		9.18		18.20	
10 PERCENT EXCEEDS	1780		650		1250	
50 PERCENT EXCEEDS	435		248		354	
90 PERCENT EXCEEDS	217		154		142	

e Estimated

02368000 YELLOW RIVER AT MILLIGAN, FL

LOCATION.--Lat 30°45'10", long 86°37'45", in SE$^1/_4$ 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 mi^2

PERIOD OF RECORD.--July 1938 to September 1993, October 1996 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.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1929 reached a stage of 26.2 ft, from information by local residents, discharge 137,000 ft^3/s, from rating extended above 46,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	254	581	385	485	485	562	332	195	316	377	234
2	288	253	580	432	473	774	576	310	195	331	362	232
3	279	253	565	477	462	1140	623	293	190	283	346	485
4	271	251	512	474	455	1350	561	277	196	298	289	399
5	264	247	462	496	435	1440	495	263	186	414	296	279
6	299	241	432	568	514	1200	452	253	233	312	313	235
7	313	239	411	585	910	876	419	244	217	261	275	213
8	285	237	397	548	1160	746	398	238	209	267	242	195
9	287	233	387	526	1330	680	531	228	191	240	210	181
10	285	230	379	494	1340	672	925	220	174	265	187	171
11	278	229	376	464	1060	712	1200	213	163	256	173	162
12	276	228	376	445	810	843	1390	206	156	256	161	158
13	290	228	383	479	699	1300	1440	199	151	324	150	180
14	569	228	421	524	634	1550	1460	197	154	393	146	313
15	677	225	540	625	589	1710	1440	195	167	362	183	466
16	801	224	614	628	557	1720	1260	194	254	316	182	399
17	748	224	644	576	530	1370	977	204	250	261	361	330
18	585	224	792	519	507	968	798	219	221	231	358	367
19	471	223	626	488	490	817	681	223	217	196	389	352
20	406	224	558	550	552	733	601	220	233	177	524	306
21	367	223	514	623	786	777	542	222	246	200	387	269
22	339	224	472	753	954	963	498	216	231	206	512	243
23	319	282	469	720	941	964	453	199	207	202	423	226
24	308	391	510	637	773	832	416	189	194	219	338	211
25	298	909	477	602	647	716	391	182	194	388	281	407
26	282	1200	475	608	574	673	371	175	191	438	451	1510
27	270	719	460	630	530	671	352	167	218	422	409	1980
28	265	645	434	633	500	634	340	164	231	331	323	1950
29	265	611	416	575	---	602	336	174	222	331	302	1710
30	263	615	402	529	---	558	358	198	296	380	262	1430
31	258	---	391	502	---	535	---	202	---	398	245	---
MEAN	361	350	486	551	703	936	695	220	206	299	305	520
MAX	801	1200	792	753	1340	1720	1460	332	296	438	524	1980
MIN	258	223	376	385	435	485	336	164	151	177	146	158
IN.	0.67	0.63	0.90	1.02	1.17	1.73	1.24	0.41	0.37	0.55	0.56	0.93

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

MEAN	706	723	1141	1420	1617	2030	1653	1028	882	834	923	836
MAX	6587	2737	6232	3375	3066	6380	5322	4173	3733	3191	5434	4305
(WY)	1999	1990	1954	1990	1979	1998	1975	1978	1970	1940	1975	1975
MIN	151	201	286	371	567	405	456	220	206	172	218	179
(WY)	2001	1955	1955	1955	1950	1955	1967	2002	2002	2000	2000	1972

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1938 - 2002	
ANNUAL MEAN	852		468		1148	
HIGHEST ANNUAL MEAN					2206	1975
LOWEST ANNUAL MEAN					374	2000
HIGHEST DAILY MEAN	8400	Mar 7	1980	Sep 27	71700	Oct 1 1998
LOWEST DAILY MEAN	223	Nov 19	146	Aug 14	123	Jun 14 2000
ANNUAL SEVEN-DAY MINIMUM	224	Nov 16	165	Jun 9	127	Oct 29 2000
MAXIMUM PEAK FLOW			2030	Sep 27	82800	Sep 30 1998
MAXIMUM PEAK STAGE			6.57	Sep 27	23.92	Sep 30 1998
INSTANTANEOUS LOW FLOW			144	Aug 14	120	Jun 13 2000
ANNUAL RUNOFF (INCHES)	18.54		10.18		24.99	
10 PERCENT EXCEEDS	1800		836		2240	
50 PERCENT EXCEEDS	557		377		738	
90 PERCENT EXCEEDS	271		196		307	

02368500 SHOAL RIVER NEAR MOSSY HEAD, FL

LOCATION.--Lat 30°47'45", long 86°18'25", in SW sec. 36, T.4 N., R.21 W., Walton County, Hydrologic Unit 03140103, near center span on dowstream side of bridge on County Road 1087, about 200 ft downstream from Machine Branch, 3.9 mi north of Mossy Head, and 34 mi upstream from mouth.

DRAINAGE AREA.--123 mi^2.

PERIOD OF RECORD.--March 1951 to September 1978, May 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 105.59 ft National Geodetic Vertical Datum of 1929. Prior to July 24, 1956, at site 300 ft north at same datum.

REMARKS.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	65	103	76	79	81	707	110	89	55	114	60
2	86	67	90	88	80	293	362	104	83	54	94	57
3	84	63	86	96	78	367	193	100	79	59	84	55
4	82	63	85	86	76	214	152	97	79	130	74	52
5	81	62	84	81	76	140	130	94	81	183	85	49
6	86	61	83	154	105	117	121	93	95	138	111	47
7	87	61	82	140	258	109	115	92	115	93	103	46
8	83	60	81	103	174	104	112	90	92	76	79	45
9	79	60	80	91	115	99	763	89	83	71	68	43
10	78	60	79	87	95	99	1180	87	79	65	62	43
11	77	60	e78	85	89	95	683	86	75	61	59	43
12	84	59	e79	84	87	130	526	85	73	56	55	43
13	152	58	80	103	84	313	584	84	71	55	53	55
14	270	57	81	106	83	199	470	88	73	59	52	103
15	183	57	81	124	81	138	355	86	87	58	123	146
16	119	56	79	100	81	119	285	84	76	54	104	129
17	99	57	80	89	80	112	240	86	74	49	103	93
18	91	56	98	86	79	108	212	242	72	46	85	112
19	83	55	89	85	78	103	194	144	69	44	76	71
20	81	56	82	97	130	100	180	104	65	46	189	66
21	80	55	78	96	200	132	169	93	62	78	105	63
22	78	55	76	88	127	134	160	90	60	62	78	60
23	76	65	95	84	95	112	153	87	61	59	69	56
24	76	82	125	83	86	104	143	86	70	58	64	64
25	75	422	93	86	84	98	136	85	71	86	71	173
26	72	389	83	86	84	146	131	83	69	84	128	437
27	69	156	80	83	84	263	125	81	72	87	87	463
28	66	104	79	81	82	174	121	89	61	130	70	229
29	66	92	78	81	---	124	117	116	57	156	63	148
30	66	108	77	80	---	111	113	95	56	139	60	117
31	65	---	76	79	---	195	---	91	---	167	60	---
MEAN	92.3	90.7	84.5	93.2	102	149	298	98.1	75.0	82.5	84.8	106
MAX	270	422	125	154	258	367	1180	242	115	183	189	463
MIN	65	55	76	76	76	81	112	81	56	44	52	43
IN.	0.87	0.82	0.79	0.87	0.86	1.40	2.70	0.92	0.68	0.77	0.79	0.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

MEAN	185	164	241	274	304	306	306	202	195	185	211	213
MAX	963	556	890	652	649	739	837	630	582	499	831	708
(WY)	1976	1976	1954	1974	1974	1978	1964	1978	1959	1975	1975	1975
MIN	48.6	67.3	67.1	93.2	102	78.3	90.3	48.1	46.2	46.7	49.6	52.4
(WY)	2001	1956	1956	2002	2002	1955	1967	2000	2000	2000	2000	1972

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL MEAN	161		113		235	
HIGHEST ANNUAL MEAN					399	1978
LOWEST ANNUAL MEAN					113	2002
HIGHEST DAILY MEAN	1600	Mar 16	1180	Apr 10	8250	Jul 31 1975
LOWEST DAILY MEAN	52	May 16	43	Sep 9	29	Jun 26 2000
ANNUAL SEVEN-DAY MINIMUM	54	May 13	44	Sep 6	34	Jun 20 2000
MAXIMUM PEAK FLOW			1300	Apr 10	10500	Apr 27 1964
MAXIMUM PEAK STAGE			12.02	Apr 10	23.64	Apr 27 1964
INSTANTANEOUS LOW FLOW			42	Jul 19	27	Jun 26 2000
ANNUAL RUNOFF (INCHES)	17.72		12.45		26.01	
10 PERCENT EXCEEDS	285		173		430	
50 PERCENT EXCEEDS	106		85		161	
90 PERCENT EXCEEDS	60		58		76	

e Estimated

02369000 SHOAL RIVER NEAR CRESTVIEW, FL

LOCATION.--Lat 30°41'50", long 86°34'15", in SW$^{1}/_{4}$ 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 mi^{2}.

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, June 12, 1972 to Aug. 22, 1973, and July 8, 1994 to Oct. 6, 1995, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	481	404	748	472	478	476	970	518	447	372	782	387
2	472	404	653	559	474	775	1230	480	398	424	671	386
3	462	402	580	670	459	1260	984	458	360	386	575	498
4	453	395	544	628	447	1280	714	443	383	488	500	475
5	449	387	522	561	434	915	622	436	347	668	539	382
6	461	377	511	639	524	723	569	445	460	693	626	349
7	524	374	501	793	999	654	538	429	595	555	535	346
8	488	373	491	695	1120	616	522	417	564	441	462	335
9	457	373	480	601	887	585	780	404	453	405	399	317
10	440	372	475	561	686	576	1500	393	395	378	365	304
11	432	371	471	539	608	571	2180	386	357	354	348	298
12	442	367	473	525	565	630	1830	377	335	336	334	289
13	554	364	477	577	539	1140	1530	370	324	394	323	309
14	828	362	488	625	518	1320	1720	380	358	588	335	664
15	1010	359	498	694	500	1040	1320	381	536	494	369	1010
16	826	356	489	672	489	790	1040	366	425	432	406	999
17	616	356	477	588	473	701	901	360	365	364	449	694
18	538	355	628	547	460	646	812	476	354	325	500	529
19	506	354	721	527	450	604	752	672	343	302	421	494
20	490	357	592	593	543	580	703	496	332	292	526	438
21	482	357	518	647	887	603	660	419	318	310	571	422
22	467	357	486	596	857	721	626	386	307	356	690	403
23	450	422	565	544	652	693	596	369	311	332	628	379
24	444	549	854	519	554	596	565	358	322	342	436	364
25	438	699	754	535	514	559	543	352	426	690	407	619
26	422	1820	608	565	497	573	530	345	414	772	900	1730
27	407	1840	547	537	489	823	516	335	452	636	869	3030
28	401	917	523	512	476	869	504	334	439	676	568	2630
29	403	677	510	502	---	689	499	447	370	799	460	1370
30	407	724	494	492	---	594	567	491	374	789	417	893
31	405	---	479	482	---	579	---	518	---	849	397	---
MEAN	505	527	553	581	592	748	894	421	395	492	510	711
MAX	1010	1840	854	793	1120	1320	2180	672	595	849	900	3030
MIN	401	354	471	472	434	476	499	334	307	292	323	289
MED	461	374	511	561	516	654	708	404	372	424	462	430
IN.	1.23	1.24	1.35	1.41	1.30	1.82	2.11	1.02	0.93	1.20	1.24	1.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

MEAN	860	839	1009	1222	1359	1503	1292	970	986	1074	1106	1057
MAX	4097	2252	3601	2606	2974	3327	3056	2752	4421	5436	4385	4370
(WY)	1999	1996	1954	1978	1982	1948	1960	1978	1989	1994	1975	1998
MIN	265	331	345	417	500	365	396	254	309	265	261	301
(WY)	2001	1955	1956	1939	2001	1955	2000	2000	2000	2000	2000	1972

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1938 - 2002	
ANNUAL MEAN	793		577		1106	
HIGHEST ANNUAL MEAN					1781	1978
LOWEST ANNUAL MEAN					470	2000
HIGHEST DAILY MEAN	6080	Mar 17	3030	Sep 27	55500	Sep 30 1998
LOWEST DAILY MEAN	318	Jun 7	289	Sep 12	186	Jun 11 2000
ANNUAL SEVEN-DAY MINIMUM	343	May 25	314	Sep 7	190	Jun 8 2000
MAXIMUM PEAK FLOW			3200	Sep 27	59100	Sep 30 1998
MAXIMUM PEAK STAGE			7.43	Sep 27	21.40	Sep 30 1998
INSTANTANEOUS LOW FLOW			283	Sep 13	183	Jun 12 2000
ANNUAL RUNOFF (INCHES)	22.72		16.52		31.69	
10 PERCENT EXCEEDS	1450		855		2000	
50 PERCENT EXCEEDS	563		497		825	
90 PERCENT EXCEEDS	374		356		420	

02369600 YELLOW RIVER NEAR MILTON, FL

LOCATION.--Lat 30°34'16", long 86°55'28", in NE¼ sec. 26, T. 1 N., R. 27 W., Santa Rosa County, Hydrologic Unit 03140103, at main channel on downstream side of bridge on State Highway 87, 5.9 mi upstream from mouth, and 8.0 mi southeast of Milton.

DRAINAGE AREA.--1,350 mi^2, approximately.

PERIOD OF RECORD.--October 1964 to October 1972 (annual maximum elevation), October 2001 to September 2002.

GAGE.--Water-stage and water-current meter recorders. Datum of gage is undetermined. Prior to June 1962, nonrecording gage at present site at National Geodetic Vertical Datum.

REMARKS.--Records good. Flow is tide affected.

MAIN CHANNEL ONLY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	1070	1340	1120	1480	1490	1150	974	1040	1020	1640	1030
2	1130	971	1120	900	1550	1430	1220	991	938	1110	1600	1020
3	1080	917	1060	1060	1490	1640	1280	964	955	1220	1550	1070
4	1050	964	1100	1170	1460	1870	1740	1000	887	1210	1400	1130
5	1010	1030	1020	1230	1420	1980	1930	976	970	1280	1370	1160
6	972	1010	1110	1200	1360	2120	1840	1030	986	1470	1420	1060
7	810	977	1170	1150	1440	2210	1560	989	1120	1520	e1500	972
8	721	939	1200	1360	1710	2080	1290	1100	1190	1370	e1380	889
9	739	937	1250	1530	1950	1780	1140	1060	1220	1190	e1230	863
10	777	1040	1190	1510	1920	1800	1030	971	1140	1130	1120	958
11	695	996	1130	1380	2070	1440	1240	1030	945	1100	1080	910
12	695	1020	1050	1230	1970	1400	1170	827	981	974	e1060	952
13	648	993	963	1080	1870	1470	1300	880	702	992	e1040	909
14	672	1020	998	968	1590	1770	1730	906	816	1220	e1020	764
15	614	984	1050	1150	1240	1780	2000	876	1080	1430	e1010	1440
16	708	999	1130	1440	1270	1910	1910	e890	1260	1410	e1070	1300
17	981	1050	1110	1490	1250	2150	2040	897	1160	1280	e1180	1360
18	1080	1040	1200	1470	1260	2330	1880	938	1060	1130	e1260	1360
19	976	1020	1380	1360	1250	2170	1600	1040	1030	1020	e1400	1180
20	896	976	1600	1280	1300	1680	1230	1190	1040	994	e1600	1110
21	905	989	1510	1310	1380	1660	915	1150	1030	1120	1530	1090
22	934	1020	1360	1440	1650	1750	802	1060	1080	1080	1420	975
23	900	1180	1160	1380	1780	1670	921	1030	935	1120	1340	949
24	787	1140	1050	1420	1810	1670	1020	993	901	1010	1430	905
25	944	1330	1270	1420	2000	1610	1070	943	892	1070	1290	1130
26	992	1350	1380	1520	1880	1610	1150	1000	934	1300	1100	1470
27	1020	1470	1360	1390	1720	1750	1170	872	1050	1550	1280	2960
28	964	1490	1150	1180	1500	1770	1030	789	1020	1620	1510	3450
29	945	1350	1050	1230	---	1760	949	881	1110	1580	1420	3890
30	1050	1500	1210	1430	---	1600	957	934	1020	1590	1140	4150
31	1080	---	1200	1420	---	1410	---	942	---	1600	1060	---
MEAN	901	1092	1189	1297	1592	1766	1342	972	1016	1249	1305	1414
MAX	1150	1500	1600	1530	2070	2330	2040	1190	1260	1620	1640	4150
MIN	614	917	963	900	1240	1400	802	789	702	974	1010	764
IN.	0.78	0.91	1.02	1.12	1.24	1.52	1.12	0.84	0.85	1.07	1.12	1.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	901	1092	1189	1297	1592	1766	1342	972	1016	1249	1305	1414
MAX	901	1092	1189	1297	1592	1766	1342	972	1016	1249	1305	1414
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MIN	901	1092	1189	1297	1592	1766	1342	972	1016	1249	1305	1414
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL MEAN	1259		1259	
HIGHEST ANNUAL MEAN			1259	2002
LOWEST ANNUAL MEAN			1259	2002
HIGHEST DAILY MEAN	4150	Sep 30	4150	Sep 30 2002
LOWEST DAILY MEAN	614	Oct 15	614	Oct 15 2001
ANNUAL SEVEN-DAY MINIMUM	687	Oct 10	687	Oct 10 2001
MAXIMUM PEAK FLOW	4780	Sep 30	4780	Sep 30 2002
MAXIMUM PEAK STAGE	40.73	Sep 26	40.73	Sep 26 2002
INSTANTANEOUS LOW FLOW	614	Oct 15	614	Oct 15 2001
ANNUAL RUNOFF (INCHES)	12.76		12.77	
10 PERCENT EXCEEDS	1740		1740	
50 PERCENT EXCEEDS	1150		1150	
90 PERCENT EXCEEDS	913		913	

e Estimated

02370000 BLACKWATER RIVER NEAR BAKER, FL

LOCATION.--Lat 30°50'00", long 86°44'05", in SW¼ sec. 22, T. 4 N., R. 25 W., Okaloosa County, Blackwater River State Forest, Hydrologic Unit 03140104, near left 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 mi^2

PERIOD OF RECORD.--March 1950 to September 1992, October 1996 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.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	85	128	93	114	128	191	107	69	93	150	102
2	92	84	114	106	113	279	215	98	66	120	134	95
3	91	84	102	126	110	491	181	92	64	112	104	136
4	89	83	96	126	105	356	158	88	69	105	92	133
5	91	82	93	115	103	270	138	85	81	120	105	103
6	94	81	91	165	143	227	127	83	82	110	134	89
7	98	81	90	191	448	199	121	83	89	91	110	83
8	96	81	89	156	435	181	116	81	82	85	230	79
9	92	80	88	135	316	168	154	79	76	80	172	76
10	e88	80	88	123	248	184	242	78	73	74	114	73
11	e85	80	88	115	209	195	222	76	70	71	96	71
12	e100	80	89	113	185	212	200	75	68	68	87	69
13	e200	80	92	134	169	569	270	75	67	68	81	78
14	e400	79	114	151	159	466	283	75	66	70	77	129
15	218	79	144	164	148	340	264	74	67	70	76	266
16	164	78	123	152	141	274	247	74	68	68	77	217
17	128	78	113	133	135	233	204	73	67	70	81	151
18	113	78	121	123	128	202	170	77	67	67	77	130
19	105	78	114	118	123	179	148	79	68	65	76	112
20	100	78	105	157	149	165	133	77	68	65	80	101
21	97	80	99	175	303	235	123	75	70	72	76	96
22	94	80	95	151	258	288	115	73	67	86	76	92
23	92	88	101	133	199	228	109	71	66	117	76	86
24	90	102	116	124	170	189	105	70	66	113	72	84
25	90	226	114	138	152	167	101	69	70	148	71	184
26	91	166	106	158	143	163	99	68	68	128	207	1970
27	90	122	102	141	137	169	96	68	69	111	219	2650
28	89	105	99	132	131	154	94	68	104	106	138	1680
29	89	97	97	126	---	142	93	70	109	116	106	748
30	88	111	95	121	---	134	110	72	115	138	102	495
31	88	---	94	116	---	133	---	72	---	197	118	---
MEAN	114	92.9	103	136	185	236	161	77.6	74.4	96.9	110	346
MAX	400	226	144	191	448	569	283	107	115	197	230	2650
MIN	85	78	88	93	103	128	93	68	64	65	71	69
IN.	0.64	0.51	0.58	0.76	0.94	1.33	0.88	0.44	0.40	0.55	0.62	1.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	208	228	352	438	507	557	433	300	300	244	278	307
MAX	941	1142	2029	1200	1158	1661	1223	1438	1845	958	1772	1954
(WY)	1976	1990	1954	1978	1962	1990	1975	1978	1970	1975	1975	1998
MIN	63.9	67.8	74.2	96.8	154	86.1	100	77.6	74.4	71.7	75.6	65.9
(WY)	2001	1956	1956	1955	1951	1955	1968	2002	2002	2000	1954	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL MEAN	224		144		345	
HIGHEST ANNUAL MEAN					738	1975
LOWEST ANNUAL MEAN					131	2000
HIGHEST DAILY MEAN	1920	Mar 5	2650	Sep 27	23900	Sep 29 1998
LOWEST DAILY MEAN	78	Nov 16	64	Jun 3	58	Oct 29 2000
ANNUAL SEVEN-DAY MINIMUM	78	Nov 14	67	Jun 12	58	Oct 28 2000
MAXIMUM PEAK FLOW			2850	Sep 27	26500	Sep 29 1998
MAXIMUM PEAK STAGE			10.84	Sep 27	25.68	Sep 29 1998
INSTANTANEOUS LOW FLOW			62	Jul 20	57	Oct 29 2000
ANNUAL RUNOFF (INCHES)	14.82		9.52		22.90	
10 PERCENT EXCEEDS	387		217		654	
50 PERCENT EXCEEDS	145		104		197	
90 PERCENT EXCEEDS	89		70		93	

e Estimated

02370500 BIG COLDWATER CREEK NEAR MILTON, FL

LOCATION.--Lat 30°42'30", long 86°58'20", in SW¼ sec.5, T.2 N., R.27 W., Santa Rosa County, Hydrologic Unit 03140104, near center channel on downstream side of bridge on State Highway 191, 3 mi upstream from mouth, and 6.5 mi northeast of Milton.

DRAINAGE AREA.--237 mi^2

PERIOD OF RECORD.--October 1938 to June 1979, October 1979 to September 1980 (gage heights and discharge measurements only), October 1980 to September 1991, October 1997 to August 1999, May 2000 to current year. Monthly discharge only for some periods, published in WSP 1304. Records published as "Coldwater Creek near Milton" prior to October 1956, and "Big Coldwater River near Milton" October 1956 to September 1957.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	211	318	232	256	252	487	200	197	206	e225	187
2	209	212	282	257	254	371	407	198	189	279	e220	185
3	208	213	262	293	245	579	327	196	184	236	e214	207
4	206	211	250	276	239	457	293	194	181	216	e226	203
5	206	210	246	260	235	370	269	195	179	218	e241	187
6	220	205	240	359	273	330	253	234	189	229	e224	180
7	221	205	240	408	615	311	244	220	201	216	e213	180
8	215	206	235	334	667	298	238	205	192	205	e220	181
9	210	205	233	302	494	288	256	199	186	197	e223	176
10	206	205	235	285	396	299	292	196	184	193	e266	172
11	207	205	236	275	351	302	283	192	178	186	e300	171
12	215	205	238	268	323	309	281	190	176	184	e322	171
13	239	205	239	289	304	605	320	190	174	201	e340	172
14	513	203	312	307	290	621	332	195	173	208	e370	200
15	660	203	346	331	278	446	325	193	183	191	e395	235
16	411	202	299	314	273	366	321	189	178	184	e373	226
17	314	201	280	286	264	335	284	189	175	179	e350	261
18	278	202	278	274	257	313	262	206	185	176	e305	300
19	261	201	272	269	252	291	247	213	222	173	e276	242
20	253	203	256	303	279	276	237	200	206	180	e245	217
21	245	204	246	324	433	300	230	191	194	220	219	204
22	238	203	241	297	396	380	224	186	185	258	207	200
23	233	242	257	285	328	322	218	183	184	279	202	195
24	231	383	311	274	298	289	213	182	181	303	199	195
25	231	339	289	287	280	272	210	181	187	339	191	559
26	226	295	264	299	272	275	208	180	187	367	203	2780
27	216	271	252	283	265	276	205	178	183	342	218	6900
28	213	258	247	275	255	266	204	207	220	305	198	2890
29	213	255	244	271	---	250	202	232	217	267	188	991
30	213	296	239	266	---	242	202	219	200	e243	188	667
31	214	---	235	261	---	255	---	207	---	e230	189	---
MEAN	256	229	262	292	324	340	269	198	189	233	250	654
MAX	660	383	346	408	667	621	487	234	222	367	395	6900
MIN	206	201	233	232	235	242	202	178	173	173	188	171
IN.	1.25	1.08	1.27	1.42	1.42	1.66	1.27	0.96	0.89	1.13	1.22	3.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

MEAN	409	446	516	601	636	747	614	480	563	523	537	558
MAX	1325	1278	1383	1422	1159	2240	1330	1209	2526	1404	2476	2435
(WY)	1976	1976	1954	1978	1962	1990	1961	1991	1989	1940	1975	1988
MIN	178	206	207	273	308	253	261	198	189	227	208	195
(WY)	1969	1956	1956	1956	1957	1955	1968	2002	2002	2000	1956	1968

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1939 - 2002	
ANNUAL MEAN	360		291		550	
HIGHEST ANNUAL MEAN					861	1976
LOWEST ANNUAL MEAN					291	2002
HIGHEST DAILY MEAN	3080	Jun 13	6900	Sep 27	29700	Mar 17 1990
LOWEST DAILY MEAN	201	Nov 17	171	Sep 11	158	Jun 10 1956
ANNUAL SEVEN-DAY MINIMUM	202	Nov 14	175	Sep 7	171	Oct 28 1968
MAXIMUM PEAK FLOW			8360	Sep 27	36900	Mar 17 1990
MAXIMUM PEAK STAGE			12.53	Sep 27	22.98	Mar 17 1990
INSTANTANEOUS LOW FLOW			166	Sep 13	156	Jun 10 1956
ANNUAL RUNOFF (INCHES)	20.62		16.65		31.54	
10 PERCENT EXCEEDS	476		344		878	
50 PERCENT EXCEEDS	279		237		407	
90 PERCENT EXCEEDS	215		186		257	

e Estimated

02370700 POND CREEK NEAR MILTON, FL

LOCATION.--Lat 30°40'50", long 87°07'55", in SE$^{1}/_{4}$ sec. 15, T.2 N., R.29 W., Santa Rosa County, Hydrologic Unit 03140104, near center of span on upstream side of bridge on State Highway 191, 0.6 mi downstream from Reader Creek, 6.4 mi northwest of Milton, and 10 mi upstream from mouth.

DRAINAGE AREA.--58.7 mi^{2}.

PERIOD OF RECORD.--January 1958 to July 1978; August 1978 to October 1983, 1992, 1993, 1997, 1998 (discharge measurements only); November 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 47.45 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	31	e40	32	33	32	72	29	27	26	25	27
2	30	31	e37	40	33	60	39	29	26	47	26	34
3	30	31	e35	39	32	46	35	29	26	28	28	52
4	30	31	e34	34	32	36	33	29	25	27	25	30
5	30	30	e32	33	32	34	32	29	25	31	57	28
6	35	30	31	71	42	33	31	37	26	33	55	28
7	36	30	31	47	58	33	31	32	32	28	33	28
8	32	30	31	37	41	32	31	30	27	26	30	28
9	31	30	31	35	36	32	34	29	27	26	28	27
10	31	30	31	34	34	33	38	29	25	24	28	e28
11	31	30	32	33	33	32	34	29	25	23	28	e29
12	33	30	32	33	33	39	36	29	24	23	28	e34
13	37	30	35	36	33	59	52	30	24	23	27	53
14	108	e30	62	37	32	39	39	36	23	23	27	78
15	50	e30	42	41	32	35	34	28	25	23	27	79
16	36	e30	35	35	32	34	33	27	23	23	27	75
17	34	e30	34	34	32	34	32	27	23	23	27	57
18	33	e30	36	33	31	33	31	30	23	22	27	49
19	33	e30	34	33	32	32	31	29	29	22	29	47
20	33	e30	32	38	41	32	31	27	25	22	37	45
21	32	e30	32	35	42	35	31	27	24	23	30	44
22	32	e40	32	34	34	34	31	26	23	24	31	44
23	32	e50	42	33	33	32	30	26	23	23	31	43
24	32	e60	45	33	32	32	30	26	22	27	28	43
25	32	e50	35	37	32	32	30	26	22	35	27	254
26	31	e40	33	36	32	35	30	26	22	43	27	1300
27	31	e38	33	34	31	38	30	26	23	40	27	446
28	31	e35	32	35	31	33	30	27	24	28	27	121
29	31	e35	32	34	---	32	29	30	23	26	27	53
30	31	e50	32	34	---	32	29	32	31	30	27	56
31	31	---	32	33	---	36	---	29	---	28	27	---
MEAN	35.1	34.4	35.1	36.5	34.7	35.8	34.3	28.9	24.9	27.4	29.9	109
MAX	108	60	62	71	58	60	72	37	32	47	57	1300
MIN	30	30	31	32	31	32	29	26	22	22	25	27
IN.	0.69	0.65	0.69	0.72	0.62	0.70	0.65	0.57	0.47	0.54	0.59	2.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	67.6	64.7	70.7	78.2	78.9	82.7	80.5	66.9	82.2	68.8	77.8	79.1
MAX	151	158	130	189	143	145	166	149	275	127	224	212
(WY)	1976	1976	1962	1978	1961	1977	1960	1978	1970	1978	1975	1960
MIN	27.6	30.8	35.1	36.5	34.7	35.8	34.3	28.9	24.9	27.4	29.9	28.6
(WY)	1969	1969	2002	2002	2002	2002	2002	2002	2002	2002	2002	1968

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002	
ANNUAL MEAN	40.0		38.7		76.4	
HIGHEST ANNUAL MEAN					125	1978
LOWEST ANNUAL MEAN					38.7	2002
HIGHEST DAILY MEAN	269	Jun 12	1300	Sep 26	2460	Sep 16 1960
LOWEST DAILY MEAN	30	Sep 30	22	Jun 24	22	Jun 24 2002
ANNUAL SEVEN-DAY MINIMUM	30	Nov 5	23	Jul 14	23	Jul 14 2002
MAXIMUM PEAK FLOW			1530	Sep 26	4580	Jun 3 1970
MAXIMUM PEAK STAGE			8.68	Sep 26	12.97	Jun 3 1970
INSTANTANEOUS LOW FLOW			21	Jun 24	21	Jun 24 2002
ANNUAL RUNOFF (INCHES)	9.25		8.96		17.68	
10 PERCENT EXCEEDS	50		43		116	
50 PERCENT EXCEEDS	36		32		65	
90 PERCENT EXCEEDS	31		25		36	

e Estimated

02375500 ESCAMBIA RIVER NEAR CENTURY, FL

LOCATION.--Lat 30°57'53", long 87°14'10", in NW¼ sec. 10, T. 5 N., R. 30 W., Santa Rosa County, Hydrologic Unit 03140305, on downstream side near center of main channel at 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 mi^2.

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 site 400 ft upstream at same datum. Jan. 13, 1940 to Oct. 21, 1993, water-stage recorder at site 400 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Some gage-height fluctuation during periods of low flow are attributed to regulation by power plants at Point-A Dam, 85.4 mi and Gnatt Dam, 90.1 mi upstream from the gaging station.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	1410	7870	2390	3360	2990	5720	2000	1250	1770	2230	1150
2	1400	1420	7030	2440	3360	3860	5680	1890	1230	1810	2850	1160
3	1350	1440	5180	2560	3280	6410	5830	1790	1160	1620	2360	1180
4	1360	1430	4020	2530	3020	7960	5830	1700	1260	1810	1930	1280
5	1280	1360	3440	2600	2870	8120	5440	1770	1280	1620	1760	1170
6	1280	1340	3160	2800	3360	7350	4820	1550	1310	1410	1800	1080
7	1340	1340	2860	3270	6080	6810	4250	1570	1320	1420	1670	1010
8	1540	1380	2620	3460	8750	6420	3870	1650	1350	1410	1490	1000
9	1380	1230	2450	3090	9270	5880	3720	1570	1280	1440	1400	1020
10	1370	1240	2470	3210	8720	5290	4370	1460	1160	1370	1340	949
11	1300	1340	2380	3050	7650	5370	5010	1370	1170	1300	1260	919
12	1360	1380	2690	2940	7090	5160	5120	1350	1090	1350	1110	937
13	1440	1250	2520	3040	6600	6600	5400	1340	1020	1330	1030	895
14	3460	1360	2860	3750	5860	8070	5860	1330	1100	1460	994	912
15	6450	1250	4500	4120	5370	7990	6030	1360	1490	2320	1010	1080
16	6700	1310	5090	4100	4780	7580	5390	1280	1580	1890	1040	1210
17	5080	1270	4670	3840	4130	7020	4760	1280	1410	1510	1370	1130
18	3830	1250	4740	3510	3800	6470	4260	1340	1190	1260	1190	1120
19	3150	1270	5090	3360	3430	5950	3900	1430	1150	1190	1210	1160
20	2600	1180	5060	3500	3680	5430	3380	1650	1060	1100	1170	1090
21	2280	1250	4740	4400	4890	5810	3360	1440	1040	1180	1440	1070
22	2130	1260	4330	4720	5520	8610	2900	1300	1150	1410	1530	1130
23	1950	1490	4010	5240	5190	10600	2660	1270	1020	1490	1380	1200
24	1770	1730	4000	5270	4750	11500	2660	1380	1010	1450	1220	1240
25	1800	2540	3800	5190	4440	12100	2330	1390	1250	2620	1330	1760
26	1670	4000	3340	5210	4020	12100	2310	1190	1160	3100	1420	10900
27	1700	5040	2930	4780	3600	11000	2120	1250	1340	2280	2470	24000
28	1560	6280	2850	4430	3410	9340	2050	1140	1550	2170	2380	15800
29	1410	6730	2770	4050	---	7910	2030	1270	1820	2280	1710	8580
30	1430	7370	2570	3810	---	6810	1980	1370	1860	2240	1440	4880
31	1350	---	2480	3460	---	5890	---	1350	---	2280	1290	---
MEAN	2204	2138	3823	3681	5010	7368	4101	1453	1269	1706	1543	3067
MAX	6700	7370	7870	5270	9270	12100	6030	2000	1860	3100	2850	24000
MIN	1280	1180	2380	2390	2870	2990	1980	1140	1010	1100	994	895
IN.	0.67	0.63	1.16	1.11	1.37	2.23	1.20	0.44	0.37	0.52	0.47	0.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2002, BY WATER YEAR (WY)

MEAN	2965	3185	5530	8391	10050	12830	10900	5727	4365	3976	3945	3126
MAX	24310	14740	24600	31530	21160	34210	31430	19520	22500	20850	23560	12010
(WY)	1999	1949	1954	1936	1965	2001	1980	1978	1970	1994	1975	1975
MIN	558	1033	1157	1895	2596	1783	2068	890	828	687	775	693
(WY)	2001	1955	1955	1956	1989	1955	2000	2000	2000	2000	2000	1968

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1935 - 2002	
ANNUAL MEAN	6974		3103		6231	
HIGHEST ANNUAL MEAN					11690	1975
LOWEST ANNUAL MEAN					1820	2000
HIGHEST DAILY MEAN	60100	Mar 10	24000	Sep 27	106000	Sep 30 1998
LOWEST DAILY MEAN	1180	Nov 20	895	Sep 13	455	Nov 1 2000
ANNUAL SEVEN-DAY MINIMUM	1250	Nov 15	947	Sep 8	457	Oct 29 2000
MAXIMUM PEAK FLOW			26000	Sep 27	117000	Sep 30 1998
MAXIMUM PEAK STAGE			17.28	Sep 27	24.35	Mar 18 1990
INSTANTANEOUS LOW FLOW			887	Sep 13	452	Oct 31 2000
ANNUAL RUNOFF (INCHES)	24.81		11.04		22.18	
10 PERCENT EXCEEDS	18200		6410		14200	
50 PERCENT EXCEEDS	3700		2030		3640	
90 PERCENT EXCEEDS	1470		1160		1340	

02376033 ESCAMBIA RIVER NEAR MOLINO, FL

LOCATION.--Lat 30°40'12", long 87°16'00", in SE$^1/_4$ 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 mi^2.

PERIOD OF RECORD.--April 1960 to September 1981 (gage heights and discharge measurements only). October 1983 to September 1987 (Daily discharges not computed for days with instantaneous gage heights below 1.5 ft), October 1987 to September 1994, October 1996 to current year.

GAGE.--Water-stage and water-current meter recorders. Elevation of gage is National Geodetic Vertical Datum of 1929. Since May 17, 2000, water-current meter.

REMARKS.--Records fair. Flow generally affected by tide when discharge is less than 5,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	1580	6940	2410	4500	4150	10100	2160	1520	2060	2530	1420
2	1700	1640	8380	2470	4250	3840	8320	2170	1380	2000	2440	1230
3	1530	1680	9570	2470	4080	4310	5950	2100	1320	2020	2810	1270
4	1510	1690	9000	2390	3960	5090	5390	2000	1240	1890	2700	1270
5	1560	1650	6130	2370	3750	6100	5500	1890	1300	1970	2500	1300
6	1670	1580	4550	3240	3680	8750	5470	1920	1340	1940	2520	1140
7	1530	1560	3840	3330	4280	9600	5420	1750	1450	1630	2240	1110
8	1530	1540	3230	3410	5200	9630	4900	1710	1430	1590	1940	1070
9	1720	1550	2840	3660	6430	9210	4700	1790	1440	1550	1690	1030
10	1610	1380	2530	3600	9300	7130	4520	1750	1380	1510	1510	1000
11	1560	1330	2390	3500	11000	5820	4490	1610	1240	1500	1460	924
12	1650	1400	2390	3430	11400	5440	4780	1510	1200	1420	1360	830
13	1650	1390	2520	3430	10700	5560	5120	1460	1100	1500	1190	868
14	2770	1320	2920	3430	9630	5960	5340	1600	1040	1500	1060	1030
15	3520	1320	3060	3870	7920	7740	5510	1530	1140	1610	1010	1370
16	4720	1230	3720	4390	6040	10600	5760	1440	1520	2280	1020	1220
17	5880	1200	4500	4560	5310	11900	5670	1430	1700	2170	1070	1560
18	6290	1180	4950	4460	5050	11800	5440	1540	1600	1760	1360	1510
19	5790	1160	4920	4230	4570	10600	4960	1510	1490	1480	1340	1310
20	4950	1160	4970	4040	4260	8760	4590	1590	1360	1320	1430	1250
21	3870	1050	5130	3930	4330	6360	4190	1760	1230	1300	1400	1210
22	3070	1110	5050	4230	4650	5390	3790	1610	1120	1430	1520	1250
23	2690	1610	4840	4880	5160	6050	3490	1460	1220	1600	1610	1270
24	2490	2050	4860	5210	5420	9780	3130	1380	1200	1730	1480	1360
25	2250	1950	4650	5430	5330	11800	3010	1380	1130	1930	1330	2470
26	2060	2350	4450	5470	5030	13900	2750	e1410	1340	2980	1380	11500
27	1850	3120	4070	5520	4860	15100	2560	e1310	1260	3490	1550	12400
28	1790	4030	3470	5440	4580	15400	2380	e1380	1480	3060	2210	15200
29	1750	4720	3120	5250	---	14800	2310	e1290	1740	2550	2460	20000
30	1620	5490	2900	5110	---	13400	2240	1400	1940	2570	1940	20000
31	1620	---	2650	4830	---	11700	---	1550	---	2520	1600	---
MEAN	2579	1867	4469	4000	5881	8893	4726	1625	1362	1931	1731	3679
MAX	6290	5490	9570	5520	11400	15400	10100	2170	1940	3490	2810	20000
MIN	1510	1050	2390	2370	3680	3840	2240	1290	1040	1300	1010	830
IN.	0.72	0.50	1.24	1.11	1.48	2.47	1.27	0.45	0.37	0.54	0.48	0.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	4663	4082	5815	9488	10110	15570	7992	4846	5402	6152	3487	3644
MAX	32570	8956	18920	24210	19080	37410	13870	14530	19160	22110	9523	9067
(WY)	1999	1993	1993	1998	1992	1990	1989	1991	1989	1994	1994	1988
MIN	803	1867	2212	3126	2650	4462	2785	1444	1357	1168	1266	1335
(WY)	2001	2002	1991	1989	1989	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL MEAN	7365		3550		6752	
HIGHEST ANNUAL MEAN					10680	1990
LOWEST ANNUAL MEAN					2433	2000
HIGHEST DAILY MEAN	54800	Mar 12	20000	Sep 29	111000	Mar 22 1990
LOWEST DAILY MEAN	1050	Nov 21	830	Sep 12	581	Nov 6 2000
ANNUAL SEVEN-DAY MINIMUM	1160	Nov 16	965	Sep 8	653	Oct 24 2000
MAXIMUM PEAK FLOW			21000	Sep 29	113000	Mar 23 1990
MAXIMUM PEAK STAGE			7.21	Sep 29	15.72	Mar 23 1990
INSTANTANEOUS LOW FLOW			830	Sep 12	581	Nov 6 2000
ANNUAL RUNOFF (INCHES)	24.12		11.62		22.12	
10 PERCENT EXCEEDS	18800		6630		15700	
50 PERCENT EXCEEDS	4380		2370		3860	
90 PERCENT EXCEEDS	1630		1250		1750	

e Estimated

02376100 BAYOU MARCUS CREEK NEAR PENSACOLA, FL

LOCATION.--Lat 30°26'53", long 87°17'26", in SE$^1/_4$ sec.13, T.2 S., R.30 W., Escambia County, Hydrologic Unit 03140107, near mid channel on downstream side of eastbound bridge on U.S. Highway 90, 0.3 mi upstream from Turner's Creek, 4.5 mi upstream, and 5.3 mi northwest of City Hall in Pensacola.

DRAINAGE AREA.--10.8 mi^2.

PERIOD OF RECORD.--February 1958 to March 1960, October 1987 to September 1991, October 1998 to current year.

REVISED RECORDS.--WDR FL-88-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 11.21 ft above National Geodetic Vertical Datum of 1929. Feb. 12, 1958 to Mar. 17, 1960, water-stage recorder 100 ft upstream at present datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	7.9	12	9.6	11	9.1	24	5.7	4.0	6.5	8.4	12
2	7.9	8.3	10	16	9.6	30	15	5.6	3.9	5.9	7.5	9.2
3	7.6	8.5	9.2	13	8.2	19	11	4.8	3.6	4.7	6.4	7.6
4	7.6	8.1	8.2	10	8.2	13	9.1	5.2	3.6	5.7	9.2	6.2
5	8.7	9.2	8.5	12	7.7	10	7.2	5.1	3.2	7.0	43	6.1
6	10	8.4	9.4	32	21	9.8	6.7	4.8	3.5	5.6	32	6.0
7	9.2	7.8	8.6	17	22	9.3	6.6	5.0	4.2	4.8	17	5.6
8	8.3	7.7	8.4	14	14	8.7	7.6	4.6	6.3	6.1	11	5.0
9	8.2	8.1	8.8	12	11	8.3	21	4.7	5.1	5.6	7.5	4.6
10	8.0	7.9	8.5	10	10	9.5	19	3.9	4.3	10	5.9	4.4
11	8.3	7.8	8.5	10	9.7	7.2	13	4.4	3.8	6.6	11	4.3
12	15	7.6	8.6	13	8.7	19	17	4.2	3.4	4.9	11	4.0
13	24	8.8	13	14	8.4	21	24	8.7	3.0	6.7	6.8	9.1
14	39	8.7	15	14	8.1	14	18	22	3.1	16	5.8	37
15	18	8.1	12	13	7.5	11	13	10	4.2	11	5.6	23
16	13	8.0	10	11	7.8	11	10	6.9	3.6	6.6	5.3	13
17	11	8.3	20	10	7.9	10	8.1	6.3	4.1	4.9	7.4	8.0
18	9.6	8.3	20	11	7.4	9.6	7.2	12	3.8	4.2	14	7.2
19	9.3	8.2	14	11	7.6	9.3	6.3	9.1	3.9	3.5	11	6.7
20	9.8	8.8	11	11	29	9.4	6.5	6.0	4.2	3.2	9.5	7.2
21	9.3	8.3	9.6	10	21	9.9	6.1	5.1	5.1	21	14	6.9
22	9.9	8.1	9.6	9.3	13	8.3	7.6	4.6	5.0	24	15	5.6
23	9.2	19	32	9.4	10	6.3	6.7	4.4	4.8	20	9.5	5.2
24	8.8	18	21	11	8.3	6.5	5.4	4.7	6.0	14	11	9.0
25	9.7	15	14	12	8.3	7.2	5.7	4.5	5.7	26	20	146
26	8.9	13	11	10	9.4	21	6.0	4.5	5.1	24	18	286
27	8.0	10	9.8	13	8.9	19	5.6	4.2	4.4	15	9.3	62
28	7.5	9.3	9.7	14	7.8	13	5.7	4.1	12	14	8.2	31
29	7.6	13	9.9	11	---	10	5.8	4.2	7.6	13	22	24
30	7.8	17	9.5	10	---	9.2	5.2	4.9	5.5	10	26	20
31	7.9	---	8.6	10	---	21	---	4.5	---	9.3	16	---
MEAN	10.8	9.84	11.9	12.4	11.1	12.2	10.3	6.09	4.67	10.3	13.0	26.1
MAX	39	19	32	32	29	30	24	22	12	26	43	286
MIN	7.5	7.6	8.2	9.3	7.4	6.3	5.2	3.9	3.0	3.2	5.3	4.0
IN.	1.15	1.02	1.27	1.32	1.07	1.31	1.07	0.65	0.48	1.10	1.39	2.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	29.2	27.4	25.6	27.9	26.6	30.9	25.5	24.4	25.8	28.8	27.4	30.5
MAX	49.9	48.6	39.5	40.8	51.5	46.3	49.2	43.6	46.9	55.4	50.1	61.8
(WY)	1959	1959	1959	1959	1988	1958	1959	1991	1989	1958	1988	1988
MIN	9.08	9.84	11.9	12.4	11.1	12.2	10.1	6.09	4.67	7.95	9.78	12.8
(WY)	2001	2002	2002	2002	2002	2002	2001	2002	2002	2000	2000	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002	
ANNUAL MEAN	13.4		11.6		25.8	
HIGHEST ANNUAL MEAN					41.8	1959
LOWEST ANNUAL MEAN					11.6	2002
HIGHEST DAILY MEAN	150	Mar 15	286	Sep 26	310	Sep 8 2000
LOWEST DAILY MEAN	4.9	May 26	3.0	Jun 13	3.0	Jun 13 2002
ANNUAL SEVEN-DAY MINIMUM	5.3	May 22	3.6	Jun 11	3.6	Jun 11 2002
MAXIMUM PEAK FLOW			424	Sep 26	701	Mar 16 1990
MAXIMUM PEAK STAGE			4.97	Sep 26	5.51	Mar 16 1990
INSTANTANEOUS LOW FLOW			2.3	Jun 13	2.3	Jun 13 2002
ANNUAL RUNOFF (INCHES)	16.82		14.53		32.43	
10 PERCENT EXCEEDS	20		20		43	
50 PERCENT EXCEEDS	11		8.8		23	
90 PERCENT EXCEEDS	7.6		4.6		8.4	

02376115 ELEVENMILE CREEK NEAR PENSACOLA, FL

LOCATION.--Lat 30°29'53", long 87°20'09", in SE$^1/_4$ sec. 22, T. 1 S., R. 31 W., Escambia County, Hydrologic Unit 03140107, near left bank on downstream side of bridge on U.S. Highway 90, 1.8 mi upstream from Eightmile Creek, 4.0 mi upstream from mouth, and 5.6 mi northwest of Pensacola High School in West Pensacola.

DRAINAGE AREA.--27.8 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Discharges are increased by about 30 ft^3/s from a paper mill located about 10 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	52	53	50	60	56	72	46	47	60	56	62
2	51	52	55	64	55	89	61	46	48	49	64	56
3	50	52	52	60	55	76	59	47	46	52	65	54
4	51	49	51	55	53	62	55	46	47	63	59	52
5	51	49	51	55	54	60	52	45	44	55	272	52
6	54	49	49	162	70	60	49	45	48	65	189	51
7	50	47	49	108	89	57	55	45	46	54	84	51
8	49	45	50	73	70	56	55	43	52	67	75	51
9	46	44	51	64	64	54	70	40	45	55	63	50
10	47	48	51	58	60	51	77	42	48	52	58	50
11	49	49	53	61	57	52	65	45	49	49	52	50
12	59	48	52	55	53	63	65	47	46	48	51	51
13	72	45	54	58	49	78	79	50	49	50	57	58
14	146	46	58	60	50	48	70	56	46	52	53	104
15	75	51	62	61	54	48	62	44	49	50	49	94
16	63	49	53	55	55	59	61	46	49	49	49	68
17	56	45	56	55	54	56	57	44	47	55	48	65
18	56	45	58	57	52	55	56	61	48	51	56	58
19	53	51	53	57	53	56	54	50	46	48	53	56
20	55	49	51	59	79	50	52	45	48	48	69	56
21	53	48	52	57	73	51	53	49	51	72	106	61
22	52	49	48	56	62	52	52	48	53	76	96	55
23	52	170	72	57	57	51	52	47	54	73	66	56
24	52	95	71	59	57	53	52	46	59	60	59	59
25	52	74	57	63	55	53	53	46	52	79	60	765
26	50	62	54	58	53	118	53	46	51	64	59	2030
27	51	57	52	62	54	108	52	47	49	55	58	392
28	51	55	52	68	54	66	52	45	50	62	53	191
29	51	54	50	64	---	59	50	46	49	54	58	132
30	51	62	49	59	---	57	48	41	51	52	105	106
31	51	---	48	59	---	62	---	49	---	59	86	---
MEAN	56.5	56.4	53.8	64.2	59.0	61.8	58.1	46.5	48.9	57.4	75.1	168
MAX	146	170	72	162	89	118	79	61	59	79	272	2030
MIN	46	44	48	50	49	48	48	40	44	48	48	50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	84.6	97.0	87.0	112	102	137	91.1	76.5	101	108	94.1	118
MAX	223	311	199	239	153	332	246	168	323	252	183	457
(WY)	1996	1996	1996	1998	1997	1998	1996	1991	1989	1994	1995	1998
MIN	52.5	47.4	53.6	64.2	56.4	61.8	56.8	46.5	48.9	50.4	58.8	53.1
(WY)	1991	1991	1991	2002	2000	2002	2001	2002	2002	2000	1990	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL MEAN	82.6		67.0		101	
HIGHEST ANNUAL MEAN					160	1998
LOWEST ANNUAL MEAN					66.4	2000
HIGHEST DAILY MEAN	930	Mar 15	2030	Sep 26	8000	Sep 28 1998
LOWEST DAILY MEAN	44	Nov 9	40	May 9	33	Aug 24 1989
ANNUAL SEVEN-DAY MINIMUM	46	Nov 8	44	May 5	42	Nov 2 1990
MAXIMUM PEAK FLOW			2960	Sep 26	12800	Sep 28 1998
MAXIMUM PEAK STAGE			12.11	Sep 26	16.94	Sep 28 1998
INSTANTANEOUS LOW FLOW			30	May 9	29	Aug 25 1989
10 PERCENT EXCEEDS	118		73		138	
50 PERCENT EXCEEDS	60		53		71	
90 PERCENT EXCEEDS	49		47		53	

02376293 BRUSHY CREEK NEAR BRATT, FL

LOCATION.--Lat 30°58'42", long 87°31'41", in SE¼ sec. 3, T. 5 N., R. 5 E., Escambia County, Hydrologic Unit 03140106, at bridge on Nokomis Road, 0.8 mi downstream from Rocky Creek, 1.4 mi below Alabama-Florida State Line, 2.1 mi upstream from Reedy Creek, and 6.0 mi west of Bratt.

DRAINAGE AREA.--26.5 mi^2.

PERIOD OF RECORD.--October 1998 to current year.

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge measured, 3,070 ft^3/s, Sept. 29, 1998, gage height, 184.11 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	e19	16	21	17	30	15	16	22	19	10
2	17	e18	e19	23	20	72	28	14	13	56	15	11
3	17	e18	e19	22	17	42	26	14	12	24	14	12
4	17	e17	e18	19	17	26	23	14	13	16	12	12
5	17	e17	e18	19	17	22	21	14	12	14	30	12
6	18	e17	e17	51	52	20	19	13	13	14	28	12
7	17	e16	e17	27	55	19	19	14	14	13	17	14
8	16	e15	e17	22	34	18	19	14	13	13	15	11
9	17	e15	e17	21	25	18	26	13	12	14	13	11
10	17	e16	e18	20	21	19	23	13	12	13	12	11
11	17	e16	e19	19	20	17	22	13	12	13	11	11
12	25	e16	20	21	19	34	22	12	12	25	11	11
13	31	e15	21	25	18	42	25	14	12	19	12	11
14	78	e16	52	26	18	27	21	19	57	19	13	16
15	30	e17	29	27	17	22	21	15	24	23	13	14
16	22	e17	21	21	17	21	20	14	15	16	14	12
17	20	e16	22	19	16	19	19	14	14	14	14	12
18	19	e16	29	19	15	18	19	21	14	14	12	12
19	19	e16	21	24	15	18	18	17	14	13	12	12
20	19	e17	19	35	41	18	17	14	13	18	14	12
21	17	e17	18	24	32	135	16	16	13	15	13	16
22	17	e23	17	21	23	55	16	15	12	16	13	27
23	18	e63	42	20	20	33	17	14	12	15	12	38
24	18	e32	32	21	18	27	17	13	12	18	11	20
25	18	e23	22	36	17	24	16	13	14	43	11	177
26	17	e20	19	26	17	31	16	12	13	26	14	e618
27	17	e19	18	21	16	31	15	12	17	18	12	e236
28	17	e19	18	20	17	25	14	12	20	16	12	78
29	18	e19	17	20	---	23	14	32	17	18	11	39
30	18	e20	17	20	---	21	15	49	20	29	13	31
31	17	---	16	19	---	23	---	23	---	24	12	---
MEAN	20.7	19.5	21.5	23.4	22.7	30.2	19.8	16.2	15.6	19.7	14.0	50.6
MAX	78	63	52	51	55	135	30	49	57	56	30	618
MIN	16	15	16	16	15	17	14	12	12	13	11	10
IN.	0.90	0.82	0.94	1.02	0.89	1.32	0.83	0.70	0.66	0.86	0.61	2.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	33.9	31.7	28.9	33.0	25.9	59.2	25.9	18.6	37.3	32.0	23.7	28.9
MAX	74.6	59.7	43.3	60.1	35.8	94.9	30.6	28.6	82.6	64.1	39.4	50.6
(WY)	1999	1999	1999	1999	1999	2001	2001	1999	1999	1999	2001	2002
MIN	12.0	19.5	21.5	23.4	19.6	20.3	19.8	13.8	15.5	15.2	13.1	14.2
(WY)	2001	2002	2002	2002	2001	2000	2002	2001	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL MEAN	31.1		22.8		31.6	
HIGHEST ANNUAL MEAN					52.3	1999
LOWEST ANNUAL MEAN					20.8	2000
HIGHEST DAILY MEAN	507	Mar 15	e618	Sep 26	871	Mar 14 1999
LOWEST DAILY MEAN	10	Jun 4	10	Sep 1	10	Jun 4 2001
ANNUAL SEVEN-DAY MINIMUM	12	May 20	11	Sep 7	11	Sep 7 2002
MAXIMUM PEAK FLOW			1170	Sep 26	2060	Jun 26 1999
MAXIMUM PEAK STAGE			182.40	Sep 26	183.39	Jun 26 1999
INSTANTANEOUS LOW FLOW			9.6	Sep 1	9.6	Sep 1 2002
ANNUAL RUNOFF (INCHES)	15.96		11.68		16.22	
10 PERCENT EXCEEDS	49		30		49	
50 PERCENT EXCEEDS	19		17		22	
90 PERCENT EXCEEDS	16		12		13	

e Estimated

02376500 PERDIDO RIVER AT BARRINEAU PARK, FL

LOCATION.--Lat 30°41'25", long 87°26'25", in NW$^1/_4$ 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 mi^2.

PERIOD OF RECORD.--June 1941 to current year.

REVISED RECORDS.--WSP 1384: Drainage area. WRD 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.--Records good.

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, 41,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	259	359	322	358	344	567	216	404	278	429	241
2	261	259	345	353	351	477	522	214	353	322	360	243
3	256	256	321	383	346	668	462	209	313	310	319	250
4	252	254	305	375	335	668	417	206	276	302	299	232
5	253	250	299	360	324	611	382	204	247	262	391	220
6	309	247	294	606	389	558	357	202	230	241	526	218
7	309	248	289	717	697	509	340	201	222	223	487	216
8	282	248	285	631	724	452	332	198	232	214	426	209
9	267	247	281	556	645	412	355	194	226	210	373	212
10	259	247	282	498	575	398	409	192	217	210	321	209
11	255	247	295	454	520	389	419	190	212	206	284	205
12	271	246	311	420	460	447	406	187	207	214	263	202
13	310	246	314	428	414	699	453	188	201	239	247	201
14	601	246	356	455	383	655	433	210	194	240	262	248
15	692	247	449	520	363	589	561	205	207	230	263	272
16	611	246	446	489	349	552	482	199	221	225	252	271
17	526	246	402	444	338	526	408	198	205	216	259	343
18	453	246	392	413	328	479	365	229	209	206	267	288
19	399	243	397	396	323	429	336	242	223	194	280	271
20	356	245	379	423	373	396	318	232	217	188	328	266
21	329	247	355	450	521	411	301	215	203	227	286	254
22	310	249	337	444	531	547	286	204	197	281	292	250
23	296	270	383	427	481	614	275	198	196	326	282	346
24	287	309	500	412	447	559	265	192	199	340	252	396
25	279	380	505	415	420	526	256	190	195	493	257	1250
26	268	377	453	423	389	491	249	186	196	815	316	6250
27	262	365	410	426	366	490	e242	183	193	1650	298	9800
28	260	333	381	410	352	489	e235	181	226	1350	261	9800
29	259	319	360	394	---	453	e228	216	227	744	237	4390
30	259	340	344	380	---	421	218	441	241	553	239	1880
31	259	---	331	368	---	416	---	411	---	486	269	---
MEAN	331	272	360	445	432	506	363	217	230	387	310	1314
MAX	692	380	505	717	724	699	567	441	404	1650	526	9800
MIN	252	243	281	322	323	344	218	181	193	188	237	201
IN.	0.97	0.77	1.05	1.30	1.14	1.48	1.03	0.64	0.65	1.13	0.91	3.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	510	609	709	940	959	1120	999	698	660	691	700	744
MAX	2519	1865	2084	2636	2364	2791	3179	2402	2394	2023	2938	3460
(WY)	1996	1990	1954	1998	1990	1990	1983	1991	1989	1997	1975	1998
MIN	189	246	302	339	343	269	283	217	230	210	217	213
(WY)	2001	1956	1955	1957	1957	1955	1968	2002	2002	2000	2000	1968

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL MEAN	491		429		777	
HIGHEST ANNUAL MEAN					1372	1998
LOWEST ANNUAL MEAN					339	2000
HIGHEST DAILY MEAN	4770	Mar 6	9800	Sep 27	40800	Sep 29 1998
LOWEST DAILY MEAN	195	Jun 6	181	May 28	171	Aug 27 2000
ANNUAL SEVEN-DAY MINIMUM	204	May 24	191	May 22	175	Oct 28 2000
MAXIMUM PEAK FLOW			11600	Sep 27	44000	Sep 29 1998
MAXIMUM PEAK STAGE			16.99	Sep 27	26.30	Sep 29 1998
INSTANTANEOUS LOW FLOW			179	May 28	171	Aug 27 2000
ANNUAL RUNOFF (INCHES)	16.93		14.80		26.79	
10 PERCENT EXCEEDS	747		528		1420	
50 PERCENT EXCEEDS	355		310		504	
90 PERCENT EXCEEDS	246		206		291	

e Estimated

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 stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of Record	Annual Maximum		
					Water year	Gage height (feet)	Discharge (ft^3/s)
		OCKLAWAHA RIVER BASIN					
02240934	Unnamed Sink Drain near Flemington, Fla.	Lat 29°24'15., long 82°20'30., in SE¼ sec. 30, T. 12 S., R. 20 E., Marion County, Hydrologic Unit 03080102, at upstream side of culvert at County Road 318, 2.7 mi west of Flemington, and 6.2 mi southeast of Williston.	0.14	1996-02	2001 2002	<1.00 1.24	a a
022409424	Moores Pond Tributary near Micanopy, Fla.	Lat 29°28'01., long 82°18'52., in NE¼ sec. 9, T. 12 S., R. 20 E., Marion County, Hydrologic Unit 03080102, at upstream side of culvert at County Road 329, 3.1 mi southwest of Micanopy, and 4.2 mi north of Flemington.	0.41	1996-02	2001 2002	4.27 4.41	a a
		ST. JOHNS RIVER BASIN BELOW OCKLAWAHA RIVER					
02245449	South Fork Black Creek Tributary near Penny Farms, Fla.	Lat 29°58'41., long 81°52'52., in NE¼ sec. 15, T. 6 S., R. 24 E., Clay County, Hydrologic Unit 03080103, at upstream side of culvert on State Road 16, 1.0 mi east of junction with State Road 21, and 4.4 mi west of Penny Farms.	0.32	1996-02	2001 2002	<1.00 <1.00	<13 <13
022455734	Bull Creek Tributary near Middleburg, Fla.	Lat 30°00'44., long 81°55'52., in SW¼ sec. 32, T. 5 S., R. 24 E., Clay County, Hydrologic Unit 03080103, at upstream side of culvert on County Road 215, 2.9 mi south of junction with State Road 21, 3.5 mi north of junction of County Road 215 with State Road 16, and 5.4 mi southwest of Middleburg.	0.16	1996-02	2001 2002	1.71 1.00	31 <10
02245606	Calf Branch Tributary near Middleburg, Fla.	Lat 30°01'21., long 81°53'53., in NE¼ sec. 33, T. 5 S., R. 24 E., Clay County, Hydrologic Unit 03080103, at upstream side of culvert on State Road 21, 0.7 mi south of junction with County Road 215, 3.1 mi southwest of Middleburg, and 3.6 mi north of junction of State Road 21 with State Road 16.	0.21	1996-02	2001 2002	<1.00 3.50	<12 92

Station No.	Station Name	Location	Drainage area (mi^2)	Period of Record	Annual Maximum		
					Water year	Gage height (feet)	Discharge (ft^3/s)
		WITHLACOOCHEE RIVER BASIN					
02312522	Trailer Park Drain near Brooksville, Fla.	Lat 28°30'18., long 82°22'14., in NW¼ sec. 12, T. 23 S., R. 19 E., Hernando County, HydroIogic Unit 03100208, at upstream side of culvert on County Road 581, and 3.9 mi southeast of Court House at Brooksville.	0.21	1996-02	2001 2002	1.65 1.94	a a
02312524	Tributary to Unnamed Sink near Brooksville, Fla.	Lat 28°31'01., long 82°20'04., in NE¼ sec. 6, T. 23 S., R. 20 E., Hernando County, Hydrologic Unit 03100208, at upstream side of culvert on Cedar Lane, 1.3 mi south of junction with U.S. Highway 98, and 4.2 mi southwest of Court House at Brooksville.	0.22	1996-02 c Discontinued	2001 2002	3.06 2.35	a a
		SUWANNEE RIVER BASIN ABOVE WITHLACOOCHEE RIVER					
02315534	Rocky Creek Tributary near Wellborn, Fla.	Lat 30°18'51., long 82°49'50., in SE¼ sec. 17, T. 2 S., R. 15 E., Suwannee County, Hydrologic Unit 03110201, at bridge on County Road 136, 5.3 mi northwest of Houston, 5.5 mi west of White Springs, and 6.0 mi northwest of Wellborn.	1.2	1969-75 1996-97 1999-02	2001 2002	<4.60 <4.60	<15 <15
023156044	Sugar Creek Tributary near Suwannee Springs, Fla.	Lat 30°24'29., long 82°55'13., in SE¼ sec. 9, T. 1 S., R. 14 E., Hamilton County, Hydrologic Unit 03110201, at upstream side of culvert on State Road 132, and 1.3 mi northeast of Suwannee Springs.	0.06	1996-02	2001 2002	<1.08 <1.08	<1 <1
		SANTA FE RIVER BASIN					
02320978	New River Tributary near Raiford, Fla.	Lat 30°02'49., long 82°15'58., in SE¼ sec. 23, T. 5 S., R. 20 E., Union County, HydroIogic Unit 03110206, at upstream side of culvert at County Road 237, 0.2 mi south of State Road 121,1.3 mi southwest of Raiford, and 3.9 mi northeast of the junction of State Roads 121 and 100 at Lake Butler.	0.31	1996-02	2001 2002	<1.00 2.02	<3 a
02321527	Tributary To Santa Fe River Tributary near Worthington Springs, Fla.	Lat 29°56'43., long 82°28'08., in NW¼ sec. 25, T. 6 S., R. 18 E., Union County, HydroIogic Unit 03110206, at upstream side of culvert at State Road 18, 0.26 mi west of State Road 121, and 2.9 mi northwest of Worthington Springs.	0.27	1996-02	2001 2002	<1.00 <1.00	<1 <1
02321793	Providence Branch at Providence, Fla.	Lat 30°00'29., long 82°33'36., in SW¼ sec. 31, T. 5 S., R. 18 E., Union County, Hydrologic Unit 03110206, at upstream side of culvert on County Road 245, 0.3 mi north of the junction with State Road 238, 0.5 mi south of the Olustee River, and 0.8 mi west of Providence.	0.94	1996-02	2001 2002	<1.69 <1.69	<23 <23

Station No.	Station Name	Location	Drainage area (mi^2)	Period of Record	Annual Maximum		
					Water year	Gage height (feet)	Discharge (ft^3/s)
		SANTA FE RIVER BASIN--Continued					
02322049	Bad Dog Run near Alachua, Fla.	Lat 29°49'32., long 82°28'06., in NE¼ sec. 1, T. 8 S., R. 18 E., Alachua County, HydroIogic Unit 03110206, at upstream side of culvert at County Road 239, and 2.6 mi northeast of Alachua.	0.49	1996-02	2001 2002	<13.90 <13.90	<5 <5
02322050	Shiloh Run near Alachua, Fla.	Lat 29°49'06., long 82°28'21., in SW¼ sec. 1, T. 8 S., R. 18 E., Alachua County, HydroIogic Unit 03110206, 6 ft upstream from culvert on County Road 239, 0.7 mi above mouth, and 2.8 mi southeast of Alachua.	0.32	1983-87 1996-02	2001 2002	<1.00 <1.00	<20 <20
		AUCILLA RIVER BASIN					
02326372	Palmer Mill Branch at Monticello, Fla.	Lat 30°23'37., long 83°50'42., in SE¼ sec. 29, T. 2 N., R.5 E., Jefferson County, HydroIogic Unit 03110103, on right bank 10 ft upstream from culvert on U.S. Highway 90, 1.5 mi above mouth, and 1.5 mi east of Jefferson County Courthouse in Monticello.	0.48	1983-87 1996-01 d Discontinued	2001	7.61	222
		ST. MARKS AND WAKULLA RIVERS AND COASTAL AREA					
02326574	Ward Creek Tributary near Monticello, Fla.	Lat 30°38'21., long 83°50'37., in SE¼ sec. 20, T. 3 N., R. 5 E., Jefferson County, Hydrologic Unit 03120001, at upstream side of culvert on County Road 58, 1.8 mi east of U.S. Highway 19, and 6.2 mi north of Monticello.	0.08	1996-02	b 2000 2001 2002	0.62 1.85 0.94	2.8 30 7.3
02326595	Halls Run near Miccosukee, Fla.	Lat 30°37'01., long 84°02'28., in NW¼ sec. 33, T. 3 N., R. 3 E., Leon County, Hydrologic Unit 03120001, at upstream side of culvert on State Road 59, and 1.5 mi north of Miccosukee.	0.11	1996-02	b 2000 2001 2002	1.87 3.50 2.74	16 44 31
		OCHLOCKONEE RIVER BASIN					
02329354	Attapulgus Creek Tributary near Jamieson, Fla.	Lat 30°39'42., long 84°28'39., in NW¼ sec. 18, T. 3 N., R. 2 W., Gadsden County, Hydrologic Unit 03120003, at upstream side of culvert on State Road 161, 0.3 mi south of State Road 159, 1.6 mi west of Jamieson, and 4.5 mi north of Havana.	1.03	1996-02	2001 2002	<1.32 1.62	<47 65
02329558	Church Branch near Quincy, Fla.	Lat 30°35'34., long 84°31'18., in NE¼ sec. 10, T. 2 N., R. 3 W., Gadsden County, Hydrologic Unit 03120003, at upstream side of culvert on State Road 12, and 3.6 mi east of the city hall in Quincy.	0.49	1996-02	2000 2001 2002	2.31 3.48 2.22	45 109 41

Station No.	Station Name	Location	Drainage area (mi^2)	Period of Record	Annual Maximum		
					Water year	Gage height (feet)	Discharge (ft^3/s)
		OCHLOCKONEE RIVER BASIN--continued					
02329559	Littman Branch near Quincy, Fl	Lat 30°35'32., long 84°31'08., in NE¼ sec. 10, T. 2 N., R. 3 W., Gadsden County, Hydrologic Unit 03120003, at upstream side of culvert on State Road 12, and 3.8 mi east of the city hall in Quincy.	0.20	1996-02	2001 2002	2.04 1.12	37 12
		APALACHICOLA RIVER BASIN					
02356510	South Mosquito Creek Tributary near Hardaway, Fla.	Lat 30°39'11., long 84°43'58., in SW ¼ sec. 15, T. 3 N., R. 5 W., Gadsden County, Hydrologic Unit 03130011, at upstream side of culvert on County Road 379B, 0.9 mi south of railroad crossing at County Road 379B, and 1.4 mi north of Hardaway.	0.20	1996-02	2001 2002	5.18 <4.12	35 <13
		CHIPOLA RIVER BASIN					
02358946	Mockingbird Run near Cypress, Fla.	Lat 30°39'41., long 85°06'48., in NW¼ sec. 14, T. 3 N., R. 9 W., Jackson County, Hydrologic Unit 03130012, at upstream side of culvert on County Road 264A, 4.3 mi south of Cypress, and 5.5 mi southeast of Oakdale.	0.58	1996-02	2001 2002	0.27 0.29	1.7 2.0
		PEA RIVER BASIN					
02364806	Poplar Branch near Leonia, Fla.	Lat 30°57'07., long 85°58'15., in NE¼ sec. 7, T. 6 N., R. 17 W., Holmes County, Hydrologic Unit 03140202, at upstream side of culvert on County Road 185, 2.3 mi southeast of Royals Crossroads, and 4.0 mi northwest of Leonia.	0.54	1996-02	2001 2002	3.77 1.37	231 16
		CHOCTAWHATCHEE RIVER BELOW PEA RIVER					
02365408	Poplar Springs Branch near Noma, Fla.	Lat 30°57'52., long 85°34'16., in SE¼ sec. 31, T. 7 N., R. 13 W., Holmes County, Hydrologic Unit 03140203, at upstream side of culvert on State Road 2, 3.0 mi east of Noma, and 3.2 mi west of Graceville.	0.08	1996-02	2001 2002	2.12 1.81	16 9.7
		CHOCTAWHATCHEE RIVER BASIN					
02365715	Camp Branch Tributary near Redbay, Fla.	Lat 30°38'45., long 85°56'13., in SE¼ sec. 21, T. 3 N., R. 17 W., Walton County, Hydrologic Unit 03140203, at upstream side of culvert on State Road 81, 3.8 mi north of Redbay, and 4.6 mi south of U.S. Highway I-10 interchange at State Road 81.	0.90	1995-02	2001 2002	1.78 1.51	53 38

Station No.	Station Name	Location	Drainage area (mi^2)	Period of Record	Annual Maximum		
					Water year	Gage height (feet)	Discharge (ft^3/s)
		SHOAL RIVER BASIN					
02368326	Caney Creek Tributary No. 2 near Paxton, Fla.	Lat 30°56'02., long 86°13'32., in NE¼ sec. 15, T. 5 N., R. 20 W., Walton County, Hydrologic Unit 03140103, on upstream side of culvert on County Road 0605, 2.6 mi north of the community of Caney Creek, and 5.2 mi southeast of Paxton.	0.19	1996-02	2001 2002	6.48 5.47	78 54
02368329	Caney Creek Tributary No. 1 near Paxton, Fla.	Lat 30°55'39., long 86°13'17., in SW¼ sec. 14, T. 5 N., R. 20 W., Walton County, Hydrologic Unit 03140103, on upstream side of culvert on County Road 0605, 2.1 mi north of the community of Caney Creek, and 5.7 mi southeast of Paxton.	0.11	1996-02	2001 2002	4.82 3.64	103 64
		BLACKWATER RIVER BASIN					
02370370	Manning Creek Tributary at Berrydale, Fla.	Lat 30°53'58., long 87°01'20., in NW¼ sec. 35, T. 5 N., R. 28 W., Santa Rosa County, Hydrologic Unit 03140104, at upstream side of culvert on State Road 4, 0.5 mi west of Berrydale, and 0.9 mi southeast of State Road 87.	1.24	1996-02	2001 2002	2.08 2.82	142 237
		PERDIDO RIVER BASIN					
02376315	Buckeye Branch Tributary near Walnut Hill, Fla.	Lat 30°51'15., long 87°30'54., in NW¼ sec. 23, T. 4 N., R. 33 W., Escambia County, Hydrologic Unit 03140106, at upstream side of culvert on County Road 97A, and 2.1 mi south of Walnut Hill.	0.34	1995-02	2001 2002	3.00 2.89	64 60

a Discharge not determined
b Corrected
c Discontinued.
d Gage removed 11/21/01 for bridge construction, reinstalled 12/19/02.

ELEVATION OF LAKES

304356082321700 JONES CREEK POND NEAR FARGO, GA

LOCATION.--Lat 30°43'56", long 82°32'17", Clinch County, Hydrologic Unit 03110201, attached to wooden post of walkway on upstream side of dam on Williamsburg Road in Superior Forest (private property), and 3.5 mi northeast of Fargo.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--February 1999 to current year.

GAGE.--Nonrecording gage.

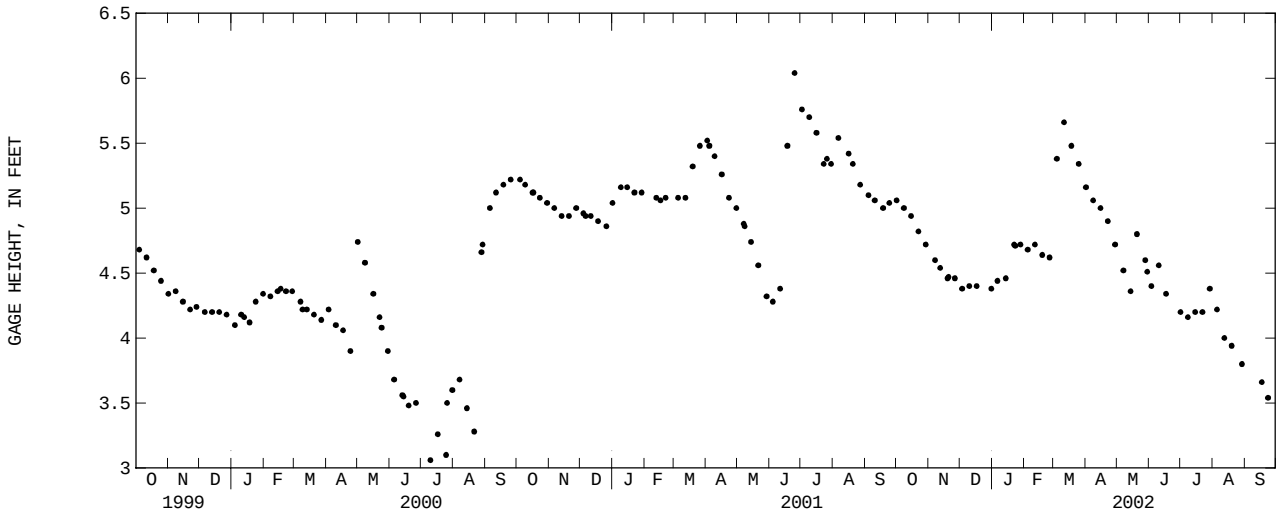
REMARKS.--Records good. Weekly staff gage readings furnished by Suwannee Forest employees.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 6.04 ft, June 25, 2001; minimum observed gage height, 3.06 ft, July 10, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum observed gage height, 5.66 ft, Mar. 11; minimum observed gage height, 3.54 ft, Sept. 23.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.06	---	---	---	---	---	5.16	---	---	4.20	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	4.38	---	---	---	---	---	4.40	---	---	---
4	---	---	---	---	4.68	5.38	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	4.22	---
6	---	---	---	4.44	---	---	---	---	---	---	---	---
7	---	4.60	---	---	---	---	---	4.52	---	---	---	---
8	5.00	---	---	---	---	---	5.06	---	---	4.16	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	4.40	---	---	---	---	---	4.56	---	---	---
11	---	---	---	---	4.72	5.66	---	---	---	---	---	---
12	---	4.54	---	---	---	---	---	---	---	---	4.00	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	4.46	---	---	---	4.36	---	---	---	---
15	4.94	---	---	---	---	---	5.00	---	---	4.20	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	4.40	---	---	---	---	---	4.34	---	---	3.66
18	---	---	---	---	4.64	5.48	---	---	---	---	---	---
19	---	4.46	---	---	---	---	---	---	---	---	3.94	---
20	---	4.47	---	---	---	---	---	4.80	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	4.82	---	---	4.72	---	---	4.90	---	---	4.20	---	---
23	---	---	---	4.71	---	---	---	---	---	---	---	3.54
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	4.62	5.34	---	---	---	---	---	---
26	---	4.46	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	4.72	---	---	---	4.60	---	---	---	---
29	4.72	---	---	---	---	---	4.72	---	---	4.38	3.80	---
30	---	---	---	---	---	---	---	4.51	---	---	---	---
31	---	---	4.38	---	---	---	---	---	---	---	---	---



304553082295000 GATOR CREEK DAM NEAR FARGO, GA

LOCATION.--Lat 30°45'53", long 82°29'50", Clinch County, Hydrologic Unit 03110201, attached to metal post on upstream side of concrete dam abutment on River Road in Superior Forest (private property), and 6.5 mi northeast of Fargo.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--February 1999 to current year.

GAGE.--Nonrecording gage.

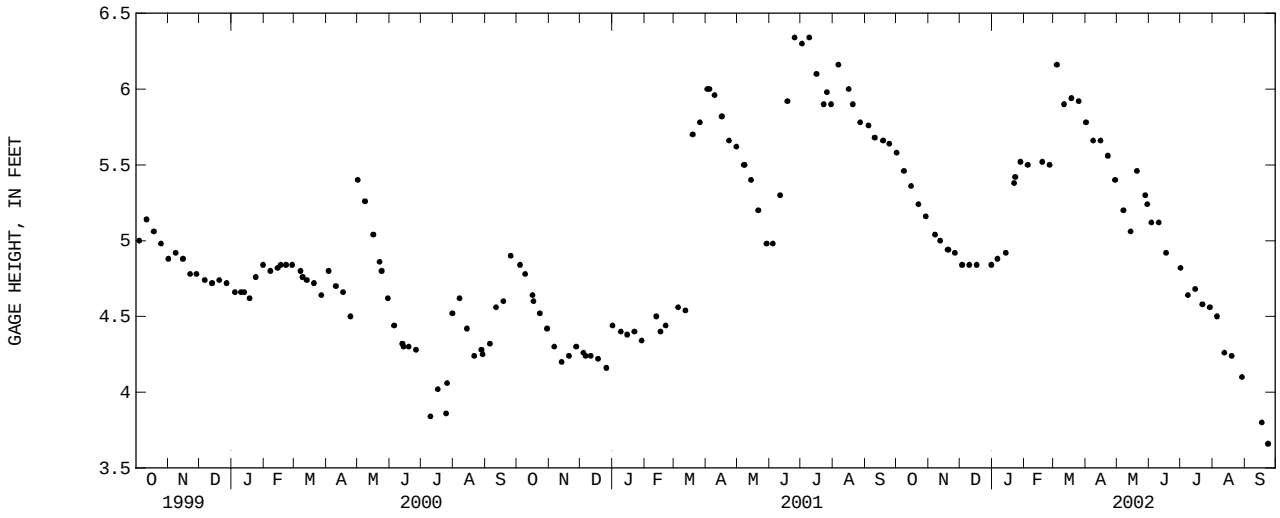
REMARKS.--Records good. Weekly staff gage readings furnished by Suwannee Forest employees.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 6.34 ft, June 25, 2001, July 9, 2001; minimum observed gage height, 3.66 ft, Sept. 23, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum observed gage height, 6.16 ft, Mar. 4; minimum observed gage height, 3.66 ft, Sept. 23.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.58	---	---	---	---	---	5.78	---	---	4.82	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	4.84	---	---	---	---	---	5.12	---	---	---
4	---	---	---	---	5.50	6.16	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	4.50	---
6	---	---	---	4.88	---	---	---	---	---	---	---	---
7	---	5.04	---	---	---	---	---	5.20	---	---	---	---
8	5.46	---	---	---	---	---	5.66	---	---	4.64	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	4.84	---	---	---	---	---	5.12	---	---	---
11	---	---	---	---	---	5.90	---	---	---	---	---	---
12	---	5.00	---	---	---	---	---	---	---	---	4.26	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	4.92	---	---	---	5.06	---	---	---	---
15	5.36	---	---	---	---	---	5.66	---	---	4.68	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	4.84	---	---	---	---	---	4.92	---	---	3.80
18	---	---	---	---	5.52	5.94	---	---	---	---	---	---
19	---	4.94	---	---	---	---	---	---	---	---	4.24	---
20	---	4.94	---	---	---	---	---	5.46	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	5.24	---	---	5.38	---	---	5.56	---	---	4.58	---	---
23	---	---	---	5.42	---	---	---	---	---	---	---	3.66
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	5.50	5.92	---	---	---	---	---	---
26	---	4.92	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	5.52	---	---	---	5.30	---	---	---	---
29	5.16	---	---	---	---	---	5.40	---	---	4.56	4.10	---
30	---	---	---	---	---	---	---	5.24	---	---	---	---
31	---	---	4.84	---	---	---	---	---	---	---	---	---



02329200 LAKE JACKSON NEAR TALLAHASSEE, FL

LOCATION.--Lat 30°31'43", long 84°21'30", in SW$^{1}/_{4}$ 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 mi^2), at elevation 87.00 ft National Geodetic Vertical Datum of 1929.

DRAINAGE AREA.--43.2 mi^2.

PERIOD OF RECORD.--March 1950 to January 1953, March 1954 to August 1956, September 1956 to August 1958 (fragmentary), September 1958 to May 1990. June 1990 to September 2002 (fragmentary, discontinued). Records of elevation prior to October 1960 are available in file of the Geological Survey.

GAGE.--Nonrecording gage and 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 observed elevation, 81.06 ft, Oct. 16; minimum observed, 78.89 ft, Sept. 12.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	79.56	80.09	79.79	79.23
2	---	---	---	---	---	---	---	---	79.53	80.09	79.93	79.20
3	---	---	---	---	---	---	---	---	79.53	80.08	79.92	79.18
4	---	---	---	---	---	---	---	---	79.54	80.08	79.92	79.15
5	---	---	---	---	---	---	---	---	79.51	80.04	79.92	79.12
6	---	---	---	---	---	---	---	---	79.54	80.01	79.90	79.09
7	---	---	---	---	---	---	---	---	79.70	79.98	79.88	79.07
8	---	---	---	---	---	---	---	---	79.81	79.98	79.86	79.04
9	---	---	---	---	---	---	---	---	79.83	79.98	79.83	79.01
10	---	---	---	---	---	---	---	---	79.81	80.06	79.79	78.99
11	---	---	---	---	---	---	---	---	79.79	80.05	79.73	78.96
12	---	---	---	---	---	---	---	---	79.77	80.03	79.70	78.93
13	---	---	---	---	---	---	---	---	79.74	80.02	79.67	79.06
14	---	---	---	---	---	---	---	---	79.74	80.02	79.64	79.13
15	---	---	---	---	---	---	---	---	79.76	80.03	79.62	79.20
16	81.06	---	---	---	---	---	---	---	79.73	80.00	79.59	79.18
17	---	---	---	---	---	---	---	---	79.74	79.97	79.56	79.16
18	---	---	---	---	---	---	---	---	79.71	79.93	79.54	79.15
19	---	---	---	---	---	---	---	---	79.69	79.90	79.52	79.13
20	---	---	---	---	---	---	---	---	79.66	79.87	79.53	79.14
21	---	---	---	---	---	---	---	79.90	79.63	79.86	79.51	79.15
22	---	---	---	---	---	---	---	79.89	79.61	79.85	79.48	79.13
23	---	---	---	---	---	---	---	79.82	79.63	79.84	79.45	79.10
24	---	---	---	79.88	---	---	---	79.80	79.61	79.85	79.42	79.11
25	---	---	---	---	---	---	---	79.79	79.63	79.83	79.39	79.14
26	---	---	---	---	---	---	---	79.78	79.77	79.82	79.36	79.17
27	---	---	---	---	---	---	---	79.70	79.80	79.81	79.34	79.19
28	---	---	---	---	---	---	---	79.68	79.85	79.80	79.34	79.17
29	---	---	---	---	---	---	---	79.65	79.98	79.79	79.31	79.15
30	---	---	---	---	---	---	---	79.63	80.03	79.77	79.28	79.13
31	---	---	---	---	---	---	---	79.59	---	79.75	79.26	---
TOTAL	---	---	---	---	---	---	---	---	2391.23	2478.18	2467.98	2373.56
MEAN	---	---	---	---	---	---	---	---	79.71	79.94	79.61	79.12
MAX	---	---	---	---	---	---	---	---	80.03	80.09	79.93	79.23
MIN	---	---	---	---	---	---	---	---	79.51	79.75	79.26	78.93

02329900 LAKE TALQUIN NEAR BLOXHAM, FL

LOCATION.--Lat 30°23'15", long 84°38'45", in SW$^1/_4$ sec. 16, T.1 S., R.4 W., Leon County, Hydrologic Unit 03120003, at left upstream end of C.H. Corn Hydroelectric 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 mi^2), at elevation 60.0 ft National Geodetic Vertical Datum of 1929, from data provided by Florida Power Corporation.

DRAINAGE AREA.--1,700 mi^2.

PERIOD OF RECORD.--January 1930 to September 1950 (month-end 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 September 1992 (month-end elevations, contents and daily elevations); October 1992 to current year, daily elevations.

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

GAGE.--Nonrecording gage and water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

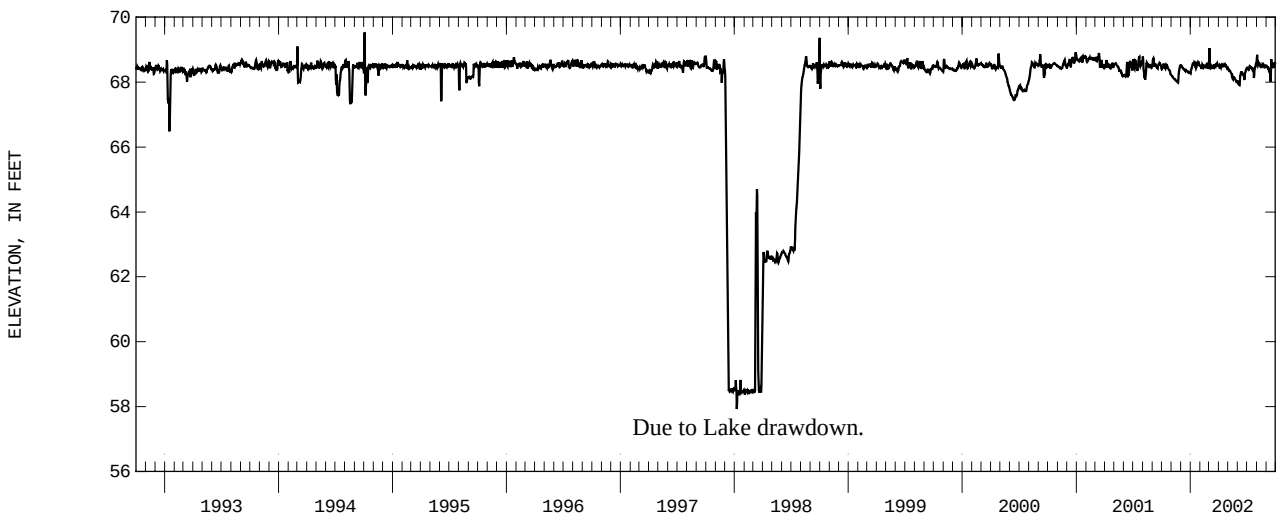
REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway is equipped with seven taintor gates, each 16ft high by 25 ft wide. Storage began in June 1929; water in lake first reached minimum operating level January 1930. Usable capacity, 69,800 acre-ft between elevations, 60.0 ft, minimum operating level, and 68.5 ft, top of closed taintor gates. Dead storage is unknown. Contents are available by request.

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, 77,700 acre-ft, Sept. 25, elevation, 69.27 ft; minimum daily contents, 63,200 acre-ft, Sept. 15, elevation, 67.82 ft.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68.39	68.21	68.52	68.26	68.50	68.43	68.50	68.41	68.01	68.43	68.69	68.50
2	68.40	68.20	68.51	68.36	68.50	68.59	68.48	68.39	67.98	68.44	68.83	68.48
3	68.42	68.19	68.50	68.37	68.48	69.04	68.51	68.38	67.95	68.43	68.67	68.48
4	68.43	68.17	68.49	68.41	68.45	68.64	68.53	68.36	67.94	68.42	68.54	68.47
5	68.44	68.17	68.47	68.44	68.44	68.51	68.51	68.37	67.94	68.40	68.51	68.44
6	68.50	68.15	68.45	68.48	68.40	68.47	68.49	68.36	67.92	68.38	68.55	68.42
7	68.57	68.13	68.43	68.54	68.49	68.50	68.46	68.35	67.91	68.37	68.59	68.43
8	68.51	68.11	68.42	68.56	68.55	68.47	68.47	68.33	68.00	68.39	68.61	68.40
9	68.48	68.10	68.41	68.55	68.53	68.52	68.45	68.32	68.16	68.47	68.59	68.37
10	68.47	68.09	68.40	68.55	68.48	68.45	68.50	68.30	68.20	68.49	68.58	68.33
11	68.45	68.08	68.40	68.55	68.46	68.46	68.54	68.28	68.26	68.48	68.55	68.30
12	68.44	68.08	68.38	68.56	68.44	68.48	68.55	68.26	68.30	68.47	68.53	68.28
13	68.42	68.08	68.37	68.62	68.46	68.53	68.54	68.20	68.30	68.45	68.48	68.40
14	68.46	68.06	68.36	68.61	68.49	68.48	68.52	68.21	68.29	68.44	68.47	68.31
15	68.54	68.05	68.37	68.53	68.50	68.43	68.50	68.17	68.29	68.45	68.50	68.01
16	68.53	68.04	68.37	68.50	68.49	68.43	68.51	68.13	68.26	68.45	68.49	68.18
17	68.52	68.03	68.34	68.47	68.49	68.43	68.50	68.08	68.25	68.43	68.50	68.71
18	68.49	68.02	68.36	68.45	68.49	68.52	68.52	68.07	68.24	68.40	68.50	68.60
19	68.46	68.01	68.34	68.42	68.45	68.52	68.49	68.13	68.22	68.36	68.49	68.53
20	68.44	68.00	68.34	68.45	68.45	68.49	68.49	68.13	68.21	68.37	68.57	68.49
21	68.43	68.00	68.33	68.49	68.55	68.52	68.49	68.14	68.15	68.44	68.57	68.47
22	68.41	67.99	68.32	68.55	68.56	68.53	68.51	68.14	68.08	68.36	68.57	68.46
23	68.39	68.09	68.31	68.53	68.52	68.54	68.54	68.12	68.06	68.12	68.55	68.47
24	68.37	68.25	68.32	68.53	68.49	68.51	68.52	68.10	68.25	68.23	68.51	68.51
25	68.36	68.33	68.32	68.57	68.48	68.54	68.48	68.09	68.25	68.40	68.48	68.59
26	68.35	68.39	68.30	68.62	68.46	68.55	68.47	68.07	68.27	68.42	68.45	68.43
27	68.31	68.43	68.29	68.61	68.43	68.57	68.46	68.05	68.32	68.44	68.45	68.56
28	68.30	68.47	68.29	68.58	68.43	68.52	68.42	68.02	68.36	68.48	68.46	68.59
29	68.25	68.50	68.28	68.53	---	68.48	68.43	68.00	68.38	68.55	68.48	68.59
30	68.23	68.52	68.28	68.51	---	68.52	68.44	68.00	68.39	68.57	68.51	68.55
31	68.22	---	68.27	68.50	---	68.51	---	68.04	---	68.60	68.51	---
MEAN	68.42	68.16	68.37	68.51	68.48	68.52	68.49	68.19	68.17	68.42	68.54	68.44
MAX	68.57	68.52	68.52	68.62	68.56	69.04	68.55	68.41	68.39	68.60	68.83	68.71
MIN	68.22	67.99	68.27	68.26	68.40	68.43	68.42	68.00	67.91	68.12	68.45	68.01



WELL DESCRIPTIONS AND GROUND-WATER DATA

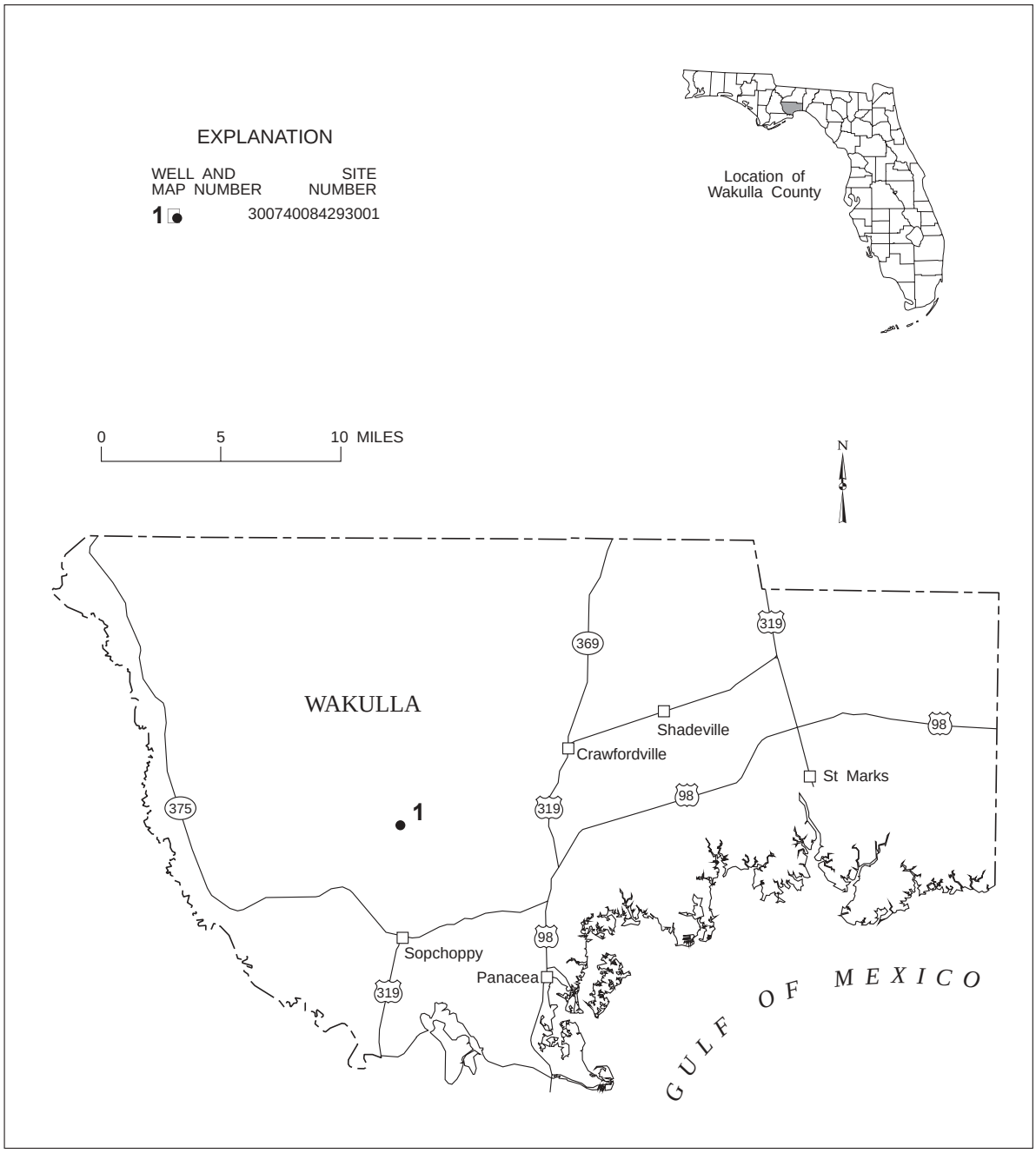


Figure 13. Location of wells in Wakulla County.

WELL NUMBER.--300740084293001. USGS Observation Well near Crawfordville, FL.

LOCATION.--Lat 30°07'40", long 84°29'30", in NW $^{1}/_{4}$ NE $^{1}/_{4}$ NW $^{1}/_{4}$ 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 368, and 7.8 mi west of Crawfordville.

AQUIFER.--Hawthorne 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.--Satellite data collection platform with water-elevation recorder.

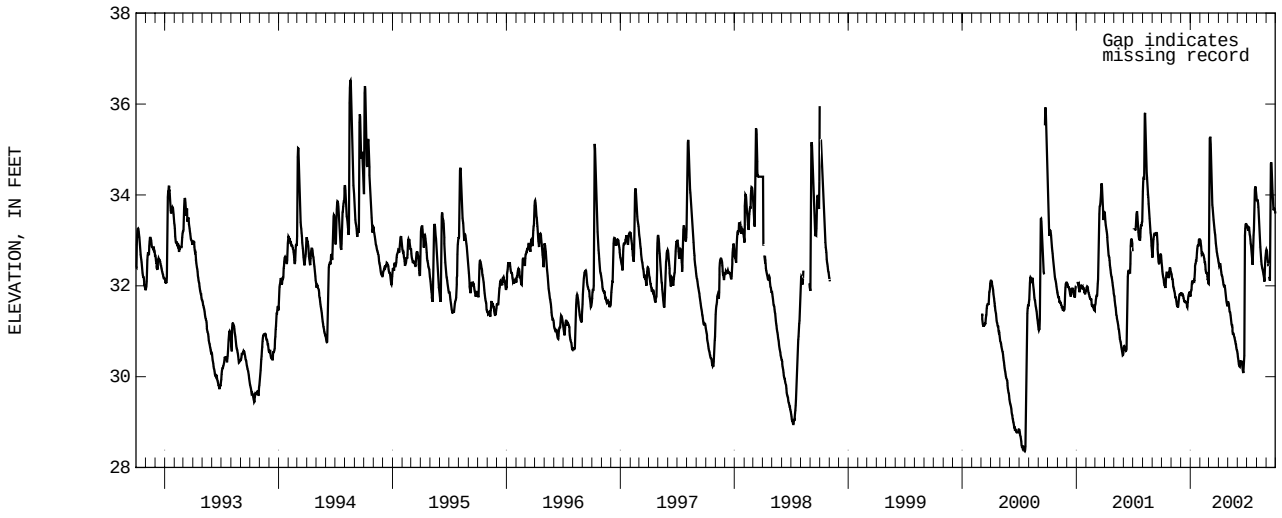
DATUM.--Land-surface datum is 46.91 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--January 1967 to September 1998, March to September 2000. 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 (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.48	32.27	31.84	31.78	33.02	32.04	32.50	31.64	30.51	33.31	33.86	32.79
2	32.41	32.24	31.84	31.87	33.01	32.39	32.47	31.64	30.44	33.31	33.89	32.77
3	32.32	32.18	31.84	31.89	32.93	34.08	32.42	31.60	30.39	33.31	33.89	32.74
4	32.26	32.15	31.83	31.91	32.87	35.24	32.44	31.57	30.34	33.26	33.88	32.66
5	32.21	32.14	31.81	32.04	32.78	35.26	32.49	31.50	30.27	33.21	33.86	32.58
6	32.18	32.07	31.81	32.11	32.70	35.26	32.49	31.44	30.25	33.29	33.82	32.50
7	32.15	31.98	31.79	32.08	32.71	35.11	32.47	31.42	30.23	33.29	33.73	32.43
8	32.07	31.96	31.79	32.07	32.70	34.80	32.43	31.40	30.22	33.28	33.57	---
9	32.03	31.93	31.78	32.09	32.70	34.49	32.35	31.35	30.30	33.19	33.40	---
10	32.02	31.89	31.73	32.10	32.71	34.17	32.30	31.28	30.34	33.13	33.26	32.20
11	31.99	31.87	31.72	32.10	32.70	33.95	32.24	31.22	30.34	33.09	33.13	32.17
12	31.97	31.83	31.66	32.12	32.66	33.78	32.22	31.16	30.34	33.02	33.00	32.11
13	31.95	31.75	31.66	32.11	32.63	33.72	32.21	31.13	30.34	32.93	32.86	32.64
14	32.12	31.74	31.66	32.24	32.59	33.63	32.17	31.13	30.31	32.89	32.77	33.66
15	32.22	31.74	31.66	32.35	32.52	33.54	32.13	31.08	30.31	32.81	32.66	34.36
16	32.29	31.69	31.62	32.44	32.52	33.45	32.08	31.01	30.22	32.73	32.55	34.68
17	32.29	31.64	31.64	32.47	32.47	33.38	32.02	30.95	30.16	32.64	32.47	34.72
18	32.29	31.59	31.64	32.49	32.36	33.31	32.00	30.95	30.11	32.56	32.43	34.67
19	32.29	31.56	31.64	32.55	32.31	33.23	32.01	30.95	30.08	32.46	32.39	34.47
20	32.29	31.56	31.62	32.55	32.28	33.17	32.01	30.92	30.19	32.66	32.36	34.25
21	32.23	31.54	31.54	32.62	32.28	33.12	31.99	30.90	30.34	32.91	32.33	34.09
22	32.19	31.52	31.53	32.73	32.28	33.03	31.94	30.87	30.46	33.11	32.29	33.98
23	32.17	31.59	31.63	32.82	32.27	32.94	31.87	30.84	32.28	33.23	32.25	33.85
24	32.21	31.67	31.69	32.87	32.20	32.87	31.80	30.80	33.00	33.55	32.21	33.69
25	32.33	31.74	31.76	32.89	32.15	32.82	31.73	30.77	33.10	33.91	32.15	33.66
26	32.38	31.79	31.80	32.89	32.15	32.75	31.67	30.72	33.26	34.11	32.09	33.70
27	32.40	31.81	31.82	32.89	32.12	32.71	31.63	30.70	33.35	34.17	32.27	33.70
28	32.40	31.81	31.85	33.01	32.05	32.66	31.59	30.64	33.36	34.17	32.49	33.69
29	32.37	31.82	31.85	33.02	---	32.63	31.55	30.60	33.36	34.11	32.62	33.65
30	32.31	31.83	31.82	33.02	---	32.59	31.61	30.58	33.35	34.03	32.69	33.59
31	32.29	---	31.78	33.02	---	32.54	---	30.55	---	33.96	32.76	---
MEAN	32.23	31.83	31.73	32.42	32.52	33.51	32.09	31.07	31.05	33.28	32.90	---
MAX	32.48	32.27	31.85	33.02	33.02	35.26	32.50	31.64	33.36	34.17	33.89	---
MIN	31.95	31.52	31.53	31.78	32.05	32.04	31.55	30.55	30.08	32.46	32.09	---



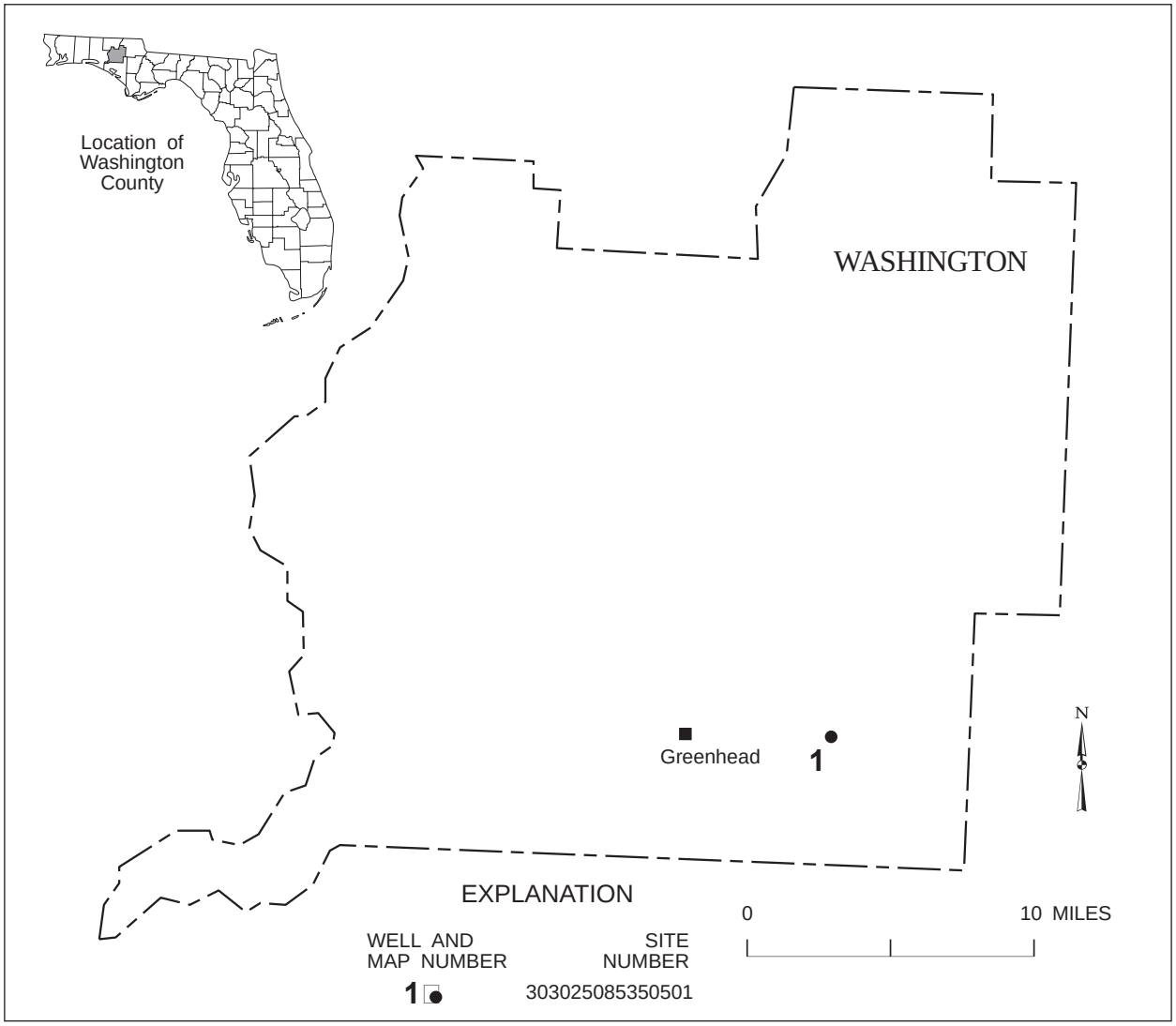


Figure 14. Location of wells in Washington County.

WELL NUMBER.--303025085350501. Local Number 422A. USGS Observation Well near Wausau, Fl.

LOCATION.--Lat 30°30'25", long 85°35'05", in SE$^1/_4$NW$^1/_4$NW$^1/_4$ 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.--Satellite data collection platform with water-elevation recorder.

DATUM.--Land-surface datum is 66.11 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.90 ft above land-surface datum.

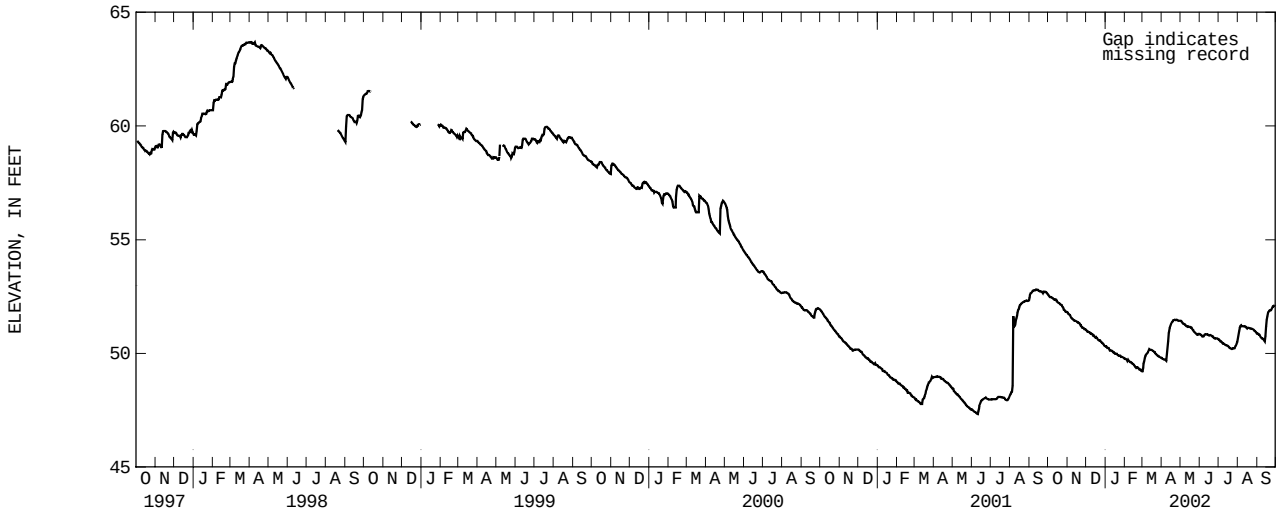
PERIOD OF RECORD.--October 1962 to September 1989, October 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.75 ft NGVD, Oct. 1,2, 1979; lowest, 47.33 ft NGVD, June 10, 2001.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.59	51.79	51.01	50.29	49.77	49.21	49.80	51.44	50.84	50.61	50.68	50.88
2	52.55	51.78	51.00	50.31	49.74	49.37	49.76	51.42	50.82	50.60	50.83	50.86
3	52.50	51.72	50.96	50.30	49.73	49.53	49.75	51.40	50.81	50.57	50.98	50.85
4	52.48	51.70	50.95	50.24	49.71	49.65	49.73	51.36	50.79	50.54	51.13	50.82
5	52.47	51.69	50.93	50.24	49.66	49.79	49.73	51.32	50.74	50.53	51.21	50.81
6	52.47	51.64	50.91	50.24	49.71	49.89	49.72	51.29	50.74	50.51	51.23	50.76
7	52.45	51.57	50.91	50.19	49.68	49.93	49.70	51.29	50.74	50.47	51.20	50.70
8	52.42	51.54	50.87	50.13	49.64	49.99	49.68	51.28	50.79	50.44	51.19	50.67
9	52.40	51.51	50.87	50.13	49.62	50.01	49.95	51.25	50.83	50.43	51.20	50.65
10	52.38	51.49	50.84	50.12	49.62	50.04	50.26	51.21	50.84	50.41	51.19	50.65
11	52.38	51.46	50.83	50.11	49.60	50.11	50.54	51.18	50.84	50.39	51.19	50.62
12	52.37	51.44	50.79	50.09	49.58	50.18	50.90	51.16	50.84	50.36	51.18	50.58
13	52.36	51.43	50.78	50.05	49.57	50.15	50.97	51.18	50.83	50.35	51.17	50.54
14	52.37	51.42	50.78	50.06	49.52	50.16	51.13	51.17	50.82	50.35	51.16	50.76
15	52.28	51.41	50.72	50.01	49.50	50.15	51.20	51.16	50.82	50.34	51.13	51.17
16	52.26	51.39	50.69	49.99	49.49	50.14	51.28	51.16	50.78	50.32	51.10	51.48
17	52.23	51.37	50.71	49.98	49.44	50.12	51.34	51.14	50.79	50.30	51.12	51.63
18	52.21	51.36	50.68	49.98	49.39	50.10	51.39	51.14	50.80	50.27	51.13	51.77
19	52.20	51.34	50.66	49.98	49.36	50.08	51.42	51.12	50.78	50.23	51.11	51.82
20	52.18	51.32	50.60	49.93	49.40	50.06	51.46	51.05	50.77	50.21	51.09	51.87
21	52.14	51.28	50.57	49.92	49.39	50.06	51.46	51.02	50.75	50.19	51.09	51.89
22	52.13	51.24	50.57	49.90	49.36	49.99	51.47	50.98	50.75	50.20	51.08	51.90
23	52.12	51.23	50.57	49.90	49.34	49.95	51.46	50.96	50.70	50.20	51.08	51.90
24	52.06	51.16	50.55	49.90	49.29	49.94	51.46	50.93	50.66	50.22	51.07	51.92
25	52.01	51.13	50.49	49.90	49.29	49.92	51.47	50.90	50.64	50.23	51.05	51.99
26	51.91	51.12	50.48	49.85	49.29	49.89	51.45	50.87	50.66	50.23	51.04	52.06
27	51.90	51.11	50.44	49.84	49.23	49.88	51.43	50.84	50.66	50.22	51.01	52.06
28	51.88	51.07	50.42	49.83	49.21	49.85	51.43	50.82	50.66	50.30	50.97	52.09
29	51.83	51.07	50.39	49.82	---	49.83	51.44	50.82	50.64	50.34	50.95	52.10
30	51.83	51.06	50.33	49.80	---	49.81	51.44	50.85	50.63	50.40	50.93	52.12
31	51.81	---	50.31	49.78	---	49.80	---	50.85	---	50.50	50.89	---
TOTAL	1619.17	1541.84	1571.61	1550.81	1386.13	1547.58	1524.22	1584.56	1522.76	1561.26	1583.38	1539.92
MEAN	52.23	51.39	50.70	50.03	49.50	49.92	50.81	51.11	50.76	50.36	51.08	51.33
MAX	52.59	51.79	51.01	50.31	49.77	50.18	51.47	51.44	50.84	50.61	51.23	52.12
MIN	51.81	51.06	50.31	49.78	49.21	49.21	49.68	50.82	50.63	50.19	50.68	50.54

CAL YR 2001 TOTAL 18152.27 MEAN 49.73 MAX 52.80 MIN 47.33
WTR YR 2002 TOTAL 18533.24 MEAN 50.78 MAX 52.59 MIN 49.21



MISCELLANEOUS WATER LEVEL MEASUREMENTS

STATION NUMBER	STATION NAME	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
	CLINCH, GA		
304738082265001	Perimeter Road Well near Fargo	11-20-01	11.46
		01-23-02	12.42
304741082263101	Bay Creek Well near Fargo	11-20-01	6.99
		01-23-02	7.05
304825082290401	Steedley Field Well near Fargo	11-20-01	8.88
		01-23-02	3.81
		05-30-02	4.33

CONVERSION FACTORS

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$°F = (1.8 \times °C) + 32$