LOW-FLOW FREQUENCY ANALYSES FOR STREAMS IN WEST-CENTRAL FLORIDA

By K. M. Hammett

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Factors for converting inch-pound units to International System of Units (SI) and abbreviations of units

Multiply	By	To obtain
inch (in.)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
square mile (mi^2)	2.590	square kilometer (km^2)
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)

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ABSTRACT

The log-Pearson type III distribution was used for defining low-flow frequency at continuous-record stations in west-central Florida. Frequency distributions covering 1, 3, 7, 14, 30, 60, 90, 120, and 183 consecutive-day periods for recurrence intervals of 2, 5, 10, and 20 years are presented.

Discharge measurements at low-flow partial-record stations and miscellaneous discharge-measurement stations were correlated with concurrent daily mean discharge at continuous-record stations. Estimates of the 7-day, 2-year; 7-day, 10-year; 30-day, 2-year; and 30-day, 10-year discharges were made for most low-flow partial-record and miscellaneous discharge-measurement stations based on those correlations. Where there were large numbers of concurrent base-flow measurements and good correlation, additional points on the frequency curves were estimated.

Multiple linear-regression analysis was used in an attempt to mathematically relate low-flow frequency data to basin characteristics. The resulting equations showed an apparent bias and were considered unsatisfactory for use in estimating low-flow characteristics.

Maps of the 7-day, 10-year and 30-day, 10-year low flows are presented. Techniques that can be used to estimate low-flow characteristics at an ungaged site are also provided. For all continuous-record stations, 7-day, 10-year and 30-day, 10-year low flows are compared to 90 and 95 percent flow-duration discharges and the regulatory minimum flow defined by the Southwest Florida Water Management District. An example application of low-flow data for estimating water-supply potential is also included.

INTRODUCTION

Low-flow frequency information is needed to assess the water-supply potential and waste-load assimilation capacity of streams in west-central Florida (fig. 1). The suitability of streams as wildlife habitats is also related to minimum streamflow. Low-flow characteristics may be used for forecasting seasonal low flows or as indicators of ground-water contributions to streamflow. Low-flow characteristics may also be used as indexes for regulatory or water-management purposes.

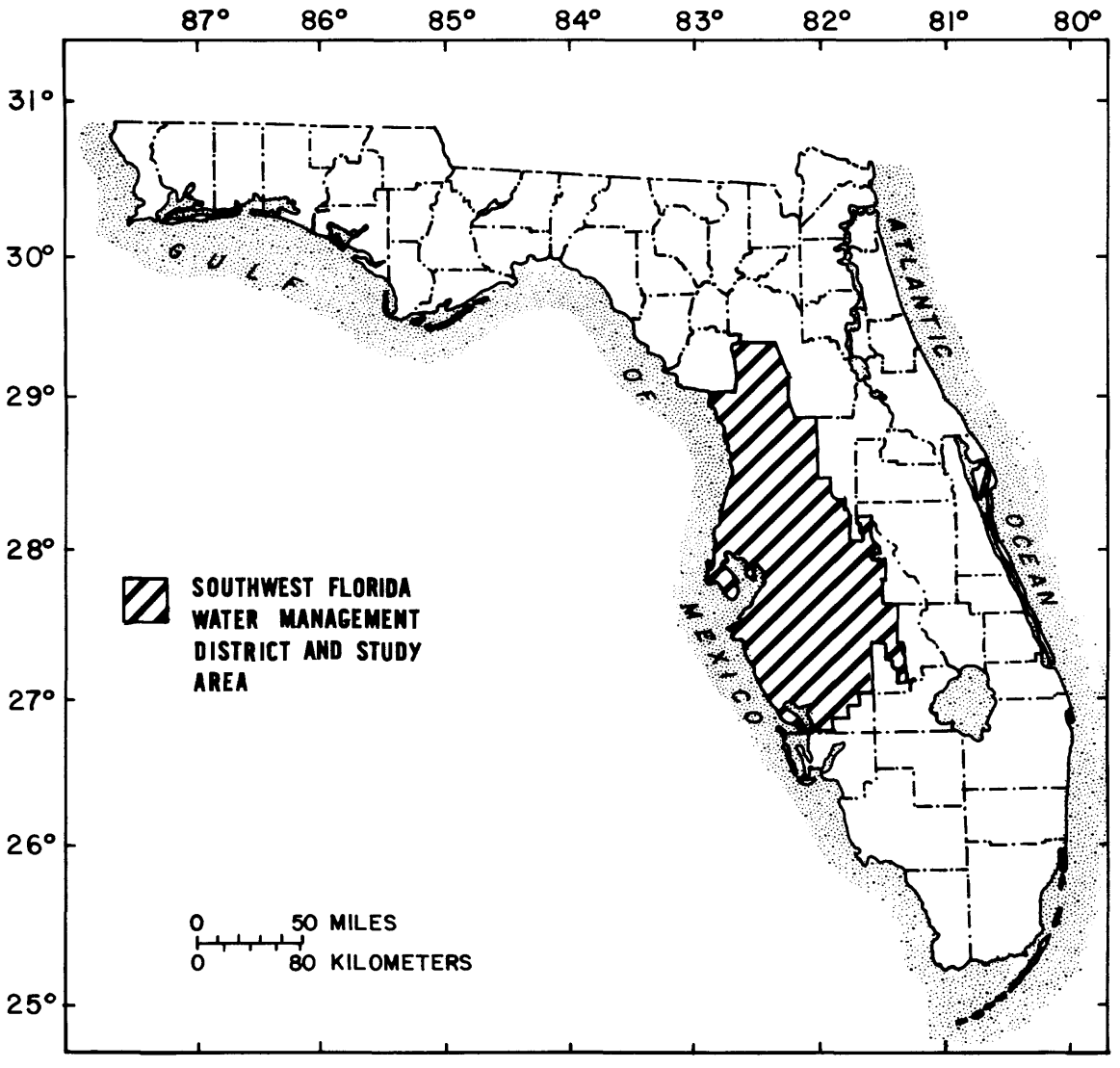

Figure 1.--Location of study area.

A consistent and uniformly applicable procedure is needed for estimating the magnitude and frequency of low flows at gaged and ungaged sites on streams. At sites where long-term systematic streamflow record is available, reliable low-flow frequency information can usually be determined from the record. Where miscellaneous or periodic discharge measurements are available, the measurements can be correlated with long-term continuous-record gaging stations to obtain estimates of low-flow frequency. Unfortunately, long-term streamflow records or miscellaneous discharge measurements are not always available where low-flow information is needed. Personnel and cost considerations make it impossible to maintain and operate continuous-record or low-flow partial-record stations at all sites where low-flow information might be needed.

Purpose and Scope

The purpose of this report is to present techniques that can be used to estimate the magnitude and frequency of low flow for streams in west-central Florida. Low-flow frequency analyses for periods of 1, 3, 7, 14, 30, 60, 90, 120, and 183 consecutive days and for recurrence intervals of 2, 5, 10, and 20 years are presented for continuous-record stations and selected low-flow partial-record stations. Low-flow frequency analyses for selected consecutive-day periods and recurrence intervals are also presented for the remaining low-flow partial-record stations and for miscellaneous discharge-measurement stations. Maps that show the 7-day, 10-year and 30-day, 10-year low flows at each station are provided. Computed regulatory minimum discharges for continuous-record gaging stations in west-central Florida are compared to values of low-flow frequency and flow duration.

Multiple linear-regression analysis was used in an attempt to define mathematical relations between low-flow frequency data and basin characteristics. The results of the regression analyses were unsatisfactory, but a discussion of the procedure is provided.

The report also presents an application of low-flow frequency information in determining water-supply potential for two long-term, continuous-record gaging stations. Estimates of water-supply potential for selected draft rates are provided for one station in the Peace River basin and one station in the Myakka River basin.

Previous Studies

Low-flow frequency data have been compiled in several previous reports. Heath and Wimberly (1971) tabulated flow-duration data and lowest mean discharges for various consecutive-day periods for selected continuous-record gaging stations in Florida. The tables include data through water-year 1965. The report also explains how the tabulated data can be used to produce low-flow frequency and flow-duration curves for the gaging stations.

Regional low-flow frequency information that covers west-central Florida is available in a report by Rabon (1971). Rabon used records through the 1970 water year to develop regional low-flow relations in a regression analysis of minimum streamflow and basin characteristics. Equations were developed for minimum 7-day mean discharges that have recurrence intervals of 2, 10, and 20 years. Standard errors of estimate for those equations are 113, 419, and 562 percent, respectively. Because of the large standard errors of estimate, Rabon concluded that low-flow characteristics at ungaged sites could not be adequately estimated from his regional equations.

A map of 7-day, 10-year low flows in Florida was prepared by Stone (1974). Only gaging stations that had 10 or more years of record were used in the report. The map provides an overview of the areal variation of 7-day, 10-year low flows, but cannot be used for estimating low-flow information at ungaged sites.

Hughes (1981) presented low-flow frequency data for continuous-record gaging stations in Florida. Gaging stations that had records of 7 years or more as of 1977 were included. Lowest average discharges for periods of 1, 7, 14, 30, 60, 90, 120, and 183 consecutive days and recurrence intervals of 2, 5, 10, 20, 30, and 50 years were tabulated. Analyses were based on a climatic year beginning July 1. Correlation techniques were used to adjust some short-term records. Because of the larger data base and longer period of record that are now available, low-flow discharges provided in this report should be used in preference to those provided by Rabon, Stone, or Hughes.

DESCRIPTION OF STUDY AREA

The study area encompasses all or part of 16 counties, about 10,000 mi^2, in the Southwest Florida Water Management District (fig. 1). The Florida Board of Conservation (1966) and Florida Department of Natural Resources (1974) provide general descriptions of the area. The topography, physiography, and geomorphology have been described by Cooke (1939), White (1958; 1970), Puri and Vernon (1964), and Healy (1975). The geology has been described by Matson and Sanford (1913), Cooke (1945), and Puri and Vernon (1964). More recently, the Florida Bureau of Geology has published an environmental geology map series: Knapp (1978; 1980), Scott (1978), Lane and others (1980), Deuerling and MacGill (1981).

The Hillsborough, Peace, and Withlacoochee River basins are the three main basins in the study area (fig. 2). The north is largely devoid of streams except for the Withlacoochee River and several small, tidally-affected, spring-fed streams along the coast. In the central and southern parts, the Alafia, Manatee, Little Manatee, and Myakka Rivers drain the coastal areas.

Most of the river basins have flat slopes, especially near the coast. About one-third of the continuous-record gaging stations have basin slopes of less than 2 feet per mile. Land-surface altitudes range from sea level to about 300 feet above sea level in the east. The flat basin slopes tend to produce ponding, and flow is particularly sluggish during periods of low flow.

Other factors also affect streamflow. Many streams empty into estuaries and their lower reaches are tidally affected. Lakes and swamps in the river basins act as retention areas and tend to lengthen the recession segments of discharge hydrographs. In the central area, where large sections have been strip-mined for phosphate ore, some natural surface-drainage patterns have been disrupted.

Ground-water contribution to base flow is influenced by configuration of the underlying aquifer system, which is determined by geology. Figure 3 shows the general geology of the study area. The age of the formations decreases from north to south. In the northern part, limestones and dolomites of the Eocene and Oligocene Series are exposed at land surface or are covered by unconsolidated porous sand. Large phosphate deposits of the Miocene Series occur in the central and southern parts. Limestone and clay of the Pleistocene and Holocene Series occur in the southernmost part.

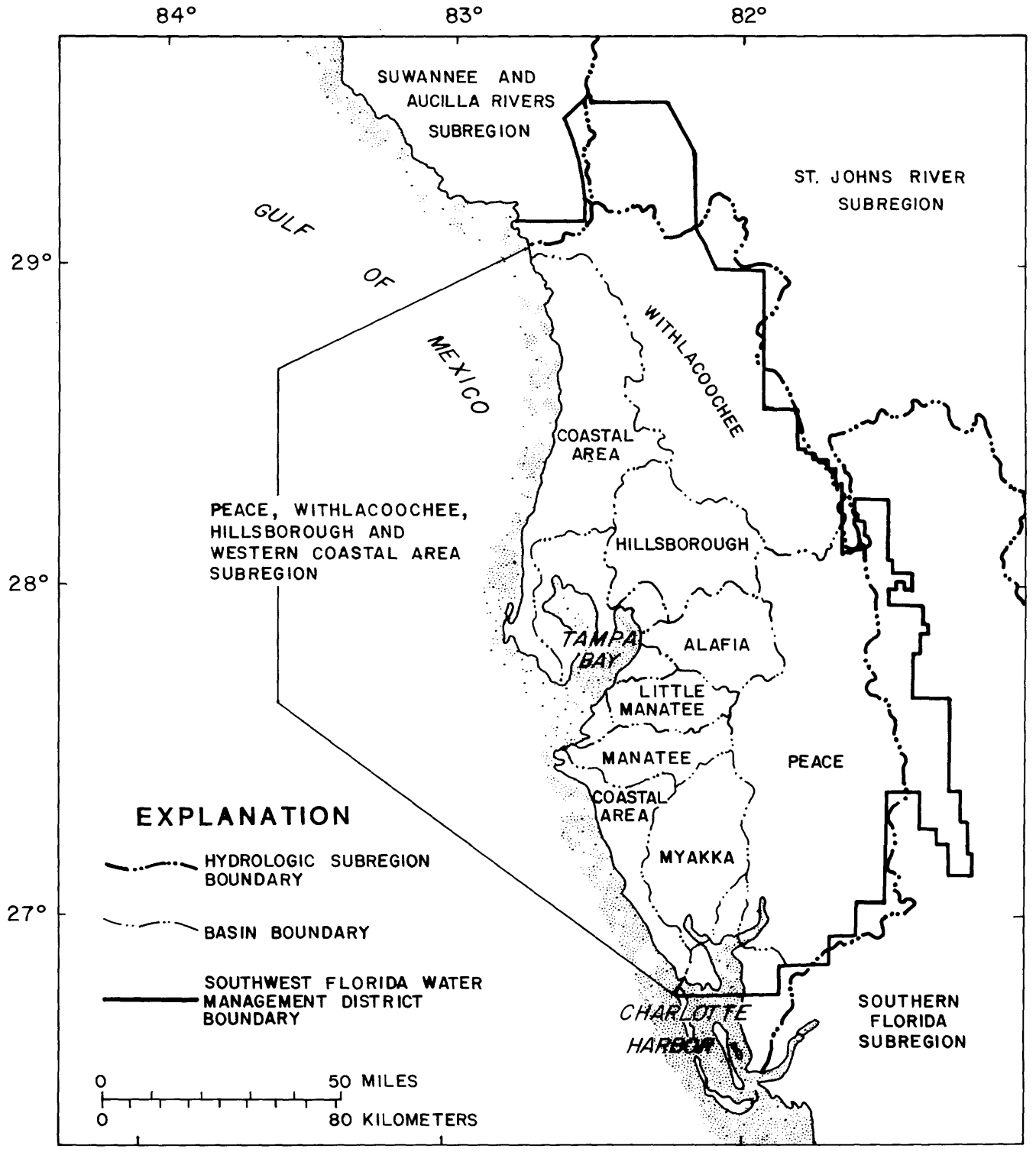

Figure 2.--Major river basins (modified from River Basin and Hydrologic Unit Map of Florida, Florida Bureau of Geology, Map Series 72, 1975).

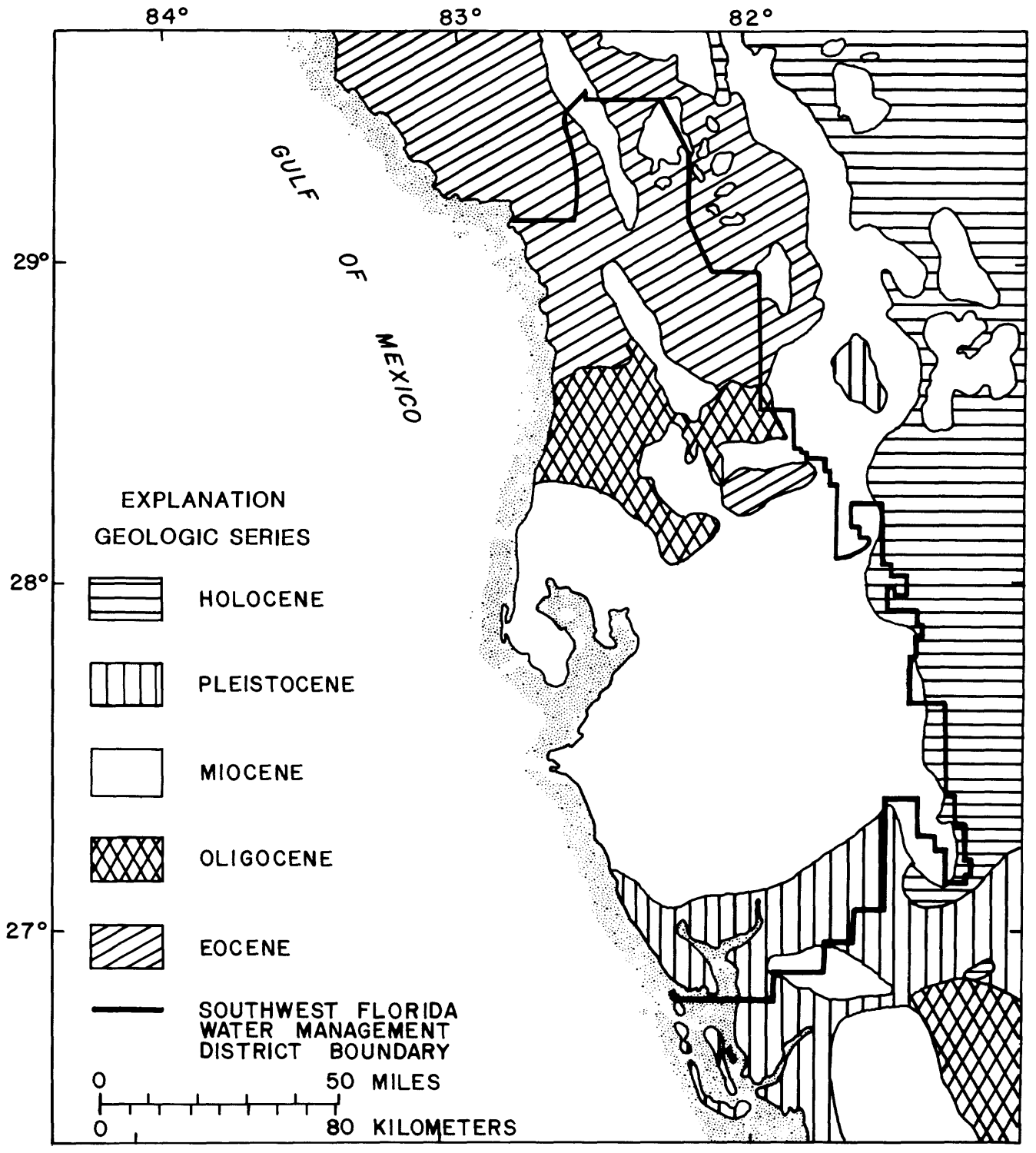

Figure 3.--Geology (modified from Geologic Map of Florida, Florida Bureau of Geology, Map Series 18, 1965).

The Floridan aquifer system underlies the entire area. The aquifer system is composed of limestone and dolomite of the Eocene, Oligocene, and Miocene Series as described by Stringfield (1966). The Floridan aquifer system is at or near land surface in the north where several springs contribute substantially to base flow in coastal areas. Along the northern coastal section, many springs discharge directly into estuaries. Springs have been cataloged and described by Ferguson and others (1947), Rosenau and Faulkner (1974), and Rosenau and others (1977).

In areas where the water table of the surficial aquifer is higher than the potentiometric surface of the Floridan aquifer system, mainly along the eastern part of the study area, water may seep downward, thereby reducing ground-water contribution to streamflow. Where the potentiometric surface has declined due to pumping, as it has in the central part of the study area (Mills and Laughlin, 1974), there is an increased potential for reduced ground-water contribution to streamflow. In areas where the potentiometric surface is higher than the water table, primarily near the Gulf Coast, upward seepage can occur that recharges the surficial aquifer and thereby increases ground-water contribution to streamflow.

Annual rainfall averages about 52 inches, with more than half occurring from June to September when localized thundershowers and squalls occur. The period from October through February is characteristically dry, November being the driest month. Rain during fall, winter, and spring is usually the result of large frontal systems and tends to be broadly distributed rather than localized.

Annual minimum streamflow normally occurs in April, May, or early June. Periods of 30 days or longer when there is less than an inch of rain are common from mid-April to late May and sometimes until mid-June. These periods of low rainfall coincide with periods of increased evaporation. Evaporation is greatest during May (Farnsworth and Thompson, 1982) when pan evaporation ranges from 7 to 8 inches. Farnsworth and others (1982) have estimated that free water-surface evaporation is about 48 inches per year.

From 1960 to 1981, rainfall was below average during most years. Palmer and Bone (1977) indicated that, at 10 of 14 sites in west-central Florida, rainfall during 1961 to 1976 was the lowest of any 16-year period since 1915. During 1979, rainfall was 15 to 20 inches above normal in the central part of the study area. Rainfall was again below normal in 1980 and 1981 and some minimum discharges of record occurred on some streams in 1981. Figure 4 shows departures from average annual rainfall for three National Weather Service stations within the study area.

Deficient rainfall can affect low-flow frequency distributions. The occurrence of extreme low-flow that results from deficient rainfall will tend to skew the frequency distribution of a station that has a short period of record, and the recurrence interval of the extreme event will tend to be underestimated. In general, the occurrence of below average rainfall at a station that has a short period of record will tend to produce estimates of low flow that are lower than estimates computed from a longer, more hydrologically diverse period of record.

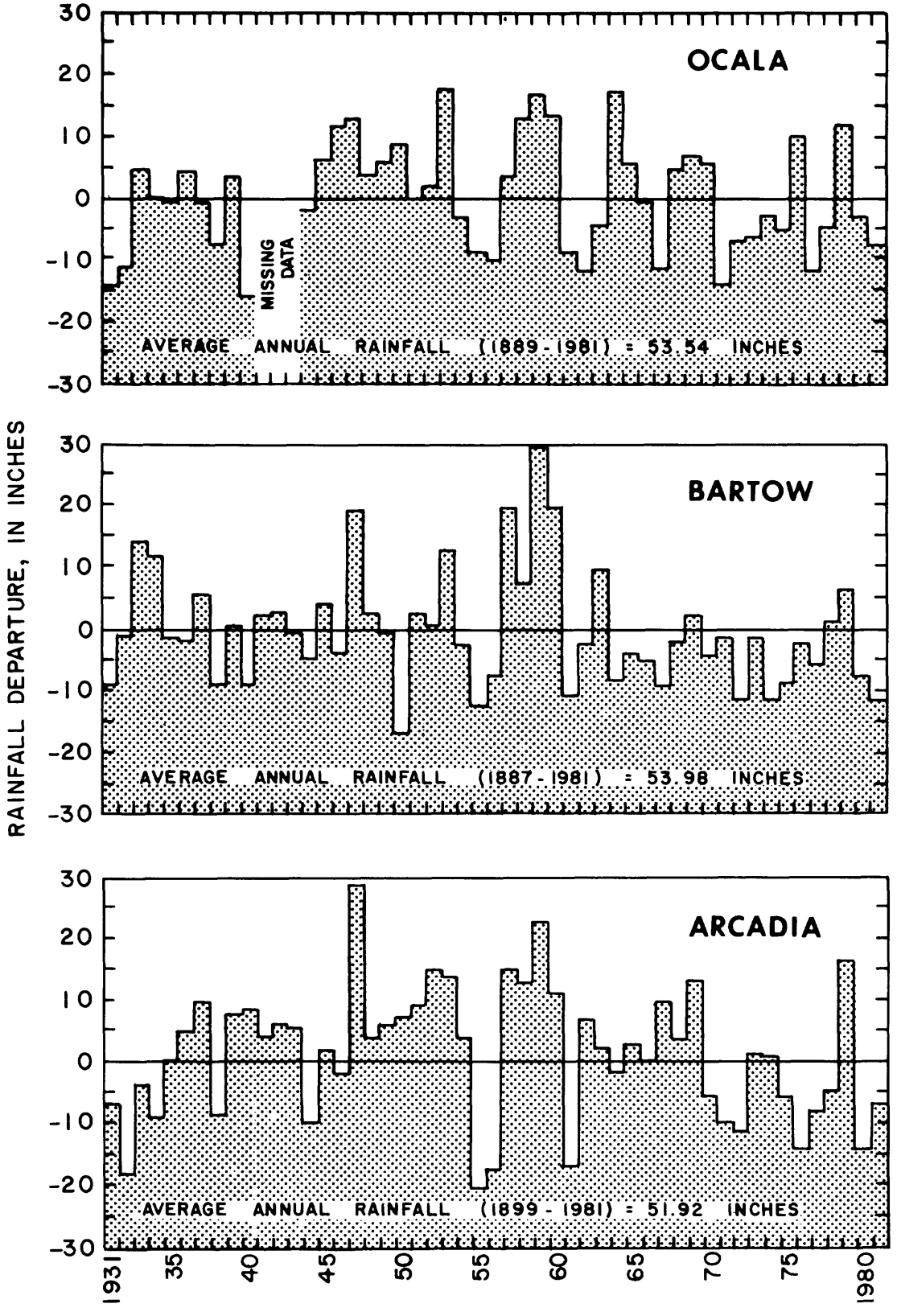

Figure 4.--Departure from average annual rainfall at three National Weather Service stations, 1931-81.

DATA USED IN THE ANALYSES

A network of 116 continuous-record gaging stations in west-central Florida was included in the analyses. As of 1982, about 30 percent of the stations were no longer in operation. Seven or more years of record were available at each station; data through the 1981 water year were included in the analyses. Stations affected by regulation or diversion were included. A list of stations and their minimum discharges of record are provided in table 1. Station locations are shown in figures 5 and 6.

A network of 109 low-flow partial-record and miscellaneous discharge-measurement stations was selected to supplement the network of continuous-record stations (figs. 5 and 6). About 10 of the miscellaneous stations had not been measured previously. At some of the low-flow partial-record stations, as many as 50 discharge measurements were available. At least four visits were made to each miscellaneous or partial-record station during the study. At some stations, there was zero flow during three of the visits. A list of low-flow partial-record and miscellaneous discharge-measurement stations, the number of measurements available, and the lowest discharge measured are provided in table 2.

Discharge measurements at stations in the supplemental network were made during the spring and fall of 1980 and 1981. April 1980 represented high base-flow conditions in the central and southern parts of the area. The high base flows resulted from heavy rains and flooding that had occurred during September and October 1979. June 1981 represented an extreme low-flow condition. In May 1981, discharge of the Peace River at Arcadia (fig. 5) was lower than at any time in the preceding 50 years.

Discharge measurements and observations of zero flow that were made as part of this study are presented in the supplementary data section at the end of this report. Previous discharge measurements made at low-flow partial-record and miscellaneous discharge-measurement stations have been published by the U.S. Geological Survey in Water-Supply Papers and in the annual series "Water Resources Data for Florida."

LOW-FLOW FREQUENCY ANALYSIS

Frequency analyses for continuous-record, low-flow partial-record, and miscellaneous discharge-measurement stations are presented in the supplementary data section at the end of this report. The low-flow data used in frequency analyses were based on the water year that begins October 1. In most parts of the United States, lowest discharges generally occur in late summer or early fall, and it is customary to determine low-flow frequency data based on the climatic year that begins April 1. In west-central Florida, minimum discharges usually occur in April, May, or early June, and therefore, using the water year insures that low-flow periods are continuous within the year.

Table 1.--Minimum discharges of record at continuous-record gaging stations

[ind - indeterminate]

Site[1]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2]
1	02236500 Big Creek near Clermont	68	1959-81	0	(11)
[3]2	02236900 Palatlakaha River at Cherry Lake outlet near Groveland	165	1958-81	0	(17)
3	02237000 Palatlakaha River near Mascotte	182	1946-55	.70	1955
[3]4	02237700 Apopka-Beauclair Canal near Astatula	184	1959-81	0	(9)
5	02238000 Haines Creek at Lisbon (before Burrell Dam)	648	1943-55	74	1943
[3]6	02238000 Haines Creek at Lisbon	648	1958-78	0	1975
[3]7	02238500 Oklawaha River at Moss Bluff	879	1944-55 1968-81	0	(2)
[3]8	02239000 Oklawaha River near Ocala	1,070	1931-67	4.0	[4]1968
9	02239500 Silver Springs near Ocala	ind	1933-81	539	1957
[3]10	02240000 Oklawaha River near Conner	1,196	1931-46 1978-81	631	1933
11	02240500 Oklawaha River at Eureka	1,420	1931-34 1944-52	626	1933
12	02240945 Hogtown Creek near Arredondo	41.2	1973-81	1.2	1981
13	02242451 Orange Lake outlet near Citra	1,012	1947-55	0	1955
14	02242500 Lochloosa Slough near Lochloosa	ind	1947-55	0	(6)
15	02243000 Orange Creek at Orange Springs	469.0	1943-52 1956-71 1976-81	2.0	1956

Footnotes are at end of table.

Table 1.--Minimum discharges of record at continuous-record gaging stations--Continued

Site[1]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2]
16	02243500 Oklawaha River near Orange Springs	2,010	1931-52	741	1933
[3]17	02243960 Oklawaha River at Rodman Dam near Orange Springs	2,165	1969-81	0	1969
18	02244000 Oklawaha River at Riverside Landing near Orange Springs	2,165	1944-68	697	1957
19	02256000 Fisheating Creek near Venus	188.0	1956-65	0	(7)
20	02256500 Fisheating Creek at Palmdale	311.0	1932-81	0	(40)
21	02262900 Boggy Creek near Taft	83.6	1960-81	0	1981
[3]22	02263500 St. Cloud Canal at S-59 near St. Cloud	308	1943-68	0	(12)
23	02263800 Shingle Creek at airport near Kissimmee	89.2	1959-81	0	(5)
[3]24	02263869 South Lake outlet above S-15 near Vineland	4	1973-81	0	(9)
25	02264000 Cypress Creek at Vineland	30.3	1946-81	0	(29)
26	02264100 Bonnet Creek near Vineland	56.1	1972-81	0	(4)
[3]27	02264495 Shingle Creek at Campbell	180	1969-81	3.1	1971
[3]28	02265000 South Port Canal at S-61 near St. Cloud	620	1943-68	0	(5)
[3]29	02266000 Canoe Creek near St. Cloud	86.5	1951-58	0	1956
30	02266200 Whittenhorse Creek near Vineland	12.4	1967-81	0	(15)

Footnotes are at end of table.

Table 1.--Minimum discharges of record at continuous-record gaging stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2/]
31	02266300 Reedy Creek near Vineland	75	1967-81	0	(2)
32	02266480 Davenport Creek near Loughman	23	1970-81	.37	1981
33	02266500 Reedy Creek near Loughman (before structure 40)	110	1940-59	2.4	1956
[3/]34	02266500 Reedy Creek near Loughman	110	1971-81	0	(9)
35	02267000 Catfish Creek near Lake Wales	58.9	1948-81	.28	1981
36	02269500 Reedy Creek near Frostproof	60.9	1947-71	0	1967
37	02270000 Carter Creek near Sebring	38.8	1955-66	2.3	1962
38	02270500 Arbuckle Creek near De Soto City	379.0	1940-81	.57	1981
[3/]39	02271000 Stearns Creek near Lake Placid	44.0	1956-68	0	(4)
40	02271500 Josephine Creek near De Soto City	109	1947-75 1979-81	.3	1956
41	02293000 Orange River near Fort Myers	83.4	1937-46	0	(7)
[3/]42	02293694 Peace Creek drainage canal near Dundee	50	1947-59	0	(2)
43	02293986 Peace Creek drainage canal near Alturas	160.0	1948-71	.10	1967
[3/]44	02294068 Lake Lulu outlet at Eloise	23	1947-71	0	(5)
[3/]45	02294491 Saddle Creek at structure P-11 near Bartow	135.0	1965-81	0	(16)
46	02294650 Peace River at Bartow	390.0	1940-81	1.1	1968

Footnotes are at end of table.

Table 1.--Minimum discharges of record at continuous-record gaging stations--Continued

Site[1]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2]
47	02294898 Peace River at Fort Meade	465	1975-81	1.2	1981
48	02295420 Payne Creek near Bowling Green	121.0	1964-68 1980-81	.84	1967
49	02295637 Peace River at Zolfo Springs	826.0	1934-81	22	1977
50	02296223 Little Charley Bowlegs Creek near Sebring	41.9	1953-81	0	(17)
51	02296500 Charlie Creek near Gardner	330.0	1951-81	.13	1975
52	02296750 Peace River at Arcadia	1,367.0	1932-81	34	1981
53	02297100 Joshua Creek at Nocatee	132.0	1951-81	0	(2)
54	02297310 Horse Creek near Arcadia	218.0	1951-81	0	(2)
55	02298123 Prairie Creek near Fort Ogden	233.0	1964-68 1978-81	0	1965
[3]56	02298202 Shell Creek near Punta Gorda	373.0	1966-81	0	(10)
57	02298608 Myakka River at Myakka City	125.0	1964-66 1978-81	0	(2)
58	02298830 Myakka River near Sarasota	229.0	1937-81	0	(28)
59	02299470 Big Slough near Murdock	87.5	1964-72	0	1972
60	02299750 Phillippe Creek near Sarasota	24	1964-68 1980-81	.24	1967
61	02299950 Manatee River near Myakka Head	65.3	1967-81	0	1975
62	02300000 Manatee River near Bradenton	80.0	1940-65	.60	[4]1939
63	02300100 Little Manatee River near Fort Lonesome	31.4	1964-81	0	(14)

Footnotes are at end of table.

Table 1.--Minimum discharges of record at continuous-record gaging stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2/]
64	02300500 Little Manatee River near Wimauma	149.0	1940-81	0.78	1976
65	02301000 North Prong Alafia River at Keysville	135	1951-81	3.6	1952
66	02301300 South Prong Alafia River near Lithia	107.0	1964-81	.13	1981
67	02301350 Little Alafia River near Hopewell	8.65	1967-79	0	(10)
68	02301500 Alafia River at Lithia	335.0	1933-81	6.60	1945
69	02301800 Sixmile Creek at Tampa	28	1957-69	4.40	1962
70	02301900 Fox Branch near Socrum	9.5	1965-81	0	(9)
71	02302500 Blackwater Creek near Knights	110	1952-81	0	(2)
72	02303000 Hillsborough River near Zephyrhills	220	1940-81	44	1977
73	02303100 New River near Zephyrhills	15	1965-74	0	(10)
[3/]74	02303300 Flint Creek near Thonotosassa	60	1957-58 1971-81	0	(3)
75	02303330 Hillsborough River at Morris Bridge near Thonotosassa	375	1973-81	36	[4/]1972
76	02303350 Trout Creek near Sulphur Springs	23	1975-81	0	(7)
77	02303400 Cypress Creek near San Antonio	56.0	1964-81	0	(10)
78	02303420 Cypress Creek at Worthington Gardens	117.0	1975-81	0	(7)

Footnotes are at end of table.

Table 1.--Minimum discharges of record at continuous-record gaging stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2/]
79	02303800 Cypress Creek near Sulphur Springs	160	1965-81	0	(16)
[3/]80	02304500 Hillsborough River near Tampa	650	1939-81	0	1946
81	02305500 Drainage ditch at Bearss Avenue near Sulphur Springs	12	1947-56	0	(9)
[3/]82	02306000 Sulphur Springs at Sulphur Springs	ind	1960-81	.10	1981
[3/]83	02306289 Lake Magdalene outlet near Lutz	2.2	1971-81	0	(8)
[3/]84	02306500 Sweetwater Creek near Sulphur Springs	7.43	1952-81	0	(15)
85	02307000 Rocky Creek near Sulphur Springs	35.0	1954-81	0	1967
86	02307243 Brooker Creek near Odessa	10.0	1947-55	0	(8)
87	02307323 Brooker Creek near Lake Fern	17	1971-81	0	(11)
88	02307359 Brooker Creek near Tarpon Springs	30	1951-81	0	(28)
[3/]89	02307498 Lake Tarpon Canal at S-551 near Oldsmar	65	1975-81	0	(7)
90	02307697 Alligator Creek at Safety Harbor	9	1950-58 1961-74	0	(20)
[3/]91	02308889 Seminole Lake outlet near Largo	14	1951-71	0	(20)
92	02309848 South Branch Anclote River near Odessa	17.1	1971-81	0	(11)

Footnotes are at end of table.

Table 1.--Minimum discharges of record at continuous-record gaging stations--Continued

Site[1]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2]
93	02310000 Anclote River near Elfers	72.5	1947-81	0.40	1956
94	02310240 Jumping Gully at Loyce	43	1965-81	0	(17)
95	02310300 Pithlachascotee River near New Port Richey	180	1964-81	0	1981
96	02310352 Bear Creek at Plaza Drive near Hudson	29.2	1971-77	0	(5)
[5]97	02310750 Crystal River near Crystal River	ind	1965-77	[5]--	
98	02310800 Withlacoochee River near Eva	130	1959-81	0	(13)
99	02310947 Withlacoochee River near Cumpressco	280	1968-81	0	(9)
100	02312000 Withlacoochee River at Trilby	570	1931-81	6.30	1981
101	02312180 Little Withlacoochee River near Tarrytown	85	1967-81	0	(15)
102	02312200 Little Withlacoochee River at Rerdell	145	1959-81	0	(4)
103	02312500 Withlacoochee River at Croom	810	1940-81	4.4	1981
104	02312640 Jumper Creek canal near Bushnell	40	1964-81	.36	1981
[3]105	02312700 Outlet River at Panacoochee Retreats	420	1963-81	0	1963
[3]106	02312720 Withlacoochee River at Wysong Dam at Carlson	1,520	1966-80	85.0	1977

Footnotes are at end of table.

Table 1.--Minimum discharges of record at continuous-record gaging stations--Continued

Site[1]	Station number and name	Drainage area (mi^2)	Period of record	Minimum discharge	
				ft^3/s	Year[2]
[3]107	02312975 Tsala Apopka Outfall Canal at S-353 near Hernando	ind	1969-81	0	(3)
108	02313000 Withlacoochee River near Holder	1,825	1932-81	112	1956
109	02313100 Rainbow Springs near Dunnellon	ind	1966-81	487	[4]1932
[3]110	02313230 Withlacoochee River at Inglis Dam near Dunnellon	2,020	1970-81	70	(9)
[3]111	02313237 Cross-Florida Barge Canal at Inglis Lock near Inglis	ind	1971-81	0	(11)
[3]112	02313250 Withlacoochee River Bypass Channel near Inglis	ind	1971-81	53	1972
113	02313500 Waccasassa River near Otter Creek	300.0	1946-53	6.5	[4]1945
[5]114	02313700 Waccasassa River near Gulf Hammock	480	1964-78	[5]--	
115	02314000 Otter Creek at Otter Creek	300.0	1946-53	0	(7)
116	02314200 Tenmile Creek at Lebanon Station	26.0	1964-81	0	(4)

[1] From figures 5 and 6.

[2] Numbers in parentheses indicate number of years when the minimum flow occurred.

[3] Station affected by regulation or diversion.

[4] Minimum occurred in a partial year outside the period of record used in frequency analysis.

[5] Station tidally affected; some negative flows occurred.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measurements	Minimum discharge	
				ft^3/s	Date[2/]
201	02240105 Daisy Creek near Fort McCoy	11.4	4	0	(3)
202	02241900 Lochloosa Creek at Grove Park	37.4	54	0	(17)
203	02293390 North Prong Alligator Creek near Punta Gorda	8.5	68	0	(8)
204	02294114 Lake Garfield outlet near Alturas	18.0	19	0	(3)
205	02294230 Lake Parker Tributary near Lakeland	.6	8	0	4-21-81
206	02294238 Lake Parker Tributary #2 near Lakeland	3.2	8	.38	4-21-81
207	02295013 Bowlegs Creek near Fort Meade	47.0	50	.62	4-04-68
208	02295067 Bowlegs Creek at Pisgah Road near Fort Meade	70.4	11	0	5-12-67
209	02295356 Payne Creek near Fort Green Springs	73.9	8	.07	5-15-67
210	02295435 Hog Branch near Wauchula	5.3	35	0	4-30-75
211	02295557 Little Charlie Creek near Wauchula	37.2	10	.08	5-15-67
212	02296049 Charlie Creek near Avon Park	49.4	13	0	(9)
213	02296180 Little Charley Bowlegs Creek near Crewsville	21.2	6	0	(3)
214	02296201 Haw Branch near Sebring	5.3	35	0	(10)

Footnotes are at end of table.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measure-ments	Minimum discharge	
				ft^3/s	Date[2/]
215	02296215 Tiger Branch near Sebring	2.2	39	0.05	2-07-57
216	02296260 Charlie Creek near Crewsville	142.0	9	.06	4-22-81
217	02296389 Oak Creek near Gardner	67.0	11	.07	5-15-67
218	02296408 Charlie Creek near Zolfo Springs	287.0	30	.26	5-15-67
219	02297000 Joshua Creek near Arcadia	62.6	8	0	4-25-56
220	02297090 Hawthorne Creek near Nocatee	39.8	11	0	4-25-56
221	02297147 Horse Creek near Fort Green Springs	13.3	9	0	(6)
222	02297251 Horse Creek near Limestone	128.0	12	0	5-10-67
223	02297266 Horse Creek near Pine Level	150.0	6	.02	4-03-35
224	02297444 Lee Branch near Cleveland	5.4	12	.03	5-28-65
225	02297757 Long Point Marsh near Arcadia	13.6	8	0	(2)
226	02298245 Myrtle Slough near Cleveland	6.2	11	.08	4-12-81
227	02298285 Broad Creek near Punta Gorda	3.9	11	.10	5-09-67
228	02298458 Myakka River near Myakka Head	10.8	16	0	(9)
229	02298523 Ogleby Creek near Myakka City	11.4	9	0	(6)
230	02298970 Myakka River Tributary near Venice	2.6	10	0	5-03-67

Footnotes are at end of table.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measure-ments	Minimum discharge	
				ft^3/s	Date[2/]
231	02299188 Deer Prairie Creek near Warm Mineral Springs	40.5	4	0.03	6-01-81
232	02299350 Cocoplum Waterway Tributary near Murdock	10.5	4	0.18	(2)
233	02299410 Big Slough Canal near Myakka City	36.5	32	0	(3)
234	02299420 Mud Lake Slough near Myakka City	17.0	5	0	(2)
235	02299721 Cow Pen Slough near Venice	3.1	6	.06	6-01-81
236	02299724 Salt Creek Tributary near Venice	.3	7	0	6-01-81
237	02299728 Fox Creek near Laurel	2.4	16	0	(2)
238	02299738 South Creek near Osprey	17.3	15	0	2-21-62
239	02299795 Main-B Canal at Sarasota	7.7	15	.94	5-02-67
240	02299861 Walker Creek at Sarasota	6.0	17	0	5-02-67
241	02299869 Bolees Creek at Oneco	1.2	10	.01	5-03-65
242	02299920 North Fork Manatee River near Myakka City	16.2	12	0	6-05-80
243	02299935 East Fork Manatee River near Myakka City	11.4	12	0	5-11-67
244	02300004 Gilley Creek near Rye	10.2	13	.18	4-20-81
245	02300018 Gamble Creek near Parrish	50.6	13	.95	5-11-67

Footnotes are at end of table.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measure-ments	Minimum discharge	
				ft^3/s	Date[2/]
246	02300029 Braden River at Lorraine	11.0	5	0	6-02-81
247	02300078 Frog Creek near Terra Ceia	13.8	10	1.16	5-04-65
248	023000120 Pierce Branch near Wimauma	7.8	5	.67	4-22-80
249	02300200 South Fork Little Manatee River near Duette	9.4	7	.12	4-16-63
250	02300300 South Fork Little Manatee River near Wimauma	37.5	13	1.68	5-01-67
251	02300852 North Prong Alafia River at Mulberry	63.0	16	6.41	4-20-81
252	02300907 Lake Drain near Mulberry	3.3	8	0	4-25-56
253	02300930 Poley Creek near Mulberry	25.9	9	.04	6-01-81
254	02300978 English Creek near Mulberry	31.4	16	0	6-01-81
255	02301070 South Prong Alafia River near Bradley Junction	41.3	10	0	(3)
256	02301314 Mizelle Creek near Keysville	3.7	25	.06	6-04-81
257	02301328 Alafia River near Keysville	277.0	7	37	4-23-81
258	02301376 Little Alafia River at Durant	20.8	8	.69	6-04-81
259	02301620 Fishhawk Creek near Boyette	17.4	9	0	(4)
260	02301680 Bell Creek near Boyette	20.1	10	.02	6-04-81

Footnotes are at end of table.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measurements	Minimum discharge	
				ft^3/s	Date[2/]
261	02301787 Sixmile Creek Tributary #3 near Tampa	8.0	7	0	6-04-81
262	02301794 Sixmile Creek Tributary #4 near Tampa	1.8	7	0	10-22-81
263	02301798 Sixmile Creek Tributary #5 near Tampa	0.6	6	0	(2)
264	02302260 Itchepakesassa Creek near Knights	34.0	9	.63	4-21-81
265	02303130 Busy Branch near Zephyrhills	9.2	25	0	(7)
266	02303183 Mill Creek at Thonotosassa Road near Plant City	7.8	7	4.09	6-05-81
267	02303188 Mill Creek at Forbes Road near Plant City	9.1	8	3.82	6-09-80
268	02303200 Pemberton Creek near Dover	21.3	42	2.38	6-17-58
269	02303254 Baker Creek Tributary Canal at U.S. Highway 92 near Seffner	24.0	7	0	(3)
270	02303271 Baker Creek near Thonotosassa	58.0	57	2.06	1-18-71
271	02303344 Trout Creek Tributary near Worthington Gardens	3.0	15	0	(6)
272	02303358 Cypress Creek near Darby	7.1	57	0	(18)
273	02303990 Cow House Creek near Temple Terrace	7.1	119	0	(26)

Footnotes are at end of table.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measure-ments	Minimum discharge	
				ft^3/s	Date[2/]
274	02305800 Drainage ditch at Florida Avenue and Atlantic Boulevard near Sulphur Springs	11.1	32	0	(5)
275	02306717 Rocky Creek near Lutz	4.8	49	0	(18)
276	02306770 Rocky Creek at Citrus Park	16.7	29	0	(9)
277	02306774 Rocky Creek at State Road 587, Citrus Park	17.8	54	0	7-16-51
278	02306904 Brushy Creek near Sulphur Springs	7.0	37	0	(8)
279	02306927 Brushy Creek Tributary near Citrus Park	1.6	28	0	(15)
280	02306950 Brushy Creek near Citrus Park	11.9	54	0	(19)
281	02307027 Double Branch Tributary Canal near Oldsmar	2.1	4	0	(2)
282	02307181 Brooker Creek near Lutz	1.1	46	0	(30)
283	02307537 South Fork Bishop Creek near Oldsmar	.8	34	0	(8)
284	02307688 Alligator Creek Tributary at Safety Harbor	.8	12	.01	(2)
285	02309258 Stevenson Creek at Clearwater	4.9	43	.54	6-15-67
286	02309421 Curlew Creek near Ozona	3.3	61	.26	6-14-67
287	02309648 Anclote River near Fivay Junction	8.8	20	0	(4)

Footnotes are at end of table.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measure-ments	Minimum discharge	
				ft^3/s	Date[2/]
288	02309900 South Branch Anclote River at Odessa	25.3	22	0	(8)
289	02310150 Hollin Creek Tributary near Tarpon Springs	5.0	41	0	(7)
290	02310224 Sparkman Lake outlet near Masaryktown	11.7	19	0	(9)
291	02310280 Pithlachascotee River near Fivay Junction	150	139	0	(23)
292	02310285 Fivemile Creek near Fivay Junction	7.1	19	0	(5)
293	02310787 Withlacoochee River near Poyner	16.0	5	0	(3)
294	02310912 Pony Creek near Poyner	23.5	4	0	(2)
295	02310931 Withlacoochee River near Rock Ridge	262	9	0	(4)
296	02310944 Withlacoochee River at Cedar Ford near Cumpressco	291	4	0	10-31-80
297	02310995 Gator Creek near Richland	80.3	21	0	(2)
298	02311890 Gator Hole Slough near Lacoochee	40.3	5	0	(4)
299	02312145 Mill Creek near Carters Island	17.5	6	0	(4)
300	02312726 Rutland Creek near Rutland	6.4	4	0	(2)
301	02313215 Turner Creek near Dunnellon	1.1	4	.003	6-04-81

Footnotes are at end of table.

Table 2.--Minimum measured discharges at low-flow partial-record and miscellaneous discharge-measurement stations--Continued

Site[1/]	Station number and name	Drainage area (mi^2)	Number of measurements	Minimum discharge	
				ft^3/s	Date[2/]
302	02313220 Bell Branch near Dunnellon	6.2	4	0.02	6-04-81
303	02313260 Withlacoochee River Tributary near Inglis	5.1	4	0	(3)
304	02313448 Little Waccasassa River near Bronson	18.0	89	0	(22)
305	02313522 Magee Branch near Bronson	43.3	4	0	(3)
306	02313614 Wekiva River at Coulter Bridge near Gulf Hammock	30.1	5	55.1	3-16-32
307	02314098 Cow Creek near Gulf Hammock	19.5	8	0	(3)
308	02314134 Sand Slough near Lebanon Station	32.3	6	0	6-04-81
309	02314170 Tenmile Creek near Dunnellon	3.7	4	0	(4)

[1/] From figures 5 and 6.

[2/] Numbers in parentheses indicate number of times minimum occurred.

Continuous-Record Stations

The U.S. Water Resources Council (1981) recommends use of the log-Pearson type III distribution for flood-frequency analysis, but a standard distribution has not been established for low-flow frequency analysis. Frequency analyses using Pearson type III, log-Pearson type III, Gumbel, and graphical distributions of low-flow data were compared for selected continuous-record stations. The four distributions did not produce significantly different estimates of low-flow frequency. Because computer programs were readily available, the log-Pearson type III distribution was selected for use in defining low-flow frequency at continuous-record stations.

Using a log-Pearson type III distribution, the minimum discharge for each period of consecutive days and selected T-year recurrence intervals was computed as follows:

$$\log Q_{D,T} = M + K_T S \quad (1)$$

where $Q_{D,T}$ = estimate of D-day (period of consecutive days), T-year (recurrence interval) low flow, in cubic feet per second;

M = mean of the common logarithms of D-day annual minimums;

K_T = a frequency factor that is a function of skew coefficient and a recurrence interval; and

S = standard deviation of the common logarithms of D-day annual minimums.

The U.S. Geological Survey computer program A969, described by Meeks (1977), was used to fit the log-Pearson type III distribution to station low-flow data. Program A969 drops all zero discharges before computing the mean, standard deviation, and skew coefficient of the annual series and then adjusts nonexceedance probabilities using the procedure outlined by the U.S. Water Resources Council (1981, p. 5-1).

The accuracy of the station skew coefficient, as an estimate of the true skew of the frequency distribution, is normally a function of the length of record. Skew coefficients are sensitive to extreme events that occur during short periods of record. In flood-frequency analysis, it is customary to use a generalized skew coefficient for stations that have less than 25 years of record. A standard has not been established in low-flow frequency analysis.

Skew coefficients for all continuous-record stations that had 25 or more years of record were plotted on maps of the study area. The skew coefficients did not have any geographic pattern. Also, there was not any discernible relation between skew coefficient and basin characteristics. Station skews were, therefore, used in computation of frequency distributions of all continuous-record stations.

Low-Flow Partial-Record and Miscellaneous Discharge-Measurement Stations

Discharge measurements made at low-flow partial-record and miscellaneous discharge-measurement stations were correlated with concurrent daily mean discharges at continuous-record stations. Least-squares linear-regression equations were computed between pairs of stations. The low-flow partial-record or miscellaneous discharge-measurement station was the dependent variable and one or more continuous-record stations were independent variables. Hirsch (1982) concludes that there is some bias in the variance of a station record extended by this technique. As a result of the bias, station-frequency distributions may tend to be underestimated. A general discussion of the accuracy of low-flow characteristics estimated by two-station comparison is provided in Hardison and Moss (1972).

Estimates of the 7-day, 10-year low flow were made for all of the stations in the network. Estimates of the 7-day, 2-year; 30-day, 2-year; and 30-day, 10-year low flows were made for most of the low-flow partial-record and miscellaneous discharge-measurement stations and are included in the supplementary data section. At 30 of the stations where large numbers of discharge measurements were available and good correlation with a continuous-record station existed, additional low-flow frequency values were estimated.

REGRESSION ANALYSIS

Multiple linear-regression analysis was used in an attempt to mathematically relate minimum discharges to selected basin characteristics. Only streams unaffected by regulation or diversion were included in the regression analyses. The technique produces one equation for each consecutive-day period for each recurrence interval and provides a method for estimating low-flow frequency information at ungaged sites. Results of the regression analyses were unsatisfactory.

The statistical model used in the regression analyses was of the form:

$$\log Q_{D,T} = \log B_0 + B_1 \log X_1 + B_2 \log X_2 + B_3 \log X_3 + \ldots . \qquad (2)$$

where $Q_{D,T}$ = estimate of D-day (period of consecutive days), T-year (recurrence interval) low flow or dependent variable;

B_0, B_1, B_2, B_3 = regression coefficients or the end product of the regression analysis; and

X_1, X_2, X_3 = basin characteristics or independent variables.

The form of the equation requires that all variables have values greater than zero. There were a large number of zero discharges. Consequently, 0.1 ft^3/s was added to all minimum discharges before computing the regression equations.

Seven basin characteristics were entered as independent variables in the regression analyses. Basin characteristics, described below, are available in the files of the U.S. Geological Survey.

1. Drainage area (DA), in square miles: area that contributes to surface runoff.
2. Basin slope (SL), in feet per mile: slope of the main channel between points 10 and 85 percent of the distance from the streamflow-measurement station to the basin boundary.
3. Swamp area (SW), in percentage of contributing drainage area: area shown as marsh and swamp on topographic maps.
4. Lake area (LK), in percentage of contributing drainage area: area shown on topographic maps.
5. Soil-infiltration index (SO), in inches: potential maximum infiltration under average soil-moisture conditions (Seijo and others, 1979).
6. Rainfall index (RI), in inches: mean annual precipitation for the streamflow-measurement station minus 45 inches.
7. Base-flow recession index (BF), in days: slope of the line drawn tangent to the recession segment of a semilogarithmic streamflow hydrograph. The index is described by Bingham (1979).

Several approaches were used, either singly or in combination, in trying to develop regression equations. Residuals were repeatedly examined for geographic patterns, but none were apparent. Main-stem continuous-record stations that had

large drainage areas were removed from the data set. An attempt was made to find a threshold value, or some combination of the independent variables below which it could be assumed that low flow was zero. None of these efforts produced satisfactory results.

Standard errors of estimate ranged from 85 to more than 250 percent. The standard errors were high in terms of percentage, but were less significant when expressed in terms of volume of flow. For example, the 7-day, 10-year low flow at about 85 percent of the low-flow partial-record and miscellaneous discharge-measurement stations is less than 0.5 ft^3/s. At a standard error of 200 percent, about two-thirds of the regression estimates would be within 1 ft^3/s of the true discharge.

A significant problem resulted from an apparent bias in the regression equations. Discharges computed using the regression equations were consistently less than discharges from the frequency distributions. Zero acts as a lower limiting value for the regression equation. Furthermore, there were a significant number of zero discharges. The bias in the equations probably results from compensating for the zero discharges.

Because of the bias in the regression equations, the high standard errors of estimate, and problems in handling zero discharges, the computed regression equations are not presented here. Alternative methods for determining low-flow data are presented in the following sections.

TECHNIQUES FOR DETERMINING MAGNITUDE AND FREQUENCY OF LOW FLOWS

Several nonquantitative factors must be considered in assessing the accuracy of computed low flows. For instance, the length of record or number of discharge measurements must be considered as well as the climatic conditions during the period when measurements were made. The uniformity or lack of uniformity of low flow at surrounding sites should be taken into account. Several procedures are illustrated in the following sections.

Continuous-Record Stations

The period of record must be considered in evaluating estimates of low flow at any continuous-record station. An example of the effects of record length and climatic factors is shown in table 3 for the Peace River at Arcadia. Average annual rainfall is shown as an indicator of dryness for the selected periods. There is almost a 100-percent difference between the lowest and highest estimates of the 7-day, 10-year low flow. There is more than a 100-percent difference between the lowest and highest estimates of the 2-year and 5-year low flows. Drier periods produce lower estimates of low flow than wet periods. If a station has a short period of record, the frequency analysis can be adjusted by using streamflow data for nearby long-term stations. This two-station comparison technique is described by the U.S. Water Resources Council (1981).

Table 3.--Effect of record length on low-flow frequency distribution for the Peace River at Arcadia (station 02296750)

Basis of frequency distribution	Number of years	Average annual rainfall[1/] (in)	7-day low flow			
			Recurrence interval, in years			
			2	5	10	20
1932-81	50	53.82	110	70	55	45
1932-56	25	54.19	101	65	53	44
1957-81	25	53.46	121	75	58	46
1932-41	10	54.98	92	64	53	45
1942-51	10	54.44	101	64	50	40
1952-61	10	59.64	193	115	82	61
1962-71	10	51.34	116	82	68	58
1972-81	10	48.73	88	56	44	36

[1/] For National Weather Service station at Bartow.

Low-Flow Partial-Record and Miscellaneous Discharge-Measurement Stations

The factors to consider in evaluating estimates of low flow at low-flow partial-record and miscellaneous discharge-measurement stations are about the same as for continuous-record stations. The period of record at the continuous-record station, number of discharge measurements available, degree of correlation, and climatic conditions during the period when the measurements were made can affect the estimate. Table 4 presents an example of low-flow frequency data for a low-flow partial-record station. The table shows the effect of using subsets of the available measurements in correlation with data from a continuous-record station. In this case, estimates computed from correlation based on six measurements made in 1980 and 1981 are about the same as estimates computed from correlation using all measurements. There is a maximum difference of 0.2 ft^3/s between the correlation based on 6 measurements and the correlation based on 25 measurements. Charlie Creek near Gardner (station 02296500, site 51, figs. 5 and 6) was the continuous-record station for all the correlations.

Ungaged Sites

At sites where base-flow measurements have not been made, low-flow frequency data may be estimated by interpolation from figures 5 and 6. If the ungaged site is upstream or downstream from a station where low-flow frequency data are known, an estimate may be made by drainage area ratio.

To illustrate one procedure for estimating low-flow frequency at an ungaged site, assume that Charlie Creek near Crewsville (station 02296260, site 216, figs. 5 and 6) had not been measured. Charlie Creek near Crewsville is upstream from

Table 4.--Effect of number of measurements on low-flow frequency distribution for the Bowlegs Creek near Fort Meade (station 02295013)

Period of measurements	Number of measurements	7-day low flow			
		Recurrence interval, in years			
		2	5	10	20
1964-81	25	1.1	0.7	0.5	0.4
1980-81	6	.9	.6	.4	.4
1967-81	12	1.1	.8	.6	.5
1965-81	18	1.2	.7	.5	.4
1/ 1964-81	12	1.4	.8	.6	.4

1/ Measurements randomly selected.

Charlie Creek near Zolfo Springs (station 02296403, site 218, figs. 5 and 6), a miscellaneous discharge-measurement station, and Charlie Creek near Gardner (station 02296500, site 51, figs. 5 and 6), a continuous-record station. Using Charlie Creek near Zolfo Springs, the 7-day, 10-year low flow for the station near Crewsville can be determined as follows:

From table 2:

Charlie Creek near Crewsville DA = 142 mi^2

Charlie Creek near Zolfo Springs DA = 287 mi^2.

From supplementary data section:

Charlie Creek near Zolfo Springs $Q_{7,10}$ = 0.3 ft^3/s

$$\frac{142\ mi^2}{287\ mi^2} \times 0.3\ ft^3/s = 0.1\ ft^3/s.$$

Using a drainage area ratio with Charlie Creek near Gardner, the computations are as follows:

From table 1:

Charlie Creek near Gardner DA = 330 mi^2.

From supplementary data section:

Charlie Creek near Gardner $Q_{7,10}$ = 0.6 ft^3/s

$$\frac{142\ mi^2}{330\ mi^2} \times 0.6\ ft^3/s = 0.3\ ft^3/s.$$

The computed estimates of 0.1 and 0.3 ft^3/s produce a probable range of the 7-day, 10-year low flow. When discharge measurements at Charlie Creek near Crewsville were correlated with daily mean discharges at Charlie Creek near Gardner, the 7-day, 10-year low flow was estimated to be 0 ft^3/s.

Each situation should be reviewed carefully before estimating low-flow characteristics. For example, sites that have inflow from springs may have discharges that are significantly different from discharges that occur at nearby sites. Sites significantly affected by regulation or diversion should not be used as a basis for estimating low flow in unregulated streams.

Comparison of Low-Flow Indexes

The 7-day, 10-year and 30-day, 10-year low flows are common indexes used for design and regulatory purposes. Water managers and design engineers also use other indexes that describe low flow. For example, flow-duration data that define the percentage of time given discharges have been equaled or exceeded are often used. Within the Southwest Florida Water Management District, the following rule is used to establish regulatory minimum discharges (Florida Department of State, 1974):

> "Minimum rates of flow shall be established as follows: For each month, the five (5) lowest monthly mean discharges for the preceding twenty (20) years shall be averaged. Minimum rates of flow shall be established as seventy percent (70%) of these values for the four (4) wettest months and ninety percent (90%) of these values for the remaining eight (8) months. The determination shall be based on available data, or in the absence of such data, it shall be established by reasonable calculations approved by the Board."

Table 5 presents a comparison of the 7-day, 10-year and 30-day, 10-year low flows at continuous-record stations with the 90 and 95 percent duration discharges and with discharges computed using the above rule. The regulatory minimums listed in table 5 are actually the smallest of the 12 monthly minimums. The month of occurrence and the period of record on which the regulatory minimum is based are also shown. In most cases, the regulatory minimum is equal to or greater than the 7-day, 10-year low flow.

EVALUATION OF WATER-SUPPLY POTENTIAL USING LOW-FLOW DATA

Techniques for developing draft-storage frequency curves that can be used to evaluate water-supply potential were developed by Riggs and Hardison (1973). Table 6 shows an example computation for the Peace River at Arcadia (station 02296750, site 52, figs. 5 and 6) for the 10-year recurrence interval. Ten-year annual minimum discharges are from the log-Pearson type III frequency distribution of station record. The maximum value in each "Difference" column represents the storage required to maintain the given draft rate with a chance of being inadequate once in 10 years, on the average. The procedure assumes that storage volume will be replaced each year and that draft rates are constant.

Maximum storage requirements, plotted against draft rates from table 6, are shown in figure 7. Also shown are results of similar computations for the 2-, 5-, and 20-year frequencies. Draft-storage frequency curves for the Myakka River near Sarasota (station 02298830, site 58, figs. 5 and 6) are shown in figure 8. Storage requirements are much larger for the Myakka River than for the Peace River because of the effect of long periods of zero flow that occur on the Myakka River.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
1	02236500 Big Creek near Clermont	0	0	0.2	0	0	May	1962-81
2	02236900 Palatlakaha River at Cherry Lake outlet near Groveland	0	0	0	0	0	(2)	1962-81
3	02237000 Palatlakaha River near Mascotte	1.9	2.9	9.8	4.6	4.9	June	1946-55
4	02237700 Apopka-Beauclair Canal near Astatula	0	0	1.1	.6	1.4	Dec.	1962-81
5	02238000 Haines Creek at Lisbon (before Burrell Dam)	100	110	150	130	121	June	1943-55
6	02238000 Haines Creek at Lisbon	1.9	4.0	26	4.6	15	Jan.	1959-78
7	02238500 Oklawaha River at Moss Bluff	.9	3.5	19	11	13	Oct.	1950-55 1968-81
8	02239000 Oklawaha River near Ocala	24	31	75	38	34	Dec.	1948-67
9	02239500 Silver Springs near Ocala	600	600	647	618	464	Oct.	1962-81
10	02240000 Oklawaha River near Conner	640	650	743	707	554	Apr.	1931-46 1978-81
11	02240500 Oklawaha River at Eureka	740	760	876	757	738	May	1931-34 1944-52

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
12	02240954 Hogtown Creek near Arredondo	1.6	2.1	3.9	2.9	5.0	Nov.	1973-81
13	02242451 Orange Lake outlet near Citra	.2	.3	3.0	.4	13	Aug.	1947-55
14	02242500 Lochloosa Slough near Lochloosa	0	0	0	0	0	(2)	1947-55
15	02243000 Orange Creek at Orange Springs	3.0	3.7	9.2	6.1	5.9	May	1959-71 1975-81
16	02243500 Oklawaha River near Orange Springs	770	790	947	840	789	May	1933-52
17	02243960 Oklawaha River at Rodman Dam near Orange Springs	280	420	654	507	642	Apr.	1969-81
18	02244000 Oklawaha River at Riverside Landing near Orange Springs	790	820	959	862	712	Feb.	1949-68
19	02256000 Fisheating Creek near Venus	0	0	.1	0	.2	May	1956-65
20	02256500 Fisheating Creek at Palmdale	0	0	0	0	0	Apr.	1962-81
21	02262900 Boggy Creek near Taft	.2	.9	3.6	2.1	1.4	May	1962-81
22	02263500 St. Cloud Canal at S-59 near St. Cloud	0	0	.1	0	1.8	June	1949-68

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
23	02263800 Shingle Creek at airport near Kissimmee	0	0	5.4	2.1	0.5	May	1962-81
24	02263869 South Lake outlet above S-15 near Vineland	0	0	.1	.1	0	(2)	1973-81
25	02264000 Cypress Creek at Vineland	0	0	0	0	0	(2)	1962-81
26	02264100 Bonnet Creek near Vineland	0	2.1	5.2	3.9	4.9	May	1972-81
27	02264495 Shingle Creek at Campbell	6.2	10	23	14	18	May	1969-81
28	02265000 South Port Canal at S-61 near St. Cloud	0	.2	1.3	.4	.7	Dec.	1949-68
29	02266000 Canoe Creek near St. Cloud	.1	.1	2.5	.6	4.0	May	1951-58
30	02266200 Whittenhorse Creek near Vineland	0	0	0	0	0	(2)	1967-81
31	02266300 Reedy Creek near Vineland	.2	.6	4.6	2.4	2.8	Apr.	1967-81
32	02266480 Davenport Creek near Loughman	.5	.6	1.3	.9	1.0	Apr.	1970-81

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
33	02266500 Reedy Creek near Loughman (before structure 40)	3.4	5.1	12	7.9	7.3	May	1940-59
34	02266500 Reedy Creek near Loughman	0	0	0	0	.7	May	1971-81
35	02267000 Catfish Creek near Lake Wales	3.7	5.0	17	13	4.1	May	1962-81
36	02269500 Reedy Creek near Frostproof	.8	.9	12	6.3	2.2	May	1952-71
37	02270000 Carter Creek near Sebring	4.3	5.8	9.8	7.9	8.7	May	1955-66
38	02270500 Arbuckle Creek near De Soto City	6.2	11	49	33	11	May	1962-81
39	02271000 Stearns Creek near Lake Placid	0	0	.1	0	.1	Apr.	1956-68
40	02271500 Josephine Creek near De Soto City	2.1	2.8	8.1	5.1	2.8	May	1959-75, 1979-81
41	02293000 Orange River near Fort Myers	0	0	0	0	.1	Dec.	1937-46
42	02293694 Peace Creek drainage canal near Dundee	0	.1	.5	.1	1.6	June	1947-59
43	02293986 Peace Creek drainage canal near Alturas	2.9	4.8	9.5	6.9	7.1	May	1953-71

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
44	02294068 Lake Lulu outlet at Eloise	0.1	0.4	1.0	0.6	0.7	July	1952-71
45	02294491 Saddle Creek at structure P-11 near Bartow	0	0	0	0	0	(2)	1965-81
46	02294650 Peace River at Bartow	7.5	11	27	20	13	Apr.	1962-81
47	02294898 Peace River at Fort Meade	20	27	15	9.5	16	Apr.	1975-81
48	02295420 Payne Creek near Bowling Green	1.6	2.1	7.4	4.3	10	May	1964-68 1980-81
49	02295637 Peace River at Zolfo Springs	54	70	120	95	73	May	1962-81
50	02296223 Little Charley Bowlegs Creek near Sebring	0	0	.2	0	0	May	1962-81
51	02296500 Charlie Creek near Gardner	.6	1.1	5.7	3.2	1.4	May	1962-81
52	02296750 Peace River at Arcadia	55	70	130	99	79	Apr.	1962-81
53	02297100 Joshua Creek at Nocatee	.2	.8	2.7	1.4	1.6	May	1962-81
54	02297310 Horse Creek near Arcadia	.1	.3	2.6	.9	.4	May	1962-81

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
55	02298123 Prairie Creek near Fort Ogden	0.2	1.0	3.8	2.5	3.0	May	1964-68 1978-81
56	02298202 Shell Creek near Punta Gorda	0	0	12	.1	2.1	Apr.	1966-81
57	02298608 Myakka River at Myakka City	0	0	2.4	.6	2.0	May	1964-66 1978-81
58	02298830 Myakka River near Sarasota	0	0	.1	0	0	May	1962-81
59	02299470 Big Slough near Murdock	0	.1	1.3	.6	1.3	May	1964-72
60	02299750 Phillippe Creek near Sarasota	.5	.8	2.5	1.8	2.2	May	1964-68 1980-81
61	02299950 Manatee River near Myakka Head	.4	.6	2.8	1.4	1.3	Apr.	1967-81
62	02300000 Manatee River near Bradenton	2.1	2.8	6.1	4.5	4.1	May	1946-65
63	02300100 Little Manatee River near Fort Lonesome	0	0	.6	0	.1	May	1964-81
64	02300500 Little Manatee River near Wimauma	3.2	5.8	14	9.8	8.4	May	1962-81
65	02301000 North Prong Alafia River at Keysville	13	21	46	36	35	May	1962-81
66	02301300 South Prong Alafia River near Lithia	3.0	5.8	22	15	11	(2)	1964-81

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
67	02301350 Little Alafia River near Hopewell	0	0	0	0	0	(2)	1967-79
68	02301500 Alafia River at Lithia	15	23	59	38	59	May	1962-81
69	02301800 Sixmile Creek at Tampa	9.0	14	24	19	19	May	1957-69
70	02301900 Fox Branch near Socrum	0	0	.5	.2	.1	May	1965-81
71	02302500 Blackwater Creek near Knights	.9	1.8	7.7	5.0	4.0	May	1962-81
72	02303000 Hillsborough River near Zephyrhills	53	56	72	64	53	May	1962-81
73	02303100 New River near Zephyrhills	0	0	0	0	0	May	1965-74
74	02303300 Flint Creek near Thonotosassa	0	1.1	2.9	1.5	2.5	May	1957-58 1971-81
75	02303330 Hillsborough River at Morris Bridge near Thonotosassa	54	58	64	56	57	May	1973-81
76	02303350 Trout Creek near Sulphur Springs	0	0	0	0	0	Nov.	1975-81
77	02303400 Cypress Creek near San Antonio	0	0	0	0	0	May	1964-81
78	02303420 Cypress Creek at Worthington Gardens	0	0	0	0	.3	June	1975-81

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
79	02303800 Cypress Creek near Sulphur Springs	0	0	0	0	0	May	1965-81
80	02304500 Hillsborough River near Tampa	.2	.2	1.7	.1	.1	May	1962-81
81	02305500 Drainage ditch at Bearss Avenue near Sulphur Springs	0	0	0	0	0		1947-56
82	02306000 Sulphur Springs at Sulphur Springs	2.0	4.1	11	7.4	4.8	May	1962-81
83	02306289 Lake Magdalene outlet near Lutz	0	0	0	0	0	(2)	1971-81
84	02306500 Sweetwater Creek near Sulphur Springs	0	0	.1	0	0	May	1962-81
85	02307000 Rocky Creek near Sulphur Springs	.4	.4	2.1	1.3	1.2	May	1962-81
86	02307243 Brooker Creek near Odessa	0	0	.1	0	0	June	1947-55
87	02307323 Brooker Creek near Lake Fern	0	0	0	0	0	(2)	1971-81
88	02307359 Brooker Creek near Tarpon Springs	0	0	0	0	0	(2)	1962-81
89	02307498 Lake Tarpon Canal at S-551 near Oldsmar	0	0	0	0	.2	June	1975-81

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
90	02307697 Alligator Creek at Safety Harbor	0	0	0	0	0	May	1953-58 1961-74
91	02308889 Seminole Lake outlet near Largo	0	0	0	0	0	(2)	1952-71
92	02309848 South Branch Anclote River near Odessa	0	0	0	0	0	(2)	1971-81
93	02310000 Anclote River near Elfers	1.5	2.2	3.2	2.7	2.0	May	1962-81
94	02310240 Jumping Gully at Loyce	0	0	0	0	0	(2)	1965-81
95	02310300 Pithlachascotee River near New Port Richey	.4	.6	1.1	.8	.8	May	1964-81
96	02310352 Bear Creek at Plaza Drive near Hudson	0	0	.3	.1	.9	May	1971-77
97	02310750 Crystal River near Crystal River	0	270	221	39	432	July	1965-77
98	02310800 Withlacoochee River near Eva	0	0	.2	0	0	Apr.	1962-81
99	02310947 Withlacoochee River near Cumpressco	0	0	0	0	.1	May	1968-81

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
100	02312000 Withlacoochee River at Trilby	12	14	33	23	23	May	1962-81
101	02312180 Little Withlacoochee River near Tarrytown	0	0	0	0	0	May	1967-81
102	02312200 Little Withlacoochee River at Rerdell	0	0	1.5	.5	.3	June	1962-81
103	02312500 Withlacoochee River at Croom	25	28	66	48	35	May	1962-81
104	02312640 Jumper Creek Canal near Bushnell	2.8	4.9	13	10	11	May	1964-81
105	02312700 Outlet River at Panacoochee Retreats	30	34	87	70	63	Aug.	1963-81
106	02312720 Withlacoochee River at Wysong Dam at Carlson	120	140	224	181	168	May	1966-80
107	02312975 Tsala Apopka Outfall Canal at S-353 near Hernando	0	0	.1	0	.1	(2)	1969-81
108	02313000 Withlacoochee River near Holder	160	190	330	240	202	May	1962-81
109	02313100 Rainbow Springs near Dunnellon	540	540	588	568	439	Jan.	1966-81

Footnotes are at end of table.

Table 5.--Low flow, flow duration, and regulatory minimum discharges for continuous-record stations--Continued

Site[1/]	Station number and name	10-year low flow		Flow duration		Regulatory minimum		
		7-day	30-day	90 percent	95 percent	ft^3/s	Month	Base period
110	02313230 Withlacoochee River at Inglis Dam near Dunnellon	70	70	71	71	51	Nov.	1970-81
111	02313237 Cross-Florida Barge Canal at Inglis Lock near Inglis	0	2.0	.5	.2	5.0	May	1971-81
112	02313250 Withlacoochee River Bypass Channel near Inglis	250	400	717	627	645	Sept.	1971-81
113	02313500 Waccasassa River near Otter Creek	12	15	20	17	15	June	1946-53
114	02313700 Waccasassa River near Gulf Hammock	0	30	38	20	41	June	1964-78
115	02314000 Otter Creek at Otter Creek	0	0	.7	.1	.3	June	1946-53
116	02314200 Tenmile Creek at Lebanon Station	0	0	.1	.1	.1	June	1964-81

[1/] From figures 5 and 6.

[2/] Indicated minimum occurs in more than one month.

Table 6.--Example of storage computation for selected draft rates for the Peace River at Arcadia (station 02296750)

10-year low flow			Storage required, in ft^3/s-days, at draft rates indicated and difference from ft^3/s-days in column 3									
Consecutive days	ft^3/s	ft^3/s-days	Draft rate 75	Difference	Draft rate 100	Difference	Draft rate 125	Difference	Draft rate 150	Difference	Draft rate 200	Difference
1	49	49	75	26	100	51	125	76	150	101	200	151
3	51	153	225	72	300	147	375	222	450	297	600	447
7	55	385	525	140	700	315	875	490	1,050	665	1,400	1,015
14	60	840	1,050	210	1,400	560	1,750	910	2,100	1,260	2,800	1,960
30	70	2,100	2,250	150	3,000	900	3,750	1,650	4,500	2,400	6,000	3,900
60	83	4,980			6,000	1,020	7,500	2,520	9,000	4,020	12,000	7,020
90	100	9,000					11,250	2,250	13,500	4,500	18,000	9,000
120	110	13,200					15,000	1,800	18,000	4,800	24,000	10,800
183	140	25,620							27,450	1,830	36,600	10,980

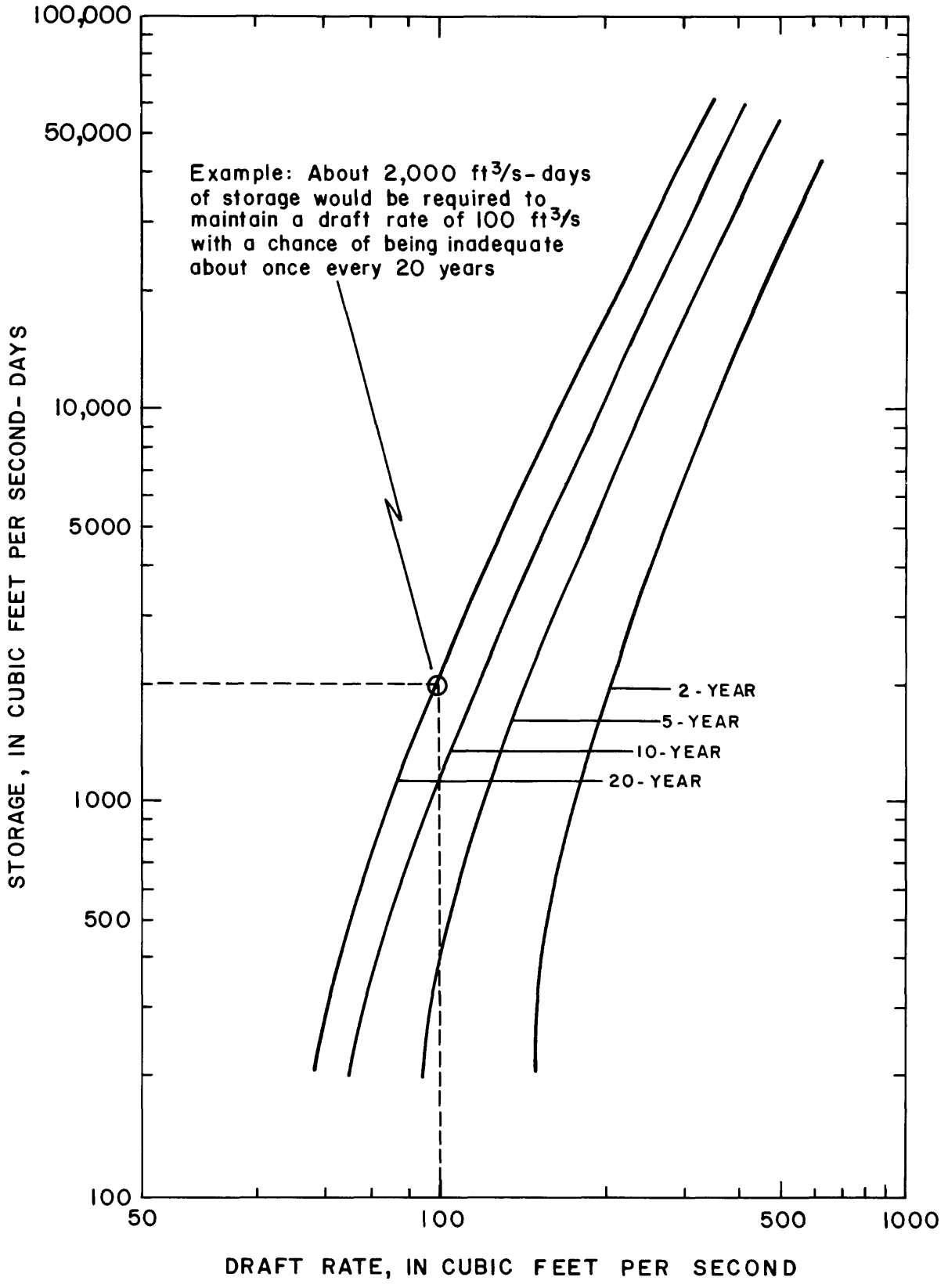

Figure 7.--Draft-storage frequency curves for the Peace River at Arcadia.

The procedure used to produce figures 7 and 8 does not address the problem of whether adequate storage could be constructed or how long it would take to initially fill a reservoir. Evaluating these problems, or the impact of withdrawals on downstream reaches, is beyond the scope of this study.

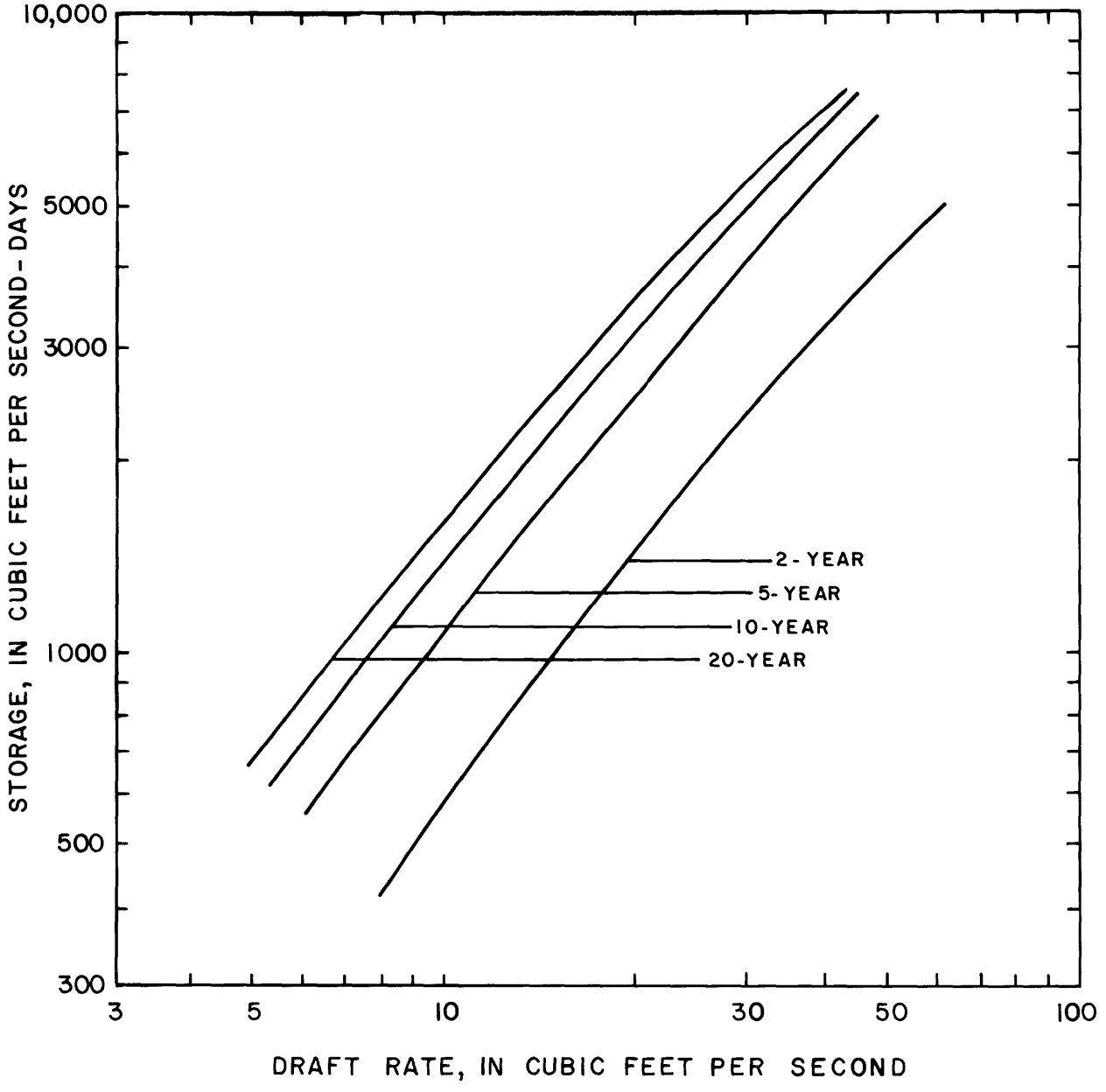

Figure 8.--Draft-storage frequency curves for the Myakka River near Sarasota.

SUMMARY

Low-flow frequency information is needed to assess water-supply potential and waste-load assimilation capacity at gaged and ungaged sites on streams in west-central Florida. A log-Pearson type III distribution was applied to define low-flow frequency at continuous-record stations. Measurements at low-flow partial-record and miscellaneous discharge-measurement stations were correlated with daily mean discharges at continuous-record stations to produce estimates of low-flow frequency for the partial-record and miscellaneous stations. Multiple linear-regression analysis was used in an attempt to develop equations that define the relation between low-flow and basin characteristics. Results of the regression analyses were unsatisfactory.

The user should review each situation carefully before applying the procedures presented in this report. In evaluating estimates of low-flow at continuous-record, low-flow partial-record, and miscellaneous discharge-measurement stations, the user should consider the length of record or number of measurements, as well as the period during which the measurements were made. Estimates should be checked for uniformity with nearby stations, taking into account factors such as spring inflow and regulation.

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GLOSSARY

Some of the technical terms used in this report are defined here for convenience. See Langbein and Iseri (1960), Riggs (1968; 1972; 1973), and Searcy (1959) for additional information regarding low-flow frequency analyses and associated hydrologic terminology. Statistical terms are defined with respect to applications described in this report.

Annual minimum D-day mean discharge.--The lowest average discharge for D consecutive days for the water year. The term, D-day low flow, as used in this report, is synonymous.

Base flow.--Sustained or fair-weather flow. In most streams, base flow is composed largely of ground-water effluent.

Basin characteristics.--Parameters that describe the physical and climatic factors of a drainage basin. Parameters used in this study include base-flow recession index, drainage area, basin slope, basin length, swamp area, lake area, soils index, duration index, and rainfall index.

Climatic year.--A continuous 12-month period during which a complete annual hydrologic cycle occurs, arbitrarily selected for the presentation of data relative to hydrologic or meteorologic phenomena.

Continuous-record gaging station.--A site on a stream where systematic observations of gage height and discharge are obtained.

Correlation.--A process by which the degree of association between two or more variables is defined.

Correlation coefficient.--A measure of the degree of association between two or more variables. The correlation coefficient can range from plus one (perfect correlation) or minus one (perfect inverse correlation) to zero (no correlation).

D-day, T-year event.--The specified recurrence interval, in years, of the mean discharge for D consecutive days.

Draft-storage frequency relation.--A graph showing the minimum volume of storage required to maintain selected draft rates for selected recurrence intervals of low-flow.

Flow-duration curve.--A cumulative frequency curve that shows the percentage of time specified discharges were equaled or exceeded during a given period of record.

Frequency distribution.--A graph showing the relative frequency with which D-day low flows of various magnitude occur.

Mean.--The arithmetic average of the sample.

Miscellaneous-measurement site.--A site where discharge measurements are made for special projects and during droughts and floods to provide better areal coverage.

Multiple linear-regression analysis.--A mathematical procedure that produces linear equations for estimating D-day, T-year low flows from basin characteristics.

Nonexceedance probability.--The probability that a specified minimum discharge will not be exceeded in any given year. Recurrence interval is computed as the inverse of nonexceedance probability.

Partial-record gaging station.--A site where periodic streamflow data are collected over a period of years for use in hydrologic analyses.

Recession segment.--The falling segment of a streamflow hydrograph. The lower portion of the recession segment is referred to as a base-flow recession curve and shows the decreasing rate of ground-water inflow.

Recurrence interval.--The average interval of time between occurrences of a low flow less than or equal to a specified D-day low flow.

Residual.-- The difference between an estimate of low flow based on the station frequency distribution and an estimate computed from the regression equation.

Skew coefficient.--A measure of the asymmetry of a low-flow frequency distribution.

Standard deviation.--A measure of the variation in a sample, computed by taking the square root of the average of the squared deviations from the mean.

Standard error of estimate.--A measure of the accuracy of the regression equation. In this report, standard error is given as a percent representing the range on either side of the regression equation that includes about two-thirds of the points used in the analysis. More technically, the standard deviation of the residuals about the regression equation.

Water year.--The 12-month period beginning October 1 and ending September 30, designated by the calendar year in which it ends.

SUPPLEMENTARY DATA

Frequency Distributions for Continuous-Record Stations

Site 1
02236500 Big Creek near Clermont
October 1958 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0.1	0	0	0
30	0.2	0	0	0
60	0.4	0.1	0	0
90	0.9	0.2	0.1	0
120	1.8	0.4	0.2	0
183	4.9	0.9	0.3	0.2

Site 2
02236900 Palatlakaha River at Cherry Lake outlet near Groveland
October 1957 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	1.4	0	0	0

Site 3
02237000 Palatlakaha River near Mascotte
October 1945 to September 1955

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	13	3.9	1.8	0.8
3	13	4.0	1.8	0.9
7	13	4.2	1.9	1.0
14	14	4.6	2.2	1.1
30	15	5.5	2.9	1.6
60	19	7.0	3.7	2.1
90	24	8.7	4.5	2.4
120	29	11	5.7	3.0
183	43	17	9.2	5.0

Site 4
02237700 Apopka-Beauclair Canal near Astatula
October 1958 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	4.3	0	0	0
3	6.4	0	0	0
7	6.4	0	0	0
14	7.5	0	0	0
30	11	0.1	0	0
60	12	0.5	0	0
90	15	1.1	0	0
120	23	2.6	0.1	0
183	38	8.3	2.5	0.7

Site 5
02238000 Haines Creek at Lisbon (before Burrell Dam)
October 1942 to September 1955

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	170	120	98	83
3	170	120	99	83
7	170	120	100	85
14	170	120	100	86
30	180	130	110	91
60	190	140	120	100
90	200	140	120	110
120	200	150	130	110
183	230	170	140	120

Site 6
02238000 Haines Creek at Lisbon
October 1957 to September 1978

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	17	4.5	1.9	0.6
3	17	4.5	1.9	0.6
7	21	4.6	1.9	0.7
14	21	5.4	2.4	1.2
30	23	7.4	4.0	2.4
60	30	11	6.2	3.9
90	39	14	7.7	4.7
120	48	18	11	7.1
183	94	35	20	12

Site 7
02238500 Oklawaha River at Moss Bluff
October 1943 to September 1955 and October 1967 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	41	5.5	0.7	0
3	44	6.1	0.8	0
7	52	7.2	0.9	0
14	54	8.5	2.1	0.2
30	66	12	3.5	0.5
60	68	20	9.8	5.4
90	78	26	14	8.2
120	99	35	19	12
183	160	59	32	19

Site 8
02239000 Oklawaha River near Ocala
October 1930 to September 1967

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	100	37	20	12
3	100	39	22	13
7	120	44	24	14
14	120	47	26	16
30	130	54	31	18
60	160	64	36	22
90	180	78	46	28
120	220	100	60	38
183	290	140	82	50

Site 9
02239500 Silver Springs near Ocala
October 1932 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	700	630	600	570
3	700	630	600	570
7	710	630	600	570
14	710	640	600	570
30	710	640	600	570
60	720	640	610	580
90	720	650	610	580
120	730	650	620	590
183	740	670	630	600

Site 10
02240000 Oklawaha River near Conner
October 1930 to September 1946 and October 1977 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	800	680	640	600
3	800	690	640	610
7	810	690	640	610
14	820	700	650	610
30	830	700	650	620
60	850	710	660	620
90	880	730	670	630
120	900	750	690	650
183	980	810	740	690

Site 11
02240500 Oklawaha River at Eureka
October 1930 to September 1934 and October 1943 to September 1952

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	980	810	720	650
3	990	820	730	660
7	1,000	830	740	670
14	1,000	840	750	680
30	1,000	850	760	680
60	1,100	870	780	700
90	1,100	890	790	710
120	1,100	920	820	740
183	1,200	960	840	750

Site 12
02240954 Hogtown Creek near Arredondo
October 1972 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	2.6	1.8	1.5	1.3
3	2.7	1.8	1.5	1.3
7	3.1	2.0	1.6	1.3
14	3.5	2.2	1.7	1.4
30	4.2	2.6	2.1	1.7
60	5.2	3.3	2.6	2.2
90	7.3	4.8	3.9	2.3
120	9.4	6.2	4.9	4.1
183	13	8.1	6.5	5.4

Site 13
02242451 Orange Lake outlet near Citra
October 1946 to September 1955

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	11	1.8	0.1	0
3	11	2.0	0.1	0
7	12	2.3	0.2	0
14	12	2.6	0.2	0
30	14	3.1	0.3	0
60	17	5.0	1.0	0
90	20	6.4	1.3	0
120	24	7.6	1.8	0
183	48	7.6	1.8	0.2

Site 14
02242500 Lochloosa Slough near Lochloosa
October 1946 to September 1955

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.1	0	0	0
120	0.2	0	0	0
183	1.3	0	0	0

Site 15
02243000 Orange Creek at Orange Springs
October 1942 to September 1952, October 1955 to September 1971, and October 1975 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	12	4.4	2.7	1.9
3	12	4.6	2.8	1.9
7	13	4.9	3.0	2.0
14	15	5.3	3.2	2.1
30	17	6.2	3.7	2.5
60	22	8.2	5.0	3.4
90	26	10	6.2	4.2
120	35	14	8.2	5.4
183	59	21	12	7.6

Site 16
02243500 Oklawaha River near Orange Springs
October 1930 to September 1952

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1,000	840	760	700
3	1,000	850	760	700
7	1,000	850	770	710
14	1,100	860	780	710
30	1,100	880	790	720
60	1,100	910	820	740
90	1,200	940	840	770
120	1,200	990	880	800
183	1,300	1,100	940	850

Site 17
02243960 Oklawaha River at Rodman Dam near Orange Springs
October 1968 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	420	310	250	210
3	470	320	260	210
7	540	350	280	230
14	650	400	300	240
30	730	500	420	360
60	840	600	510	450
90	920	650	540	460
120	990	700	580	500
183	1,100	800	660	570

Site 18
02244000 Oklawaha River at Riverside Landing near Orange Springs
October 1943 to September 1968

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1,100	880	780	700
3	1,100	880	780	710
7	1,100	890	790	720
14	1,200	910	800	720
30	1,200	930	820	740
60	1,200	970	850	760
90	1,300	1,000	880	800
120	1,400	1,000	910	810
183	1,500	1,100	970	850

Site 19
02256000 Fisheating Creek near Venus
October 1955 to September 1965

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	1.1	0	0	0
90	3.3	0.1	0	0
120	5.9	0.4	0	0
183	16	1.4	0.3	0.1

Site 20
02256500 Fisheating Creek at Palmdale
October 1931 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	1.1	0	0	0
90	3.6	0.1	0	0
120	8.1	0.4	0	0
183	18	2.6	0.8	0.2

Site 21
02262900 Boggy Creek near Taft
October 1959 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.9	0.2	0.1	0
3	0.9	0.2	0.1	0
7	1.1	0.3	0.2	0.1
14	1.5	0.6	0.4	0.3
30	2.8	1.3	0.9	0.6
60	4.4	2.3	1.6	1.2
90	6.4	3.8	2.9	2.3
120	8.9	5.2	3.9	3.1
183	12	7.0	5.5	4.7

Site 22
02263500 St. Cloud Canal at S-59 near St. Cloud
October 1942 to September 1968

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	6.7	0	0	0
14	10	0	0	0
30	16	0	0	0
60	30	1.2	0	0
90	44	5.4	0.1	0
120	64	9.0	0.7	0
183	94	27	10	2.3

Site 23
02263800 Shingle Creek at airport near Kissimmee
October 1958 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	3.4	0	0	0
3	3.9	0	0	0
7	4.8	0	0	0
14	5.0	0.2	0	0
30	7.6	0.6	0	0
60	9.8	1.7	0.5	0.1
90	14	6.3	3.8	2.4
120	18	9.4	6.3	4.5
183	29	14	9.5	6.7

Site 24
02263869 South Lake outlet above S-15 near Vineland
October 1972 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	0	0	0	0

Site 25
02264000 Cypress Creek at Vineland
October 1945 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.1	0	0	0
120	0.2	0	0	0
183	0.6	0.1	0	0

Site 26
02264100 Bonnet Creek near Vineland
October 1971 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.0	0	0	0
3	2.9	0.1	0	0
7	2.7	0.2	0	0
14	4.2	0.8	0.1	0
30	5.2	3.1	2.1	1.1
60	7.2	4.9	4.1	3.5
90	9.2	6.2	4.9	4.0
120	6.9	5.4	4.3	3.4
183	13	8.6	6.8	5.5

Site 27
02264495 Shingle Creek at Campbell
October 1968 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	14	6.9	4.5	3.0
3	16	8.4	5.6	3.9
7	18	9.4	6.2	4.2
14	20	11	7.2	5.0
30	24	14	10	7.6
60	30	19	14	11
90	36	23	17	13
120	46	28	20	15
183	62	41	32	26

Site 28
02265000 South Port Canal at S-61 near St. Cloud
October 1942 to September 1968

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	21	0	0	0
3	22	0.1	0	0
7	27	0.8	0	0
14	31	2.1	0	0
30	43	3.1	0.2	0
60	51	4.5	0.3	0
90	58	6.6	1.3	0.1
120	95	15	3.4	0.3
183	200	31	7.2	1.6

Site 29
02266000 Canoe Creek near St. Cloud
October 1950 to September 1958

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.6	0.3	0	0
3	1.6	0.3	0	0
7	1.9	0.6	0.1	0
14	2.2	0.8	0.1	0
30	2.8	0.8	0.1	0
60	5.7	0.8	0.1	0
90	9.3	2.0	0.5	0.1
120	14	2.8	0.7	0.2
183	24	6.6	2.3	0.8

Site 30
02266200 Whittenhorse Creek near Vineland
October 1966 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	0.1	0	0	0

Site 31
02266300 Reedy Creek near Vineland
October 1966 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	4.0	1.8	0.1	0
3	4.2	1.9	0.1	0
7	4.7	2.1	0.2	0
14	5.2	2.5	0.2	0
30	7.8	3.0	0.6	0
60	8.3	3.0	0.8	0
90	11	3.0	0.8	0.2
120	11	4.7	2.6	1.4
183	14	7.4	5.1	3.7

Site 32
02266480 Davenport Creek near Loughman
October 1969 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.8	0.5	0.4	0.4
3	0.9	0.6	0.5	0.4
7	0.9	0.6	0.5	0.4
14	1.0	0.7	0.6	0.5
30	1.3	0.8	0.6	0.5
60	1.5	1.0	0.8	0.7
90	1.8	1.3	1.1	1.0
120	2.4	1.6	1.4	1.3
183	3.4	2.2	1.8	1.6

Site 33
02266500 Reedy Creek near Loughman (before structure 40)
October 1939 to September 1959

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	5.4	3.6	2.9	2.5
3	5.7	3.8	3.1	2.7
7	6.4	4.2	3.4	2.9
14	7.6	4.9	3.9	3.2
30	11	6.7	5.1	4.1
60	16	9.8	7.4	5.8
90	21	12	9.1	7.0
120	26	16	12	9.2
183	38	24	19	15

Site 34
02266500 Reedy Creek near Loughman
October 1970 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0.2	0	0	0
90	1.8	0	0	0
120	4.5	0.4	0	0
183	10	5.0	3.5	2.6

Site 35
02267000 Catfish Creek near Lake Wales
October 1947 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	16	6.2	3.2	1.6
3	16	6.4	3.3	1.8
7	16	6.8	3.7	2.0
14	17	7.4	4.2	2.4
30	19	8.5	5.0	3.0
60	21	11	7.3	5.1
90	23	14	10	7.6
120	26	16	12	9.9
183	30	21	17	14

Site 36
02269500 Reedy Creek near Frostproof
October 1946 to September 1971

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	7.3	1.4	0.4	0
3	7.9	1.5	0.4	0
7	8.9	2.3	0.8	0.1
14	11	2.9	0.9	0.1
30	13	2.9	0.9	0.3
60	15	5.1	2.4	1.1
90	18	7.9	4.5	2.7
120	20	10	6.9	4.8
183	23	14	9.8	7.3

Site 37
02270000 Carter Creek near Sebring
October 1954 to September 1966

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	7.9	4.6	3.4	2.6
3	8.5	5.0	3.8	2.9
7	9.1	5.6	4.3	3.4
14	10	6.2	4.7	3.8
30	12	7.3	5.8	4.8
60	14	9.3	7.7	6.6
90	16	11	8.6	7.2
120	17	11	8.9	7.5
183	18	12	9.7	8.2

Site 38
02270500 Arbuckle Creek near De Soto City
October 1939 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	32	8.5	3.6	1.6
3	33	9.7	4.5	2.2
7	36	12	6.2	3.3
14	40	15	7.8	4.5
30	51	20	11	6.6
60	64	28	17	11
90	79	38	25	18
120	91	47	33	24
183	120	63	45	34

Site 39
02271000 Stearns Creek near Lake Placid
October 1955 to September 1968

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.1	0	0	0
3	0.1	0	0	0
7	0.1	0	0	0
14	0.1	0	0	0
30	0.1	0	0	0
60	0.4	0.1	0	0
90	0.6	0.1	0	0
120	0.9	0.1	0	0
183	2.7	0.4	0.1	0

Site 40
02271500 Josephine Creek near De Soto City
October 1946 to September 1975 and October 1978 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	7.1	2.9	1.7	1.1
3	7.4	3.0	1.8	1.2
7	8.1	3.4	2.1	1.4
14	8.9	3.8	2.4	1.6
30	11	4.5	2.8	1.8
60	14	5.8	3.6	2.4
90	16	7.0	4.5	3.0
120	20	8.4	5.3	3.6
183	27	12	7.6	5.2

Site 41
02293000 Orange River near Fort Myers
October 1936 to September 1946

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0.1	0	0	0
90	0.3	0	0	0
120	0.7	0	0	0
183	2.0	0.6	0.3	0.2

Site 42
02293694 Peace Creek drainage canal near Dundee
October 1946 to September 1959

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.9	0.1	0	0
3	1.0	0.2	0	0
7	1.2	0.2	0	0
14	1.6	0.3	0.1	0
30	2.1	0.5	0.1	0
60	3.2	0.8	0.2	0
90	4.4	0.8	0.2	0.1
120	6.4	1.3	0.4	0.1
183	10	2.2	0.7	0.2

Site 43
02293986 Peace Creek drainage canal near Alturas
October 1947 to September 1971

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	7.2	2.9	1.6	1.0
3	7.4	3.2	1.9	1.2
7	7.7	4.1	2.9	2.2
14	8.8	5.0	3.7	2.9
30	11	6.4	4.8	3.9
60	14	8.3	6.4	5.2
90	18	10	7.8	6.3
120	23	12	9.3	7.3
183	34	17	11	8.4

Site 44
02294068 Lake Lulu outlet at Eloise
October 1946 to September 1971

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.4	0.1	0	0
3	0.5	0.1	0	0
7	0.6	0.1	0.1	0
14	1.0	0.3	0.1	0
30	1.2	0.6	0.4	0.2
60	1.8	0.9	0.6	0.4
90	2.2	1.1	0.7	0.5
120	2.7	1.3	0.9	0.7
183	3.6	1.7	1.2	0.9

Site 45
02294491 Saddle Creek at structure P-11 near Bartow
October 1964 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.6	0	0	0
120	3.2	0	0	0
183	11	0.4	0	0

Site 46
02294650 Peace River at Bartow
October 1939 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	23	9.4	5.5	3.4
3	24	10	6.0	3.7
7	26	12	7.5	5.0
14	29	14	9.0	6.3
30	34	17	11	8.3
60	43	22	15	11
90	54	27	19	14
120	69	34	23	17
183	98	47	31	22

Site 47
02294898 Peace River at Fort Meade
October 1974 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	38	22	16	13
3	41	23	17	14
7	44	26	20	16
14	48	29	22	18
30	56	34	27	22
60	69	41	32	26
90	85	50	38	31
120	100	60	45	35
183	140	78	56	43

Site 48
02295420 Payne Creek near Bowling Green
October 1963 to September 1968 and October 1979 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	3.2	1.6	1.2	1.0
3	3.7	1.8	1.4	1.1
7	4.8	2.2	1.6	1.3
14	5.8	2.5	1.7	1.3
30	7.9	3.3	2.1	1.5
60	13	5.0	2.9	1.9
90	18	8.3	5.5	3.8
120	23	12	9.1	7.2
183	36	18	12	8.2

Site 49
02295637 Peace River at Zolfo Springs
October 1933 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	88	58	46	38
3	93	61	49	40
7	100	67	54	45
14	110	75	60	50
30	130	86	70	59
60	150	100	82	69
90	190	120	96	80
120	220	140	110	88
183	300	180	140	110

Site 50
02296223 Little Charley Bowlegs Creek near Sebring
October 1952 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0.2	0	0	0
60	0.6	0.1	0	0
90	1.8	0.3	0.1	0
120	3.4	0.7	0.2	0
183	6.4	1.6	0.7	0.3

Site 51
02296500 Charlie Creek near Gardner
October 1950 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	2.6	0.8	0.4	0.2
3	2.9	1.0	0.6	0.3
7	3.2	1.2	0.6	0.4
14	3.8	1.4	0.8	0.5
30	5.4	2.0	1.1	0.7
60	11	3.4	1.8	1.0
90	20	6.3	3.3	1.9
120	31	9.7	5.1	2.9
183	61	19	9.3	5.0

Site 52
02296750 Peace River at Arcadia
October 1931 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	99	62	49	40
3	100	65	51	42
7	110	70	55	45
14	120	76	60	50
30	140	87	70	59
60	170	110	83	69
90	220	130	100	81
120	280	150	110	88
183	380	200	140	110

Site 53
02297100 Joshua Creek at Nocatee
October 1950 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.1	0.4	0.2	0
3	1.2	0.5	0.2	0
7	1.7	0.5	0.2	0
14	2.0	0.7	0.4	0.2
30	2.5	1.2	0.8	0.6
60	4.4	2.0	1.4	1.0
90	7.2	3.1	2.0	1.4
120	11	4.3	2.7	1.8
183	18	7.1	4.2	2.7

Site 54
02297310 Horse Creek near Arcadia
October 1950 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.0	0.2	0	0
3	1.1	0.2	0	0
7	1.1	0.2	0.1	0
14	1.4	0.4	0.2	0.1
30	2.0	0.5	0.3	0.2
60	4.8	1.3	0.6	0.4
90	10	2.7	1.3	0.7
120	19	5.2	2.5	1.3
183	38	11	5.2	2.7

Site 55
02298123 Prairie Creek near Fort Ogden
October 1963 to September 1968 and October 1977 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	2.0	0.6	0.1	0
3	2.3	0.8	0.1	0
7	3.0	0.8	0.2	0.1
14	3.3	1.2	0.6	0.3
30	4.0	1.7	1.0	0.7
60	5.8	2.5	1.6	1.1
90	9.1	3.5	2.2	1.5
120	16	6.0	3.6	2.4
183	29	10	5.6	3.4

Site 56
02298202 Shell Creek near Punta Gorda
October 1965 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	7.4	0	0	0
60	17	2.6	0.8	0.3
90	34	11	5.5	3.1
120	52	23	15	11
183	74	39	29	23

Site 57
02298608 Myakka River at Myakka City
October 1963 to September 1966 and October 1977 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0.2	0	0	0
60	1.0	0	0	0
90	6.8	0.2	0	0
120	14	1.4	0.2	0
183	35	7.5	2.9	1.3

Site 58
02298830 Myakka River near Sarasota
October 1936 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0.2	0	0	0
60	1.0	0	0	0
90	6.8	0.2	0	0
120	14	1.4	0.2	0
183	35	7.5	2.9	1.3

Site 59
02299470 Big Slough near Murdock
October 1963 to September 1972

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.4	0.1	0	0
3	0.5	0.1	0	0
7	0.6	0.2	0	0
14	0.7	0.2	0.1	0
30	1.2	0.3	0.1	0
60	1.8	0.5	0.2	0.1
90	2.8	1.2	0.9	0.7
120	5.7	2.1	1.3	0.9
183	10	3.5	2.0	1.2

Site 60
02299750 Phillippe Creek near Sarasota
October 1963 to September 1968 and October 1979 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.1	0.5	0.3	0.2
3	1.4	0.6	0.4	0.3
7	1.7	0.8	0.5	0.4
14	1.9	0.9	0.6	0.4
30	2.4	1.2	0.8	0.5
60	3.2	1.6	1.1	0.8
90	3.8	2.1	1.5	1.1
120	5.2	3.1	2.4	1.9
183	7.2	4.1	3.1	2.5

Site 61
02299950 Manatee River near Myakka Head
October 1966 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.0	0.4	0.3	0.2
3	1.1	0.5	0.3	0.2
7	1.2	0.6	0.4	0.2
14	1.5	0.7	0.4	0.3
30	2.0	0.9	0.6	0.4
60	3.8	1.5	0.9	0.6
90	6.5	2.8	1.8	1.3
120	10	4.8	3.2	2.3
183	16	7.1	4.6	3.2

Site 62
02300000 Manatee River near Bradenton
October 1939 to September 1965

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	3.7	2.5	2.0	1.6
3	3.8	2.6	2.0	1.6
7	4.0	2.7	2.1	1.7
14	4.4	2.9	2.3	1.9
30	5.3	3.5	2.8	2.3
60	7.8	4.8	3.6	2.9
90	12	6.8	4.9	3.8
120	16	8.4	5.9	4.4
183	26	14	9.4	6.9

Site 63
02300100 Little Manatee River near Fort Lonesome
October 1963 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0.4	0	0	0
60	1.4	0.3	0.1	0.1
90	3.3	1.2	0.6	0.4
120	5.5	2.3	1.4	0.9
183	9.1	3.8	2.3	1.4

Site 64
02300500 Little Manatee River near Wimauma
October 1939 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	7.9	4.1	2.7	1.9
3	8.3	4.4	3.0	2.1
7	9.1	4.8	3.2	2.3
14	10	5.7	4.1	3.1
30	13	7.6	5.8	4.7
60	19	11	8.4	6.7
90	27	16	12	9.0
120	36	20	15	11
183	51	28	20	16

Site 65
02301000 North Prong Alafia River at Keysville
October 1950 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	37	18	11	6.8
3	38	19	11	7.1
7	40	20	13	8.4
14	44	24	16	11
30	48	29	21	16
60	58	36	28	22
90	66	45	37	31
120	77	54	45	38
183	93	66	56	49

Site 66
02301300 South Prong Alafia River near Lithia
October 1963 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	10	4.0	2.3	1.4
3	11	4.4	2.6	1.6
7	12	5.0	3.0	1.9
14	14	6.0	3.6	2.3
30	19	9.0	5.8	4.0
60	27	14	9.9	7.2
90	34	18	13	9.3
120	44	24	17	12
183	54	32	25	20

Site 67
02301350 Little Alafia River near Hopewell
October 1966 to September 1979

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0.1	0	0	0
90	0.2	0	0	0
120	0.3	0	0	0
183	1.0	0.2	0.1	0

Site 68
02301500 Alafia River at Lithia
October 1932 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	39	19	13	9.0
3	40	20	14	9.6
7	43	22	15	11
14	48	25	17	12
30	58	32	23	17
60	75	42	31	24
90	95	56	41	32
120	120	69	51	40
183	160	95	73	59

Site 69
02301800 Sixmile Creek at Tampa
October 1956 to September 1969

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	19	10	7.0	4.8
3	19	11	7.4	5.2
7	20	12	9.0	6.6
14	22	15	11	8.4
30	25	18	14	12
60	29	21	18	15
90	32	24	20	18
120	34	25	21	18
183	42	30	25	21

Site 70
02301900 Fox Branch near Socrum
October 1964 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0.1	0	0	0
14	0.2	0	0	0
30	0.5	0.1	0	0
60	0.8	0.4	0.2	0
90	1.3	0.6	0.4	0.3
120	1.9	1.0	0.6	0.5
183	2.8	1.6	1.2	1.0

Site 71
02302500 Blackwater Creek near Knights
October 1951 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	3.0	1.1	0.5	0.1
3	3.6	1.4	0.6	0.2
7	4.8	2.0	0.9	0.2
14	6.8	2.5	1.0	0.3
30	10	4.2	1.8	0.7
60	12	6.0	3.7	2.4
90	14	8.7	6.6	5.1
120	18	12	9.5	8.0
183	29	16	13	10

Site 72
02303000 Hillsborough River near Zephyrhills
October 1939 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	68	57	52	48
3	69	58	53	49
7	70	58	53	49
14	71	60	54	50
30	75	62	56	52
60	80	65	59	54
90	87	69	62	57
120	96	74	65	59
183	120	84	73	66

Site 73
02303100 New River near Zephyrhills
October 1964 to September 1974

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.2	0	0	0
120	0.4	0.1	0	0
183	1.5	0.2	0	0

Site 74
02303300 Flint Creek near Thonotosassa
October 1956 to September 1958 and October 1970 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.7	0	0	0
3	0.7	0.1	0	0
7	0.8	0.2	0	0
14	1.4	0.6	0.2	0
30	2.7	1.5	1.1	0.8
60	4.8	2.6	1.9	1.4
90	6.4	3.9	3.1	2.7
120	8.8	5.0	3.8	3.2
183	15	8.1	5.9	4.6

Site 75
02303330 Hillsborough River at Morris Bridge near Thonotosassa
October 1972 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	76	59	53	49
3	77	61	54	49
7	78	61	54	49
14	80	64	55	50
30	86	66	58	52
60	94	71	62	55
90	100	78	66	59
120	120	84	71	63
183	160	100	83	72

Site 76
02303350 Trout Creek near Sulphur Springs
October 1974 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.1	0	0	0
120	0.6	0	0	0
183	1.8	0.5	0.3	0.2

Site 77
02303400 Cypress Creek near San Antonio
October 1963 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.8	0	0	0
120	2.0	0.3	0	0
183	4.8	2.0	1.2	0.4

Site 78
02303420 Cypress Creek at Worthington Gardens
October 1974 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.8	0	0	0
120	2.7	0.3	0.1	0
183	9.3	4.6	3.4	2.7

Site 79
02303800 Cypress Creek near Sulphur Springs
October 1964 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0.4	0	0	0
90	2.6	0.1	0	0
120	9.2	2.1	0.6	0
183	25	10	6.4	4.1

Site 80
02304500 Hillsborough River near Tampa
October 1938 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	5.4	0.5	0.1	0
3	5.8	0.5	0.1	0
7	6.7	0.7	0.2	0.1
14	8.6	0.8	0.2	0.1
30	12	1.1	0.2	0.1
60	24	2.2	0.5	0.1
90	38	4.2	1.0	0.2
120	76	12	3.5	1.0
183	160	44	19	8.7

Site 81
02305500 Drainage ditch at Bearss Avenue near Sulphur Springs
October 1946 to September 1956

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0.1	0	0	0
183	0.4	0	0	0

Site 82
02306000 Sulphur Springs at Sulphur Springs
October 1959 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	12	3.1	1.3	0.6
3	12	3.4	1.4	0.6
7	12	3.8	2.0	1.1
14	12	5.1	3.4	2.4
30	14	6.2	4.1	2.9
60	17	8.1	5.4	3.8
90	23	12	8.3	6.0
120	28	16	12	8.4
183	34	23	19	16

Site 83
02306289 Lake Magdalene outlet near Lutz
October 1970 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	0	0	0	0

Site 84
02306500 Sweetwater Creek near Sulphur Springs
October 1951 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0.1	0	0	0
14	0.1	0	0	0
30	0.2	0	0	0
60	0.2	0	0	0
90	0.5	0.1	0	0
120	0.7	0.2	0.1	0
183	1.1	0.3	0.1	0

Site 85
02307000 Rocky Creek near Sulphur Springs
October 1953 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.2	0.4	0.2	0.1
3	1.3	0.5	0.3	0.1
7	1.4	0.6	0.4	0.2
14	1.7	0.7	0.4	0.2
30	2.5	0.8	0.4	0.2
60	3.0	1.6	1.2	1.0
90	4.2	2.2	1.6	1.2
120	5.6	2.9	2.1	1.6
183	9.2	4.5	3.2	2.5

Site 86
02307243 Brooker Creek near Odessa
October 1946 to September 1955

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	0.3	0.1	0	0

Site 87
02307323 Brooker Creek near Lake Fern
October 1970 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	0.3	0.1	0	0

Site 88
02307359 Brooker Creek near Tarpon Springs
October 1950 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.3	0	0	0
120	0.8	0.1	0	0
183	3.6	0.8	0.3	0.1

Site 89
02307498 Lake Tarpon Canal at S-551 near Oldsmar
October 1974 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.2	0	0	0
120	0.9	0.1	0	0
183	13	8.6	6.9	5.7

Site 90
02307697 Alligator Creek at Safety Harbor
October 1949 to September 1958 and October 1960 to September 1974

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0.1	0	0	0
60	0.5	0	0	0
90	1.0	0.2	0.1	0
120	1.6	0.6	0.3	0.1
183	3.5	1.1	0.4	0.2

Site 91
02308889 Seminole Lake outlet near Largo
October 1950 to September 1971

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.4	0	0	0
120	1.7	0.1	0	0
183	4.4	1.5	0.7	0.3

Site 92
02309848 South Branch Anclote River near Odessa
October 1970 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	0.3	0.1	0	0

Site 93
02310000 Anclote River near Elfers
October 1946 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	2.3	1.5	1.3	1.1
3	2.3	1.6	1.4	1.2
7	2.4	1.7	1.5	1.4
14	2.5	1.9	1.7	1.6
30	2.6	2.3	2.2	2.2
60	3.3	2.7	2.6	2.4
90	4.5	3.0	2.6	2.4
120	7.5	3.9	3.0	2.4
183	16	7.2	4.9	3.6

Site 94
02310240 Jumping Gully at Loyce
October 1964 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0	0	0	0
120	0	0	0	0
183	0.6	0	0	0

Site 95
02310300 Pithlachascotee River near New Port Richey
October 1963 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.8	0.6	0.4	0.2
3	0.8	0.6	0.4	0.2
7	0.9	0.6	0.4	0.2
14	1.0	0.7	0.5	0.4
30	1.1	0.8	0.6	0.4
60	1.8	0.9	0.6	0.4
90	3.0	1.2	0.7	0.4
120	4.8	2.0	1.1	0.7
183	9.8	4.8	3.3	2.4

Site 96
02310352 Bear Creek at Plaza Drive near Hudson
October 1970 to September 1977

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0.1	0	0	0
30	0.4	0.1	0	0
60	0.6	0.1	0	0
90	1.3	0.6	0.3	0.2
120	1.9	0.8	0.5	0.3
183	4.6	2.2	1.4	0.9

Site 97
02310750 Crystal River near Crystal River
October 1964 to September 1977

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	52	0	0	0
14	300	170	83	14
30	470	330	270	230
60	580	440	370	330
90	630	480	420	380
120	700	550	490	440
183	820	660	590	540

Site 98
02310800 Withlacoochee River near Eva
October 1958 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0.1	0	0	0
30	0.3	0	0	0
60	0.8	0	0	0
90	1.6	0.3	0.1	0
120	3.5	0.6	0.2	0.1
183	8.5	1.8	0.8	0.4

Site 99
02310947 Withlacoochee River near Cumpressco
October 1967 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0.1	0	0	0
30	0.3	0	0	0
60	0.8	0	0	0
90	1.6	0.3	0.1	0
120	6.1	1.0	0.3	0.1
183	20	4.7	2.1	1.0

Site 100
02312000 Withlacoochee River at Trilby
October 1930 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	28	15	11	8.4
3	29	16	11	8.7
7	30	16	12	9.1
14	32	18	13	9.7
30	36	20	14	11
60	44	24	17	13
90	55	28	20	15
120	70	35	24	17
183	110	52	35	25

Site 101
02312180 Little Withlacoochee River near Tarrytown
October 1966 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0	0	0	0
60	0	0	0	0
90	0.2	0	0	0
120	0.7	0	0	0
183	4.9	0.6	0.1	0

Site 102
02312200 Little Withlacoochee River at Rerdell
October 1958 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	1.6	0.1	0	0
3	1.7	0.2	0	0
7	2.3	0.2	0	0
14	2.4	0.3	0	0
30	3.1	0.5	0	0
60	4.3	0.8	0.1	0
90	5.6	1.0	0.3	0.1
120	8.6	1.8	0.7	0.3
183	18	4.5	2.1	1.0

Site 103
02312500 Withlacoochee River at Croom
October 1939 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	69	35	23	15
3	71	36	23	16
7	73	38	25	17
14	76	40	26	18
30	82	42	28	19
60	91	48	32	23
90	100	55	37	26
120	120	64	43	30
183	180	88	60	44

Site 104
02312640 Jumper Creek Canal near Bushnell
October 1963 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	9.3	4.2	2.2	1.1
3	11	5.0	2.5	1.2
7	13	5.6	2.8	1.3
14	14	6.4	3.3	1.6
30	16	8.8	4.9	2.6
60	17	10	6.3	3.8
90	17	12	9.9	8.2
120	18	14	11	9.8
183	21	16	14	12

Site 105
02312700 Outlet River at Panacoochee Retreats
October 1962 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	80	43	26	12
3	82	44	26	12
7	86	48	30	13
14	91	52	34	14
30	110	52	34	14
60	110	64	43	29
90	110	71	52	38
120	120	79	63	51
183	140	100	85	73

Site 106
02312720 Withlacoochee River at Wysong Dam at Carlson
October 1965 to September 1980

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	170	120	110	98
3	180	130	110	100
7	190	140	120	110
14	200	140	120	110
30	210	160	140	120
60	230	170	150	140
90	260	190	170	150
120	300	220	190	170
183	400	290	240	210

Site 107
02312975 Tsala Apopka Outfall Canal at S-353 near Hernando
October 1968 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.1	0	0	0
3	0.1	0	0	0
7	0.1	0	0	0
14	0.1	0	0	0
30	0.1	0	0	0
60	0.1	0	0	0
90	0.1	0	0	0
120	0.1	0.1	0	0
183	0.7	0.1	0.1	0

Site 108
02313000 Withlacoochee River near Holder
October 1931 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	320	200	150	130
3	320	200	160	130
7	330	210	160	140
14	340	220	170	140
30	370	240	190	160
60	410	260	210	170
90	440	290	230	190
120	480	320	250	210
183	590	380	300	250

Site 109
02313100 Rainbow Springs near Dunnellon
October 1965 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	620	560	540	520
3	620	570	540	520
7	620	570	540	520
14	620	570	540	530
30	630	570	540	530
60	630	570	550	530
90	640	580	550	540
120	640	580	560	540
183	660	600	580	560

Site 110
02313230 Withlacoochee River at Inglis Dam near Dunnellon
October 1969 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	70	70	70	70
3	70	70	70	70
7	70	70	70	70
14	70	70	70	70
30	70	70	70	70
60	70	70	70	70
90	70	70	70	70
120	70	70	70	70
183	80	70	70	70

Site 111
02313237 Cross-Florida Barge Canal at Inglis Lock near Inglis
October 1970 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	2.6	0	0	0
14	4.5	0.4	0	0
30	6.3	3.0	2.0	1.4
60	8.2	4.6	3.3	2.5
90	9.2	5.2	3.8	3.0
120	10	5.9	4.4	3.4
183	11	6.4	4.8	3.8

Site 112
02313250 Withlacoochee River Bypass Channel near Inglis
October 1970 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	600	330	190	100
3	630	350	200	110
7	670	400	250	150
14	700	480	340	240
30	760	540	400	290
60	820	570	420	310
90	830	620	490	400
120	850	680	590	520
183	930	800	730	680

Site 113
02313500 Waccasassa River near Otter Creek
October 1945 to September 1953

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	14	12	12	11
3	14	12	12	11
7	15	13	12	12
14	16	14	13	12
30	19	16	15	14
60	22	18	16	15
90	28	22	19	17
120	33	27	25	24
183	44	34	30	28

Site 114
02313700 Waccasassa River near Gulf Hammock
October 1963 to September 1978

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	15	0	0	0
14	38	22	16	12
30	58	38	30	25
60	76	50	40	33
90	96	62	49	41
120	120	79	62	51
183	200	120	98	81

Site 115
02314000 Otter Creek at Otter Creek
October 1945 to September 1953

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0	0	0	0
3	0	0	0	0
7	0	0	0	0
14	0	0	0	0
30	0.3	0	0	0
60	1.8	0.2	0	0
90	4.9	2.0	1.2	0.8
120	12	6.1	4.1	2.9
183	20	12	8.9	7.2

Site 116
02314200 Tenmile Creek at Lebanon Station
October 1963 to September 1981

Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
	2	5	10	20
1	0.1	0	0	0
3	0.1	0	0	0
7	0.1	0	0	0
14	0.1	0	0	0
30	0.1	0	0	0
60	0.3	0.1	0.1	0
90	0.8	0.2	0.1	0.1
120	3.5	0.9	0.4	0.2
183	10	3.6	2.0	1.2

Frequency Distributions for Low-Flow Partial-Record and Miscellaneous Discharge-Measurement Stations

Site[1]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
201	02240105	7	--	--	0	--
	Daisy Creek near Fort McCoy	30	--	--	0	--
202	02241900	7	0	--	0	--
	Lochloosa Creek at Grove Park	30	--	--	0	--
[2]204	02294114	7	0	--	0	--
	Lake Garfield outlet near Alturas	30	0	--	0	--
205	02294230	7	.1	--	0	--
	Lake Parker Tributary near Lakeland	30	.1	--	0	--
206	02294238	7	.7	--	.4	--
	Lake Parker Tributary #2 near Lakeland	30	.9	--	.5	--
207	02295013	1	1.0	0.5	.4	0.2
	Bowlegs Creek near Fort Meade	3	1.1	.6	.5	.4
		7	1.1	.7	.5	.4
		14	1.2	.7	.5	.4
		30	1.5	.9	.6	.5
		60	2.1	1.2	.8	.6
		90	2.9	1.6	1.1	.9
		120	3.6	2.0	1.4	1.1
		183	5.1	2.8	1.9	1.4
208	02295067	7	.1	--	0	--
	Bowlegs Creek at Pisgah Road near Fort Meade	30	.2	--	0	--
209	02295356	7	.6	--	.1	--
	Payne Creek near Fort Green Springs	30	1.5	--	.1	--
210	02295435	1	.2	.1	.1	.1
	Hog Branch near Wauchula	3	.2	.2	.1	.1
		7	.2	.2	.1	.1
		14	.2	.2	.1	.1
		30	.2	.2	.2	.1
		60	.3	.2	.2	.2
		90	.4	.2	.2	.2
		120	.6	.3	.2	.2
		183	1.1	.4	.3	.2

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
211	02295557	7	0.3	--	0.1	--
	Little Charlie Creek near Wauchula	30	.4	--	.1	--
212	02296049	7	.2	--	0	--
	Charlie Creek near Avon Park	30	.4	--	0	--
213	02296180	7	.1	--	0	--
	Little Charley Bowlegs Creek near Crewsville	30	.2	--	0	--
214	02296201	1	0	0	0	0
	Haw Branch near Sebring	3	0	0	0	0
		7	0	0	0	0
		14	0	0	0	0
		30	0	0	0	0
		60	0	0	0	0
		90	0	0	0	0
		120	0	0	0	0
		183	0	0	0	0
215	02296215	7	.5	--	.5	--
	Tiger Branch near Sebring	30	.6	--	.5	--
216	02296260	7	0	--	0	--
	Charlie Creek near Crewsville	30	0	--	0	--
217	02296389	1	.4	0	0	0
	Oak Creek near Gardner	3	.5	0	0	0
		7	.9	0	0	0
		14	1.2	0	0	0
		30	1.8	.3	0	0
		60	4.2	1.2	.5	0
		90	8.3	2.5	1.2	.5
		120	14.0	4.3	2.1	1.0
		183	27.0	8.4	4.2	2.2
218	02296408	1	1.5	.4	.2	.1
	Charlie Creek near Zolfo Springs	3	1.7	.5	.3	.2
		7	1.9	.6	.3	.2
		14	2.3	.8	.4	.2
		30	3.4	1.1	.6	.4
		60	7.4	2.0	1.0	.5
		90	15.0	4.1	2.0	1.1
		120	24.0	6.5	3.2	1.7
		183	51.0	14.0	6.3	3.1

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
219	02297000	7	0	--	0	--
	Joshua Creek near Arcadia	30	0	--	0	--
220	02297090	1	.7	.4	.3	.2
	Hawthorne Creek near Nocatee	3	.8	.4	.3	.2
		7	1.0	.4	.3	.2
		14	1.2	.5	.4	.3
		30	1.4	.8	.6	.5
		60	2.2	1.2	.9	.7
		90	3.4	1.7	1.2	.9
		120	4.6	2.2	1.5	1.1
		183	7.4	3.3	1.9	1.5
221	02297147	7	0	--	0	--
	Horse Creek near Fort Green Springs	30	0	--	0	--
222	02297251	7	0	--	0	--
	Horse Creek near Limestone	30	.1	--	0	--
223	02297266	7	.2	--	0	--
	Horse Creek near Pine Level	30	.5	--	0	--
224	02297444	7	.2	--	0	--
	Lee Branch near Cleveland	30	.2	--	.1	--
225	02297757	7	0	--	0	--
	Long Point Marsh near Arcadia	30	.2	--	0	--
226	02298245	7	.1	--	0	--
	Myrtle Slough near Cleveland	30	.1	--	0	--
227	02298285	1	.2	.1	.1	0
	Broad Creek near Punta Gorda	3	.2	.1	.1	0
		7	.3	.1	.1	0
		14	.4	.2	.1	.1
		30	.4	.3	.2	.2
		60	.6	.4	.3	.2
		90	.9	.5	.4	.3
		120	1.2	.6	.4	.3
		183	1.7	.9	.6	.4
228	02298458	7	0	--	0	--
	Myakka River near Myakka Head	30	0	--	0	--
229	02298523	7	0	--	0	--
	Ogleby Creek near Myakka City	30	.1	--	0	--
230	02298970	1	0	0	0	0
	Myakka River Tributary near Venice	3	0	0	0	0

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
230	02298970	7	0.1	0	0	0
	Myakka River Tributary near Venice	14	.1	0	0	0
		30	.2	0	0	0
		60	.4	.1	0	0
		90	.7	.1	0	0
		120	1.6	.4	.2	.1
		183	4.3	.9	.4	.2
231	02299188	7	.7	--	.7	--
	Deer Prairie Creek near Warm Mineral Springs	30	.7	--	.7	--
232	02299350	7	0	--	0	--
	Cocoplum Waterway Tributary near Murdock	30	0	--	0	--
233	02299410	1	0	0	0	0
	Big Slough Canal near Myakka City	3	0	0	0	0
		7	0	0	0	0
		14	0	0	0	0
		30	.1	0	0	0
		60	.3	0	0	0
		90	.8	.1	0	0
		120	2.0	.3	.1	0
		183	6.9	.8	.2	.1
234	02299420	7	.1	--	.1	--
	Mud Lake Slough near Myakka City	30	.1	--	.1	--
235	02299721	7	0	--	0	--
	Cow Pen Slough near Venice	30	.1	--	0	--
236	02299724	7	0	--	0	--
	Salt Creek Tributary near Venice	30	0	--	0	--
237	02299728	1	0	0	0	0
	Fox Creek near Laurel	3	0	0	0	0
		7	0	0	0	0
		14	0	0	0	0
		30	0	0	0	0
		60	.1	0	0	0
		90	.2	0	0	0
		120	.3	.1	0	0
		183	.5	.2	.1	.1
238	02299738	1	.4	.1	0	0
	South Creek near Osprey	3	.4	.1	0	0

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
238	02299738	7	0.6	0.1	0	0
	South Creek near Osprey	14	.6	.2	.1	0
		30	.8	.3	.2	.1
		60	1.1	.5	.3	.2
		90	1.8	.7	.4	.3
		120	3.1	1.1	.7	.4
		183	5.6	1.9	1.1	.6
239	02299795	1	1.1	.7	.5	.4
	Main-B Canal at Sarasota	3	1.2	.8	.6	.5
		7	1.4	.9	.7	.6
		14	1.5	1.0	.8	.6
		30	1.7	1.2	.9	.7
		60	2.1	1.4	1.1	.9
		90	2.3	1.6	1.3	1.1
		120	2.7	2.0	1.8	1.5
		183	3.3	2.4	2.0	1.8
240	02299861	1	.4	.3	.3	.3
	Walker Creek at Sarasota	3	.4	.3	.3	.3
		7	.4	.3	.3	.3
		14	.4	.3	.3	.3
		30	.5	.4	.3	.3
		60	.6	.4	.4	.3
		90	.7	.4	.4	.4
		120	.9	.6	.5	.4
		183	1.2	.7	.6	.5
241	02299869	7	.1	--	.1	--
	Bolees Creek at Oneco	30	.1	--	.1	--
242	02299920	7	0	--	0	--
	North Fork Manatee River near Myakka City	30	0	--	0	--
243	02299935	7	.4	--	.1	--
	East Fork Manatee River near Myakka City	30	.5	--	.2	--
244	02300004	7	.5	--	.2	--
	Gilley Creek near Rye	30	.7	--	.3	--
245	02300018	7	2.0	--	1.1	--
	Gamble Creek near Parrish	30	2.4	--	1.5	--
246	02300029	7	0	--	0	--
	Braden River at Lorraine	30	.2	--	0	--

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
247	02300078	7	0.8	--	0.3	--
	Frog Creek near Terra Ceia	30	1.1	--	.5	--
248	02300120	7	.6	--	.6	--
	Pierce Branch near Wimauma	30	.7	--	.6	--
249	02300200	7	0	--	0	--
	South Fork Little Manatee River near Duette	30	0	--	0	--
250	02300300	1	2.0	1.1	.7	.5
	South Fork Little Manatee River near Wimauma	3	2.1	1.2	.8	.6
		7	2.3	1.3	.9	.6
		14	2.6	1.5	1.1	.8
		30	3.2	2.0	1.5	1.2
		60	4.6	2.8	2.2	1.7
		90	6.7	3.9	3.0	2.3
		120	8.8	5.0	3.7	2.9
		183	12.0	6.9	5.1	4.0
251	02300852	1	9.5	3.9	2.1	1.2
	North Prong Alafia River at Mulberry	3	9.8	4.1	2.2	1.2
		7	10.0	4.6	2.6	1.5
		14	12.0	5.4	3.3	2.0
		30	13.0	7.0	4.8	3.4
		60	16.0	9.2	6.6	5.0
		90	19.0	12.0	9.3	7.5
		120	23.0	15.0	12.0	9.9
		183	29.0	19.0	16.0	13.0
252	02300907	7	.2	--	0	--
	Lake Drain near Mulberry	30	.3	--	0	--
253	02300930	7	.1	--	0	--
	Poley Creek near Mulberry	30	.5	--	0	--
254	02300978	1	1.3	.5	.2	--
	English Creek near Mulberry	3	1.6	.6	.3	.1
		7	2.1	.9	.5	.1
		14	2.8	1.1	.5	.1
		30	4.1	1.8	.8	.3
		60	4.8	2.5	1.6	1.1
		90	5.7	3.6	2.8	2.2
		120	7.8	4.7	3.9	3.3
		183	11.0	6.5	5.1	4.3

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
255	02301070	7	0	--	0	--
	South Prong Alafia River near Bradley Junction	30	0	--	0	--
256	02301314	1	.3	.1	.1	.1
	Mizelle Creek near Keysville	3	.4	.2	.1	.1
		7	.4	.2	.1	.1
		14	.4	.2	.1	.1
		30	.6	.3	.2	.1
		60	.8	.4	.3	.2
		90	1.0	.5	.4	.3
		120	1.3	.7	.5	.3
		183	1.8	1.0	.7	.6
257	02301328	7	36	--	12	--
	Alafia River near Keysville	30	48	--	19	--
258	02301376	7	.9	--	.1	--
	Little Alafia River at Durant	30	1.3	--	.3	--
259	02301620	7	.2	--	.2	--
	Fishhawk Creek near Boyette	30	.2	--	.2	--
260	02301680	7	.1	--	0	--
	Bell Creek near Boyette	30	.3	--	0	--
261	02301787	7	.3	--	.1	--
	Sixmile Creek Tributary #3 near Tampa	30	.5	--	.1	--
262	02301794	7	.3	--	.2	--
	Sixmile Creek Tributary #4 near Tampa	30	.5	--	.2	--
263	02301798	7	.1	--	.1	--
	Sixmile Creek Tributary #5 near Tampa	30	.1	--	.1	--
264	02302260	7	3.4	--	.9	--
	Itchepakesassa Creek near Knights	30	6.3	--	1.5	--
265	02303130	1	0	0	0	0
	Busy Branch near Zephyrhills	3	0	0	0	0
		7	0	0	0	0
		14	0	0	0	0
		30	0	0	0	0
		60	.2	0	0	0
		90	.3	0	0	0

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
265	02303130	120	0.5	0	0	0
	Busy Branch near Zephyrhills	183	.9	.1	0	0
266	02303183	7	5.4	--	3.8	--
	Mill Creek at Thonotosassa Road near Plant City	30	7.7	--	4.2	--
267	02303188	7	5.5	--	4.8	--
	Mill Creek at Forbes Road near Plant City	30	6.6	--	4.9	--
268	02303200	1	3.2	1.5	.8	.3
	Pemberton Creek near Dover	3	3.3	1.6	.9	.4
		7	3.5	1.7	1.0	.5
		14	3.8	2.0	1.2	.6
		30	4.4	2.4	1.6	.8
		60	5.5	3.0	2.0	1.3
		90	6.7	3.8	2.6	1.8
		120	8.3	4.6	3.2	2.3
		183	12.0	6.4	4.7	3.5
269	02303254	7	3.2	--	.7	--
	Baker Creek Tributary Canal at U.S. Highway 92 near Seffner	30	6.8	--	1.2	--
270	02303271	1	5.9	3.4	2.2	.8
	Baker Creek near Thonotosassa	3	6.5	3.9	2.5	1.2
		7	7.7	4.8	3.2	1.5
		14	9.3	5.4	3.3	1.6
		30	12.0	7.2	4.5	2.6
		60	13.0	8.7	6.7	5.2
		90	14.0	11.0	9.1	8.0
		120	16.0	13.0	11.0	10.0
		183	20.0	15.0	13.0	12.0
271	02303344	7	0	--	0	--
	Trout Creek Tributary near Worthington Gardens	30	0	--	0	--
272	02303358	7	0	--	0	--
	Cypress Creek near Darby	30	0	--	0	--
273	02303990	1	.2	.1	0	0
	Cow House Creek near Temple Terrace	3	.3	.1	0	0
		7	.4	.2	.1	0
		14	.6	.2	.1	0
		30	.9	.4	.1	0

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
273	02303990	60	1.1	0.5	0.3	0.2
	Cow House Creek near Temple Terrace	90	1.3	.8	.6	.4
		120	1.7	1.0	.8	.7
		183	2.7	1.5	1.2	.9
274	02305800	1	0	0	0	0
	Drainage ditch at Florida Avenue	3	0	0	0	0
	and Atlantic Boulevard near	7	0	0	0	0
	Sulphur Springs	14	0	0	0	0
		30	0	0	0	0
		60	0	0	0	0
		90	0	0	0	0
		120	0	0	0	0
		183	0	0	0	0
275	02306717	7	0	--	0	--
	Rocky Creek near Lutz	30	0	--	0	--
276	02306770	7	.1	--	.1	--
	Rocky Creek at Citrus Park	30	.1	--	.1	--
277	02306774	7	0	--	0	--
	Rocky Creek at State Road 587, Citrus Park	30	0	--	0	--
278	02306904	7	.3	--	.1	--
	Brushy Creek near Sulphur Springs	30	.6	--	.1	--
279	02306927	7	0	--	0	--
	Brushy Creek Tributary near Citrus Park	30	0	--	0	--
280	02306950	1	0	0	0	0
	Brushy Creek near Citrus Park	3	0	0	0	0
		7	0	0	0	0
		14	0	0	0	0
		30	0	0	0	0
		60	0	0	0	0
		90	0	0	0	0
		120	0	0	0	0
		183	0	0	0	0
281	02307027	7	--	--	0	--
	Double Branch Tributary Canal near Oldsmar	30	--	--	0	--
282	02307181	7	0	--	0	--
	Brooker Creek near Lutz	30	0	--	0	--

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
283	02307537	1	0	0	0	0
	South Fork Bishop Creek near	3	0	0	0	0
	Oldsmar	7	0	0	0	0
		14	0	0	0	0
		30	0	0	0	0
		60	0	0	0	0
		90	0	0	0	0
		120	0	0	0	0
		183	.1	0	0	0
284	02307688	7	.1	--	0	--
	Alligator Creek Tributary at	30	.1	--	.1	--
	Safety Harbor					
285	02309258	1	.8	.5	.3	.2
	Stevenson Creek at Clearwater	3	.8	.5	.4	.2
		7	.9	.6	.4	.3
		14	.9	.6	.4	.3
		30	1.1	.7	.4	.3
		60	1.3	.9	.8	.7
		90	1.5	1.1	.9	.8
		120	1.7	1.2	1.0	.9
		183	2.3	1.6	1.3	1.2
286	02309421	1	.5	.3	.2	.2
	Curlew Creek near Ozona	3	.5	.3	.2	.2
		7	.5	.4	.3	.2
		14	.6	.4	.3	.2
		30	.7	.4	.3	.2
		60	.8	.6	.5	.4
		90	1.0	.7	.5	.4
		120	1.2	.8	.6	.5
		183	1.6	1.1	.9	.8
287	02309648	1	0	0	0	0
	Anclote River near Fivay Junction	3	0	0	0	0
		7	0	0	0	0
		14	0	0	0	0
		30	0	0	0	0
		60	0	0	0	0
		90	0	0	0	0
		120	.1	0	0	0
		183	1.1	.1	0	0

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
288	02309900	7	0	--	0	--
	South Branch Anclote River at Odessa	30	0	--	0	--
289	02310150	1	.2	.2	.2	.2
	Hollin Creek Tributary near	3	.2	.2	.2	.2
	Tarpon Springs	7	.2	.2	.2	.2
		14	.2	.2	.2	.2
		30	.3	.2	.2	.2
		60	.3	.3	.3	.2
		90	.3	.3	.3	.2
		120	.4	.3	.3	.2
		183	.7	.4	.3	.3
290	02310224	7	0	--	0	--
	Sparkman Lake outlet near	30	0	--	0	--
	Masaryktown					
291	02310280	1	.1	0	0	0
	Pithlachascotee River near	3	.1	0	0	0
	Fivay Junction	7	.1	0	0	0
		14	.1	.1	0	0
		30	.2	.1	.1	0
		60	.3	.1	.1	0
		90	.6	.2	.1	0
		120	1.0	.4	.2	.1
		183	2.1	1.0	.6	.4
292	02310285	1	0	0	0	0
	Fivemile Creek near Fivay Junction	3	0	0	0	0
		7	0	0	0	0
		14	0	0	0	0
		30	0	0	0	0
		60	0	0	0	0
		90	0	0	0	0
		120	.1	0	0	0
		183	.3	.1	0	0
293	02310787	7	--	--	0	--
	Withlacoochee River near Poyner	30	--	--	0	--
294	02310912	7	--	--	0	--
	Pony Creek near Poyner	30	--	--	0	--
295	02310931	7	0	--	0	--
	Withlacoochee River near Rock Ridge	30	0	--	0	--

Footnotes are at end of table.

Site[1/]	Station number and name	Period of consecutive days	Lowest average flow, in cubic feet per second, for indicated recurrence interval, in years			
			2	5	10	20
296	02310944	7	0	--	0	--
	Withlacoochee River at Cedar Ford near Cumpressco	30	0	--	0	--
297	02310995	7	0	--	0	--
	Gator Creek near Richland	30	0	--	0	--
298	02311890	7	0	--	0	--
	Gator Hole Slough near Lacoochee	30	--	--	0	--
299	02312145	7	0	--	0	--
	Mill Creek near Carters Island	30	--	--	0	--
300	02312726	7	--	--	0	--
	Rutland Creek near Rutland	30	--	--	0	--
301	02313215	7	.1	--	.1	--
	Turner Creek near Dunnellon	30	.1	--	.1	--
302	02313220	7	.1	--	0	--
	Bell Branch near Dunnellon	30	.1	--	.1	--
303	02313260	7	0	--	0	--
	Withlacoochee River Tributary near Inglis	30	--	--	0	--
304	02313448	7	--	--	0	--
	Little Waccasassa River near Bronson	30	--	--	0	--
305	02313522	7	--	--	0	--
	Magee Branch near Bronson	30	--	--	0	--
306	02313614	7	59	--	57	--
	Wekiva River at Coulter Bridge near Gulf Hammock	30	61	--	58	--
307	02314098	7	.3	--	.2	--
	Cow Creek near Gulf Hammock	30	.4	--	.3	--
308	02314134	7	0	--	0	--
	Sand Slough near Lebanon Station	30	0	--	0	--
309	02314170	7	0	--	0	--
	Tenmile Creek near Dunnellon	30	--	--	0	--

[1/] From figures 5 and 6.

[2/] No acceptable correlation could be found for site 203.

Discharge Measurements at Low-Flow Partial-Record and Miscellaneous Discharge-Measurement Stations, 1980-81

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
201	Daisey Creek near Fort McCoy (02240105) Latitude: 29°18'54" Longitude: 81°58'23" In Marion County at State Highway 315, 2.4 miles northeast of Burbank, 3.4 miles south of Fort McCoy, and 3.5 miles upstream from mouth.	11-07-80 4-23-81 6-05-81 10-08-81	0.15 0.00 0.00 [2/] 0.01
202	Lochloosa Creek at Grove Park (02241900) Latitude: 29°36'00" Longitude: 82°08'42" In Alachua County near right bank on downstream side of bridge on State Highway 20, 1.0 mile east of Grove Park, and 3.6 miles west of Hawthorne.	11-07-80 4-23-81 6-05-81 10-08-81	0.00 0.01 0.00 0.00
203	North Prong Alligator Creek near Punta Gorda (02293390) Latitude: 26°53'41" Longitude: 81°58'31" In Charlotte County at bridge on county road, 0.8 mile above mouth, and 4.4 miles southeast of Punta Gorda.	4-22-80 5-20-80 10-21-80 6-02-81	1.64 0.88 3.28 0.67
204	Lake Garfield outlet near Alturas (02294114) Latitude: 27°54'58" Longitude: 81°43'56" In Polk County at culvert on State Highway 60, 3.3 miles north of Alturas.	4-23-80 6-19-80 10-28-80 6-02-81	0.01 0.56 0.00 0.00
205	Lake Parker Tributary near Lakeland (02294230) Latitude: 28°05'40" Longitude: 81°57'10" In Polk County at culvert on State Highway 33, 3.5 miles north of Lakeland.	4-21-80 6-06-80 10-28-80 4-21-81 6-01-81 10-20-81	0.12 0.11 0.02 0.00 0.02 0.06
206	Lake Parker Tributary #2 near Lakeland (02294238) Latitude: 28°04'53" Longitude: 81°57'12" In Polk County at culvert on State Highway 33, 2.6 miles north of Lakeland.	4-21-80 6-06-80 10-28-80 4-21-81 6-01-81 10-20-81	1.36 1.07 0.48 0.38 2.41 0.69
207	Bowlegs Creek near Fort Meade (02295013) Latitude: 27°41'57" Longitude: 81°41'40" In Polk County on left bank, 330 feet upstream from culverts on county road, 2.1 miles downstream from Boggy Branch, and 7.6 miles southeast of Fort Meade.	4-21-80 6-19-80 10-29-80 4-21-81 6-02-81 10-20-81	5.55 1.72 1.71 1.10 0.69 1.90

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
208	Bowlegs Creek at Pisgah Road near Fort Meade (02295067) Latitude: 27°43'15" Longitude: 81°47'20" In Polk County at culvert on county road, 2.2 miles southeast of Fort Meade.	4-21-80 6-19-80 10-29-80 4-21-81 6-02-81 10-20-81	11.20 9.06 9.66 12.00 0.24 3.92
209	Payne Creek near Fort Green Springs (02295356) Latitude: 27°36'38" Longitude: 81°52'17" In Hardee County at bridge on county road, 4.6 miles east of Fort Green Springs.	4-21-80 6-11-80 10-29-80 4-21-81 6-01-81 10-19-81	63.60 13.20 19.60 17.80 17.50 10.00
210	Hog Branch near Wauchula (02295435) Latitude: 27°35'32" Longitude: 81°49'20" In Hardee County at culvert on U.S. Highway 17, 1.7 miles above mouth and 3.1 miles north of Wauchula.	4-21-80 6-11-80 10-29-80 6-01-81	0.22 0.02 0.03 [2/] 0.01
211	Little Charlie Creek near Wauchula (02295557) Latitude: 27°35'15" Longitude: 81°46'17" In Hardee County at bridge on county road, 3.7 miles northeast of Wauchula.	4-21-80 6-11-80 10-29-80 4-21-81 6-02-81 10-20-81	2.53 0.47 0.36 0.27 0.16 0.93
212	Charlie Creek near Avon Park (02296049) Latitude: 27°33'53" Longitude: 81°38'17" In Hardee County at bridge on State Highway 64, 8.5 miles west of Avon Park.	4-22-80 6-11-80 10-29-80 4-22-81 6-02-81 10-20-81	14.70 0.00 0.00 0.00 0.00 0.01
213	Little Charley Bowlegs Creek near Crewsville (02296180) Latitude: 27°25'48" Longitude: 81°33'04" In Highlands County near center of span on downstream side of county bridge, 2.1 miles east of Crewsville and 2.3 miles upstream from Highlands Hammock State Park south fence line.	4-22-80 6-11-80 10-30-80 4-22-81 6-02-81 10-19-81	4.86 0.00 0.15 0.00 0.00 0.31
214	Haw Branch near Sebring (02296201) Latitude: 27°27'49" Longitude: 81°31'54" In Highlands County at culvert on South Fence Line Road in Highlands Hammock State Park, 6.0 miles west of Sebring.	4-22-80 6-11-80 10-30-80 6-02-81	0.52 0.00 0.28 0.00

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
215	Tiger Branch near Sebring (02296215) Latitude: 27°28'36" Longitude: 81°31'53" In Highlands County at culvert on Office Road in Highlands Hammock State Park, 5.7 miles west of Sebring.	4-22-80 6-11-80 10-30-80 6-02-81	0.96 0.57 1.47 0.32
216	Charlie Creek near Crewsville (02296260) Latitude: 27°27'33" Longitude: 81°40'43" In Hardee county, center of bridge on State Highway 66, 6.9 miles east of Zolfo Springs, 7.1 miles west of Crewsville, and 14.5 miles upstream from mouth.	4-22-80 6-11-80 10-30-80 4-22-81 6-02-81 10-19-81	113.00 1.59 1.61 0.06 0.08 3.65
217	Oak Creek near Gardner (02296389) Latitude: 27°24'42" Longitude: 81°41'44" In Hardee County at bridge on county road, 7.8 miles northeast of Gardner.	4-23-80 6-10-80 10-30-80 4-22-81 6-03-81 10-19-81	5.29 0.41 3.50 0.26 1.68 2.36
218	Charlie Creek near Zolfo Springs (02296408) Latitude: 27°24'33" Longitude: 81°44'46" In Hardee County at bridge on State Highway 634, 6.0 miles southeast of Zolfo Springs.	4-23-80 6-10-80 10-30-80 6-03-81	122.00 5.56 5.32 3.11
219	Joshua Creek near Arcadia (02297000) Latitude: 27°10'41" Longitude: 81°49'41" In De Soto County at bridge on State Highway 31, 3.2 miles southeast of Arcadia	4-23-80 5-21-80 10-22-80 4-21-81 10-14-81	6.89 0.35 1.18 0.06 4.75
220	Hawthorne Creek near Nocatee (02297090) Latitude: 27°09'27" Longitude: 81°51'43" In De Soto County at bridge on State Highway 760, 1.4 miles east of Nocatee.	4-23-80 5-21-80 10-22-80 4-21-81 10-14-81	1.78 0.88 1.13 0.82 4.71
221	Horse Creek near Fort Green Springs (02297147) Latitude: 27°35'41" Longitude: 82°01'49" In Hardee County at bridge on State Highway 62, 5.2 miles west of Fort Green Springs.	4-21-80 10-29-80 4-21-81 6-01-81 10-19-81	7.87 0.85 0.00 0.00 0.00
222	Horse Creek near Limestone (02297251) Latitude: 27°21'58" Longitude: 81°58'25" In Hardee County at bridge on State Highway 665, 4.5 miles west of Limestone.	4-23-80 6-10-80 10-30-80 4-22-81 6-03-81 10-19-81	43.80 6.14 1.65 0.14 6.56 8.67

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
223	Horse Creek near Pine Level (02297266) Latitude: 27°15'18" Longitude: 81°58'05" In De Soto County at bridge on State Highway 70, 1.6 miles southeast of Pine Level.	4-23-80 5-21-80 10-22-80 4-22-81 10-15-81	22.90 10.40 4.57 0.28 20.10
224	Lee Branch near Cleveland (02297444) Latitude: 27°01'20" Longitude: 81°57'32" In Charlotte County at culvert on U.S. Highway 17, 4.8 miles northeast of Cleveland.	4-22-80 5-20-80 10-21-80 4-21-81 6-02-81 10-14-81	0.21 0.42 0.73 0.14 0.52 0.27
225	Long Point Marsh near Arcadia (02297757) Latitude: 27°12'32" Longitude: 81°37'52" In De Soto County at culvert on State Highway 70, 14.0 miles east of Arcadia.	4-23-80 5-21-80 10-22-80 4-22-81 10-14-81	1.02 2.27 4.33 0.68 0.47
226	Myrtle Slough near Cleveland (02298245) Latitude: 26°56'48" Longitude: 81°56'03" In Charlotte County at bridge on State Highway 74, 6.6 miles east of Punta Gorda.	4-22-80 5-20-80 10-21-80 4-21-81 6-02-81 10-14-81	0.36 0.18 0.34 0.08 0.12 2.24
227	Broad Creek near Punta Gorda (02298285) Latitude: 26°55'34" Longitude: 82°00'52" In Charlotte County at bridge on county road, 2.3 miles east of Punta Gorda.	4-22-80 5-20-80 10-21-80 4-21-81 6-02-81 10-14-81	1.67 0.34 4.30 0.36 0.39 0.84
228	Myakka River near Myakka Head (02298458) Latitude: 27°27'35" Longitude: 82°06'40" In Manatee County at bridge on State Highway 64, 2.2 miles west of Myakka Head and 8.2 miles northeast of Myakka City.	4-21-80 6-05-80 10-27-80 4-20-81 6-01-81 10-15-81	0.21 0.00 0.00 0.00 0.00 0.41
229	Ogleby Creek near Myakka City (02298523) Latitude: 27°22'47" Longitude: 81°14'08" In Manatee County at culvert on State Highway 70, 4.8 miles northwest of Myakka City.	4-24-80 5-21-80 10-22-80 4-22-81 6-02-81 10-15-81	0.19 0.00 0.81 0.00 0.00 0.59

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
230	Myakka River Tributary near Venice (02298970) Latitude: 27°05'28" Longitude: 82°20'19" In Sarasota County at culvert on county road, 6.5 miles east of Venice.	4-22-80 5-20-80 10-21-80 4-20-81 6-01-81 10-13-81	0.57 0.53 3.30 0.33 0.12 1.62
231	Deer Prairie Creek near Warm Mineral Springs (02299188) Latitude: 27°05'55" Longitude: 82°16'18" In Sarasota County at Interstate Highway 75, 2.3 miles north of Warm Mineral Springs and 3.5 miles upstream from mouth.	10-23-80 4-20-81 6-01-81 10-13-81	2.97 0.09 0.03 10.70
232	Cocoplum Waterway Tributary near Murdock (02299350) Latitude: 27°05'49" Longitude: 82°10'56" In Sarasota County at Interstate Highway 75, 5.5 miles northeast of North Port Charlotte, 5.1 miles upstream from mouth, and 6.2 miles northeast of Murdock.	10-23-80 4-20-81 6-01-81 10-13-81	0.79 0.18 0.18 3.63
233	Big Slough Canal near Myakka City (02299410) Latitude: 27°11'35" Longitude: 82°08'40" In Sarasota County at bridge on State Highway 72, 0.6 mile upstream from Mud Lake Slough and 11 miles south of Myakka City.	4-24-80 5-21-80 10-22-80 4-21-81 10-15-81	0.73 0.09 0.64 0.04 8.99
234	Mud Lake Slough near Myakka City (02299420) Latitude: 27°11'34" Longitude: 82°09'22" In Sarasota County at State Highway 72, 0.5 mile upstream from mouth and 11 miles south of Myakka City.	4-24-80 5-21-80 10-22-80 4-21-81 10-15-81	0.64 0.00 0.15 0.00 7.16
235	Cow Pen Slough near Venice (02299721) Latitude: 27°09'32" Longitude: 82°24'04" In Sarasota County at county road, 1.2 miles upstream from mouth and 3.8 miles northeast of Laurel.	4-21-80 5-19-80 10-20-80 4-20-81 6-01-81 10-13-81	0.16 0.10 1.27 0.09 0.06 0.13
236	Salt Creek Tributary near Venice (02299724) Latitude: 27°09'33" Longitude: 82°24'48" In Sarasota County at county road, 0.9 mile upstream from mouth and 3.2 miles northeast of Laurel.	4-21-80 5-08-80 5-19-80 10-20-80 4-20-81 6-01-81 10-13-81	0.05 0.01 0.01 0.16 0.01 0.00 0.05

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
237	Fox Creek near Laurel (02299728) Latitude: 27°09'54" Longitude: 82°25'43" In Sarasota County 0.6 mile above bridge on private road, 2.5 miles northeast of Laurel.	4-21-80 5-19-80 10-20-80 6-01-81	1.75 1.58 0.18 0.00
238	South Creek near Osprey (02299738) Latitude: 27°10'32" Longitude: 82°27'30" In Sarasota County at Seaboard Coast Line Railroad bridge, 2.4 miles southeast of Osprey.	5-08-80 5-19-80 10-21-80 6-01-81	1.61 1.10 1.58 1.05
239	Main-B Canal at Sarasota (02299795) Latitude: 27°20'14" Longitude: 82°29'50" In Sarasota County at bridge on State Highway 780 (Fruitville Road) in Sarasota.	4-25-80 10-24-80	3.80 4.81
240	Walker Creek at Sarasota (02299861) Latitude: 27°22'03" Longitude: 82°32'40" In Sarasota County at bridge on 38th Street about 1.1 miles east of Tamiami Trail, Sarasota.	4-24-80 10-24-80 4-22-81 6-02-81 10-15-81	1.85 1.90 0.66 0.90 1.79
241	Bolees Creek at Oneco (02299869) Latitude: 27°27'03" Longitude: 82°32'40" In Manatee County at bridge on 51st Avenue East, about 0.2 mile east of the intersection of U.S. Highway 301 and State Highway 70, Oneco.	4-24-80 10-24-80 4-22-81 6-02-81 10-15-81	0.40 0.36 0.04 0.03 0.17
242	North Fork Manatee River near Myakka City (02299920) Latitude: 27°31'50" Longitude: 82°10'19" In Manatee County at bridge on private road, 12.7 miles north of Myakka City.	4-22-80 6-05-80 10-29-80 4-21-81 6-03-81 10-16-81	1.78 0.00 0.34 0.02 6.18 2.40
243	East Fork Manatee River near Myakka City (02299935) Latitude: 27°32'19" Longitude: 82°06'14" In Manatee County at bridge on State Highway 39, 13.6 miles north of Myakka City.	4-23-80 6-05-80 10-27-80 4-20-81 6-01-81 10-15-81	5.77 2.61 1.96 2.89 2.14 4.21
244	Gilley Creek near Rye (02300004) Latitude: 27°30'41" Longitude: 82°17'15" In Manatee County at bridge on private road, 2.1 miles east of State Highway 675 and 4.8 miles east of Rye.	4-22-80 6-04-80 10-27-80 4-20-81 6-01-81 10-15-81	1.18 0.55 0.49 0.18 0.22 0.99

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
245	Gamble Creek near Parrish (02300018) Latitude: 27°33'11" Longitude: 82°23'24" In Manatee County at bridge on Rye Road, 3.3 miles southeast of Parrish.	4-22-80 6-04-80 10-28-80 4-20-81 6-01-81 10-16-81	10.50 4.12 10.40 8.15 6.63 9.86
246	Braden River at Lorraine (02300029) Latitude: 27°25'04" Longitude: 82°23'58" In Manatee County on private road, 1.0 mile south of Lorraine and 16.1 miles upstream from mouth.	4-24-80 10-24-80 4-22-81 6-02-81 10-15-81	1.24 1.88 0.00 0.00 0.62
247	Frog Creek near Terra Ceia (02300078) Latitude: 27°34'50" Longitude: 82°31'39" In Manatee County at bridge on State Highway 683, 3.3 miles east of Terra Ceia.	4-22-80 6-04-80 10-28-80 4-21-81 6-02-81 10-16-81	5.33 3.37 5.03 5.29 2.06 6.11
248	Pierce Branch near Wimauma (02300120) Latitude: 27°42'17" Longitude: 82°13'48" In Hillsborough County near right bank on downstream side of bridge on State Highway 674, 0.9 mile upstream from mouth and 4.4 miles east of Wimauma.	6-20-80 10-30-80 4-22-81 6-03-81 10-19-81	1.08 1.80 0.67 0.76 3.13
249	South Fork Little Manatee River near Duette (02300200) Latitude: 27°35'25" Longitude: 82°10'57" In Manatee County at bridge on county road, 0.5 mile above Graveyard Creek, 3.7 miles west of Duette, and 10.8 miles southeast of Willow.	4-23-80 6-05-80 10-29-80 6-02-81 10-16-81	1.01 0.61 0.30 15.06 1.46
250	South Fork Little Manatee River near Wimauma (02300300) Latitude: 27°38'57" Longitude: 82°17'40" In Hillsborough County at bridge on State Highway 579, 4.3 miles south of Wimauma.	4-23-80 6-05-80 10-29-80 4-22-81 10-19-81	13.90 11.90 6.07 5.37 11.40
251	North Prong Alafia River at Mulberry (02300852) Latitude: 27°53'21" Longitude: 81°58'25" In Polk County at bridge on State Highway 37, 0.4 mile south of Mulberry.	4-21-80 6-13-80 11-04-80 4-20-81 6-01-81 10-19-81	25.00 38.70 27.90 6.41 7.47 13.40

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
252	Lake Drain near Mulberry (02300907) Latitude: 27°57'30" Longitude: 81°58'24" In Polk County at culvert on county road, 0.6 mile south of Medulla and 4.4 miles north of Mulberry.	4-21-80 6-13-80 11-05-80 4-20-81 6-01-81 10-19-81	0.55 1.61 0.83 0.20 0.05 0.50
253	Poley Creek near Mulberry (02300930) Latitude: 27°55'23" Longitude: 82°01'50" In Polk County at bridge on State Highway 60, 4.0 miles northwest of Mulberry.	4-22-80 6-13-80 11-05-80 4-20-81 6-01-81 10-19-81	3.36 6.81 2.20 0.24 0.04 1.49
254	English Creek near Mulberry (02300978) Latitude: 27°55'36" Longitude: 82°03'56" In Polk County at bridge on State Highway 60, 5.8 miles northeast of Mulberry.	4-22-80 6-13-80 11-05-80 4-20-81 6-01-81 10-19-81	5.00 8.60 3.29 0.61 0.00 4.17
255	South Prong Alafia River near Bradley Junction (02301070) Latitude: 27°46'01" Longitude: 81°59'29" In Polk County at bridge on State Highway 37, 2.0 miles south of Bradley Junction.	4-21-80 6-13-80 11-04-80 4-20-81 6-01-81 10-19-81	15.80 3.07 3.01 0.00 0.00 3.96
256	Mizelle Creek near Keysville (02301314) Latitude: 27°50'14" Longitude: 82°05'17" In Hillsborough County on right bank, 10 feet downstream from bridge on county road, 1.7 miles upstream from mouth, 2.0 miles south of Keysville, and 3.6 miles southeast of Pinecrest.	4-21-80 6-03-80 10-30-80 4-22-81 6-04-81 10-19-81	1.74 2.44 3.22 0.16 0.07 1.05
257	Alafia River near Keysville (02301328) Latitude: 27°51'58" Longitude: 82°08'38" In Hillsborough County at bridge on State Highway 39, 3.0 miles west of Keysville.	4-21-80 4-23-81 6-04-81 10-20-81	210.00 37.00 63.10 95.17
258	Little Alafia River at Durant (02301376) Latitude: 27°53'54" Longitude: 82°11'13" In Hillsborough County, 0.7 mile south of Durant, 50 feet from abutment on downstream side of railroad bridge, and 150 feet upstream from small left bank tributary.	4-21-80 6-03-80 11-03-80 4-23-81 6-04-81 10-20-81	5.70 7.21 3.49 0.74 0.69 1.03

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
259	Fishhawk Creek near Boyette (02301620) Latitude: 27°49'22" Longitude: 82°12'13" In Hillsborough County at bridge on county road, 1.2 miles east of Boyette.	4-21-80 6-03-80 11-03-80 4-23-81 6-04-81 10-20-81	2.80 3.41 1.14 0.00 0.00 4.24
260	Bell Creek near Boyette (02301680) Latitude: 27°51'12" Longitude: 82°16'27" In Hillsborough County at bridge on county road, 1.0 mile above mouth and 4.0 miles northwest of Boyette.	4-21-80 6-03-80 11-03-80 4-23-81 6-04-81 10-14-81	2.58 1.75 0.43 0.16 0.02 1.40
261	Sixmile Creek Tributary #3 near Tampa (02301787) Latitude: 27°58'42" Longitude: 82°20'07" In Hillsborough County at bridge on Faulkenberg Road, 7.8 miles east of Tampa and 1.25 miles south of U.S. Highway 92.	4-22-80 6-09-80 11-12-80 4-21-81 6-04-81 10-20-81	0.76 0.35 0.03 [2/] 0.06 0.00 0.98
262	Sixmile Creek Tributary #4 near Tampa (02301794) Latitude: 27°58'52" Longitude: 82°22'10" In Hillsborough County at culvert on Buffalo Avenue, 0.25 mile east of Orient Road and 5.9 miles east of Tampa.	4-24-80 6-09-80 11-12-80 4-21-81 6-05-81 10-22-81	1.07 0.29 0.02 0.08 0.20 0.00
263	Sixmile Creek Tributary #5 near Tampa (02301798) Latitude: 27°58'01" Longitude: 82°22'17" In Hillsborough County at culvert on 76th Street, 0.15 mile north of State Highway 574 and 5.5 miles east of Tampa.	4-24-80 6-09-80 11-12-80 4-21-81 10-22-81	0.24 0.01 0.00 0.00 0.18
264	Itchepackesassa Creek near Knights (02302260) Latitude: 28°04'49" Longitude: 82°04'24" In Hillsborough County at left bank on State Highway 582, 3.9 miles east of Knights and 6.0 miles upstream from mouth.	4-21-80 6-06-80 10-31-80 4-21-81 10-20-81	6.85 3.80 6.28 0.63 2.78
265	Busy Branch near Zephyrhills (02303130) Latitude: 28°08'48" Longitude: 82°16'48" In Pasco County at bridge on Morris Bridge Road, 8.6 miles southwest of Zephyrhills.	4-11-80 4-23-80 6-06-80 10-31-80 4-22-81 6-04-81 10-14-81	4.21 1.56 0.00 0.00 0.00 0.00 0.06

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
266	Mill Creek at Thonotosassa Road near Plant City (02303183) Latitude: 28°02'08" Longitude: 82°09'51" In Hillsborough County near center of span on downstream side of log foot bridge, 200 feet below bridge on Thonotosassa Road, 1 mile northwest of Interstate Highway 4 and State Highway 600 interchange, and 2.7 miles northwest of Plant City.	4-22-80 6-09-80 11-06-80 4-21-81 6-05-81 10-20-81	9.51 4.10 4.61 8.05 4.09 5.58
267	Mill Creek at Forbes Road near Plant City (02303188) Latitude: 28°01'50" Longitude: 82°11'14" In Hillsborough County near center of span on downstream side of bridge on Forbes Road, 0.3 mile north of Interstate Highway 4 interchange, 0.2 mile upstream from confluence with Spartman Branch, and 3.9 miles east of Plant City.	4-15-80 4-22-80 6-09-80 11-06-80 4-21-81 6-05-81 10-20-81	14.20 8.95 3.82 4.47 6.91 3.86 4.99
268	Pemberton Creek near Dover (02303200) Latitude: 28°01'34" Longitude: 82°14'12" In Hillsborough County on county highway bridge, 1.8 miles upstream from Baker Creek, 2.5 miles northwest of Dover, and 7.1 miles upstream from mouth.	4-22-80 6-09-80 11-06-80 6-05-81	13.02 4.92 3.98 3.40
269	Baker Creek Tributary Canal at U.S. Highway 92 near Seffner (02303254) Latitude: 28°00'47" Longitude: 82°15'25" In Hillsborough County near center of span on downstream side of bridge on U.S. Highway 92, 1.4 miles upstream from Baker Creek and 2.4 miles northeast of Seffner.	4-22-80 6-09-80 11-12-80 4-21-81 6-04-81 10-20-81	7.20 2.32 0.00 0.00 0.00 9.17
270	Baker Creek near Thonotosassa (02303271) Latitude: 28°02'52" Longitude: 82°16'04" In Hillsborough County near center span on downstream side of bridge on State Highway 580, 0.3 mile upstream from Lake Thonotosassa, 1.6 miles southeast of Thonotosassa, and 4.4 miles upstream from Hillsborough River.	4-22-80 6-09-80 11-06-80	22.50 7.92 3.96
271	Trout Creek Tributary near Worthington Gardens (02303344) Latitude: 28°12'54" Longitude: 82°23'24" In Pasco County on left downstream wing wall of box culverts on State Highway 54, 1.9 miles northeast of Worthington Gardens.	4-23-80 6-05-80 10-29-80 4-22-81 6-04-81 10-14-81	0.00 0.00 0.00 0.00 0.00 0.00

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
272	Cypress Creek near Darby (02303358) Latitude: 28°22'32" Longitude: 82°19'47" In Pasco County at bridge on State Highway 578, 2.0 miles northeast of Darby, 2.6 miles above Bee Tree Branch, and 4.3 miles northwest of San Antonio.	4-25-80 6-03-80 10-29-80 6-03-81	0.38 0.81 0.01 0.00
273	Cow House Creek near Temple Terrace (02303990) Latitude: 28°03'30" Longitude: 82°21'10" In Hillsborough County near left bank at bridge on Morris Bridge Road, 1 mile upstream from mouth and 2.7 miles northeast of Temple Terrace.	4-11-80 4-24-80 6-06-80 10-31-80 6-04-81	3.72 1.25 0.00 0.00 0.00
274	Drainage ditch at Florida Avenue and Atlantic Boulevard near Sulphur Springs (02305800) Latitude: 28°03'55" Longitude: 82°27'34" In Hillsborough County at upstream headwall of culvert at Florida Avenue and Atlantic Boulevard (131st Street), 3 miles north of Sulphur Springs.	4-23-80 6-06-80 10-29-80 4-22-81 10-14-81	0.68 0.31 0.06 0.00 0.12
275	Rocky Creek near Lutz (02306717) Latitude: 28°09'25" Longitude: 82°30'26" In Hillsborough County at culvert on Lutz-Lake Fern Road, 3.4 miles west of Lutz.	4-22-80 6-05-80 10-29-80 4-23-81 6-03-81 10-16-81	3.33 0.01 0.10 0.00 0.00 0.08
276	Rocky Creek at Citrus Park (02306770) Latitude: 28°04'42" Longitude: 82°33'55" In Hillsborough County at bridge on Ehrlich Road, 0.3 mile east of Seaboard Coast Line Railroad and 0.5 mile east of Citrus Park.	4-23-80 6-05-80 10-28-80 4-23-81 6-04-81	18.60 0.45 0.00 0.00 0.00
277	Rocky Creek at State Highway 587, Citrus Park (02306774) Latitude: 28°03'55" Longitude: 82°33'57" In Hillsborough County at bridge on State Highway 587, 0.9 mile south of Citrus Park.	4-23-80 6-05-80 10-28-80 4-23-81 6-04-81 10-15-81	19.00 0.80 0.31 0.24 0.16 2.43
278	Brushy Creek near Sulphur Springs (02306904) Latitude: 28°05'04" Longitude: 82°31'00" In Hillsborough County at bridge on Ehrlich Road, 2.4 miles west of Lake Magdalene and 5.7 miles northwest of Sulphur Springs.	4-22-80 6-05-80 10-31-80 4-23-81 10-16-81	1.85 0.21 0.32 0.09 0.46

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
279	Brushy Creek Tributary near Citrus Park (02306927) Latitude: 28°04'53" Longitude: 82°32'43" In Hillsborough County at bridge on Ehrlich Road, 1.5 miles east of Seaboard Coast Line Railroad and 1.7 miles east of Citrus Park.	4-22-80 6-05-80 10-28-80 4-23-81 6-04-81 10-16-81	0.19 0.00 0.00 0.00 0.00 0.00
280	Brushy Creek near Citrus Park (02306950) Latitude: 28°03'53" Longitude: 82°33'20" In Hillsborough County at bridge on State Highway 587, 1.6 miles east of State Highway 589 and 1.3 miles southeast of Citrus Park.	4-23-80 6-05-80 10-28-80 4-23-81 6-04-81 10-15-81	3.24 1.59 2.62 0.44 4.77 0.98
281	Double Branch Tributary Canal near Oldsmar (02307027) Latitude: 28°04'27" Longitude: 82°37'34" In Hillsborough County at Racetrack Road, 1.6 miles upstream from mouth and 3.4 miles northeast of Oldsmar.	10-31-80 4-23-81 6-04-81 10-13-81	0.18 0.00 0.00 0.30
282	Brooker Creek near Lutz (02307181) Latitude: 28°09'31" Longitude: 82°32'54" In Hillsborough County at culvert on Lutz-Lake Fern Road, 5.3 miles west of Lutz.	4-22-80 6-05-80 10-29-80 4-23-81 6-03-81 10-16-81	0.90 0.00 0.00 0.00 0.00 0.00
283	South Fork Bishop Creek near Oldsmar (02307537) Latitude: 28°00'56" Longitude: 82°41'42" In Pinellas County on downstream side near center of railroad culverts, 0.6 mile upstream from North Fork Bishop Creek, 2.0 miles southwest of Oldsmar Post Office, and 1.0 mile upstream from mouth.	4-21-80 5-29-80 10-27-80 4-24-81 6-02-81 10-21-81	0.35 0.39 0.08 0.07 0.07 0.15
284	Alligator Creek Tributary at Safety Harbor (02307688) Latitude: 27°58'56" Longitude: 82°42'27" In Pinellas County at bridge on State Highway 590, 0.1 mile east of State Highway 593 and 0.8 mile southwest of Safety Harbor.	4-21-80 5-29-80 10-27-80 4-24-81 6-02-81 10-21-81	0.19 0.38 0.01 0.04 0.03 [2/] 0.01
285	Stevenson Creek at Clearwater (02309258) Latitude: 27°58'19" Longitude: 82°46'54" In Pinellas County at Seaboard Coast Line Railroad bridge on Clearwater Country Club golf course, 0.2 mile north of Drew Street and 0.3 mile west of Highland Avenue.	4-21-80 6-02-80 10-27-80 4-23-81 6-02-81 10-16-81	3.36 1.76 1.73 0.99 1.21 1.80

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
286	Curlew Creek near Ozona (02309421) Latitude: 28°02'24" Longitude: 82°44'51" In Pinellas County at culverts on county road, 0.7 mile upstream from Jerry Branch and 2.8 miles southeast of Ozona.	4-21-80 6-02-80 10-28-80 6-02-81	4.44 3.65 3.22 1.80
287	Anclote River near Fivay Junction (02309648) Latitude: 28°15'23" Longitude: 82°31'58" In Pasco County at timber bridge on ranch road, 1.1 miles downstream from small tributary, 4.8 miles south of Fivay Junction, and 5.7 miles northeast of Odessa.	4-25-80 10-30-80	2.13 0.00
288	South Branch Anclote River at Odessa (02309900) Latitude: 28°12'15" Longitude: 82°35'42" In Pasco County at timber bridge on ranch road, 0.7 mile north of Odessa and 1.7 miles upstream from mouth.	4-23-80 6-02-80 10-30-80	2.49 0.00 0.00
289	Hollin Creek Tributary near Tarpon Springs (02310150) Latitude: 28°09'48" Longitude: 82°42'46" In Pinellas County at culverts on county road, 1,000 feet downstream from Seaboard Coast Line Railroad, 0.5 mile upstream from mouth, and 2.9 miles northeast of Tarpon Springs.	4-22-80 5-29-80 4-27-81 6-03-81 10-16-81	0.76 0.00 0.05 0.03 0.15
290	Sparkman Lake outlet near Masaryktown (02310224) Latitude: 28°27'23" Longitude: 82°22'14" In Hernando County near center of span on upstream side box culverts on State Highway 581, 0.3 mile north of Ares Road and 5.4 miles east of Masaryktown.	4-25-80 6-03-80 10-29-80 4-27-81 6-03-81 10-13-81	0.37 0.14 0.00 0.00 0.00 0.06
291	Pithlachascotee River near Fivay Junction (02310280) Latitude: 28°19'44" Longitude: 82°32'13" In Pasco County at bridge on State Highway 52, 1.2 miles west of Fivay Junction, 3.5 miles above Fivemile Creek, and 21 miles upstream from mouth.	4-24-80 5-02-80 6-03-80 7-07-80 9-03-80 10-30-80 1-09-81 6-03-81	2.52 0.30 0.24 0.37 1.79 0.29 0.75 0.00
292	Fivemile Creek near Fivay Junction (02310285) Latitude: 28°17'20" Longitude: 82°31'50" In Pasco County at concrete culverts on sand road, 0.2 mile downstream from small tributary, 2.5 miles upstream from mouth, and 2.5 miles south of Fivay Junction.	4-25-80 10-30-80	0.02 0.00

Footnotes are at end of table.

Site[1/]	Station name and location	Date	Discharge (ft^3/s)
293	Withlacoochee River near Poyner (02310787) Latitude: 28°18'21" Longitude: 81°47'36" In Polk County at culvert on private road, 2.8 miles southeast of Eva and 3.8 miles east of Poyner.	4-24-80 10-31-80 4-23-81 10-22-81	0.54 0.00 0.00 0.50
294	Pony Creek near Poyner (02310912) Latitude: 28°18'39" Longitude: 81°53'31" In Polk County near right bank on downstream side of bridge on Rock Ridge Road, 2.3 miles upstream from mouth and 2.4 miles west of Poyner.	6-20-80 10-31-80 4-23-81 10-21-81	0.02 0.00 0.00 0.74
295	Withlacoochee River near Rock Ridge (02310931) Latitude: 28°19'32" Longitude: 81°55'56" In Polk County at bridge on Tannic Road, 1.6 miles north of Rock Ridge and 6.0 miles west of Eva.	4-24-80 10-31-80 4-23-81 10-21-81	3.78 0.00 0.00 0.98
296	Withlacoochee River at Cedar Ford near Cumpressco (02310944) Latitude: 28°19'20" Longitude: 82°00'24" In Sumter County at Cedar Ford, 3.3 miles southeast of Cumpressco and 9.0 miles northeast of Richland.	4-24-80 10-31-80	4.94 0.00
297	Gator Creek near Richland (02310995) Latitude: 28°18'08" Longitude: 82°03'22" In Pasco County at bridge on State Highway 471, 0.3 mile above mouth and 5.6 miles east of Richland.	4-24-80 6-12-80	0.52 0.00
298	Gator Hole Slough near Lacoochee (02311890) Latitude: 28°27'12" Longitude: 82°05'08" In Pasco County on upstream side of bridge on Burn Bridge Road, 0.4 mile upstream from mouth and 7.0 miles southeast of Lacoochee.	4-25-80 6-12-80 11-05-80 4-23-81 10-21-81	0.19 0.00 0.00 0.00 0.00
299	Mill Creek near Carters Island (02312145) Latitude: 28°29'40" Longitude: 81°54'35" In Lake County at bridge on State Highway 565, 2.7 miles southeast of Carters Island.	4-25-80 6-12-80 11-05-80 4-23-81 10-22-81	0.00 0.00 0.00 0.00 0.00
300	Rutland Creek near Rutland (02312726) Latitude: 28°51'27" Longitude: 82°11'13" In Sumter County on State Highway 44, 1.6 miles east of Rutland.	11-05-80 4-27-81 6-08-81 10-06-81	11.00 1.39 0.00 0.00

Footnotes are at end of table.

Site[1]	Station name and location	Date	Discharge (ft^3/s)
301	Turner Creek near Dunnellon (02313215) Latitude: 29°02'46" Longitude: 82°31'18" In Marion County at State Highway 40, 1.5 miles above mouth and 4.1 miles west of Dunnellon.	11-06-80 4-28-81 6-04-81 10-07-81	0.08 0.02 0.00 0.03
302	Bell Branch near Dunnellon (02313220) Latitude: 29°03'22" Longitude: 82°32'02" In Marion County at State Highway 40, 0.3 mile upstream from mouth and 4.7 miles west of Dunnellon.	11-06-80 4-28-81 6-04-81 10-07-81	0.39 0.20 0.02 0.21
303	Withlacoochee River Tributary near Inglis (02313260) Latitude: 29°01'34" Longitude: 82°38'31" In Levy County at State Highway 40, 0.6 mile upstream from mouth and 1.7 miles east of Inglis.	11-06-80 4-28-81 6-04-81 10-07-81	0.11 0.00 0.00 0.00
304	Little Waccasassa River near Bronson (02313448) Latitude: 29°28'34" Longitude: 82°41'13" In Levy County at bridge on U.S. Highway Alternate 27, 2.8 miles upstream from mouth and 3.7 miles northwest of Bronson.	11-06-80 4-24-81 6-04-81 10-07-81	2.84 0.00 0.00 0.00
305	Magee Branch near Bronson (02313522) Latitude: 29°21'04" Longitude: 82°38'17" In Levy County at County Road 343, 6.6 miles south of Bronson and 7.4 miles upstream from mouth.	11-06-80 4-24-81 6-04-81 10-07-81	1.96 0.00 0.00 [2] 0.01
306	Wekiva River at Coulter Bridge near Gulf Hammock (02313614) Latitude: 29°16'41" Longitude: 82°41'15" In Levy County at Coulter Bridge, 2.9 miles northeast of Gulf Hammock.	11-06-80 4-24-81 6-04-81 10-07-81	61.80 58.00 58.20 57.90
307	Cow Creek near Gulf Hammock (02314098) Latitude: 29°12'37" Longitude: 82°41'50" In Levy County at bridge on U.S. Highway 19, 3.3 miles southeast of Gulf Hammock.	11-06-80 4-24-81 6-04-81 10-07-81	0.94 4.27 0.00 2.76
308	Sand Slough near Lebanon Station (02314134) Latitude: 29°11'17" Longitude: 82°41'01" In Levy County at bridge on U.S. Highway 19, 3.3 miles northwest of Lebanon Station.	11-06-80 4-24-81 6-04-81 10-07-81	0.01 1.89 0.00 0.01
309	Tenmile Creek near Dunnellon (02314170) Latitude: 29°06'27" Longitude: 82°33'27" In Levy County at State Highway 336, 1.7 miles southeast of Tidewater, 7.4 miles northwest of Dunnellon, and 7.7 miles upstream from mouth.	11-06-80 4-28-81 6-04-81 10-07-81	0.00 0.00 0.00 0.00

[1] From figures 5 and 6.
[2] Field estimate.

*GPO-85-548-898