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## **Appendix D**

Water-year peak-flow and stage data at gaging stations in South Carolina on regulated streams and  
on streams draining more than one physiographic province through 1999

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The following tables contain flood data for streamflow gaging stations in South Carolina that are regulated and (or) drain more than one physiographic province. The tables contain a brief description of the gage location, type of gage, gage datum (if known), drainage area in square miles, period of record, extreme flows of record, a description of how the stage-discharge relation was obtained, historical data, hydrologic unit number<sup>1</sup>, and explanatory remarks.

The log-Pearson Type III flood-frequency data are given for unregulated sites that drain more than one physiographic province using either a weighted or station skew coefficient, and adjusted for historic peaks, high and low outliers, and truncated or incomplete record, are given for most stations with 10 or more years of record.

The tables of peak stages and discharges show only the annual maximums. Underlined data in these tables signify the following:

1. An underlined entry in the “Water Year” column indicates discontinuous record.
2. An underlined entry in 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. Underlined entries in the “Date” and “Discharge” columns indicate a change in the site location that significantly affects the stage-discharge relation.

[Lat, latitude; long, longitude; ft, feet; mi, mile; mi<sup>2</sup>, square miles; ft<sup>3</sup>/s, cubic feet per second; ---, data not available; a, peak stage occurred at a different time than peak discharge; b, historic peak; WSP, Water-Supply Paper]

Water year is the 12-month period beginning October 1 and ending on September 30 of any given year, and designated by the calendar year in which the water year ends.

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<sup>1</sup> The hydrologic unit number is determined from a set of maps developed by the U.S. Geological Survey that depict the approved boundaries of river-basin units of the United States and documented in U.S. Geological Survey Water-Supply Paper 2294 by P.R. Seaber, F.P. Kapinos, and G.L. Knapp (1987). These maps and associated codes provide a standardized base for use by water-resources organizations in locating, storing, retrieving, and exchanging hydrologic data; indexing and inventorying of hydrologic data and information; cataloging of water-data acquisition activities; and a variety of other applications.

PEE DEE RIVER BASIN

02130500 JUNIPER CREEK NEAR CHERAW, S.C.

**LOCATION**--Lat 34°39'00", long 79°54'00", Chesterfield County, Hydrologic Unit 03040201, at left end of Eureka Lake Dam, 1.5 mi upstream from mouth and 3.5 mi south of Cheraw.

**DRAINAGE AREA**--64 mi<sup>2</sup>, approximately.

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

**GAGE**--Water-stage recorder and concrete spillway. Altitude of gage is 90 ft (from U.S. Army Corps of Engineers maps.)

**REMARKS**--Regulated.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 3,910 ft<sup>3</sup>/s on Sept. 18, 1945, gage height, 5.71 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 810 ft<sup>3</sup>/s and graphically extended on logarithmic plotting paper and using a computation of flow over dam at 3,190 ft<sup>3</sup>/s.

Peak Stages and Discharges

| Water Year | Date     | Gage Height<br>(ft) | Discharge<br>(ft <sup>3</sup> /s) | Water Year | Date    | Gage Height<br>(ft) | Discharge<br>(ft <sup>3</sup> /s) | Water Year | Date     | Gage Height<br>(ft) | Discharge<br>(ft <sup>3</sup> /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 | ---                 | 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                               |

PEE DEE RIVER BASIN

02130800 BACK SWAMP NEAR DARLINGTON, S.C.

**LOCATION**-- Lat 34°18'11", long 79°46'07", Darlington County, Hydrologic Unit 03040201, near a culvert on State Secondary Road 35, 0.8 mi northeast of State Secondary Road 173, 4.9 mi southeast of S.C. Highway 34, and 6.0 mi southeast of Darlington.

**DRAINAGE AREA**--6.22 mi<sup>2</sup>.

**PERIOD OF RECORD**--October 1975 to current year.

**GAGE**--Crest-stage partial-record station. Approximate elevation of gage is 100 ft (from topographic map).

**REMARKS**-- Drainage area includes of more than one physiographic province.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 800 ft<sup>3</sup>/s, Dec. 24, 1994, gage height, 12.21 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 150 ft<sup>3</sup>/s and extended based on indirect-discharge computations.

| <u>FLOOD-FREQUENCY DATA (ft<sup>3</sup>/s)</u> |       | <u>LOG-PEARSON TYPE III STATISTICS (LOG UNITS)</u> |         |
|--|-------|--|---------|
| <u>22 YEARS OF RECORD</u>                      |       | Mean   | = 2.060 |
| <u>LOG-PEARSON TYPE III</u>                    |       | Standard Deviation                                 | = 0.344 |
|  |       | Station Skew                                       | = 0.384 |
| Q <sub>2</sub> =                               | 109   |  |         |
| Q <sub>5</sub> =                               | 219   |  |         |
| Q <sub>10</sub> =                              | 325   |  |         |
| Q <sub>25</sub> =                              | 507   |  |         |
| Q <sub>50</sub> =                              | 683   |  |         |
| Q <sub>100</sub> =                             | 902   |  |         |
| Q <sub>200</sub> =                             | 1,170 |  |         |
| Q <sub>500</sub> =                             | 1,620 |  |         |

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|
| 1976       | June 23  | 5.30             | 87.0                           | 1984       | April 5 | 5.85             | 82.0                           | 1992       | Aug. 23  | 6.81             | 136                            |
| 1977       | Aug. 2   | 5.71             | 103                            | 1985       | Aug. 18 | 5.45             | 62.0                           | 1993       | Jan. 15  | 7.98             | 220                            |
| 1978       | Jan. 26  | 5.52             | 96.0                           | 1986       | Mar. 20 | 8.82             | 281                            | 1994       | Sept. 18 | 6.45             | 117                            |
| 1979       | Feb. 24  | 6.48             | 139                            | 1987       | Feb. 28 | 6.96             | 146                            | 1995       | Dec. 24  | 12.21            | 800                            |
| 1980       | Nov. 26  | 8.04             | 228                            | 1988       | May 6   | 5.04             | 41.0                           | 1996       | Mar. 9   | 6.09             | 106                            |
| 1981       | Aug. 11  | 4.68             | 66.0                           | 1989       | July 26 | 4.78             | 23.5                           | 1997       | Jan. 9   | 9.92             | 1---                           |
| 1982       | June 5   | 5.35             | 89.0                           | 1990       | Feb. 28 | 5.21             | 51.0                           | 1998       | Nov. 22  | 9.67             | 1---                           |
| 1983       | April 10 | 8.59             | 267                            | 1991       | Oct. 11 | 5.23             | 52.0                           | 1999       | May 3    | 9.29             | 312                            |

<sup>1</sup>Affected by backwater.

PEE DEE RIVER BASIN

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 bridge on State Road 23, 1,000 ft downstream from dam at H. B. Robinson Steam Electric Plant, 2.1 mi upstream from Beaverdam Creek, 4.6 mi west of Hartsville, and at mile 49.9.

**DRAINAGE AREA**--173 mi<sup>2</sup>.

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

**GAGE**--Data collection platform. Datum of gage is 177.48 ft above sea level.

**REMARKS**--Some regulation by storage in Lake Robinson above station.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 4,450 ft<sup>3</sup>/s, Oct. 13, 1990, gage height, 12.35 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 1,080 ft<sup>3</sup>/s and graphically extended on logarithmic plotting paper.

Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1961       | Feb. 25 | 8.82             | 1,060                          | 1974       | Aug. 9  | 7.40             | 624                            | 1987       | Mar. 3  | 8.56             | 1,160                          |
| 1962       | Mar. 14 | 7.93             | 860                            | 1975       | July 17 | 9.52             | 1,740                          | 1988       | Jan. 25 | 6.24             | 347                            |
| 1963       | Jan. 22 | 8.10             | 950                            | 1976       | June 27 | 6.97             | 541                            | 1989       | Mar. 28 | 7.20             | 605                            |
| 1964       | Mar. 18 | 8.17             | 896                            | 1977       | Mar. 25 | 7.67             | 770                            | 1990       | Oct. 5  | 8.44             | 661                            |
| 1965       | Oct. 19 | 8.23             | 924                            | 1978       | Jan. 26 | 7.69             | 776                            | 1991       | Oct. 13 | 12.35            | 4,450                          |
| 1966       | Mar. 7  | 7.60             | 668                            | 1979       | Feb. 27 | 8.59             | 1,170                          | 1992       | Aug. 22 | 6.63             | 370                            |
| 1967       | Aug. 26 | 7.67             | 692                            | 1980       | Mar. 31 | 8.57             | 1,160                          | 1993       | Jan. 9  | 8.46             | 1,020                          |
| 1968       | Jan. 12 | 7.85             | 760                            | 1981       | Aug. 6  | 6.99             | 510                            | 1994       | Mar. 2  | 7.34             | 570                            |
| 1969       | June 24 | 7.93             | 792                            | 1982       | Jan. 7  | 8.94             | 1,360                          | 1995       | Feb. 17 | 8.43             | 1,030                          |
| 1970       | Mar. 23 | 7.21             | 505                            | 1983       | Mar. 20 | 8.47             | 984                            | 1996       | Mar. 12 | 6.65             | 442                            |
| 1971       | Aug. 18 | 10.08            | 2,010                          | 1984       | Dec. 7  | 7.86             | 741                            | 1997       | July 26 | 8.17             | 929                            |
| 1972       | Jan. 14 | 8.21             | 915                            | 1985       | Feb. 11 | 7.72             | 686                            | 1998       | Jan. 9  | 9.13             | 1,470                          |
| 1973       | June 22 | 8.34             | 988                            | 1986       | Nov. 22 | 7.11             | 481                            | 1999       | Jan. 24 | 7.97             | 887                            |

PEE DEE RIVER BASIN

02131000 PEE DEE RIVER AT PEEDEE, S.C.

**LOCATION**--Lat 34°12'15", long 79°32'55", Marion County, Hydrologic Unit 03040201, at downstream side of downstream bridge on U.S. Highway 76 at Pee Dee, 0.2 mi downstream from Seaboard Coast Line Railroad bridge, 8.2 mi downstream from Black Creek, and at mile 100.2.

**DRAINAGE AREA**--8,830 mi<sup>2</sup>, 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.

**GAGE**--Data collection platform. Datum of gage is 24.73 ft above sea level. Prior to Oct. 1, 1947, at site 1.6 mi downstream at datum 1.27 ft lower.

**REMARKS**--Flow regulated by six powerplants above station. Combined usable capacity of reservoirs,  $3.08 \times 10^{10}$  ft<sup>3</sup>.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 220,000 ft<sup>3</sup>/s, Sept. 22, 1945, gage height, 33.30 ft (site and datum then in use).

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 89,800 ft<sup>3</sup>/s and extended on basis of discharge measurement of 221,000 ft<sup>3</sup>/s at a station at Cheraw, S.C., together with study of rainfall records, channel storage, and records for stations on nearby streams.

Peak Stages and Discharges

| Water Year | Date           | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1939       | Mar. 6         | 25.61            | 66,700                         | 1960       | Apr. 10 | 26.28            | 70,400                         | 1980       | Apr. 2  | 24.11            | 42,600                         |
| 1940       | Aug. 22        | 22.35            | 35,300                         | 1961       | Mar. 3  | 23.86            | 46,300                         | 1981       | July 3  | 18.72            | 19,000                         |
| 1941       | Apr. 9         | 19.32            | 17,400                         | 1962       | Jan. 14 | 22.98            | 39,300                         | 1982       | Jan. 9  | 22.75            | 34,100                         |
| 1942       | Mar. 15        | 22.26            | 34,400                         | 1963       | Mar. 20 | 24.54            | 53,400                         | 1983       | Mar. 25 | 24.59            | 46,000                         |
| 1943       | Feb. 3         | 22.31            | 34,400                         | 1964       | Apr. 14 | 23.95            | 47,600                         | 1984       | Apr. 4  | 26.55            | 65,200                         |
| 1944       | Mar. 26        | 24.32            | 51,800                         | 1965       | Oct. 23 | 26.01            | 62,100                         | 1985       | Aug. 29 | 21.74            | 29,600                         |
| 1945       | Sept. 22       | 33.30            | 220,000                        | 1966       | Mar. 10 | 25.28            | 57,000                         | 1986       | Nov. 28 | 21.99            | 30,900                         |
| 1946       | Jan. 4         | 23.76            | 45,400                         | 1967       | Aug. 29 | 20.84            | 26,300                         | 1987       | Mar. 7  | 29.06            | 96,500                         |
| 1947       | <u>Jan. 26</u> | <u>22.16</u>     | <u>30,900</u>                  | 1968       | Jan. 19 | 23.01            | 36,900                         | 1988       | Jan. 20 | 19.48            | 20,100                         |
| 1948       | Feb. 19        | 26.23            | 69,300                         | 1969       | Feb. 27 | 21.78            | 32,500                         | 1989       | Mar. 30 | 24.45            | 47,500                         |
| 1949       | Dec. 5         | 24.12            | 47,800                         | 1970       | Aug. 19 | 21.69            | 31,800                         | 1990       | Oct. 9  | 26.53            | 50,300                         |
| 1950       | Nov. 7         | 21.22            | 25,600                         | 1971       | Mar. 10 | 23.98            | 47,900                         | 1991       | Oct. 30 | 26.73            | 51,600                         |
| 1951       | Apr. 14        | 20.36            | 21,600                         | 1972       | June 29 | 24.09            | 47,200                         | 1992       | Apr. 29 | 23.88            | 36,100                         |
| 1952       | Mar. 10        | 25.95            | 62,600                         | 1973       | Apr. 6  | 26.97            | 74,600                         | 1993       | Apr. 1  | 25.98            | 47,000                         |
| 1953       | Feb. 28        | 23.54            | 39,700                         | 1974       | Apr. 12 | 22.45            | 35,800                         | 1994       | Mar. 9  | 22.97            | 32,100                         |
| 1954       | Jan. 29        | 25.76            | 60,500                         | 1975       | Mar. 20 | 27.81            | 85,300                         | 1995       | Feb. 23 | 25.49            | 37,500                         |
| 1955       | Apr. 21        | 22.44            | 32,200                         | 1976       | June 26 | 20.49            | 23,100                         | 1996       | Feb. 7  | 22.80            | 29,200                         |
| 1956       | Mar. 22        | 20.46            | 22,000                         | 1977       | Dec. 20 | 22.56            | 36,500                         | 1997       | May 6   | 24.03            | 32,900                         |
| 1957       | Apr. 13        | 21.58            | 30,000                         | 1978       | Feb. 1  | 26.58            | 70,000                         | 1998       | Mar. 25 | 25.52            | 43,600                         |
| 1958       | Dec. 1         | 24.58            | 52,600                         | 1979       | Mar. 2  | 29.03            | 103,000                        | 1999       | Jan. 29 | 21.50            | 22,600                         |
| 1959       | Apr. 26        | 21.44            | 28,800                         |            |         |                  |                                |            |         |                  |                                |

PEE DEE RIVER BASIN

02131500 LYNCHES RIVER NEAR BISHOPVILLE, S.C.

**LOCATION**--Lat 34°15'00", long 80°12'50", Lee County, Hydrologic Unit 03040202, near center of span on downstream side of bridge on U.S. Highway 15, 1.0 mi upstream from Seaboard Coast Line Railroad bridge, 2.9 mi northeast of Bishopville, 3.0 mi downstream from Bells Branch, and at mile 89.5.

**DRAINAGE AREA**--675 mi<sup>2</sup>.

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

**GAGE**--Water-stage recorder from May 1942 to September 1971. Partial-record crest gage from October 1971 to current year. Datum of gage is 155.59 ft above sea level.

**REMARKS**-- Drainage area includes of more than one physiographic province.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 29,400 ft<sup>3</sup>/s, Sept. 19, 1945, gage height, 22.35 ft (from floodmark).

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 11,300 ft<sup>3</sup>/s and extended by velocity-area studies.

| <u>FLOOD-FREQUENCY DATA (ft<sup>3</sup>/s)</u> | <u>LOG-PEARSON TYPE III STATISTICS (LOG UNITS)</u> |  |  |
|--|--|--|--|
|--|--|--|--|

|                           |                   |   |       |
|---------------------------|-------------------|---|-------|
| <u>52 YEARS OF RECORD</u> | <sup>1</sup> Mean | = | 3.881 |
|---------------------------|-------------------|---|-------|

|                             |                                 |   |       |
|-----------------------------|---------------------------------|---|-------|
| <u>LOG-PEARSON TYPE III</u> | <sup>1</sup> Standard Deviation | = | 0.231 |
|-----------------------------|---------------------------------|---|-------|

|  |              |   |        |
|--|--------------|---|--------|
|  | Station Skew | = | -0.230 |
|--|--------------|---|--------|

$Q_2 = 7,710$

$Q_5 = 11,900$

$Q_{10} = 14,900$

$Q_{25} = 18,700$

$Q_{50} = 21,600$

$Q_{100} = 24,500$

$Q_{200} = 27,500$

$Q_{500} = 31,500$

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|
| 1943       | Jan. 21  | 15.66            | 7,210                          | 1962       | Mar. 14  | 16.25            | 10,200                         | 1981       | Feb. 23  | 13.60            | 4,250                          |
| 1944       | Mar. 22  | 17.43            | 12,400                         | 1963       | Jan. 23  | 14.89            | 6,680                          | 1982       | Jan. 5   | 15.69            | 8,380                          |
| 1945       | Sept. 19 | 22.35            | 29,400                         | 1964       | Mar. 18  | 16.86            | 12,200                         | 1983       | ---      | 18.36            | 16,000                         |
| 1946       | Dec. 29  | 14.06            | 3,980                          | 1965       | Oct. 19  | 16.33            | 10,600                         | 1984       | Mar. 31  | 15.12            | 7,010                          |
| 1947       | Apr. 18  | 14.36            | 4,460                          | 1966       | Mar. 7   | 14.92            | 6,700                          | 1985       | Sept. 19 | 12.17            | 2,230                          |
| 1948       | Mar. 10  | 15.47            | 7,480                          | 1967       | Sept. 12 | ---              | 27,400                         | 1986       | Nov. 30  | 14.04            | 5,080                          |
| 1949       | Dec. 1   | 16.85            | 10,900                         | 1968       | Jan. 13  | 15.63            | 8,260                          | 1987       | Mar. 1   | 12.16            | 2,210                          |
| 1950       | Dec. 18  | 11.91            | 1,790                          | 1969       | Apr. 22  | 14.35            | 5,700                          | 1988       | Oct. 29  | 12.38            | 2,450                          |
| 1951       | Apr. 12  | 13.02            | 2,970                          | 1970       | Mar. 25  | 14.12            | 5,240                          | 1989       | July 26  | 13.09            | 3,410                          |
| 1952       | Sept. 3  | 18.06            | 15,000                         | 1971       | Mar. 6   | 16.28            | 9,700                          | 1990       | Oct. 10  | 15.84            | 8,560                          |
| 1953       | Feb. 19  | 13.86            | 4,350                          | 1972       | Apr. 4   | 11.79            | 1,860                          | 1991       | May 14   | 14.72            | 6,240                          |
| 1954       | Apr. 4   | 14.73            | 5,800                          | 1973       | Apr. 4   | 17.40            | 12,400                         | 1992       | Mar. 7   | 12.59            | 2,720                          |
| 1955       | Apr. 17  | 15.40            | 7,720                          | 1974       | Apr. 10  | 13.80            | 4,600                          | 1993       | Dec. 4   | 14.80            | 6,390                          |
| 1956       | Mar. 20  | 14.40            | 5,230                          | 1975       | July 16  | 15.99            | 8,980                          | 1994       | ---      | ---              | ---                            |
| 1957       | May 15   | 13.97            | 4,520                          | 1976       | June 27  | 15.36            | 7,720                          | 1995       | Feb. 24  | 14.74            | 6,280                          |
| 1958       | Jan. 27  | 15.41            | 7,260                          | 1977       | Mar. 22  | 16.11            | 9,280                          | 1996       | ---      | ---              | ---                            |
| 1959       | Apr. 15  | 14.75            | 6,400                          | 1978       | ---      | ---              | ---                            | 1997       | ---      | ---              | ---                            |
| 1960       | Apr. 7   | 15.68            | 7,960                          | 1979       | Feb. 25  | 18.26            | 15,600                         | 1998       | Mar. 24  | 17.03            | 11,600                         |
| 1961       | Feb. 27  | 15.90            | 9,320                          | 1980       | Nov. 12  | 15.86            | 8,720                          | 1999       | Feb. 2   | 13.22            | 3,610                          |

<sup>1</sup>Mean and standard deviation was adjusted according to Appendix 7 of Water Resources Council Bulletin 17B to adjust the record at Lynches River near Bishopville, S.C. (Station 02131500) to the longer period of record at Lynches River near Effingham, S.C. (Station 02132000).

<sup>2</sup>Estimated by hydrographic comparison with Station 02132000, Lynches River at Effingham.

PEE DEE RIVER BASIN

02132000 LYNCHES RIVER NEAR EFFINGHAM, S.C.

**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 upstream from Seaboard Coast Line Railroad Bridge, 1.0 mi south of Effingham, and at mile 43.4.

**DRAINAGE AREA**--1,030 mi<sup>2</sup>, approximately.

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

**GAGE**--Data collection platform. Datum of gage is 58.49 ft above sea level. Prior to Sept. 7, 1934, nonrecording gage at same site and datum.

**REMARKS**-- Drainage area includes of more than one physiographic province.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 25,000 ft<sup>3</sup>/s, Sept. 22, 1945, gage height, 21.21 ft (from floodmark).

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 16,900 ft<sup>3</sup>/s and graphically on logarithmic plotting paper.

| <u>FLOOD-FREQUENCY DATA (ft<sup>3</sup>/s)</u> |        | <u>LOG-PEARSON TYPE III STATISTICS (LOG UNITS)</u> |         |
|--|--------|--|---------|
| <u>72 YEARS OF RECORD</u>                      |        | Mean   | = 3.754 |
| <u>LOG-PEARSON TYPE III</u>                    |        | Standard Deviation                                 | = 0.248 |
|  |        | Station Skew                                       | = 0.079 |
| Q <sub>2</sub> =                               | 5,630  |  |         |
| Q <sub>5</sub> =                               | 9,160  |  |         |
| Q <sub>10</sub> =                              | 11,900 |  |         |
| Q <sub>25</sub> =                              | 15,700 |  |         |
| Q <sub>50</sub> =                              | 18,800 |  |         |
| Q <sub>100</sub> =                             | 22,200 |  |         |
| Q <sub>200</sub> =                             | 25,800 |  |         |
| Q <sub>500</sub> =                             | 31,100 |  |         |

Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|
| 1892       | Jan. 24 | 17.50            | ---                            | 1928       | Sept. 24 | 19.50            | 16,100                         | 1964       | Mar. 22  | 15.75            | 7,800                          |
| 1893       | Sept. 4 | 16.00            | ---                            | 1929       | Mar. 10  | 17.50            | 10,800                         | 1965       | Oct. 22  | 15.87            | 7,940                          |
| 1894       | Aug. 11 | 16.20            | ---                            | 1930       | Oct. 7   | 19.25            | 15,200                         | 1966       | Mar. 7   | 15.38            | 7,020                          |
| 1895       | Oct. 15 | 16.50            | ---                            | 1931       | Aug. 31  | 10.40            | 2,330                          | 1967       | Sept. 16 | 14.08            | 5,570                          |
| 1896       | July 15 | 16.00            | ---                            | 1932       | Jan. 15  | 13.70            | 4,780                          | 1968       | Jan. 18  | 14.26            | 5,420                          |
| 1897       | Feb. 13 | 14.40            | ---                            | 1933       | Oct. 24  | 15.30            | 6,830                          | 1969       | Apr. 26  | 12.52            | 3,790                          |
| 1898       | Aug. 30 | 13.70            | ---                            | 1934       | June 13  | 10.30            | 2,300                          | 1970       | Mar. 31  | 12.76            | 3,980                          |
| 1899       | Feb. 12 | 17.20            | ---                            | 1935       | Sept. 14 | 12.58            | 3,750                          | 1971       | Mar. 5   | 17.46            | 11,700                         |
| 1900       | Apr. 25 | 16.60            | ---                            | 1936       | Apr. 12  | 18.66            | 14,400                         | 1972       | Jan. 18  | 14.21            | 5,360                          |
| 1901       | June 22 | 17.20            | ---                            | 1937       | May 2    | 14.09            | 5,200                          | 1973       | Feb. 5   | 16.68            | 9,710                          |
| 1902       | Feb. 8  | 15.00            | ---                            | 1938       | Aug. 2   | 13.72            | 4,880                          | 1974       | Aug. 15  | 12.18            | 3,550                          |
| 1903       | Feb. 14 | 16.90            | ---                            | 1939       | Mar. 4   | 17.39            | 11,200                         | 1975       | July 20  | 16.69            | 9,740                          |
| 1904       | Aug. 14 | 12.80            | ---                            | 1940       | Aug. 18  | 9.43             | 1,980                          | 1976       | June 28  | 13.37            | 4,500                          |
| 1905       | Feb. 22 | 13.50            | ---                            | 1941       | July 18  | 12.22            | 3,420                          | 1977       | Mar. 20  | 13.81            | 4,920                          |
| 1906       | June 17 | 14.60            | ---                            | 1942       | May 28   | 14.39            | 5,640                          | 1978       | Jan. 26  | 16.09            | 8,380                          |

|      |         |       |         |      |          |       |        |      |         |       |        |
|------|---------|-------|---------|------|----------|-------|--------|------|---------|-------|--------|
| 1907 | July 5  | 10.00 | ---     | 1943 | Jan. 26  | 13.48 | 4,600  | 1979 | Mar. 2  | 17.45 | 11,100 |
| 1908 | Aug. 30 | 20.00 | 18,000b | 1944 | Mar. 26  | 16.42 | 9,050  | 1980 | Apr. 3  | 16.69 | 9,380  |
| 1909 | June 12 | 12.90 | ---     | 1945 | Sept. 22 | 21.21 | 25,000 | 1981 | Feb. 21 | 10.23 | 2,430  |
| 1910 | June 18 | 13.10 | ---     | 1946 | Jan. 2   | 13.10 | 4,200  | 1982 | Jan. 10 | 15.28 | 6,850  |
| 1911 | Mar. 16 | 9.50  | ---     | 1947 | Apr. 16  | 13.57 | 4,700  | 1983 | Mar. 24 | 17.19 | 10,400 |
| 1912 | Feb. 21 | 16.50 | ---     | 1948 | Feb. 16  | 14.67 | 6,180  | 1984 | Apr. 5  | 13.54 | 4,670  |
| 1913 | Mar. 21 | 15.70 | ---     | 1949 | Dec. 5   | 15.92 | 8,320  | 1985 | Feb. 11 | 11.92 | 3,550  |
| 1914 | Mar. 6  | 12.80 | ---     | 1950 | Dec. 24  | 8.43  | 1,630  | 1986 | Nov. 30 | 12.57 | 3,950  |
| 1915 | Jan. 25 | 13.60 | ---     | 1951 | Apr. 17  | 9.81  | 2,120  | 1987 | Mar. 7  | 17.07 | 10,200 |
| 1916 | July 20 | 18.70 | ---     | 1952 | Sept. 6  | 16.76 | 10,900 | 1988 | Jan. 28 | 10.02 | 2,410  |
| 1917 | June 18 | 12.00 | ---     | 1953 | Feb. 23  | 12.35 | 3,920  | 1989 | Mar. 31 | 14.39 | 5,820  |
| 1918 | May 18  | 12.00 | ---     | 1954 | Apr. 8   | 12.35 | 3,720  | 1990 | Oct. 10 | 15.46 | 6,520  |
| 1919 | July 29 | 16.00 | ---     | 1955 | Apr. 22  | 12.80 | 3,920  | 1991 | Oct. 18 | 18.87 | 13,900 |
| 1920 | Mar. 22 | 11.90 | ---     | 1956 | Mar. 25  | 11.41 | 2,840  | 1992 | Aug. 24 | 12.57 | 3,830  |
| 1921 | Feb. 16 | 16.50 | ---     | 1957 | May 21   | 10.09 | 2,260  | 1993 | Jan. 15 | 16.44 | 8,130  |
| 1922 | Mar. 12 | 17.30 | ---     | 1958 | Feb. 1   | 13.53 | 5,290  | 1994 | Mar. 5  | 12.63 | 3,890  |
| 1923 | Mar. 24 | 12.60 | ---     | 1959 | Feb. 12  | 12.74 | 3,840  | 1995 | Dec. 25 | 18.35 | 12,300 |
| 1924 | Apr. 13 | 13.40 | ---     | 1960 | Apr. 10  | 16.31 | 8,840  | 1996 | Mar. 16 | 11.20 | 2,850  |
| 1925 | Jan. 21 | 17.30 | ---     | 1961 | Mar. 3   | 15.74 | 7,600  | 1997 | Feb. 23 | 13.63 | 4,700  |
| 1926 | Apr. 18 | 14.30 | ---     | 1962 | Mar. 18  | 15.83 | 7,800  | 1998 | Mar. 25 | 16.76 | 8,670  |
| 1927 | Mar. 12 | 8.80  | ---     | 1963 | Jan. 27  | 15.01 | 6,400  | 1999 | May 3   | 12.18 | 3,530  |

PEE DEE RIVER BASIN

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

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

**DRAINAGE AREA**--2,790 mi<sup>2</sup>, approximately.

**PERIOD OF RECORD**--January 1942 to current year. Monthly discharge only for some periods, published in WSP 1303.

**GAGE**--Water-stage recorder and data collection platform. Datum of gage is 23.95 ft above sea level. Prior to July 26, 1967, nonrecording gage and crest-stage gage at same site and datum.

**REMARKS**-- Drainage area includes of more than one physiographic province.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 27,600 ft<sup>3</sup>/s, Oct. 9, 10, 1964, gage height, 13.01 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD**--Stage of 16.0 ft, in September 1928, from floodmark set by local resident.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 26,100 ft<sup>3</sup>/s and graphically on logarithmic plotting paper.

FLOOD-FREQUENCY DATA (ft<sup>3</sup>/s)      LOG-PEARSON TYPE III STATISTICS (LOG UNITS)

|                           |      |   |       |
|---------------------------|------|---|-------|
| <u>58 YEARS OF RECORD</u> | Mean | = | 4.088 |
|---------------------------|------|---|-------|

|                             |                    |   |       |
|-----------------------------|--------------------|---|-------|
| <u>LOG-PEARSON TYPE III</u> | Standard Deviation | = | 0.198 |
|-----------------------------|--------------------|---|-------|

|              |   |        |
|--------------|---|--------|
| Station Skew | = | -0.274 |
|--------------|---|--------|

Q<sub>2</sub> = 12,500

Q<sub>5</sub> = 18,000

Q<sub>10</sub> = 21,600

Q<sub>25</sub> = 25,900

Q<sub>50</sub> = 29,100

Q<sub>100</sub> = 32,100

Q<sub>200</sub> = 35,100

Q<sub>500</sub> = 39,000

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|
| 1928       | Sept. -- | 16.00            | ---                            | 1961       | Apr. 18  | 10.09            | 12,500                         | 1981       | Aug. 23  | 10.67            | 11,400                         |
| 1942       | Mar. 14  | 9.87             | 11,000                         | 1962       | Mar. 18  | 9.95             | 11,100                         | 1982       | Feb. 20  | 10.87            | 11,400                         |
| 1943       | July 18  | 9.76             | 10,500                         | 1963       | Jan. 27  | 10.57            | 15,200                         | 1983       | Mar. 22  | 12.72            | 24,400                         |
| 1944       | Feb. 24  | 9.95             | 11,500                         | 1964       | Sept. 17 | 10.30            | 13,400                         | 1984       | Apr. 5   | 10.44            | 10,500                         |
| 1945       | Sept. 23 | 13.23            | 26,800                         | 1965       | Oct. 9   | 13.01            | 27,600                         | 1985       | Feb. 15  | 9.45             | 6,750                          |
| 1946       | Jan. 2   | 10.74            | 15,200                         | 1966       | Mar. 11  | 10.68            | 15,300                         | 1986       | Dec. 13  | 8.75             | 5,010                          |
| 1947       | Apr. 20  | 9.69             | 10,600                         | 1967       | Feb. 20  | 8.66             | 6,090                          | 1987       | Mar. 6   | 11.94            | 18,200                         |
| 1948       | Feb. 18  | 11.24            | 17,600                         | 1968       | Jan. 19  | 9.64             | 10,300                         | 1988       | Jan. 28  | 8.77             | 6,110                          |
| 1949       | Dec. 4   | 10.62            | 14,800                         | 1969       | Aug. 10  | 11.07            | 17,200                         | 1989       | Apr. 17  | 10.19            | 8,920                          |
| 1950       | July 18  | 8.08             | 4,310                          | 1970       | Mar. 27  | 9.71             | 10,600                         | 1990       | Dec. 17  | 9.43             | 6,690                          |
| 1951       | Apr. 16  | 8.32             | 4,890                          | 1971       | Mar. 8   | 12.29            | 25,000                         | 1991       | Feb. 4   | 9.32             | 6,500                          |
| 1952       | Apr. 2   | 8.82             | 6,690                          | 1972       | Feb. 8   | 10.02            | 12,000                         | 1992       | Aug. 23  | 11.58            | 17,500                         |
| 1953       | Mar. 19  | 9.47             | 9,730                          | 1973       | Apr. 10  | 11.86            | 22,100                         | 1993       | Jan. 14  | 12.47            | 22,800                         |
| 1954       | Apr. 15  | 9.10             | 7,930                          | 1974       | Aug. 12  | 11.79            | 21,600                         | 1994       | Aug. 23  | 9.62             | 7,930                          |
| 1955       | Sept. 11 | 10.36            | 13,900                         | 1975       | Feb. 26  | 11.13            | 13,000                         | 1995       | Feb. 24  | 11.62            | 17,700                         |
| 1956       | Feb. 14  | 9.48             | 9,270                          | 1976       | Feb. 4   | 9.91             | 8,030                          | 1996       | Sept. 14 | 11.46            | 17,600                         |
| 1957       | Mar. 13  | 8.98             | 7,510                          | 1977       | Mar. 28  | 10.69            | 10,900                         | 1997       | Oct. 13  | 10.94            | 13,800                         |
| 1958       | Apr. 7   | 10.00            | 12,000                         | 1978       | May 15   | 11.27            | 12,200                         | 1998       | Feb. 8   | 12.33            | 22,000                         |
| 1959       | Mar. 10  | 11.21            | 17,600                         | 1979       | Sept. 11 | 12.51            | 20,200                         | 1999       | Sept. 22 | 12.11            | 20,600                         |
| 1960       | Aug. 2   | 10.66            | 14,800                         | 1980       | Apr. 1   | 11.60            | 14,800                         |            |          |                  |                                |

SANTEE RIVER BASIN

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 downstream from Lake Wylie Dam, 5.0 mi northeast of Rock Hill, 7.5 mi upstream from Sugar Creek, and at mile 137.6.

**DRAINAGE AREA**--3,050 mi<sup>2</sup>, approximately.

**PERIOD OF RECORD**--October 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**--Data collection platform. Datum of gage is 485.82 ft above sea level. Sept. 23, 1895 to July 31, 1903, nonrecording gage at Southern Railway bridge, 2.0 mi downstream, at different datum.

**REMARKS**-- Flow regulated by Lake Wylie, usable capacity,  $2.52 \times 10^9$  ft<sup>3</sup> and other power plants above station.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 151,000 ft<sup>3</sup>/s, May 23, 1901, gage height, 24.15 ft, site and datum then in use.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 77,900 ft<sup>3</sup>/s and graphically extended on logarithmic plotting paper.

Peak Stages and Discharges

| Water Year  | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|-------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1896        | July 10  | 15.20            | 71,500                         | 1956       | Apr. 16 | 7.77             | 14,600                         | 1978       | Nov. 7  | 13.44            | 39,000                         |
| <u>1897</u> | Feb. 7   | 14.80            | 68,500                         | 1957       | Apr. 7  | 12.93            | 36,100                         | 1979       | Feb. 25 | 13.86            | 43,300                         |
| 1898        | ---      | 9.00             | 30,600                         | 1958       | Apr. 28 | 15.28            | 50,000                         | 1980       | Apr. 17 | 9.40             | 21,100                         |
| <u>1899</u> | Mar. 20  | 18.00            | 95,000                         | 1959       | Dec. 30 | 10.39            | 25,100                         | 1981       | Jan. 5  | 7.47             | 13,300                         |
| 1900        | ---      | 12.30            | 50,800                         | 1960       | Feb. 6  | 15.80            | 50,000                         | 1982       | Jan. 4  | 11.31            | 30,400                         |
| 1901        | May 23   | 24.15            | 151,000                        | 1961       | Feb. 25 | 9.49             | 21,300                         | 1983       | Apr. 10 | 10.86            | 28,100                         |
| 1902        | Dec. 30  | 19.70            | 108,000                        | 1962       | Jan. 7  | 15.70            | 49,500                         | 1984       | Apr. 10 | 11.79            | 32,900                         |
| 1903        | Mar. 24  | 18.00            | 93,800                         | 1963       | Mar. 6  | 10.73            | 26,300                         | 1985       | Feb. 2  | 7.55             | 13,600                         |
| 1942        | Sept. 8  | 10.61            | 25,900                         | 1964       | Apr. 8  | 13.25            | 37,500                         | 1986       | Nov. 22 | 10.72            | 27,500                         |
| 1943        | July 10  | 16.99            | 56,100                         | 1965       | Oct. 17 | 14.64            | 44,700                         | 1987       | Mar. 1  | 12.06            | 34,300                         |
| 1944        | Sept. 30 | 11.55            | 30,200                         | 1966       | Mar. 5  | 7.66             | 15,000                         | 1988       | Feb. 17 | 7.52             | 13,500                         |
| 1945        | Sept. 19 | 20.84            | 76,800                         | 1967       | Aug. 23 | 13.53            | 39,200                         | 1989       | Mar. 24 | 7.84             | 14,800                         |
| 1946        | Feb. 11  | 15.05            | 46,000                         | 1968       | Jan. 11 | 7.74             | 15,000                         | 1990       | Oct. 1  | 16.41            | 57,400                         |
| 1947        | Jan. 20  | 13.57            | 39,300                         | 1969       | Feb. 3  | 7.72             | 14,900                         | 1991       | ---     | ---              | ---                            |
| 1948        | Mar. 31  | 13.63            | 39,300                         | 1970       | Aug. 13 | 7.84             | 15,400                         | 1992       | June 16 | 10.64            | 27,100                         |
| 1949        | Nov. 28  | 17.79            | 60,200                         | 1971       | May 16  | 11.75            | 31,000                         | 1993       | Mar. 24 | 13.58            | 41,800                         |
| 1950        | Nov. 1   | 10.03            | 23,600                         | 1972       | June 23 | 10.01            | 24,000                         | 1994       | Aug. 19 | 12.03            | 34,100                         |
| 1951        | Jan. 23  | 7.49             | 13,600                         | 1973       | May 30  | 12.44            | 33,800                         | 1995       | Feb. 17 | 9.62             | 22,300                         |
| 1952        | Mar. 4   | 16.96            | 56,100                         | 1974       | Apr. 6  | 10.31            | 25,200                         | 1996       | Feb. 3  | 10.42            | 26,000                         |
| 1953        | Mar. 24  | 13.49            | 38,900                         | 1975       | Mar. 15 | 17.57            | 62,400                         | 1997       | Apr. 29 | 9.95             | 23,800                         |
| 1954        | Jan. 23  | 16.01            | 51,000                         | 1976       | Mar. 8  | 7.47             | 13,400                         | 1998       | Mar. 12 | 8.24             | 16,400                         |
| 1955        | Apr. 15  | 7.69             | 14,200                         | 1977       | Oct. 9  | 16.57            | 55,400                         | 1999       | Feb. 11 | 7.51             | 13,500                         |

SANTEE RIVER BASIN

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 downstream from Seaboard Coast Line Railroad bridge, 200 ft downstream from Twelvemile Creek, 2.5 mi east of Catawba, and at mile 122.8.

**DRAINAGE AREA**--3,530 mi<sup>2</sup>, approximately.

**PERIOD OF RECORD**--October 1967 to September 1991. Annual peak stages from June 1906 to December 1948 and gage height records since May 1958 are available in the USGS S.C. District office.

**GAGE**--Water-stage recorder and data collection platform. Datum of gage is 446.18 ft above sea level (levels by Bowaters Carolina Corporation). June 1906 to Dec. 21, 1948, nonrecording gage at site 2.1 mi downstream at different datum.

**REMARKS**--Flow regulated by Lake Wylie, usable capacity,  $2.52 \times 10^9$  ft<sup>3</sup>.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 73,600 ft<sup>3</sup>/s, Oct. 9, 1976, gage height, 23.81 ft.

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

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 63,300 ft<sup>3</sup>/s and graphically extended on logarithmic plotting paper.

Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1968       | Jan. 11 | 11.92            | 23,000                         | 1976       | Dec. 31 | 8.48             | 15,700                         | 1985       | Feb. 2  | 11.74            | 25,400                         |
| 1969       | Feb. 3  | 9.79             | 18,100                         | 1977       | Oct. 9  | 23.81            | 73,600                         | 1986       | Nov. 22 | 15.80            | 39,000                         |
| 1970       | Aug. 13 | 10.22            | 19,200                         | 1978       | Jan. 26 | 18.12            | 47,500                         | 1987       | Mar. 1  | 21.10            | 59,200                         |
| 1971       | May 16  | 14.01            | 28,500                         | 1979       | Feb. 25 | 19.16            | 51,700                         | 1988       | Dec. 28 | 9.23             | 17,900                         |
| 1972       | Oct. 17 | 12.15            | 23,900                         | 1980       | Mar. 29 | 14.00            | 32,300                         | 1989       | Mar. 24 | 14.36            | 33,900                         |
| 1973       | Apr. 1  | 17.16            | 37,500                         | 1981       | Feb. 19 | 8.08             | 14,400                         | 1990       | Oct. 2  | 24.33            | 72,700                         |
| 1974       | Apr. 6  | 13.43            | 27,100                         | 1983       | Apr. 10 | 13.40            | 30,700                         | 1991       | Oct. 23 | 20.13            | 55,300                         |
| 1975       | Mar. 15 | 21.76            | 63,400                         | 1984       | Dec. 12 | 15.05            | 36,300                         |            |         |                  |                                |

## SANTEE RIVER BASIN

02148000 WATeree RIVER NEAR CAMDEN, S.C.

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

**DRAINAGE AREA.**--5,070 mi<sup>2</sup>, 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 downstream 1891-1934, at site 830 ft 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.**--Data collection platform. Datum of gage is 118.36 ft above sea level. January 1903 to September 1910, nonrecording gage at site 1.5 mi downstream at datum 117.71 ft above sea level. Oct. 1, 1929 to Sept. 1, 1942, recording gage at site 830 ft upstream at datum 119.36 ft above sea level. October 1942 to Sept. 30, 1997, recording gage at present site at datum 119.36 ft above sea level.

**REMARKS.**--Flow regulated by power plant at Wateree Reservoir (usable capacity,  $2.79 \times 10^9$  ft<sup>3</sup>) and by other power plants above station.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 366,000 ft<sup>3</sup>/s, Aug. 26, 1908, gage height, 39.7 ft, site and datum then in use, from records of National Weather Service, from rating curve extended above 122,000 ft<sup>3</sup>/s on basis of computation, by Duke Power Co., of peak flow 382,000 ft<sup>3</sup>/s over dam at Rocky Creek Reservoir.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--The flood of July 18, 1916 reached a stage of 40.4 ft, datum 117.71 ft above sea level, at site 1.5 mi downstream, from records of National Weather Service, discharge, 400,000 ft<sup>3</sup>/s, from rating curve extended about 122,000 ft<sup>3</sup>/s, as explained above.

**STAGE-DISCHARGE RELATION.**--Defined by current-meter measurements below 102,000 ft<sup>3</sup>/s at current site and graphically extended on logarithmic plotting paper.

## Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1886       | Sept. -- | 31.50            | ---                            | 1928       | Aug. 18 | 35.00            | ---                            | 1965       | Oct. 18 | 29.07            | 64,500                         |
| 1892       | Jan. 20  | 30.10            | ---                            | 1929       | Mar. 1  | 31.80            | ---                            | 1966       | Mar. 6  | 18.99            | 21,100                         |
| 1893       | Aug. 30  | 29.60            | ---                            | 1930       | Oct. 3  | 36.20            | 163,000                        | 1967       | Aug. 25 | 32.22            | 88,300                         |
| 1894       | Oct. 24  | 30.50            | ---                            | 1931       | Dec. 23 | 14.31            | 11,600                         | 1968       | Jan. 12 | 20.91            | 24,900                         |
| 1895       | Oct. 10  | 30.20            | ---                            | 1932       | Jan. 9  | 28.31            | 50,700                         | 1969       | Apr. 20 | 21.41            | 26,000                         |
| 1896       | July 11  | 28.80            | ---                            | 1933       | Dec. 28 | 25.37            | 32,000                         | 1970       | Mar. 23 | 16.83            | 17,800                         |
| 1897       | Feb. 8   | 29.70            | ---                            | 1934       | June 9  | 20.65            | 20,200                         | 1971       | Mar. 5  | 23.46            | 31,300                         |
| 1898       | Sept. 25 | 28.00            | ---                            | 1935       | Mar. 14 | 24.03            | 30,000                         | 1972       | Jan. 14 | 19.70            | 22,400                         |
| 1899       | Feb. 8   | 31.00            | ---                            | 1936       | Apr. 7  | 36.63            | 168,000                        | 1973       | Apr. 2  | 28.53            | 56,100                         |
| 1900       | Apr. 23  | 28.40            | ---                            | 1937       | Jan. 4  | 27.26            | 52,500                         | 1974       | Apr. 7  | 16.00            | 16,700                         |
| 1901       | May 24   | 32.50            | ---                            | 1938       | Apr. 9  | 14.92            | 13,300                         | 1975       | Mar. 16 | 30.55            | 70,200                         |
| 1902       | Dec. 31  | 31.20            | ---                            | 1939       | Mar. 2  | 29.01            | 70,500                         | 1976       | Mar. 17 | 16.44            | 17,300                         |
| 1903       | Mar. 25  | 30.40            | ---                            | 1940       | Aug. 16 | 30.50            | 89,000                         | 1977       | Oct. 11 | 28.36            | 55,100                         |
| 1904       | Aug. 9   | 25.20            | ---                            | 1941       | July 9  | 28.10            | 60,600                         | 1978       | Jan. 27 | 26.22            | 42,300                         |

|      |               |              |               |      |                |       |               |      |         |       |         |
|------|---------------|--------------|---------------|------|----------------|-------|---------------|------|---------|-------|---------|
| 1905 | July 15       | 29.60        | 66,800        | 1942 | <u>Mar. 10</u> | 24.85 | <u>35,400</u> | 1979 | Feb. 26 | 29.17 | 60,200  |
| 1906 | Dec. 22       | 28.60        | 54,100        | 1943 | Jan. 20        | 24.76 | 35,400        | 1980 | Mar. 30 | 25.80 | 40,200  |
| 1907 | Oct. 21       | 28.70        | 55,000        | 1944 | Mar. 21        | 29.08 | 71,700        | 1981 | Feb. 13 | 15.41 | 16,500  |
| 1908 | Aug. 26       | 39.70        | 366,000       | 1945 | Sept. 19       | 33.84 | 132,000       | 1982 | Jan. 5  | 25.99 | 41,200  |
| 1909 | June 5        | 31.70        | 103,000       | 1946 | Jan. 9         | 24.28 | 33,800        | 1983 | Mar. 19 | 23.16 | 30,500  |
| 1910 | <u>Mar. 2</u> | <u>26.90</u> | <u>39,700</u> | 1947 | Jan. 21        | 27.87 | 58,500        | 1984 | Feb. 16 | 21.62 | 26,500  |
| 1911 | Oct. 10       | 26.90        | ---           | 1948 | Apr. 2         | 27.96 | 59,500        | 1985 | Feb. 7  | 15.68 | 16,800  |
| 1912 | Mar. 17       | 35.40        | ---           | 1949 | Nov. 30        | 31.44 | 101,000       | 1986 | Nov. 24 | 16.13 | 17,400  |
| 1913 | Mar. 17       | 34.00        | ---           | 1950 | Nov. 3         | 19.21 | 20,500        | 1987 | Mar. 2  | 30.44 | 69,600  |
| 1914 | Jan. 4        | 27.60        | ---           | 1951 | Apr. 11        | 15.11 | 15,200        | 1988 | Jan. 21 | 12.69 | 13,700  |
| 1915 | Dec. 27       | 30.50        | ---           | 1952 | Mar. 5         | 31.35 | 82,900        | 1989 | Mar. 25 | 25.82 | 40,300  |
| 1916 | July 18       | 40.40        | 400,000       | 1953 | Feb. 24        | 20.82 | 24,500        | 1990 | Oct. 31 | 33.24 | 110,000 |
| 1917 | Mar. 6        | 30.30        | ---           | 1954 | Jan. 24        | 29.36 | 67,000        | 1991 | Oct. 24 | 28.74 | 57,300  |
| 1918 | Apr. 21       | 28.20        | ---           | 1955 | Apr. 16        | 22.66 | 30,800        | 1992 | Feb. 28 | 15.00 | 16,000  |
| 1919 | July 21       | 33.00        | ---           | 1956 | Mar. 18        | 15.93 | 16,800        | 1993 | Mar. 28 | 26.44 | 43,700  |
| 1920 | Aug. 29       | 28.60        | ---           | 1957 | Apr. 10        | 19.63 | 22,200        | 1994 | Aug. 22 | 20.74 | 24,500  |
| 1921 | Feb. 11       | 31.00        | ---           | 1958 | Nov. 26        | 25.20 | 36,800        | 1995 | Feb. 19 | 22.35 | 28,300  |
| 1922 | Feb. 16       | 30.20        | ---           | 1959 | July 11        | 17.45 | 18,300        | 1996 | Feb. 4  | 21.35 | 25,800  |
| 1923 | Mar. 18       | 30.00        | ---           | 1960 | Apr. 6         | 28.54 | 58,800        | 1997 | July 25 | 24.27 | 33,700  |
| 1924 | July 9        | 24.50        | ---           | 1961 | Feb. 26        | 27.00 | 46,800        | 1998 | Feb. 5  | 26.29 | 37,500  |
| 1925 | Jan. 20       | 31.00        | ---           | 1962 | Jan. 8         | 22.87 | 30,000        | 1999 | Jan. 25 | 16.51 | 17,000  |
| 1926 | Apr. 2        | 19.40        | ---           | 1963 | Mar. 15        | ---   | 20,100        |      |         |       |         |
| 1927 | July 23       | 12.70        | ---           | 1964 | Apr. 9         | 26.50 | 43,900        |      |         |       |         |

## SANTEE RIVER BASIN

02153500 BROAD RIVER NEAR GAFFNEY, S.C.

**LOCATION**--Lat 35°05'20", long 81°34'20", Cherokee County, Hydrologic Unit 03050105, on right bank at downstream side of bridge on U.S. Highway 29, 0.3 mi upstream from Cherokee Creek, 4.4 mi downstream from Gaston Shoals Dam, 4.5 mi east of Gaffney, and at mile 270.3.

**DRAINAGE AREA**--1,490 mi<sup>2</sup>, approximately.

**PERIOD OF RECORD**--July 1896 to December 1899 (gage heights and discharge measurements only), October 1938 to September 1971, October 1971 to May 1986 (Crest-stage partial-record station), June 1986 to September 1990. Monthly discharge only for some periods, published in WSP 1303. Discharge for July 12, 1896 to December 31, 1899, published in the 18<sup>th</sup>, 19<sup>th</sup>, and 21<sup>st</sup> 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 above sea level. July 12, 1896 to December 31, 1899, nonrecording gages at sites 1.1 mi 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. Capacity of reservoirs insufficient to affect monthly figures of runoff.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 119,000 ft<sup>3</sup>/s, Aug. 14, 1940, gage height, 19.78 ft, by computation of flow over Gaston Shoals Dam.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 64,200 ft<sup>3</sup>/s and extended by computation of peak flow over Gaston Shoals Dam.

FLOOD-FREQUENCY DATA (ft<sup>3</sup>/s)

51 YEARS OF RECORD  
LOG-PEARSON TYPE III

LOG-PEARSON TYPE III STATISTICS (LOG UNITS)

|                    |   |        |
|--------------------|---|--------|
| Mean               | = | 4.492  |
| Standard Deviation | = | 0.222  |
| Station Skew       | = | -0.184 |

$Q_2 = 31,500$   
 $Q_5 = 47,900$   
 $Q_{10} = 59,000$   
 $Q_{25} = 73,300$   
 $Q_{50} = 84,100$   
 $Q_{100} = 94,800$   
 $Q_{200} = 106,000$   
 $Q_{500} = 120,000$

## Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1897       | Apr. 5   | 9.25             | ---                            | 1954       | Jan. 23  | 13.24            | 41,000                         | 1972       | Oct. 16 | 13.43            | 46,900                         |
| 1898       | Sept. 23 | 12.18            | ---                            | 1955       | Feb. 7   | 8.55             | 14,700                         | 1973       | Mar. 17 | 12.99            | 42,900                         |
| 1899       | Mar. 19  | 12.70            | ---                            | 1956       | Apr. 16  | 10.23            | 22,400                         | 1974       | Apr. 5  | 11.91            | 34,400                         |
| 1939       | Aug. 18  | 10.51            | 21,000                         | 1957       | Apr. 6   | 10.40            | 23,400                         | 1975       | Mar. 15 | 14.37            | 55,300                         |
| 1940       | Aug. 14  | 19.78            | 119,000                        | 1958       | Apr. 28  | 12.72            | 37,900                         | 1976       | Oct. 18 | 11.58            | 32,100                         |
| 1941       | July 17  | 11.43            | 26,000                         | 1959       | Sept. 30 | 12.77            | 38,600                         | 1977       | Oct. 10 | 17.24            | 84,900                         |
| 1942       | Feb. 17  | 10.70            | 21,800                         | 1960       | Feb. 6   | 12.63            | 37,200                         | 1978       | Nov. 7  | 12.39            | 38,100                         |
| 1943       | Jan. 28  | 12.39            | 38,400                         | 1961       | June 22  | 11.00            | 26,600                         | 1980       | July 21 | 12.33            | 37,600                         |
| 1944       | Mar. 20  | 9.82             | 21,700                         | 1962       | Dec. 13  | 11.31            | 28,400                         | 1981       | Oct. 1  | 7.56             | 10,500                         |
| 1945       | Sept. 18 | 15.35            | 61,600                         | 1963       | Mar. 13  | 13.03            | 41,800                         | 1982       | Jan. 4  | 11.84            | 33,900                         |
| 1946       | Jan. 7   | 13.38            | 43,400                         | 1964       | Apr. 8   | 11.44            | 31,100                         | 1983       | Feb. 3  | 9.98             | 21,900                         |
| 1947       | June 15  | 11.09            | 27,800                         | 1965       | Oct. 6   | 15.61            | 67,100                         | 1984       | Feb. 14 | 12.67            | 39,900                         |
| 1948       | Aug. 4   | 10.80            | 25,600                         | 1966       | Mar. 4   | 11.65            | 32,600                         | 1985       | Aug. 18 | 10.78            | 26,600                         |
| 1949       | Nov. 29  | 12.47            | 35,700                         | 1967       | Aug. 24  | 11.83            | 33,800                         | 1986       | Aug. 18 | 7.67             | 10,900                         |
| 1950       | Oct. 7   | 11.70            | 31,000                         | 1968       | Mar. 13  | 10.65            | 25,900                         | 1987       | Mar. 1  | 15.49            | 65,800                         |
| 1951       | Dec. 8   | 10.47            | 23,900                         | 1969       | Apr. 19  | 10.57            | 25,400                         | 1988       | Jan. 20 | 7.04             | 8,770                          |
| 1952       | Mar. 4   | 13.52            | 44,200                         | 1970       | Aug. 10  | 13.50            | 47,500                         | 1989       | Feb. 28 | 8.10             | 12,500                         |
| 1953       | Feb. 21  | 10.13            | 21,900                         | 1971       | Oct. 31  | 8.55             | 14,300                         | 1990       | Oct. 2  | 12.52            | 38,800                         |

SANTEE RIVER BASIN

02155500 PACOLET RIVER NEAR FINGERVILLE, S.C.

**LOCATION**--Lat 35°06'35", long 81°57'35", Spartanburg County, Hydrologic Unit 03050105, on right bank, 100 ft upstream from bridge on State Road 55, 0.2 mi downstream from confluence of North Pacolet and South Pacolet Rivers, 2.8 mi southeast of Fingerville, and at mile 46.5.

**DRAINAGE AREA**--212 mi<sup>2</sup>.

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

**GAGE**--Basic data recorder. Datum of gage is 706.33 ft above sea level.

**REMARKS**--Some regulation by South Pacolet River Reservoir and Lake William C. Bowen (02154950). Some diurnal fluctuation caused by mill on North Pacolet River. Some water diverted from South Pacolet River above station for City of Spartanburg water supply.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 22,800 ft<sup>3</sup>/s, Aug. 14, 1940, gage height, 22.43 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD**--Flood of June 1903 reached a stage of 46 ft, from floodmark (discharge not determined).

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 9,510 ft<sup>3</sup>/s and extended by velocity-area studies.

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1903       | June --  | 46.00            | ---                            | 1955       | Feb. 7  | 5.10             | 2,810                          | 1980       | May 24  | ---              | 6,500                          |
| 1931       | Dec. 6   | 2.68             | 1,020                          | 1956       | Apr. 17 | 5.55             | 3,160                          | 1981       | Oct. 1  | 3.43             | 1,580                          |
| 1932       | Dec. 15  | 6.45             | 3,810                          | 1957       | Apr. 6  | 7.33             | 4,570                          | 1982       | Feb. 4  | 7.45             | 4,920                          |
| 1933       | Oct. 17  | 13.31            | 11,000                         | 1958       | Apr. 29 | 8.20             | 5,450                          | 1983       | Apr. 10 | 5.44             | 3,140                          |
| 1934       | Mar. 4   | 6.39             | 3,810                          | 1959       | May 26  | 13.82            | 11,600                         | 1984       | Feb. 14 | 6.51             | 4,060                          |
| 1935       | Oct. 11  | 4.76             | 2,510                          | 1960       | Mar. 30 | 8.78             | 6,050                          | 1985       | Aug. 18 | 7.31             | 4,790                          |
| 1936       | Apr. 7   | 12.53            | 10,100                         | 1961       | June 22 | 8.65             | 5,850                          | 1986       | Aug. 18 | 5.43             | 3,130                          |
| 1937       | Oct. 17  | 13.63            | 11,300                         | 1962       | Apr. 11 | 6.31             | 3,710                          | 1987       | Mar. 1  | 11.71            | 9,250                          |
| 1938       | Oct. 19  | 12.73            | 10,300                         | 1963       | Mar. 13 | 10.46            | 7,860                          | 1988       | Feb. 9  | 3.94             | 1,960                          |
| 1939       | Aug. 19  | 7.09             | 4,390                          | 1964       | Aug. 10 | 7.05             | 4,560                          | 1989       | Mar. 24 | 4.58             | 2,460                          |
| 1940       | Aug. 14  | 22.43            | 22,800                         | 1965       | Oct. 5  | 17.65            | 16,300                         | 1990       | Mar. 18 | 8.09             | 5,520                          |
| 1941       | July 17  | 3.63             | 1,760                          | 1966       | Mar. 4  | 7.21             | 4,610                          | 1991       | Mar. 30 | 7.23             | 4,720                          |
| 1942       | Feb. 17  | 9.54             | 6,760                          | 1967       | Aug. 24 | ---              | 6,500                          | 1992       | Feb 26  | 5.71             | 3,360                          |
| 1943       | Jan. 28  | 6.84             | 4,120                          | 1968       | Mar. 13 | 5.83             | 3,470                          | 1993       | May 6   | 7.08             | 4,420                          |
| 1944       | Mar. 20  | 6.50             | 3,870                          | 1969       | Apr. 19 | 7.71             | 5,210                          | 1994       | Aug. 17 | 10.63            | 8,090                          |
| 1945       | Sept. 17 | 8.56             | 5,850                          | 1970       | Nov. 2  | 3.50             | 1,640                          | 1995       | Aug. 27 | 15.58            | 13,700                         |
| 1946       | Jan. 7   | 11.90            | 9,400                          | 1971       | Feb. 22 | 6.23             | 3,820                          | 1996       | Jan. 27 | 6.71             | 4,090                          |
| 1947       | June 15  | 7.99             | 5,250                          | 1972       | June 21 | 10.15            | 7,650                          | 1997       | Dec. 2  | 5.37             | 2,880                          |
| 1948       | Aug. 5   | 5.62             | 3,160                          | 1973       | Feb. 3  | 8.58             | 6,080                          | 1998       | Feb. 4  | 7.15             | 4,480                          |
| 1949       | Nov. 29  | 9.66             | 6,980                          | 1974       | Apr. 5  | 7.16             | 4,660                          | 1999       | Apr. 1  | 3.28             | 13,200                         |
| 1950       | Oct. 7   | 9.05             | 6,250                          | 1975       | Mar. 14 | 9.88             | 7,380                          |            |         |                  |                                |
| 1951       | Dec. 8   | 6.85             | 4,120                          | 1976       | Oct. 17 | 9.69             | 7,190                          |            |         |                  |                                |
| 1952       | Mar. 24  | 9.46             | 6,760                          | 1977       | Oct. 9  | 14.89            | 12,900                         |            |         |                  |                                |
| 1953       | Feb. 21  | 6.27             | 3,710                          | 1978       | Jan. 26 | 7.58             | 5,080                          |            |         |                  |                                |
| 1954       | Jan. 23  | 10.38            | 7,750                          | 1979       | Feb. 26 | 7.81             | 5,260                          |            |         |                  |                                |

SANTEE RIVER BASIN

02156000 PACOLET RIVER NEAR CLIFTON, S.C.

**LOCATION**--Lat 34°58'10", long 81°48'05", Spartanburg County, Hydrologic Unit 03050105, on left bank, 1.0 mi downstream from dam at Clifton Mill, 1.3 mi southeast of Clifton, 2.7 mi upstream from Lawsons Fork Creek, 2.7 mi northeast of Glendale, and at mile 28.2.

**DRAINAGE AREA**--320 mi<sup>2</sup>.

**PERIOD OF RECORD**--October 1939 to September 1978.

**GAGE**--Water-stage recorder from October 1939 to September 1971. Crest-stage, partial-record station, October 1971 to September 1978. Datum of gage is 540 ft (from topographical map).

**REMARKS**--Some regulation by powerplants above station, South Pacolet River Reservoir, and Lake William C. Bowen. City of Spartanburg diverts water above station from South Pacolet River Reservoir for municipal supply.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 27,700 ft<sup>3</sup>/s, Oct. 9, 1976, gage height, 21.70 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 12,100 ft<sup>3</sup>/s and extended on the basis of peak flow over dam computation.

Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1940       | Aug. 14 | 21.19            | 26,800                         | 1953       | Feb. 21 | 6.12             | 4,800                          | 1966       | Mar. 4  | 10.85            | 10,200                         |
| 1941       | July 11 | 7.74             | 5,620                          | 1954       | Jan. 22 | 9.14             | 8,520                          | 1967       | July 7  | 9.95             | 8,940                          |
| 1942       | Aug. 18 | 9.76             | 8,640                          | 1955       | Feb. 6  | 5.35             | 4,020                          | 1968       | July 21 | 9.24             | 8,010                          |
| 1943       | Jan. 28 | 11.10            | 9,300                          | 1956       | Apr. 16 | 9.63             | 9,170                          | 1969       | Apr. 18 | 9.43             | 8,260                          |
| 1944       | Mar. 20 | 8.08             | 7,220                          | 1957       | Aug. 14 | 7.51             | 6,480                          | 1970       | July 27 | 6.16             | 4,560                          |
| 1945       | Aug. 17 | 14.16            | 12,000                         | 1958       | Nov. 19 | 12.06            | 12,600                         | 1971       | Feb. 22 | 7.17             | 5,590                          |
| 1946       | Jan. 7  | 12.69            | 12,900                         | 1959       | May 26  | 12.11            | 12,600                         | 1972       | June 21 | 13.39            | 14,000                         |
| 1947       | Jan. 20 | 6.95             | 5,860                          | 1960       | Feb. 5  | 10.16            | 9,840                          | 1973       | Feb. 3  | 11.24            | 10,800                         |
| 1948       | Aug. 4  | 6.05             | 4,690                          | 1961       | Feb. 21 | 9.98             | 9,050                          | 1974       | Apr. 5  | 8.75             | 7,400                          |
| 1949       | Nov. 28 | 9.62             | 9,170                          | 1962       | Apr. 11 | 9.82             | 8,770                          | 1975       | Mar. 15 | 12.39            | 12,500                         |
| 1950       | Oct. 7  | 14.64            | 16,300                         | 1963       | Mar. 6  | 14.80            | 16,100                         | 1976       | Oct. 18 | 11.79            | 11,600                         |
| 1951       | Dec. 7  | 7.11             | 6,100                          | 1964       | Aug. 10 | 14.97            | 16,400                         | 1977       | Oct. 9  | 21.70            | 27,700                         |
| 1952       | Mar. 24 | 11.16            | 11,400                         | 1965       | Oct. 5  | 17.31            | 20,100                         | 1978       | Jan. 26 | 11.27            | 10,800                         |

SANTEE RIVER BASIN  
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 upstream from Sandy River, 2.0 mi downstream from Seaboard Coast Line Railroad bridge, 2.5 mi east of Carlisle, 5.0 mi downstream from Neal Shoals Dam, and at mile 226.0.

**DRAINAGE AREA**--2,790 mi<sup>2</sup>, 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**--Data collection platform. Datum of gage is 290.79 ft above sea level.

**REMARKS**--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<sup>3</sup>/s, Oct. 10, 1976, gage height, 31.51 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 65,800 ft<sup>3</sup>/s and extended on the basis of peak flow over Neal Shoals Dam.

| <u>FLOOD-FREQUENCY DATA (ft<sup>3</sup>/s)</u> |  | <u>LOG-PEARSON TYPE III STATISTICS (LOG UNITS)</u> |          |
|--|--|--|----------|
| <u>61 YEARS OF RECORD</u>                      |  | Mean   | = 4.629  |
| <u>LOG-PEARSON TYPE III</u>                    |  | Standard Deviation                                 | = 0.208  |
|  |  | Station Skew                                       | = -0.245 |

$Q_2 = 42,000$   
 $Q_5 = 63,400$   
 $Q_{10} = 79,300$   
 $Q_{25} = 101,000$   
 $Q_{50} = 119,000$   
 $Q_{100} = 137,000$   
 $Q_{200} = 157,000$   
 $Q_{500} = 186,000$

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1939       | Mar. 1   | 16.27            | 34,900                         | 1960       | Feb. 7  | 18.71            | 42,100                         | 1980       | Mar. 29 | 17.28            | 37,600                         |
| 1940       | Aug. 15  | 29.41            | 103,000                        | 1961       | Feb. 22 | 15.82            | 33,200                         | 1981       | Oct. 2  | 10.09            | 15,600                         |
| 1941       | July 18  | 17.06            | 37,600                         | 1962       | Apr. 12 | 17.25            | 37,400                         | 1982       | Jan. 5  | 17.89            | 39,700                         |
| 1942       | Feb. 18  | 18.42            | 42,200                         | 1963       | Mar. 14 | 21.78            | 57,200                         | 1983       | Mar. 18 | 14.21            | 27,600                         |
| 1943       | Jan. 29  | 18.96            | 44,500                         | 1964       | Apr. 8  | 23.90            | 69,500                         | 1984       | Feb. 15 | 18.40            | 41,500                         |
| 1944       | Mar. 20  | 19.58            | 46,900                         | 1965       | Oct. 18 | 25.82            | 79,900                         | 1985       | Aug. 19 | 16.72            | 35,100                         |
| 1945       | Sept. 19 | 25.72            | 78,500                         | 1966       | Mar. 5  | 18.89            | 45,600                         | 1986       | Aug. 20 | 17.33            | 37,300                         |
| 1946       | Jan. 8   | 20.11            | 49,200                         | 1967       | Aug. 24 | 20.23            | 51,200                         | 1987       | Mar. 2  | 25.77            | 72,100                         |
| 1947       | Jan. 21  | 17.21            | 37,900                         | 1968       | Mar. 14 | 14.57            | 29,700                         | 1988       | Jan. 21 | 9.15             | 13,400                         |
| 1948       | Feb. 14  | 16.20            | 34,600                         | 1969       | Apr. 20 | 15.01            | 31,000                         | 1989       | Mar. 24 | 12.35            | 22,000                         |
| 1949       | Nov. 29  | 22.81            | 62,200                         | 1970       | Aug. 12 | 17.48            | 39,900                         | 1990       | Oct. 2  | 21.66            | 54,600                         |
| 1950       | Oct. 8   | 19.32            | 44,200                         | 1971       | Mar. 3  | 15.05            | 31,200                         | 1991       | Oct. 14 | 26.60            | 78,200                         |
| 1951       | Dec. 9   | 13.65            | 27,000                         | 1972       | Oct. 17 | 19.31            | 47,200                         | 1992       | Apr. 22 | 13.52            | 25,500                         |
| 1952       | Mar. 5   | 22.43            | 57,700                         | 1973       | Feb. 3  | 21.54            | 57,700                         | 1993       | Mar. 25 | 19.12            | 44,500                         |
| 1953       | Feb. 22  | 15.77            | 33,200                         | 1974       | Apr. 6  | 17.61            | 40,400                         | 1994       | Aug. 19 | 18.94            | 43,700                         |
| 1954       | Jan. 24  | 20.63            | 49,200                         | 1975       | Mar. 15 | 23.75            | 63,100                         | 1995       | Jan. 16 | 24.44            | 65,800                         |
| 1955       | Apr. 15  | 13.79            | 27,500                         | 1976       | Oct. 19 | 14.95            | 31,000                         | 1996       | Feb. 4  | 17.20            | 36,800                         |
| 1956       | Apr. 17  | 14.99            | 30,900                         | 1977       | Oct. 10 | 31.51            | 123,000                        | 1997       | Mar. 1  | 13.75            | 26,200                         |
| 1957       | Apr. 7   | 13.24            | 25,900                         | 1978       | Jan. 27 | 19.72            | 46,900                         | 1998       | Mar. 10 | 18.30            | 41,100                         |
| 1958       | Apr. 29  | 20.12            | 48,000                         | 1979       | Feb. 26 | 20.00            | 47,800                         | 1999       | Jan. 24 | 8.56             | 12,100                         |
| 1959       | Dec. 30  | 14.21            | 28,700                         |            |         |                  |                                |            |         |                  |                                |

## SANTEE RIVER BASIN

02161000 BROAD RIVER AT ALSTON, S.C.

**LOCATION**--Lat 34°14'35", long 81°19'11", Fairfield County, Hydrologic Unit 03050106, on left bank at Southern Railway Alston-Peak trestle, 1.2 mi downstream from Parr Shoals Dam, and at mile 200.2.

**DRAINAGE AREA**--4,790 mi<sup>2</sup>.

**PERIOD OF RECORD**--October 1896 to December 1907, October 1980 to current year.

**REVISED RECORDS**--WRD SC-82-1: 1982 (M).

**GAGE**--Data collection platform. Datum of gage is 211.91 ft above sea level. Oct. 1, 1896 to Dec. 31, 1907, nonrecording gage at same site at different datum.

**REMARKS**--Records for the 1897-1908 water years are poor. Regulation at low and medium flow by power plant above station.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 140,000 ft<sup>3</sup>/s, June 7, 1903, gage height, 29.02 ft (at datum then in use and from rating curve extended graphically above 72,000 ft<sup>3</sup>/s).

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 72,000 ft<sup>3</sup>/s and graphically extended on logarithmic plotting paper.

## Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1897       | Feb. 7   | 22.13            | 85,800                         | 1907       | June 2  | 12.50            | 30,900                         | 1990       | Oct. 3  | 22.71            | 79,500                         |
| 1898       | Sept. 24 | 14.80            | 40,500                         | 1981       | Feb. 12 | 16.70            | 44,500                         | 1991       | Oct. 14 | 26.94            | 119,000                        |
| 1899       | Feb. 28  | 18.30            | 60,800                         | 1982       | Jan. 5  | 19.95            | 59,400                         | 1992       | Apr. 23 | 15.58            | 39,800                         |
| 1900       | Apr. 22  | 23.40            | 95,100                         | 1983       | Mar. 18 | 16.78            | 44,900                         | 1993       | Mar. 26 | 18.42            | 52,100                         |
| 1901       | May 23   | 24.80            | 106,000                        | 1984       | Feb. 16 | 18.85            | 54,100                         | 1994       | Aug. 19 | 18.42            | 52,100                         |
| 1902       | Dec. 31  | 24.70            | 105,000                        | 1985       | Aug. 19 | 17.39            | 47,500                         | 1995       | Aug. 30 | 24.91            | 99,100                         |
| 1903       | June 7   | 29.02            | 140,000                        | 1986       | Nov. 23 | 17.28            | 47,000                         | 1996       | Feb. 4  | 19.17            | 55,600                         |
| 1904       | Aug. 29  | 14.00            | 36,800                         | 1987       | Mar. 3  | 25.90            | 108,000                        | 1997       | Apr. 28 | 15.27            | 38,500                         |
| 1905       | Feb. 21  | 16.60            | 50,000                         | 1988       | Jan. 22 | 12.36            | 27,100                         | 1998       | Feb. 5  | 20.36            | 61,900                         |
| 1906       | Dec. 21  | 19.40            | 67,900                         | 1989       | Mar. 24 | 16.25            | 42,600                         | 1999       | Jan. 25 | 13.08            | 29,800                         |

## SANTEE RIVER BASIN

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 west of Richtex, 1.2 mi upstream from Little River, 10.2 mi downstream from Parr Shoals Dam, and at mile 191.2.

**DRAINAGE AREA**--4,850 mi<sup>2</sup>, approximately.

**PERIOD OF RECORD**--October 1925 to September 1983. Monthly discharges 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 above sea level.

**REMARKS**--Regulation at low and medium flow by power plant above station.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 228,000 ft<sup>3</sup>/s, Oct. 3, 1929, gage height, 30.7 ft (from flood marks).

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 82,800 ft<sup>3</sup>/s and extended on basis of computation of peak flow over Parr Shoals Dam.

| <u>FLOOD-FREQUENCY DATA (ft<sup>3</sup>/s)</u> | <u>LOG-PEARSON TYPE III STATISTICS (LOG UNITS)</u> |  |
|--|--|--|
|--|--|--|

|                             |                    |   |       |
|-----------------------------|--------------------|---|-------|
| <u>58 YEARS OF RECORD</u>   | Mean               | = | 4.786 |
| <u>LOG-PEARSON TYPE III</u> | Standard Deviation | = | 0.200 |
|                             | Station Skew       | = | 0.495 |

$Q_2 = 58,800$   
 $Q_5 = 88,700$   
 $Q_{10} = 112,000$   
 $Q_{25} = 147,000$   
 $Q_{50} = 177,000$   
 $Q_{100} = 210,000$   
 $Q_{200} = 247,000$   
 $Q_{500} = 304,000$

## Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1926       | Jan. 20  | 12.01            | 40,300                         | 1946       | Jan. 9  | 13.86            | 59,200                         | 1966       | Mar. 6  | 14.79            | 65,300                         |
| 1927       | Feb. 25  | 9.14             | 28,400                         | 1947       | Jan. 21 | 13.72            | 57,800                         | 1967       | Aug. 25 | 16.09            | 74,500                         |
| 1928       | Aug. 17  | 30.10            | 222,000                        | 1948       | Feb. 14 | 12.40            | 49,400                         | 1968       | Jan. 12 | 11.90            | 46,200                         |
| 1929       | Sept. 28 | 18.32            | 88,200                         | 1949       | Nov. 30 | 18.59            | 95,700                         | 1969       | Apr. 19 | 12.91            | 52,700                         |
| 1930       | Oct. 3   | 30.70            | 228,000                        | 1950       | Oct. 9  | 12.75            | 52,000                         | 1970       | Aug. 12 | 10.97            | 40,600                         |
| 1931       | Dec. 7   | 7.81             | 23,000                         | 1951       | Dec. 9  | 9.18             | 30,600                         | 1971       | Mar. 4  | 13.73            | 58,000                         |
| 1932       | Jan. 9   | 14.18            | 51,200                         | 1952       | Mar. 6  | 17.39            | 84,700                         | 1972       | June 23 | 14.18            | 61,600                         |
| 1933       | Oct. 18  | 19.72            | 101,000                        | 1953       | Feb. 23 | 11.15            | 42,000                         | 1973       | Feb. 4  | 16.04            | 74,100                         |
| 1934       | Mar. 29  | 10.48            | 34,400                         | 1954       | Jan. 24 | 14.68            | 64,700                         | 1974       | Apr. 6  | 12.11            | 47,500                         |
| 1935       | Oct. 12  | 17.86            | 84,600                         | 1955       | Apr. 15 | 11.36            | 43,200                         | 1975       | Mar. 16 | 18.52            | 94,900                         |
| 1936       | Apr. 8   | 24.96            | 157,000                        | 1956       | Mar. 18 | 11.24            | 42,000                         | 1976       | Oct. 20 | 10.03            | 35,200                         |
| 1937       | Oct. 18  | 16.12            | 72,400                         | 1957       | Apr. 7  | 9.35             | 31,800                         | 1977       | Oct. 11 | 23.67            | 146,000                        |
| 1938       | Oct. 21  | 13.53            | 55,800                         | 1958       | Nov. 21 | 13.35            | 55,900                         | 1978       | Jan. 27 | 14.79            | 64,500                         |
| 1939       | Mar. 2   | 13.12            | 53,400                         | 1959       | Dec. 30 | 9.31             | 31,200                         | 1979       | Feb. 26 | 15.80            | 72,300                         |
| 1940       | Aug. 16  | 21.08            | 120,000                        | 1960       | Oct. 1  | ----a            | 55,900                         | 1980       | Mar. 30 | 14.74            | 64,200                         |
| 1941       | July 7   | 12.41            | 49,400                         | 1961       | Feb. 25 | 13.50            | 56,600                         | 1981       | Oct. 1  | 12.07            | 46,700                         |
| 1942       | Feb. 18  | 12.99            | 53,300                         | 1962       | Jan. 7  | 13.42            | 55,900                         | 1982       | Jan. 5  | 14.43            | 62,100                         |
| 1943       | Jan. 30  | 13.63            | 57,200                         | 1963       | Mar. 8  | 16.18            | 75,300                         | 1983       | Mar. 19 | 12.41            | 48,400                         |
| 1944       | Mar. 21  | 17.40            | 84,700                         | 1964       | Apr. 9  | 19.00            | 99,500                         |            |         |                  |                                |
| 1945       | Sept. 19 | 18.68            | 96,600                         | 1965       | Oct. 18 | 19.25            | 102,000                        |            |         |                  |                                |

SANTEE RIVER BASIN  
02167000 SALUDA RIVER AT CHAPPELLS, S.C.

**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 downstream from dam at Lake Greenwood, 9.8 mi upstream from Little River, and at mile 52.3.

**DRAINAGE AREA**--1,360 mi<sup>2</sup>.

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

**GAGE**--Data collection platform. Datum of gage is 362.89 ft above sea level. Oct. 1, 1926 to Sept. 30, 1939, nonrecording or recording gage at site 300 ft downstream at datum 363.79 ft above sea level. Oct. 1, 1939 to Oct. 7, 1964, recording gage at present site and at datum 363.89 ft above 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<sup>3</sup>/s, Oct. 2, 1929, gage height, 32.5 ft., present datum.

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

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 28,100 ft<sup>3</sup>/s and extended on basis of velocity-area studies.

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1888       | Sept--   | 30.60            | ---                            | 1937       | Jan. 5   | 22.03            | 21,400                         | 1969       | Apr. 19 | 24.32            | 26,200                         |
| 1906       | Dec. 22  | 18.60            | ---                            | 1938       | Oct. 22  | 20.91            | 18,000                         | 1970       | Mar. 22 | 13.02            | 5,510                          |
| 1907       | Oct. 5   | 13.30            | ---                            | 1939       | Mar. 1   | <u>19.07</u>     | 13,200                         | 1971       | Mar. 4  | 22.51            | 19,800                         |
| 1908       | Aug. 26  | 34.70            | ---                            | 1940       | Aug. 14  | 28.66            | 49,700                         | 1972       | June 22 | 21.69            | 17,400                         |
| 1909       | June 5   | 20.50            | ---                            | 1941       | July 17  | 14.96            | 7,400                          | 1973       | Apr. 2  | 22.75            | 20,600                         |
| 1910       | Mar. 3   | 17.60            | ---                            | 1942       | Mar. 22  | 22.82            | 24,300                         | 1974       | Apr. 5  | 14.74            | 6,800                          |
| 1911       | Oct. 9   | 12.20            | ---                            | 1943       | Jan. 29  | 22.21            | 22,100                         | 1975       | Mar. 15 | 24.84            | 28,300                         |
| 1912       | Mar. 16  | 25.00            | ---                            | 1944       | Mar. 21  | 24.84            | 32,300                         | 1976       | Mar. 17 | 19.03            | 10,800                         |
| 1913       | Mar. 16  | 22.00            | ---                            | 1945       | Sept. 18 | 13.52            | 6,080                          | 1977       | Oct. 9  | 26.47            | 35,200                         |
| 1914       | Dec. 31  | 16.70            | ---                            | 1946       | Jan. 8   | 22.30            | 22,500                         | 1978       | Jan. 27 | 15.48            | 7,740                          |
| 1915       | Jan. 8   | 16.50            | ---                            | 1947       | Jan. 21  | 15.68            | 8,100                          | 1979       | Feb. 26 | 21.74            | 17,500                         |
| 1916       | Feb. 4   | 20.30            | ---                            | 1948       | Apr. 1   | 19.52            | 14,200                         | 1980       | Mar. 29 | 24.24            | 25,800                         |
| 1917       | Mar. 6   | 19.00            | ---                            | 1949       | Nov. 29  | 24.59            | 31,400                         | 1981       | Oct. 1  | 18.06            | 9,870                          |
| 1918       | Aug. 4   | 17.00            | ---                            | 1950       | Mar. 7   | 12.46            | 5,310                          | 1982       | Jan. 4  | 23.05            | 21,600                         |
| 1919       | Oct. 28  | 22.60            | ---                            | 1951       | Apr. 3   | 12.39            | 5,430                          | 1983       | Apr. 9  | 15.72            | 7,900                          |
| 1920       | Dec. 12  | 19.50            | ---                            | 1952       | Mar. 25  | 24.68            | 31,900                         | 1984       | Dec. 7  | 22.60            | 20,200                         |
| 1921       | Feb. 11  | 22.50            | ---                            | 1953       | Feb. 25  | 13.70            | 6,380                          | 1985       | Feb. 7  | ---              | 6,000                          |
| 1922       | Feb. 17  | 20.00            | ---                            | 1954       | Jan. 24  | 13.57            | 6,320                          | 1986       | Dec. 1  | 14.66            | 7,140                          |
| 1923       | Mar. 18  | 18.80            | ---                            | 1955       | Apr. 15  | 13.78            | 6,460                          | 1987       | Mar. 3  | 20.11            | 13,300                         |
| 1924       | July 10  | 16.80            | ---                            | 1956       | Apr. 18  | 18.79            | 12,400                         | 1988       | Feb. 4  | 10.31            | 4,380                          |
| 1925       | Jan. 20  | 20.50            | ---                            | 1957       | Apr. 5   | 12.48            | 5,590                          | 1989       | July 18 | 15.81            | 7,960                          |
| 1926       | Jan. 20  | <u>15.50</u>     | ---                            | 1958       | Nov. 20  | 19.14            | 13,200                         | 1990       | Feb. 19 | 23.08            | 21,700                         |
| 1927       | Dec. 30  | 15.30            | 7,700                          | 1959       | June 3   | 12.28            | 5,390                          | 1991       | Oct. 13 | 17.28            | 9,150                          |
| 1928       | Aug. 17  | 29.97            | 56,200                         | 1960       | Feb. 14  | 21.00            | 18,300                         | 1992       | Mar. 7  | 13.57            | 6,380                          |
| 1929       | Sept. 28 | 30.90            | 60,700                         | 1961       | Feb. 26  | 20.71            | 17,400                         | 1993       | Mar. 28 | 20.04            | 13,100                         |
| 1930       | Oct. 2   | 31.50            | 63,700                         | 1962       | Jan. 7   | 17.64            | 10,200                         | 1994       | Aug. 19 | 20.06            | 14,700                         |
| 1931       | Apr. 1   | 12.49            | 5,310                          | 1963       | Mar. 13  | 22.78            | 24,300                         | 1995       | Aug. 28 | 27.22            | 38,000                         |
| 1932       | Jan. 9   | 20.51            | 16,800                         | 1964       | Apr. 8   | 24.98            | 33,200                         | 1996       | Feb. 3  | 22.17            | 19,500                         |
| 1933       | Oct. 19  | 21.28            | 19,200                         | 1965       | June 16  | 21.35            | 16,400                         | 1997       | Mar. 2  | 17.20            | 10,600                         |
| 1934       | June 7   | 20.94            | 18,000                         | 1966       | Mar. 5   | 21.41            | 16,600                         | 1998       | Feb. 5  | 22.96            | 21,700                         |
| 1935       | Oct. 12  | 17.22            | 9,700                          | 1967       | Aug. 26  | 19.01            | 10,800                         | 1999       | Feb. 1  | 11.60            | 5,850                          |
| 1936       | Apr. 8   | 28.60            | 49,400                         | 1968       | Jan. 11  | 16.90            | 8,300                          |            |         |                  |                                |

## SANTEE RIVER BASIN

02167500 SALUDA RIVER NEAR SILVERSTREET, S.C.

**LOCATION**--Lat 34°10'58", long 81°43'37", Newberry County, Hydrologic Unit 03050109, on left bank 200 ft upstream from Higgins Perry Bridge on State Highway 19, 1.0 mi downstream from Little River, and 2.5 mi south of Silverstreet.

**DRAINAGE AREA**--1,620 mi<sup>2</sup>, approximately.

**PERIOD OF RECORD**--October 1926 to June 1966. Monthly discharges only for some periods, published in WSP 1303.

**GAGE**--Water-stage recorder. Datum of gage is 345.13 ft above sea level, unadjusted. Prior to Oct 15, 1929, staff gage at same site and datum. From March 1939 to June 1966, water-stage recorder for station on Lake Murray near Columbia has been used as an auxiliary gage for this station.

**REMARKS**--Flow regulated by Lake Greenwood.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 83,800 ft<sup>3</sup>/s, Oct. 3, 1929, gage height, 33.97 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 28,000 ft<sup>3</sup>/s and extended on basis of discharge measurements made at Chappells and near Chapin.

## Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|
| 1928       | Aug. 18  | 30.60            | 60,400                         | 1941       | July 18 | 15.08            | 8,610                          | 1954       | Apr. 2   | 14.96            | 7,760                          |
| 1929       | Sept. 28 | 32.05            | 69,800                         | 1942       | Mar. 23 | 22.96            | 23,700                         | 1955       | Apr. 15  | 16.88            | 10,400                         |
| 1930       | Oct. 3   | 33.97            | 83,800                         | 1943       | Jan. 30 | 21.66            | 20,100                         | 1956       | Apr. 18  | 18.62            | 13,200                         |
| 1931       | Apr. 2   | 12.87            | 6,180                          | 1944       | Mar. 21 | 26.93            | 39,100                         | 1957       | Apr. 6   | 14.21            | 6,620                          |
| 1932       | Jan. 10  | 21.12            | 18,600                         | 1945       | Apr. 27 | 15.46            | 9,130                          | 1958       | Nov. 21  | ---a             | 15,400                         |
| 1933       | Sept. 8  | 21.52            | 19,600                         | 1946       | Jan. 9  | ---              | 22,800                         | 1959       | Sept. 30 | ---a             | 6,860                          |
| 1934       | June 7   | 20.84            | 18,000                         | 1947       | Jan. 21 | 18.12            | 13,000                         | 1960       | Feb. 14  | 22.54            | 21,100                         |
| 1935       | Oct. 11  | 17.22            | 11,500                         | 1948       | Apr. 2  | 20.40            | 14,600                         | 1961       | Feb. 26  | 22.30            | 20,600                         |
| 1936       | Apr. 8   | 31.89            | 63,000                         | 1949       | Nov. 30 | 25.80            | 32,200                         | 1962       | Jan. 7   | 20.39            | 15,800                         |
| 1937       | Jan. 6   | 21.98            | 20,900                         | 1950       | Mar. 8  | 14.43            | 6,860                          | 1963       | Mar. 14  | 24.12            | 26,300                         |
| 1938       | Oct. 23  | 19.73            | 15,800                         | 1951       | Apr. 4  | 14.07            | 6,970                          | 1964       | Apr. 9   | 27.10            | 39,500                         |
| 1939       | Mar. 2   | 20.00            | 16,300                         | 1952       | Mar. 25 | 25.34            | 28,400                         | 1965       | June 17  | 22.15            | 20,200                         |
| 1940       | Aug. 15  | 30.29            | 58,300                         | 1953       | Feb. 25 | 14.20            | 6,860                          |            |          |                  |                                |

## SANTEE RIVER BASIN

02169000 SALUDA RIVER NEAR COLUMBIA, S.C.

**LOCATION**--Lat 34°00'50", long 81°05'17", Richland County, Hydrologic Unit 03050109, on left bank 0.4 mi upstream from site of Old Saluda Mill, 1.6 mi upstream from confluence with Broad River and 3.3 mi west of State Capital in Columbia, and at mile 1.7.

**DRAINAGE AREA**--2,520 mi<sup>2</sup>.

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

**GAGE**--Data collection platform. Datum of gage is 149.46 ft above sea level. Prior to Sept. 1, 1929, at same site at datum 150.46 ft above sea level.

**REMARKS**--Flow regulated by Lake Murray and Lake Greenwood.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 67,000 ft<sup>3</sup>/s, Oct. 2, 1929, gage height, 15.22 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 36,000 ft<sup>3</sup>/s and extended on basis of discharge measurements made at Wise Ferry bridge near Chapin.

## Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|------------|----------|------------------|--------------------------------|
| 1926       | Mar. 31  | 8.75             | 23,300                         | 1951       | Aug. 10  | 6.29             | 10,300                         | 1976       | July 7   | 7.99             | 18,400                         |
| 1927       | July 20  | 6.62             | 12,300                         | 1952       | June 12  | 6.39             | 10,700                         | 1977       | Mar. 22  | 7.95             | 18,200                         |
| 1928       | Aug. 18  | 14.04            | 58,200                         | 1953       | Sept. 3  | 6.13             | 9,600                          | 1978       | Jan. 26  | 7.80             | 17,400                         |
| 1929       | Mar. 6   | <u>13.43</u>     | 53,600                         | 1954       | Nov. 9   | 6.10             | 9,600                          | 1979       | Feb. 26  | 9.53             | 27,200                         |
| 1930       | Oct. 2   | 15.22            | 67,000                         | 1955       | Aug. 19  | 6.03             | 9,250                          | 1980       | Mar. 30  | ---              | <sup>2</sup> 31,000            |
| 1931       | Sept. 11 | 5.86             | 9,590                          | 1956       | Aug. 15  | 5.65             | 8,080                          | 1981       | July 11  | 7.68             | 16,300                         |
| 1932       | Sept. 13 | 6.12             | 10,300                         | 1957       | Sept. 3  | 6.07             | 10,300                         | 1982       | Jan. 4   | 8.30             | 19,600                         |
| 1933       | Feb. 20  | 9.04             | 24,500                         | 1958       | Jan. 24  | 6.77             | 13,100                         | 1983       | Apr. 8   | 8.54             | 21,000                         |
| 1934       | Nov. 2   | 6.44             | 11,500                         | 1959       | Sept. 30 | 6.26             | 10,300                         | 1984       | Aug. 9   | 8.03             | 18,100                         |
| 1935       | Sept. 5  | 7.17             | 14,800                         | 1960       | Feb. 13  | 7.02             | 13,200                         | 1985       | Feb. 5   | 7.99             | 18,400                         |
| 1936       | Apr. 7   | 14.53            | 61,600                         | 1961       | Apr. 12  | 7.33             | 15,200                         | 1986       | Sept. 26 | 7.75             | 17,100                         |
| 1937       | Apr. 9   | 8.74             | 23,000                         | 1962       | Mar. 13  | 6.83             | 13,100                         | 1987       | Aug. 26  | 7.69             | 16,700                         |
| 1938       | Nov. 15  | 6.28             | 11,600                         | 1963       | Mar. 13  | 6.83             | 13,100                         | 1988       | Oct. 29  | 7.21             | 14,200                         |
| 1939       | Sept. 8  | 6.04             | 9,950                          | 1964       | Apr. 10  | 11.25            | 38,800                         | 1989       | Sept. 21 | 8.05             | 18,800                         |
| 1940       | Aug. 28  | 5.95             | 9,950                          | 1965       | June 16  | 13.32            | 53,200                         | 1990       | Feb. 22  | 8.52             | 21,600                         |
| 1941       | Dec. 13  | 6.15             | 10,700                         | 1966       | Mar. 4   | 7.16             | 14,300                         | 1991       | Oct. 12  | 8.81             | 23,300                         |
| 1942       | June 10  | 6.92             | 13,500                         | 1967       | Aug. 24  | ---              | <sup>1</sup> 12,000            | 1992       | Sept. 22 | 7.86             | 17,700                         |
| 1943       | July 22  | 6.09             | 10,300                         | 1968       | Jan. 10  | 7.44             | 15,700                         | 1993       | Apr. 5   | 8.18             | 19,500                         |
| 1944       | Mar. 24  | 9.15             | 25,700                         | 1969       | Apr. 19  | 10.82            | 35,700                         | 1994       | Aug. 16  | 8.12             | 19,200                         |
| 1945       | Sept. 17 | 6.13             | 10,300                         | 1970       | Aug. 31  | 6.48             | 11,400                         | 1995       | June 6   | 8.72             | 22,800                         |
| 1946       | Apr. 26  | 9.71             | 28,700                         | 1971       | Aug. 17  | 8.31             | 20,400                         | 1996       | Mar. 9   | 8.63             | 22,300                         |
| 1947       | Dec. 7   | 6.13             | 10,300                         | 1972       | Jan. 11  | 7.93             | 18,200                         | 1997       | May 8    | 7.64             | 16,500                         |
| 1948       | Apr. 8   | 8.31             | 20,400                         | 1973       | Apr. 7   | 8.63             | 22,300                         | 1998       | Feb. 4   | 8.53             | 21,700                         |
| 1949       | May 1    | 9.16             | 25,700                         | 1974       | Feb. 25  | 8.48             | 21,400                         | 1999       | July 23  | 7.71             | 16,800                         |
| 1950       | Nov. 22  | 6.83             | 10,700                         | 1975       | Feb. 19  | 8.22             | 19,800                         |            |          |                  |                                |

<sup>1</sup>Discharge is a maximum daily value.

<sup>2</sup>Discharge is an estimate.

SANTEE RIVER BASIN

02169500 CONGAREE RIVER AT COLUMBIA, S.C.

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

**DRAINAGE AREA**--7,850 mi<sup>2</sup>, approximately.

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

**GAGE**--Water-stage recorder and data collection platform. Datum of gage is 113.02 ft above sea level.

**REMARKS**--Flow regulated by Lake Murray and Lake Greenwood on the Saluda River and to some extent, at low and medium flow, by powerplants on the Broad River. City of Columbia diverts flow above station for municipal supply.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 155,000 ft<sup>3</sup>/s, Oct. 11, 1976, gage height, 29.74 ft.

**EXTREMES OUTSIDE PERIOD OF RECORD**--Maximum flood since at least October 1891, discharge 364,000 ft<sup>3</sup>/s, Aug. 27, 1908, gage height, 39.8 ft, present datum, based on flood marks from records of the U.S. Weather Bureau at site 1,000 ft upstream and at datum 4.0 ft higher.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 150,000 ft<sup>3</sup>/s and extended graphically on logarithmic plotting paper.

Peak Stages and Discharges

| Water Year | Date     | Gage Height<br>(ft) | Discharge<br>(ft <sup>3</sup> /s) | Water Year | Date           | Gage Height<br>(ft) | Discharge<br>(ft <sup>3</sup> /s) | Water Year | Date    | Gage Height<br>(ft) | Discharge<br>(ft <sup>3</sup> /s) |
|------------|----------|---------------------|-----------------------------------|------------|----------------|---------------------|-----------------------------------|------------|---------|---------------------|-----------------------------------|
| 1852       | Sept. -- | 34.40               | ---                               | 1928       | Aug. 18        | 33.50               | 311,000                           | 1965       | Oct. 18 | 26.18               | 120,000                           |
| 1892       | Jan. 20  | 24.60               | 154,000                           | 1929       | Mar. 1         | 25.90               | 173,000                           | 1966       | Mar. 6  | 21.74               | 80,600                            |
| 1893       | Aug. 29  | 21.10               | 110,000                           | 1930       | Oct. 3         | 33.10               | 303,000                           | 1967       | Aug. 25 | 23.78               | 97,900                            |
| 1894       | Oct. 24  | 12.70               | 49,800                            | 1931       | Dec. 8         | 6.70                | 26,800                            | 1968       | Jan. 12 | 18.81               | 61,200                            |
| 1895       | Oct. 10  | 20.40               | 103,000                           | 1932       | Jan. 10        | 16.70               | 71,600                            | 1969       | Apr. 19 | 23.37               | 94,200                            |
| 1896       | Feb. 7   | 17.80               | 79,600                            | 1933       | <u>Oct. 19</u> | <u>21.50</u>        | <u>115,000</u>                    | 1970       | Aug. 12 | 15.44               | 45,200                            |
| 1897       | Feb. 7   | 21.50               | 115,000                           | 1934       | Mar. 29        | 12.70               | 33,400                            | 1971       | Mar. 4  | 21.55               | 79,100                            |
| 1898       | Sept. 25 | 10.20               | 39,100                            | 1935       | Oct. 12        | 23.30               | 92,300                            | 1972       | Jan. 12 | 19.26               | 63,900                            |
| 1899       | Feb. 8   | 21.70               | 117,000                           | 1936       | Apr. 8         | 33.34               | 231,000                           | 1973       | Apr. 2  | 23.99               | 99,800                            |
| 1900       | Apr. 22  | 22.00               | 120,000                           | 1937       | Oct. 19        | 20.56               | 70,900                            | 1974       | Jan. 2  | 16.87               | 51,600                            |
| 1901       | Apr. 3   | 23.00               | 132,000                           | 1938       | Oct. 21        | 18.42               | 57,900                            | 1975       | Mar. 16 | 26.47               | 122,000                           |
| 1902       | Mar. 2   | 22.00               | 120,000                           | 1939       | Mar. 2         | 19.93               | 66,400                            | 1976       | Mar. 17 | 16.16               | 48,400                            |
| 1903       | June 9   | 27.20               | 194,000                           | 1940       | Aug. 16        | 26.14               | 121,000                           | 1977       | Oct. 11 | 29.74               | 155,000                           |
| 1904       | Aug. 10  | 12.20               | 47,500                            | 1941       | July 18        | 17.19               | 52,000                            | 1978       | Jan. 28 | 21.87               | 81,700                            |
| 1905       | Feb. 22  | 14.70               | 59,400                            | 1942       | Feb. 19        | 17.31               | 52,400                            | 1979       | Feb. 26 | 23.46               | 94,500                            |
| 1906       | Dec. 22  | 20.30               | 102,000                           | 1943       | Jan. 20        | 19.44               | 63,400                            | 1980       | Mar. 30 | 23.29               | 93,100                            |
| 1907       | June 3   | 9.00                | 34,500                            | 1944       | Mar. 21        | 24.57               | 105,000                           | 1981       | Oct. 2  | 16.81               | 51,300                            |
| 1908       | Aug. 27  | 39.80               | 364,000                           | 1945       | Sept. 20       | 24.30               | 102,000                           | 1982       | Jan. 6  | 22.20               | 84,200                            |
| 1909       | June 5   | 22.00               | 120,000                           | 1946       | Jan. 9         | 19.21               | 62,200                            | 1983       | Mar. 18 | 19.65               | 66,000                            |
| 1910       | Mar. 3   | 13.80               | 54,900                            | 1947       | Jan. 21        | 19.42               | 63,400                            | 1984       | Feb. 16 | 20.30               | 70,300                            |
| 1911       | Oct. 9   | 10.90               | 41,900                            | 1948       | Feb. 14        | 17.72               | 54,400                            | 1985       | Aug. 19 | 17.52               | 54,700                            |
| 1912       | Mar. 17  | 30.70               | 256,000                           | 1949       | Nov. 30        | 25.56               | 116,000                           | 1986       | Nov. 23 | 18.37               | 58,900                            |
| 1913       | Mar. 16  | 23.20               | 135,000                           | 1950       | Oct. 9         | 16.77               | 50,200                            | 1987       | Mar. 3  | 26.67               | 123,000                           |
| 1914       | Dec. 31  | 14.60               | 58,900                            | 1951       | Dec. 9         | 12.27               | 32,000                            | 1988       | Jan. 23 | 9.78                | 24,700                            |
| 1915       | Jan. 8   | 17.40               | 76,500                            | 1952       | Mar. 6         | 23.20               | 91,400                            | 1989       | Mar. 25 | 16.17               | 48,400                            |

|      |         |       |         |      |          |       |         |      |         |       |         |
|------|---------|-------|---------|------|----------|-------|---------|------|---------|-------|---------|
| 1916 | July 17 | 31.50 | 272,000 | 1953 | Feb. 23  | 15.28 | 43,500  | 1990 | Oct. 3  | 23.37 | 93,700  |
| 1917 | Mar. 6  | 17.80 | 79,600  | 1954 | Jan. 25  | 19.66 | 65,200  | 1991 | Oct. 15 | 27.94 | 135,000 |
| 1918 | Jan. 31 | 12.20 | 47,500  | 1955 | Apr. 15  | 16.06 | 47,000  | 1992 | Apr. 23 | 16.78 | 51,200  |
| 1919 | Oct. 28 | 20.70 | 106,000 | 1956 | Apr. 18  | 15.22 | 43,100  | 1993 | Mar. 26 | 19.49 | 65,200  |
| 1920 | Aug. 28 | 19.50 | 94,100  | 1957 | Apr. 7   | 12.00 | 31,000  | 1994 | Aug. 20 | 20.59 | 72,300  |
| 1921 | Feb. 11 | 24.30 | 149,000 | 1958 | May 1    | 19.46 | 64,000  | 1995 | Jan. 17 | 25.95 | 116,000 |
| 1922 | Feb. 17 | 22.20 | 123,000 | 1959 | Sept. 30 | 17.63 | 53,900  | 1996 | Feb. 4  | 20.97 | 74,900  |
| 1923 | Mar. 18 | 17.70 | 78,800  | 1960 | Oct. 1   | 19.68 | 65,200  | 1997 | Feb. 17 | 16.69 | 50,800  |
| 1924 | Jan. 18 | 15.60 | 64,600  | 1961 | Feb. 25  | 21.08 | 74,400  | 1998 | Feb. 5  | 23.55 | 95,200  |
| 1925 | Jan. 20 | 23.50 | 139,000 | 1962 | Jan. 8   | 19.69 | 65,200  | 1999 | Jan. 6  | 10.51 | 27,000  |
| 1926 | Feb. 26 | 13.00 | 51,100  | 1963 | Mar. 15  | 23.09 | 91,800  |      |         |       |         |
| 1927 | Feb. 25 | 10.20 | 39,100  | 1964 | Apr. 10  | 28.60 | 142,000 |      |         |       |         |

SANTEE RIVER BASIN

02170000 SANTEE RIVER AT FERGUSON, S.C.

**LOCATION**--Lat 33°26'15", long 80°16'20", at Ferguson, Orangeburg County, Hydrologic Unit 03050111, 4 miles downstream from Eutaw Creek, inundated by Lake Marion since 1942.

**DRAINAGE AREA**--14,600 mi<sup>2</sup>.

**PERIOD OF RECORD**--Sept. 21, 1907 to Nov. 22, 1921 (U.S. Weather Bureau), Nov. 23, 1921 to Sept. 30, 1941.

**GAGE**--Nonrecording prior to Nov. 23, 1921, recording thereafter. Datum of gage is 42.30 ft above sea level, supplementary adjustment of 1936.

**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.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 374,000 ft<sup>3</sup>/s, July 21, 1916, gage height, 24.74 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 260,000 ft<sup>3</sup>/s and extended on basis of velocity-area studies.

**FLOOD-FREQUENCY DATA**--Flow records at this site were affected by regulation and were not used in this regionalization analyses. Site is currently inundated by Lake Marion; therefore frequency data were not computed.

Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft)   | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|--------------------|--------------------------------|
| 1908       | Aug. 31 | 23.70            | 344,000                        | 1920       | Apr. 3  | 14.00            | 53,000                         | 1931       | Jan. 19 | 12.88              | 26,000                         |
| 1909       | June 10 | 15.62            | 101,000                        | 1921       | Feb. 15 | 17.47            | 158,000                        | 1932       | Jan. 15 | 13.95              | 53,000                         |
| 1910       | Mar. 9  | 13.90            | 50,000                         | 1922       | Feb. 21 | 15.77            | 106,000                        | 1933       | Jan. 3  | 14.08              | 56,000                         |
| 1911       | Jan. 10 | 13.47            | 38,000                         | 1923       | Mar. 23 | 15.20            | 89,000                         | 1934       | June 12 | 13.80              | 47,000                         |
| 1912       | Mar. 20 | 19.44            | 215,000                        | 1924       | Jan. 23 | 13.87            | 50,000                         | 1935       | Oct. 17 | 13.81              | 47,000                         |
| 1913       | Mar. 21 | 15.56            | 101,000                        | 1925       | Jan. 23 | 17.13            | 146,000                        | 1936       | Apr. 11 | 20.42              | 245,000                        |
| 1914       | Jan. 6  | 14.02            | 53,000                         | 1926       | Mar. 3  | 13.43            | 35,900                         | 1937       | Jan. 11 | 14.19              | 59,000                         |
| 1915       | Jan. 24 | 14.65            | 71,000                         | 1927       | Mar. 2  | 13.30            | 32,500                         | 1938       | Oct. 27 | 13.54              | 38,000                         |
| 1916       | July 21 | 24.74            | 374,000                        | 1928       | Aug. 22 | 20.60            | 251,000                        | 1939       | Mar. 7  | 15.1               | 86,000                         |
| 1917       | Mar. 10 | 14.70            | 74,000                         | 1929       | Mar. 10 | 17.55            | 160,000                        | 1940       | Aug. 21 | 14.07              | 56,000                         |
| 1918       | Feb. 6  | 13.90            | 50,000                         | 1930       | Oct. 7  | 21.04            | 263,000                        | 1941       | July 24 | <sup>1</sup> 15.98 | <sup>2</sup> 48,000            |
| 1919       | July 27 | 17.12            | 146,000                        |            |         |                  |                                |            |         |                    |                                |

<sup>1</sup>Affected by backwater; annual maximum gage height occurred on July 25, 1941.

<sup>2</sup>Maximum daily discharge.

SANTEE RIVER BASIN

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 downstream from Lake Marion Dam, 3.0 mi upstream from Dead River, 6.7 mi west of Pineville, and at mile 85.0.

**DRAINAGE AREA**--Indeterminate.

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

**GAGE**--Data collection platform. Datum of gage is 22.83 ft above sea level (from South Carolina Geodetic Survey benchmark). Prior to Feb. 25, 1943, nonrecording gage at site 2.2 mi upstream of temporary water-stage recorder operated by U.S. Army Corps of Engineers, at site 200 ft upstream, at different datum.

**REMARKS**--Discharge records for 1987-99 water years are computed by utilization of a one-dimensional unsteady flow simulation model (BRANCH). Flow completely regulated by Lake Marion. Water is diverted above station from Lake Marion through Diversion Canal into Lake Moultrie for generation of power and for navigation, then discharged into Cooper River basin and lower Santee.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 155,000 ft<sup>3</sup>/s, Sept. 23, 1945, gage height, 31.1 ft (from flood marks).

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 14,600 ft<sup>3</sup>/s and extended by computation of peak flow over spillway at Lake Marion.

**FLOOD-FREQUENCY DATA**--Frequency analysis not performed on Santee River near Pineville, S.C., because of regulation. The regulation pattern has been altered since redirection in 1986.

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1943       | Mar. 27  | 23.23            | 32,300                         | 1963       | Mar. 18 | 25.43            | 52,200                         | 1983       | Apr. 16 | 24.73            | 32,300                         |
| 1944       | Mar. 24  | 29.52            | 122,000                        | 1964       | Apr. 13 | 27.07            | 77,200                         | 1984       | Dec. 13 | 13.65            | 25,600                         |
| 1945       | Sept. 23 | 31.10            | 155,000                        | 1965       | Oct. 22 | 27.41            | 88,100                         | 1985       | Feb. 12 | 9.55             | 3,900                          |
| 1946       | Jan. 9   | 25.50            | 55,800                         | 1966       | Mar. 9  | 24.94            | 51,400                         | 1986       | Dec. 6  | 22.24            | 16,600                         |
| 1947       | Feb. 8   | 30.04            | 132,000                        | 1967       | Aug. 26 | 25.42            | 52,400                         | 1987       | ---     | ---              | ---                            |
| 1948       | Feb. 17  | 26.35            | 73,800                         | 1968       | Jan. 17 | 22.77            | 23,000                         | 1988       | ---     | ---              | ---                            |
| 1949       | Dec. 4   | 28.56            | 114,000                        | 1969       | Apr. 20 | 24.87            | 45,500                         | 1991       | Oct. 18 | 27.26            | ---                            |
| 1950       | Aug. 29  | ---a             | 782                            | 1970       | Mar. 24 | 24.03            | 36,400                         | 1992       | Mar. 11 | 8.28             | ---                            |
| 1951       | June 24  | ---a             | 617                            | 1971       | Mar. 8  | 25.51            | 53,600                         | 1993       | Jan. 13 | 26.69            | ---                            |
| 1952       | Mar. 11  | 27.77            | 89,900                         | 1972       | Jan. 21 | 21.64            | 19,800                         | 1994       | Aug. 24 | 23.96            | ---                            |
| 1953       | Mar. 25  | 7.15             | 2,830                          | 1973       | Apr. 7  | 25.24            | 50,100                         | 1995       | Jan. 20 | 26.29            | ---                            |
| 1954       | Apr. 17  | 3.53             | 1,140                          | 1974       | Feb. 16 | 21.94            | 21,300                         | 1996       | Feb. 10 | 20.10            | ---                            |
| 1955       | Oct. 15  | 2.34             | 653                            | 1975       | Mar. 19 | 27.91            | 91,700                         | 1997       | Mar. 7  | 19.44            | ---                            |
| 1956       | Apr. 7   | 2.51             | 744                            | 1976       | May 8   | 6.49             | 2,340                          | 1998       | Feb. 3  | 27.67            | ---                            |
| 1957       | Apr. 6   | 3.12             | 989                            | 1977       | Oct. 14 | 26.01            | 60,200                         | 1999       | Mar. 3  | 6.29             | ---                            |
| 1958       | Nov. 30  | 25.85            | 59,700                         | 1978       | Jan. 31 | 24.74            | 43,900                         |            |         |                  |                                |
| 1959       | July 27  | 12.36            | 6,840                          | 1979       | Mar. 2  | 27.74            | 85,000                         |            |         |                  |                                |
| 1960       | Feb. 18  | 26.57            | 69,300                         | 1980       | Mar. 30 | 26.58            | 67,900                         |            |         |                  |                                |
| 1961       | Mar. 3   | 24.68            | 46,500                         | 1981       | Mar. 16 | 7.01             | 2,640                          |            |         |                  |                                |
| 1962       | Mar. 17  | 24.03            | 36,100                         | 1982       | Jan. 10 | 26.88            | 72,000                         |            |         |                  |                                |

SANTEE RIVER BASIN

02171650 SANTEE RIVER BELOW ST. STEPHENS, S.C.

**LOCATION**--Lat 33°24'05", long 79°51'20", Berkeley County, Hydrologic Unit 03050112, on right bank, on Tract 13P of Francis Marion National Forest, 3.9 mi east of St. Stephens, 600 ft downstream from Mattassee Lake, and at mile 52.0.

**DRAINAGE AREA**--14,900 mi<sup>2</sup>, approximately.

**PERIOD OF RECORD**--October 1970 to September 1981.

**GAGE**--Water-stage recorder. Datum of gage is 0.23 ft above sea level.

**REMARKS**--Records poor.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 98,900 ft<sup>3</sup>/s, Mar. 21, 22, 1975, gage height, 29.67 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 83,700 ft<sup>3</sup>/s and extended graphically on logarithmic plotting paper.

**FLOOD-FREQUENCY DATA**--Frequency analysis not performed for this station because of regulation.

Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1971       | Mar. 10 | 25.77            | 66,200                         | 1975       | Mar. 21 | 29.67            | 98,900                         | 1979       | Mar. 4  | 28.98            | 89,600                         |
| 1972       | Jan. 23 | 21.29            | 22,700                         | 1976       | July 1  | 9.00             | 2,150                          | 1980       | Apr. 4  | 27.52            | 73,400                         |
| 1973       | Apr. 9  | 25.32            | 61,800                         | 1977       | Oct. 17 | 25.93            | 58,900                         | 1981       | Mar. 18 | ---              | 1,300                          |
| 1974       | Feb. 21 | 20.64            | 19,600                         | 1978       | Feb. 3  | 24.96            | 50,600                         |            |         |                  |                                |







SAVANNAH RIVER BASIN

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 upstream from Little Generostee Creek, 5.8 mi southwest of Iva, and at mile 296.5.

**DRAINAGE AREA**--2,230 mi<sup>2</sup>.

**PERIOD OF RECORD**--October 1949 to September 1981. Monthly discharge only for some periods, published in WSP 1303.

**GAGE**--Water-stage recorder. Datum of gage is 432.26 ft above sea level (levels by U.S. Army Corps of Engineers).

**REMARKS**--Flow regulated by powerplants above station, by Burton and Mathis Reservoirs, and by Hartwell Lake. Currently in backwater from Richard B. Russell Dam.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 54,400 ft<sup>3</sup>/s, Mar. 12, 1952, gage height, 12.74 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 52,300 ft<sup>3</sup>/s and graphically extended on logarithmic plotting paper.

Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1950       | Oct. 10 | ---              | 27,500                         | 1961       | Mar. 7  | 5.79             | 10,400                         | 1972       | Jan. 7  | 8.43             | 31,000                         |
| 1951       | Oct. 21 | 8.98             | 27,200                         | 1962       | Dec. 18 | 7.89             | 21,200                         | 1973       | Dec. 15 | 8.57             | 32,000                         |
| 1952       | Mar. 12 | 12.74            | 54,400                         | 1963       | Apr. 30 | 7.86             | 21,400                         | 1974       | Aug. 9  | 8.01             | 28,100                         |
| 1953       | Feb. 22 | 10.44            | 36,800                         | 1964       | Apr. 8  | 11.25            | 44,300                         | 1975       | Mar. 13 | 8.82             | 33,700                         |
| 1954       | Jan. 16 | 11.28            | 44,200                         | 1965       | Oct. 5  | 8.87             | 29,500                         | 1976       | Mar. 31 | 8.23             | 29,600                         |
| 1955       | Feb. 7  | 10.04            | 34,000                         | 1966       | Mar. 4  | 9.79             | 35,000                         | 1977       | Mar. 30 | 8.12             | 28,800                         |
| 1956       | Apr. 16 | 9.65             | 31,200                         | 1967       | June 6  | 8.88             | 30,800                         | 1978       | Jan. 25 | 8.47             | 31,300                         |
| 1957       | Apr. 6  | 10.08            | 34,800                         | 1968       | Jan. 12 | 8.58             | 29,000                         | 1979       | Apr. 13 | 8.73             | 33,300                         |
| 1958       | Nov. 19 | 9.67             | 32,000                         | 1969       | May 2   | 8.44             | 28,100                         | 1980       | Mar. 28 | 8.36             | 30,500                         |
| 1959       | Apr. 13 | 8.22             | 22,000                         | 1970       | July 29 | 8.51             | 28,600                         | 1981       | July 24 | 7.99             | 27,800                         |
| 1960       | Apr. 6  | 6.16             | 12,300                         | 1971       | Mar. 3  | 8.96             | 31,300                         |            |         |                  |                                |

SAVANNAH RIVER BASIN

02188000 ROCKY RIVER NEAR CALHOUN FALLS, S.C.

**LOCATION**--Lat 34°07'40", long 82°37'56", Abbeville County, Hydrologic Unit 03060103, on right bank, 2,000 ft upstream from Swanigan Mill bridge on county road, 3.2 mi northwest of Calhoun Falls, and 3.8 mi upstream from mouth.

**DRAINAGE AREA**--267 mi<sup>2</sup>.

**PERIOD OF RECORD**--February 1950 to September 1966, crest-stage, partial-record station 1971-82

**GAGE**--Digital water-stage recorder. Datum of gage is 403.04 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Aug. 13, 1964, graphic water-stage recorder at same site and datum.

**REMARKS**--Flow regulated by Lake Secession (storage capacity, about  $1.12 \times 10^9$  cubic feet). City of Abbeville diverts a small amount of water during year for municipal supply.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 10,900 ft<sup>3</sup>/s, Mar. 26, 1964, gage height, 12.79 ft.

**STAGE-DISCHARGE RELATION**--Defined by current-meter measurements below 8,450 ft<sup>3</sup>/s and graphically extended on logarithmic plotting paper.

Peak Stages and Discharges

| Water Year | Date     | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|----------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|
| 1951       | Dec. 7   | 3.44             | 1,240                          | 1961       | Feb. 25 | 6.81             | 4,360                          | 1975       | Mar. 13 | 11.57            | 9,380                          |
| 1952       | Mar. 25  | 9.44             | 9,450                          | 1962       | Feb. 22 | 5.42             | 2,960                          | 1976       | Mar. 17 | 6.08             | 3,380                          |
| 1953       | Mar. 23  | 4.54             | 2,240                          | 1963       | Mar. 13 | 7.68             | 5,330                          | 1977       | Oct. 9  | 7.50             | 4,800                          |
| 1954       | Jan. 23  | 5.09             | 2,880                          | 1964       | Mar. 26 | 12.79            | 10,900                         | 1978       | Oct. 26 | 6.84             | 4,140                          |
| 1955       | Feb. 6   | 4.92             | 2,700                          | 1965       | Oct. 6  | 12.51            | 10,600                         | 1979       | Apr. 13 | 11.40            | 9,180                          |
| 1956       | Sept. 27 | 6.22             | 4,110                          | 1966       | Mar. 5  | 9.57             | 7,030                          | 1980       | ---     | ---              | ---                            |
| 1957       | Apr. 5   | 3.60             | 1,260                          | 1971       | Mar. 3  | 10.65            | 8,280                          | 1981       | Oct. 1  | 9.24             | 6,660                          |
| 1958       | Nov. 20  | 7.45             | 5,000                          | 1972       | Jan. 11 | 7.21             | 4,510                          | 1982       | Jan. 4  | 9.56             | 2,020                          |
| 1959       | Sept. 7  | 6.23             | 3,860                          | 1973       | Apr. 1  | 5.86             | 3,160                          |            |         |                  |                                |
| 1960       | Feb. 14  | 5.87             | 3,560                          | 1974       | Jan. 9  | 11.20            | 8,940                          |            |         |                  |                                |



## SAVANNAH RIVER BASIN

02195000 SAVANNAH RIVER NEAR CLARKS HILL, S.C.

**LOCATION**--Lat 33°38'40", long 82°12'05", McCormick County, Hydrologic Unit 03060107, on right bank 1.2 mi downstream of Thurmond Dam, 2.4 mi southwest of Clarks Hill, 2.5 miles upstream from Kiokee Creek, and at mile 221.1 upstream from Savannah, Ga.

**DRAINAGE AREA**--6,150 mi<sup>2</sup> (approximately).

**PERIOD OF RECORD**--May 1940 to June 1954.

**GAGE**--Water-stage recorder. Datum of gage is 182.69 ft above sea level (levels by U.S. Army Corps of Engineers). Auxiliary water-stage recorder 6.3 miles downstream.

**REMARKS**--Prior to December 1951 some regulation by Burton and Mathis Reservoirs and powerplants above station. From 1951 flow completely regulated by Thurmond Reservoir.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 196,000 ft<sup>3</sup>/s, Aug. 14, 1940, gage height, 29.34 ft.

**STAGE-DISCHARGE RELATION**--Defined by discharge measurements throughout entire range of flows.

## Peak Stages and Discharges

| Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) | Water Year         | Date    | Gage Height (ft) | Discharge (ft <sup>3</sup> /s) |
|------------|---------|------------------|--------------------------------|------------|---------|------------------|--------------------------------|--------------------|---------|------------------|--------------------------------|
| 1940       | Aug. 14 | 29.34            | 196,000                        | 1945       | Apr. 26 | 15.72            | 61,200                         | 1950               | Oct. 9  | 11.61            | 36,800                         |
| 1941       | July 8  | 14.12            | 54,900                         | 1946       | Jan. 8  | 22.11            | 110,000                        | 1951               | Oct. 22 | 14.54            | 48,700                         |
| 1942       | Mar. 23 | 20.77            | 99,300                         | 1947       | Jan. 21 | 19.99            | 87,000                         | 2 <sup>1</sup> 952 | Mar. 7  | 11.56            | 35,400                         |
| 1943       | Jan. 20 | 22.16            | 111,000                        | 1948       | Feb. 10 | 16.61            | 63,600                         | 1953               | May 7   | 10.52            | 30,000                         |
| 1944       | Mar. 21 | 22.31            | 111,000                        | 1949       | Nov. 30 | 26.35            | 154,000                        | 3 <sup>2</sup> 954 | Mar. 30 | 10.67            | 30,000                         |

<sup>1</sup>Period May to September.

<sup>2</sup>March 25, 1952.

<sup>3</sup>Period October to June.

SAVANNAH RIVER BASIN

02197000 SAVANNAH RIVER AT AUGUSTA, GA.

**LOCATION**--Lat 33°22'25", long 81°56'35", Richmond County, Ga.-Aiken County, S.C., Hydrologic Unit 03060106, at New Savannah River Bluff lock and dam, 0.2 mi upstream from Butler Creek, 12.0 mi downstream from Augusta, and at mile 187.4.

**DRAINAGE AREA**--7,510 mi<sup>2</sup>, 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). WRD SC-77-1: 1975. WRD SC-94-1: Peaks outside period of record, 1796, 1840, 1852, 1864, 1865, 1908.

**GAGE**--Data collection platform. Datum of gage is 96.58 ft above sea level (U.S. Army 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 or recording gage at Fifth Street Bridge at datum 102.06 ft above sea level (levels by Southeastern Engineering Co.). Oct. 1, 1932 to Sept. 30, 1936, recording gage at Thirteenth Street bridge at datum 104.56 ft above sea level (levels by U.S. Army Corps of Engineers). Oct. 1, 1936 to Nov. 10, 1948, recording gage at site 0.2 mi downstream from present site and at present datum.

**REMARKS**--Flow regulated by Hartwell Lake, by Thurmond Lake, and by Richard B. Russell Lake, and by other powerplants above station. Minor regulation from Lake Burton and Mathis Reservoir. Peaks for periods of nonrecording gage are from graphs based on gage readings by the U.S. Weather Bureau (now National Weather Service) and the city of Augusta. Gage heights for June 11, 1927 to July 31, 1932, furnished by Savannah River Electric Co. Subsequent to Sept. 30, 1938, gage heights collected in cooperation with the U.S. Army Corps of Engineers.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge 350,000 ft<sup>3</sup>/s, Oct. 3, 1929; maximum gage height, 46.3 ft, Sept. 27, 1929 (at site and datum then in use).

**EXTREMES OUTSIDE PERIOD OF RECORD**--Flood of January 17, 1796, reached a stage of about 40 ft (at site and datum of Fifth Street gage), marked by local residents; discharge approximately 360,000 ft<sup>3</sup>/s, by slope conveyance study. Little information exists and the data are considered approximate. Data furnished by the U.S. Army Corps of Engineers.

**STAGE-DISCHARGE RELATION**--Defined for period prior to levee construction (completed in 1914) by current-meter measurements below 127,000 ft<sup>3</sup>/s and by slope-conveyance study at 360,000 ft<sup>3</sup>/s. Defined for subsequent period by current-meter measurements below 300,000 ft<sup>3</sup>/s and by computation of flow over Stevens Creek Dam to 350,000 ft<sup>3</sup>/s. Bankfull stage and discharge, 21 ft and 36,000 ft<sup>3</sup>/s. At site used prior to Oct. 1, 1936, bankfull stage and discharge, 32 ft and approximately 110,000 ft<sup>3</sup>/s.

**FLOOD FREQUENCY DATA**--The flood-frequency relation for this station was computed by routing pre-regulation hydrographs through the existing system of reservoirs using the methodology described by Sanders and others (1990). Interested individuals should consult this reference for further frequency information at this site.





