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TECHNIQUES FOR ESTIMATING MAGNITUDE AND FREQUENCY OF FLOODS IN SOUTH CAROLINA

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Information is presented for estimating the magnitude and frequency of floods on streams in South Carolina. Flood-frequency characteristics for 151 gaging stations were related to basin characteristics by multiple regression techniques for each of four physiographic provinces. Equations were derived to estimate flood magnitudes at recurrence intervals ranging from 2 to 100 years on streams with drainage areas greater than 1.0 square mile. Examples demonstrate the procedure for computing flood-frequency discharge for sites on gaged and ungaged streams in South Carolina. Relationships of flood discharge and frequency to drainage area are presented for the main stem of major streams. A compilation of flood records for gaging stations in South Carolina is presented as supplemental data.

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CONVERSION FACTORS

The analyses and compilations of this report were made using inch-pound units of measurements. For the convenience of those readers who prefer to use the International System (SI) of metric units rather than inch-pound units, the conversion factors for terms used in this report are listed below:

Multiply	by	to obtain
mile (mi)	1.609	kilometer (km)
nautical miles (n. mi.)	1.85	kilometer (km)
foot (ft)	0.3048	meter (m)
square mile (mi^2)	2.59	square kilometer (km^2)
cubic foot per second (ft^3/s)	0.028317	cubic meter per second (m^3/s)
foot per mile (ft/mi)	0.1894	meter per kilometer (m/km)

The regression equations in this report must be solved using inch-pound units of measurement.

National Geodetic Vertical Datum of 1929 (NGVD of 1929).--A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "mean sea level." The datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific coasts.

TECHNIQUES FOR ESTIMATING MAGNITUDE AND FREQUENCY OF FLOODS IN SOUTH CAROLINA

By Benjamin H. Whetstone

ABSTRACT

Methods are provided for estimating flood magnitudes at recurrence intervals of 2, 5, 10, 25, 50, and 100 years, for unregulated rural streams in South Carolina with drainage areas greater than 1.0 square mile. Multiple regression analyses were used to define the relation between flood discharge and basin and climatic variables. The analyses indicated that flood discharge is related to the drainage area and physiographic location of the basin. Accordingly, equations were developed for the Lower Coastal Plain, Inner Coastal Plain, Piedmont, and Blue Ridge provinces. The standard errors of estimate range from 31 to 56 percent. Station data used in the analyses are listed in the report.

Individual relations of flood discharge and frequency to drainage area are given for some of the regulated major streams, including the Pee Dee, Catawba, Wateree, Broad, Saluda, Congaree, Santee, and Savannah Rivers. Storm tide-recurrence interval relations along the South Carolina coast indicate that the 500-year tide height can exceed 19 feet, National Geodetic Vertical Datum of 1929, at some locations.

A compilation of flood records for gaging stations is included as supplemental data.

INTRODUCTION

Information concerning magnitude and frequency of floods is needed in the planning and design of highway drainage structures and in planning for the use and management of flood-prone land. Only through reliable estimates of the magnitude of flooding and the related frequency of occurrence is it possible to obtain economically optimum designs and to prepare realistic zoning ordinances.

The U.S. Water Resources Council (1977) presented a standardized method for estimating the magnitude of flood discharges at various recurrence intervals at gaged sites. This method, along with additional data at gaging stations, increases the confidence in estimating techniques provided in this report.

Purpose and Scope

The purpose of this report is to provide information on magnitude and frequency of floods. Included in this report are:

1. Equations for estimating the magnitude and frequency of flood discharge on ungaged rural non-regulated streams,

2. A method for estimating flood discharge and frequency at or near gaged sites on rural streams,

3. A method for estimating flood discharge and frequency on the main stems of eight major streams,

4. A method for estimating storm tide frequency and magnitude along the South Carolina coast,

5. A compilation of annual flood peaks at gaged sites on streams.

Previous Investigations

Speer and Gamble (1964) presented methods for estimating the magnitude of flood discharges for various recurrence intervals for the South Atlantic Slope Basin which extends from the James River in Virginia to the Savannah River along the South Carolina-Georgia State line.

Cooperation

This report was prepared by the U.S. Geological Survey in cooperation with the South Carolina Department of Highways and Public Transportation and is based primarily on data collected and published previously by the Geological Survey as part of cooperative programs with various State and Federal agencies. Information from the National Oceanic and Atmospheric Administration (NOAA) and U.S. Army Corps of Engineers is used in some sections of this report. Most of the data for small streams were collected for a research project in cooperation with the South Carolina Department of Highways and Public Transportation and the Federal Highway Administration.

DESCRIPTION OF AREA

South Carolina is located on the South Atlantic Slope adjacent to the Atlantic Ocean. The State comprises an area of 31,055 square miles which includes 783 square miles of water area.

The State includes parts of three physiographic provinces, (1) the Blue Ridge, (2) Piedmont, and (3) the Coastal Plain. The Coastal Plain province is divided into two areas, Inner Coastal Plain and the Lower Coastal Plain (Cooke, 1936).

Figure 1 shows the physiographic provinces and streams in the State.

METHOD OF ANALYSIS

Background

Flood-frequency relations were developed by applying the log-Pearson III method, described by the U.S. Water Resources Council (1977), to the annual peaks for each of the 159 stations listed in table 1. Seventy-two of the stations are located in South Carolina. The other 87 stations are located near the South Carolina border--33 in North Carolina and 54 in Georgia. The distribution of these stations according to physiographic province is as follows.

Province	South Carolina	North Carolina	Georgia
Lower Coastal Plain	27	9	13
Inner Coastal Plain	8	2	5
Piedmont	32	19	28
Blue Ridge	5	3	8

Observed Flood Data

Reliable techniques for estimating the magnitude and frequency of floods are based on an assessment of long-term flood data.

Streamflow data were first collected in the State by the U.S. Weather Bureau (now the National Weather Service) in 1884 at the Savannah River at Augusta, Georgia. Collection of streamflow data increased in 1930 as a cooperative effort between the South Carolina State Highway Department and the U.S. Geological Survey. Annual maximum discharge data and station descriptions for gaging stations with 10 or more years of data on streams in South Carolina are listed in the section entitled Supplemental Data.

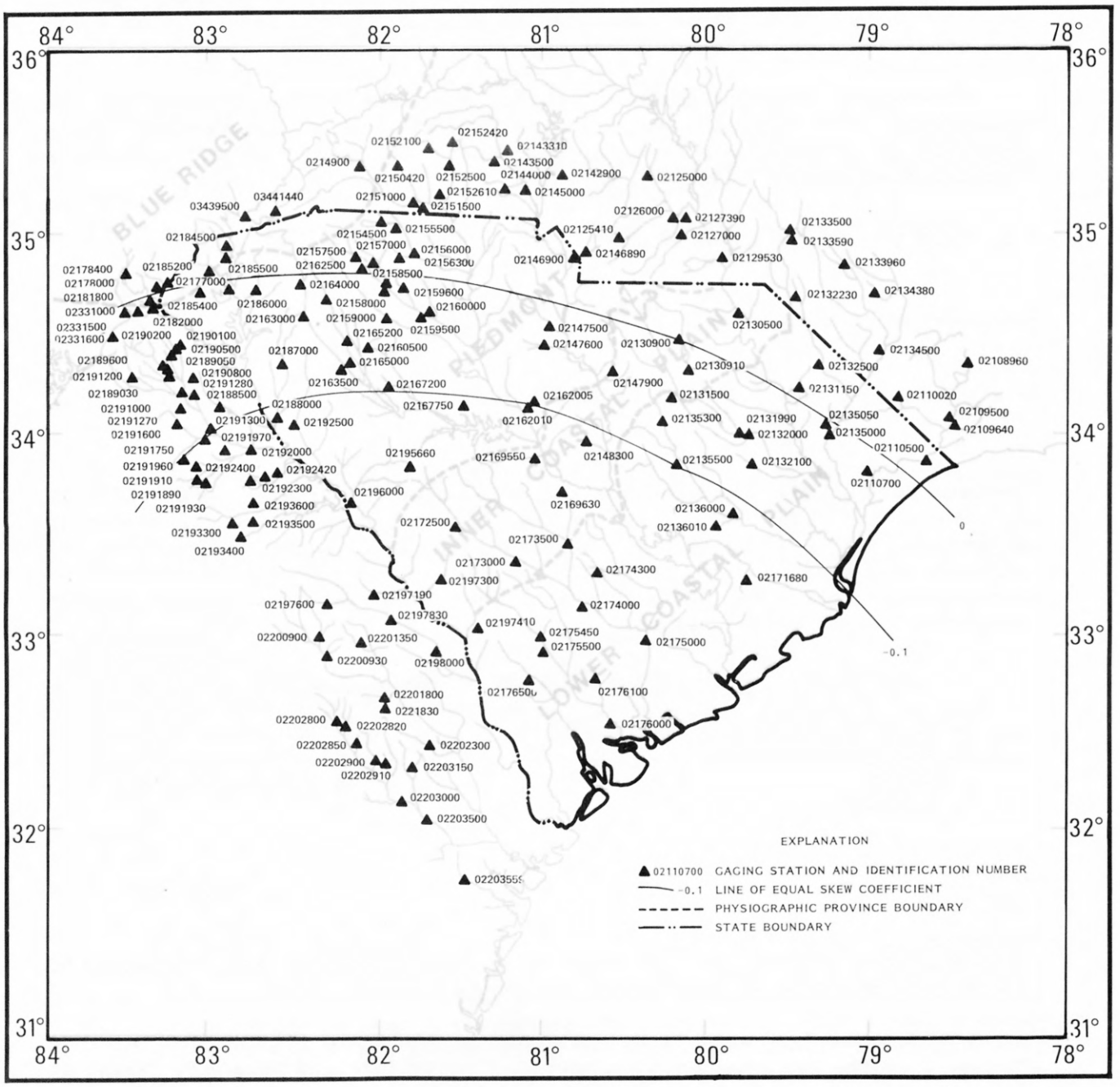

Figure 1. Physiographic provinces and data collection sites on streams in South Carolina and adjacent states.

Table 1.-- Flood frequency data for stations used to develop regression equations.

LOWER COASTAL PLAIN PROVINCE

STATION NUMBER	STATION NAME	PERIOD OF RECORD	DRAINAGE AREA	Q2	Q5	Q10	Q25	Q50	Q100
02110500	WACCAMAW RIVER NR LONGS, SC	1951-78	1110	5470	8270	10300	13000	14900	17700
02110700	CRABTREE SWAMP NR CONWAY, SC	(1)	14	195	380	558	865	1170	1540
02131150	CATFISH CANAL AT SELLERS, SC	1967-78	28	242	435	591	821	1020	1230
02131500	LYNCHES RIVER NR BISHOPVILLE, SC	1943-78	675	7000	10800	13500	17200	20100	23000
02131990	CARTER CREEK AT EFFINGHAM, SC	1969-78	8.20	228	412	579	850	1100	1320
02132000	LYNCHES RIVER AT EFFINGHAM, SC	1928-78	1030	5620	9230	12000	16100	19500	23200
02132100	TWO MILE BRANCH NR LAKE CITY, SC	(1)	19	159	318	477	754	1030	1380
02132500	LITTLE PEE DEE RIVER NR DILLON, SC	1940-78	524	2420	3200	4930	6570	7970	9540
02135000	LITTLE PEE DEE R AT GALLIVANTS FERRY, SC	1942-78	2790	12100	17400	20900	25500	29000	32500
02135050	REEDY CREEK NR RAINS, SC	(1)	36	226	465	704	1130	1570	2120
02135500	BLACK RIVER NR GABLE, SC	1952-78	401	2490	4710	6520	9170	11400	13900
02136000	BLACK RIVER AT KINGSTREE, SC	1920-78	1260	5800	11700	17000	25500	33200	42100
02136010	CHANEY SWAMP NR GREELEYVILLE, SC	(1)	17	358	685	994	1520	2020	2640
02147900	GUM SWAMP CREEK NR DEKALB, SC	(1)	2.70	175	314	437	635	816	1030
02171680	WEDBOO CREEK NR JAMESTOWN, SC	(1)	17.4	201	400	570	820	1040	1280
02172500	S FK EDISTO RIVER NR MONTMORENCI, SC	1940-78	198	1620	2440	3000	3730	4290	4850
02173000	S FK EDISTO RIVER NR DENMARK, SC	1932-78	720	2730	4020	4950	6210	7220	8270
02173500	N FK EDISTO RIVER AT ORANGEBURG, SC	1939-78	683	2720	3990	4880	6040	6930	7850
02174000	EDISTO RIVER NR BRANCHVILLE, SC	1946-78	1720	5950	8830	10800	13300	15300	17200
02174300	BUCK BRANCH AT BOWMAN, SC	(1)	13.1	165	356	545	871	1190	1590
02175000	EDISTO RIVER NR GIVHANS, SC	1939-78	2730	10200	15300	18700	23200	26500	29800
02175450	SAVANNAH CREEK NR EHRHARDT, SC	(1)	3	420	750	1010	1400	1800	2270
02175500	SALKEHATCHIE RIVER NR MILEY, SC	1951-78	341	1450	1990	2340	2770	3090	3390
02176000	COMBAHEE RIVER NR YEMASSEE, SC	1952-66	1100	5990	9200	11500	14500	16800	19100
02176100	REMICK SWAMP NR HENDERSONVILLE, SC	(1)	7.60	314	494	636	842	1020	1210
02176500	COOSAWHATCHIE RIVER NR HAMPTON, SC	1951-78	203	1770	2830	3590	4620	5430	6260
02197410	MILLER CREEK TRIB NR BALDOC, SC	(1)	7.50	252	532	802	1270	1710	2260
02108960	BUCKHEAD BRANCH NR BOLTON, NC	1953-71	15.3	391	721	1000	1440	1830	2270
02109500	WACCAMAW RIVER AT FREELAND, NC	1940-78	680	3690	5700	7170	9170	10800	12400
02109640	WET ASH SWAMP NR ASH, NC	1953-71	16	421	799	1120	1620	2060	2560
02110020	MILL BRANCH NR TABOR CITY, NC	1955-71	3.85	152	324	486	752	1000	1300
02129530	LITTLE CREEK TRIB NR PEE DEE, NC	1959-71	0.14	17	29	39	53	66	80
02133500	DROWNING CREEK NR HOFFMAN, NC	1940-78	183	1390	2670	3900	5980	8000	10500
02133960	RAFT SWAMP NR RED SPRINGS, NC	1953-71	39.8	466	647	776	947	1080	1220
02134380	TENMILE SWAMP NR LUMBERTON, NC	1955-73	16.1	231	394	429	545	640	740
02134500	LUMBER RIVER AT BOARDMAN, NC	1930-78	1228	4970	7430	9200	11600	13400	15300
02198000	BRIER CREEK AT MILLHAVEN, GA	1938-74	646	3650	6300	8360	11300	13700	16200
02201350	BUCKHEAD CREEK NR WAYNESBORO, GA	1963-79	64	759	1560	2260	3330	4260	5310
02201800	RICHARDSON CREEK NR MILLEN GA	1963-79	43	672	1100	1410	1830	2160	2510
02201830	HOOKER BRANCH TRIB NR MILLEN, GA	1965-74	4.38	163	221	258	304	337	370
02202300	MILL CREEK NR STATESBORO, GA	1963-74	39	718	900	1010	1140	1230	1320
02202800	CANOOCHEE CREEK NR SWAINSBORO, GA	1951-76	55	730	1060	1290	1580	1800	2020
02202820	REEDY CREEK NR TWIN CITY, GA	1965-74	8.99	213	353	457	599	711	829
02202850	REEDY BRANCH NR METTER, GA	1965-74	3.41	166	227	267	316	352	388
02202900	FIFTEEN MILE CREEK NR METTER, GA	1963-79	147	1620	2740	3570	4730	5650	6620
02202910	TEN MILE CREEK TRIB AT PULASKI, GA	1965-79	1.14	97	222	337	525	696	895
02203000	CANOOCHEE RIVER NR CLAXTON, GA	1938-79	555	4120	6710	8660	11400	13600	15900
02203150	LOTTS CREEK TRIB NR STATESBORO, GA	1965-74	2.37	151	359	560	893	1200	1570
02203559	PEACOCK CREEK AT MCINTOSH, GA	1967-77	33	400	681	894	1190	1430	1680

Table 1.-- Flood frequency data for stations used to develop regression equations. (cont'd)

INNER COASTAL PLAIN PROVINCE

STATION NUMBER	STATION NAME	PERIOD OF RECORD	DRAINAGE AREA	Q2	Q5	Q10	Q25	Q50	Q100
02130500	JUNIPER CREEK NR CHERAW, SC	1941-58	64	445	775	1040	1430	1730	2070
02130900	BLACK CREEK NR MCBEE, SC	1960-78	108	808	1070	1230	1440	1590	1740
02130910	BLACK CREEK NR HARTSVILLE, SC	1961-78	175	859	1150	1340	1580	1750	1930
02135300	SCAPE ORE SWAMP NR BISHOPVILLE, SC	1969-78	96	641	920	1110	1350	1540	1730
02148300	COLONELS CREEK NR LEESBURG, SC	1967-78	38.1	284	466	602	785	930	1080
02169550	CONGAREE CREEK AT CAYCE, SC	1960-78	122	879	1150	1320	1530	1680	1830
02169630	BIG BEAVER CREEK AT ST MATTHEWS, SC	1967-78	10	122	255	371	552	945	1360
02197300	UPPER THREE RUNS NR NEW ELLENTON, SC	1967-78	87	336	398	435	478	510	538
02132230	BRIDGE CREEK TRIB AT JOHNS, NC	1958-73	6.23	108	196	270	386	487	605
02133590	BEAVER DAM CREEK NR ABERDEEN, NC	1953-71	4.66	80	113	137	169	194	221
02197190	MCBEAN CREEK NR MCBEAN, GA	1963-79	41.4	292	375	426	488	531	574
02197600	BRUSHY CREEK NR WRENS, GA	1959-79	28	414	637	794	1000	1160	1320
02197830	BRIER CREEK NR WAYNESBORO, GA	1968-79	473	4490	6050	7040	8260	9150	10000
02200900	BIG CREEK NR LOUISVILLE, GA	1951-76	95.8	658	1110	1440	1910	2280	2670
02200930	OGEECHEE RIVER TRIB NR LOUISVILLE, GA	1965-79	14.2	233	402	531	712	858	1010

PIEDMONT PROVINCE

STATION NUMBER	STATION NAME	PERIOD OF RECORD	DRAINAGE AREA	Q2	Q5	Q10	Q25	Q50	Q100
02147500	ROCKY CREEK AT GREAT FALLS, SC	1952-78	194	7230	11000	13600	17100	19800	22700
02147600	BIG WATEREE CK TRIB NR GREAT FALLS, SC	(1)	4.50	395	728	1030	1510	1960	2490
02147900	GUM SWAMP CREEK NR DEKALB, SC	(1)	2.70	175	314	437	635	816	1030
02154500	N PACOLET RIVER AT FINGERVILLE, SC	1931-78	116	3160	5100	6560	8600	10300	12000
02155500	PACOLET RIVER NR FINGERVILLE, SC	1931-78	212	5150	8550	11200	15200	18500	22200
02156000	PACOLET RIVER NR CLIFTON, SC	1940-78	320	9010	13200	16200	20300	23500	27000
02156300	LAWSONS FORK CREEK AT SPARTANBURG, SC	1967-78	65.2	2550	3050	3350	3690	3940	4170
02157000	NORTH TYGER RIVER NR FAIRMONT, SC	1951-78	44	1530	2400	3030	3870	4540	5230
02157500	MIDDLE TYGER RIVER AT LYMAN, SC	1939-78	68.3	2450	3290	3820	4480	4970	5440
02158000	NORTH TYGER RIVER NR MOORE, SC	1935-67,71-78	162	3730	5960	7610	9870	11700	13600
02158500	SOUTH TYGER RIVER NR REIDVILLE, SC	1935-67,71-78	106	2460	3750	4680	5930	6920	7940
02159000	SOUTH TYGER RIVER NR WOODRUFF, SC	1935-78	174	2900	4750	6160	8130	9730	11400
02159500	TYGER RIVER NR WOODRUFF, SC	1929-56	351	6690	11900	16200	22400	27600	33400
02159600	DUTCHMAN CREEK NR PAULINE, SC	1967-78	8.97	1260	2210	2950	4020	4920	5880
02160000	FAIRFOREST CREEK NR UNION, SC	1940-78	183	3990	5990	7370	9150	10500	11900
02160500	ENOREE RIVER NR ENOREE, SC	1930-78	307	6630	10600	13600	17700	21000	24500
02162010	CEDAR CREEK NR BLYTHEWOOD, SC	1967-78	48.9	2820	3880	4570	5420	6040	6660
02162005	HORSECREEK TRIB NR BLYTHEWOOD, SC	(1)	1.10	48	90	129	191	249	320
02163000	SALUDA RIVER NR PELZER, SC	1930-77	405	6570	9250	11000	13200	14800	16500
02163500	SALUDA RIVER NR WARE SHOALS, SC	1939-78	569	10000	14300	17100	20600	23100	25600
02164000	REEDY RIVER NR GREENVILLE, SC	1942-77	48.6	2180	3010	3580	4300	4840	5380
02165000	REEDY RIVER NR WARE SHOALS, SC	1940-78	228	4550	6870	8500	10600	12300	14000
02165200	SOUTH RABON CREEK NR GRAY COURT, SC	1967-78	29.5	989	1720	2300	3130	3820	4570
02167200	CAMPBELL CREEK TRIB NR CROSS HILL, SC	(1)	0.70	45	86	122	178	229	288
02167750	CAMPING CREEK TRIB NR PROSPERITY, SC	(1)	0.50	59	109	154	225	295	368
02185500	SENECA RIVER NR NEWRY, SC	1940-61	455	16700	19900	21800	24000	25500	27000
02186000	TWELVEMILE CREEK NR LIBERTY, SC	1955-64	106	3060	4210	4970	5930	6650	7380
02187000	SENECA RIVER NR ANDERSON, SC	1928-59	1026	23100	35700	45000	57700	68000	78800
02188000	ROCKY RIVER NR CALHOUN FALLS, SC	1951-66,71-78	267	4440	7330	9460	12400	14700	17100
02192500	LITTLE RIVER NR CARMEL, SC	1940-77	217	4980	7980	10200	13100	15400	17800
02195660	LOG CREEK NR EDGEFIELD, SC	(1)	1.10	40	95	150	255	361	496
02196000	STEVENS CREEK NR MODOC, SC	1941-78	545	12700	18800	22400	26300	28900	31500

Table 1.-- Flood frequency data for stations used to develop regression equations. (cont'd)

PIEDMONT PROVINCE (Cont'd)

STATION NUMBER	STATION NAME	PERIOD OF RECORD	DRAINAGE AREA	Q2	Q5	Q10	Q25	Q50	Q100
02125000	BIG BEAR CREEK NR RICHFIELD, NC	1955-78	55.6	4590	7140	9110	12000	14300	17000
02125410	CHINKAPIN CREEK NR MONROE, NC	1953-71	8.49	1390	2310	3060	4150	5080	6120
02126000	ROCKY RIVER NR NORWOOD, NC	1930-78	1372	31900	46800	57300	71400	82400	93900
02127000	BROWN CREEK NR POLKTON, NC	1936-71	110	2070	3670	5040	7170	9060	11300
02127390	PALMETTO BRANCH AT ANSONVILLE, NC	1953-74	0.86	174	283	369	496	604	723
02142900	LONG CREEK NR PAW CREEK, NC	1966-78	16.4	1280	2090	2750	3710	4520	5430
02143310	LITHIA INN BRANCH NR LINCOLNTON, NC	1954-71	1.01	198	412	617	964	1300	1710
02143500	INDIAN CREEK NR LABORATORY, NC	1952-78	69.2	2270	3970	5380	7530	9420	11600
02144000	LONG CREEK NR BESSEMER CITY, NC	1953-78	31.8	1570	2670	3570	4920	6090	7400
02145000	SOUTH FK CATAWBA RIVER AT LOWELL, NC	1942-71	630	9610	14000	17100	21400	24800	28500
02146890	EAST FK TWELVE MILE CREEK NR WAXHAW, NC	1954-72	41.8	2390	3210	3770	4490	5040	5600
02146900	TWELVE MILE CREEK NR WAXHAW, NC	1961-78	76.5	2970	4610	5860	7600	9030	10600
02150420	CAMP CREEK NR RUTHERFORDTON, NC	1955-71	13	592	963	1260	1680	2040	2440
02151000	SECOND BROAD RIVER AT CLIFFSIDE, NC	1926-78	211	5140	8020	10200	13200	15700	18300
02151500	BROAD RIVER NR BOILING SPRINGS, NC	1928-78	864	17300	26600	33800	43900	52300	61500
02152100	FIRST BROAD RIVER NR CASAR, NC	1960-78	59.5	3040	4770	6110	8010	9600	11300
02152420	BIG KNOB CREEK NR FALLSTOP, NC	1955-71	16.4	1070	1680	2150	2820	3380	4000
02152500	FIRST BROAD RIVER NR LAWNDALE, NC	1940-78	198	7310	10900	13700	17700	21000	24500
02152610	SUGAR BRANCH NR BOILING SPRINGS, NC	1954-78	1.49	445	683	861	1110	1310	1530
02188500	SOUTH BEAVERDAM CREEK AT DEWY ROSE, GA	1943-77	35.8	1360	2370	3140	4200	5070	5980
02189020	INDIAN CREEK NR CARNESVILLE, GA	1964-76	7.63	811	1300	1670	2170	2570	2980
02189030	STEPHENS CREEK TRIB AT CARNESVILLE, GA	1964-76	0.39	113	154	181	215	240	265
02189050	NORTH FK BROAD R. SWS 1 ABOVE TOCCA, GA	1959-69	3.66	327	612	849	1210	1510	1850
02189600	NORTH FK BROAD R. SWS 6 NR MIZE, GA	1957-69	3.62	416	784	1090	1550	1950	2390
02190100	N. FK BROAD R. SWS 11 NR EASRANOLLE, GA	1957-69	3.79	518	883	1170	1570	1900	2250
02190200	N. FK BROAD R. SWS 14 NR AVALON, GA	1955-69	1.20	334	534	682	884	1050	1220
02190800	DOUBLE BRANCH AT BOWERSVILLE, GA	1960-75	0.50	188	296	375	482	566	654
02191000	NORTH FK BROAD RIVER NR CARNESVILLE, GA	1943-76	119	3720	6490	8660	11800	14300	17100
02191200	HUDSON RIVER AT HOMER, GA	1951-78	61.1	2240	3880	5170	7000	8510	10100
02191270	SCULL SHOAL CREEK NR DANIELSVILLE, GA	1964-75	8.75	687	1490	2220	3380	4430	5630
02191280	MILL SHOAL CREEK NR ROYSTON, GA	1964-79	0.32	119	157	182	211	233	254
02191300	BROAD RIVER ABOVE CARLTON, GA	1898-1979	760	14100	23100	29700	38500	45400	52600
02191600	DOUBLE BRANCH NR DANIELSVILLE, GA	1964-75	4.77	502	1090	1620	2470	3230	4100
02191750	FORK CREEK AT CARLTON, GA	1964-75	13.8	841	1290	1610	2030	2350	2680
02191890	BROOKS CREEK NR LEXINGTON, GA	1964-75	12.3	818	1610	2280	3290	4150	5170
02191910	TROUBLE CREEK AT LEXINGTON, GA	1959-75	2.70	140	235	307	405	484	568
02191930	BUFFALO CREEK NR LEXINGTON, GA	1964-79	5.79	552	803	973	1190	1350	1520
02191960	MACKS CREEK NR LEXINGTON, GA	1959-75	3.45	194	336	445	599	723	855
02191970	LITTLE MACKS CREEK TRIB NR LEXINGTON, GA	1960-79	1.77	205	385	531	745	925	1120
02192000	BROAD RIVER NR BELL, GA	1927-79	1430	23400	36200	45000	56400	65000	73600
02192300	HOG FORK FISHING CK TRIB NR TIGNALL, GA	1959-78	0.10	44	69	88	112	131	151
02192400	ANDERSON MILL CREEK NR DANBURG, GA	1964-75	5.49	538	928	1230	1650	1980	2340
02192420	ANDERSON MILL CREEK TRIB NR DANBURG, GA	1964-75	0.92	138	285	413	611	784	978
02193300	STEPHENS CREEK NR CRAWFORDVILLE, GA	1964-75	6.30	853	1330	1660	2110	2450	2810
02193400	HARDEN CREEK NR SHARON, GA	1964-75	3.98	488	744	924	1160	1340	1530
02193500	LITTLE RIVER NR WASHINGTON, GA	1950-71	291	6240	10900	14400	19400	23400	27700
02193600	ROCKY CREEK NR WASHINGTON, GA	1964-75	1.14	362	512	611	737	830	922

Table 1.-- Flood frequency data for stations used to develop regression equations. (cont'd)

BLUE RIDGE PROVINCE

STATION NUMBER	STATION NAME	PERIOD OF RECORD	DRAINAGE AREA	Q2	Q5	Q10	Q25	Q50	Q100
02162500	SALUDA RIVER NR GREENVILLE, SC	1942-78	295	4830	6710	7980	5990	10800	12000
02184500	WHITEWATER RIVER AT JOCASSEE, SC	1952-67	47.3	3200	4530	5440	6600	7490	8380
02185000	KEOWEE RIVER NR JOCASSEE, SC	1950-67	148	9650	13700	16500	20100	22900	25600
02185200	LITTLE RIVER NR WALHALLA, SC	1969-78	72	3690	7080	9940	14300	18100	22300
02185400	CANE CREEK NR WALHALLA, SC	(1)	1.10	190	340	465	653	816	1000
02149000	COVE CREEK NR LAKE LURE, NC	1952-78	79	2960	4560	5750	7420	8780	10200
03439500	FRENCH BROAD RIVER AT CALVERT, NC	1925-55	103	4720	7200	9010	11500	13500	15600
03441440	LITTLE RIVER NR CEDAR MOUNTAIN, NC	1963-79	26.8	1960	2950	3670	4640	5420	6230
02177000	CHATOOGA RIVER NR CLAYTON, GA	1917-29,40-79	207	7840	12600	16300	21500	25900	30700
02178000	CHATOOGA RIVER NR TALLULAH FALLS, GA	1917-29	256	9330	14700	18800	24300	28700	33300
02178400	TALLULAH RIVER NR CLAYTON, GA	1965-79	56.5	3560	5850	7600	10100	12100	14200
02181800	LITTLE PANTHER CK NR TALLULAH FALLS, GA	1956-76	2.50	123	270	407	632	840	1090
02182000	PANTHER CREEK NR TOCCOA, GA	1927-76	32.5	2200	4600	6760	10200	13300	16900
02331000	CHATTAHOOCHEE RIVER NR LEAF, GA	1940-79	150	7470	11500	14300	18100	21000	24000
02331500	SOQUE RIVER NR DEMOREST, GA	1929-65	156	5620	9040	11600	15200	18100	21100
02331600	CHATTAHOOCHEE RIVER NR CORNELLA, GA	1940-79	315	12200	18300	22400	27900	32000	36200

(1) Flood frequency data from synthesized flood discharges

Observed flood data from 142 gaging stations in or adjacent to South Carolina were used to develop flood-frequency data for the regression analysis. The length of record and drainage area of each station with observed flood data are listed in table 1.

Synthesized Flood Data

No long-term streamflow records were available for small streams (less than 40 mi^2 drainage area). Therefore, a rainfall-runoff model and long-term rainfall records were used to synthesize streamflow data for small streams.

The rainfall-runoff model was developed by the Geological Survey (Dawdy, Lichty, and Bergmann, 1972) specifically for the purpose of modeling flood-runoff hydrographs from small watersheds. Primary characteristics of this model are that (1) it employs a deterministic structure-imitating process; (2) ten parameter values are evaluated to calibrate the model to any specific drainage site; (3) the model parameters are determined by an optimization technique, which is the best fit of the synthesized peak (or runoff volume) to the observed peak (or runoff volume); and (4) the observed long-term rainfall is used as input with the optimized parameter values to simulate a long-term flood discharge record.

After calibration of the model, flood discharges for each short-term small stream station were computed, using one or more of the following National Weather Service first-order precipitation stations.

Station Name	Period of Record
Augusta, Georgia	1902-71
Charlotte, North Carolina	1902-66
Columbia, South Carolina	1901-54
Greenville, South Carolina	1918-71

Synthesized flood discharges were used to develop flood-frequency data for 17 of the stations in South Carolina used in the regression analysis.

Development of Flood-Frequency Curves

A flood-frequency curve defines the relation of flood discharge magnitude to recurrence interval. Recurrence interval is the average time interval between occurrences of a flood discharge greater than a given magnitude. The likelihood of a flood of greater magnitude occurring in a year is the exceedance probability, which is equal to the reciprocal of the recurrence interval. For example, a flood having an exceedance probability of one percent has a recurrence interval of 100 years; or, a 100-year flood

will be exceeded on the average once in 100 years. However, probability only describes the likelihood of a flood being exceeded. The magnitude of a flood of a given recurrence interval may be exceeded in any year.

Records longer than 25 years are available for 34 gaging stations on nonregulated streams in South Carolina. The mean logarithmic skew coefficient for these stations was 0.135 and varied from -1.04 to +1.03. No recognizable skew pattern from the station data was observed across the state; therefore, generalized skew coefficients (0 to -0.1) were used based on guidelines in Water Resources Council Bulletin 17-A. Flood-frequency curves were developed by applying the log-Pearson frequency distribution using the generalized skew coefficient to annual peak data for each station. Locations of stations with the generalized skew pattern are shown in figure 1.

Log-Pearson III flood-frequency data for stations used to develop the regression equations are listed in table 1.

Flood-Frequency Equations

Flood-frequency characteristics at ungaged sites can be estimated from relations with basin characteristics. The relations were determined by multiple-regression techniques using station data. Separate relations were defined for each physiographic province. Flood discharge was the dependent variable in the regression analysis. Independent variables were drainage area, slope, length, precipitation intensity, and soils index. Most (85 to 90 percent) of the variation of the dependent variable was explained by the drainage area. The other independent variables were not statistically significant at the 5 percent level. For this reason, the estimating equations in this report contain drainage area as the only independent variable.

Flood discharge (Q_T) for a site can be estimated for various recurrence intervals, using the general equation

$$Q_T = aA^b \qquad (1)$$

where:

Q_T = flood discharge in cubic feet per second, for the recurrence interval T, in years,

a = regression coefficient,

A = drainage area in square miles, and

b = regression exponent.

The flood-frequency equations for each physiographic province are listed in table 2.

Table 2.--Flood-frequency equations for the physiographic provinces

Flood discharge, Q_T, for recurrence interval, T (years)		Regression equations for the indicated physiographic province			
		Lower Coastal Plain	Inner Coastal Plain	Piedmont	Blue Ridge
Q_2	=	$62A^{0.62}$	$23A^{0.75}$	$153A^{0.67}$	$129A^{0.80}$
Q_5	=	$118A^{0.59}$	$45A^{0.69}$	$264A^{0.65}$	$252A^{0.75}$
Q_{10}	=	$165A^{0.58}$	$64A^{0.65}$	$352A^{0.64}$	$359A^{0.73}$
Q_{25}	=	$241A^{0.56}$	$94A^{0.61}$	$481A^{0.63}$	$526A^{0.70}$
Q_{50}	=	$310A^{0.55}$	$132A^{0.56}$	$590A^{0.62}$	$675A^{0.68}$
Q_{100}	=	$388A^{0.53}$	$174A^{0.53}$	$709A^{0.61}$	$846A^{0.66}$

Accuracy of the Flood-Frequency Equations

The accuracy of a flood-frequency equation may be expressed as the standard error of estimate or equivalent years of record. The standard error of estimate is the measure of the difference between observed data and results given by the flood-frequency equation. The standard errors of the flood-frequency equations are the ranges of error, expressed as percentages of the estimated values, within which about two-thirds of the estimates are expected to fall. Another measure of reliability, the equivalent years of record (Hardison, 1971), is the number of actual years of streamflow record needed at an ungaged site to provide an estimate equal in accuracy to that computed by the equation. The accuracy of the equations expressed as standard errors of estimate and equivalent years of record are summarized in table 3.

USE OF THE FLOOD-FREQUENCY EQUATIONS

The flood-frequency equations can be used to estimate flood discharge for a recurrence interval (1) at an ungaged site, and (2) at or near a gaging station.

Table 3.--Accuracy of the prediction of flood discharge from the flood-frequency equations

Recurrence interval in years	Lower Coastal Plain		Inner Coastal Plain		Piedmont		Blue Ridge	
	Standard error of estimate in percent	Equivalent years of record in years[1]	Standard error of estimate in percent	Equivalent years of record in years[1]	Standard error of estimate in percent	Equivalent years of record in years[1]	Standard error of estimate in percent	Equivalent years of record in years[1]
2	38	3	31	3	41	3	35	3
5	38	5	36	5	37	5	33	5
10	40	6	40	6	36	6	33	6
25	44	7	45	7	36	8	34	8
50	47	8	51	7	37	10	35	9
100	50	8	56	7	39	11	36	10

[1]From Hardison (1971).

These steps should be followed before using the flood-frequency equations (table 2):

1. Determine that the site is not affected by artificial regulation or urbanization, channel improvement, diversion, or tide.

2. Determine the drainage area, A, in square miles using available maps, for example, 7.5 minute U.S. Geological Survey topographic maps.

3. Determine the physiographic province (see fig. 1) in which the drainage basin of the site is located.

4. Solve the appropriate equations.

Estimating Flood Discharge at an Ungaged Site

To compute the flood discharge at an ungaged site, use the appropriate flood-frequency equation from table 2. The computation is illustrated in the following example:

Compute the 100-year flood discharge for a site with a drainage area of 75 square miles in the Blue Ridge province.

$$Q_{100} = 846(75)^{0.66}$$

$$= 14{,}600 \text{ ft}^3/\text{s}$$

If the drainage basin of the site lies in two physiographic provinces, Q_T should be adjusted based on the proportion of the drainage area in each physiographic province, as in the following example:

Compute the 50-year flood discharge for a site with a drainage area of 15 square miles in the Piedmont province and 10 square miles in the Inner Coastal Plain province. First, compute Q_{50} assuming that the drainage area of the site is totally within the Piedmont province and compute Q_{50} assuming that drainage area of the site is totally within the Inner Coastal Plain province.

Piedmont $\quad Q_{50} = 590(25)^{0.62}$

$$= 4{,}340$$

Inner Coastal Plain $\quad Q_{50} = 132(25)^{0.56}$

$$= 801$$

Then, adjust Q_{50} based on the percentage of the drainage area in each province.

$$Q_{50} \text{ (adjusted)} = (Q_{50} \text{ Piedmont} \times 15/25) + (Q_{50} \text{ Inner Coastal} \times 10/25)$$

$$= (4{,}340 \times 15/25) + (801 \times 10/25)$$

$$= 2{,}604 + 320$$

$$= 2{,}920 \text{ ft}^3/\text{s}$$

Thus, the adjusted Q_{50} for this site in which the drainage area is within more than one physiographic province is 2,920 ft^3/s.

Estimating Flood Discharge for a Site at or near a Gaging Station

Flood discharge at a gaging station is computed as a weighted average of $Q_{T(r)}$ (the computed flood discharge from the regression equation) and $Q_{T(p)}$ (the flood discharge based on log-Pearson III analysis). The weighted average is based on length of record at the gaging station and on equivalent years of record from table 3. The equation,

$$Q_{T(w)} = \frac{(N)Q_{T(p)} + (E)Q_{T(r)}}{N + E} \qquad (2)$$

is used to compute the weighted average, where:

$Q_{T(w)}$ = the weighted flood discharge in cubic feet per second for recurrence interval T, in years,

$Q_{T(p)}$ = the flood discharge, in cubic feet per second, based on log-Pearson III analysis, for recurrence interval T, in years

$Q_{T(r)}$ = the computed flood discharge, in cubic feet per second, from the regression equation for recurrence interval T, in years

N = the number of years of streamflow data, and

E = the equivalent years of record (table 3).

The computation is illustrated by computing QT_w, recurrence interval 2 years, for Rocky Creek at Great Falls (02147500). The gaging station is located in the Piedmont, the drainage area is 194 mi^2, the flood discharge based on the log-Pearson III analysis is 7,230 ft^3/s, the period of record is 27 years, the $QT_{(r)}$ is 5,220, and the equivalent period of record is 3 years. Therefore:

$$Q_{T_{(w)}} = [27(7,230) + 3(5,220)] / (27 + 3)$$
$$= 7,030 \text{ ft}^3/\text{s}$$

The following table summarizes QT_w for recurrence intervals of 2, 5, 10, 25, 50, and 100 years for Rocky Creek at Great Falls:

Recurrence interval, T, (years)	Discharge $Q_{T(p)}$ in cubic feet per second	Years of record (N) in years	Computed discharge ($QT_{(r)}$) from regression equation, in cubic feet	Equivalent years of record (E) in years	Weighted discharge ($QT_{(w)}$) in cubic feet per second
2	7,230	27	5,220	3	7,030
5	11,000	27	8,100	5	10,500
10	13,600	27	10,300	6	13,000
25	17,100	27	13,300	8	16,200
50	19,800	27	15,500	10	18,600
100	22,700	27	17,600	11	21,200

The flood discharge at a site near a gaging station on the same stream can be estimated by adjusting $Q_{T(r)}$ based on data from the gaging station. The site must be on the same stream as the gaging station and the size of its drainage area must be within 50 percent of the drainage area of the gaging site. The equation to adjust $Q_{T(r)}$ is

$$Q_{T(a)} = (R')Q_{T(r)}, \tag{3}$$

where:

$Q_{T(a)}$ = flood discharge adjusted for location, in cubic feet per second;

$$R' = R - \Delta A/0.5Ag\ (R-1.0); \tag{4}$$

and,

$$R = Q_{T(w)}/Q_{T(r)} \text{ for the gaging station,} \tag{5}$$

ΔA = difference in area, in square miles, between the gaged and ungaged sites;

Ag = area, in square miles, of the gaging station.

If the ratio $\Delta A/A_g$ is greater than 0.5, equation (3) should not be used, and $QT_{(r)}$ should be used without adjustment.

The following example illustrates the calculations for determining a 100-year flood for an ungaged site which is near a gaged site on the same stream in the Piedmont. The ungaged site is upstream of the gaged site.

The drainage area of the gaged site, Rocky Creek at Great Falls, is 194 mi^2. The drainage area of the ungaged site is 150 mi^2.

For the gaged site:

$A_g = 194\ mi^2$,

$N = 27$ years,

$E = 11$ years,

$Q_{100(P)} = 22{,}700\ ft^3/s$,

$Q_{100(r)} = 17{,}600\ ft^3/s$, from regression equation (table 2),

$Q_{100(w)} = 21{,}200\ ft^3/s$, from equation (2),

$$R = Q_{100(w)}/Q_{100(r)}, \text{ from equation (5)},$$

$$= 1.20.$$

For the ungaged site:

$A = 150\ mi^2$,

$Q_{100(r)} = 15{,}100\ ft^3/s$,

$\Delta A = 194 - 150 = 44\ mi^2$,

$\Delta A/Ag = 44/194 = 0.23$, because the ratio $\Delta A/Ag$ is less than 0.5, R' should be computed (equation 4) and used to adjust $Q_{100(r)}$:

$$R' = 1.20 - \frac{44}{0.5(194)}\ (1.20 - 1.00)$$

$$= 1.11 \text{ (from equation 4)}.$$

Therefore, $QT_{(a)}$ where T = 100 years

$$Q_{100(a)} = (R')Q_{100(r)}$$

$$= (1.11)(15{,}100)$$

$$= 16{,}800\ ft^3/s.$$

Most of the major streams in South Carolina are regulated by reservoirs. The flood-frequency equations do not apply to regulated streams. However, flood discharge and frequency for streams that have consistent patterns of regulation may be estimated by interpolation of data from gaging stations. Interpolation is based on the relation of the drainage area of an ungaged site to drainage areas of upstream and downstream gaging stations. The interpolation for regulated streams in South Carolina is facilitated by graphs and information for the: (1) Pee Dee River, (2) Catawba River, (3) Wateree River, (4) Broad River, (5) Saluda River, (6) Congaree River, (7) Santee River, and (8) Savannah River (fig. 2). Annual flood data from gaging stations on main stems of major streams are presented as Supplemental Data.

Pee Dee River

The headwaters of the Pee Dee River rise in the Blue Ridge Province of North Carolina. Through most of North Carolina it is known as the Yadkin River.

Three lakes on the Yadkin River and two lakes on the Pee Dee River are used for hydroelectric power generation. W. Kerr Scott Reservoir is used for flood control and water supply. The following data pertain to these lakes.

Name	Date in operation	Name of stream	Drainage area in square miles	Usable capacity in million cubic feet
W. Kerr Scott Reservoir	August 1962	Yadkin	350	6,320
High Rock Lake	November 1927	Yadkin	4,000	10,230
Tuckertown Reservoir	April 1962	Yadkin	4,120	294
Badin Lake	July 1917	Yadkin	4,180	5,620
Lake Tillery	January 1928	Pee Dee	4,600	5,930
Blewett Falls Lake	1911	Pee Dee	6,830	1,850

Records are available to determine flood frequency for two gaging stations on the Pee Dee River downstream from the lakes. Records used are Pee Dee River near Cheraw (0213000) for 1939-64, and Pee Dee River at Peedee (02131000) for 1939-78. Figure 3 shows the relation of flood discharges of various recurrence intervals to drainage area. Flood discharge decreases with increasing drainage area of the Pee Dee River because peak discharges from the Piedmont are attenuated by increasing floodplain storage in the Coastal Plain province.

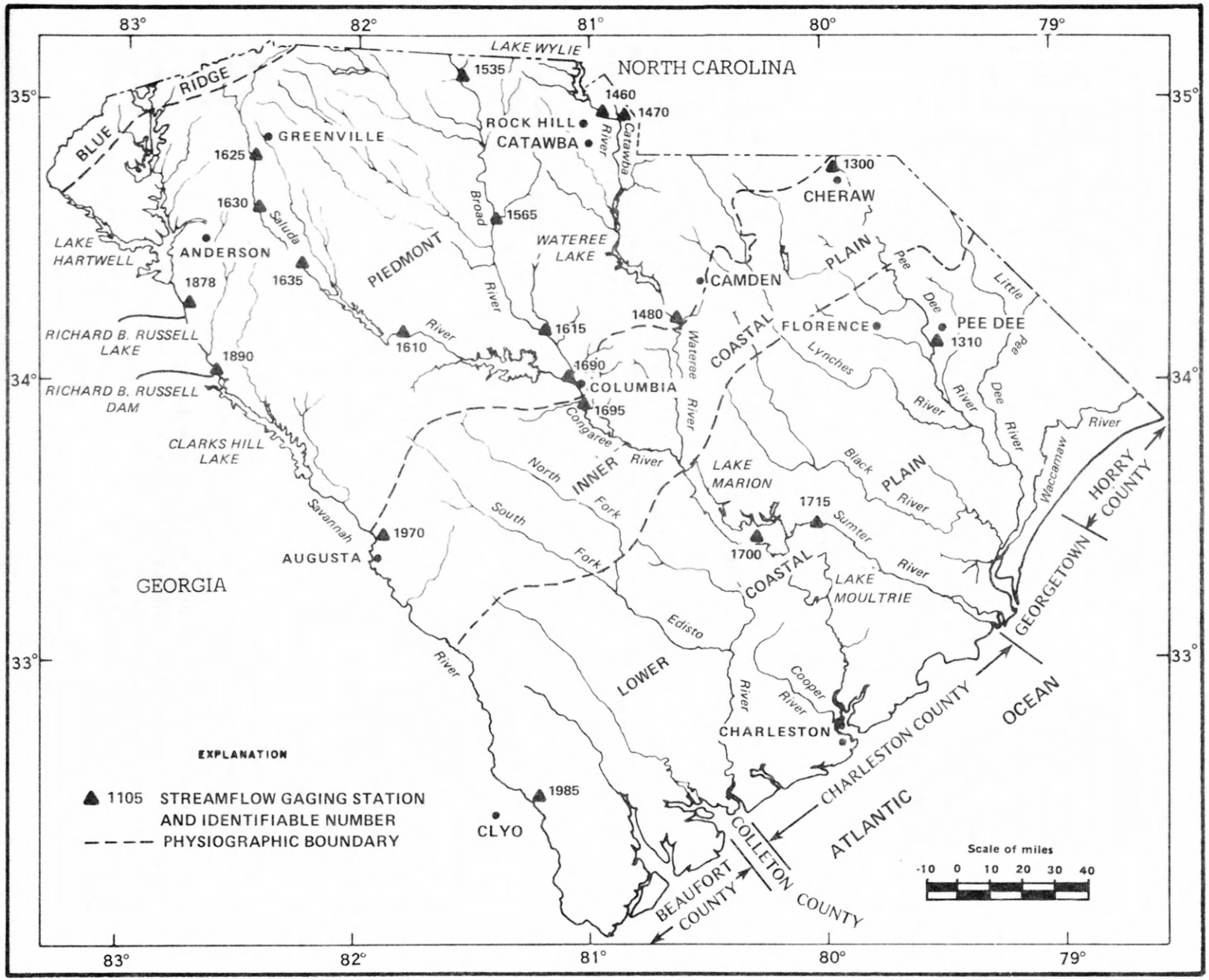

Figure 2. Main stem streams in South Carolina.

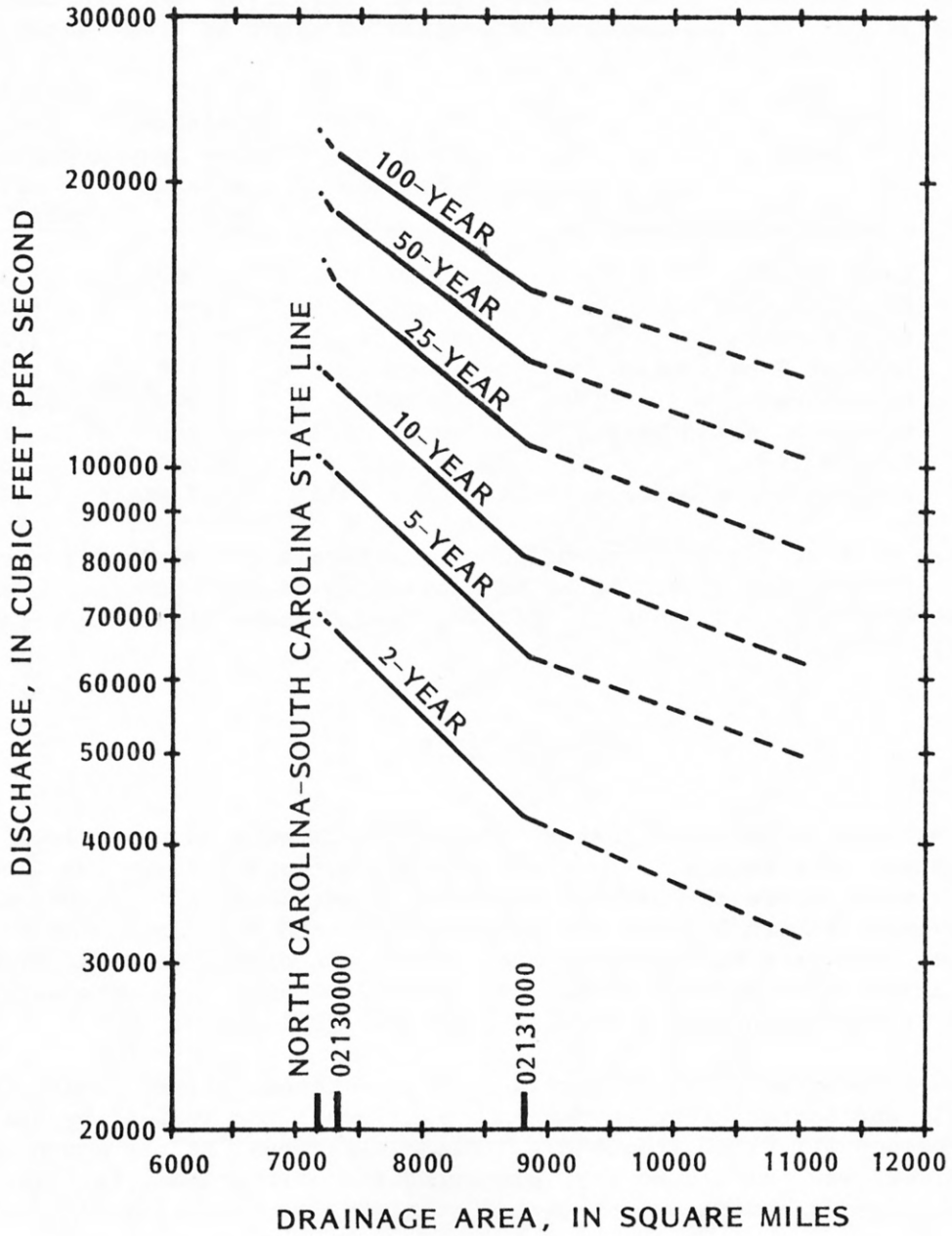

Figure 3. Flood discharges for selected frequencies on the Pee Dee River.

Catawba River

The Catawba River rises in the Blue Ridge province of North Carolina and flows southward through the Piedmont province of South Carolina. Ten reservoirs or lakes (six in North Carolina and four in South Carolina) are located on the Catawba River and are storage facilities for hydroelectric power generation. The following data pertain to eight of these lakes.

Station number	Name	Date in operation	Drainage area in square miles	Approximate usable capacity in million cubic feet
02138519	Lake James	May 1919	380	7,940
02141490	Rhodhiss Lake	February 1925	1,090	1,720
02141961	Lake Hickory	April 1928	1,310	2,280
02142441	Lookout Shoals Lake	December 1915	1,450	208
02142647	Lake Norman	March 1962	1,790	26,900
02142676	Mountain Island Lake	December 1923	1,860	845
02145900	Lake Wylie	August 1925	3,020	2,520
02147300	Fishing Creek Reservoir	November 1916	3,810	667

Figure 4 shows the relation of flood discharges of various recurrence intervals to drainage area, based on data from gaging stations, Catawba River near Rock Hill (02146000), 1962-78, and Catawba River near Catawba (02147000), 1968-78.

Wateree River

The Wateree River originates where the Catawba River flows into Wateree Lake. The Wateree River flows southeastward through the Coastal Plain province, where it merges with the Congaree River to become the Santee River. Figure 5 shows the relation of flood discharges of various recurrence intervals to drainage area, based on discharge data from the gaging station, Wateree River near Camden (02148000), and the estimated discharge at the mouth of the Wateree River for 1931-78.

Flood discharge was determined for Wateree River near Camden (021480000) and Santee River at Ferguson (02170000) for 1930-41 by analysis of log-Pearson III flood frequency. Flood discharge at the mouth of the Wateree River was estimated by prorating the difference in discharge between the Camden and Ferguson gaging stations on the basis of drainage area.

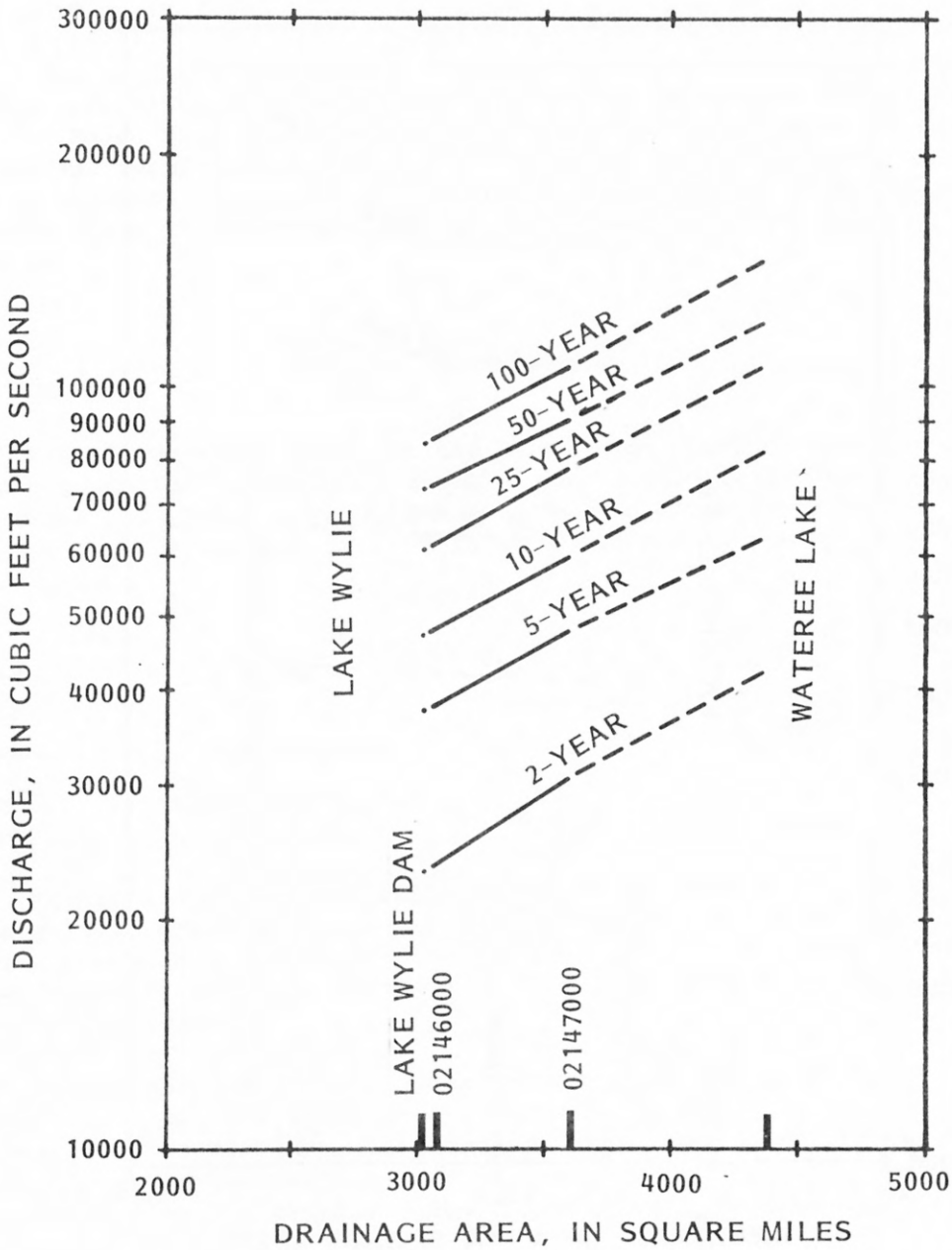

Figure 4. Flood discharges for selected frequencies on the Catawba River.

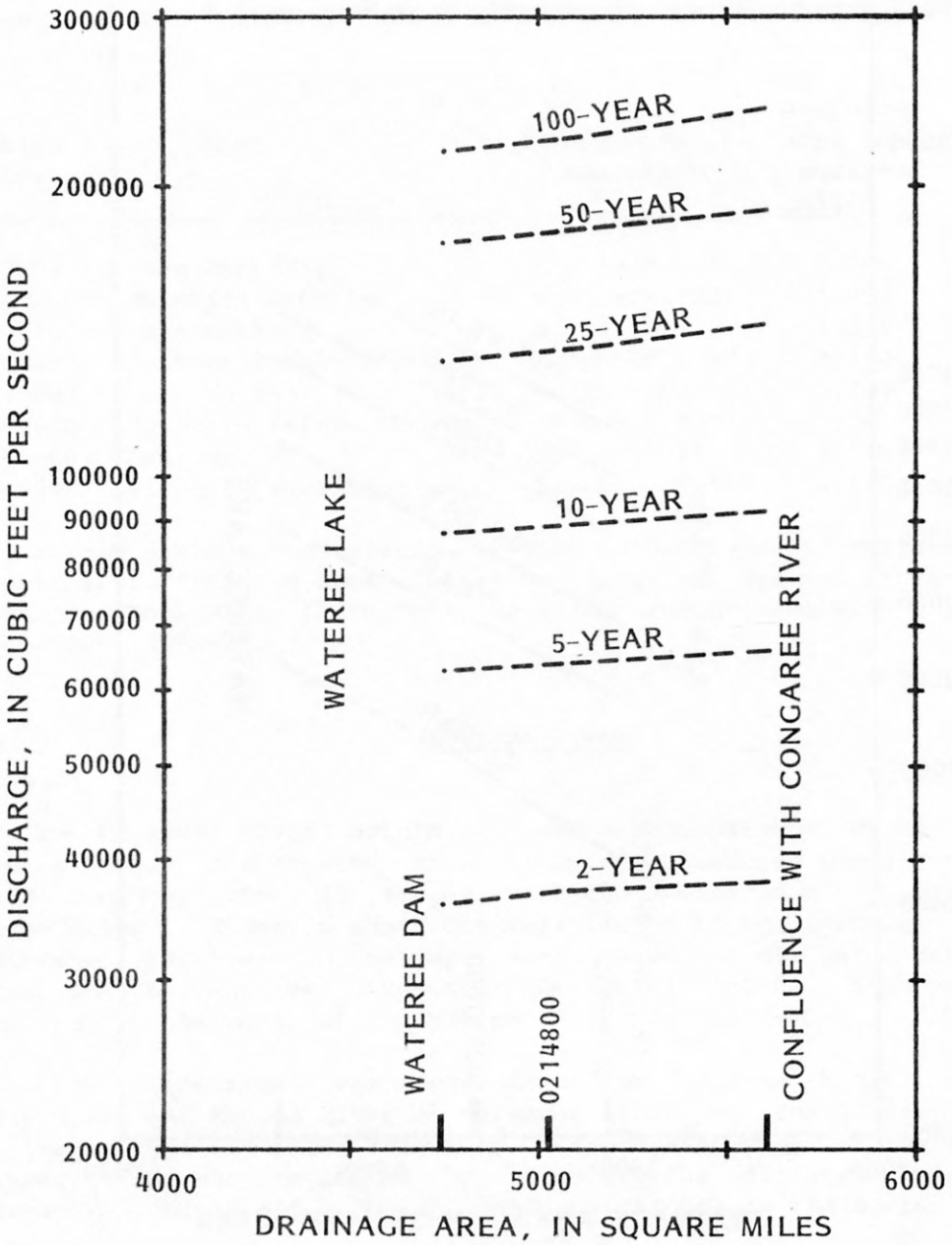

Figure 5. Flood discharges for selected frequencies on Wateree River.

Broad River

The Broad River rises in the Blue Ridge province of North Carolina and flows eastward and southward to Columbia, where it merges with the Saluda River to become the Congaree River. Floods on the Broad River consist primarily of unregulated runoff, although there is some regulation of low and medium flows. A low level reservoir at Parr Shoals, 25 miles northwest of Columbia, has undergone recent construction that will increase storage capacity. These changes should be studied to determine future flood frequencies below Parr Shoals. Figure 6 shows the relation of flood discharges of various recurrence intervals to drainage area, based on data from the gaging stations, Broad River near Gaffney (02153500), 1939-78; Broad River near Carlisle (02156500), 1939-78; and Broad River at Richtex (02161500), 1926-78.

Saluda River

The Saluda River rises in the Blue Ridge province and flows southeastward through the Piedmont province of South Carolina. Two reservoirs, Lake Greenwood and Lake Murray, are located in South Carolina on the Saluda River. The following data pertain to these reservoirs.

Station number	Name	Date in operation	Drainage area in square miles	Approximate usable capacity in million cubic feet
02166500	Lake Greenwood	1940	1,150	7,640
02168500	Lake Murray	1930	2,260	70,300

Figure 7 shows the relation of flood discharges of various recurrence intervals to drainage area, below Lake Greenwood, based on data from the gaging stations, Saluda River near Chappells (02167000), 1940-78; Saluda River near Silverstreet (02167500), 1928-65; and Saluda River near Columbia (02169000), 1930-78.

The Saluda River above Lake Greenwood is not affected by regulation. Flood discharges for drainage areas less than 800 mi^2 should be determined as described in previous sections of this report by (1) estimating flood discharge at an ungaged site or (2) estimating flood discharge for a site at or near a gaging station. The three gaging stations on the Saluda River above Lake Greenwood are Saluda River near Greenville (02162500), 1942-78; Saluda River near Pelzer (02163000), 1930-77; Saluda River near Ware Shoals (02163500), 1939-78.

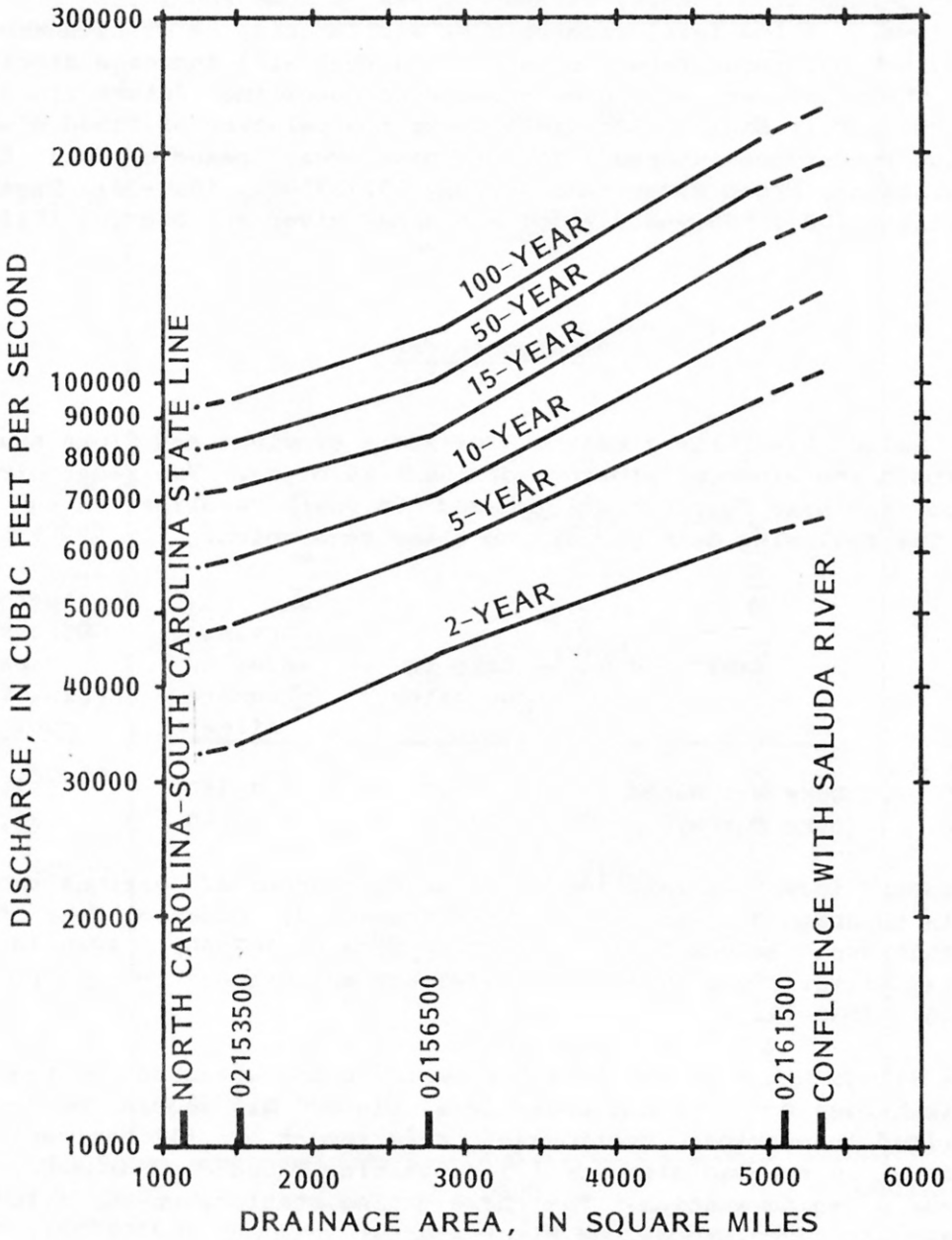

Figure 6. Flood discharges for selected frequencies on the Broad River

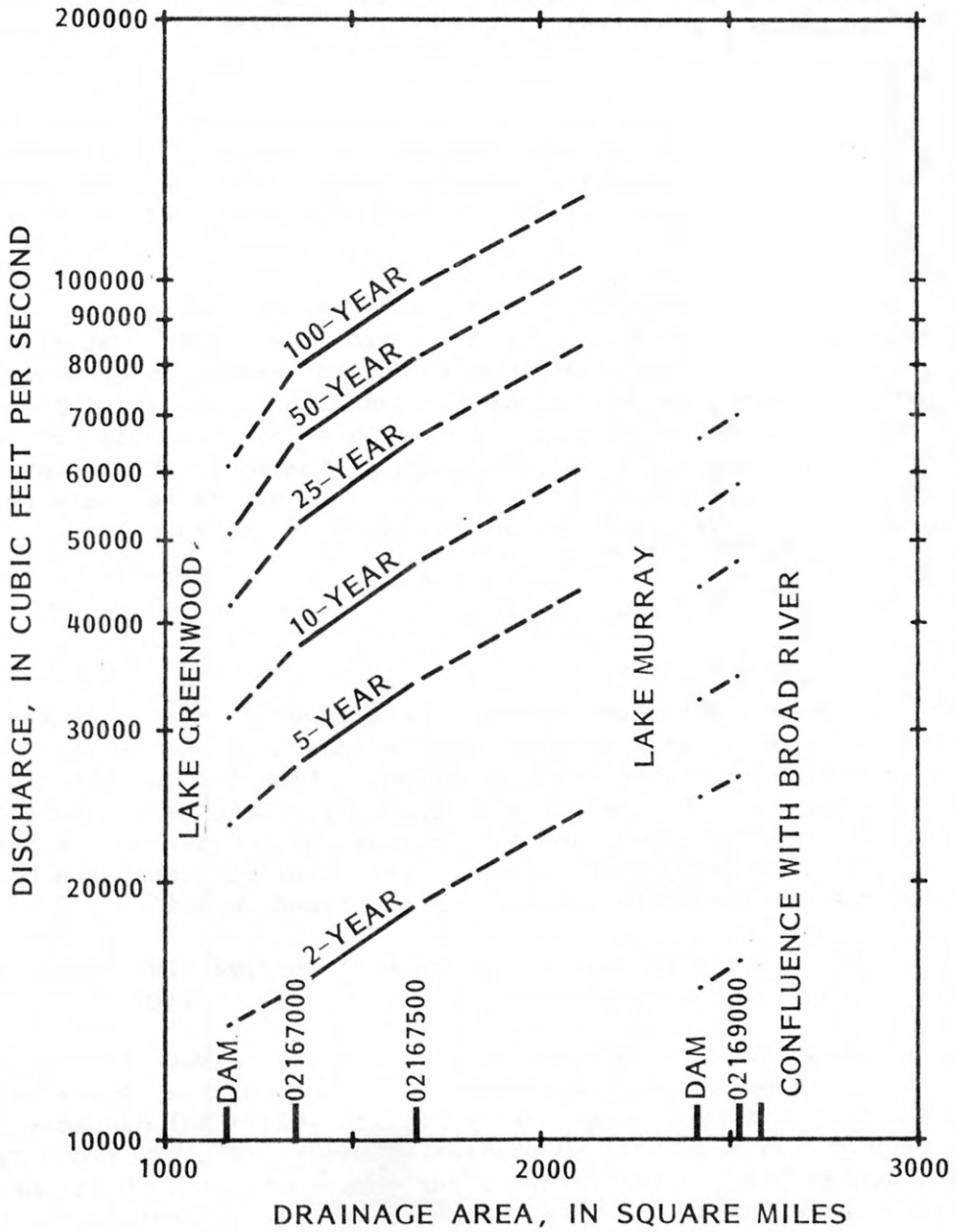

Figure 7. Flood discharges for selected frequencies on the Saluda River.

Congaree River

The Congaree River is formed at the confluence of the Broad and Saluda Rivers at Columbia, and flows southeastward into the Santee River. The Broad River basin comprises approximately two-thirds of the drainage area of the Congaree River. Flow regulation by dams on the Broad River has little effect on flood discharges. Flow on the Saluda River below Lake Murray is highly regulated.

Figure 8 shows flood frequency for the gaging station Congaree River at Columbia (02169500). The figure depicts two periods, one based on annual peak discharges from 1892-1929, before construction of Lake Murray, the other based on annual peak discharges from 1930-1978, after construction of Lake Murray.

Figure 9 shows the relation of flood discharges of various recurrence intervals to drainage area, based on data from the gaging station at Columbia and the estimated discharge at the mouth of the Congaree River for 1930-78. Flood discharge was determined for Congaree River at Columbia and Santee River at Ferguson (02170000) for 1930-41 by analysis of log-Pearson III flood frequency. Flood discharge at the mouth of the Congaree River was estimated by prorating the difference in discharge between the Columbia and Ferguson gaging stations on the basis of drainage area.

Santee River

The Santee River is formed at the confluence of the Congaree and Wateree Rivers just upstream from Lake Marion in the Coastal Plain. The Santee flows eastward into the Atlantic Ocean. Flow is regulated downstream from Lake Marion. A canal diverts water from Lake Marion into Lake Moultrie for generation of power and for navigation. Water is discharged from the powerplant and navigation lock on Lake Moultrie into the Cooper River. The Lake Marion-Moultrie complex was completed in 1941.

The Corps of Engineers is in the process of re-diverting water from Lake Moultrie to the lower Santee River.

Streamflow data for the gaging station, Santee River at Ferguson (02170000), can be used to estimate flood discharge on the lower Santee River prior to 1941. Santee River near Pineville (02171500) provides peak flows below Lake Marion from 1942 to present. Figure 10 shows flood frequency for the Santee River prior to and after construction of Lakes Marion and Moultrie. Stage data, 1929 to present, for the Santee River near Jamestown are published by the National Oceanic and Atmospheric Administration (NOAA).

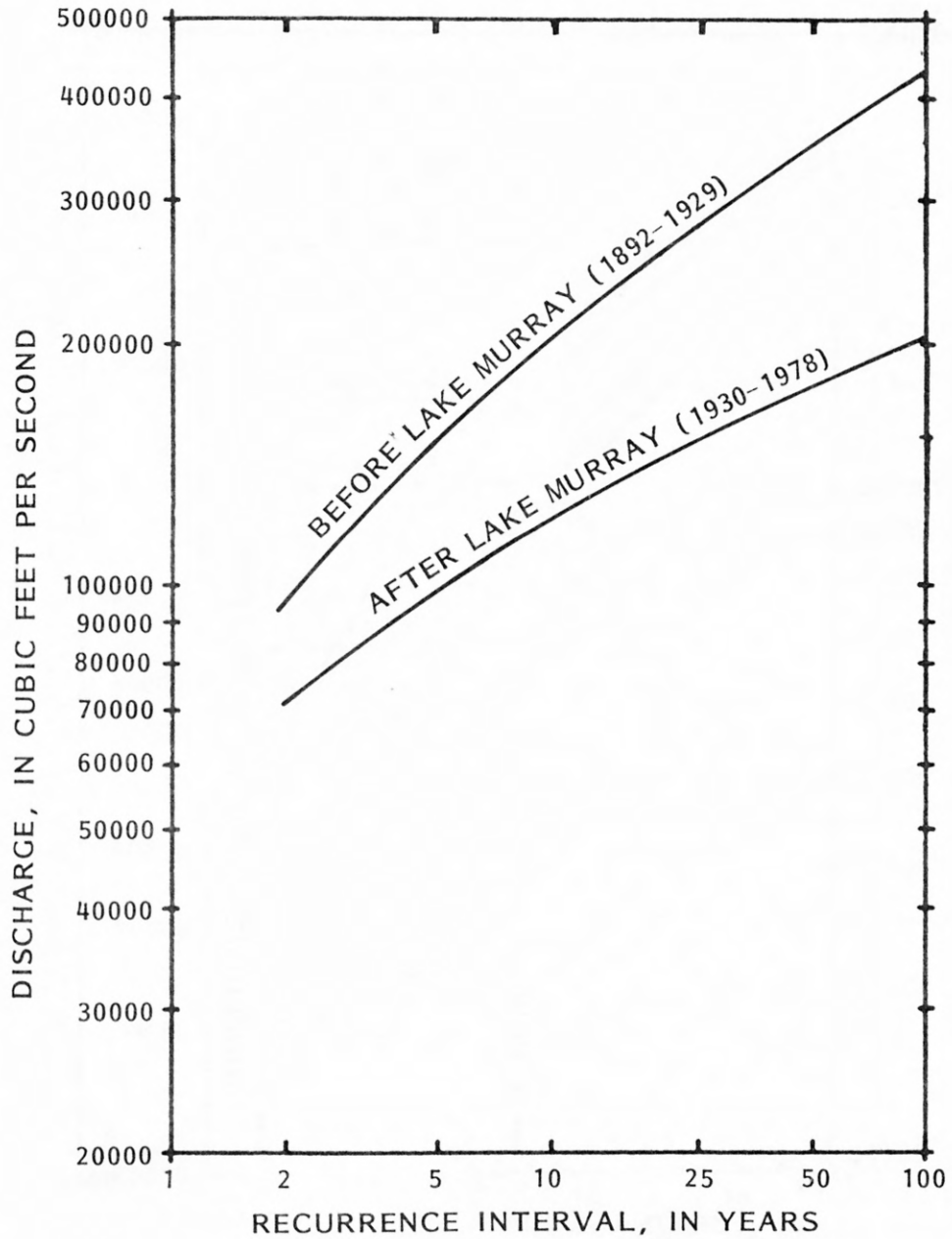

Figure 8. Flood frequency for Congaree River at Columbia, S.C.

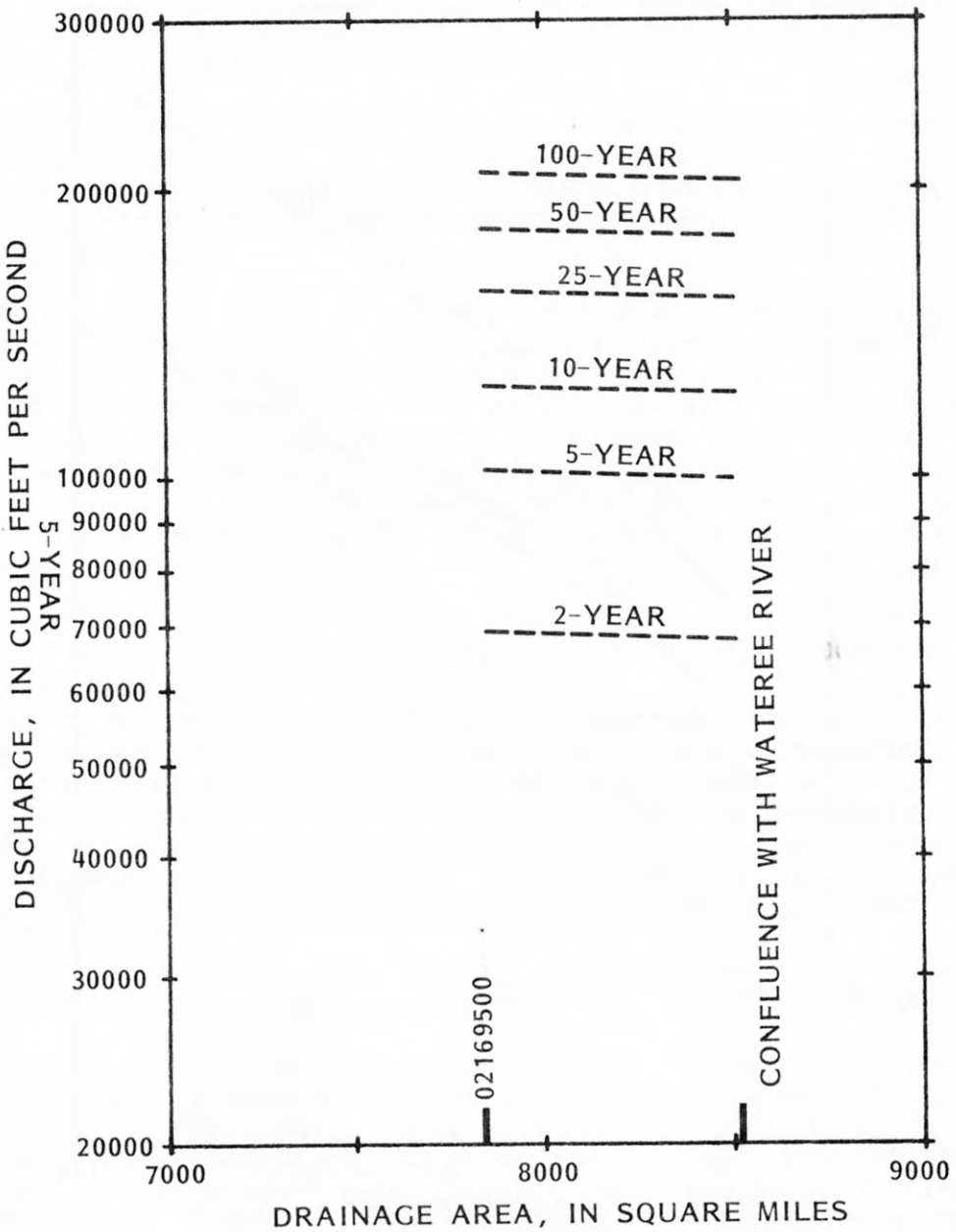

Figure 9. Flood discharges for selected frequencies on the Congaree River.

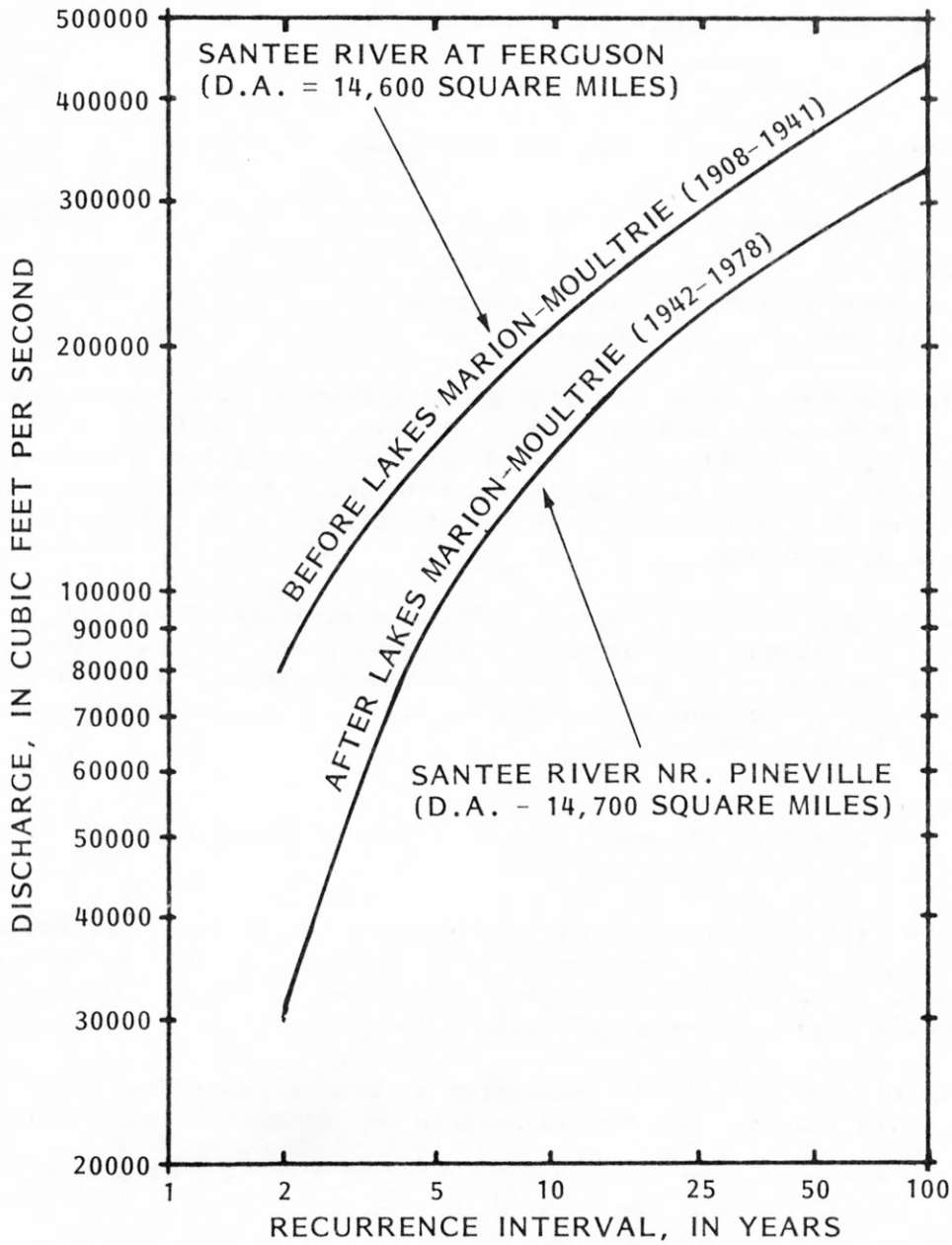

Figure 10. Flood frequency for Santee River near Pineville, S.C.

Savannah River

Flood discharges on the main stem of the Savannah River are regulated by two reservoirs. A third reservoir is under construction with completion scheduled for 1984. The reservoirs are operated by the U.S. Army Corps of Engineers for flood control, generation of power, and navigation. Data pertaining to the reservoirs are listed below.

Name	Date in operation	Drainage area in square miles	Approximate usable capacity in million cubic feet
Lake Hartwell	February 1961	2,088	74,430
Richard B. Russell Lake	under construction	2,900	
Clarks Hill Lake	December 1951	6,150	73,360

Gaging stations which provide flood discharge data downstream of the Clarks Hill Dam are Savannah River at Augusta (02197000), and Savannah River near Clyo (02198500). Flood discharge data for stations on the Savannah River are listed as Supplemental Data. Figure 11 shows the flood frequency at the gaging station at Augusta prior to and after construction of the Clarks Hill Dam.

Figure 12 shows the relation of flood discharges of various recurrence intervals to drainage area under present conditions for the Savannah River downstream of the Clarks Hill Dam. Flood discharges for the reach from Augusta to Clyo, Georgia were computed using an unsteady-streamflow simulation model (Land, 1978).

STORM TIDE FREQUENCIES FOR THE SOUTH CAROLINA COAST

Storm tide frequencies along the South Carolina coast are estimated by the National Oceanic and Atmospheric Administration by applying the National Weather Service hydrodynamic storm surge model to "climatologically representative hurricanes" (Myers, 1975).

Figure 13 depicts tide frequencies at points along the South Carolina coast. Tide heights may be attenuated or increased as the tide moves inland.

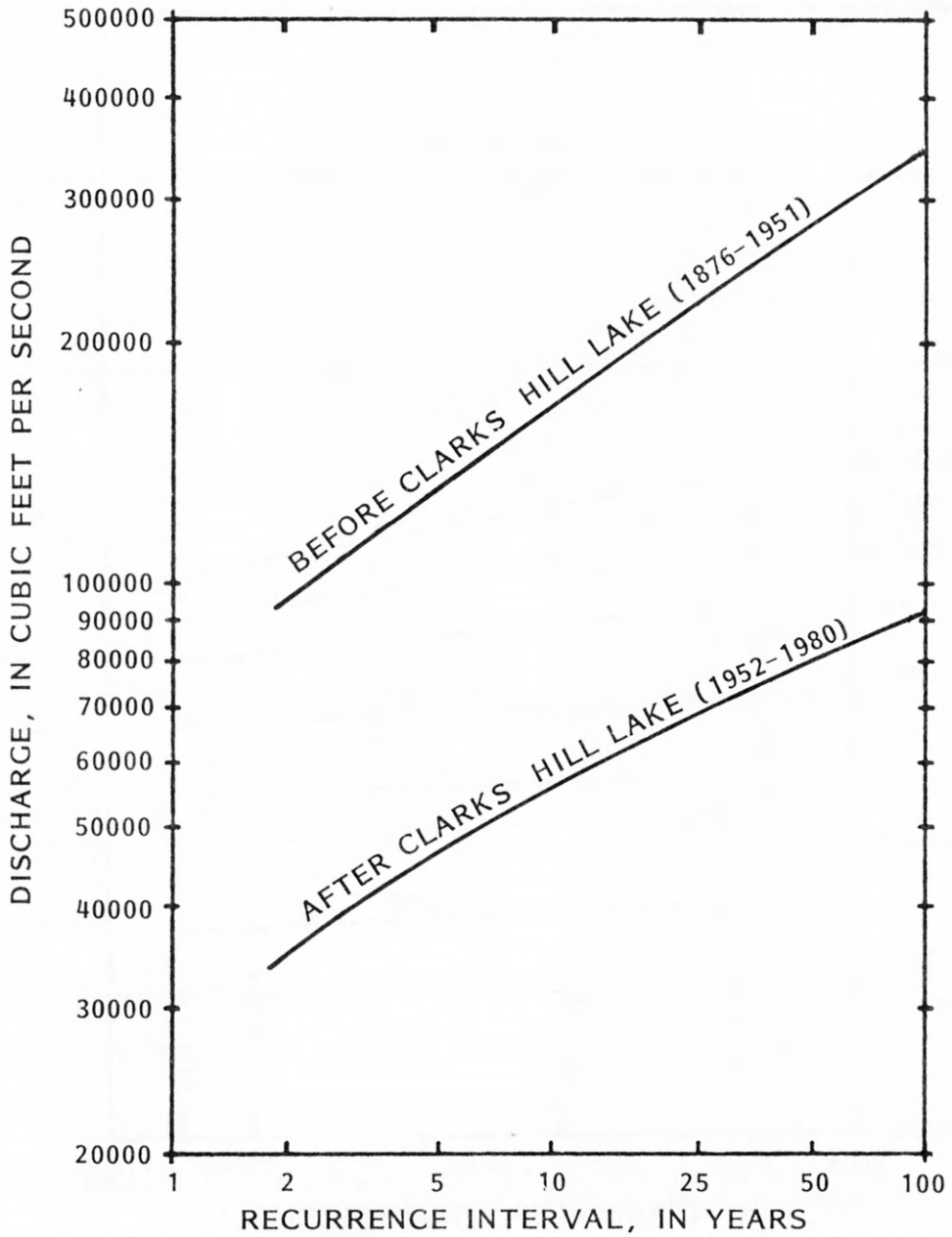

Figure 11. Flood frequency for Savannah River at Augusta, Ga.

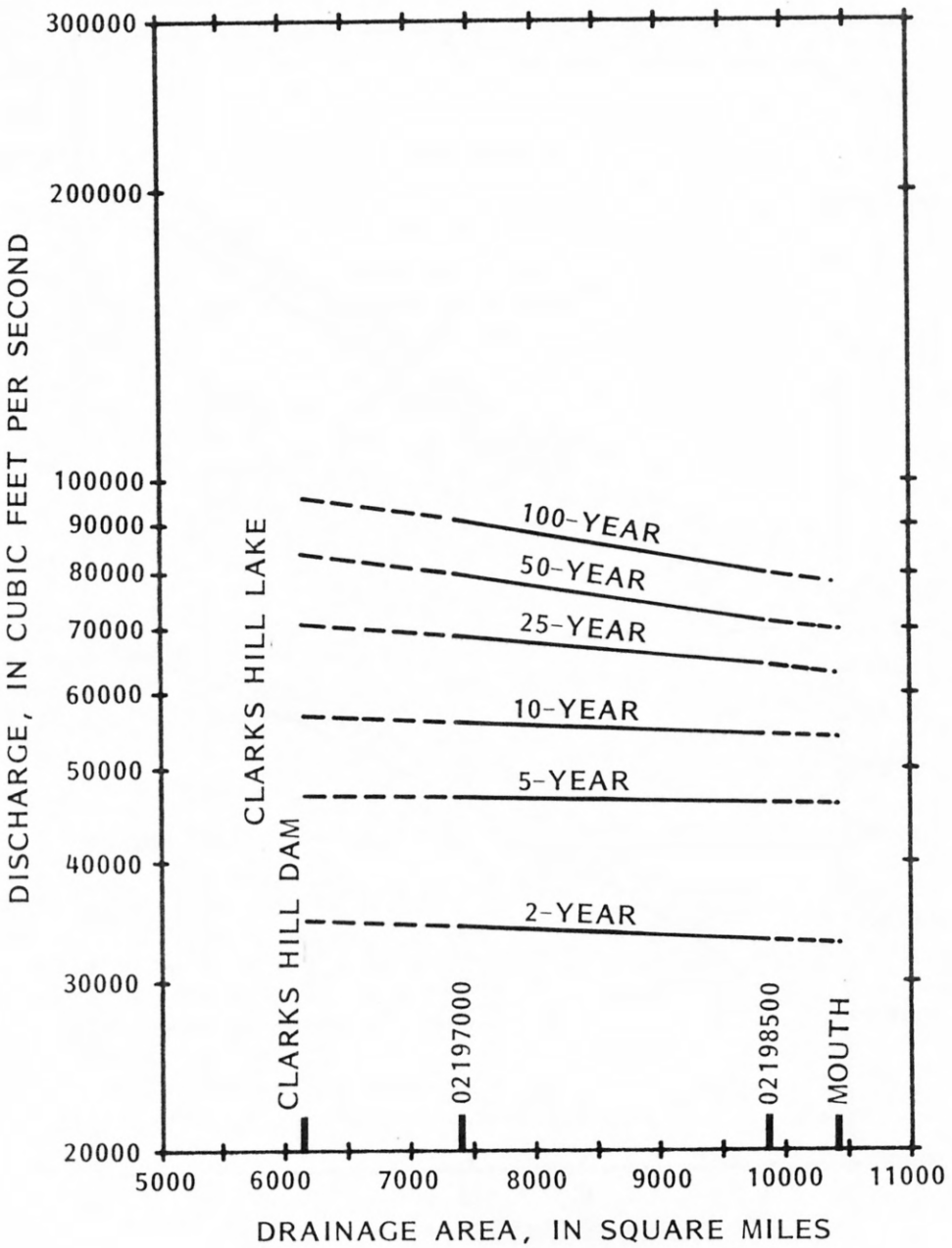

Figure 12. Flood discharges for selected frequencies on the Savannah River.

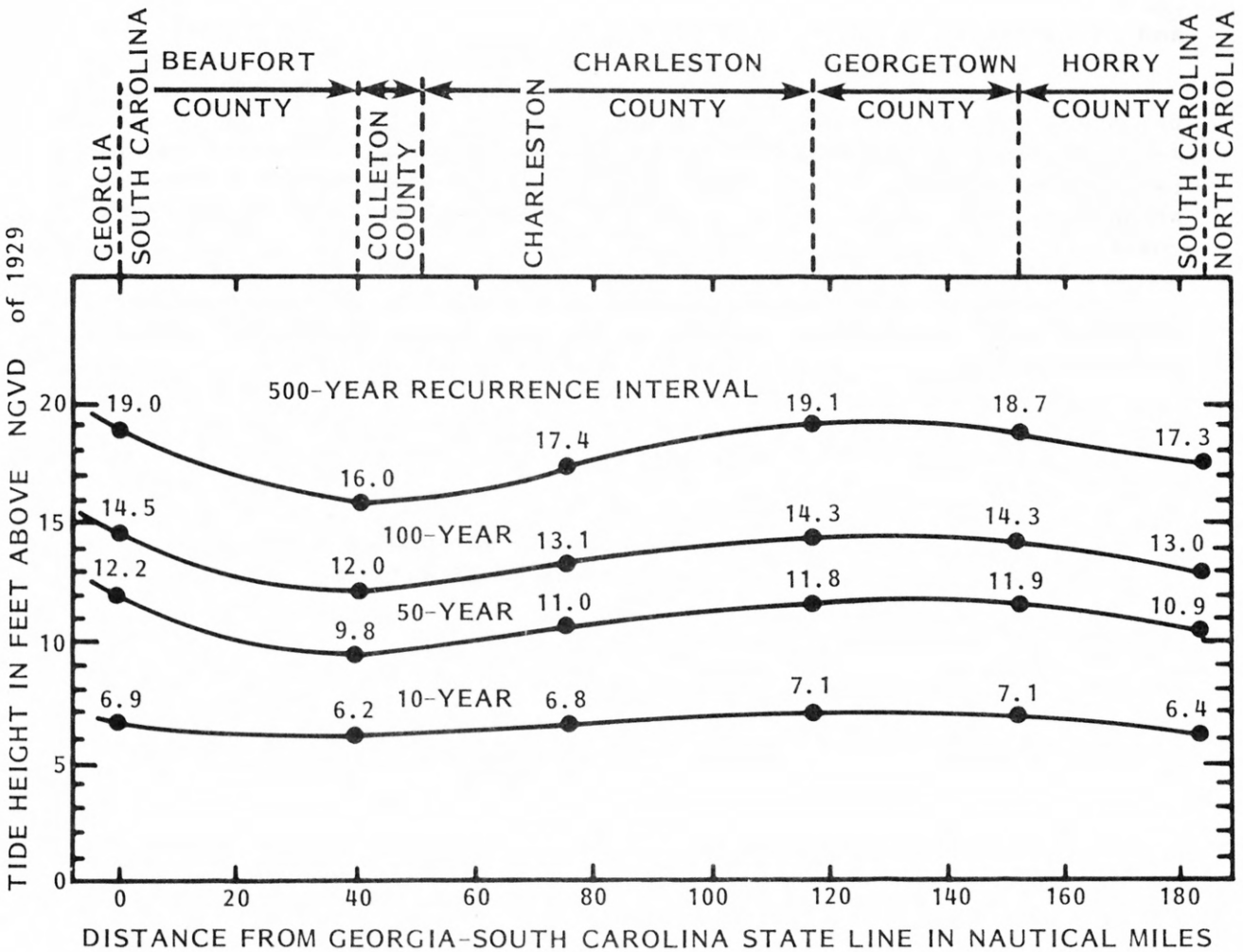

Figure 13. Tide heights for various recurrence intervals, South Carolina (NOAA Technical Report NWS-16)

SUMMARY

Flood frequencies were determined from streamflow data for 159 gaging stations using log-Pearson III distributions and regional skew coefficients. Seventy-two of these gaging stations were in South Carolina and 87 were near the South Carolina border in North Carolina and Georgia. Relations of flood discharge to drainage area were determined by regression analyses for each physiographic province. Equations, maps, and graphs included in this report provide methods for estimating flood discharges for recurrence intervals of 2-, 5-, 10-, 25-, 50-, and 100-year floods on gaged and ungaged streams in South Carolina.

Flood discharges at or near gaged sites can be computed using a weighted average based on equivalent years of record for the regression equations and on log-Pearson III data. Relations of flood discharge and recurrence interval to drainage area are presented for major regulated streams. Tide height frequencies are presented for the South Carolina coast.

Supplemental Data includes annual peak stage, discharge, and description for each gaging station with 10 or more years of data on streams in South Carolina.

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Cooke, C. W., 1936, Geology of the Coastal Plain of South Carolina: U.S. Geological Survey Bulletin 867, 196 p.

Dawdy, D. R., Lichty, R. W., and Bergmann, J. M., 1972, A rainfall-runoff simulation model for estimation of flood peaks for small drainage basins: U.S. Geological Survey Professional Paper 506-B, 28 p.

Hardison, C. H., 1971, Prediction error of regression estimates of streamflow characteristics at ungaged sites, in U.S. Geological Survey Research 1971: U.S. Geological Survey Professional Paper 750-C, p. C228-C236.

Land, Larry F., May 1978, Unsteady streamflow simulation using a linear implicit finite-difference model: U.S. Geological Survey Water-Resources Investigations 78-59, 59 p.

Myers, V. A., 1975, Storm tide frequencies on the South Carolina coast: National Oceanic and Atmospheric Administration Technical Report NWS-16, 79 p.

Speer, P. R., and Gamble, C. R., 1964, Magnitude and frequency of floods in the United States. Part 2A. South Atlantic slope basins, James River to Savannah River: U.S. Geological Survey Water-Supply Paper 1673, 329 p.

U.S. Water Resources Council 1977, Guidelines for determining flood-flow frequency: Bulletin 17-A, 163 p.

SUPPLEMENTAL DATA

Station descriptions, annual peak stages, and discharges for 68 gaging stations are presented as supplemental data. Also included in the supplemental data are station location, drainage area, period of record, gage information, general remarks, and historical data for each station.

Each station is referenced by a number to the left of the name which corresponds to the number shown on figure 1. The stations are numbered and arranged in a downstream order.

Underlines in the tabular data have the following significance:

1. A horizontal line in "Water year" column indicates discontinuous record.

2. A line across the "Gage height" column indicates a change in gage datum and means that the gage heights above and below the line are not comparable.

3. Lines across the "Date" and "Discharge" columns indicate a change in the site that significantly affects the stage-discharge relation.

02110500 WACCAMAW RIVER NEAR LONGS, S.C.

LOCATION.--Lat 33°54'45", long 78°42'55", Horry County, Hydrologic Unit 03040206, near right bank on downstream side of bridge on State Highway 9, 500 ft (152 m) downstream from Buck Creek, 2.1 mi (3.4 km) southeast of Longs, and at mile 85.4 (137.4 km).

DRAINAGE AREA.--1,110 mi^2 (2,875 km^2), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 5.28 ft (1.609 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 11, 1967, nonrecording gage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft^3/s (314 m^3/s) about July 6, 1961, gage height, 13.94 ft (4.249 m) (from floodmark); minimum, 1 ft^3/s (0.03 m^3/s) Oct. 14, 1954.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1951	Jan. 8	9.41	1,860	1961	July 6	13.94	11,100	1971	Mar. 12	12.85	8,300
1952	Apr. 2	10.05	2,520	1962	Mar. 16	11.11	4,520	1972	Feb. 14	12.19	6,100
1953	Mar. 15	11.50	6,360	1963	Feb. 1	11.90	6,180	1973	Feb. 20	13.10	8,620
1954	Apr. 11	10.00	2,520	1964	Mar. 5	12.02	6,200	1974	Aug. 26	12.01	5,720
1955	Sept. 29	13.82	10,300	1965	Oct. 17	12.09	6,380	1975	Feb. 25	11.27	4,240
1956	Feb. 19	9.89	2,230	1966	Mar. 10	12.64	7,750	1976	July 13	11.54	4,780
1957	Mar. 15	10.38	3,780	1967	Aug. 20	11.73	5,530	1977	Mar. 14	10.95	3,630
1958	Apr. 18	12.46	7,540	1968	Jan. 21	10.42	2,970	1978	Jan. 18	11.92	5,540
1959	Mar. 13	13.40	9,760	1969	Aug. 13	13.26	9,440	1979	Sept. 16	12.72	7,470
1960	Aug. 4	13.57	10,000	1970	Mar. 31	11.96	6,060				

02130500 JUNIPER CREEK NEAR CHERAW, S.C.

LOCATION.--Lat 34°39', long 79°54', Chesterfield County, at left end of Eureka Lake Dam, 1.5 mi (2.4 km) upstream from mouth and 3.5 mi (5.6 km) south of Cheraw.

DRAINAGE AREA.--64 mi^2 (166 km^2), approximately.

PERIOD OF RECORD.--May 1940 to September 1958.

GAGE.--Recording. Altitude of gage is 90 ft (27.4 m) (from Corps of Engineers maps).

REMARKS.--Defined by current-meter measurements below 810 ft^3/s (22.9 m^3/s) and extended on basis of logarithmic plotting and computation of peak flow over dam at 3,190 ft^3/s (90.3 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,910 ft^3/sec (111 m^3/s) Sept. 18, 1945, gage height, 5.71 ft (1.740 m).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1941	July 15	1.33	395	1947	Oct. 10	1.32	369	1953	June 9	2.30	880
1942	Aug. 20	1.22	332	1948	Feb. 15	1.41	430	1954	Dec. 15	1.20	316
1943	Jan. 20	1.12	295	1949	May 2	1.50	459	1955	Oct. 17	1.01	235
1944	Mar. 22	1.10	286	1950	Nov. 3	1.00	224	1956	Sept. 15	1.05	360
1945	Sept. 18	5.71	3,910	1951	Sept. 8	1.34	392	1957	Sept. 12	1.20	316
1946	May 5	1.30	410	1952	Sept. 1	2.05	778	1958	July 22	1.92	712

02130900 BLACK CREEK NEAR MCBEE, S.C.

LOCATION.--Lat 34°30'50", long 80°11'00", Chesterfield County, Hydrologic Unit 03040201, near right bank at downstream side of bridge on U.S. Highway 1, 0.2 mi (0.3 km) upstream from Little Alligator Creek, 5.3 mi (8.5 km) northeast of McBee, and at mile 59.1 (95.1 km).

DRAINAGE AREA.--108 mi^2 (280 km^2).

PERIOD OF RECORD.--October 1959 to current year. Occasional low-flow measurements, water years 1956-59.

GAGE.--Water-stage recorder. Datum of gage is 224.72 ft (68.495 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1959, nonrecording gage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft^3/s (50.1 m^3/s) July 16, 1975, gage height, 11.29 ft (3.441 m); minimum 21 ft^3/s (0.59 m^3/s) Sept. 25, 1968 and Oct. 3, 1968.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1960	Apr. 7	9.59	804	1967	Aug. 26	9.43	715	1974	Aug. 10	8.97	471
1961	Feb. 26	9.65	840	1968	Jan. 13	9.27	640	1975	July 16	11.29	1,770
1962	Mar. 13	9.76	906	1969	June 18	10.08	1,110	1976	June 23	9.51	694
1963	Jan. 22	9.37	678	1970	Mar. 24	8.83	411	1977	Mar. 15	9.68	762
1964	Mar. 17	10.04	1,070	1971	Aug. 19	10.44	1,120	1978	Jan. 28	9.51	694
1965	Oct. 18	10.08	1,100	1972	Oct. 4	10.06	930	1979	Feb. 26	10.35	1,090
1966	Mar. 6	9.34	670	1973	Apr. 2	9.80	800				

02130910 BLACK CREEK NEAR HARTSVILLE, S.C.

LOCATION.--Lat 34°23'50", long 80°09'00", Darlington County, Hydrologic Unit 03040201, at downstream side of highway bridge, 1,000 ft (300 m) downstream from dam at H. B. Robinson steam electric plant, 2.1 mi (3.4 km) upstream from Beaverdam Creek, 4.6 mi (7.4 km) west of Hartsville and at mile 49.9 (80.3 km).

DRAINAGE AREA.--173 mi^2 (448 km^2).

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 177.48 ft (54.096 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation by storage in steam electric plant reservoir above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft^3/s (56.9 m^3/s), Aug. 18, 1971, gage height, 10.08 ft (3.072 m); minimum, 51 ft^3/s (1.44 m^3/s) July 14, 1970.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1961	Feb. 25	8.82	1,060	1968	Jan. 12	7.85	760	1975	July 17	9.52	1,740
1962	Mar. 14	7.93	860	1969	June 24	7.93	792	1976	June 27	6.97	541
1963	Jan. 22	8.10	950	1970	Mar. 23	7.21	505	1977	Mar. 25	7.67	770
1964	Mar. 18	8.17	896	1971	Aug. 18	10.08	2,010	1978	Jan. 26	7.69	776
1965	Oct. 19	8.23	924	1972	Jan. 14	8.21	915	1979	Feb. 27	8.59	1,170
1966	Mar. 7	7.60	668	1973	June 22	8.34	988				
1967	Aug. 26	7.67	692	1974	Aug. 9	7.40	624				

02131000 PEE DEE RIVER AT PEEDEE, S.C.

LOCATION.--Lat 34°12'15", long 79°32'55", Marion County, Hydrologic Unit 03040201, in pier of bridge on U.S. Highway 76 at Peedee, 0.2 mi (0.3 km) downstream from Seaboard Coast Line Railroad bridge, 8.2 mi (13.2 km) downstream from Black Creek, and at mile 100.2 (161.2 km).

DRAINAGE AREA.--8,830 mi^2 (22,870 km^2), approximately.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1947, published as "near Mars Bluff." Gage-height records collected at practically same site since 1923 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1233: Drainage area. WSP 1623: 1933, 1945-51 (monthly and yearly runoff).

GAGE.--Water-stage recorder. Datum of gage is 24.73 ft (7.537 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1947, at site 1.6 mi (2.6 km) downstream at datum 23.46 ft (7.151 m) NGVD.

REMARKS.--Records good. Flow regulated by six powerplants above station. Combined usable capacity of reservoirs, 30,819,624,000 ft^3 (872,811,800 m^3).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 220,000 ft^3/s (6,230 m^3/s) Sept. 22, 1945, gage height, 33.30 ft (10.150 m) (site and datum then in use) from rating curve extended above 76,000 ft^3/s (2,150 m^3/s) on basis of discharge measurement of 221,000 ft^3/s (6.260 m^3/s) at Cheraw; minimum.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1924	Mar. 3	19.0	--	1943	Feb. 3	22.31	34,400	1962	Jan. 14	22.98	39,300
1925	Jan. 25	23.2	--	1944	Mar. 26	24.32	51,800	1963	Mar. 20	24.54	53,400
1926	Feb. 8	19.0	--	1945	Sept. 22	33.30	220,000	1964	Apr. 14	23.95	47,600
1927	Mar. 14	19.6	--	1946	Jan. 4	23.76	45,400	1965	Oct. 23	26.01	62,100
1928	Sept. 25	29.6	--	1947	Jan. 26	22.16	30,900	1966	Mar. 10	25.28	57,000
1929	Mar. 5	25.4	--	1948	Feb. 19	26.23	69,300	1967	Aug. 29	20.84	26,300
1930	Oct. 7	27.3	--	1949	Dec. 5	24.12	47,600	1968	Jan. 19	23.01	36,900
1931	Aug. 27	19.4	--	1950	Nov. 7	21.22	25,600	1969	Feb. 27	21.78	32,500
1932	Jan. 15	20.9	--	1951	Apr. 14	20.36	21,600	1970	Aug. 19	21.69	31,800
1933	Jan. 2	21.2	--	1952	Mar. 10	25.95	62,600	1971	Mar. 10	23.98	47,900
1934	June 11	19.0	--	1953	Feb. 28	23.54	39,700	1972	June 29	24.09	47,200
1935	Apr. 1	19.9	--	1954	Jan. 29	25.76	60,500	1973	Apr. 6	26.97	74,600
1936	Apr. 11	27.1	--	1955	Apr. 21	22.44	32,200	1974	Apr. 12	22.45	35,800
1937	Jan. 10	21.9	--	1956	Mar. 22	20.46	22,000	1975	Mar. 20	27.81	85,300
1938	July 31	20.3	--	1957	Apr. 13	21.58	30,000	1976	June 26	20.49	23,100
1939	Mar. 6	25.61	66,700	1958	Dec. 1	24.58	52,600	1977	Dec. 20	22.56	36,500
1940	Aug. 22	22.35	35,300	1959	Apr. 26	21.44	28,800	1978	Feb. 1	26.58	70,000
1941	Apr. 9	19.32	17,400	1960	Apr. 10	26.28	70,400	1979	Mar. 2	29.03	103,000
1942	Mar. 15	22.26	34,400	1961	Mar. 3	23.86	46,300				

02131150 CATFISH CANAL AT SELLERS, S.C.

LOCATION.--Lat 34°17'04", long 79°26'32", Marion County, Hydrologic Unit 03040201, on right downstream wingwall of bridge on State Highway 38, 2.0 mi (3.2 km) east of Sellers, 2.3 mi (3.7 km) upstream from Stackhouse Creek, and at mile 25.6 (41.2 km).

DRAINAGE AREA.--27.4 mi^2 (71.0 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 75 ft (23 m) (from topographic map).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 890 ft^3/s (25.2 m^3/s), Mar. 4, 1971, gage height, 9.15 ft (2.789 m); no flow September 27-30, 1978, Oct. 5-Nov. 7, 1978.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	June 24	3.33	67	1972	Feb. 4	4.51	162	1977	Mar. 22	5.35	204
1968	Jan. 11	4.22	120	1973	Feb. 15	6.84	304	1978	Jan. 26	5.12	192
1969	Oct. 20	7.98	413	1974	Aug. 7	8.39	557	1979	Sept. 7	6.51	271
1970	Mar. 23	6.43	260	1975	Apr. 3	6.88	308				
1971	Mar. 4	9.15	890	1976	July 10	4.39	156				

LOCATION.--Lat 34°15'00", long 80°12'50", Lee County, near center of span on downstream side of bridge on U.S. Highway 15, 1.0 mi (1.6 km) upstream from Seaboard Coast Line Railroad bridge, 2.9 mi (9.7 km) northeast of Bishopville, 3.0 mi (4.8 km) downstream from Bells Branch, and at mile 89.5 (144.0 km).

DRAINAGE AREA.--675 mi^2 (1,748 km^2).

PERIOD OF RECORD.--May 1942 to current year.

GAGE.--Water-stage recorder prior to September 1971, crest-stage gage thereafter. Datum of gage is 155.59 ft (47.424 m) National Geodetic Vertical Datum of 1929. Prior to June 11, 1948, nonrecording gage at site 100 ft (30.5 m) upstream at same datum. June 11, 1948, to Dec. 15, 1954, nonrecording gage at present site and datum.

REMARKS.--Records good, except for period of no gage-height record which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft^3/s (832 m^3/s) Sept. 19, 1945 (gage height, 22.35 ft (6.812 m), from floodmark), from rating curve extended above 12,000 ft^3/s (340 m^3/s) by velocity-area studies.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1943	Jan. 21	15.66	7,210	1956	Mar. 20	14.40	5,230	1969	Apr. 22	14.35	5,700
1944	Mar. 22	17.43	12,400	1957	May 15	13.97	4,520	1970	Mar. 25	14.12	5,240
1945	Sept. 19	22.35	29,400	1958	Jan. 27	15.41	7,260	1971	Mar. 6	16.28	9,700
1946	Dec. 29	14.06	3,980	1959	Apr. 15	14.75	6,400	1972	Apr. 4	11.79	1,860
1947	Apr. 18	14.36	4,460	1960	Apr. 7	15.68	7,960	1973	Apr. 4	17.40	12,400
1948	Mar. 10	15.47	7,480	1961	Feb. 27	15.90	9,320	1974	Apr. 10	13.80	4,600
1949	Dec. 1	16.85	10,900	1962	Mar. 14	16.25	10,200	1975	July 16	15.99	8,980
1950	Dec. 18	11.91	1,790	1963	Jan. 23	14.89	6,680	1976	June 27	15.36	7,720
1951	Apr. 12	13.02	2,970	1964	Mar. 18	16.86	12,200	1977	Mar. 22	16.11	9,280
1952	Sept. 3	18.06	15,000	1965	Oct. 19	16.33	10,600	1978	Jan. 26	--	--
1953	Feb. 19	13.86	4,350	1966	Mar. 7	14.92	6,700	1979	Feb. 25	18.26	15,500
1954	Apr. 4	14.73	5,800	1967	Sept. 12	--	[a]7,400				
1955	Apr. 17	15.40	7,720	1968	Jan. 13	15.63	8,260				

[a]About.

LOCATION.--Lat 34°03'05", long 79°45'15", Florence County, Hydrologic Unit 03040202, on left bank at downstream side of bridge on U.S. Highway 52, 75 ft (23 m) upstream from Seaboard Coast Line Railroad Bridge, 1 mi (1.6 km) south of Effingham, and at mile 43.4 (69.8 km).

DRAINAGE AREA.--1,030 mi^2 (2,670 km^2) approximately.

PERIOD OF RECORD.--August 1929 to current year. Gage-height records collected at same site since 1891 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 58.49 ft (17.828 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 7, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s (708 m^3/s) Sept. 22, 1945, gage height, 21.21 ft (6.465 m), from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum 94 ft^3/s (2.66 m^3/s) Oct. 10, 1954.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1928	Sept. 24	19.5	16,100	1946	Jan. 2	13.10	4,200	1964	Mar. 22	15.75	
1929	Mar. 10	17.5	10,800	1947	Apr. 16	13.57	4,700	1965	Oct. 22	15.87	
1930	Oct. 7	19.25	15,200	1948	Feb. 16	14.67	6,180	1966	Mar. 7	15.38	
1931	Aug. 31	10.40	2,330	1949	Dec. 5	15.92	8,320	1967	Sept. 16	14.08	
1932	Jan. 15	13.70	4,780	1950	Dec. 24	8.43	1,630	1968	Jan. 18	14.26	
1933	Oct. 24	15.30	6,830	1951	Apr. 17	9.81	2,120	1969	Apr. 26	12.52	
1934	June 13	10.30	2,300	1952	Sept. 6	16.76	10,900	1970	Mar. 31	12.76	
1935	Sept. 14	12.58	3,750	1953	Feb. 23	12.35	3,920	1971	Mar. 5	17.46	
1936	Apr. 12	18.66	14,400	1954	Apr. 8	12.35	3,720	1972	Jan. 18	14.21	
1937	May 2	14.09	5,200	1955	Apr. 22	12.80	3,920	1973	Feb. 5	16.68	
1938	Aug. 2	13.72	4,880	1956	Mar. 25	11.41	2,840	1974	Aug. 15	12.18	
1939	Mar. 4	17.39	11,200	1957	May 21	10.09	2,260	1975	July 20	16.69	
1940	Aug. 18	9.43	1,980	1958	Feb. 1	13.53	5,290	1976	June 28	13.37	4,500
1941	July 18	12.22	3,420	1959	Feb. 12	12.74	3,840	1977	Mar. 20	13.81	4,920
1942	May 28	14.39	5,640	1960	Apr. 10	16.31		1978	Jan. 26	16.09	8,380
1943	Jan. 26	13.48	4,600	1961	Mar. 3	15.74		1979	Mar. 2	17.45	11,100
1944	Mar. 26	16.42	9,050	1962	Mar. 18	15.83					
1945	Sept. 22	21.21	25,000	1963	Jan. 27	15.01					

02132500 LITTLE PEE DEE RIVER NEAR DILLON, S.C.

LOCATION.--Lat 34°24'17", long 79°20'25", Dillon County, near center of span on downstream side of bridge on State Highway 9, 1.9 mi (3.1 km) southeast of Dillon, 3.9 mi (6.3 km) (revised) upstream from Maple Swamp, and at mile 88.3 (142.1 km).

DRAINAGE AREA.--524 mi^2 (1,357 km^2).

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

GAGE.--Water-stage recorder prior to September 1971, crest-stage gage thereafter. Datum of gage is 75.14 ft (22.903 m) National Geodetic Vertical Datum of 1929. (Levels by South Carolina Highway Department). Prior to July 31, 1967, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,810 ft^3/s (277.8 m^3/s) Sept. 20, 1945 (gage height, 14.64 ft (4.462 m)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1940	Feb. 13	8.45	1,080	1954	Apr. 13	9.01	1,630	1968	Jan. 14	9.72	2,250
1941	July 19	9.60	2,130	1955	Apr. 17	10.66	3,240	1969	Aug. 5	10.31	2,890
1942	Mar. 13	10.12	2,770	1956	Feb. 9	9.22	1,820	1970	Mar. 24	9.60	2,220
1943	July 12	9.46	2,020	1957	June 12	--	1,200	1971	Mar. 5	12.20	5,820
1944	Mar. 25	9.55	2,130	1958	Dec. 1	10.32	3,090	1972	May 20	8.56	1,150
1945	Sept. 20	14.64	9,810	1959	Apr. 17	10.04	2,710	1973	Feb. 19	12.54	5,960
1946	Jan. 3	9.40	2,020	1960	Oct. 17	11.42	4,650	1974	Aug. 12	9.90	2,560
1947	Apr. 22	9.78	2,470	1961	Mar. 1	9.65	2,240	1975	Feb. 18	10.65	3,500
1948	Feb. 15	10.79	3,750	1962	Feb. 26	9.71	2,350	1976	Feb. 4	8.93	1,500
1949	Nov. 30	10.47	3,330	1963	Jan. 23	10.73	3,440	1977	Jan. 10	9.82	2,460
1950	Nov. 7	8.06	915	1964	Feb. 22	10.44	3,050	1978	Jan. 30	9.76	2,400
1951	Apr. 11	8.52	1,200	1965	Oct. 7	12.26	5,500	1979	Feb. 24	10.49	3,290
1952	Sept. 6	8.87	1,540	1966	June 12	12.07	5,220				
1953	May 9	9.58	2,240	1967	Aug. 27	8.80	1,370				

02135000 LITTLE PEE DEE RIVER AT GALIVANTS FERRY, S.C.

LOCATION.--Lat 34°03'25", long 79°14'50", Horry-Marion County Line, Hydrologic Unit 03040204, near left bank on downstream side of bridge on U.S. Highway 501, at Galivants Ferry, 1.0 mi (1.6 km) downstream from Lake Swamp, and at mile 41.7 (67.1 km).

DRAINAGE AREA.--2,790 mi^2 (7,230 km^2), approximately.

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 23.95 ft (7.300 m) National Geodetic Vertical Datum of 1929. Prior to July 26, 1967, nonrecording gage and crest-stage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft^3/s (782 m^3/s) Oct. 9, 10, 1964, gage height, 13.01 ft (3.965 m); minimum, 155 ft^3/s (4.39 m^3/s) Oct. 12, 13, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.0 ft (4.877 m) in September 1928, from floodmark set by local resident.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1942	Mar. 14	9.87	11,000	1956	Feb. 14	9.48	9,270	1969	Aug. 10	11.07	17,200
1943	July 18	9.76	10,500	1957	Feb. 13	8.98	7,510	1970	Mar. 27	9.71	10,600
1944	Feb. 24	9.95	11,500	1958	Apr. 7	10.00	12,000	1971	Mar. 8	12.29	25,000
1945	Sept. 23	13.23	26,800	1959	Mar. 10	11.21	17,600	1972	Feb. 8	10.02	12,000
1946	Jan. 2	9.86	11,600	1960	Aug. 2	10.66	14,800	1973	Apr. 10	11.86	22,100
1947	Apr. 20	9.69	10,600	1961	Apr. 18	10.09	12,500	1974	Aug. 12	11.79	21,600
1948	Feb. 18	11.24	17,600	1962	Mar.18	9.95	11,100	1975	Feb. 26	11.13	13,000
1949	Dec. 4	10.62	14,800	1963	Jan. 27	10.57	15,200	1976	Feb. 4	9.91	8,030
1950	July 18	8.08	4,310	1964	Sept. 17	10.30	13,400	1977	Mar. 28	10.69	10,900
1951	Apr. 16	8.32	4,890	1965	Oct. 9	13.01	27,600	1978	June 15	11.27	12,200
1952	Apr. 2	8 82	6,690	1966	Mar. 11	10.68	15,300	1979	Sept. 11	12.51	20,200
1953	Mar. 19	9.47	9,730	1967	Feb. 20	8.66	6,090				
1954	Apr. 15	9.10	7,930	1968	Jan. 19	9.64	10,300				

02135300 SCAPE ORE SWAMP NEAR BISHOPVILLE, S.C.

LOCATION.--Lat 34°09'02", long 80°18'18", Lee County, Hydrologic Unit 03040205, at bridge on U.S. Highway 15, 0.1 mi (0.2 km) downstream from Beaverdam Creek, 0.9 mi (1.4 km) upstream from Seaboard Coast Line Railroad bridge and 5.8 mi (9.3 km) southwest of Bishopville.

DRAINAGE AREA.--96.0 mi^2 (249 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 164.53 ft (50.149 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except those for period of no gage-height record, Dec. 11 to Jan. 15, which is poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,700 ft^3/s (48.1 m^3/s), Sept. 7, 1979, gage height, 8.54 ft (2.603 m); minimum daily, 6.7 ft^3/s (0.19 m^3/s) July 21, 1970.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1969	Feb. 19	6.90	630	1973	--	7.28	848	1977	Dec. 18	6.57	487
1970	Mar. 24	6.78	570	1974	Feb. 19	6.07	273	1978	Apr. 28	7.02	702
1971	Mar. 5	8.09	1,330	1975	Apr. 5	7.26	846	1979	Sept. 7	8.54	1,700
1972	Jan. 15	7.14	764	1976	June 6	6.60	490				

02135500 BLACK RIVER NEAR GABLE, S.C.

LOCATION.--Lat 33°54'00", long 80°09'55", Sumter County, Hydrologic Unit 03040205, near left bank on downstream side of McBride Crossing on U.S. Highway 378, 1 mi (1.6 km) downstream from Church Branch, 6.3 mi (10.1 km) northwest of Gable, and at mile 123.1 (198.1 km).

DRAINAGE AREA.--401 mi^2 (1,039 km^2).

PERIOD OF RECORD.--June 1951 to June 1966, April 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 95 ft (29 m) (from topographic map). Crest-stage station October 1970 to September 1971 at same site and datum. Prior to Dec. 9, 1955, wire-weight gage at same site and datum.

REMARKS.--Records good, except those below 100 ft^3/s (2.83 m^3/s), which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) Mar. 5, 1971, gage height, 6.82 ft (2.079 m); maximum gage height 6.92 ft (2.109 m) June 13, 1973; no flow for several days in 1954, 1956, 1957.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1952	Aug. 3	5.22	4,150	1960	Apr. 7	5.15	3,780	1973	June 13	6.92	7,980
1953	Feb. 28	3.95	1,660	1961	Aug. 6	5.08	3,670	1974	Aug. 6	4.79	2,540
1954	Dec. 17	3.30	742	1962	Feb. 25	4.33	2,340	1975	Feb. 12	5.09	2,880
1955	Apr. 18	3.26	518	1963	Jan. 23	4.45	2,520	1976	June 20	5.12	3,060
1956	Feb. 9	3.58	835	1964	Sept. 1	5.80	6,650	1977	Dec. 16	4.46	1,840
1957	Mar. 28	3.77	713	1965	June 16	6.10	8,300	1978	Jan. 28	4.56	2,080
1958	Apr. 17	5.16	3,780	1966	Mar. 6	5.13	3,830	1979	Sept. 7	5.68	4,320
1959	Mar. 8	4.44	2,320	1971	Mar. 5	6.82	12,500				

LOCATION.--Lat 33°39'40", long 79°50'10", Williamsburg County, Hydrologic Unit 03040205, on left bank at downstream side of bridge on U.S. Highway 52 at Kingstree, 1.0 mi (1.6 km) downstream from Kingstree Swamp Canal, and at mile 86.7 (139.5 km).

DRAINAGE AREA.--1,252 mi^2 (3,243 km^2).

PERIOD OF RECORD.--August 1929 to current year. Gage-height records collected at same site since 1894 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1032: 1928(m), drainage area. WSP 1333: 1930(m), 1931, 1936.

GAGE.--Water-stage recorder. Datum of gage is 25.66 ft (7.821 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 7, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good, except for periods of no gage-height record, Feb. 3 to Mar. 5 and May 9 to June 10, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,000 ft^3/s (1,640 m^3/s) June 14, 1973, gage height, 19.77 ft (6.026 m); minimum, 2.0 ft^3/s (0.06 m^3/s) Sept. 12-15, Oct. 7, 8, 1954.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1928	Sept. 21	18.0	41,600	1946	Jan. 2	11.62	5,780	1964	Sept. 5	12.52	7,310
1929	Feb. 22	11.7	6,060	1947	Apr. 19	12.22	7,760	1965	Oct. 7	14.73	17,900
1930	Jan. 25	12.2	7,760	1948	Feb. 14	12.81	10,400	1966	Mar. 8	13.00	9,240
1931	Jan. 20	10.10	3,120	1949	Dec. 2	12.50	9,020	1967	Jan. 13	9.08	1,680
1932	Mar. 16	8.60	1,550	1950	Sept. 12	9.78	2,510	1968	June 17	10.45	3,080
1933	Feb. 19	11.20	4,600	1951	Apr. 9	9.63	2,300	1969	May 26	11.53	4,690
1934	June 12	6.80	908	1952	Sept. 7	11.61	5,780	1970	Mar. 28	12.42	6,520
1935	Sept. 17	9.83	2,510	1953	Mar. 3	11.44	5,240	1971	Mar. 7	15.22	23,600
1936	Apr. 13	13.07	11,800	1954	Jan. 4	9.09	1,860	1972	Feb. 7	12.50	7,120
1937	Feb. 4	11.53	5,440	1955	Sept. 9	10.79	3,900	1973	June 14	19.77	58,000
1938	Apr. 14	12.00	6,730	1956	Mar. 5	9.96	2,670	1974	Feb. 22	11.22	3,860
1939	Mar. 4	13.21	12,200	1957	Mar. 29	8.92	1,590	1975	Feb. 25	12.42	7,120
1940	Feb. 23	9.70	2,400	1958	Apr. 19	13.54	11,800	1976	July 9	12.24	6,490
1941	July 24	11.32	5,000	1959	Mar. 9	13.58	12,000	1977	Mar. 18	11.43	4,260
1942	Mar. 9	12.26	8,160	1960	Dec. 22	12.65	7,420	1978	Jan. 29	12.16	6,230
1943	Mar. 29	10.44	3,310	1961	Apr. 18	12.97	9,020	1979	Sept. 11	12.88	8,880
1944	Mar. 27	11.93	6,680	1962	Mar. 1	11.60	5,020				
1945	Sept. 20	16.07	29,100	1963	Jan. 27	11.67	4,920				

02146000 CATAWBA RIVER NEAR ROCK HILL, S.C.

LOCATION.--Lat 34°59'05", long 80°58'27", York County, Hydrologic Unit 03050103, on right bank at downstream side of bridge on U.S. Highway 21, 3.5 mi (5.6 km) downstream from Lake Wylie Dam, 5.0 mi (8.0 km) northeast of Rock Hill, 7.5 mi (12.1 km) upstream from Sugar Creek, and at mile 137.6 (221.4 km).

DRAINAGE AREA.--3,050 mi^2 (7,900 km^2), approximately.

PERIOD OF RECORD.--September 1895 to September 1903, April 1942 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1303: 1895-1903, WSP 1333: 1942-43(M), 1953(M). WSP 1623: 1942-51 (yearly runoff).

GAGE.--Water-stage recorder. Datum of gage is 485.82 ft (148.078 m). Sept. 23, 1895, to July 31, 1903, nonrecording gage at Southern Railway bridge, 2.0 mi (3.2 km) downstream, at different datum.

REMARKS.--Records good. Flow regulated by Lake Wylie, usable capacity, 2,520,500,000 ft^3 (71,381,000 m^3) and by other powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 151,000 ft^3/s (4,280 m^3/s) May 23, 1901, gage height, 24.15 ft (7.361 m), site and datum then in use.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1896	July 10	15.2	71,500	1951	Jan. 23	7.49	13,600	1966	Mar. 5	7.66	15,000
1897	Feb. 7	14.8	68,500	1952	Mar. 4	16.96	56,100	1967	Aug. 23	13.53	39,200
1899	Mar. 20	18.0	95,000	1953	Mar. 24	13.49	38,900	1968	Jan. 11	7.74	15,000
1901	May 23	24.15	151,000	1954	Jan. 23	16.01	51,000	1969	Feb. 3	7.72	14,900
1902	Dec. 30	19.7	108,000	1955	Apr. 15	7.69	14,200	1970	Aug. 13	7.89	15,400
1903	Mar. 24	18.0	93,800	1956	Apr. 16	7.77	14,600	1971	May 16	11.75	31,000
1942[a]	Sept. 8	10.61	25,900	1957	Apr. 7	12.93	36,100	1972	June 23	10.01	24,000
1943	July 10	16.99	56,100	1958	Apr. 28	15.82	50,000	1973	May 30	12.44	33,800
1944	Sept. 30	11.55	30,200	1959	Dec. 30	10.39	25,100	1974	Apr. 6	10.31	25,200
1945	Sept. 19	20.84	76,800	1960	Feb. 6	15.80	50,000	1975	Mar. 15	17.57	62,400
1946	Feb. 11	15.05	46,000	1961	Feb. 25	9.49	21,300	1976	Mar. 8	7.47	13,400
1947	Jan. 20	13.57	39,300	1962	Jan. 6	15.70	49,500	1977	Oct. 9	16.57	55,400
1948	Mar. 31	13.63	39,300	1963	Mar. 6	10.73	26,300	1978	Nov. 7	13.44	39,000
1949	Nov. 28	17.79	60,200	1964	Apr. 8	13.25	37,500	1979	Feb. 25	13.86	43,300
1950	Nov. 1	10.03	23,600	1965	Oct. 17	14.64	44,700				

[a]No record Oct. 1 to April 6.

02147000 CATAWBA RIVER NEAR CATAWBA, S.C.

LOCATION.--Lat 34°51'09", long 80°52'06", York County, Hydrologic Unit 03050103, on right bank, 60 ft (20 m) downstream from Seaboard Coast Line Railroad bridge, 200 ft (60 m) downstream from Twelvemile Creek, 2.5 mi (4.0 km) east of Catawba, and at mile 122.8 (197.6 km).

DRAINAGE AREA.--3,530 mi^2 (9,140 km^2), approximately.

PERIOD OF RECORD.--October 1968 to current year. Annual peak stages from June 1906 to December 1948.

GAGE.--Water-stage recorder. Datum of gage is 446.18 ft (135.996 m) National Geodetic Vertical Datum of 1929 (levels by Bowaters Carolina Corporation). June 1906 to Dec. 21, 1948, nonrecording gage at site 2.1 mi (3.4 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Lake Wylie, usable capacity, 2,520,500,000 ft^3 (71,381,000 m^3) and by other powerplants above the station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,600 ft^3/s (2,080 m^3/s) Oct. 9, 1976, gage height, 23.81 ft (7.257 m); minimum daily, 798 ft^3/s (22.6 m^3/s) June 28, 1970.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--Maximum stage known since June 1906, 40.4 ft (12.31 m) July 16, 1916 at site and datum then in use, from records furnished by the National Weather Service.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1901	May 23	[a]24.8	--	1924	Jan. 18	14.0	--	1944	Mar. 20	13.2	--
1904	Aug. 8	10.5	26,200	1925	Oct. 1	18.3	--	1945	Sept. 19	23.2	--
1905	July 14	18.8	--	1926	Mar. 10	5.8	--	1946	Feb. 11	15.1	--
1907	Oct. 20	15.9	--	1927	Mar. 15	5.0	--	1947	Jan. 20	15.0	--
1908	Aug. 25	28.4	--	1928	Aug. 17	26.0	--	1948	Feb. 13	14.7	--
1909	June 5	16.1	--	1929	Mar. 1	17.0	--	1949[b]	Nov. 29	19.0	--
1910	Mar. 2	12.6	--	1930	Oct. 3	28.7	--	1968	Jan. 11	11.92	23,000
1911	Oct. 9	12.3	--	1931	Sept. 2	4.5	--	1969	Feb. 3	7.72	14,900
1912	Mar. 16	26.0	--	1932	Jan. 9	12.0	--	1970	Aug. 13	10.22	19,200
1913	Mar. 16	19.3	--	1933	Oct. 18	16.5	--	1971	May 16	14.01	28,500
1914	Apr. 16	12.0	--	1934	June 7	6.4	--	1972	Oct. 17	12.15	23,900
1915	Dec. 6	17.0	--	1935	Mar. 13	11.0	--	1973	Apr. 1	17.16	37,500
1916	July 16	40.4	--	1936	Apr. 7	25.0	--	1974	Apr. 6	13.43	27,100
1917	Mar. 5	17.5	--	1937	Jan. 4	16.4	--	1975	Mar. 15	21.76	63,400
1918	Jan. 30	10.8	--	1938	Oct. 21	12.5	--	1976	Dec. 31	8.48	15,700
1919	July 21	20.8	--	1939	Mar. 1	15.0	--	1977	Oct. 9	23.81	73,600
1920	Aug. 28	14.6	--	1940	Aug. 16	24.3	--	1978	Jan. 26	18.12	47,500
1921	Feb. 11	16.4	--	1941	July 8	15.7	--	1979	Feb. 25	19.16	51,700
1922	Feb. 15	16.2	--	1942	Mar. 9	13.9	--				
1923	Mar. 17	17.0	--	1943	July 10	16.5	--				

[a]From information by U.S. Weather Bureau.
[b]No record Jan. 1 to June 30.

02147500 ROCKY CREEK AT GREAT FALLS, S.C.

LOCATION.--Lat 34°33'45", long 80°55'00", Chester County, Hydrologic Unit 03050103, on left bank 350 ft (107 m) downstream from Turkey Branch, 1.0 mi (1.6 km) west of Great Falls, and at mile 1.8 (2.9 km).

DRAINAGE AREA.--194 mi^2 (502 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 299 ft (91 m) (by barometer).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,300 ft^3/s (886 m^3/s) Aug. 23, 1967, gage height, 18.82 ft (5.736 m); minimum, 0.04 ft^3/s (.001 m^3/s) Oct. 6-13, 1954.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1952	Mar. 4	9.77	8,880	1962	Jan. 7	8.86	7,570	1972	Jan. 11	7.36	5,110
1953	Feb. 21	7.71	5,230	1963	Mar. 13	8.43	6,510	1973	Apr. 1	12.92	16,600
1954	Jan. 17	8.08	5,860	1964	Mar. 15	9.29	8,490	1974	Oct. 2	6.66	3,990
1955	Apr. 15	8.27	6,180	1965	Oct. 16	10.95	13,000	1975	Mar. 14	9.21	8,470
1956	Mar. 17	7.56	5,080	1966	Mar. 5	8.38	6,470	1976	Mar. 17	6.43	3,650
1957	Apr. 6	7.04	4,290	1967	Aug. 23	18.82	31,300	1977	Jan. 10	7.35	5,100
1958	Jan. 25	7.93	5,600	1968	July 10	9.53	9,110	1978	Oct. 26	11.62	13,300
1959	Sept. 30	10.23	10,800	1969	Apr. 19	9.94	9,930	1979	--	7.78	5,790
1960	Feb. 14	8.70	6,910	1970	Mar. 22	6.67	4,000				
1961	Feb. 25	8.83	7,340	1971	Mar. 4	8.41	6,900				

LOCATION.--Lat 34°14'40", long 80°39'15", Kershaw County, Hydrologic Unit 03050104, in pier of bridge on U.S. Highway 1, 1,500 ft (457 m) downstream from Five and Twenty Creek, 4,000 ft (1,219 m) upstream from Seaboard Coast Line Railroad bridge, 2.2 mi (3.5 km) west of Camden, 7.4 mi (11.9 km) downstream from Wateree Dam, and at mile 68.8 (110.7 km).

DRAINAGE AREA.--5,070 mi^2 (13,100 km^2), approximately.

PERIOD OF RECORD.--January to December 1903 (gage heights only), October 1904 to September 1910, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1303. Gage-height records collected at site 1.5 mi (2.4 km) downstream 1891-1934, at site 830 ft (253 m) upstream January 1935 to September 1942, and at present site since October 1942, are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 802: 1930. WSP 952: Drainage area. WSP 1082: 1934(M). WSP 1433: 1905-10. WSP 1623: 1930-51(monthly and yearly runoff).

GAGE.--Water-stage recorder with remote system to district office. Datum of gage is 119.36 ft (36.381 m) National Geodetic Vertical Datum of 1929. January 1903, to September 1910, nonrecording gage at site 1.5 mi (2.4 km) downstream at datum 117.71 ft (35.878 m) NGVD. Oct. 1, 1929 to Sept. 1, 1942, recording gage at site 830 ft (253 m) upstream at datum 119.36 ft (36.381 m) NGVD.

REMARKS.--Records good. Flow regulated by powerplant at Wateree Reservoir (usable capacity, 2,794,000,000 ft^3 (79,126,000 m^3) and by other powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 366,000 ft^3/s (10,400 m^3/s) Aug. 26, 1908 gage height, 39.7 ft (12.1 m), site and datum then in use, from records of National Weather Service, from rating curve extended above 122,000 ft^3/s (3,460 m^3/s) on basis of computation, by Duke Power Co., of peak flow 382,000 ft^3/s (10,800 m^3/s) over dam at Rocky Creek Reservoir; minimum daily, 155 ft^3/s (4.39 m^3/s) Oct. 28, 1973.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--The flood of July 18, 1916 reached a stage of 40.4 ft (12.3 m), datum, 117.71 ft (35.878 m) above mean sea level, at site 1.5 mi (2.4 km) downstream, from records of National Weather Service, discharge, 400,000 ft^3/s (11,300 m^3/s) from rating curve extended above 122,000 ft^3/s (3,460 m3/s) as explained above.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1886	Sept.	31.5	--	1921	Feb. 11	31.0	--	1951	Apr. 11	15.11	15,200
1892	Jan. 20	30.1	--	1922	Feb. 16	30.2	--	1952	Mar. 5	31.35	82,900
1893	Aug. 30	29.6	--	1923	Mar. 18	30.0	--	1953	Feb. 24	20.82	24,500
1894	Oct. 24	30.5	--	1924	July 9	24.5	--	1954	Jan. 24	29.36	67,000
1895	Oct. 10	30.2	--	1925	Jan. 20	31.0	--	1955	Apr. 16	22.66	30,800
1896	July 11	28.8	--	1926	Apr. 2	19.4	--	1956	Mar. 18	15.93	16,800
1897	Feb. 8	29.7	--	1927	July 23	12.7	--	1957	Apr. 10	19.63	22,200
1898	Sept. 25	28.0	--	1938	Aug. 18	35.0	--	1958	Nov. 26	25.20	36,800
1899	Feb. 8	31.0	--	1929	Mar. 1	31.8	--	1959	July 11	16.66	17,500
1900	Apr. 23	28.4	--	1930	Oct. 3	36.2	163,000	1960	Apr. 6	28.54	58,800
1901	May 24	32.5	--	1931	Dec. 23	14.31	11,600	1961	Feb. 26	27.00	46,800
1902	Dec. 31	31.2	--	1932	Jan. 9	28.31	50,700	1962	Jan. 8	22.87	30,000
1903	Mar. 25	30.4	--	1933	Dec. 28	25.37	32,000	1963	Mar. 15	--	20,100
1904	Aug. 9	25.2	--	1934	June 9	20.65	20,200	1964	Apr. 9	26.50	43,900
1905	July 15	29.6	66,800	1935	Mar. 14	24.03	30,000	1965	Oct. 18	29.07	64,500
1906	Dec. 22	28.6	54,100	1936	Apr. 7	36.63	168,000	1966	Mar. 6	18.99	21,100
1907	Oct. 21	28.7	55,000	1937	Jan. 4	27.26	52,500	1967	Aug. 25	32.22	88,300
1908	Aug. 26	39.7	366,000	1938	Apr. 9	14.92	13,300	1968	Jan. 12	20.91	24,900
1909	June 5	31.7	103,000	1939	Mar. 2	29.01	70,500	1969	Apr. 20	21.41	26,000
1910	Mar. 2	26.9	39,700	1940	Aug. 16	30.50	89,000	1970	Mar. 23	16.83	17,800
1911	Oct. 10	26.9	--	1941	July 9	28.10	60,600	1971	Mar. 5	23.46	31,300
1912	Mar. 17	35.4	--	1942	Mar. 10	24.85	35,400	1972	Jan. 14	19.70	22,400
1913	Mar. 17	34.0	--	1943	Jan. 20	24.76	35,400	1973	Apr. 2	28.53	56,100
1914	Jan. 4	27.6	--	1944	Mar. 21	29.08	71,700	1974	Apr. 7	16.00	16,700
1915	Dec. 27	30.5	--	1945	9/18,19	[a]33.84	132,000	1975	Mar. 16	30.55	70,200
1916	July 18	40.4	400,000	1946	Jan. 9	24.28	33,800	1976	Mar. 17	16.44	17,300
1917	Mar. 6	30.3	--	1947	Jan. 21	27.87	58,500	1977	Oct. 11	28.36	55,100
1918	Apr. 21	28.2	--	1948	Apr. 2	27.96	59,500	1978	Jan. 27	26.22	42,300
1919	July 21	33.0	--	1949	Nov. 30	31.44	101,000	1979	Feb. 26	29.17	60,200
1920	Aug. 29	28.6	--	1950	Nov. 3	19.21	20,500				

02148300 COLONELS CREEK NEAR LEESBURG, S.C.

LOCATION.--Lat 34°00'25", long 80°43'58", Richland County, Hydrologic Unit 03050104, at bridge on State Highway 262, 0.2 mi (0.3 km) above Jumping Run Creek, 1.9 mi (3.1 km) southwest of Leesburg, and at mile 8.0 (12.9 km).

DRAINAGE AREA.--38.1 mi^2 (98.7 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 157.97 ft (48.149 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 494 ft^3/s (14.0 m^3/s) June 10, 1973, gage height 5.28 ft (1.609 m); minimum, 11 ft^3/s (0.31 m^3/s) July 12-14, 1970.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	Aug. 8	7.78	1,350	1972	Jan. 14	4.28	216	1977	Dec. 12	4.56	285
1968	Jan. 11	4.07	173	1973	June 10	5.28	494	1978	Jan. 26	4.07	174
1969	Oct. 20	4.13	273	1974	Jan. 2	4.17	194	1979	Sept. 5	5.27	491
1970	Mar. 22	4.13	186	1975	Feb. 19	4.28	216				
1971	Mar. 3	5.06	428	1976	July 6	4.30	220				

02153500 BROAD RIVER NEAR GAFFNEY, S.C.

LOCATION.--Lat 35°05'20", long 81°34'20", Cherokee County, on right bank at downstream side of bridge on U.S. Highway 29, 0.3 mile upstream from Cherokee Creek, 4.4 miles downstream from Gaston Shoals Dam, 4.5 miles east of Gaffney, and at mile 270.3.

DRAINAGE AREA.--1,490 mi^2 (3,859 km^2), approximately.

PERIOD OF RECORD.--July 1896 to December 1899 (gage heights and discharge measurements only), October 1938 to current year (discontinued). Monthly discharge only for some periods, published in WSP 1303. Discharge for July 12, 1896, to Dec. 31, 1899, published in the 18th, 19th, and 21st Annual Reports, Part 4, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 539.10 ft National Geodetic Vertical Datum of 1919. July 12, 1896, to Dec. 31, 1899, nonrecording gage at sites 1.1 miles upstream at different datum.

REMARKS.--Peaks prior to Jan. 1, 1900, are from graphs based on gage readings. Some regulation at medium and low flow by powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119,000 ft^3/s (3,370 m^3/s) Aug. 14, 1940, gage height, 19.78 ft (6.029 m), by computation of flow over Gaston Shoals Dam.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1897	Apr. 5	9.25	--	1951	Dec. 8	10.47	23,900	1966	Mar. 4	11.65	32,600
1898	Sept. 23	12.18	--	1952	Mar. 4	13.52	44,200	1967	Aug. 24	11.83	33,800
1899	Mar. 19	12.70	--	1953	Feb. 21	10.13	21,900	1968	Mar. 13	10.65	25,900
1939	Aug. 18	10.51	21,000	1954	Jan. 23	13.24	41,000	1969	Apr. 19	10.57	25,400
1940	Aug. 14	19.78	119,000	1955	Feb. 7	8.55	14,700	1970	Aug. 10	13.50	47,500
1941	July 17	11.43	26,000	1956	Apr. 16	10.23	22,400	1971	Oct. 31	8.55	14,300
1942	Feb. 17	10.70	21,800	1957	Apr. 6	10.40	23,400	1972	Oct. 16	13.43	46,900
1943	Jan. 28	12.39	38,400	1958	Apr. 28	12.72	37,900	1973	Mar. 17	12.99	42,900
1944	Mar. 20	9.82	21,700	1959	Sept. 30	12.77	38,600	1974	Apr. 5	11.91	34,400
1945	Sept. 18	15.35	61,600	1960	Feb. 6	12.07	33,600	1975	Mar. 15	14.37	55,300
1946	Jan. 7	13.38	43,400	1961	June 22	11.00	26,600	1976	Oct. 18	11.58	32,100
1947	June 15	11.09	27,800	1962	Dec. 13	11.31	28,400	1977	Oct. 10	17.24	84,900
1948	Aug. 4	10.80	25,600	1963	Mar. 13	13.03	41,800	1978	Nov. 7	12.39	38,100
1949	Nov. 29	12.47	35,700	1964	Apr. 8	11.44	31,100				
1950	Oct. 7	11.70	31,000	1965	Oct. 6	15.61	67,100				

02154500 NORTH PACOLET RIVER AT FINGERVILLE, S.C.

LOCATION.--Lat 35°07'15", long 81°59'10", Spartanburg County, Hydrologic Unit 03050105, on right bank at McMillin Mill, about 400 ft (120 m) downstream from Obed Creek, 1.4 mi (2.3 km) south of Fingerville, and at mile 48.5 (78.0 km).

DRAINAGE AREA.--116 mi^2 (300 km^2).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 715.56 ft (218.103 m) National Geodetic Vertical Datum of 1929. From Nov. 26, 1929 to Nov. 24, 1933, recording gage at site about 400 ft (120 m) downstream at datum 5.60 ft (1.707 m) higher.

REMARKS.--Records good, except those for periods of no gage-height record, Nov. 11 to Jan. 7 and March 8 to June 24, which are poor. Some diurnal fluctuation at low and medium flow caused by mill above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) Aug. 14, 1940, gage height, 27.13 ft (8.269 m) from rating curve extended above 4,300 ft^3/s (122 m^3/s) on basis of computation of peak flow over dam 2.0 mi (3.2 km) above station; minimum, 9.0 ft^3/s (0.25 m^3/s) Oct. 6, 1954; minimum daily, 28 ft^3/s (0.79 m^3/s) Oct. 6, 7, 1954.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1931	Dec. 7	--	872	1948	Feb. 13	7.30	1,370	1965	Oct. 5	25.60	11,200
1932	Dec. 15	--	2,120	1949	Nov. 29	13.74	3,780	1966	Feb. 14	12.75	3,550
1933	Oct. 17	--	6,820	1950	oct. 7	16.70	5,150	1967	Aug. 24	15.19	4,480
1934	Mar. 4	12.00	2,100	1951	Dec. 8	9.91	2,320	1968	Feb. 13	9.79	2,370
1935	July 19	--	1,760	1952	Mar. 4	12.69	3,880	1969	Sept. 4	10.60	2,690
1936	Apr. 7	19177	6,120	1953	Feb. 21	10.01	2,360	1970	Nov. 2	6.56	1,070
1937	Oct. 17	21.23	7,290	1954	Jan. 23	15.96	5,040	1971	Oct. 31	8,92	2,020
1938	Oct. 19	17.48	5,400	1955	Feb. 7	8.28	1,840	1972	June 21	14.85	4,350
1939	Aug. 19	10.65	2,480	1956	Apr. 16	7.88	1,690	1973	May 24	14.77	4,320
1940	Aug. 14	27.13	12,500	1957	Apr. 6	10.28	2,620	1974	Apr. 5	9.71	2,330
1941	July 17	8.51	1,540	1958	Apr. 29	12.25	3,480	1975	Mar. 14	14.77	4,320
1942	Feb. 17	11.35	2,700	1959	May 26	18.64	6,680	1976	Oct. 17	10.45	2,630
1943	Jan. 28	10.16	2,200	1960	Mar. 31	12.54	3,200	1977	Oct. 9	18.79	6,370
1944	Mar. 29	9.70	1,620	1961	June 22	14.80	4,330	1978	Jan. 26	9.32	2,180
1945	Sept. 17	13.90	3,780	1962	Dec. 13	13.08	3,480	1979	Sept. 30	12.73	3,540
1946	Jan. 7	17.12	5,040	1963	Mar. 13	14.45	4,010				
1947	June 15	12.30	3,110	1964	Aug. 10	9.41	2,440				

02156300 LAWSONS FORK CREEK AT SPARTANBURG, S.C.

LOCATION.--Lat 34°56'53", long 81°52'08", Spartanburg County, on downstream side of bridge on secondary road, 2,500 ft (762 m) downstream from Halfway Branch, 0.8 mi (1.3 km) east of Spartanburg, and 1.9 mi (3.1 km) west of Glendale.

DRAINAGE AREA.--65.2 mi^2 (168.9 km^2).

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

GAGE.--Water-stage recorder prior to September 1970, crest-stage gage thereafter. Altitude of gage is 640 ft (195.1 m) (from topographic map).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft^3/s (94.0 m^3/s) March 15, 1975.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	July 7	12.43	2,440	1972	May 13	11.76	2,120	1977	Mar. 30	13.94	3,280
1968	June 9	12.77	2,730	1973	Feb. 3	13.31	2,920	1978	Jan. 26	13.40	2,970
1969	Apr. 19	12.93	2,710	1974	Jan. 1	11.63	2,060	1979	May 25	12.72	2,600
1970	July 27	10.67	1,680	1975	Mar. 15	14.00	3,320				
1971	Oct. 30	11.77	2,120	1976	Oct. 18	13.27	2,900				

02156500 BROAD RIVER NEAR CARLISLE, S.C.

LOCATION.--Lat 34°35'46", long 81°25'20", Union County, Hydrologic Unit 03050106, on right bank at downstream side of bridge on State Highway 72, 1.3 mi (2.1 km) upstream from Sandy River, 2.0 mi (3.2 km) downstream from Seaboard Coast Line Railroad bridge, 2.5 mi (4.0 km) east of Carlisle, 5.0 mi (8.0 km) downstream from Neals Shoals Dam, and at mile 226.0 (363.6 km).

DRAINAGE AREA.--2,790 mi^2 (7,230 km^2), approximately.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 892: 1939(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 290.79 ft (88.605 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation at low and medium flow by powerplants above station. Capacity of reservoirs insufficient to affect monthly figures of runoff.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 123,000 ft^3/s (3,483 m^3/s) Oct. 10, 1976, gage height, 31.51 ft (9.604 m), from rating curve extended above 66,000 ft^3/s (1,869 m^3/s) on basis of computation of peak flow over Neals Shoals Dam.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1939	Mar. 1	16.27	34,900	1953	Feb. 22	15.77	33,200	1967	Aug. 24	20.23	51,200
1940	Aug. 15	29.41	103,000	1954	Jan. 24	20.63	49,200	1968	Mar. 14	14.57	29,700
1941	July 18	17.06	37,600	1955	Apr. 15	13.79	27,500	1969	Apr. 20	15.01	31,000
1942	Feb. 18	18.42	42,200	1956	Apr. 17	14.99	30,900	1970	Aug. 12	17.48	39,900
1943	Jan. 29	18.96	44,500	1957	Apr. 7	13.24	25,900	1971	Mar. 3	15.05	31,200
1944	Mar. 20	19.58	46,900	1958	Apr. 29	20.12	48,000	1972	Oct. 17	19.31	47,200
1945	Sept. 19	25.72	78,500	1959	Dec. 30	14.21	28,700	1973	Feb. 3	21.54	57,700
1946	Jan. 8	20.11	49,200	1960	Feb. 7	18.71	42,100	1974	Apr. 6	17.61	40,400
1947	Jan. 21	17.21	37,900	1961	Feb. 22	15.82	33,200	1975	Mar. 15	23.75	63,100
1948	Feb. 14	16.20	34,600	1962	Apr. 12	17.25	37,400	1976	Oct. 19	14.95	31,000
1949	Nov. 29	22.81	62,200	1963	Mar. 14	21.78	57,200	1977	Oct. 10	31.51	123,000
1950	Oct. 8	19.32	44,200	1964	Apr. 8	23.90	69,500	1978	Jan. 27	19.72	46,900
1951	Dec. 9	13.65	27,000	1965	Oct. 18	25.82	79,900	1979	Feb. 26	20.00	47,800
1952	Mar. 5	22.43	57,700	1966	Mar. 5	18.89	45,600				

02157000 NORTH TYGER RIVER NEAR FAIRMONT, S.C.

LOCATION.--Lat 34°55'45", long 82°02'40", Spartanburg County, Hydrologic Unit 03050107, on left bank 80 ft (24 m) downstream from Frey Creek, 2.2 mi (3.5 km) north of Fairmont, and at mile 57.9 (93.2 km).

DRAINAGE AREA.--44.4 mi^2 (115 km^2).

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

GAGE.--Water-stage recorders and concrete control. Altitude of gage is 680 ft (207 m) (from topographic map).

REMARKS.--Records good, except those for periods of no gage height record, Oct. 25 to Dec. 16, May 10-12, and June 4-26, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,610 ft^3/s (102 m^3/s) May 26, 1959, gage height, 13.58 ft (4.139 m), from rating curve extended above 2,100 ft^3/s (59.5 m^3/s); minimum, 6.0 ft^3/s (0.17 m^3/s) Sept. 19, 20, 1954; minimum daily, 7.0 ft^3/s (0.20 m^3/s) Sept. 19, 1954.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1951	Dec. 7	8.38	1,510	1961	Feb. 21	9.26	1,820	1971	Feb. 23	4.86	832
1952	Dec. 21	10.55	2,280	1962	Dec. 12	8.08	1,410	1972	June 21	9.89	1,970
1953	Feb. 21	4.91	722	1963	Mar. 6	12.48	3,090	1973	Sept. 14	10.35	2,100
1954	Jan. 22	7.15	1,170	1964	Apr. 8	8.57	1,640	1974	Jan. 1	4.51	762
1955	May 22	8.68	1,650	1965	Oct. 5	11.64	2,560	1975	Mar. 13	10.10	2,030
1956	Apr. 16	9.10	1,790	1966	Mar. 4	9.72	1,930	1976	Oct. 18	9.13	1,780
1957	Apr. 5	3.06	466	1967	Aug. 24	4.44	748	1977	Oct. 9	11.30	2,420
1958	Nov. 19	8.18	1,480	1968	June 10	6.92	1,240	1978	Nov. 6	12.70	3,050
1959	May 26	13.58	3,610	1969	Apr. 19	9.99	2,000	1979	Feb. 26	6.21	1,100
1960	Sept. 7	9.13	1,790	1970	Feb. 16	3.50	470				

02157500 MIDDLE TYGER RIVER AT LYMAN, S.C.

LOCATION.--Lat 34°56'35", long 82°08'00", Spartanburg County, on left bank 200 ft (600 m) upstream from bridge on State Highway 292 at Lyman, 600 ft (180 m) downstream from Southern Railway bridge, and 0.8 mi (1.3 km) northeast of Duncan.

DRAINAGE AREA.--68.3 mi^2 (176.9 km^2).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Digital water-stage recorder prior to December 1967, crest-stage gage thereafter. Datum of gage is 776.05 ft (236.540 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 16, 1965, graphic water-stage recorder at same site and datum.

REMARKS.--Records good. Flow regulated by reservoir 5.7 mi (9.2 km) above station.

EXTREMES FOR PERIOD OF RECORD.--1937-67: Maximum discharge, 4,800 ft^3/s (136 m^3/s) Aug. 14, 1940 (gage height, 16.16 ft (4.926 m)), from rating curve extended above 2,900 ft^3/s (82.1 m^3/s) on basis of computation of peak flow over dam.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1939	Aug. 18	9.28	2,730	1952	Mar. 23	10.42	3,070	1965	Oct. 5	12.12	3,590
1940	Aug. 14	16.16	4,800	1953	Feb. 21	6.92	1,840	1966	Mar. 5	9.53	2,760
1941	July 18	4.89	945	1954	Jan. 23	8.74	2,520	1967	Aug. 24	7.88	2,110
1942	Feb. 17	9.71	2,860	1955	Feb. 7	5.96	1,440	1971	May 13	5.51	1,150
1943	Jan. 28	8.34	2,380	1956	Apr. 16	7.67	2,160	1972	June 21	10.64	3,140
1944	Mar. 20	7.64	2,120	1957	Apr. 6	6.58	1,710	1973	May 28	11.21	3,310
1945	July 16	8.08	2,310	1958	Apr. 29	7.20	1,960	1974	Jan. 1	7.56	1,970
1946	Jan. 7	12.39	3,670	1959	May 26	10.36	3,070	1975	Mar. 15	10.15	3,000
1947	Jan. 21	6.91	1,840	1960	Mar. 31	7.89	2,240	1976	Oct. 18	7.30	1,870
1948	Aug. 5	11.16	3,310	1961	Aug. 25	7.82	2,240	1977	Oct. 9	11.80	3,490
1949	Nov. 29	10.78	3,190	1962	Dec. 12	11.21	3,310	1978	Nov. 6	13.48	3,990
1950	Oct. 7	6.29	1,580	1963	Mar. 6	12.56	3,730	1979	--	--	--
1951	Dec. 8	6.53	1,660	1964	Apr. 8	8.37	2,300				

02158000 NORTH TYGER RIVER NEAR MOORE, S.C.

LOCATION.--Lat 34°48'10", long 81°57'57", Spartanburg County, on right bank at Ott Shoals, 2.0 mi (3.2 km) upstream from Wards Creek, 2.6 mi (4.2 km) southeast of Moore, and 5.3 mi (8.5 km) upstream from confluence with South Tyger River.

DRAINAGE AREA.--162 mi^2 (420 km^2).

PERIOD OF RECORD.--October 1933 to September 1978. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Digital water-stage recorder prior to January 4, 1968, crest-stage gage thereafter. Datum of gage is 564.79 ft (172.148 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 17, 1965, graphic water-stage recorder at same site and datum.

REMARKS.--Records good. Some regulation at low flow by powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s (348 m^3/s) Aug. 14, 1940 (gage height, 7.15 ft (2.179 m)), from rating curve extended above 7,800 ft^3/s (221 m^3/s) by velocity-area studies.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1935	Aug. 25	3.43	2,010	1949	Nov. 29	4.78	4,800	1963	Mar. 6	5.54	6,720
1936	Apr. 7	6.15	8,640	1950	Oct. 7	6.01	8,120	1964	Apr. 8	4.98	5,220
1937	Oct. 16	5.68	7,160	1951	Dec. 8	3.28	1,950	1965	Oct. 5	5.31	5,930
1938	Oct. 20	5.54	6,680	1952	Mar. 24	4.89	5,030	1966	Mar. 5	4.17	3,450
1939	Aug. 19	3.52	2,240	1953	Feb. 22	3.43	2,160	1967	Aug. 25	3.47	1,880
1940	Aug. 14	7.15	12,300	1954	Jan. 23	4.19	3,510	1971	Oct. 30	3.23	1,580
1941	July 17	2.53	1,080	1955	May 23	3.34	2,020	1972	June 21	4.96	4,900
1942	Feb. 18	4.23	3,610	1956	Apr. 16	3.81	2,750	1973	Sept. 15	4.94	4,850
1943	Jan. 29	4.48	4,130	1957	Apr. 7	2.92	1,460	1974	Jan. 1	3.50	1,950
1944	Mar. 21	3.89	2,930	1958	Nov. 19	3.80	2,750	1975	Mar. 15	5.08	5,240
1945	Sept. 18	4.00	3,120	1959	May 26	5.30	6,020	1976	Oct. 18	3.95	2,700
1946	Jan. 8	5.21	5,760	1960	Feb. 6	3.93	3,020	1977	Oct. 9	6.14	8,600
1947	Jan. 21	3.46	2,160	1961	Feb. 21	4.78	4,800	1978	Nov. 6	5.34	6,020
1948	Aug. 6	4.27	3,610	1962	Dec. 13	4.47	4,020				

02158500 SOUTH TYGER RIVER NEAR REIDVILLE, S.C.

LOCATION.--Lat 34°52'35", long 82°05'10", Spartanburg County, on left bank 0.4 mi (0.6 km) upstream from bridge on State Highway 296, 1.2 mi (1.9 km) downstream from Berry Shoals, 1.8 mi (2.9 km) northeast of Reidville, and 4 mi (6 km) upstream from Bens Creek.

DRAINAGE AREA.--106 mi^2 (275 km^2).

PERIOD OF RECORD.--April 1934 to September 1978.

GAGE.--Digital water-stage recorder prior to December 5, 1968, cres.·stage gage thereafter. Datum of gage is 626.28 ft (190.890 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 4, 1964, graphic water-stage recorder at same site and datum.

REMARKS.--Records good. Some regulation at low and medium flow by powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft^3/s (182 m^3/s) Oct. 7, 1949 (gage height, 14.23 ft (4.337 m)). Minimum daily, 5.5 ft^3/s (0.16 m^3/s) June 6, 1941.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1935	Aug. 24	11.05	4,150	1949	Nov. 28	9.51	3,760	1963	Mar. 6	11.00	4,490
1936	Apr. 6	13.66	6,080	1950	Oct. 7	14.23	6,420	1964	Apr. 7	8.33	2,980
1937	Oct. 16	9.68	3,880	1951	Dec. 7	4.88	1,320	1965	Oct. 5	9.29	3,520
1938	Oct. 19	10.77	4,330	1952	Mar. 24	9.76	3,930	1966	Sept. 14	7.42	2,510
1939	Aug. 19	5.90	1,820	1953	Feb. 22	5.44	1,570	1967	Aug. 25	5.70	1,650
1940	Aug. 13	12.68	5,510	1954	Jan. 22	7.73	2,780	1971	Oct. 30	4.72	1,200
1941	July 19	4.17	982	1955	May 23	6.59	2,190	1972	Oct. 16	5.13	1,390
1942	Feb. 18	7.41	2,610	1956	Apr. 16	6.82	2,300	1973	Sept. 14	5.80	1,700
1943	Jan. 28	7.86	2,880	1957	Apr. 6	4.28	1,020	1974	Jan. 1	5.55	1,580
1944	Mar. 20	5.82	1,770	1958	Nov. 19	6.35	2,080	1975	Mar. 15	9.48	3,640
1945	Sept. 18	5.19	1,450	1959	May 26	4.94	1,320	1976	Oct. 18	8.62	3,140
1946	Jan. 7	9.52	3,760	1960	Mar. 31	6.08	1,870	1977	Oct. 9	11.32	4,740
1947	Jan. 21	5.29	1,520	1961	Feb. 21	7.97	2,840	1978	Nov. 6	7.88	2,740
1948	Aug. 5	5.06	1,420	1962	Dec. 13	8.16	2,950				

02159000 SOUTH TYGER RIVER NEAR WOODRUFF, S.C.

LOCATION.--Lat 34°45'21", long 81°56'19", Spartanburg County, on left bank at Chesnee Shoals, 0.5 mi (0.8 km) upstream from confluence with North Tyger River and 5.8 mi (9.3 km) east of Woodruff.

DRAINAGE AREA.--174 mi^2 (451 km^2).

PERIOD OF RECORD.--October 1933 to September 1978. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder prior to September 1971, crest-stage gage thereafter. Datum of gage is 508.35 ft (154.945 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation at low and medium flow by powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--1933-61: Maximum discharge, 9,510 ft^3/s (269 m^3/s) Apr. 6, 1936 (gage height, 9.78 (2.981 m^3)), from rating curve extended above 7,700 ft^3/s (218 m^3/s) by velocity-area studies.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1935	Aug. 25	4.89	2,260	1950	Oct. 7	9.25	8,490	1965	Oct. 16	6.32	4,280
1936	Apr. 6	9.78	9,510	1951	Dec. 8	3.91	1,040	1966	Mar. 5	5.61	3,220
1937	Oct. 16	8.83	8,080	1952	Mar. 24	6.72	4,740	1967	Aug. 25	--	1,800
1938	Oct. 20	5.85	3,660	1953	Feb. 23	4.62	1,800	1968	June 9	4.98	2,310
1939	Feb. 28	4.82	1,960	1954	Jan. 23	5.40	2,930	1969	Apr. 16	5.13	2,520
1940	Aug. 14	8.18	6,960	1955	May 24	4.52	1,670	1970	Apr. 1	3.72	906
1941	Nov. 13	3.92	1,050	1956	Mar. 16	4.97	2,280	1971	Mar. 3	4.98	2,310
1942	June 10	5.33	2,910	1957	Apr. 7	3.80	950	1972	Oct. 17	5.12	2,510
1943	Jan. 28	5.90	3,540	1958	Nov. 19	5.20	2,640	1973	Sept. 15	4.62	1,850
1944	Mar. 20	5.30	2,640	1959	May 25	5.10	2,500	1974	Jan. 1	4.52	1,720
1945	Sept. 18	5.61	3,020	1960	Feb. 6	5.19	2,640	1975	Mar. 15	6.86	5,090
1946	Jan. 8	6.31	4,140	1961	Feb. 21	6.31	4,250	1976	Mar. 17	5.70	3,350
1947	Jan. 20	4.79	2,220	1962	Dec. 13	5.70	3,360	1977	Oct. 9	8.62	7,730
1948	Mar. 7	4.27	1,360	1963	Mar. 6	7.92	6,650	1978	Nov. 6	5.90	3,650
1949	Nov. 29	5.45	2,860	1964	Apr. 8	7.37	5,860				

02159500 TYGER RIVER NEAR WOODRUFF, S.C.

LOCATION.--Lat 34°45'15", long 81°55'30", Spartanburg County, on left bank at upstream side of Nesbitts bridge on State Highway 49, 0.5 mi (0.8 km) downstream from confluence of North Tyger and South Tyger Rivers and 6.5 mi (10.5 km) east of Woodruff.

DRAINAGE AREA.--351 mi^2 (909 km^2).

PERIOD OF RECORD.--October 1929 to September 1956.

GAGE.--Water-stage recorder. Datum of gage is 489.44 ft (149.181 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some regulation at low and medium flow by powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--1929-56: Maximum discharge, 28,000 ft^3/s (793 m^3/s) (estimated) Oct. 2, 1929; gage height 19.1 ft (5.82 m). Flood on June 6, 1903, reached a stage of 20.4 ft (6.22 m), from floodmark set by local resident, at site 0.3 mile below gage; that in August 1928, 20.0 ft (6.10 m) (present site); that in September 1929, 14.65 ft (4.438 m), from floodmarks (discharge, 19,600 ft^3/s (555 m^3/s)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1903	June 6	20.4	--	1937	Oct. 16	11.48	14,700	1947	Jan. 21	5.49	4,290
1928	Aug.	20.0	--	1938	Oct. 20	9.30	10,600	1948	Aug. 6	5.98	4,800
1929	Sept.	14.65	19,600	1939	Aug. 18	5.46	3,830	1949	Nov. 29	8.88	8,740
1930	Oct. 2	19.1	28,000	1940	Aug. 14	13.27	19,200	1950	Oct. 7	12.72	17,200
1931	May 22	5.05	2,430	1941	Nov. 13	4.50	2,220	1951	Dec. 8	5.17	3,000
1932	Jan. 8	6.01	4,350	1942	Feb. 18	6.11	5,450	1952	Mar. 24	8.97	10,000
1933	Oct. 17	7.60	7,840	1943	Jan. 28	7.59	7,780	1953	Feb. 22	5.40	3,710
1934	Mar. 5	5.57	3,540	1944	Mar. 20	6.40	5,270	1954	Jan. 23	6.56	5,990
1935	Aug. 25	5.99	4,350	1945	Sept. 18	7.39	6,580	1955	May 23	5.16	3,230
1936	Apr. 6	13.16	17,100	1946	Jan. 8	8.48	9,680	1956	Apr. 17	5.99	4,800

02160000 FAIRFOREST CREEK NEAR UNION, S.C.

LOCATION.--Lat 34°40'45", long 81°41'25", Union County, on right bank at downstream side of bridge on State Highway 49, 0.3 mi (0.5 km) downstream from Buffalo Creek, 4.3 mi (6.9 km) southwest of Union, and at mile 7.5 (12.1 km).

DRAINAGE AREA.--183 mi^2 (474 km^2).

PERIOD OF RECORD.--June 1940 to current year.

GAGE.--Water-stage recorder prior to September 1971. Crest-stage gage thereafter. Datum of gage is 393.91 ft (120.064 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Discharge includes some water diverted from South Pacolet River Reservoir which is discharged into this stream after use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) Oct. 9, 1976 (gage height 9.43 ft (2.974 m)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1940	Aug. 14	7.15	6,200	1954	Jan. 17	5.77	3,500	1968	Jan. 11	5.60	3,250
1941	July 17	6.80	5,500	1955	Feb. 6	5.13	2,540	1969	Sept. 4	6.85	5,600
1942	Feb. 17	5.91	3,720	1956	Mar. 17	5.55	3,180	1970	Mar. 22	4.43	1,640
1943	July 9	6.08	4,060	1957	Apr. 9	3.77	1,010	1971	Mar. 3	6.33	4,560
1944	Mar. 20	6.69	5,280	1958	Nov. 19	5.91	3,720	1972	June 22	6.04	3,980
1945	Sept. 18	6.94	5,780	1959	Sept. 30	5.98	3,860	1973	Apr. 1	7.46	6,820
1946	Jan. 8	5.25	2,720	1960	Feb. 7	5.40	2,950	1974	Jan. 1	5.75	3,400
1947	Jan. 20	5.75	3,480	1961	Feb. 22	6.53	4,960	1975	Mar. 15	6.94	5,780
1948	Mar. 7	5.07	2,460	1962	Apr. 12	5.78	3,520	1976	Oct. 18	4.98	2,150
1949	Nov. 29	7.61	7,180	1963	Mar. 7	7.37	6,640	1977	Oct. 9	9.43	11,700
1950	Oct. 8	6.42	4,740	1964	Apr. 8	7.83	7,720	1978	Jan. 27	5.86	3,620
1951	Oct. 20	3.90	1,200	1965	Oct. 16	7.53	6,980	1979	Ajpr. 14	6.71	5,320
1952	Mar. 4	6.56	5,020	1966	Mar. 4	5.69	3,380				
1953	May 2	5.52	3,130	1967	Aug. 24	6.42	4,740				

LOCATION.--Lat 34°36'38", long 81°54'35", Spartanburg County, Hydrologic Unit 03050108, on left bank 60 ft (18 m) upstream from bridge on State Highway 49, 0.6 mi (1.0 km) upstream from Warrior Creek, 4.0 mi (6.4 km) southeast of Enoree, and at mile 47.7 (76.7 km).

DRAINAGE AREA.--307 mi^2 (795 km^2).

PERIOD OF RECORD.--August 1929 to current year.

GAGE.--Water-stage prior to September 1976. Crest-stage gage thereafter. Datum of gage is 448.13 ft (136.590 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good. Some regulation at low and medium flow by powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,300 ft^3/s (850 m^3/s) Oct. 2, 1929, gage height, 10.5 ft (3.20 m) (from floodmark), from rating curve extended above 17,000 ft^3/s (481 m^3/s).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1930	Oct. 2	10.5	30,000	1947	Jan. 20	4.96	5,970	1964	Ajpr. 8	6.95	13,200
1931	May 22	3.76	3,100	1948	May 28	4.30	4,140	1965	Oct. 16	5.57	7,980
1932	Dec. 4	5.29	7,100	1949	Nov. 29	6.18	10,200	1966	Mar. 5	5.30	7,070
1933	Oct. 17	6.04	9,500	1950	Oct. 8	6.93	13,000	1967	Feb. 18	3.99	3,250
1934	June 5	4.58	4,810	1951	Dec. 8	3.44	1,960	1968	June 8	4.50	4,650
1935	Aug. 25	5.70	8,430	1952	Mar. 29	5.82	8,960	1969	Jan. 21	5.17	5,940
1936	Apr. 7	7.86	17,200	1953	Feb. 22	4.29	4,110	1970	Mar. 22	3.61	2,080
1937	Oct. 16	7.14	13,800	1954	Jan. 17	5.00	6,120	1971	Mar. 3	5.05	5,530
1938	Oct. 20	5.86	8,960	1955	Feb. 7	4.23	4,010	1972	June 21	5.91	8,740
1939	Aug. 18	4.35	4,270	1956	Mar. 17	4.86	5,670	1973	Sept. 14	6.49	11,100
1940	Aug. 14	6.86	12,800	1957	Mar. 1	3.53	2,350	1974	Jan. 2	4.48	4,060
1941	July 10	3.68	2,690	1958	Nov. 19	5.12	6,430	1975	Mar. 14	6.40	10,700
1942	Feb. 17	4.82	5,520	1959	May 25	4.19	3,810	1976	Oct. 19	4.69	4,540
1943	Jan. 29	5.52	7,740	1960	Feb. 6	4.91	5,970	1977	Oct. 9	7.09	13,700
1944	Mar. 20	5.43	7,570	1961	Feb. 22	5.70	8,600	1978	Jan. 27	5.22	6,130
1945	Sept. 18	5.11	6,430	1962	Dec. 13	5.52	7,740	1979	Apr. 26	5.50	7,140
1946	Jan. 7	5.85	8,960	1963	Mar. 7	6.76	12,600				

02161500 BROAD RIVER AT RICHTEX, S.C.

LOCATION.--Lat 34°11'05", long 81°11'48", Richland County, Hydrologic Unit 03050106, on right bank 0.8 mi (1.3 km) west of Richtex, 1.2 mi (1.9 km) upstream from Little River, 10.2 mi (16.4 km) downstream from Parr Shoals Dam, and at mile 191.2 (307.6 km).

DRAINAGE AREA.--4,850 mi^2 (12,560 km^2), approximately.

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 757: 1930(M). WSP 972: Drainage area. WSP 1383: 1929(M), 1933.

GAGE.--Water-stage recorder. Datum of gage is 184.84 ft (56.339 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Regulation at low and medium flow by powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 228,000 ft^3/s (6.460 m^3/s) Oct. 3, 1929, gage height, 30.7 ft (9.36 m) (from floodmarks), on basis of computation of flow over Parr Shoals Dam; minimum daily, 149 ft^3/s (4.22 m^3/s) Oct. 13, 1935, Sept. 2, 1957.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1926	Jan. 20	12.01	[a]40,300	1944	Mar. 21	17.40	84,700	1962	Jan. 7	13.42	55,900
1927	Feb. 25	9.14	28,400	1945	Sept. 19	18.68	96,600	1963	Mar. 8	16.18	75,300
1938	Aug. 17	30.1	[a]222,000	1946	Jan. 9	13.86	59,200	1964	Apr. 9	19.00	99,500
1929	Sept. 28	18.32	[a]88,200	1947	Jan. 21	13.72	57,800	1965	Oct. 18	19.25	102,000
1930	Oct. 3	30.7	228,000	1948	Feb. 14	12.40	49,400	1966	Mar. 6	14.79	65,300
1931	Dec. 7	7.81	23,000	1949	Nov. 30	18.59	95,700	1967	Aug. 25	16.09	74,500
1932	Jan. 9	14.18	51,200	1950	Oct. 9	12.75	52,000	1968	Jan. 12	11.90	46,200
1933	Oct. 18	19.72	101,000	1951	Dec. 9	9.18	30,600	1969	Apr. 19	12.91	52,700
1934	Mar. 29	10.48	34,400	1952	Mar. 6	17.39	84,700	1970	Aug. 12	10.97	40,600
1935	Oct. 12	17.86	84,600	1953	Feb. 23	11.15	42,000	1971	Mar. 4	13.73	58,000
1936	Apr. 8	24.96	157,000	1954	Jan. 24	14.68	64,700	1972	June 23	14.18	61,600
1937	Oct. 18	16.12	72,400	1955	Apr. 15	11.36	43,200	1973	Feb. 4	16.04	74,100
1938	Oct. 21	13.53	55,800	1956	Mar. 18	11.24	42,000	1974	Apr. 6	12.11	47,500
1939	Mar. 2	13.12	53,400	1957	Apr. 7	9.35	31,800	1975	Mar. 16	18.52	94,900
1940	Aug. 16	21.08	120,000	1958	Nov. 21	13.35	55,900	1976	Oct. 20	10.03	35,200
1941	July 7	12.41	49,400	1959	Dec. 30	9.31	31,200	1977	Oct. 11	23.67	146,000
1942	Feb. 18	12.99	53,300	1960	Oct. 1	--	55,900	1978	Jan. 27	14.79	64,500
1943	Jan. 30	13.63	57,200	1961	Feb. 25	13.50	56,600	1979	Feb. 26	15.80	72,300

[a]Annual peak only.

02162010 CEDAR CREEK NEAR BLYTHEWOOD, S.C.

LOCATION.--Lat 34°11'44", long 81°06'13", Richland County, Hydrologic Unit 03050106, on right bank at downstream side of bridge on State Road 59, 0.2 mi (0.3 km) above Williams Branch, 8.0 mi (12.9 km) southwest of Blythewood, and at mile 6.9 (11.1 km).

DRAINAGE AREA.--48.9 mi^2 (127 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (73 m) (from topographic map).

REMARKS.--Records good, except period of doubtful or no gage-height record Apr. 29 to Sept. 25, which is poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,870 ft^3/s (138 m^3/s) July 4, 1968, gage height, 18.42 ft (5.614 m); minimum daily, 0.66 ft^3/s (0.019 m^3/s) Oct. 5, 6, 1968.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	Aug. 23	9.34	1,890	1972	Jan. 11	8.55	1,460	1977	Mar. 13	15.97	3,990
1968	July 4	18.42	4,870	1973	Feb. 3	16.03	3,960	1978	May 9	14.01	3,250
1969	Apr. 16	16.30	4,060	1974	Apr. 5	9.14	1,640	1979	Jan. 23	15.03	3,560
1970	Mar. 22	11.29	2,300	1975	July 15	13.26	2,990				
1971	Mar. 3	12.81	2,830	1976	Mar. 16	12.24	2,630				

02162500 SALUDA RIVER NEAR GREENVILLE, S.C.

LOCATION.--Lat 34°50'32", long 82°28'51", Pickens County, Hydrologic Unit 03050109, on right bank 700 ft (213 m) upstream from bridge on State Road 124, 1.6 mi (2.6 km) downstream from Saluda Lake Dam, 2.4 mi (3.9 km) upstream from Georges Creek, 4.6 mi (7.4 km) west of City Hall in Greenville, and at mile 132.0 (212.4 km).

DRAINAGE AREA.--295 mi^2 (764 km^2).

PERIOD OF RECORD.--October 1941 to September 1978 (discontinued). Monthly discharge only for some periods, published in WSP 1303. Prior to October 1948, published as "near West Greenville."

GAGE.--Water-stage recorder. Datum of gage is 797.48 ft (243.072 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation at low and medium flow by powerplant at Saluda Lake. Capacity of reservoir insufficient to affect monthly figures of runoff. About 41,688,041 gal (157,800 m^3) per day or 64.5 ft^3/s (1.83 m^3/s) diverted above station for City of Greenville water supply during water year. City of Greenville began diverting water from Saluda River (Table Rock Reservoir) in 1930, supplemented by North Saluda Reservoir in 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Oct. 7, 1949, gage height, 19.38 ft (5.907 m), from rating curve extended above 7,500 ft^3/s (212 m^3/s) on basis of computation of peak flow over dam at Saluda Lake.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1942	Feb. 17	11.63	5,980	1955	Feb. 7	7.85	3,700	1968	Mar. 13	7.46	3,500
1943	Dec. 30	11.01	5,620	1956	Apr. 16	7.38	3,460	1969	apr. 18	9.23	4,770
1944	Mar. 30	8.37	4,060	1957	Apr. 6	9.62	4,780	1970	Aug. 8	5.95	2,580
1945	Mar. 27	6.26	2,740	1958	Apr. 29	6.65	2,970	1971	Oct. 30	5.54	2,290
1946	Jan. 8	14.48	7,720	1959	June 1	7.65	3,580	1972	June 21	9.86	5,380
1947	Jan. 20	7.42	3,460	1960	Mar. 31	7.56	3,520	1973	May 28	12.36	6,960
1948	Aug. 5	6.87	3,140	1961	June 23	15.43	8,300	1974	Jan. 1	7.56	3,830
1949	July 13	12.12	6,280	1962	Dec. 12	12.04	6,200	1975	Mar. 14	13.78	7,540
1950	Oct. 7	19.38	11,000	1963	Mar. 6	10.43	5,260	1976	May 30	8.01	4,160
1951	Dec. 8	6.76	3,080	1964	apr. 8	9.57	4,760	1977	Mar. 30	11.38	6,310
1952	Mar. 23	10.94	5,560	1965	Oct. 5	18.14	10,100	1978	Jan. 26	9.15	4,950
1953	Feb. 22	8.87	4,360	1966	Feb. 14	10.62	5,390				
1954	Jan. 23	15.05	8,040	1967	Aug. 24	14.19	7,530				

02163000 SALUDA RIVER NEAR PELZER, S.C.

LOCATION.--Lat 34°40'05", long 82°27'55", Anderson County, on right bank 0.4 mile downstream from Hurricane Creek, 1.9 miles north of Pelzer, and at mile 114.2.

DRAINAGE AREA.--405 mi^2 (1,049 km^2).

PERIOD OF RECORD.--December 1929 to 1978.

GAGE.--Datum of gage is 727.75 ft (221.818 m) National Geodetic Vertical Datum of 1929. Crest-stage gage 1972-78.

REMARKS.--Records good. Some regulation at low and medium flow by powerplant above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) Oct. 7, 1949, gage height, 10.53 ft (3.210 m).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1929[a]	Sept. 27	5.80	[b]6,460	1946	Jan. 7	8.63	10,400	1963	Mar. 6	8.53	10,200
1930	Oct. 2	6.88	9,400	1947	Jan. 20	5.75	5,720	1964	Apr. 8	8.60	10,200
1931	May 22	3.90	2,750	1948	Aug. 6	4.28	3,340	1965	Oct. 6	9.63	12,000
1932	Dec. 15	5.08	4,900	1949	Nov. 29	7.37	8,370	1966	Mar. 4	6.62	6,890
1933	Oct. 17	6.39	7,990	1950	Oct. 7	10.53	13,600	1967	Aug. 25	7.46	8,280
1934	Mar. 5	5.80	6,460	1951	Dec. 8	4.76	4,120	1968	Dec. 12	5.32	4,830
1935	Jan. 10	5.54	5,760	1952	Mar. 24	7.40	8,370	1969	Apr. 18	7.86	8,960
1936	Apr. 7	10.26	13,300	1953	Feb. 22	5.82	5,720	1970	Aug. 9	4.00	2,850
1937	Jan. 3	8.00	9,390	1954	Jan. 24	7.89	9,220	1971	Mar. 3	4.52	3,630
1938	Oct. 19	8.54	10,200	1955	Feb. 7	5.28	4,920	1972	June 21	6.24	6,280
1939	Aug. 20	6.24	6,360	1956	Apr. 16	5.88	5,880	1973	May 29	6.16	6,160
1940	Aug. 14	8.31	9,920	1957	Apr. 6	5.75	5,720	1974	Apr. 5	5.10	4,500
1941	July 9	3.76	2,540	1958	Apr. 29	5.25	4,760	1975	Mar. 15	7.72	8,720
1942	Feb. 17	6.66	7,180	1959	June 1	4.97	4,440	1976	Jan. 28	5.62	5,290
1943	Jan. 28	6.49	6,840	1960	Mar. 31	5.43	5,080	1977	Mar. 30	7.80	8,860
1944	Mar. 20	5.78	5,720	1961	June 23	7.87	9,220	1978	Jan. 26	--	--
1945	Mar. 27	4.57	3,720	1962	Dec. 13	8.11	9,560				

[a]No record Oct. 1 to Aug. 31.
[b]Annual peak only.

02163500 SALUDA RIVER NEAR WARE SHOALS, S.C.

LOCATION.--Lat 34°23'12", long 82°13'20", Greenwood County, Hydrologic Unit 03050109, on right bank 2.0 mi (3.2 km) southeast of Ware Shoals, 2.5 mi (4.0 km) downstream from Ware Shoals Dam, 5.0 mi (8.0 km) upstream from Turkey Creek, and at mile 83.7 (134.7 km).

DRAINAGE AREA.--581 mi^2 (1,505 km^2).

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 438.15 ft (133.548 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation at low and medium flow by powerplants upstream. Capacity of reservoirs insufficient to affect monthly figures of runoff. About 41,517,000 gal per day or 64.2 ft^3/s (1.82 m^3/s) diverted above station for city of Greenville water supply during water year. City of Greenville began diverting water from Saluda River (Table Rock Reservoir) in 1930; supplemented by North Saluda Reservoir in 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,700 ft^3/s (586 m^3/s) Sept. 14, 1973, gage height, 22.85 ft (6.965 m), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of computation of peak flow over dam.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1939	Aug. 18	14.29	10,500	1953	Feb. 21	13.59	8,180	1967	Aug. 25	--	12,000
1940	Aug. 13	20.48	20,600	1954	Jan. 24	15.34	9,700	1968	July 10	18.16	12,900
1941	July 7	9.27	5,010	1955	Feb. 7	12.38	7,090	1969	Jan. 20	17.06	11,500
1942	Mar. 21	13.87	8,300	1956	Sept. 26	14.61	9,080	1970	Mar. 22	7.04	2,840
1943	Jan. 18	18.18	15,300	1957	Apr. 7	11.27	5,830	1971	Mar. 3	16.38	10,700
1944	Mar. 20	16.45	11,700	1958	Nov. 19	16.48	10,400	1972	Jan. 10	15.96	10,200
1945	Sept. 13	10.99	5,970	1959	June 2	9.92	5,070	1973	Sept. 14	22.85	20,700
1946	Jan. 7	17.71	14,300	1960	Oct. 11	11.37	5,970	1974	Jan. 1	14.36	8,460
1947	Jan. 20	13.25	7,880	1961	Feb. 22	17.91	12,600	1975	Sept. 18	17.42	12,000
1948	July 16	10.48	5,410	1962	Dec. 13	18.52	13,600	1976	Mar. 16	13.87	7,980
1949	Nov. 29	19.12	16,500	1963	Mar. 6	21.12	17,600	1977	Oct. 9	16.47	10,800
1950	Oct. 8	18.45	14,900	1964	Apr. 8	20.63	16,700	1978	Jan. 26	15.92	10,100
1951	Dec. 8	9.11	4,740	1965	Oct. 5	18.17	13,000	1979	Apr. 14	13.71	4,950
1952	Mar. 24	19.20	14,100	1966	Mar. 4	16.06	10,300				

02164000 REEDY RIVER NEAR GREENVILLE, S.C.

LOCATION.--Lat 34°48'00", long 82°21'55", Greenville County, on right bank 375 ft (114 km) downstream from bridge on Interstate Highway 85, 0.5 mi (0.8 km) upstream from Brushy Creek, 2.5 mi (4.0 km) upstream from dam at Conestee, 3.9 mi (6.3 km) southeast of city hall in Greenville, and at mile 48.5 (78.0 km).

DRAINAGE AREA.--48.6 mi^2 (125.9 km^2).

PERIOD OF RECORD.--October 1941 to September 1971. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder prior to September 1971. Crest-stage gage thereafter. Altitude of gage is 800 ft (244 m) (from topographic map).

REMARKS.--Records good except for periods of no gage-height record which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,740 ft^3/s (134 m^3/s) Mar. 6, 1963 (gage height, 11.39 (3.472 m)), from rating curve extended above 2,600 ft^3/s (73.6 m^3/s).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1942	Feb. 17	4.65	1,560	1954	Jan. 16	4.52	1,580	1966	Sept. 14	8.31	3,020
1943	Jan. 28	5.10	1,810	1955	Feb. 6	3.86	1,250	1967	July 1	5.94	1,800
1944	Mar. 20	4.33	1,430	1956	Apr. 16	6.19	2,460	1968	July 4	7.19	2,300
1945	Sept. 13	4.86	1,710	1957	Apr. 5	4.11	1,340	1969	Apr. 18	8.86	3,230
1946	Jan. 7	6.25	2,360	1958	Nov. 19	5.20	1,880	1970	Aug. 8	4.61	1,140
1947	Jan. 20	4.68	1,610	1959	Sept. 7	5.04	1,320	1971	May 12	6.77	2,080
1948	May 27	4.29	1,430	1960	July 6	7.07	2,560	1972	June 21	9.09	3,450
1949	Nov. 28	6.17	2,460	1961	Feb. 21	7.26	2,650	1973	May 28	8.62	3,080
1950	Oct. 7	7.88	3,590	1962	Dec. 12	7.00	2,460	1974	Jan. 16	6.88	2,140
1951	Sept. 6	6.85	2,860	1963	Mar. 6	10.12	4,050	1975	Sept. 18	11.39	4,740
1952	Dec. 21	5.42	2,000	1964	Apr. 7	8.60	3,180	1976	Mar. 17	--	--
1953	Feb. 20	3.90	1,250	1965	June 12	6.07	1,860	1977	Oct. 9	10.90	4,450

02165000 REEDY RIVER NEAR WARE SHOALS, S.C.

LOCATION.--Lat 34°25'02", long 82°09'10", Laurens County, Hydrologic Unit 03050109, on downstream side of Road S-30-36 bridge, 5.5 mi (8.8 km) northeast of Ware Shoals, 6.0 mi (9.7 km) downstream from Boyd Mill Dam, and at mile 8.7 (14.0 km).

DRAINAGE AREA.--236 mi^2 (611 km^2), revised.

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

REVISED RECORDS.--WSP 892: 1939. WSP 922: Drainage area. WSP 1723: 1940, 1943, 1948-49, 1952(M). WSP 1904: 1940, 1943, 1946, 1949, 1952.

GAGE.--Water-stage recorder. Datum of gage is 453.86 ft (137.973 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, at site 4.1 mi (6.6 km) upstream at datum 26.76 ft (8.156 m) higher.

REMARKS.--Records good. Some regulation at low and medium flow by powerplants above station. Capacity of reservoirs insufficient to affect monthly figures of runoff. Diversion into basin by City of Greenville above station 02163500.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Sept. 14, 1973, gage height 15.40 ft (4.694 m); minimum, 2.7 ft^3/s (0.076 m^3/s) July 6, 1967, gage height 0.42 ft (0.128 m); minimum daily, 4.8 ft^3/s (0.14 m^3/s) Sept. 9, 1973.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1940	Aug. 14	13.32	7,750	1954	Jan. 17	7.12	4,960	1968	July 10	8.31	5,920
1941	July 17	4.40	2,380	1955	Feb. 8	5.02	2,960	1969	Apr. 20	7.22	5,150
1942	Feb. 18	6.50	4,270	1956	Sept. 27	6.29	3,970	1970	Mar. 23	3.58	1,600
1943	Jan. 19	9.69	6,140	1957	Apr. 6	3.87	1,830	1971	Mar. 3	5.66	3,820
1944	Mar. 21	7.41	4,840	1958	Nov. 20	7.88	5,600	1972	June 22	11.20	7,940
1945	Sept. 17	4.64	2,580	1959	Sept. 9	4.15	2,130	1973	Sept. 14	15.40	11,000
1946	Jan. 8	10.44	6,440	1960	Oct. 11	5.76	3,620	1974	Jan. 2	5.63	3,790
1947	Jan. 21	5.48	3,470	1961	Feb. 22	11.18	7,940	1975	Feb. 22	11.38	8,070
1948	Mar. 8	4.74	2,680	1962	Dec. 13	10.97	7,800	1976	Oct. 19	5.58	3,740
1949	Nov. 29	10.64	6,690	1963	Mar. 7	14.92	10,600	1977	Dec. 9	9.67	6,870
1950	Oct. 8	7.56	4,820	1964	Apr. 9	11.84	8,390	1978	Oct. 27	12.90	4,020
1951	Sept. 8	4.28	2,220	1965	Oct. 6	7.54	5,320	1979	Apr. 14	13.71	4,950
1952	Mar. 5	8.60	6,120	1966	Mar. 5	6.94	4,830				
1953	Feb. 22	5.31	3,200	1967	Jan. 9	4.45	2,370				

02165200 SOUTH RABON CREEK NEAR GRAY COURT, S.C.

LOCATION.--Lat 34°31'12", long 82°09'26", Laurens County, Hydrologic Unit 03050109, on left bank, 125 ft (38 m) upstream from U.S. Highway 76, 2.5 mi (4.0 km) upstream from North Rabon Creek and 7.0 mi (11.3 km) southwest of Gray Court.

DRAINAGE AREA.--29.5 mi^2 (76.4 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 548.37 ft (167.143 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except period of no gage-height record Mar. 14 to Apr. 21, which is poor. Recording rain gage located at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft^3/s (116 m^3/s) Sept. 14, 1973, gage height, 9.86 ft (3.005 m); minimum daily, 6.9 ft^3/s (0.20 m^3/s) Aug. 29-31, 1980.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	July 8	1.91	353	1972	Jan. 11	4.31	1,240	1977	Oct. 9	4.60	1,490
1968	Jan. 10	3.41	803	1973	Sept. 14	9.86	4,100	1978	Jan. 26	3.77	1,020
1969	Jan. 20	4.06	998	1974	Jan. 1	2.91	684	1979	Sept. 30	1.93	282
1970	Mar. 22	2.04	379	1975	Mar. 14	5.17	1,660				
1971	Mar. 3	4.19	1,190	1976	Mar. 16	3.30	780				

LOCATION.--Lat 34°10'40", long 81°51'40", Newberry County, Hydrologic Unit 03050109, on left bank on downstream side of bridge on State Highway 39 at Chappells, 6.7 mi (10.8 km) downstream from dam at Lake Greenwood, 9.8 mi (15.8 km) upstream from Little River, and at mile 52.3 (84.2 km).

DRAINAGE AREA.--1,360 mi^2 (3,522 km^2).

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only for some periods, published in WSP 1303. Gage-height records collected at practically same site since 1905 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 362.89 ft (110.609 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1926 to Sept. 30, 1939, nonrecording or recording gage at site 300 ft (91 m) downstream at datum 363.79 ft (110.883 m) above mean sea level. Oct. 1, 1939 to Oct. 7, 1964, recording gage at present site and at datum 363.89 ft (110.914 m) above mean sea level.

REMARKS.--Peaks are from graphs based on gage readings by the U.S. Weather Bureau prior to June 27, 1927. Peak discharges since May 1940 affected by storage in Lake Greenwood.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,700 ft^3/s (1,804 m^3/s), Oct. 2, 1929, gage height 32.5 ft (9.91 m), present datum, from rating curve extended above 27,000 ft^3/s (765 m^3/s) on basis of velocity-area studies.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 26, 1908 reached a stage of 36.7 ft (11.19 m) (present site and datum), from reports of National Weather Service.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1888	Sept.	30.6	--	1930	Oct. 2	31.5	63,700	1955	Apr. 15	13.78	6,460
1906	Dec. 22	18.6	--	1931	Apr. 1	12.49	5,310	1956	Apr. 18	18.79	12,400
1907	Oct. 5	13.3	--	1932	Jan. 9	20.51	16,800	1957	Apr. 5	12.48	5,590
1908	Aug. 26	34.7	--	1933	Oct. 19	21.28	19,200	1958	Nov. 20	19.14	13,200
1909	June 5	20.5	--	1934	June 7	20.94	18,000	1959	June 3	12.28	5,390
1910	Mar. 3	17.6	--	1935	Oct. 12	17.22	9,700	1960	Feb. 14	21.00	18,300
1911	Oct. 9	12.2	--	1936	Apr. 8	28.60	49,400	1961	Feb. 26	20.71	17,400
1912	Mar. 16	25.0	--	1937	Jan. 5	22.03	21,400	1962	Jan. 7	17.64	10,200
1913	Mar. 16	22.0	--	1938	Oct. 22	20.91	18,000	1963	Mar. 13	22.78	24,300
1914	Dec. 31	16.7	--	1939	Mar. 1	19.07	13,200	1964	Apr. 8	24.98	33,200
1915	Jan. 8	16.5	--	1940	Aug. 14	28.66	49,700	1965	June 16	21.35	16,400
1916	Feb. 4	20.3	--	1941	July 17	14.96	7,400	1966	Mar. 5	21.41	16,600
1917	Mar. 6	19.0	--	1942	Mar. 22	22.82	24,300	1967	Aug. 26	19.01	10,800
1918	Aug. 4	17.0	--	1943	Jan. 29	22.21	22,100	1968	Jan. 11	16.90	8,300
1919	Oct. 28	22.6	--	1944	Mar. 21	24.84	32,300	1969	Apr. 19	24.32	26,200
1920	Dec. 12	19.5	--	1945	Sept. 18	13.52	6,080	1970	Mar. 22	13.02	5,510
1921	Feb. 11	22.5	--	1946	Jan. 8	22.30	22,500	1971	Mar. 4	22.51	19,800
1922	Feb. 17	20.0	--	1947	Jan. 21	15.68	8,100	1972	June 22	21.69	17,400
1923	Mar. 18	18.8	--	1948	Apr. 1	19.52	14,200	1973	Apr. 2	22.75	20,600
1924	July 10	16.8	--	1949	Nov. 29	24.59	31,400	1974	Apr. 5	14.74	6,800
1925	Jan. 20	20.5	--	1950	Mar. 7	12.46	5,310	1975	Mar. 15	24.84	28,300
1926	Jan. 20	15.5	--	1951	Apr. 3	12.39	5,430	1976	Mar. 17	19.03	10,800
1927	Dec. 30	15.3	7,700	1952	Mar. 25	24.68	31,900	1977	Oct. 9	26.47	35,200
1928	Aug. 17	29.97	56,200	1953	Feb. 25	13.70	6,380	1978	Jan. 27	15.48	7,740
1929	Sept. 28	30.90	60,700	1954	Jan. 24	13.57	6,320	1979	Feb. 26	21.74	17,500

LOCATION.--Lat 34°00'50", long 81°05'17", Richland County, Hydrologic Unit 03050109, on left bank 0.4 mi (0.6 km) upstream from site of Old Saluda Mill, 1.6 mi (2.6 km) upstream from confluence with Broad River and 3.3 mi (5.3 km) west of State Capital in Columbia, and at mile 1.67 (2.69 km).

DRAINAGE AREA.--2,520 mi^2 (6,527 km^2).

PERIOD OF RECORD.--August 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 149.46 ft (45.555 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 1, 1929, at same site at datum 150.46 ft (45.860 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Lake Murray (see sta 02168500) and Lake Greenwood (see sta 02166500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,000 ft^3/s (1,900 m^3/s) Oct. 2, 1929, gage height, 15.22 ft (4.639 m), from rating curve extended above 36,000 ft^3/s (1,020 m^3/s) on basis of discharge measurements made at Wise Ferry Bridge near Chapin.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1926	Mar. 31	7.75	23,300	1944	Mar. 24	9.15	25,700	1962	Mar. 13	6.83	13,100
1927	July 20	5.62	12,300	1945	Sept. 17	6.13	10,300	1963	Mar. 13	6.83	13,100
1928	Aug. 18	13.04	58,200	1946	Apr. 26	9.71	28,700	1964	Apr. 10	11.25	38,800
1929	Mar. 6	12.43	53,600	1947	Dec. 7	6.13	10,300	1965	June 16	13.32	53,200
1930	Oct. 2	15.22	67,000	1948	Apr. 8	8.31	20,400	1966	Mar. 4	7.16	14,300
1931	Sept. 11	5.86	9,590	1949	May 1	9.16	25,700	1967	Aug. 24	--	12,000
1932	Sept. 13	6.12	10,300	1950	Nov. 22	6.38	10,700	1968	Jan. 10	7.44	15,700
1933	Feb. 20	9.04	24,500	1951	Aug. 10	6.29	10,300	1969	Apr. 19	10.82	35,700
1934	Nov. 2	6.44	11,500	1952	June 12	6.39	10,700	1970	Aug. 31	6.48	11,400
1935	Sept. 5	7.17	14,800	1953	Sept. 3	6.13	9,600	1971	Aug. 17	8.31	20,400
1936	Apr. 7	14.53	61,600	1954	Nov. 9	6.10	9,600	1972	Jan. 11	7.93	18,200
1937	Apr. 9	8.74	23,000	1955	Aug. 19	6.03	9,250	1973	Apr. 7	8.63	22,300
1938	Nov. 15	6.28	11,600	1956	Aug. 15	5.65	8,080	1974	Feb. 25	8.48	21,400
1939	Sept. 8	6.04	9,950	1957	Sept. 3	6.07	10,300	1975	Feb. 19	8.22	19,800
1940	Aug. 28	5.95	9,950	1958	Jan. 24	6.77	13,100	1976	July 7	7.99	18,400
1941	Dec. 13	6.15	10,700	1959	Sept. 30	6.26	10,300	1977	Mar. 22	7.95	18,200
1942	June 10	6.92	13,500	1960	Feb. 13	7.02	13,200	1978	Jan. 26	7.80	17,400
1943	July 22	6.09	10,300	1961	Apr. 12	7.33	15,200	1979	Feb. 26	9.53	27,200

LOCATION.--Lat 33°59'35", long 81°03'00", Lexington County, Hydrologic Unit 03050110, on right bank at Columbia, 1,000 ft (300 m) downstream from Gervais Street Bridge, 1.4 mi (2.3 km) downstream from confluence of Broad and Saluda Rivers, and at mile 174.8 (281.3 km).

DRAINAGE AREA.--7,850 mi^2 (20,330 km^2), approximately.

PERIOD OF RECORD.--October 1939 to current year. Gage-height records collected at site 1,000 ft (300 m) upstream October 1891 to December 1933 and at present site since January 1934 are contained in reports of National Weather Service.

GAGE.--Water-stage recorders. Datum of gage is 113.02 ft (34.448 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Lake Murray (see sta 02168500), and Lake Greenwood (see sta 02166500) on Saluda River and to some extent, at low and medium flow, by powerplants on Broad River.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 155,000 ft^3/s (4,390 m^3/s) Oct. 11, 1976, gage height, 29.74 ft (9.065 m).

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--Maximum flood since at least Oct. 1891, discharge 364,000 ft^3/s (10,300 m^3/s), Aug. 27, 1908, gage height, 39.8 ft (12.13 m), present datum, at site 1,000 ft (300 m) upstream, from records of National Weather Service.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1852	Sept.	34.4		1921	Feb. 11	24.3	149,000	1951	Dec. 9	12.27	32,000
1892	Jan. 20	24.6	154,000	1922	Feb. 17	22.2	123,000	1952	Mar. 6	23.20	91,400
1893	Aug. 29	21.1	110,000	1923	Mar. 18	17.7	78,800	1953	Feb. 23	15.26	43,500
1894	Oct. 24	12.7	49,800	1924	Jan. 18	15.6	64,600	1954	Jan. 25	19.66	65,200
1895	Oct. 10	20.4	103,000	1925	Jan. 20	23.5	139,000	1955	Apr. 15	16.06	47,000
1896	Feb. 7	17.8	79,600	1926	Feb. 26	13.0	51,100	1956	Apr. 18	15.22	43,100
1897	Feb. 7	21.5	115,000	1927	Feb. 25	10.2	39,100	1957	Apr. 7	12.00	31,000
1898	Sept. 25	10.2	39,100	1928	Aug. 18	33.5	311,000	1958	May 1	19.46	64,000
1899	Feb. 8	21.7	117,000	1929	Mar. 1	25.9	173,000	1959	June 3	12.60	33,100
1900	Apr. 22	22.0	120,000	1930	Oct. 3	33.1	303,000	1960	Oct. 1	19.68	65,200
1901	Apr. 3	23.0	132,000	1931	Dec. 8	6.7	26,800	1961	Feb. 25	21.08	74,400
1902	Mar. 2	22.0	120,000	1932	Jan. 10	16.7	71,600	1962	Jan. 8	19.69	65,200
1903	June 9	27.2	194,000	1933	Oct. 19	21.5	115,000	1963	Mar. 15	23.09	91,800
1904	Aug. 10	12.2	47,500	1934	Mar. 29	12.7	33,400	1964	Apr. 10	28.60	142,000
1905	Feb. 22	14.7	59,400	1935	Oct. 12	23.3	92,300	1965	Oct. 18	26.18	120,000
1906	Dec. 22	20.3	102,000	1936	Apr. 8	33.34	231,000	1966	Mar. 6	21.74	80,600
1907	June 3	9.0	34,500	1937	Oct. 19	20.56	70,900	1967	Aug. 25	23.78	97,900
1908	Aug. 27	35.8	364,000	1938	Oct. 21	18.42	57,900	1968	Jan. 12	18.81	61,200
1909	June 5	22.0	120,000	1939	Mar. 2	19.93	66,400	1969	Apr. 19	23.37	94,200
1910	Mar.3	13.8	54,900	1940	Aug. 16	26.14	121,000	1970	Aug. 12	15.44	45,200
1911	Oct. 9	10.9	41,900	1941	July 18	17.19	52,000	1971	Mar. 4	21.55	79,100
1912	Mar. 17	30.7	256,000	1942	Feb. 19	17.31	52,400	1972	Jan. 12	19.26	63,900
1913	Mar. 16	23.2	135,000	1943	Jan. 20	19.44	63,400	1973	Apr. 2	23.99	99,800
1914	Dec. 31	14.6	58,900	1944	Mar. 21	24.57	105,000	1974	Jan. 2	16.87	51,600
1915	Jan. 8	17.4	76,500	1945	Sept. 20	24.30	102,000	1975	Mar. 16	26.47	122,000
1916	July 17	31.5	272,000	1946	Jan. 9	19.21	62,200	1976	Mar. 17	16.16	48,400
1917	Mar. 6	17.8	79,600	1947	Jan. 21	19.42	63,400	1977	Oct. 11	29.74	155,000
1918	Jan. 31	12.2	47,500	1948	Feb. 14	17.72	54,400	1978	Jan. 28	21.87	81,700
1919	Oct. 28	20.7	106,000	1949	Nov. 30	25.56	116,000	1979	Feb. 26	23.46	94,500
1920	Aug. 28	19.5	94,100	1950	Oct. 9	16.77	50,200				

02169550 CONGAREE CREEK AT CAYCE, S.C.

LOCATION.--Lat 33°56'15", long 81°04'40", Lexington County, Hydrologic Unit 03050110, on left bank 20 ft (6 m) downstream from bridge on U.S. Highway 21 at Cayce, 2.1 mi (3.4 km) upstream from Sixmile Creek, and at mile 5.4 (8.7 km).

DRAINAGE AREA.--122 mi^2 (316 km^2).

PERIOD OF RECORD.--October 1959 to September 1980 (discontinued). Occasional low-flow measurements, water years 1925, 1944, 1949-59.

GAGE.--Water-stage recorder. Datum of gage is 128.98 ft (39.313 m) National Geodetic Vertical Datum of 1929 (South Carolina Highway Department benchmark). Prior to Jan. 20, 1960, nonrecording gage at same site and datum.

REMARKS.--Records good. About 3.3 ft^3/s (0.093 m^3/s) diverted by City of Cayce for municipal supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft^3/s (52.1 m^3/s) Oct. 1, 1959, gage height, 5.92 ft (1.804 m), from floodmarks; minimum daily, 111 ft^3/s (3.14 m^3/s) June 20, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 73.2 ft^3/s (2.07 m^3/s) was measured on May 10, 1955.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1960	Oct. 1	5.92	1,840	1967	Aug. 25	4.77	932	1974	Jan. 2	4.19	565
1961	Aug. 5	4.81	1,050	1968	Jan. 11	4.18	596	1975	July 15	4.77	932
1962	Feb. 23	4.55	912	1969	Apr. 17	4.63	848	1976	July 6	4.58	818
1963	Jan. 21	4.14	660	1970	Aug. 12	4.55	800	1977	Dec. 13	4.49	764
1964	Aug. 30	4.84	1,090	1971	Mar. 4	5.09	1,140	1978	Jan. 26	4.27	640
1965	Oct. 16	5.61	1,630	1972	Jan. 11	4.29	650	1979	Feb. 25	4.99	1,070
1966	Mar. 4	4.18	596	1973	June 23	4.98	1,070				

02169630 BIG BEAVER CREEK NEAR ST. MATTHEWS, S.C.

LOCATION.--Lat 33°44'12", long 80°57'30", Calhoun County, Hydrologic Unit 03050110, on right downstream wingwall of bridge on U.S. Highway 21, 0.1 mi (0.2 km) downstream from Rock Branch, 11.6 mi (18.7 km) northwest of St. Matthews, and at mile 8.2 (13.2 km).

DRAINAGE AREA.--10.0 mi^2 (25.9 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 164.21 ft (50.1 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Recording rain gage located at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft^3/s (38.5 m^3/s) July 29, 1971, gage height 6.66 ft (2.030 m); minimum daily, 4.7 ft^3/s (0.13 m^3/s) July 3, 12, Aug. 4, 1970.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	Aug. 23	3.53	58	1972	Aug. 24	3.97	101	1977	June 20	3.33	54
1968	June 9	--	240	1973	Feb. 2	4.29	157	1978	June 6	4.05	112
1969	Apr. 16	3.88	97	1974	Aug. 6	3.71	73	1979	Sept. 5	4.73	272
1970	Mar. 22	4.02	118	1975	July 24	4.10	120				
1971	July 29	6.66	1,360	1976	Jan. 27	3.33	52				

02170000 SANTEE RIVER AT FERGUSON, S.C.

LOCATION.--Lat 33°26'15", long 80°16'20", at Ferguson, Orangeburg County, 4 miles downstream from Eutaw Creek.

DRAINAGE AREA.--14,600 mi^2 (37,800 km^2).

GAGE.--Nonrecording prior to Nov. 23, 1921; recording thereafter. Datum of gage is 42.30 ft (12.893 m) National Geodetic Vertical Datum of 1929, supplementary adjustment of 1936.

STAGE-DISCHARGE RELATION.--Defined by current-meter measurements below 260,000 cfs and extended on basis of velocity-area studies.

BANKFULL STAGE.--12 ft.

REMARKS.--Gage heights prior to Nov. 23, 1921, furnished by the U.S. Weather Bureau. Peaks affected since August 1929 by storage in Lake Murray and to a lesser degree since 1904 by storage in reservoirs on Catawba, Wateree, and Broad Rivers. Only annual peaks are shown.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1908	Aug. 31	23.7	344,000	1920	Apr. 3	14.0	53,000	1932	Jan. 15	13.95	53,000
1909	June 10	15.62	101,000	1921	Feb. 15	17.47	158,000	1933	Jan. 3	14.08	56,000
1910	Mar. 7	13.9	50,000	1922	Feb. 21	15.77	106,000	1934	June 11	[a]13.80	47,000
1911	Jan. 10	13.47	38,000	1923	Mar. 23	15.2	89,000	1935	Oct. 17	13.81	47,000
1912	Mar. 20	19.44	215,000	1924	Jan. 23	13.87	50,000	1936	Apr. 11	20.42	245,000
1913	Mar. 21	15.56	101,000	1925	Jan. 23	17.13	146,000	1937	Jan. 11	14.19	59,000
1914	Jan. 6	14.02	53,000	1926	Mar. 3	13.43	35,900	1938	Oct. 27	13.54	38,000
1915	Jan. 24	14.65	71,000	1927	Mar. 2	13.30	32,500	1939	Mar. 7	15.10	86,000
1916	July 21	24.74	374,000	1928	Aug. 22	20.60	251,000	1940	Aug. 21	14.07	56,000
1917	Mar. 10	14.7	74,000	1929	Mar. 10	17.55	160,000	1941	July 23	[b]15.98	[c]48,000
1918	Feb. 6	13.9	50,000	1930	Oct. 7	21.04	263,000				
1919	July 27	17.12	146,000	1931	Jan. 19	12.88	26,000				

[a]Occurred on June 12, 1934.
[b]Affected by backwater; occurred on July 25, 1941.
[c]Maximum daily discharge.

02171500 SANTEE RIVER NEAR PINEVILLE, S.C.

LOCATION.--Lat 33°27'15", long 80°09'25", Berkeley County, Hydrologic Unit 03050112, on right bank 2.4 mi (3.9 km) downstream from Lake Marion Dam, 3.0 mi (4.8 km) upstream from Dead River, 6.7 mi (10.8 km) west of Pineville, and at mile 85.0 (136.8 km).

DRAINAGE AREA.--14,700 mi^2 (38,100 km^2), approximately.

PERIOD OF RECORDS.--April 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 23.00 ft (7.010 m) National Geodetic Vertical Datum of 1929 (levels by South Carolina Public Service Authority). Prior to Feb. 25, 1943, nonrecording gage at site 2.2 mi (3.5 km) upstream or temporary water-stage recorder operated by Corps of Engineers, at site 200 ft (60 m) upstream, at different datum.

REMARKS.--Records good. Flow completely regulated by Lake Marion (see sta 02171000). Water is diverted above station from Lake Marion through canal (see sta 02170500) into Lake Moultrie (see sta 02172000) for generation of power and for navigation, then discharged into Cooper River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 155,000 ft^3/s (4,390 m^3/s) Sept. 23, 1945, gage height, 31.1 ft (9.48 m) from floodmarks), from rating curve extended above 13,000 ft^3/s (368 m^3/s) by computation of flow over spillway at Lake Marion.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1943	Mar. 27	23.23	32,300	1956	Apr. 7	2.51	744	1969	Apr. 20	24.87	45,500
1944	Mar. 24	29.52	122,000	1957	Apr. 6	3.12	989	1970	Mar. 24	24.03	36,400
1945	Sept. 23	31.1	155,000	1958	Nov. 30	25.85	59,700	1971	Mar. 8	25.51	53,600
1946	Jan. 9	25.50	55,800	1959	July 27	12.36	6,840	1972	Jan. 21	21.64	19,800
1947	Feb. 8	30.04	132,000	1960	Feb. 18	26.57	69,300	1973	Apr. 7	25.24	50,100
1948	Feb. 17	26.35	73,800	1961	Mar. 3	24.68	46,500	1974	Feb. 16	21.94	21,300
1949	Dec. 4	28.56	114,000	1962	Mar. 17	24.03	36,100	1975	Mar. 19	27.91	91,700
1950	Aug. 29	--	782	1963	Mar. 18	25.43	52,200	1976	May 8	6.49	2,340
1951	June 24	--	617	1964	apr. 13	27.07	77,200	1977	Oct. 14	26.01	60,200
1952	Mar. 11	27.77	89,900	1965	Oct. 22	27.41	88,100	1978	Jan. 31	24.74	43,900
1953	Mar. 25	7.15	2,830	1966	Mar. 9	24.94	51,400	1979	Mar. 2	27.74	85,000
1954	Apr. 17	3.53	1,140	1967	Aug. 26	25.42	52,400				
1955	Oct. 15	2.34	653	1968	Jan. 17	22.77	23,000				

02171680 WEDBOO CREEK NEAR JAMESTOWN, S.C.

LOCATION.--Lat 33°19'50", long 79°48'10", Berkeley County, Hydrologic Unit 03050112, on right downstream wingwall of culvert on S.C. Highway 45, 1.4 mi (2.3 km) southeast of Alvin, 3.3 mi (5.3 km) upstream from mouth and 7.5 mi (12.1 km) northwest of Jamestown.

DRAINAGE AREA.--17.4 mi^2 (45.1 km^2).

PERIOD OF RECORD.--September 1966 to Feb. 1972, Feb. 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6.1 m) (from topographic map).

REMARKS.--Records fair, except below 10 ft^3/s (0.28 m^3/s), which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 928 ft^3/s (26.3 m^3/s) Aug. 26, 1971, gage height, 5.96 ft (1.817 m); maximum gage-height, 8.82 ft (2.688 m) (caused by backwater). No flow for many days during water year 1966-69, Aug. 14, 1973, Oct. 27 - Nov. 7, 1974, Sept. 4, 10, 11, 16-25, 27.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	July 31	4.68	80	1971	Aug. 26	5.96	928	1977	Dec. 12	4.31	198
1968	Aug. 11	3.42	47	1974	Feb. 8	4.69	297	1978	May 9	4.45	232
1969	Aug. 5	4.98	286	1975	Mar. 22	8.82	348	1979	Sept. 5	5.31	546
1970	Mar. 22	4.25	159	1976	July 8	3.98	127				

02172500 SOUTH FORK EDISTO RIVER NEAR MONTMORENCI, S.C.

LOCATION.--Lat 33°34'35", long 81°30'50", Aiken County, near center of span on downstream side of bridge on State Highway 215, 0.4 mi (0.6 km) upstream from Cedar Creek, 1 mi (1.6 km) upstream from Shaw Creek, and 7.6 mi (12.2 km) northeast of Montmorenci.

DRAINAGE AREA.--198 mi^2 (513 km^2).

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

GAGE.--Water-stage recorder prior to September 1966. Crest-stage gage thereafter. Datum of gage is 250.18 ft (76.255 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 29, 1954, wire-weight gage at same site and datum.

REMARKS.--Records good prior to June 30, 1966 and fair thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,010 ft^3/s (142 m^3/s) Aug. 31, 1964 (gage height, 10.24 ft (3.121 m)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1940	Aug. 15	8.81	2,460	1952	Mar. 6	8.21	2,040	1964	Aug. 31	10.24	5,010
1941	July 19	8.81	2,460	1953	May 8	7.62	1,400	1965	Dec. 28	8.85	2,470
1942	Mar. 10	7.88	1,650	1954	Dec. 15	7.07	858	1966	June 12	8.00	1,620
1943	Mar. 23	7.98	1,740	1955	Apr. 16	8.16	1,790	1972	Jan. 14	8.20	1,780
1944	Mar. 24	8.71	2,370	1956	Apr. 13	6.75	755	1973	Feb. 2	7.73	1,380
1945	Apr. 27	6.97	898	1957	May 14	6.90	750	1974	Jan. 3	7.13	948
1946	Apr. 19	6.73	898	1958	Apr. 18	7.82	1,560	1975	July 17	9.03	2,700
1947	Oct. 10	7.47	1,320	1959	May 10	8.33	1,990	1976	June 29	7.92	1,550
1948	Mar. 9	7.62	1,400	1960	Oct. 1	9.57	3,120	1977	Dec. 19	8.53	2,120
1949	Aug. 30	8.52	2,180	1961	Feb. 26	9.15	2,690	1978	Jan. 28	8.75	2,360
1950	Sept. 9	6.86	685	1962	Feb. 24	8.83	2,540	1979	Feb. 24	8.45	2,040
1951	Apr. 5	6.71	615	1963	Jan. 22	7.46	1,160				

LOCATION.--Lat 33°23'25", long 81°08'00", Orangeburg County, on left bank at downstream side of bridge on U.S. Highway 321, 360 ft (110 m) downstream from Seaboard Coast Line Railroad bridge, 1.8 mi (2.9 km) downstream from Little River, 4.8 mi (7.7 km) north of Denmark, and at mile 136.6 (219.8 km)

DRAINAGE AREA.--720 mi^2 (1,860 km^2).

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

GAGE.--Water-stage recorder prior to September 1971. Crest-stage gage thereafter. Datum of gage is 155.68 ft (47.513 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 27, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s (382 m^3/s) Apr. 11, 1936 (gage height, 10.91 ft (3.325 m)), from rating curve extended above 7,100 ft^3/s (201 m^3/s) on basis of velocity-area studies. Maximum flood known since at least 1893, 11.7 ft (3.57 m) in October 1929, on basis of information from State Highway Department (discharge, 17,100 ft^3/s (484 m^3/s), by conveyance-slope study).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1930	Oct.	11.7	17,100	1948	Feb. 14	8.38	4,010	1965	Oct. 20	8.18	3,610
1932	Aug. 12	8.47	2,930	1949	Oct. 5	8.30	3,810	1966	Mar. 5	8.28	3,820
1933	Nov. 4	8.07	2,290	1950	Mar. 9	6.89	1,210	1967	Aug. 28	7.91	3,070
1934	June 5	8.51	2,850	1951	Apr. 2	6.97	1,320	1968	June 13	7.46	2,490
1935	Aug. 22	8.36	2,640	1952	Mar. 26	7.59	2,390	1969	Apr. 20	8.10	3,640
1936	Apr. 11	10.91	13,500	1953	Sept. 29	7.56	2,600	1970	Apr. 1	7.58	2,480
1937	Oct. 14	8.03	2,260	1954	Dec. 16	7.25	1,750	1971	Mar. 5	8.64	4,820
1938	Apr. 10	8.20	2,470	1955	Apr. 20	7.19	1,640	1972	Jan. 18	7.74	2,750
1939	Mar. 3	9.05	4,860	1956	Feb. 8	6.91	1,350	1973	Feb. 3	8.01	3,270
1940	Aug. 19	7.92	2,060	1957	Mar. 27	6.70	1,030	1974	Feb. 19	7.36	2,130
1941	July 22	7.91	2,060	1958	Apr. 17	8.00	3,210	1975	July 19	8.08	3,420
1942	Dec. 26	8.06	2,840	1959	May 14	7.70	2,810	1976	June 30	7.19	1,880
1943	Mar. 24	7.62	2,080	1960	Apr. 6	8.75	5,150	1977	Dec. 19	7.84	2,940
1944	Mar. 25	8.24	3,220	1961	Apr. 17	8.22	3,780	1978	Jan. 28	7.63	2,560
1945	Sept. 19	8.32	3,310	1962	Feb. 27	7.80	3,110	1979	Feb. 24	8.03	3,310
1946	Jan. 1	7.40	1,740	1963	Jan. 22	7.67	2,710				
1947	Aug. 15	--	2,040	1964	Sept. 2	9.41	7,350				

LOCATION.--Lat 33°29'00", long 80°52'25", Orangeburg County, Hydrologic Unit 03050203, on left bank under bridge on U.S. Highway 301 at Orangeburg, 0.5 mi (0.8 km) upstream from Seaboard Coast Line Railroad bridge, 1.5 mi (2.4 km) downstream from Caw Caw Swamp and at mile 22.1 (35.6 km).

DRAINAGE AREA.--683 mi^2 (1,770 km^2).

REVISED RECORDS.--WSP 1032: Drainage area.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 149.02 ft (45.421 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Feb. 23, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good. About 7.4 ft^3/s (0.21 m^3/s) diverted by City of Orangeburg for municipal supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,500 ft^3/s (269 m^3/s) Sept. 18, 1945, gage height, 14.28 ft (4.353 m), from rating curve extended above 5,300 ft^3/s (150 m^3/s) by velocity-area studies; minimum, 190 ft^3/s (5.38 m^3/s) Sept. 13, 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known since at least 1893, 14.7 ft (4.48 m) in September 1928, discharge, 10,000 ft^3/s (283 m^3/s), from rating curve extended as described above, on basis of information from Department of Public Utilities, City of Orangeburg.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1928	Sept.	14.7	10,000	1952	Mar. 25	8.54	2,410	1966	Mar. 6	9.79	3,450
1939	Mar. 3	9.98	3,910	1953	Sept. 29	8.43	2,160	1967	Aug. 29	9.00	2,570
1941	Aug. 19	8.59	2,340	1954	Apr. 10	7.79	1,420	1968	June 12	8.65	2,240
1941	June 29	11.00	5,210	1955	Apr. 20	7.78	1,420	1969	Apr. 21	8.60	2,200
1942	Dec. 26	8.96	2,670	1956	Feb. 8	7.44	1,160	1970	Apr. 2	8.71	2,300
1943	Mar. 24	8.20	1,930	1957	June 17	7.62	1,250	1971	Mar. 5	11.64	5,850
1944	Mar. 25	8.90	2,620	1958	May 1	9.73	3,340	1972	Jan. 16	9.40	2,990
1945	Sept. 18	14.28	9,500	1959	May 14	8.80	2,570	1973	June 13	10.01	3,730
1946	Jan. 1	7.90	1,670	1960	Apr. 6	10.36	4,240	1974	Aug. 11	8.14	1,880
1947	Apr. 18	8.16	1,880	1961	Apr. 17	9.61	3,340	1975	July 21	8.94	2,530
1948	Sept. 7	10.25	4,170	1962	Feb. 24	9.21	2,770	1976	July 1	9.19	2,760
1949	Aug. 29	10.47	4,560	1963	Jan. 22	9.26	2,880	1977	Dec. 17	9.02	2,600
1950	Sept. 10	8.03	1,800	1964	Aug. 31	11.34	5,410	1978	Jan. 26	9.22	2,790
1951	Apr. 10	7.50	1,370	1965	Oct. 6	11.05	5,080	1979	Sept. 6	11.56	5,720

02174000 EDISTO RIVER NEAR BRANCHVILLE, S.C.

LOCATION.--Lat 33°10'35", long 80°45'05", Bamberg County, Hydrologic Unit 03050205, on right bank 400 ft (120 m) downstream from bridge on U.S. Highway 21, 4.7 mi (7.6 km) downstream from Brier Branch, 5.2 mi (8.4 km) south of Branchville, and at mile 100.0 (160.9 km).

DRAINAGE AREA.--1,720 mi^2 (4,450 km^2), approximately.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 80.02 ft (24.390 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 19, 1949, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft^3/s (413 m^3/s) Sept. 3, 1964, gage height, 11.44 ft (3.487 m); minimum, 323 ft^3/s (9.15 m^3/s) Aug. 14, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known since at least 1893, 13.5 ft (4.11 m), present datum, in September 1928, on basis of information from State Highway Department, discharge, 25,700 ft^3/s (728 m^3/s), by conveyance-slope study.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1928	Sept.	14.50	25,700	1957	Mar. 31	5.63	2,200	1969	May 21	8.86	5,630
1946	Jan. 4	8.75	4,100	1958	Apr. 19	--	8,050	1970	Apr. 3	9.17	6,380
1947	Apr. 18	8.23	4,870	1959	Mar. 9	8.36	5,150	1971	Mar. 8	10.68	11,100
1948	Apr. 4	10.95	9,140	1960	Apr. 8	10.93	12,600	1972	Feb. 6	9.09	6,480
1949	Oct. 6	11.21	10,000	1961	Apr. 19	9.97	9,190	1973	June 17	10.12	9,120
1950	Mar. 12	6.22	2,540	1962	Mar. 3	9.04	6,490	1974	Feb. 20	8.57	5,440
1951	Apr. 3	7.36	3,640	1963	Jan. 26	8.97	6,490	1975	July 22	8.88	6,060
1952	Mar. 29	8.47	5,350	1964	Sept. 3	11.44	14,600	1976	June 30	9.08	6,460
1953	Mar. 3	8.27	4,950	1965	Oct. 19	10.57	10,700	1977	Dec. 20	8.73	5,760
1954	Oct. 3	6.79	3,030	1966	Mar. 8	10.06	8,910	1978	Jan. 28	9.64	7,750
1955	Apr. 24	6.43	2,690	1967	Sept. 1	7.69	4,260	1979	Sept. 8	9.81	8,210
1956	Feb. 11	--	3,030	1968	June 16	8.10	4,240				

02175000 EDISTO RIVER NEAR GIVHANS, S.C.

LOCATION.--Lat 33°01'40", long 80°23'30", Dorchester County, Hydrologic Unit 03050205, on left bank at downstream side of bridge on State Highway 61, 2.3 mi (3.7 km) downstream from Four Hole Swamp, 2.8 mi (4.5 km) west of Givhans, and at mile 59.9 (96.4 km).

DRAINAGE AREA.--2,730 mi^2 (7,070 km^2), approximately.

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

REVISED RECORDS.--WSP 1032: Drainage area. WSP 1303: 1939 (monthly and yearly runoff).

GAGE.--Water-stage recorder. Datum of gage is 20.46 ft (6.236 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. About 112 ft^3/s (3.2 m^3/s) a day diverted above station for Charleston water supply during year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft^3/s (694 m^3/s) June 14, 1973, gage height, 15.84 ft (4.828 m); minimum, 290 ft^3/s (8.21 m^3/s) Aug. 16, 1956, gage height, 0.51 ft (0.155 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1904, 17.5 ft (5.33 m) in February 1925, from investigation by Charleston Commissioners of Public Works, discharge, 24,900 ft^3/s (705 m^3/s).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1904	Aug.	17.0	--	1950	Sept. 12	8.66	4,090	1966	Mar. 11	13.63	13,100
1919	July 31	14.0	--	1951	Apr. 9	9.21	4,790	1967	Jan. 13	9.83	4,910
1924	Sept.	15.5	--	1952	Apr. 2	11.27	7,950	1968	June 20	10.07	5,250
1925	Feb.	17.5	24,900	1953	Mar. 7	12.26	10,400	1969	May 26	12.93	10,800
1928	Sept. 11	15.7	19,500	1954	Jan. 6	7.91	3,610	1970	Apr. 6	13.07	11,200
1939	Mar. 6	14.68	16,900	1955	Sept. 16	8.81	4,540	1971	Mar. 11	13.90	14,200
1940	Aug. 15	13.03	12,600	1956	Feb. 14	9.54	5,440	1972	Feb. 7	13.10	11,300
1941	July 5	12.64	10,800	1957	May 21	7.89	3,610	1973	June 14	15.84	24,500
1942	Dec. 30	13.48	13,100	1958	Apr. 22	13.13	12,000	1974	Feb. 22	12.56	9,800
1943	Mar. 30	11.32	8,010	1959	Mar. 9	13.90	14,100	1975	Feb. 26	12.52	9,690
1944	Mar. 30	13.44	13,100	1960	Apr. 11	14.29	14,600	1976	July 8	12.63	9,980
1945	Sept. 21	17.28	24,300	1961	Apr. 20	14.05	14,100	1977	Dec. 19	12.06	8,610
1946	Jan. 24	11.58	8,940	1962	Mar. 6	12.41	10,200	1978	Feb. 2	12.80	10,400
1947	Apr. 22	11.38	8,540	1963	Jan. 29	11.80	8,060	1979	Sept. 9	15.51	22,400
1948	Apr. 6	14.38	15,200	1964	July 29	15.12	19,800				
1949	Dec. 3	14.62	15,800	1965	Oct. 21	15.14	19,900				

02175500 SALKEHATCHIE RIVER NEAR MILEY, S.C.

LOCATION.--Lat 32°59'20", long 81°03'[illegible]", Hampton County, Hydrologic Unit 03050207, on right bank 90 ft (27 m) downstream from bridge on U.S. Highway 601, [illegible] mi ([illegible] km) downstream [illegible] Savannah Creek, 3.1 mi (5.0 km) upstream from Hampton and Branchville Railroad bridge, 3.1 mi (5.0 km) northwest of Miley, and at mile 68.[illegible] ([illegible] km).

DRAINAGE AREA.--341 mi^2 (883 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 64.[illegible] ft ([illegible] m) National Geodetic Vertical Datum of 1929. Dec. 6, 1957 to Jan. 22, 1971, nonrecording gage at same site and datum. Prior to Dec. 6, 1957, nonrecording gage at bridge 90 ft (27 m) upstream at same datum.

REMARKS.--[illegible]

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,[illegible] ft^3/s ([illegible] m^3/s) Mar. 12, 1980, gage height, 5.44 ft (1.658 m); minimum, [illegible] ft^3/s ([illegible] m^3/s) Sept. 13, 1954.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1951	[illegible]	[illegible]	774	1961	Apr. 17	4.48	1,390	1971	Mar. 4	4.48	1,570
1952	Mar. 28	[illegible]	[illegible]	1962	Mar. 15	4.33	1,200	1972	Feb. 4	--	2,000
1953	Nov. 30	[illegible]	960	1963	Jan. 23	4.24	1,100	1973	June 20	4.93	2,240
1954	Mar. 19	[illegible]	[illegible]	1964	Sept. 2	4.99	2,340	1974	Feb. 18	4.53	1,650
1955	Apr. 15	[illegible]	953	1965	Oct. 17	5.06	2,230	1975	July 20	5.00	2,350
1956	May [illegible]	[illegible]	774	1966	Mar. 6	5.00	2,200	1976	July 7	4.83	2,100
1957	Mar. [illegible]	3.[illegible]	732	1967	Mar. 13	4.60	1,740	1977	Mar. 24	4.34	1,480
1958	Apr. [illegible]	4.[illegible]	[illegible]	1968	June 13	4.32	1,340	1978	Jan. 28	4.63	1,800
1959	Mar. [illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1979	Sept. 6	5.34	3,050
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

02176000 COMBAHEE RIVER NEAR YEMASSEE, S.C.

LOCATION.--Lat 32°42'25", long 80°49'35", Hampton County, near left bank on downstream side of pile bent of bridge on U.S. Highway 17A, 0.2 mi (0.3 km) upstream from Atlantic Coast Line Railroad bridge, 1.8 mi (2.9 km) northeast of Yemassee, and 5 mi (8 km) downstream from Black Creek.

DRAINAGE AREA.--1,100 mi^2 (2,850 km^2).

PERIOD OF RECORD.--October 1952 to September 1966.

GAGE.--Recording prior to June 30, 1957; crest-stage gage thereafter. Datum of gage is at National Geodetic Vertical Datum of 1929.

REMARKS.--Defined by current-meter measurements below 4,000 ft^3/s (113 m^3/s) and extended on basis of velocity-area studies.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) July 22, 1964, (gage height 10.87 ft (3.313 m)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1952	Feb. 19	7.51	3,530	1957	June 6	6.71	2,150	1962	Mar. 17	8.50	5,630
1953	Mar. 8	7.32	3,110	1958	Apr. 19	9.22	7,930	1963	Jan. 25	8.39	5,410
1954	May 18	7.51	3,530	1959	Mar. 7	10.16	9,850	1964	July 22	10.87	11,700
1955	Apr. 18	8.18	5,330	1960	Nov. 2	10.80	11,400	1965	Oct. 16	10.62	10,900
1956	Feb. 10	7.96	4,680	1961	Apr. 20	9.22	7,350	1966	Mar. 8	9.29	7,600

02176500 COOSAWHATCHIE RIVER NEAR HAMPTON, S.C.

LOCATION.--Lat 32°50'10", long 81°07'55", Hampton County, Hydrologic Unit 03050208, near left bank on downstream side of bridge on U.S. Highway 601, 1.6 mi (2.6 km) downstream from Black Creek, 2.5 mi (4.0 km) southwest of Hampton, and at mile 33.6 (54.1 km).

DRAINAGE AREA.--203 mi^2 (526 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 50.30 ft (15.331 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 26, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,160 ft^3/s (231 m^3/s) Sept. 2, 1969, gage height, 8.39 ft (2.557 m), from floodmarks; no flow for some days in 1951, 1954, 1956, 1957, 1968, 1969, 1980.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1951	Apr. 1	4.82	1,220	1961	Apr. 17	5.16	1,580	1971	Mar. 4	5.16	1,530
1952	Feb. 16	5.20	1,780	1962	Mar. 12	--	1,250	1972	Feb. 4	5.23	1,660
1953	Mar. 24	5.78	2,750	1963	Jan. 29	5.61	2,190	1973	June 14	5.47	1,940
1954	May 16	5.45	2,360	1964	Aug. 30	6.21	3,720	1974	Feb. 9	5.11	1,520
1955	Apr. 15	5.05	1,430	1965	Oct. 16	6.27	3,880	1975	July 19	5.61	2,150
1956	Feb. 7	4.98	1,390	1966	Mar. 5	5.65	2,370	1976	July 7	5.29	1,760
1957	May 31	4.26	649	1967	Aug. 12	4.53	974	1977	Mar. 8	4.57	1,030
1958	Apr. 16	5.07	1,400	1968	June 9	3.89	416	1978	Jan. 27	5.03	1,460
1959	Mar. 6	5.87	2,950	1969	Sept. 2	8.39	8,160	1979	Sept. 6	5.66	2,210
1960	Jan. 31	5.48	2,150	1970	Mar. 31	5.66	2,120				

02184500 WHITEWATER RIVER AT JOCASSEE, S.C.

LOCATION.--Lat 34°58'19", long 82°56'24", Oconee County, on right bank at highway bridge at Jocassee, 0.8 mi (1.3 km) upstream from confluence with Toxaway River.

DRAINAGE AREA.--47.3 mi^2 (122.5 km^2).

PERIOD OF RECORD.--January 1951 to April 1968 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 777.79 ft (237.070 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Station inundated by Lake Jocassee.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,900 ft^3/s (195 m^3/s) Oct. 4, 1964 (gage height, 14.30 ft (4.359 m)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1952	Mar. 11	11.17	5,280	1958	Dec. 20	--	2,410	1964	Sept. 29	12.48	5,990
1953	Feb. 21	6.53	2,820	1959	May 31	--	1,990	1965	Oct. 4	14.30	6,900
1954	Jan. 22	6.38	2,730	1960	Oct. 9	--	2,340	1966	Oct. 1	11.20	5,350
1955	Feb. 6	--	2,260	1961	Feb. 25	6.65	2,890	1967	June 4	9.76	4,630
1956	Apr. 15	5.10	1,950	1962	Dec. 12	7.00	3,100				
1957	Apr. 4	6.31	2,710	1963	Mar. 6	5.78	2,370				

02185000 KEOWEE RIVER NEAR JOCASSEE, S.C.

LOCATION.--Lat 34°57'21", long 82°54'41", Oconee County, on right bank 0.6 mi (1.0 km) downstream from bridge on State Highway 11, 1.8 mi (2.9 km) southeast of Jocassee, and 2.6 mi (4.2 km) upstream from Eastatoe Creek.

DRAINAGE AREA.--148 mi^2 (383 km^2).

PERIOD OF RECORD.--December 1949 to April 1968 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 737.43 ft (224.769 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Station inundated by Lake Jocassee.

EXTREMES FOR PERIOD OF RECORD.--1949-68: Maximum discharge, 21,000 ft^3/s (595 m^3/s) Oct. 4, 1964 (gage height, 22.03 ft (6.715 m)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1950	Sept. 1	11.46	11,800	1956	Apr. 16	6.74	5,780	1962	Dec. 12	10.45	10,400
1951	Dec. 7	8.29	7,700	1957	Apr. 4	9.03	8,540	1963	Mar. 6	--	6,620
1952	Mar. 11	16.23	16,200	1958	Dec. 20	7.08	6,260	1964	Sept. 29	17.84	17,700
1953	Feb. 21	10.03	9,840	1959	Apr. 12	6.85	5,900	1965	Oct. 4	22.03	21,000
1954	Jan. 22	9.49	9,190	1960	Feb. 5	6.52	5,540	1966	Mar. 13	16.07	16,100
1955	Feb. 6	7.77	7,100	1961	Feb. 25	9.67	9,450	1967	June 4	14.12	14,100

02185200 LITTLE RIVER NEAR WALHALLA, S.C.

LOCATION.--Lat 34°50'11", long 82°58'48", Oconee County, Hydrologic Unit 03060101, on downstream side of bridge on State Road 24, 0.5 mi (0.8 km) downstream from Oconee Creek, 3.5 mi (5.6 km) south of Salem and 6.5 mi (10.5 km) northeast of Walhalla.

DRAINAGE AREA.--72.0 mi^2 (186.5 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 807.63 ft (246.166 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft^3/s (408 m^3/s) June 4, 1967, gage height, 12.29 ft (3.746 m); minimum, 15 ft^3/s (0.42 m^3/s) July 11-20, Oct. 3-8, 1970.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	June 4	12.29	14,400	1972	Dec. 7	5.73	3,300	1977	Mar. 30	7.55	5,700
1968	Dec. 11	6.29	4,400	1973	May 28	11.39	12,300	1978	Jan. 25	6.66	4,450
1969	Aug. 22	5.42	3,340	1974	Dec. 26	4.56	2,050	1979	June 8	7.39	4,950
1970	Nov. 1	3.38	1,260	1975	Mar. 14	6.45	4,160				
1971	Jan. 5	3.37	1,260	1976	May 26	10.30	10,000				

02185500 SENECA RIVER NEAR NEWRY, S.C.

LOCATION.--Lat 34°44'09", long 82°52'19", Oconee County, on left bank 800 ft (244 m) downstream from Lawrence Bridge, 0.7 mi (1.1 km) upstream from Sixmile Creek, and 2.2 mi (3.5 km) east of Newry.

DRAINAGE AREA.--455 mi^2 (1,178 km^2).

PERIOD OF RECORD.--October 1939 to June 1961 (discontinued). Prior to October 1960, published as Keowee River near Newry.

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft (190.500 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good prior to Apr. 22, fair thereafter. Some regulation at low flow by powerplant above station. State-discharge relation affected by backwater from Construction of Hartwell Reservoir subsequent to Apr. 21.

EXTREMES FOR PERIOD OF RECORD.--1939-61: Maximum discharge, 25,200 ft^3/s (714 m^3/s) Aug. 13, 1940; maximum gage height, 24.60 ft (7.498 m) Aug. 13, 1940.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1940	Aug. 13	24.60	25,200	1948	Aug. 4	19.09	17,500	1956	Apr. 16	17.32	14,900
1941	July 7	13.27	10,400	1949	Nov. 29	20.54	19,000	1957	Apr. 5	20.32	18,300
1942	Feb. 17	20.28	18,900	1950	Oct. 7	22.69	21,100	1958	Nov. 19	13.72	10,800
1943	Dec. 29	--	17,100	1951	Dec. 7	15.97	13,000	1959	Apr. 12	17.01	14,400
1944	Mar. 20	17.01	14,900	1952	Mar. 11	23.16	22,000	1960	Mar. 30	15.92	13,300
1945	Feb. 22	8.25	5,530	1953	Feb. 21	18.89	16,300	1961	June 22	20.94	20,200
1946	Jan. 7	21.32	20,300	1954	Jan. 22	--	19,700				
1947	Jan. 20	16.26	13,900	1955	Feb. 6	--	17,500				

02186000 TWELVEMILE CREEK NEAR LIBERTY, S.C.

LOCATION.--Lat 34°48'05", long 82°44'55", Pickens County, on left bank 40 ft (12 m) downstream from State highway bridge, 0.8 mi (1.3 km) downstream from Rices Creek, and 3.4 mi (5.5 km) west of Liberty.

DRAINAGE AREA.--106 mi^2 (275 km^2).

PERIOD OF RECORD.--July 1954 to September 1964 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 822.18 ft (250.660 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Storm runoff at gage affected by several small flood-detention reservoirs on tributary streams.

EXTREMES FOR PERIOD OF RECORD.--1954-64: Maximum discharge, 5,360 ft^3/s (151.8 m^3/s) Dec. 12, 1961 (gage height, 12.23 ft (3.728 m)), from rating curve extended above 4,100 ft^3/s (116.1 m^3/s) by logarithmic plotting.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1955	Feb. 7	9.60	2,880	1959	June 1	9.30	2,710	1963	Mar. 6	11.38	4,680
1956	Apr. 16	9.37	2,760	1960	Mar. 31	8.71	2,490	1964	Jan. 25	9.59	3,300
1957	Apr. 5	9.80	2,930	1961	June 22	10.81	4,040				
1958	July 9	6.56	1,380	1962	Dec. 12	12.23	5,360				

02187500 SAVANNAH RIVER NEAR IVA, S.C.

LOCATION.--Lat 34°15'20", long 82°44'42", Anderson County, Hydrologic Unit 03060103, on left bank at downstream side of bridge on State Highway 184, 0.5 mi (0.8 km) upstream from Little Generostee Creek, 5.8 mi (9.3 km) southwest of Iva, and at mile 296.5 (477.1 km).

DRAINAGE AREA.--2,231 mi^2 (5,778 km^2).

PERIOD OF RECORD.--October 1949 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 432.26 ft (131.753 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by powerplants above station, by Burton and Mathis Reservoirs, and by Hartwell Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,400 ft^3/s (1.540 m^3/s) Mar. 12, 1952, gage height, 12.74 ft (3.883 m).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1950	Oct. 10	--	27,500	1960	Apr. 6	6.16	12,300	1970	July 29	8.51	28,600
1951	Oct. 21	8.98	27,200	1961	Mar. 7	5.79	10,400	1971	Mar. 3	8.96	31,300
1952	Mar. 12	12.74	54,400	1962	Dec. 18	7.89	21,200	1972	Jan. 7	8.43	31,000
1953	Feb. 22	10.44	36,800	1963	Apr. 30	7.86	21,400	1973	Dec. 15	8.57	32,000
1954	Jan. 16	11.28	44,200	1964	Apr. 8	11.25	44,300	1974	Aug. 9	8.01	28,100
1955	Feb. 7	10.04	34,000	1965	Oct. 5	8.87	29,500	1975	Mar. 13	8.82	33,700
1956	Apr. 16	9.65	31,200	1966	Mar. 4	9.79	35,000	1976	Mar. 31	8.23	29,600
1957	Apr. 6	10.08	34,800	1967	June 6	8.88	30,800	1977	Mar. 30	8.12	28,800
1958	Nov. 19	9.67	32,000	1968	Jan. 12	8.58	29,000	1978	Jan. 25	8.47	31,300
1959	Apr. 13	8.22	22,000	1969	May 2	8.44	28,100	1979	Apr. 13	8.73	33,300

02188000 ROCKY RIVER NEAR CALHOUN FALLS, S.C.

LOCATION.--Lat 34°08', long 82°38', on right bank, 2,000 ft (600 m) upstream from Swanigan Mill bridge on county road, 3.2 mi (5.1 km) northwest of Calhoun Falls, Abbeville County, and 3.8 mi (6.1 km) upstream from mouth.

DRAINAGE AREA.--267 mi^2 (692 km^2).

PERIOD OF RECORD.--February 1950 to September 1966, crest-stage 1971-79.

GAGE.--Digital water-stage recorder. Datum of gage is 403.04 ft (122.847 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 13, 1964, graphic water-stage recorder at same site and datum.

REMARKS.--Records good. Flow regulated by Lake Secession (usable capacity, about 1,742,000,000 cubic feet). City of Abbeville diverted a small amount of water during year for municipal supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft^3/s (309 m^3/s) Mar. 26, 1964 (gage height 12.79 ft (3.898 m)).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1951	Dec. 7	3.44	1,240	1960	Feb. 14	5.87	3,560	1973	Apr. 1	5.86	3,160
1952	Mar. 25	9.44	9,450	1961	FEb. 25	6.81	4,360	1974	Jan. 9	11.20	8,940
1953	Mar. 23	4.54	2,240	1962	Feb. 22	5.42	2,960	1975	Mar. 13	11.57	9,380
1954	jan. 23	5.09	2,880	1963	Mar. 13	7.68	5,330	1976	Mar. 17	6.08	3,380
1955	Feb. 6	4.92	2,700	1964	Mar. 26	12.79	10,900	1977	Oct. 9	7.50	4,800
1956	Sept. 27	6.22	4,110	1965	Oct. 6	12.51	10,600	1978	Oct. 26	6.84	4,140
1957	Apr. 5	3.60	1,260	1966	Mar. 5	9.57	7,030	1979	Apr. 13	11.40	9,180
1958	Nov. 20	7.45	5,000	1971	Mar. 3	10.65	8,280				
1959	Sept. 7	6.23	3,860	1972	Jan. 11	7.21	4,510				

LOCATION.--Lat 34°04'15", long 82°38'30", Abbeville County, Hydrologic Unit 03060103, on left bank 150 ft (46 m) upstream from bridge on State Highway 72, 1.0 mi (1.6 km) downstream from Seaboard Coast Line Railroad bridge, 1.5 mi (2.4 km) downstream from Rocky River, 3.0 mi (4.8 km) southwest of Calhoun Falls, and at mile 279.7 (450.0 km).

DRAINAGE AREA.--2,876 mi^2 (7,449 km^2).

PERIOD OF RECORD.--August 1896 to August 1898, March 1899 to December 1900, January to December 1903, March 1930 to July 1932, April 1938 to current year. Published as "at Calhoun Falls" 1897-99. Records for January 1901 to December 1902, published in WSP 65, 75, and 83 have been found unreliable, and should not be used. Gage-height records collected at original site 1.0 mi (1.6 km) upstream during 1899-1928 and at present site since 1928 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 363.53 ft (110.804 m) National Geodetic Vertical Datum of 1929. Prior to July 1, 1928, nonrecording gage at railroad bridge 1.0 mi (1.6 km) upstream at altitude 369.0 ft (112.47 m).

REMARKS.--Records good. Flow regulated by powerplants above station, by Burton and Mathis Reservoirs, and by Hartwell Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,500 ft^3/s (2,730 m^3/s), Aug. 13, 1940, gage height, 11.52 ft (3.511 m), from rating curve extended above 50,000 ft^3/s (1,420 m^3/s) by velocity-area studies; minimum daily, 300 ft^3/s (8.50 m^3/s) Nov. 5, 196.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 25, 1908 reached a stage of 28.2 ft (8.60 m) at original site and datum, from records of National Weather Service, discharge, 144,000 ft^3/s (4,080 m^3/s), from rating curve extended above 14,000 ft^3/s (396 m^3/s).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1897	Apr. 5	15.3	57,400	1926	Jan. 19	8.6	28,300	1953	Feb. 22	6.94	38,400
1900	Feb. 14	19.7	76,500	1927	Dec. 29	8.5	27,800	1954	Jan. 17	7.44	44,600
1901	Sept. 18	17.4	66,500	1928	Aug. 17	11.9	130,000	1955	Feb. 7	6.89	40,200
1902	Feb. 28	19.6	76,100	1929	Sept. 27	8.7	85,400	1956	Sept. 26	7.02	40,200
1903	June 7	15.4	57,800	1930	Oct. 2	10.1	105,000	1957	Apr. 6	6.79	38,100
1904	Aug. 9	9.9	33,900	1931	Apr. 23	4.22	15,800	1958	Nov. 19	6.76	38,100
1905	July 2	13.0	47,400	1932	Dec. 4	7.1	41,400	1959	June 2	6.41	32,800
1906	Mar. 20	11.8	42,200	1933	Oct. 17	11.6	97,600	1960	Feb. 13	5.03	19,600
1907	Oct. 4	9.9	33,900	1934	June 5	7.0	39,400	1961	Mar. 8	4.79	17,400
1908	Aug. 25	28.2	114,000	1935	Jan. 10	6.0	29,400	1962	Dec. 19	5.62	26,000
1909	June 4	12.2	43,900	1936	Apr. 7	11.5	96,200	1963	Apr. 30	6.12	30,900
1910	Mar. 1	12.5	45,200	1937	Oct. 1	9.0	63,000	1964	Apr. 8	8.08	60,000
1911	Jan. 4	7.5	23,500	1938	Oct. 20	8.2	53,100	1965	Oct. 6	6.91	44,800
1912	Mar. 16	19.5	75,700	1939	Aug. 19	7.88	49,600	1966	Mar. 4	7.50	52,500
1913	Mar. 15	13.2	48,300	1940	Aug. 13	11.52	96,500	1967	June 5	6.76	39,900
1914	Dec. 30	7.2	22,200	1941	July 7	6.70	36,300	1968	Jan. 10	6.17	33,200
1915	July 1	10.9	38,300	1942	Feb. 18	7.73	47,200	1969	Jan. 20	7.04	43,400
1916	Dec. 30	12.4	44,800	1943	Jan. 18	8.21	53,100	1970	July 29	5.89	32,000
1917	Mar. 25	11.3	40,000	1944	Mar. 20	7.91	49,500	1971	Mar. 4	6.97	45,600
1918	Aug. 3	8.1	26,100	1945	Apr. 25	6.40	33,300	1972	Jan. 10	6.20	35,700
1919	Dec. 23	15.7	59,100	1946	Jan. 8	9.41	68,400	1973	Dec. 16	6.80	43,400
1920	Dec. 10	16.6	63,100	1947	Jan. 20	7.47	44,800	1974	Apr. 5	5.84	31,400
1921	Feb. 9	14.0	51,800	1948	Mar. 7	6.11	29,800	1975	Mar. 14	7.32	47,100
1922	Mar. 11	10.1	34,800	1949	Nov. 29	8.94	61,800	1976	Mar. 16	6.72	39,400
1923	Dec. 19	10.3	35,700	1950	Oct. 8	5.98	29,400	1977	Mar. 30	6.35	35,200
1924	Sept. 21	11.3	40,000	1951	Oct. 21	5.98	28,800	1978	Jan. 26	7.16	45,000
1925	Jan. 19	9.4	31,700	1952	Mar. 24	8.65	58,000	1979	Apr. 13	7.78	52,900

02196000 STEVENS CREEK NEAR MODOC, S.C.

LOCATION.--Lat 33°43'45", long 82°10'55", Edgefield County, Hydrologic Unit 03060107, on left bank at bridge on State Highway 23, 1.4 mi (2.3 km) east of Modoc, and 3.2 mi (5.1 km) downstream from Turkey Creek.

DRAINAGE AREA.--545 mi^2 (1,412 km^2), approximately.

PERIOD OF RECORD.--November 1929 to September 1931, February 1940 to September 1978 (discontinued). Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 197.34 ft (60.149 m) National Geodetic Vertical Datum of 1929 (levels by Southeastern Power Administration). October 15, 1929 to Sept. 30, 1931, nonrecording gage at site 1,100 ft (340 m) upstream at different datum.

REMARKS.--Records good. Slight diurnal fluctuation during low flow caused by small mills above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,100 ft^3/s (994 m^3/s) Aug. 14, 1940; maximum gage height, 41.08 ft (12.521 m) Aug. 14, 1940.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1941	June 25	--	6,000	1954	Jan. 16	14.47	4,110	1967	May 23	20.28	7,020
1942	Mar. 22	29.64	16,800	1955	Apr. 15	24.75	11,300	1968	Jan. 11	28.15	14,400
1943	Jan. 19	--	18,700	1956	Apr. 12	22.74	9,430	1969	Apr. 16	34.15	22,700
1944	Mar. 21	35.88	26,200	1957	May 5	20.32	7,330	1970	Mar. 22	24.66	10,800
1945	Apr. 25	20.10	7,220	1958	Apr. 16	28.87	15,900	1971	Mar. 3	32.47	20,100
1946	Dec. 26	25.27	11,800	1959	Mar. 6	20.60	7,600	1972	Jan. 12	27.07	13,200
1947	Mar. 8	24.41	11,000	1960	Jan. 31	29.07	16,100	1973	Apr. 1	27.92	14,100
1948	Feb. 10	27.36	14,200	1961	Feb. 25	31.26	19,000	1974	Apr. 5	27.28	13,400
1949	Nov. 29	30.27	17,700	1962	jan. 7	32.57	20,900	1975	Mar. 3	30.16	16,900
1950	Mar. 7	14.50	4,060	1963	Mar. 13	23.44	10,100	1976	Mar. 17	25.97	12,100
1951	Apr. 3	19.66	6,760	1964	Aug. 31	38.89	30,900	1977	Oct. 9	30.87	17,800
1952	Mar. 5	30.59	18,200	1965	Dec. 27	32.90	20,700	1978	May 9	25.94	12,000
1953	Feb. 15	21.51	8,360	1966	Mar. 5	27.13	13,200				

02192500 LITTLE RIVER NEAR MT. CARMEL, S.C.

LOCATION.--Lat 34°04'13", long 82°30'02", McCormick County, on right bank 480 ft (150 m) downstream from Island Ford bridge, 2.8 mi (4.5 km) upstream from Calhoun Creek, and 4.5 mi (7.2 km) north of Mount Carmel.

DRAINAGE AREA.--217 mi^2 (562 km^2).

PERIOD OF RECORD.--December 1939 to 1970, crest stage gage 1971-79.

GAGE.--Water-stage recorder. Datum of gage is 353.97 ft (107.890 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for periods of no gage-height record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,800 ft^3/s (589 m^3/s), Aug. 14, 1940 (gage height, 29.60 ft (9.022 m), from high-water mark), from rating curve extended above 13,000 ft^3/s (368 m^3/s).

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1940	Aug. 14	29.60	20,800	1954	Jan. 17	13.93	3,490	1968	Jan. 11	16.70	4,900
1941	July 17	22.23	9,020	1955	Feb. 7	15.64	4,310	1969	Jan. 21	19.61	6,690
1942	Mar. 22	19.18	6,400	1956	Mar. 17	14.34	3,450	1970	Mar. 22	10.63	1,950
1943	Jan. 19	20.37	7,310	1957	Apr. 5	9.23	1,900	1971	Mar. 3	22.64	9,500
1944	Mar. 20	20.90	8,020	1958	Nov. 19	18.20	5,760	1972	Jan. 11	18.99	6,260
1945	Apr. 26	16.88	5,020	1959	Sept. 7	17.57	5,400	1973	Apr. 1	23.60	10,600
1946	Dec. 25	13.00	3,210	1960	Jan. 31	15.60	4,300	1974	Jan. 10	14.62	3,760
1947	Jan. 20	17.35	5,300	1961	Mar. 9	14.92	3,970	1975	Mar. 13	22.86	9,750
1948	Nov. 11	12.81	3,130	1962	Feb. 23	15.86	4,580	1976	Mar. 17	17.58	5,390
1949	Nov. 29	22.55	9,350	1963	Apr. 30	15.84	4,410	1977	Oct. 9	13.01	2,960
1950	July 25	8.74	1,760	1964	Mar. 27	23.11	10,000	1978	Oct. 26	16.51	4,800
1951	Apr. 2	7.55	1,440	1965	Mar. 25	19.76	6,800	1979	Apr. 13	18.25	5,790
1952	Mar. 4	19.47	6,610	1966	Mar. 5	18.96	6,230				
1953	May 1	12.68	2,970	1967	Aug. 25	11.79	2,390				

LOCATION.--Lat 33°22'25", long 81°56'35", Richmond County, Hydrologic Unit 03060106, at New Savannah Bluff lock and dam, 0.2 mi (0.3 km) upstream from Butler Creek, 12.0 mi (19.3 km) downstream from Augusta, and at mile 187.4 (301.5 km).

DRAINAGE AREA.--7,508 mi^2 (19,446 km^2), including that of Butler Creek.

PERIOD OF RECORD.--October 1883 to December 1891, January 1896 to December 1906, January 1925 to current year. Monthly discharges only for some periods, published in WSP 1303. Gage-height records collected at site of Fifth Street gage from 1875 to 1952 and at New Savannah Bluff lock and dam sites since 1937 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1303: 1927-39 (monthly runoff). WSP 1433: 1888, 1896-99, 1902-03, 1906-07, and 1932 (M).

GAGE.--Water-stage recorder. Datum of gage is 96.58 ft (29.438 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Oct. 1, 1883 to Dec. 31, 1891, Jan. 1, 1896, to Dec. 31, 1906, Jan. 1, 1925, to Sept. 30, 1932, nonrecording gage at Fifth Street Bridge at datum 102.06 ft (31.108 m) NGVD (levels by Southeastern Engineering Co.). Oct. 1, 1932, to Sept. 30, 1936, recording gage at Thirteenth Street bridge at datum 104.56 ft (31.870 m) NGVD (levels by Corps of Engineers). Oct. 1, 1936, to Nov. 10, 1948, recording gage at site 0.2 mi (0.3 km) downstream from present site and at present datum.

REMARKS.--Records good. Flow regulated by Hartwell Lake, by Clark Hill Lake, and by other powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 350,000 ft^3/s (9,910 m^3/s) Oct. 3, 1929; maximum gage height, 46.3 ft (14.11 m) Sept. 27, 1929 (at site and datum then in use); minimum discharge, 648 ft^3/s (18.4 m^3/s) Sept. 24, 1939, from rating curve extended below 1,400 ft^3/s (39.6 m^3/s); minimum daily, 1,040 ft^3/s (29.5 m^3/s) Oct. 2, 1927.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known occurred in 1796, discharge 360,000 ft^3/s (10,200 m^3/s) gage height, 40 ft (12.2 m), marked by local residents (at site and datum of Fifth Street gage), by conveyance-slope study.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1976	--	40	a360,000	1908	Aug. 27	38.8	a307,000	1945	Apr. 27	23.16	64,000
1840	May 28	37.8	a270,000	1909	June 5	28.7	87,300	1946	Jan. 9	24.43	97,200
1852	Aug. 29	37.4	a250,000	1910	Mar. 2	26.4	69,800	1947	Jan. 22	23.97	86,000
1865	Jan. 11	36.9	a240,000	1911	Apr. 14	19.1	32,800	1948	Feb. 10	23.90	83,200
1870	May 28		a270,000	1912	Mar. 17	36.8	234,000	1949	Nov. 30	26.61	154,000
1876	Dec. 30	28.6	86,400	1913	Mar. 16	35.1	156,000	1950	Oct. 9	20.10	32,500
1877	Apr. 14	31.4	119,000	1914	Dec. 31	24.3	48,000	1951	Oct. 22	22.32	46,300
1878	Nov. 23	23.5	51,500	1915	Jan. 20	28.2	61,000	1952	Mar. 6	21.53	39,300
1879	Aug. 3	22.0	44,000	1916	Feb. 3	31.0	82,400	1953	May 8	20.80	35,200
1880	Dec. 16	30.1	102,000	1917	Mar. 6	29.2	68,000	1954	Mar. 30	17.39	25,500
1881	Mar. 18	32.2	130,000	1918	Jan. 30	25.5	45,500	1955	Apr. 15	16.77	23,900
1882	Sept. 12	29.3	93,300	1919	Dec. 24	35.0	128,000	1956	Apr. 12	14.70	18,600
1883	Jan. 22	30.8	111,000	1920	Dec. 11	35.4	133,000	1957	May 7	14.08	18,000
1884	Apr. 16	28.0	81,000	1921	Feb. 11	35.1	129,000	1958	Apr. 18	22.91	66,300
1885	Jan. 26	27.5	77,000	1922	Feb. 16	32.0	92,000	1959	June 8	18.65	28,500
1886	May 21	32.5	135,000	1923	Feb. 28	28.0	59,700	1960	Feb. 14	20.58	34,900
1887	July 31	34.5	173,000	1924	Sept. 22	28.0	59,700	1961	Apr. 2	20.56	34,800
1888	Sept. 11	38.7	a303,000	1925	Jan. 20	36.5	150,000	1962	Jan. 9	20.09	32,500
1889	Feb. 19	33.3	149,000	1926	Jan. 20	27.3	55,300	1963	Mar. 23	19.52	31,300
1890	Feb. 27	22.9	48,500	1927	Dec. 30	24.0	39,000	1964	Apr. 9	24.16	87,100
1891	Mar. 10	35.5	197,000	1928	Aug. 17	40.4	226,000	1965	Dec. 27	20.62	34,600
1892	Jan. 20	32.8	140,000	1929	Sept. 27	46.3	a343,000	1966	Mar. 6	21.50	39,300
1893	Feb. 14	25.0	60,000	1930	Oct. 2	45.1	a350,000	1967	Aug. 25	18.10	26,500
1894	Aug. 7	24.0	54,000	1931	Nov. 17	19.9	26,100	1968	Jan. 12	20.94	35,900
1895	Jan. 11	30.4	106,000	1932	Jan. 9	30.4	93,800	1969	Apr. 21	22.24	45,600
1896	July 10	30.5	107,000	1933	Oct. 18	30.3	92,600	1970	Apr. 1	17.68	25,200
1897	Apr. 6	29.3	93,300	1934	Mar. 5	28.5	73,200	1971	Mar. 5	23.30	63,900
1898	Sept. 2	31.3	117,000	1935	Mar. 15	27.4	63,700	1972	Jan. 20	20.36	33,700
1899	Feb. 8	31.0	113,000	1936	Apr. 8	41.2	a258,000	1973	Apr. 8	21.63	40,200
1900	Feb. 15	32.7	138,000	1937	Jan. 4	30.1	91,400	1974	Feb. 23	20.13	32,900
1901	Apr. 4	31.8	124,000	1938	Oct. 21	30.1	91,400	1975	Mar. 25	22.24	45,600
1902	Mar. 1	34.6	175,000	1930	Mar. 2	24.10	90,900	1976	June 5	20.27	33,300
1903	Feb. 9	33.2	147,000	1940	Aug. 15	29.40	239,000	1977	Apr. 7	20.50	34,200
1904	Aug. 10	25.5	63,000	1941	July 8	22.89	53,300	1978	Jan. 26	21.98	43,100
1905	Feb. 14	25.8	64,800	1942	Mar. 23	24.56	105,000	1979	Feb. 27	21.13	37,300
1906	Jan. 5	29.6	96,600	1943	Jan. 20	25.10	117,000				
1907	Oct. 5	23.6	52,000	1944	Mar. 22	25.53	128,000				

02197300 UPPER THREE RUNS NEAR NEW ELLENTON, S.C.

LOCATION.--Lat 33°23'05", long 81°37'00", Aiken County, Hydrologic Unit 03060106, on downstream side of bridge on U.S. Highway 278, 0.4 mi (0.6 km) upstream from Johnson Fork Creek, and 4.6 mi (7.4 km) southeast of New Ellenton.

DRAINAGE AREA.--87.0 mi^2 (225.3 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 120 ft (37 m) (from topographic map).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 420 ft^3/s (11.9 m^3/s) Aug. 17, 1971, gage height, 8.00 ft (2.438 m); minimum, 66 ft^3/s (1.87 m^3/s) Sept. 14, 1969.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1967	Aug. 24	--	320	1972	Aug. 17	7.52	372	1977	Mar. 22	7.07	304
1968	June 9	6.07	237	1973	June 13	8.37	472	1978	Jan. 25	7.38	344
1969	Sept. 19	6.91	301	1974	Feb. 7	6.60	260	1979	Feb. 24	7.36	341
1970	Mar. 30	6.83	303	1975	July 15	7.34	341				
1971	Aug. 17	8.00	420	1976	May 29	7.96	429				

02197500 SAVANNAH RIVER AT BURTONS FERRY BRIDGE NEAR MILLHAVEN, GA

LOCATION.--Lat 32°56'20", long 81°30'10", Screven County, on downstream side of left pier of drawspan of bridge on U.S. Highway 301, 2 mi downstream from Rocky Creek, 9 mi east of Millhaven and at mi 118.7.

DRAINAGE AREA.--8,650 mi^2 (22,400 km^2), approximately.

GAGE.--Water-stage recorder. Datum of gage is 52.42 ft (15.978 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

STAGE-DISCHARGE RELATION.--Defined by current-meter measurements below 141,000 ft^3/s and extended by logarithmic plotting. Bankfull stage and discharge, 15 ft and 20,000 ft^3/s.

HISTORICAL DATA.--Flood-stage of October 1929, from information furnished by Corps of Engineers. Based on other stations on the Savannah River, this peak was the highest since 1796.

REMARKS.--Peak discharges are affected by storage in Lake Burton, Mathis Reservoir, Hartwell and Clark Hill Lakes.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1930	Oct.	30.80	a220,000	1950	Oct. 14	14.87	18,500	1961	Apr. 24	17.60	32,400
1940	Aug. 18	27.0	141,000	1951	Oct. 27	16.53	25,700	1962	Jan. 15	16.75	27,400
1941	July 13	18.2	38,400	1952	Mar. 29	18.26	38,500	1963	Mar. 27	17.22	29,200
1942	Mar. 26	22.0	73,000	1953	May 12	17.52	31,800	1964	Apr. 15	22.10	71,700
1943	Jan. 23	22.6	80,900	1954	Apr. 6	14.40	17,600	1965	Apr. 4	17.66	32,800
1944	Mar. 26	23.4	89,300	1955	Apr. 18	13.21	15,000	1966	Mar. 9	18.05	37,100
1945	May 1	18.8	42,900	1956	Mar. 19	11.95	13,700	1967	June 17	15.47	22,000
1946	Jan. 12	21.6	68,600	1957	May 11	12.27	13,900	1968	Jan. 16	16.64	26,800
1947	Jan. 25	21.53	67,500	1958	Apr. 22	18.94	41,400	1969	Apr. 25	18.31	37,200
1948	Feb. 14	21.10	61,000	1959	June 13	16.59	27,400	1970	Apr. 4	14.14	18,200
1949	Dec. 3	24.91	108,000	1960	Feb. 17	18.28	37,100				

LOCATION.--Lat 32°31'30", long 81°15'45", Effingham County (Ga.) - Jasper County (S.C.), Hydrologic Unit 03060109, Ga.-S.C. State line, on downstream side of center pier of drawspan of bridge on Seaboard Coast Line Railroad, 3.0 mi (4.8 km) north of Clyo, and at mile 60.9 (98.0 km).

DRAINAGE AREA.--9,850 mi^2 (25,510 km^2), approximately.

PERIOD OF RECORD.--October 1929 to September 1933, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1303. Gage-height records collected at same site 1921-43 by National Weather Service (unpublished prior to 1933).

REVISED RECORDS.--WSP 1112: 1940.

GAGE.--Water-stage recorder. Datum of gage is 13.41 ft (4.087 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 31, 1933, nonrecording gage at same site and at datum 4.00 ft (1.219 m) higher. Jan. 31, 1933, to June 12, 1945, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Hartwell Lake, by Clark Hill Lake, and by other powerplants above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 270,000 ft^3/s (7,950 m^3/s) Oct. 6, 1929, gage height, 29.7 ft (9.05 m), present datum (from information by Corps of Engineers), from rating curve extended above 120,000 ft^3/s (3,400 m^3/s); minimum daily, 1,950 ft^3/s (55.2 m^3/s) Sept. 27, 1931.

Peak Stage and Discharges

Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)	Water year	Date	Gage height (ft)	Discharge (ft^3/s)
1925	Jan. 24	23.9	134,000	1944	Mar. 29	21.6	95,200	1963	Mar. 31	15.27	29,200
1926	Jan. 28	15.4	31,400	1945	May 5	16.0	34,400	1964	Apr. 18	20.22	83,800
1927	Mar. 6	13.4	30,600	1946	Jan. 16	19.5	64,400	1965	Apr. 6	16.52	38,000
1928	Aug. 23	22.3	106,000	1947	Jan. 28	19.40	63,200	1966	Mar. 11	17.10	42,800
1929	Mar. 11	23.6	128,000	1948	Feb. 17	19.66	71,000	1967	June 22	13.67	22,500
1930	Oct. 6	29.70	a270,000	1949	Dec. 6	22.17	104,000	1968	Jan. 21	14.84	28,000
1931	Nov. 28	12.77	18,200	1950	Oct. 19	12.21	16,000	1969	Apr. 29	16.74	39,700
1932	Jan. 15	19.18	59,600	1951	Nov. 1	13.38	22,600	1970	Apr. 7	13.31	21,000
1933	Jan. 4	19.2	59,600	1952	Apr. 2	16.90	41,300	1971	Mar. 6	18.11	54,500
1934	June 15	17.2	43,800	1953	May 17	15.80	35,800	1972	Jan. 26	16.30	36,400
1935	Mar. 22	15.2	29,100	1954	Apr. 12	12.49	18,800	1973	Apr. 15	17.29	44,500
1936	Apr. 13	26.0	176,000	1955	Apr. 23	11.35	15,500	1974	Mar. 1	15.78	33,000
1937	Jan. 11	19.4	65,800	1956	Mar. 22	10.47	14,100	1975	3/24,30	17.83	50,600
1938	Apr. 16	17.8	48,400	1957	May 15	11.15	15,000	1976	6/14,15	15.87	33,500
1939	Mar. 8	20.4	70,100	1958	Apr. 25	17.41	45,500	1977	Dec. 22	15.85	33,400
1940	Aug. 22	23.6	128,000	1959	June 18	14.36	26,000	1978	Feb. 3	16.81	38,700
1941	July 17	16.3	36,500	1960	Feb. 19	17.35	40,900	1979	Apr. 27	16.34	36,600
1942	Mar. 29	20.0	73,000	1961	Apr. 25	16.20	34,900				
1943	Jan. 27	20.00	73,000	1962	Jan. 19	[1]14.98	28,200				

[1]Occurred at different time than peak discharge.

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