

Surface Water Supply of the United States 1957

Part 2-A. South Atlantic Slope Basins, James River to Savannah River

Prepared under the direction of J. V. B. WELLS, chief, Surface Water Branch

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1503

*Prepared in cooperation with the States
of Georgia, North Carolina, South
Carolina, and Virginia, and with other
agencies*



UNITED STATES DEPARTMENT OF THE INTERIOR

FRED A. SEATON, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

PREFACE

This report was prepared by the Geological Survey in cooperation with the States of Georgia, North Carolina, South Carolina, and Virginia, and with other agencies, by personnel of the Water Resources Division, L. B. Leopold, chief, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and F. J. Flynn, chief, Basic Records Section.

The data were collected and computed under supervision of district engineers, Surface Water Branch, as follows :

A. E. Johnson	Columbia, S.C.
E. B. Rice	Raleigh, N.C.
M. T. Thomson	Atlanta, Ga.
D. S. Wallace	Charlottesville, Va.

CALENDAR FOR WATER YEAR 1957

OCTOBER 1956

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SEPTEMBER 1957

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SURFACE WATER SUPPLY OF SOUTH ATLANTIC SLOPE BASINS, JAMES RIVER
TO SAVANNAH RIVER, 1957

SCOPE OF WORK

This volume is one of a series of 18 reports presenting measurements of stage, discharge, and content of streams, lakes, and reservoirs in the United States during the water year ending September 30, 1957. Since 1888, when the United States Geological Survey first studied streamflow in relation to problems of irrigation, similar measurements have been made at more than 13,750 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1957, the Geological Survey and cooperating organizations were maintaining 7,030 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1957 water year. The name of each stream measured at points other than gaging stations is not listed in the index of this report. Only the major river basins in which measurements were made are listed under the item "Discharge measurements" in the index.

COOPERATION

Many State, municipal, and private organizations have cooperated with the Geological Survey in this work by either furnishing or helping to collect data. Organizations that supplied data are acknowledged in station descriptions, and organizations that assisted in the collection of data through cooperative agreements with the Survey are:

Georgia: State Department of Mines, Mining and Geology, Garland Peyton, director, and State Highway Department, R. H. Lawson, chairman.

North Carolina: State Department of Conservation and Development, W. P. Saunders, director; city of Burlington, J. D. Mackintosh, Jr., city manager; and city of Greensboro, J. R. Townsend, city manager.

South Carolina: State Highway Department, C. R. McMillan, chief highway commissioner; State Public Service Authority, R. M. Jefferies, general manager; State Development Board, R. M. Cooper, director; State Water Pollution Control Authority, W. T. Linton, executive director; and city of Spartanburg, R. E. Stallings, chairman of commissioners of public works.

Virginia: State Department of Conservation and Development, R. V. Long, director, through Division of Water Resources, H. B. Holmes, Jr., commissioner; State Department of Highways, J. A. Anderson, commissioner; city of Norfolk, R. W. Fitzgerald, superintendent, Division of Water Supply; Newport News Waterworks Commission, W. B. Harman, general manager; county of Chesterfield, M. W. Burnett, executive secretary; city of Charlottesville, J. E. Bowen, Jr., city manager; and city of Roanoke, A. S. Owens, city manager.

Assistance in the form of funds or services was given by the Corps of Engineers, Department of the Army, in collecting records published herein for 108 gaging stations, of which 2 were in Georgia, 47 in North Carolina, 28 in South Carolina, and 31 in Virginia.

Assistance was also furnished by the Agricultural Research Service and Soil Conservation Service of the United States Department of Agriculture, the Atomic Energy

Commission, the Weather Bureau of the United States Department of Commerce, and the Department of the Navy.

The following organizations aided in collecting records:

Georgia: City of Augusta.

North Carolina: State Highway and Public Works Commission; State Stream Sanitation Committee; cities of Durham and Gastonia; Carolina Power & Light Co.; Duke Power Co.; and Erwin Mills.

South Carolina: Greenwood County Electric Power Commission, South Carolina Electric & Gas Co., and South Carolina Public Service Authority.

Virginia: Appalachian Electric Power Co., Virginia Electric & Power Co., and Camp Manufacturing Co.

DIVISION OF WORK

The stream gaging work was done by the Water Resources Division of the Geological Survey under the direction of personnel shown in the preface. The data for stations in the several States were collected and prepared for publication in the district offices listed below.

<u>State</u>	<u>District office</u>	<u>Address</u>
Georgia <u>a/</u>	Atlanta.....	795 Peachtree Street.
North Carolina.....	Raleigh.....	436 Federal Building.
South Carolina <u>b/</u>	Columbia.....	210 Creason Building.
Virginia.....	Charlottesville.....	Natural Resources Building, University of Virginia.

a/ Except Augusta Canal near Augusta and Savannah River at Augusta, at Burtons Ferry Bridge, near Millhaven, and near Clio.

b/ Including Augusta Canal near Augusta, Ga., and Savannah River at Augusta, Ga., at Burtons Ferry Bridge, near Millhaven, Ga., and near Clio, Ga.

Information of a more detailed nature than that published for most of the gaging stations given in this report is on file in the district offices listed above. Provisional records of discharge prior to publication, and other unpublished data concerning the gaging-station records may usually be obtained from the district office.

DEFINITION OF TERMS AND ABBREVIATIONS

The terms of streamflow and other hydrologic data, as used in this report, are defined as follows:

Cubic foot per second (cfs) is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

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

Runoff in inches is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. The term is used for comparing runoff with rainfall, which is also usually expressed in inches.

Acre-foot is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in relation to storage for irrigation.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, a long reach of the channel, or an artificial structure.

Contents is the volume of water in a reservoir. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

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

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

DOWNSTREAM ORDER OF LISTING GAGING STATIONS

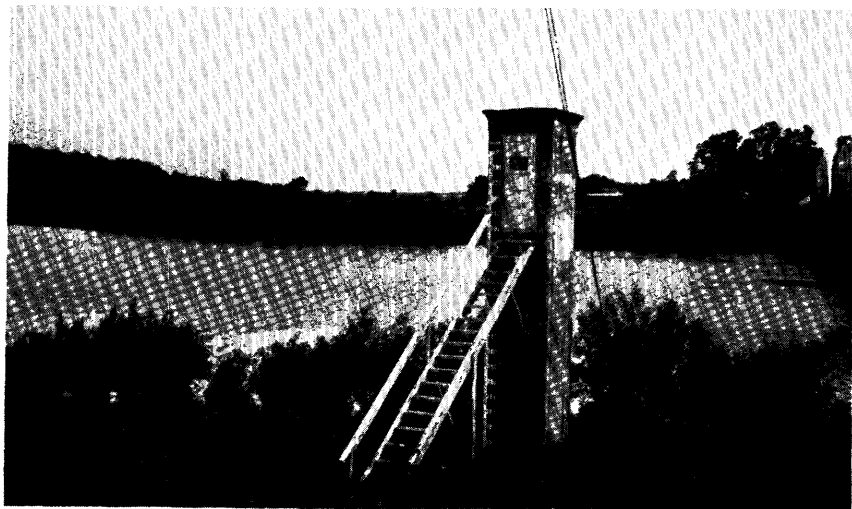
Beginning with the series of reports for the water year ending September 30, 1951, the order of listing gaging-station records was changed. In this report, in a downstream direction along the main stem all stations on a tributary entering above a main-stem station are listed before that station. If a tributary enters between two main-stem stations, it is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. To indicate the rank of any tributary on which a gaging station is situated and the stream to which it is immediately tributary, each indention in the listing of gaging stations in the table of contents of this report represents one rank. This downstream order and system of indention show which gaging stations are on tributaries between any two stations on a main stem and the rank of the tributary on which each gaging station is situated.

The order of listing used before the publication of the 1951 report listed first all stations on the main stem from headwaters toward mouth, then all stations on the uppermost tributary to the main stem from the tributary's source to mouth, and then all stations from source to mouth of the uppermost tributary to the tributary.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measurements of discharge. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. The records of stage are obtained either from direct readings on a non-recording gage or from a water-stage recorder that gives a continuous record of fluctuations. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in Water-Supply Paper 888 and are also outlined in standard textbooks on the measurement of stream discharge. Typical structures in use at gaging stations are shown in figure 1.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect determinations of peak discharge (such as slope-area or contracted-opening determinations,



A. JAMES RIVER AT SCOTTSVILLE, VA.



B. ROANOKE RIVER AT NIAGARA, VA.

FIGURE 1. GAGING-STATION STRUCTURES.

computation of flow over dams or weirs, and by other methods), velocity-area studies, and logarithmic plotting. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is essentially the shifting-control method.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage. If so, the rate of change in stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for other stations in the same or nearby basins. If the stage-discharge relation is affected by ice, this information is given in a note to the table. No mention is made of occasional days of ice effect if the degree of accuracy of daily records is not changed.

The data herein presented generally comprise a description of the station, a skeleton rating table, and a table showing the daily discharge and monthly and yearly discharge and runoff of the stream. Records are published for the water year which begins on October 1 and ends on September 30. A calendar for the water year 1957 is shown on page IV for the purpose of finding the day of the week for any date.

The description of the station gives the location, drainage area, records available, type and history of gages, average discharge, extremes of discharge, general remarks, and notations of revisions of the previously published record. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "Location" for some stations, is that determined and used by the Corps of Engineers unless otherwise noted. Under "Records available" are given the periods for which there are published records generally equivalent to those at the present site. Under "Gage" are given the type of gage currently in use and the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of records available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). In the first paragraph, the data given are for the complete current water year unless otherwise specified. In the second paragraph, the data given are for the periods of record within the calendar year dates in the heading (not necessarily those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are given in the third or last paragraph under "Extremes." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder, a crest-stage indicator, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the records and conditions which affect the natural flow at the gaging station is given under "Remarks."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual reports. In order to make it easier to find such revised records, a paragraph headed "Revisions (water years)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are concerned in the revision, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches, resulting from a revision of the drainage area only, are usually not published in the annual series of reports.

Skeleton rating tables are generally published for all stations except those at which the daily discharge for the greater part of the open-water period was determined by the shifting-control method, the slope method, or other special methods involving an equivalent adjustment to the gage height of more than one-tenth foot. Skeleton rating tables are generally not published for stations on canals.

For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the daily table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing, as an essential element, a curve representing the stage-discharge relation at the station. For stations equipped with nonrecording gages, the table of daily discharge gives the

discharge corresponding to once-daily readings of the gage, or to the mean of twice-daily readings, or to the mean gage height determined from gage-height graphs based on gage readings. For periods of rapidly changing stage, the daily mean discharge is determined from gage-height graphs based on gage readings, the frequency of which is stated in the station description.

In the table of daily discharge, the figures for the maximum day and the minimum day for each month are underlined. If the figure is repeated, it is underlined only on the first day of its occurrence.

In the monthly summary below the daily table, the line headed "Total" gives the sum of the daily figures; it is the total cfs-days for the month. The line headed "Mean" gives the average flow in cubic feet per second during the month. Runoff for the month may be expressed in cubic feet per second per square mile (line headed "Cfsm"), or in inches (line headed "In."), or in acre-feet (line headed "Ac-ft"). Figures for cubic feet per second per square mile and runoff in inches are omitted if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges, not the momentary discharges when the water was at crest stage. Likewise, the minimums in this summary are the minimum daily discharges.

Peak discharges and the times of their occurrence and corresponding gage heights of most stations are listed below the table of daily and monthly discharge. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man.

Footnotes to the table of daily discharge indicate periods when discharge was computed or estimated by unusual or special methods during periods of no gage-height record and ice effect, or by other effects that reduce the degree of accuracy of the records. Days on which discharge measurements were made are indicated by asterisk and footnote unless they were made at frequent regular intervals, in which instance the general frequency of discharge measurements is given under "Remarks" in the station description.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published each year for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Discharge measurements and determinations of peak flows made at sites other than gaging stations are listed at the end of each report.

At many gaging stations water samples are collected from the streams for the purpose of making chemical analyses, computing dissolved solids, suspended sediment loads, and particle-size distribution, or measuring water temperatures. For most of these samples the results are published in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States" which is issued in four volumes. In this report under "Remarks" a reference is made to quality-of-water records collected at gaging stations on a regular basis and published in the quality-of-water reports. At many other gaging stations quality-of-water data are obtained at irregular intervals and published

as "miscellaneous analyses" in quality-of-water reports; such records are not referred to in "Remarks" paragraph in this report. At many gaging stations water temperature is obtained also at the time a discharge measurement is made; such temperature readings are not reported in the quality-of-water annual reports.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description states the degree of accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more nearly accurate than the daily records.

Runoff at some stations, as indicated by the monthly mean, may vary widely from natural runoff, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and runoff in inches are not published unless storage or diversion records are included to indicate the extent of the regulation or diversion, or unless satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur when relatively large negative adjustments are made or when evaporation is large in comparison with the observed discharge.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not actually show the water supply available at the stations for further development, because water must first be supplied to existing irrigation systems.

PUBLICATIONS

To facilitate publication of the annual series of reports, the area of the United States is divided into 14 parts whose boundaries coincide with certain natural drainage lines. Formerly, the results of streamflow measurements were published in 14 volumes, one for each of the 14 parts. Beginning with the reports for 1951, the records are published in 18 volumes, there being 2 volumes each for Parts 1, 2, 3, and 6. The boundaries of the various parts are indicated by the following list and the map in figure 2.

- Part 1. North Atlantic slope basins, in two volumes:
 A, North Atlantic slope basins, Maine to Connecticut.
 B, North Atlantic slope basins, New York to Connecticut.
2. South Atlantic slope and eastern Gulf of Mexico basins, in two volumes:
 A, South Atlantic slope basins, James River to Savannah River.
 B, South Atlantic slope and eastern Gulf of Mexico basins, Ogeechee River to Pearl River.
3. Ohio River basin, in two volumes:
 A, Ohio River basin except Cumberland and Tennessee River basins.
 B, Cumberland and Tennessee River basins.
4. St. Lawrence River basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River basin, in two volumes:
 A, Missouri River basin above Sioux City, Iowa.
 B, Missouri River basin below Sioux City, Iowa.
7. Lower Mississippi River basin.
8. Western Gulf of Mexico basins.
9. Colorado River basin.

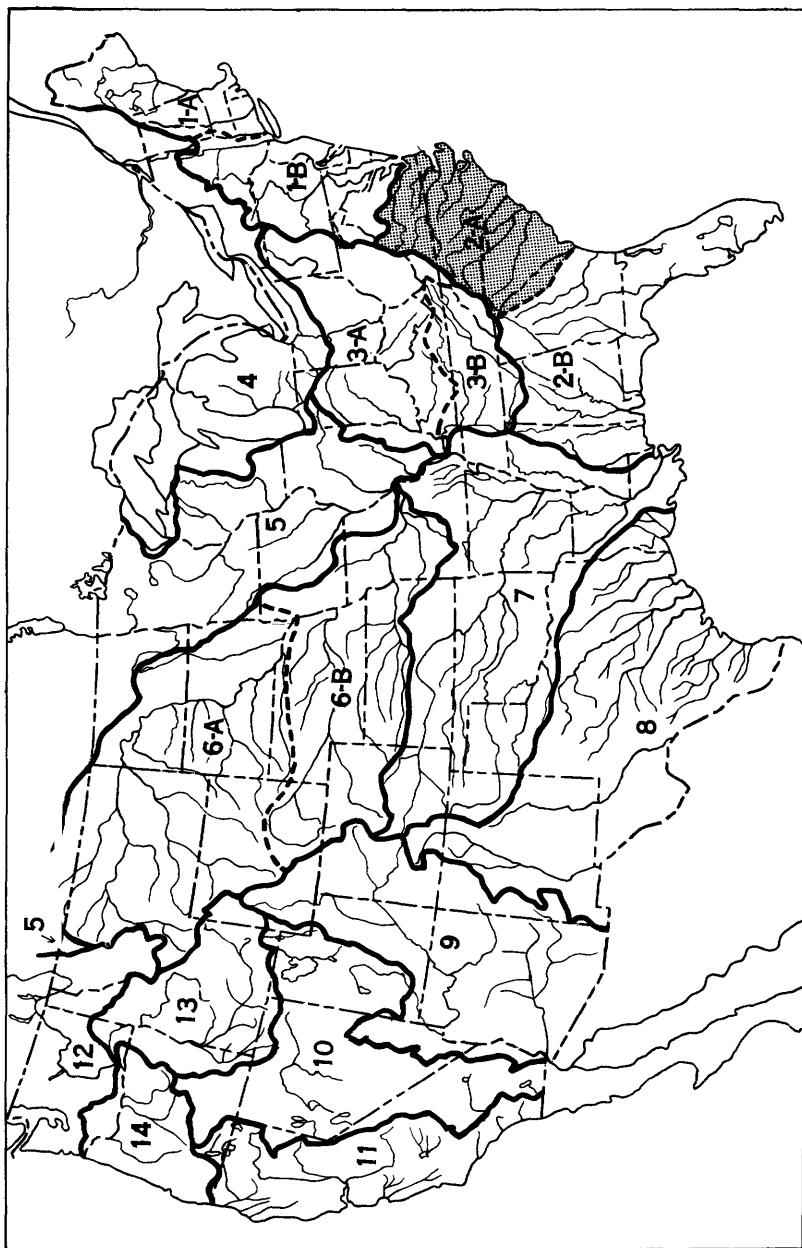


Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface water supply. The area covered by this report is shaded.

Part 10. The Great Basin.

11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River basin.
13. Snake River basin.
14. Pacific slope basins in Oregon and lower Columbia River basin.

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be purchased or consulted as follows:

1. Copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., who will, on application, furnish lists giving prices. A list of Geological Survey publications may also be obtained by applying to the Director, Geological Survey, Washington, D. C.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the offices of the Water Resources Division of the Geological Survey. Addresses of the offices in the area covered by this report are given on page 2.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams.

Streamflow data for the years 1884-1901, in reports of the Geological Survey
(A = Annual Report; B = Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to September 1890.
12th A, pt. 2	.....do.....	1884 to June 30, 1891.
13th A, pt. 3	.....do.....	1884-92.
14th A, pt. 2	Monthly discharge.....	1888-93.
B 151.....	Descriptions, measurements, gage heights, and ratings.....	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.
WSP 11.....	Gage heights.....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge..	1895-96.
WSP 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
WSP 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge..	1897.
WSP 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
WSP 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge.....	1898.
WSP 35 to 39.	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4	Monthly discharge.....	1899.
WSP 47 to 52.	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4.	Monthly discharge.....	1900.
WSP 65, 66...	Descriptions, measurements, gage heights, and ratings.....	1901.
WSP 75.....	Monthly discharge.....	1901.

Reports on surface-water supply containing records from 1899 to date for drainage basins in this report are listed below. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained. Before 1951, records for the South Atlantic slope basins, James River to Savannah River, were included with those for the South Atlantic slope and eastern Gulf of Mexico basins.

Numbers of water-supply papers containing results of stream measurements in the South Atlantic slope basins, James River to Savannah River, 1899-1957

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	a35, 36	1912	322	1925	602	1937	822	1949	1142
1900	48	1913	352	1926	622	1938	852	1950	1172
1901	65, 75	1914	382	1927	642	1939	872	1951	1203
1902	a82, 83	1915	402	1928	662	1940	892	1952	1233
1903	a97, 98	1916	432	1929	682	1941	922	1953	1273
1904	b126, 127	1917	452	1930	697	1942	952	1954	1333
1905	b167, 168	1918	472	1931	712	1943	972	1955	1363
1906	b203, 204	1919-20	502	1932	727	1944	1002	1956	1433
1907-8	242	1921	522	1933	742	1945	1032	1957	1503
1909	262	1922	542	1934	757	1946	1052		
1910	282	1923	562	1935	782	1947	1082		
1911	302	1924	582	1936	802	1948	1112		

a James River only.

b Susquehanna River to Yadkin River.

The records at most of the stations discussed in these reports extend over many years. Discharge measurements at many points other than regular gaging stations have been made each year and are published at the end of each report. The streams and points of measurement are listed in the same order as the streams and gaging stations in the body of the report. An index of the records obtained before 1904 has been published in Water-Supply Paper 119.

Each of the reports on the surface-water supply for the year 1939 (Water-Supply Paper 872 for the South Atlantic slope basins, James River to Savannah River), contains, for the area included in that report, a summary of yearly discharge at gaging stations at which 10 or more complete years of record had been collected. These summaries were reprinted separately.

Reports also have been published that are compilations of records for various areas usually a single State or drainage basin. These reports contain records previously published (some of which may have been revised), as well as some records not contained in the annual series of water-supply papers. The only such report for any part of the area covered by this report is Water-Supply Paper 197, "Water resources of Georgia, 1895-1905."

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports for the area covered by this report.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Georgia.....	1895-1906	Bull. 16, Water powers of Georgia.....	Geological Survey of Georgia.
Do.....	1907-19	Bull. 38, Water powers of Georgia.....	Do.
North Carolina	1889-1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams. ¹	Do.
Do.....	1866-1945	Hydrologic data on the Neuse River basin...	Do.
Do.....	1820-1945	Hydrologic data on the Cape Fear River basin.	Do.
Do.....	1866-1945	Hydrologic data on the Yadkin-Pee Dee River basin.	Do.
Do.....	1872-1945	Hydrologic data on the Catawba and Broad River basins.	Do.
South Carolina	1884-1946	Bull. 17, Summary of records of surface water supply of South Carolina.	South Carolina Research, Planning and Development Board.
Virginia.....	1895-1927	Bull. 31, Water resources of Virginia.....	Virginia Geological Survey.
Do.....	1927-42	Bull. 5, Surface water supply of Virginia (James River basin).	Do.
Do.....	1927-42	Bull. 6, Surface water supply of Virginia (Roanoke and Chowan River basins).	Do.
Do.....	1942-50	Bull. 13, Surface water supply of Virginia (James River basin).	Do.
Do.....	1942-50	Bull. 14, Surface water supply of Virginia (Chowan and Roanoke River basins).	Do.
Do.....	1951-55	Bull. 17, Surface water supply of Virginia (James River basin).	Department of Conservation and Development.
Do.....	1951-55	Bull. 18, Surface water supply of Virginia (Chowan and Roanoke River basins).	Do.

¹ Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

Report

WSP 96: Destructive floods in the United States in 1903.
WSP 771: Floods in the United States, magnitude and frequency.
WSP 800: The floods of March 1936, Part 3, Potomac, James, and upper Ohio Rivers.
WSP 846: Maximum discharges at stream-measurement stations through September 1938.
WSP 1066: Floods of August 1940 in southeastern States.
WSP 1137-1: Summary of floods in the United States during 1950.
Cir. 100: Floods in Georgia, frequency and magnitude.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The city of Lynchburg, Va., has collected records of daily discharge of Pedlar River at Pedlar Dam, Va., since August 1921 and the Agricultural Research Service of the United States Department of Agriculture has collected records of runoff from 3 areas of less than 20 acres each near Chatham, Va., 1938-48; peaks only since 1948.

HYDROLOGIC CONDITIONS

In the area covered by this report, streamflow for the 1957 water year ranged from about half the median value in scattered areas in South Carolina to about $1\frac{1}{2}$ times the median in eastern Virginia. The monthly mean discharge of Blackwater River at Zuni, Va., was record-high for the month in February. Daily and monthly flows of Yadkin River at Wilkesboro, N. C., were the highest of record for April. Some local flooding occurred in western North Carolina during April and September. By contrast, the monthly mean discharge during July was record-low for the month at gaging stations on Lynches River at Effingham, S. C., and Neuse River at Clayton, N. C. During July and August, drought conditions were critical in the northeastern coastal plain of North Carolina, and many small streams in that area were dry. For three representative long-term gaging stations in the area covered by this report, a comparison of the monthly and yearly mean discharge during the 1957 water year with the median discharge for the 25-year period 1921-45, is shown in figure 3 on the following page.

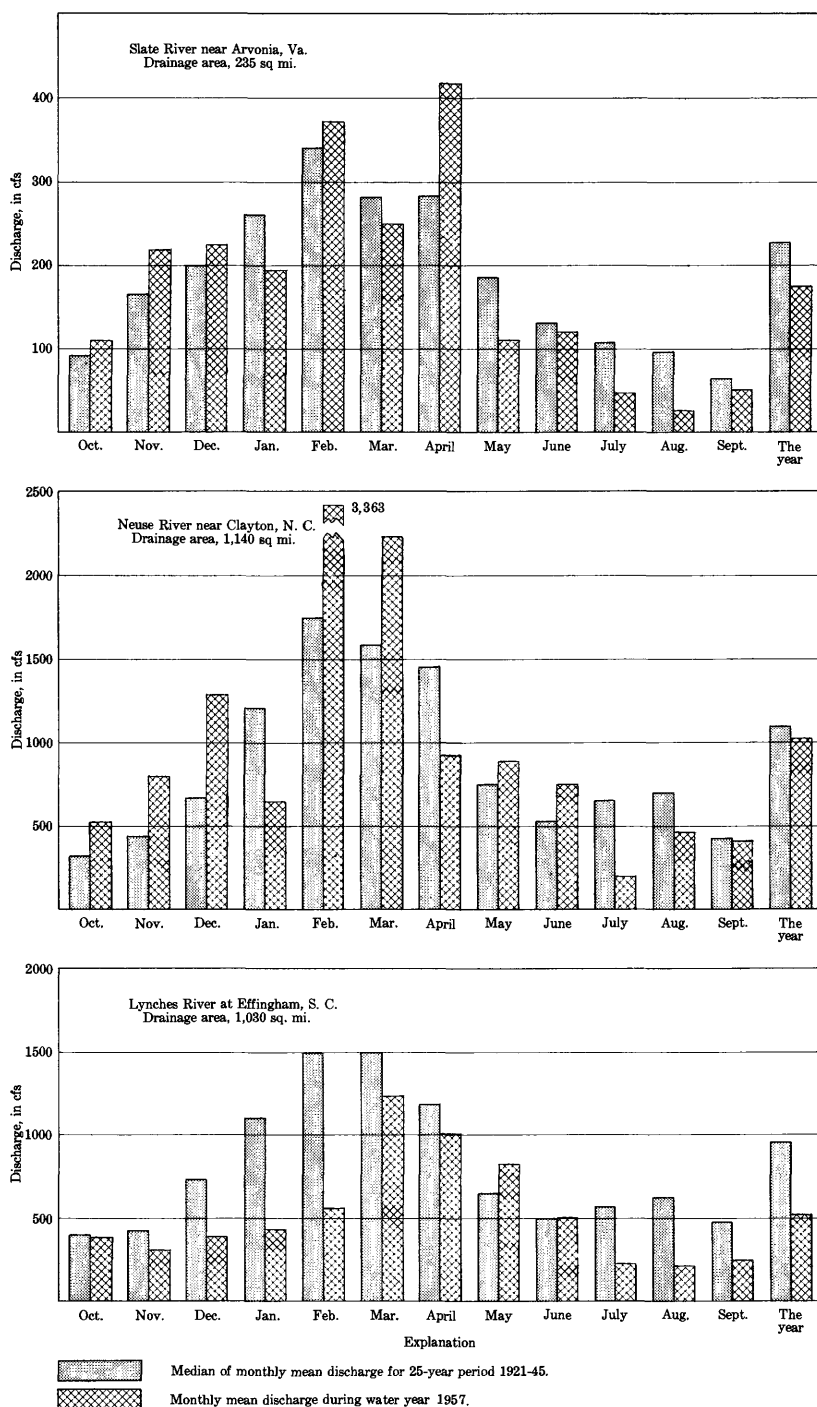


Figure 3. Comparison of discharge at three key gaging stations during 1957 water year with median discharge for 25-year period.

JAMES RIVER BASIN

Back Creek near Mountain Grove, Va.

Location--Lat 38°04'10", long 79°53'50", on left bank 0.4 mile downstream from Cummings Run, 0.9 mile downstream from bridge on State Highway 39, and 2.1 miles south of Mountain Grove, Bath County.

Drainage area--131 sq mi.

Records available--October 1951 to September 1957.

Gage--Water-stage recorder. Altitude of gage is 1,707 ft (by barometer).

Average discharge--6 years, 166 cfs.

Extremes--Maximum discharge during year, 4,170 cfs Apr. 5 (gage height, 7.28 ft); minimum, 6.0 cfs Sept. 5-7 (gage height, 1.87 ft).

1951-57: Maximum discharge, 8,750 cfs Oct. 15, 1954 (gage height, 9.35 ft), from rating curve extended above 4,000 cfs on basis of three slope-area determinations of peak flow; minimum, 2.4 cfs Sept. 3, 4, 1953; minimum gage height, 1.72 ft Jan. 6, 25, 1956.

Remarks--Records good except those for periods of no gage-height record, which are fair.

Cooperation--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.8	6.0	3.0	175
2.0	14	4.0	690
2.3	33	5.0	1,480
2.6	69	6.6	3,170
2.8	114		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	90	30	102	858	823	89	159	50	300	28	7.0
2	22	320	29	79	1,180	527	814	137	45	250	23	6.7
3	20	200	28	69	732	467	787	120	*48	180	20	6.4
4	25	150	*27	73	512	350	513	102	60	150	20	6.4
5	33	110	26	71	434	277	*3,130	89	58	120	18	6.0
6	43	90	25	63	590	227	1,700	79	400	100	16	6.0
7	37	74	25	60	608	200	830	69	450	80	16	7.8
8	32	65	25	*54	524	207	634	62	350	65	14	9.5
9	29	56	26	66	690	204	1,060	57	280	55	13	11
10	27	50	26	436	1,140	182	725	54	220	52	12	12
11	25	44	25	548	837	172	500	52	180	48	12	*16
12	23	40	27	360	542	193	380	50	150	40	11	14
13	22	*33	32	273	412	204	294	50	120	38	10	13
14	21	33	114	204	326	189	236	47	130	30	*11	14
15	20	31	566	146	260	175	193	*46	350	28	19	16
16	*18	30	390	110	227	153	165	48	300	28	14	20
17	17	31	289	85	204	131	143	48	220	25	13	83
18	16	31	204	81	175	120	128	45	180	*30	12	56
19	16	29	156	72	219	126	114	60	150	33	11	43
20	17	27	131	64	*380	*117	102	200	130	27	10	39
21	17	27	117	64	326	104	94	500	110	24	9.2	33
22	35	32	109	75	273	106	85	300	100	22	9.5	30
23	80	33	260	1,430	240	114	93	230	96	27	8.4	28
24	56	33	1,100	916	211	112	99	180	180	45	8.4	27
25	42	34	767	612	215	114	134	140	130	33	8.1	24
26	40	38	445	350	303	114	120	100	90	25	8.8	22
27	110	37	308	265	536	120	106	110	70	27	9.2	20
28	90	35	232	346	506	106	102	90	61	30	8.8	18
29	68	32	186	1,420	-	96	182	84	140	50	8.1	22
30	54	32	143	1,570	-----	94	193	70	250	47	7.8	44
31	56	-----	120	809	-----	87	-----	55	-----	35	7.4	-----
Total	1,135	1,867	5,958	10,773	13,460	6,311	13,720	3,633	5,098	2,042	396.7	660.8
Mean	36.6	62.2	192	348	481	204	457	117	170	65.9	12.8	22.0
Cfsm	0.279	0.475	1.47	2.66	3.67	1.56	3.49	0.893	1.30	0.503	0.098	0.168
In.	0.32	0.53	1.70	3.07	3.82	1.80	3.89	1.03	1.45	0.58	0.11	0.19

Calendar year 1956: Max 1,100 Min 8.4 Mean 137 Cfsm 1.05 In. 14.25
Water year 1956-57: Max 3,130 Min 6.0 Mean 178 Cfsm 1.36 In. 18.49

Peak discharge (base, 1,400 cfs)--Jan. 23 (1 p.m.) 2,260 cfs (5.81 ft); Jan. 29 (9 p.m.) 2,700 cfs (6.21 ft); Apr. 5 (12 m.) 4,170 cfs (7.28 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 16 to Nov. 13, May 13 to July 13; discharge estimated on basis of records for Jackson River at Falling Spring.

Jackson River at Falling Spring, Va.

Location.--Lat 37°52'36", long 79°58'39", on right bank 20 ft upstream from Smith Bridge, 0.8 mile south of town of Falling Spring, Alleghany County, 1.6 miles downstream from Falling Springs Creek, and 5.5 miles north of Covington.

Drainage area.--409 sq mi.

Records available.--April 1925 to September 1957. Prior to October 1934, published as "at Barber."

Gage.--Water-stage recorder. Datum of gage is 1,333.49 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 26, 1934, chain gage at same site and datum.

Average discharge.--32 years, 480 cfs.

Extremes.--Maximum discharge during year, 10,900 cfs Apr. 5 (gage height, 11.24 ft); minimum, 77 cfs Sept. 4 (gage height, 2.98 ft).
1925-57: Maximum discharge, 24,700 cfs Mar. 17, 1936 (gage height, 14.74 ft), from rating curve extended above 17,000 cfs on basis of records for other stations in James River basin; minimum, 36 cfs Oct. 12, 1946 (gage height, 2.65 ft); minimum daily, 58 cfs Sept. 28-30, Oct. 1, 3, 5, 1930.

Remarks.--Records good.

Revisions (water years).--WSP 952: 1926(M), 1927, 1928(M), 1929-30, 1932-40.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.9	65	5.0	755
3.2	120	6.0	1,350
3.4	170	8.0	3,120
4.0	355	11.0	10,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	273	125	316	2,160	2,340	285	446	192	825	150	80
2	105	778	120	273	2,670	1,750	836	408	190	515	132	80
3	100	575	116	b190	1,910	1,310	1,350	366	302	386	122	78
4	102	422	*113	b190	1,430	1,000	1,100	334	273	313	120	77
5	122	354	109	240	1,150	825	7,920	506	996	270	*113	84
6	188	276	109	222	1,630	710	*6,680	285	*1,990	237	109	80
7	162	240	109	204	1,510	642	2,480	261	875	210	102	82
8	138	222	107	*195	1,350	665	1,790	240	598	192	102	84
9	122	201	107	204	1,710	688	2,380	228	507	*182	98	*102
10	111	182	107	520	2,380	620	1,870	216	464	190	96	109
11	107	170	105	1,000	2,030	555	1,390	210	394	175	98	118
12	100	160	105	732	1,430	585	1,060	204	344	155	96	111
13	98	*148	109	598	1,090	555	1,160	198	296	148	98	102
14	96	142	140	488	925	531	732	185	693	140	94	116
15	94	135	798	404	778	507	642	*195	1,030	158	158	113
16	*91	132	732	b235	688	481	560	192	778	128	160	135
17	89	132	555	b265	620	439	515	175	598	122	122	369
18	89	140	453	b225	555	418	475	165	481	145	109	330
19	89	140	380	b205	620	418	436	237	400	168	102	282
20	89	132	327	b210	*1,270	418	400	1,740	341	140	100	213
21	89	128	302	b235	925	*383	380	1,230	288	128	98	178
22	139	132	285	b235	778	372	362	755	255	118	94	155
23	204	140	504	1,820	688	414	338	555	249	128	93	142
24	175	140	1,830	1,990	620	404	355	456	362	162	94	135
25	150	125	1,750	1,120	575	386	414	372	299	162	93	128
26	138	139	1,000	825	755	386	394	320	284	135	96	116
27	324	142	732	665	1,430	383	358	341	225	125	96	109
28	338	138	598	800	1,390	362	383	310	207	138	94	102
29	267	132	495	2,160	-	334	436	255	404	160	93	107
30	219	128	425	3,820	-----	324	499	225	481	216	89	135
31	198	-----	355	2,070	-----	289	-----	204	-----	178	85	-----
Total	4,446	6,277	13,102	22,746	35,267	19,474	37,980	11,614	14,776	6,429	3,304	4,052
Mean	143	209	425	754	1,260	628	1,266	375	493	207	107	135
Cfs/m	0.350	0.511	1.03	1.79	3.08	1.54	3.10	0.917	1.21	0.506	0.262	0.330
In.	0.40	0.57	1.19	2.06	3.21	1.78	3.46	1.07	1.35	0.58	0.30	0.37

Calendar year 1956: Max 2,500 Min 66 Mean 351 Cfs/m 0.858 In. 11.68

Water year 1956-57: Max 7,920 Min 77 Mean 492 Cfs/m 1.20 In. 16.34

Peak discharge (base, 4,000 cfs).--Jan. 30 (3:30 a.m.) 5,240 cfs (9.12 ft); Apr. 5 (5:30 p.m.) 10,900 cfs (11.24 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Dunlap Creek near Covington, Va.

Location.--Lat 37°48'10", long 80°02'50", on right bank 20 ft downstream from bridge on U. S. Highway 60, 2.2 miles downstream from Ogle Creek, and 3.0 miles west of Covington, Alleghany County.

Drainage area.--166 sq mi.

Records available.--December 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,294.21 ft above mean sea level (levels by Corps of Engineers). Prior to Dec. 8, 1949, chain gage at same site and datum.

Average discharge.--28 years (1929-57), 157 cfs.

Extremes.--Maximum discharge during year, 5,440 cfs Apr. 5 (gage height, 8.53 ft); minimum, 6.7 cfs Aug. 31, Sept. 2 (gage height, 0.79 ft).
1928-57: Maximum discharge, 8,370 cfs Mar. 17, 1936 (gage height, 10.52 ft, from floodmarks), from rating curve extended above 4,500 cfs on basis of velocity-area studies and records for other stations in James River basin; minimum, that of Aug. 31, Sept. 2, 1957.

Remarks.--Records good. Occasional diurnal fluctuation caused by dam above station.

Revisions (water years).--WSP 972: 1929-30, 1932-34, 1942.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 18-20)

0.9	12	2.5	321
1.0	18	3.0	550
1.3	50	4.0	1,130
1.6	98	5.0	1,840
2.0	184	7.4	4,140

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	414	48	85	1,460	1,720	110	214	53	39	25	13
2	31	670	45	72	1,320	800	166	175	49	34	22	13
3	28	252	43	57	710	490	224	150	67	32	20	13
4	31	166	40	61	455	340	389	130	*74	28	20	13
5	32	124	*38	60	348	268	4,100	114	204	26	*21	14
6	35	100	37	57	555	224	*1,600	98	860	25	18	13
7	35	85	35	54	500	206	800	89	344	23	17	16
8	33	80	34	51	600	229	545	78	209	22	16	16
9	30	77	33	*94	1,650	242	980	72	159	*24	16	*17
10	28	72	33	56	1,260	224	633	67	128	25	16	19
11	26	66	33	460	770	202	436	64	106	22	16	19
12	24	61	33	285	485	196	321	61	93	20	16	18
13	24	57	34	222	352	184	266	57	80	20	16	28
14	23	*53	38	175	280	168	219	82	80	19	16	48
15	22	49	64	140	234	156	189	*204	74	18	32	43
16	*22	46	108	124	202	145	163	108	64	17	32	47
17	21	46	118	100	177	130	150	75	69	17	25	229
18	21	57	112	84	154	126	136	64	67	22	21	646
19	21	58	96	77	278	132	126	82	64	24	20	674
20	20	57	85	74	*800	124	116	1,070	57	20	19	232
21	21	58	80	74	485	*112	108	351	49	19	18	145
22	43	70	72	78	329	122	102	204	44	16	17	104
23	91	78	205	736	260	168	98	147	44	16	17	80
24	70	78	600	638	219	182	98	116	66	20	16	66
25	54	74	455	348	196	192	138	94	61	18	16	56
26	48	72	263	255	297	184	134	84	56	17	16	48
27	250	66	196	204	490	170	126	102	48	31	16	43
28	189	60	159	387	757	147	126	93	44	76	16	38
29	118	54	134	2,080	-	132	423	75	49	36	15	43
30	85	50	112	2,120	-----	126	277	64	44	32	14	264
31	77	-----	94	920	-----	114	-----	57	-----	28	14	-----
Total	1,588	3,250	3,477	10,737	15,623	7,955	13,299	4,441	3,406	786	579	3,018
Mean	51.2	108	112	346	558	257	443	143	114	25.4	18.7	101
Cfsm	0.308	0.651	0.675	2.08	3.36	1.55	2.67	0.861	0.687	0.153	0.113	0.608
In.	0.36	0.73	0.78	2.40	3.50	1.79	2.98	0.99	0.77	0.18	0.13	0.68

Calendar year 1956: Max 1,800 Min 13 Mean 125 Cfsm 0.753 In. 10.27
Water year 1956-57: Max 4,100 Min 13 Mean 187 Cfsm 1.13 In. 15.29

Peak discharge (base, 2,000 cfs).--Jan. 29 (10:30 p.m.) 4,140 cfs (7.38 ft); Feb. 9 (5 p.m.) 2,200 cfs (5.41 ft); Mar. 1 (2:30 a.m.) 2,470 cfs (5.68 ft); Apr. 5 (8 a.m.) 5,440 cfs (8.53 ft).
* Discharge measurement made on this day.

Cowpasture River near Clifton Forge, Va.

Location.--Lat 37°47'30", long 79°45'35", on left bank 100 ft downstream from highway bridge, 2.5 miles upstream from confluence with Jackson River, and 4.0 miles southeast of Clifton Forge, Alleghany County.

Drainage area.--456 sq mi.

Records available.--May 1907 to August 1908, March 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,006.93 ft above mean sea level (levels by Corps of Engineers). May 1907 to August 1908 staff gage at site 100 ft upstream at different datum. March 1925 to October 1934 chain gage at site 100 ft upstream at present datum.

Average discharge.--32 years (1925-57), 515 cfs.

Extremes.--Maximum discharge during year, 12,500 cfs Apr. 6 (gage height, 11.57 ft); minimum, 52 cfs Sept. 7.

1907-8, 1925-57: Maximum discharge, 34,200 cfs Mar. 18, 1936 (gage height, 18.62 ft), from rating curve extended above 13,000 cfs on basis of records for other stations in James River basin; minimum, 38 cfs Sept. 2, 1932 (gage height, 1.70 ft).

Flood in March 1913 reached a stage of 20.8 ft, from floodmarks (discharge, about 45,000 cfs), from rating curve extended above 13,000 cfs on basis of records for other stations in James River basin.

Remarks.--Records good.

Revisions (water years).--WSP 952: 1925(M), 1926-40, 1941(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 18-20)

1.6	46	4.0	1,270
1.7	66	6.0	3,100
2.0	138	8.0	5,800
2.5	315	10.0	9,240
3.0	548		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	228	a110	232	2,120	3,170	302	566	194	a800	120	56
2	107	265	a105	221	2,480	2,280	1,050	478	184	a500	102	58
3	95	265	100	a200	1,810	1,640	1,510	416	229	a590	100	60
4	115	224	100	a180	1,310	1,230	1,110	372	385	a500	95	56
5	150	194	*98	a200	1,070	940	6,000	337	315	a240	*93	54
6	197	171	98	a190	1,810	775	*8,830	306	*706	a200	86	54
7	190	153	95	171	1,470	666	2,990	276	559	a165	84	54
8	150	144	95	159	1,270	720	1,900	254	590	*153	79	81
9	130	138	95	*162	1,640	895	2,300	235	444	147	79	79
10	112	125	95	218	2,120	824	1,850	224	434	141	77	*98
11	105	120	93	324	1,720	672	1,390	218	368	141	77	115
12	95	115	93	359	1,350	608	1,110	210	315	128	75	150
13	90	112	95	328	1,070	578	902	200	276	122	75	168
14	88	105	115	306	918	537	740	194	587	117	75	611
15	86	*105	168	268	775	506	621	194	1,690	112	90	221
16	86	107	426	232	659	472	532	*197	1,350	107	122	273
17	*84	112	394	200	596	439	481	181	955	105	105	1,310
18	81	125	328	190	522	412	448	171	754	144	88	992
19	81	133	268	180	*610	403	416	204	548	150	84	775
20	79	130	232	180	1,720	412	385	2,440	421	135	79	421
21	81	125	210	200	1,190	*372	363	1,760	346	115	77	276
22	149	130	197	194	895	368	346	948	295	107	77	207
23	194	130	298	1,200	740	457	399	646	261	107	77	190
24	165	a120	1,070	2,160	627	490	381	490	a350	128	75	181
25	147	a110	1,310	1,150	566	462	490	394	a300	122	73	165
26	125	a120	810	789	834	430	457	341	a270	122	73	135
27	296	a130	548	596	1,760	416	394	333	a240	110	73	120
28	294	a130	444	627	1,720	395	372	346	a220	120	75	110
29	214	a120	368	1,690	-	355	659	272	a540	125	73	112
30	181	a110	306	2,840	-----	337	740	228	a420	156	68	155
31	187	-----	261	1,900	-----	311	-----	210	-----	135	66	-----
Total	4,274	4,296	9,025	17,836	35,372	22,542	39,448	13,639	14,926	5,634	2,592	7,317
Mean	138	143	291	575	1,263	727	1,315	440	498	182	83.6	244
Cfs/m	0.303	0.314	0.638	1.26	2.77	1.59	2.88	0.965	1.09	0.399	0.183	0.535
In.	0.35	0.35	0.74	1.45	2.88	1.83	3.21	1.11	1.22	0.46	0.21	0.60

Calendar year 1956: Max 3,300 Min 60 Mean 306 Cfs/m 0.671 In. 9.15

Water year 1956-57: Max 8,830 Min 54 Mean 485 Cfs/m 1.06 In. 14.41

* Peak discharge (base, 5,000 cfs).--Apr. 6 (5 a.m.) 12,500 cfs (11.57 ft).

* Discharge measurement made on this day.

No gage-height record; discharge estimated on basis of records for Jackson River at Falling Spring and James River at Lick Run.

James River at Lick Run, Va.

Location.--Lat 37°46'25", long 79°47'05", on right bank 10 ft downstream from old highway bridge at Lick Run, Botetourt County, 1,000 ft downstream from bridge on U. S. Highway 220, 0.9 mile downstream from confluence of Cowpasture and Jackson Rivers, 1.8 miles south of Iron Gate, and at mile 338.9.

Drainage area.--1,369 sq mi.

Records available.--April 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 978.30 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 26, 1928, chain gage at same site and datum.

Average discharge.--32 years, 1,570 cfs.

Extremes.--Maximum discharge during year, 35,800 cfs Apr. 6 (gage height, 19.56 ft); minimum, 181 cfs Sept. 4 (gage height, 1.48 ft).

1925-57: Maximum discharge, 66,600 cfs Mar. 18, 1936 (gage height, 25.65 ft), from rating curve extended above 33,000 cfs on basis of records for other stations in James River basin; minimum, 153 cfs Oct. 11, 1930.
Flood in November 1877 reached a stage of about 33 ft (discharge, about 120,000 cfs). Flood in March 1913 reached a stage of 30.4 ft, from floodmarks (discharge, about 98,000 cfs).

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 757: Drainage area. WSP 852: 1936-37. WSP 972: 1927, 1930(M), 1932(M), 1935-36.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.5	190	6.0	4,650
2.0	440	10.0	11,600
3.0	1,000	17.0	28,300
4.0	1,920		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	890	390	825	8,580	11,000	962	1,710	610	1,570	380	210
2	350	2,760	375	730	9,650	7,560	2,520	1,420	570	1,290	335	205
3	315	2,050	385	580	7,080	5,400	4,500	1,250	845	890	315	225
4	340	1,380	350	590	5,100	4,050	3,460	1,120	890	715	305	200
5	380	1,040	340	620	3,900	3,110	22,100	1,000	1,120	615	300	200
6	470	825	*335	600	5,400	2,560	*25,900	925	*4,500	555	280	200
7	530	710	330	575	4,950	2,200	10,200	825	3,320	505	275	230
8	450	655	325	540	4,650	2,320	6,540	768	2,140	470	265	270
9	390	600	325	570	6,980	2,650	7,900	725	1,660	440	265	260
10	350	550	320	1,320	9,110	2,360	6,710	650	1,560	435	260	300
11	330	515	315	2,560	7,220	1,980	4,950	650	1,290	440	255	320
12	300	485	320	2,080	5,250	1,860	3,900	645	1,080	400	250	*360
13	290	450	330	1,660	4,050	1,810	3,110	630	925	370	250	430
14	285	*425	370	1,380	3,250	1,710	2,560	630	1,520	350	*250	1,250
15	280	405	658	1,120	2,700	1,610	2,140	690	3,460	355	290	825
16	280	395	1,560	925	2,260	1,460	1,660	700	2,830	335	380	768
17	*270	400	1,340	740	2,030	1,340	1,660	610	2,030	325	365	3,900
18	265	450	1,080	600	1,760	1,250	1,560	555	1,660	*350	300	4,500
19	265	470	890	610	*1,860	1,250	1,420	676	1,290	415	275	5,250
20	260	450	768	680	5,400	1,250	1,290	8,930	1,000	390	265	2,140
21	285	445	720	705	4,050	1,120	1,210	5,720	825	340	255	1,290
22	400	465	685	670	3,040	1,120	1,120	3,040	720	315	250	925
23	768	480	912	5,560	2,500	1,460	1,160	2,080	655	320	245	740
24	685	490	3,502	7,560	2,140	1,560	1,120	1,610	795	365	240	645
25	565	475	5,250	4,050	1,920	1,510	1,290	1,250	555	370	235	570
26	490	460	3,180	2,630	3,680	1,420	1,540	1,040	730	365	235	495
27	1,500	465	2,140	2,140	5,720	1,390	1,160	1,040	650	325	240	440
28	1,760	450	1,660	2,200	5,400	1,290	1,090	1,040	605	380	240	400
29	1,080	425	1,680	6,370	5,400	1,160	1,660	825	725	395	240	410
30	795	405	1,120	1,400	-----	1,060	2,090	715	1,120	450	240	1,190
31	740	-----	925	6,070	-----	1,040	-----	670	-----	440	225	-----
Total	15,848	20,495	32,558	73,660	129,500	72,870	128,462	44,169	41,790	15,260	8,505	29,148
Mean	511	663	1,050	2,383	4,625	2,351	4,282	1,425	1,393	492	274	972
Cfsm	0.373	0.499	0.767	1.74	3.36	1.72	3.13	1.04	1.02	0.359	0.200	0.710
In.	0.43	0.56	0.88	2.01	3.52	1.98	3.49	1.20	1.14	0.41	0.23	0.79
Calendar year 1956: Max	10,800											
Min	198											
Mean	1,063											
Cfsm	0.776											
In.	10.57											
Water year 1956-57: Max	25,900											
Min	200											
Mean	1,678											
Cfsm	1.23											
In.	16.64											

Peak discharge (base, 12,000 cfs).--Jan. 30 (10 a.m.) 17,200 cfs (12.58 ft); Mar. 1 (11 a.m.) 12,400 cfs (10.35 ft); Apr. 6 (1:30 a.m.) 35,800 cfs (19.56 ft).

* Discharge measurement made on this day.

Johns Creek at Newcastle, Va.

Location.--Lat 37°30'20", long 80°06'25", on right bank 20 ft downstream from highway bridge at Newcastle, Craig County, and 1,700 ft upstream from mouth.

Drainage area.--106 sq mi.

Records available.--April 1926 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,254.30 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 7, 1937, chain gage at same site and datum.

Average discharge.--31 years, 124 cfs.

Extremes.--Maximum discharge during year, 3,420 cfs Apr. 5 (gage height, 10.03 ft); minimum, 6.5 cfs Sept. 1, 2 (gage height, 2.40 ft).
1926-57: Maximum discharge observed, 8,000 cfs Jan. 23, 1935 (gage height, 10.80 ft), from rating curve extended above 3,000 cfs on basis of velocity-area studies; minimum discharge, 6 cfs Dec. 5, 1946 (gage height, 2.72 ft), result of freezeup; minimum daily, 6.9 cfs Sept. 1, 2, 1957.

Remarks.--Records good except those for periods of ice effect, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 972: 1935-36(M), 1940(M). WSP 1203: 1928, 1935.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.4	6.5	5.0	270
2.8	16	6.0	581
3.1	29	7.0	1,120
3.5	53	8.0	1,810
4.0	107	10.0	3,420
4.5	175		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	321	34	71	1,160	995	90	100	25	28	12	6.9
2	12	562	32	62	818	526	326	87	24	22	11	8.9
3	12	264	32	b58	562	393	288	75	28	20	10	7.4
4	14	169	30	b56	465	305	285	68	34	18	11	7.4
5	17	126	28	53	365	248	2,820	60	172	16	10	7.4
6	25	99	27	48	328	208	1,460	54	224	14	10	7.0
7	28	81	26	45	368	167	581	49	140	13	9.8	7.9
8	22	69	25	43	515	210	465	45	100	12	9.2	15
9	19	58	26	144	1,260	216	756	41	170	13	8.7	14
10	16	51	24	370	986	181	472	38	157	14	8.5	15
11	14	45	24	308	602	163	362	36	129	15	8.3	*21
12	14	41	25	224	425	157	288	36	102	12	8.3	20
13	13	38	28	192	337	147	238	33	83	12	8.1	17
14	13	35	36	160	256	139	196	30	74	11	8.5	41
15	12	33	112	132	212	132	166	30	68	10	17	117
16	12	32	132	b110	182	120	146	28	55	10	17	162
17	12	36	119	b100	163	109	131	25	44	*10	12	566
18	*12	57	99	b96	142	102	118	26	49	17	12	*821
19	12	53	83	b90	212	111	107	52	40	18	12	739
20	12	48	75	b85	566	103	97	202	34	13	11	270
21	14	47	71	75	365	91	90	127	30	12	10	168
22	120	54	64	89	278	106	83	98	27	11	9.4	114
23	136	52	72	354	230	156	90	71	35	12	8.7	81
24	75	49	307	382	192	146	112	54	34	14	8.3	62
25	54	b47	302	288	172	139	93	44	32	12	8.3	47
26	47	47	208	212	338	133	80	38	28	12	8.3	38
27	564	44	169	175	337	128	73	41	26	14	8.3	33
28	176	40	143	231	417	114	188	40	26	19	7.9	30
29	114	38	119	1,080	-	105	252	32	41	20	7.8	91
30	105	36	97	1,880	-	100	131	29	36	16	7.4	666
31	172	-	80	1,030	-	89	-	26	-	14	7.0	-
Total	1,682	2,672	2,652	8,243	12,253	6,059	10,584	1,705	2,067	452	305.8	4,196.9
Mean	54.3	89.1	85.5	266	438	195	353	55.0	68.9	14.6	9.86	140
Cfsm	0.512	0.841	0.807	2.51	4.13	1.84	3.33	0.519	0.650	0.138	0.093	1.32
In.	0.59	0.94	0.93	2.89	4.30	2.12	5.72	0.60	0.73	0.16	0.11	1.47

Calendar year 1956: Max 1,590 Min 8.2 Mean 86.4 Cfsm 0.815 In. 11.13
Water year 1956-57: Max 2,820 Min 6.9 Mean 145 Cfsm 1.37 In. 18.56
Peak discharge (base, 2,100 cfs).--Jan. 30 (2 a.m.) 2,740 cfs (9.24 ft); Apr. 5 (12 m.) 3,420 cfs (10.03 ft).

* * Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Craig Creek at Parr, Va.

Location.--Lat 37°39'55", long 79°54'40", on right bank 12 ft upstream from Chesapeake and Ohio Railway bridge, 700 ft downstream from Stony Run, 0.2 mile northeast of Horton, 0.4 mile northwest of Parr, Botetourt County, and 12 miles upstream from mouth.

Drainage area.--331 sq mi.

Records available.--April 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 992.50 ft above mean sea level (levels by Corps of Engineers). Prior to June 7, 1937, chain gage at same site and datum.

Average discharge.--32 years, 376 cfs.

Extremes.--Maximum discharge during year, 9,550 cfs Apr. 5 (gage height, 12.10 ft); minimum, 30 cfs Sept. 2, 3; minimum gage height, 3.27 ft Sept. 3.
1925-57: Maximum discharge, 19,100 cfs Jan. 23, 1935 (gage height, 17.0 ft, from graph based on gage readings), from rating curve extended above 11,000 cfs; minimum, 26 cfs Dec. 23, 1943 (gage height, 3.26 ft), result of freezeup.

Remarks.--Records good except those for periods of ice effect and no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 852: 1937. WSP 892: 1935-36. WSP 1203: 1935(M), 1938(M).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.2	24	5.0	530
3.5	52	6.0	1,130
4.0	138	8.0	2,900
4.5	285	10.8	7,100

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	600	123	245	2,800	2,900	310	450	96	117	55	32
2	45	1,000	117	213	2,350	1,930	900	360	95	92	47	30
3	42	1,200	111	b160	1,620	1,500	1,000	300	93	80	47	31
4	42	740	108	b156	1,270	1,300	950	270	100	72	41	33
5	50	540	*104	b155	955	1,000	7,000	240	*136	66	40	34
6	68	400	98	b150	860	800	5,000	220	530	62	39	32
7	82	350	96	b150	860	660	*2,500	200	464	56	38	34
8	80	290	93	150	1,240	620	1,380	180	321	52	37	41
9	70	240	92	*162	2,350	640	1,750	170	259	51	36	46
10	64	210	88	585	2,900	600	1,460	160	343	51	34	62
11	60	180	85	778	1,700	560	1,300	150	289	50	34	*69
12	54	160	87	634	1,180	520	1,000	145	248	48	33	64
13	52	140	90	546	920	500	800	140	215	50	32	61
14	49	*130	98	464	778	470	700	130	199	46	33	86
15	49	125	134	380	678	440	600	120	199	42	*37	190
16	49	119	321	321	580	420	540	*115	199	42	48	900
17	48	119	405	b260	524	380	470	108	162	*41	60	3,700
18	*48	136	356	b250	453	340	430	102	138	40	52	3,500
19	47	185	297	b240	*448	360	380	180	128	39	52	2,500
20	47	183	252	b240	1,490	350	340	411	117	51	50	1,500
21	50	175	235	b230	1,200	*310	320	442	104	46	46	720
22	130	175	216	229	890	278	290	301	93	41	42	450
23	370	180	216	475	750	410	290	242	87	39	42	290
24	280	172	469	1,100	629	464	320	202	129	44	38	230
25	190	162	1,060	832	558	430	310	167	136	47	36	190
26	300	157	722	690	1,490	410	290	148	111	44	36	170
27	760	157	568	552	1,930	390	270	138	98	42	36	150
28	660	148	464	536	1,300	370	580	136	93	42	36	140
29	500	138	385	1,090	-	350	780	128	95	60	35	250
30	400	128	321	4,420	-----	330	600	111	130	68	34	1,400
31	420	-----	274	2,300	-----	310	-----	102	-----	68	33	-----
Total	5,151	8,639	8,085	18,693	34,683	20,342	32,860	6,268	5,403	1,689	1,259	16,935
Mean	166	288	261	603	1,239	656	1,095	202	180	54.5	40.6	564
Cfsm	0.502	0.870	0.789	1.82	3.74	1.98	3.31	0.610	0.544	0.165	0.123	1.70
In.	0.58	0.97	0.91	2.10	3.90	2.28	3.69	0.70	0.61	0.19	0.14	1.90

Calendar year 1956: Max 2,780 Min 32 Mean 252 Cfsm 0.761 In. 10.37

Water year 1956-57: Max 7,000 Min 30 Mean 438 Cfsm 1.32 In. 17.97

Peak discharge (base, 4,200 cfs).--Jan. 30 (12:30 p.m.) 5,840 cfs (10.11 ft); Apr. 5 (time unknown) 9,550 cfs (12.10 ft); Sept. 18 (time unknown) 4,600 cfs (9.35 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Oct. 1-18, 23-31, Nov. 1-14, Mar. 3-21, 25-31, Apr. 1-7, 11-30, May 1-16, Sept. 12-30; discharge estimated on basis of records for Johns Creek at New Castle.

Catawba Creek near Catawba, Va.

Location.--Lat 37°28'05", long 80°00'20", on right bank 80 ft above highway bridge, 1.0 mile downstream from Little Catawba Creek, 1.9 miles west of Haymakertown, and 8.2 miles northeast of Catawba, Roanoke County.

Drainage area.--34 sq mi, approximately.

Records available.--September 1943 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,299.96 ft above mean sea level, datum of 1929. Prior to Aug. 1, 1953, staff gage at site 80 ft downstream at same datum.

Average discharge.--14 years, 36.9 cfs (adjusted for pumpage since October 1952).

Extremes.--Maximum discharge during year, 1,200 cfs Apr. 5 (gage height, 4.52 ft), minimum, 4.5 cfs Oct. 19; minimum gage height, 1.36 ft Sept. 2.
1943-57: Maximum discharge, 5,670 cfs Mar. 1, 1954 (gage height, 6.58 ft), from rating curve extended above 620 cfs by logarithmic plotting; minimum, 2.2 cfs Sept. 7-11, 1944 (gage height, 0.54 ft), site and datum then in use.

Flood in August 1940 reached a stage of 13.26 ft, from information by observer.

Remarks.--Records fair. Lone Star Cement Co. pumps about 0.4 cfs below gage and returns it above gage pool.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-22				Oct. 23 to Sept. 30			
1.4	4.2	2.3	60	1.4	5.4	2.5	91
1.5	5.7	2.6	106	1.6	10	3.0	190
1.7	11	2.9	165	1.8	19	3.5	355
1.9	20			2.0	32	4.0	695

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	84	13	23	239	291	30	39	12	11	6.3	5.8
2	5.7	61	12	19	188	161	141	36	62	10	6.3	5.8
3	5.1	46	12	17	135	114	88	33	31	9.6	6.0	6.0
4	6.8	58	12	18	107	94	76	31	24	8.7	6.1	6.0
5	7.8	31	11	18	91	80	*620	28	63	8.7	7.9	5.8
6	10	27	11	16	88	67	651	27	56	8.1	*6.5	5.8
7	8.6	24	10	16	114	63	137	25	36	7.2	6.7	6.0
8	7.8	21	10	16	166	74	136	24	28	6.9	6.5	9.0
9	7.5	19	10	28	385	66	163	23	26	*8.4	6.5	9.0
10	6.6	17	10	44	208	57	114	22	24	9.3	6.3	*8.7
11	6.2	16	10	40	139	55	96	22	21	8.4	6.1	7.4
12	5.4	15	10	36	104	50	83	21	19	7.6	6.3	6.9
13	5.2	14	10	33	88	46	74	19	18	7.2	6.1	8.4
14	5.1	13	16	29	76	44	63	18	36	6.7	6.0	23
15	5.0	*12	44	26	66	41	56	18	40	7.4	7.4	15
16	4.8	12	59	25	61	39	50	16	27	7.4	7.4	20
17	4.8	41	43	*20	52	36	46	16	23	6.9	6.5	142
18	4.6	48	33	18	48	36	46	17	20	7.6	8.1	160
19	4.5	34	*28	17	125	*38	41	37	18	7.2	8.7	98
20	4.6	28	26	16	157	35	44	21	16	6.7	7.6	51
21	6.2	25	24	17	107	32	38	18	14	6.3	6.9	34
22	164	25	22	22	85	39	36	*18	14	6.1	6.3	25
23	70	22	26	56	74	45	39	16	13	7.2	6.7	21
24	35	20	83	47	63	42	55	14	14	9.6	6.5	18
25	24	18	69	41	59	40	40	14	13	7.2	6.3	15
26	*23	18	51	36	400	38	36	13	13	6.5	6.7	14
27	323	16	43	33	205	36	32	16	12	6.7	6.5	12
28	80	16	37	64	*224	34	38	14	13	10	6.1	12
29	48	14	31	518	-	31	57	13	14	9	6.0	60
30	73	14	27	260	-----	30	44	12	11	10	6.1	159
31	121	-----	25	239	-----	28	-----	13	-----	7.4	5.8	-----
Total	1,090.1	789	828	1,808	3,854	1,882	2,770	654	731	247.0	205.2	969.6
Mean	35.2	26.3	26.7	58.3	138	60.7	92.3	21.1	24.4	7.97	6.62	32.3
(f)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Adjusted for pumpage

Mean	34.8	25.9	26.3	57.9	138	60.3	91.9	20.7	24.0	7.57	6.22	31.9
Cfsm	1.02	0.762	0.774	1.70	4.06	1.77	2.70	0.609	0.706	0.223	0.183	0.938
In.	1.18	0.85	0.89	1.96	4.23	2.04	3.01	0.70	0.79	0.26	0.21	1.05

	Observed					Adjusted						
Calendar year 1956:	Max	323	Min	3.1	Mean	19.3	Mean	18.9	Cfsm	0.556	In.	7.59
Water year 1956-57:	Max	620	Min	4.5	Mean	43.4	Mean	43.0	Cfsm	1.26	In.	17.17

Peak discharge (base, 600 cfs).--Oct. 27 (3 a.m.) 885 cfs (4.25 ft); Jan. 29 (3:30 p.m.) 1,180 cfs (4.45 ft); Feb. 9 (8:30 a.m.) 600 cfs (3.92 ft); Feb. 26 (10 a.m.) 790 cfs (4.13 ft); Apr. 5 (10:50 a.m.) 1,200 cfs (4.52 ft); June 2 (7 p.m.) 1,080 cfs (4.36 ft).

* Discharge measurement made on this day.

† Pumpage, equivalent in cubic feet per second, by Lone Star Cement Co.

James River at Buchanan, Va.

Location.--Lat 37°31'50", long 79°40'45", on left bank at Chesapeake & Ohio Railway station at Buchanan, Botetourt County, 300 ft upstream from bridge on U. S. Highway 11, 1,000 ft upstream from Purgatory Creek, 1½ miles downstream from Looney Creek, and at mile 301.2.

Drainage area.--2,084 sq mi.

Records available.--August 1895 to September 1957 in reports of Geological Survey. February 1898 to September 1916, some of which has been revised, in Virginia Geological Survey Bulletin 31.

Gage.--Water-stage recorder. Datum of gage is 802.90 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 21, 1903, wire-weight gage at same site; datum lowered 2 ft on Apr. 3, 1897. Nov. 21, 1903, to July 1, 1927, chain gage at same site and datum.

Average discharge.--58 years (1898-1912, 1913-57), 2,486 cfs.

Extremes.--Maximum discharge during year, 46,400 cfs Apr. 6 (gage height, 18.78 ft); minimum, 262 cfs Sept. 5 (gage height, 1.62 ft); minimum daily, 267 cfs Sept. 5.
1895-1957: Maximum discharge, about 105,000 cfs Mar. 27, 1913 (gage height, 31 ft, from floodmarks), from rating curve extended above 53,000 cfs by logarithmic plotting and records for other stations in James River basin; minimum, 208 cfs Jan. 9, 1956 (gage height, 1.46 ft).
Flood in November 1877 reached a stage of 34.9 ft, from floodmark (discharge, about 125,000 cfs).

Remarks.--Records excellent.

Revisions (water years).--WSP 602: 1917-24. WSP 757: Drainage area. WSP 952: 1913(M). WSP 972: 1935-36. WSP 1383: 1927. See also Records available.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.6	254	6.0	5,700
1.9	390	10.0	15,800
2.3	630	14.0	28,500
3.0	1,140	18.0	43,200
4.0	2,200		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	728	2,470	672	1,370	13,000	15,800	1,570	2,470	910	1,320	546	288
2	591	3,440	651	1,230	14,400	13,500	4,210	2,080	840	1,780	470	275
3	520	2,070	624	1,060	11,500	9,000	6,580	1,840	675	1,250	415	271
4	520	2,700	804	910	8,250	6,580	5,480	1,680	1,050	996	400	288
5	565	2,020	584	1,020	6,140	5,090	19,100	1,520	1,280	840	390	267
6	624	1,620	565	988	6,360	4,250	*40,400	1,420	3,660	735	*370	271
7	756	1,370	552	945	7,050	3,620	17,000	1,320	4,800	665	350	279
8	749	1,230	539	889	6,820	3,620	10,200	1,230	2,940	804	340	331
9	644	1,100	532	910	10,200	3,980	10,500	1,140	2,200	*578	351	385
10	565	1,010	513	1,320	14,600	3,890	10,500	1,040	2,080	558	327	400
11	500	931	500	3,270	11,200	3,270	7,520	1,000	1,800	532	318	464
12	464	875	500	3,270	8,250	2,940	5,920	973	1,620	539	318	470
13	430	812	526	2,620	6,140	2,780	4,800	945	1,420	494	309	855
14	415	756	604	2,200	5,090	2,620	3,980	931	1,280	464	305	1,680
15	410	*721	770	1,900	4,250	2,470	3,360	938	3,210	440	351	2,330
16	400	693	1,860	1,620	3,530	2,330	2,860	*1,060	3,360	452	380	1,570
17	390	770	2,140	1,370	3,100	2,140	2,540	938	2,540	415	476	5,820
18	*380	910	1,900	1,030	*2,780	1,960	2,330	840	2,140	410	476	11,000
19	370	903	1,620	988	2,620	1,960	2,200	1,100	1,680	446	405	12,000
20	370	910	1,370	1,100	6,590	1,960	2,020	6,360	1,420	513	375	6,010
21	380	868	1,280	1,180	7,280	1,900	1,900	8,250	1,180	482	355	3,100
22	1,000	861	1,180	1,140	5,090	1,780	1,780	4,250	1,010	450	345	2,140
23	2,260	861	1,250	2,390	4,160	2,080	1,750	2,860	917	430	351	1,620
24	1,900	868	3,340	9,000	3,530	2,400	1,780	2,140	1,000	470	322	1,320
25	1,320	854	6,940	6,140	3,100	2,330	1,780	1,780	1,140	482	322	1,100
26	1,060	819	5,090	4,160	4,790	2,200	1,900	1,470	1,040	476	318	952
27	4,050	805	3,440	3,270	10,000	2,140	1,730	1,420	938	458	318	840
28	5,040	798	2,620	2,860	9,000	2,020	1,620	1,370	854	430	314	756
29	2,700	763	2,200	6,450	-----	1,840	2,090	1,260	917	468	318	765
30	1,960	714	1,840	18,800	-----	1,730	3,020	1,060	1,170	522	309	2,060
31	1,960	-----	1,570	14,400	-----	1,620	-----	952	-----	565	305	-----
Total	34,021	37,522	48,356	99,800	198,820	115,810	182,420	57,657	51,371	19,254	11,189	59,805
Mean	1,097	1,251	1,560	3,219	7,101	3,736	6,081	1,860	1,712	621	361	1,997
Cfsm	0.526	0.600	0.749	1.54	3.41	1.79	2.92	0.893	0.821	0.298	0.173	0.958
In.	0.61	0.67	0.86	1.78	3.55	2.06	3.26	1.03	0.92	0.34	0.20	1.07
Calendar year 1956: Max	14,000			Min	275	Mean	1,544	Cfsm	0.741	In.	10.08	
Water year 1956-57: Max	40,400			Min	267	Mean	2,510	Cfsm	1.20	In.	16.35	

Peak discharge (base, 21,000 cfs).--Jan. 30 (7 p.m.) 23,800 cfs (12.58 ft); Apr. 6 (9 a.m.) 46,400 cfs (18.78 ft).

* Discharge measurement made on this day.

Calfpasture River above Mill Creek, at Goshen, Va.

Location.--Lat 37°59'15", long 79°29'40", on left bank 20 ft upstream from highway bridge at Goshen, Rockbridge County, and 400 ft upstream from Mill Creek.

Drainage area.--147 sq mi.

Records available.--January 1939 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 1,384.84 ft above mean sea level, datum of 1929, Parkersburg-Uniontown supplementary adjustment of 1944.

Average discharge.--18 years, 159 cfs.

Extremes.--Maximum discharge during year, 7,840 cfs Apr. 5 (gage height, 9.32 ft); no flow Sept. 5, 6, result of pumpage above station.
1939-57: Maximum discharge, 14,800 cfs June 18, 1949 (gage height, 12.14 ft), from rating curve extended above 9,200 cfs by logarithmic plotting; no flow Sept. 5, 6, 1957.

Remarks.--Records good except those for periods of no gage-height record and those below 30 cfs, which are fair. Records given herein include diversion 50 ft above control by Stillwater Worsted Mill.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 19; shifting-control method used July 23 to Aug. 1, Aug. 3-21, Sept. 7-17, 22-30)

Oct. 1 to Dec. 24

Dec. 25 to Sept. 30

1.8	10	1.0	0	3.0	164
2.2	25	1.5	5.2	3.5	390
2.4	40	1.8	13	4.0	640
2.6	65	2.1	27	5.0	1,270
3.0	150	2.3	43	6.0	2,280
3.4	310	2.7	96	7.1	3,930

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	216	20	77	500	620	140	230	54	154	14	2.8
2	19	188	19	51	712	708	620	190	52	112	14	2.6
3	16	128	18	50	540	505	500	160	*84	84	12	2.3
4	19	98	*18	48	410	370	700	140	78	75	11	.5
5	21	77	17	53	330	281	3,880	120	77	74	10	0
6	21	64	17	47	430	218	*2,450	100	203	66	8.6	0
7	19	54	17	44	415	189	820	90	254	59	7.1	1.7
8	17	47	16	*39	410	209	550	80	171	53	5.8	5.6
9	16	40	16	39	410	236	520	75	139	51	5.2	4.7
10	15	35	15	46	560	214	500	70	116	46	5.1	7.6
11	14	32	15	54	540	193	400	60	100	38	5.0	9.5
12	13	28	15	63	405	169	350	55	88	34	5.0	*7.6
13	13	*26	15	68	320	186	280	50	77	31	*4.7	7.1
14	13	24	20	70	276	175	240	55	492	30	5.2	13
15	12	23	25	67	232	159	210	*50	580	27	6.9	10
16	*12	22	94	56	193	146	190	43	470	28	7.8	9.5
17	11	22	102	35	168	132	170	38	222	26	5.8	*152
18	11	24	100	33	149	121	150	36	152	55	4.6	132
19	10	23	79	35	159	123	140	332	116	*62	3.8	82
20	11	21	67	40	410	*114	130	1,860	93	50	3.9	67
21	11	21	59	50	*345	102	120	841	78	40	3.8	57
22	12	22	51	48	268	102	120	33	64	33	3.7	46
23	12	22	73	488	222	121	120	290	100	28	3.4	41
24	13	22	265	640	189	118	150	186	110	30	3.6	37
25	28	20	365	370	164	110	180	137	92	26	3.7	29
26	28	21	254	254	261	105	160	110	78	24	3.8	27
27	36	21	175	182	830	100	150	112	66	22	4.2	25
28	36	21	144	178	550	90	220	93	63	22	3.8	22
29	41	21	121	365	-----	85	320	78	98	20	3.3	22
30	43	20	100	664	-----	85	300	70	137	17	2.9	24
31	66	-----	87	525	-----	85	-----	62	-----	15	2.8	-----
Total	632	1,403	2,399	4,768	10,198	6,369	14,780	6,036	4,504	1,432	184.5	647.5
Mean	20.4	46.8	77.4	154	364	206	493	195	150	46.2	5.95	28.2
Cfs/m	0.139	0.318	0.527	1.05	2.48	1.40	3.35	1.33	1.02	0.314	0.040	0.192
In.	0.16	0.35	0.61	1.21	2.58	1.61	3.74	1.53	1.14	0.36	0.05	0.21

Calendar year 1956: Max 1,050 Min 3.1 Mean 75.0 Cfs/m 0.510 In. 6.95
Water year 1956-57: Max 3,860 Min 0 Mean 147 Cfs/m 1.00 In. 13.55

Peak discharge (base, 2,500 cfs).--Apr. 5 (7 p.m.) 7,840 cfs (9.32 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 25-31, Apr. 1-4, 9-30, May 1-15; discharge estimated on basis of 1 discharge measurement and records for Maury River at Rockbridge Baths.

JAMES RIVER BASIN

Maury River at Rockbridge Baths, Va.

Location.--Lat 37°54'26", long 79°25'20", on right bank at Rockbridge Baths, Rockbridge County, 700 ft upstream from highway bridge and 1 mile upstream from Hays Creek.

Drainage area.--329 sq mi.

Records available.--October 1928 to September 1957. Prior to October 1945, published as North River at Rockbridge Baths.

Gage.--Water-stage recorder. Datum of gage is 1,100.33 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--28 years (1929-57), 355 cfs.

Extremes.--Maximum discharge during year, 11,300 cfs Apr. 5 (gage height, 9.03 ft); minimum, 15 cfs Sept. 5, 6.

1928-57: Maximum discharge, 33,000 cfs Mar. 17, 1936 (gage height, 13.07 ft), from rating curve extended above 16,000 cfs by logarithmic plotting; minimum, 11 cfs Nov. 28, 1930 (gage height, 0.76 ft).

Remarks.--Records excellent except those below 100 cfs, which are good.

Revisions (water years).--WSP 972: 1929-40, 1941(M). WSP 1002: 1930(m).

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	14	3.0	770
.9	17	4.0	1,480
1.0	22	5.0	2,370
1.2	38	6.0	3,650
1.4	69	7.0	5,500
1.6	116	8.0	8,000
2.0	250		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	335	50	98	1,140	2,100	200	622	104	258	30	16
2	41	304	48	b95	1,560	1,720	1,250	512	96	175	26	16
3	36	211	47	b90	1,140	1,250	1,280	425	116	127	26	16
4	43	156	*46	b90	830	900	935	360	124	98	24	16
5	51	127	44	89	699	694	6,030	308	*141	82	*24	15
6	48	108	43	84	1,140	567	*5,500	270	370	67	23	15
7	47	94	42	78	935	496	2,260	230	410	60	22	16
8	42	82	42	*71	830	600	1,800	200	304	*51	22	32
9	37	73	42	73	970	682	1,800	179	242	47	22	*27
10	35	67	41	84	1,220	578	1,440	160	207	46	22	26
11	34	64	39	101	1,080	506	1,140	153	175	43	23	37
12	34	58	41	104	800	490	935	144	153	37	23	28
13	33	*51	43	111	677	457	800	130	130	35	20	31
14	34	48	51	111	578	420	660	122	523	34	18	153
15	*33	47	76	106	490	390	545	182	935	33	25	64
16	33	46	147	b95	425	345	474	122	819	32	26	44
17	31	47	175	b86	370	304	420	*101	405	31	23	611
18	30	62	160	b83	317	274	380	96	270	37	20	385
19	30	62	138	b83	417	304	335	384	204	71	20	294
20	29	55	122	b83	1,180	*294	308	3,060	153	50	20	186
21	31	53	111	84	*830	254	278	1,640	124	41	20	130
22	36	60	104	89	666	258	262	830	101	34	20	101
23	58	62	156	764	556	330	274	578	119	34	18	87
24	51	56	545	1,180	462	317	322	400	197	41	17	73
25	55	55	b622	666	405	304	462	282	163	38	18	60
26	58	55	b440	468	1,010	294	360	230	141	34	20	53
27	73	54	b317	345	1,560	282	312	262	111	36	21	46
28	96	54	b246	405	1,360	258	355	204	98	41	21	42
29	82	53	b204	655	-	234	830	160	144	39	20	43
30	80	53	166	1,320	-----	219	770	133	204	38	18	53
31	98	-----	141	1,040	-----	197	-----	114	-----	35	16	-----
Total	1,467	2,652	4,489	8,831	23,647	16,318	32,717	12,593	7,283	1,825	670	2,716
Mean	47.3	88.4	145	285	845	526	1,091	406	243	58.9	21.6	90.5
Cfs/m	0.144	0.269	0.441	0.866	2.57	1.60	3.32	1.23	0.739	0.179	0.066	0.275
In.	0.17	0.30	0.51	1.00	2.68	1.84	3.70	1.42	0.82	0.21	0.08	0.31
Calendar year 1956:	Max	2,310	Min	16	Mean	175	Cfs/m	0.532	In.	7.23		
Water year 1956-57:	Max	6,030	Min	15	Mean	316	Cfs/m	0.960	In.	13.04		

Peak discharge (base, 4,500 cfs).--Apr. 5 (9 p.m.) 11,300 cfs (9.03 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Kerrs Creek near Lexington, Va.

Location.--Lat 37°49'35", long 79°26'35", on right bank 1.4 miles upstream from mouth and 2.9 miles north of Lexington, Rockbridge County.

Drainage area.--34 sq mi, approximately.

Records available.--January 1927 to September 1957 (fragmentary prior to August 1930).

Gage.--Water-stage recorder. Datum of gage is 980.32 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1953, chain or wire-weight gage at site 1,000 ft downstream at different datum.

Average discharge.--27 years (1930-57), 36.7 cfs.

Extremes.--Maximum discharge during year, 1,250 cfs Apr. 5 (gage height, 5.99 ft); minimum, 5.1 cfs Jan. 17 (gage height, 2.28 ft).

1927-57: Maximum discharge, 23,000 cfs Sept. 10, 1950 (gage height, 13.8 ft, site and datum then in use), from rating curve extended above 800 cfs on basis of 1 slope-area determination at gage height 9.3 ft (site and datum then in use), and 1 contracted-opening and 1 slope-area determination at gage height 13.8 ft; minimum, 3.1 cfs Dec. 16, 1955 (gage height, 2.11 ft), result of freezeup.

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1203: 1927-29, 1930-34(M), 1935-40, 1941(M), 1942, 1943-48(M), 1949.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.3	5.3	3.3	70
2.5	8.6	3.6	130
2.7	14	4.0	250
3.0	33	5.0	590

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	21	7.8	10	118	247	20	49	13	9.8	7.2	6.0
2	6.6	16	7.8	8.2	111	128	350	40	13	9.6	6.8	6.0
3	6.5	13	*7.6	8.5	68	84	98	33	*15	9.3	6.8	6.5
4	9.8	12	6.6	9.1	49	64	70	30	13	9.1	7.0	6.2
5	8.4	11	6.6	9.3	43	53	*535	27	29	8.6	6.8	6.1
6	8.2	11	6.6	8.4	51	45	235	24	31	8.2	6.5	6.1
7	7.6	9.8	6.6	*8.6	45	43	116	22	22	8.2	6.5	6.5
8	7.0	9.6	6.5	8.2	45	80	*104	20	20	8.2	6.3	7.4
9	6.8	8.8	6.5	9.1	90	68	104	19	18	8.4	6.3	7.6
10	6.5	8.6	6.3	11	81	51	76	18	16	8.2	6.3	8.6
11	6.3	8.2	6.3	10	62	44	62	18	14	7.8	6.3	8.4
12	6.3	*8.2	6.6	9.8	49	43	53	16	14	7.6	6.2	*7.8
13	6.2	8.2	6.8	9.8	43	39	48	16	13	7.6	*6.1	15
14	6.2	8.2	11	9.6	38	36	41	18	25	7.6	6.1	38
15	*6.2	8.0	13	8.6	32	34	36	20	36	7.6	8.2	11
16	6.2	8.0	16	8.0	29	31	32	14	27	7.4	7.0	23
17	6.2	9.1	12	7.4	25	28	31	*14	18	7.8	6.3	58
18	6.1	9.8	11	7.5	23	27	28	15	16	9.3	6.5	41
19	6.1	8.4	10	7.8	44	28	27	26	14	*8.2	6.6	41
20	6.1	8.2	9.8	8.0	94	*24	25	185	13	7.6	6.6	24
21	6.3	8.4	9.6	9.1	55	23	24	47	12	7.4	6.3	18
22	14	13	9.1	9.3	*45	28	23	33	12	7.4	6.2	14
23	16	11	20	84	39	26	34	27	12	10	7.8	13
24	11	10	40	35	34	24	37	22	13	12	6.6	12
25	9.6	9.6	27	25	31	23	29	19	12	8.2	6.6	11
26	8.8	9.3	20	20	213	23	25	23	11	7.6	7.0	9.8
27	20	9.1	16	18	133	22	23	25	11	8.4	6.3	9.1
28	14	8.4	14	27	202	21	39	18	11	8.4	6.2	9.1
29	12	8.4	12	62	-	20	126	16	14	7.8	6.2	10
30	11	8.2	11	70	-----	19	61	15	11	8.2	6.1	12
31	16	-----	11	70	-----	18	-----	14	-----	7.6	6.0	-----
Total	277.2	300.5	361.1	606.3	1,892	1,442	2,492	883	497	259.1	203.7	452.2
Mean	8.94	10.0	11.6	19.6	67.6	46.5	83.1	28.5	16.6	8.36	6.57	15.1
Cfs/m	0.263	0.294	0.341	0.576	1.99	1.37	2.44	0.838	0.488	0.246	0.193	0.444
In.	0.30	0.33	0.39	0.66	2.07	1.58	2.72	0.97	0.54	0.28	0.22	0.50

Calendar year 1956: Max 220 Min 5.0 Mean 15.0 Cfs/m 0.441 In. 5.99
 Water year 1956-57: Max 535 Min 6.0 Mean 26.5 Cfs/m 0.779 In. 10.56

Peak discharge (base, 600 cfs).--Apr. 2 (5 a.m.) 695 cfs (5.22 ft); Apr. 5 (11:30 a.m.) 1,250 cfs (5.99 ft); May 20 (2:30 a.m.) 668 cfs (5.13 ft).

* Discharge measurement made on this day.

Maury River near Lexington, Va.

Location.--Lat 37°48'49", long 79°26'42", on right bank 900 ft upstream from lime kiln highway bridge, 0.2 mile downstream from Kerrs Creek, and 2.8 miles upstream from Lexington, Rockbridge County.

Drainage area.--487 sq mi.

Records available.--August 1925 to September 1957. Prior to October 1945, published as North River near Lexington.

Gage.--Water-stage recorder. Datum of gage is 906.56 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--29 years (1928-57), 499 cfs.

Extremes.--Maximum discharge during year, 12,900 cfs Apr. 6 (gage height, 13.16 ft); minimum, 42 cfs Sept. 5-7 (gage height, 1.72 ft).

1925-57: Maximum discharge, 40,000 cfs Mar. 18, 1936 (gage height, 23.58 ft, from floodmarks), from rating curve extended above 9,000 cfs by logarithmic plotting and on basis of records for other stations in James River basin; minimum, 34 cfs Sept. 6, 1930, Sept. 18, 1932.

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 952: 1936(M). WSP 972: 1936.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.7	40	4.0	835
2.0	76	5.0	1,470
2.2	113	7.0	3,360
2.5	188	11.0	8,950
3.0	365		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	319	83	171	1,300	2,700	257	752	171	304	66	43
2	79	357	79	142	1,860	2,160	1,580	590	160	235	60	43
3	72	264	76	109	1,400	1,540	1,820	505	160	182	57	43
4	83	204	75	118	1,040	1,130	1,160	434	194	152	56	44
5	95	171	75	125	808	890	5,900	381	214	128	56	43
6	93	150	73	124	1,300	725	7,540	338	389	111	55	42
7	88	135	72	113	1,100	640	2,860	300	480	103	54	43
8	81	122	72	109	1,010	752	1,820	271	377	95	50	51
9	73	111	72	105	1,070	835	1,860	246	304	90	49	66
10	68	101	72	117	1,440	725	1,510	230	267	88	49	66
11	66	97	69	133	1,300	640	1,200	214	230	81	49	75
12	65	93	69	135	1,010	605	980	207	210	76	49	*72
13	65	88	69	142	808	562	862	194	182	72	*49	86
14	62	83	64	146	690	522	720	191	479	70	48	245
15	*62	81	109	145	600	484	605	260	1,070	66	54	142
16	63	79	166	133	522	442	530	191	890	65	62	101
17	63	81	223	99	467	397	484	160	492	63	57	*625
18	63	93	214	101	413	365	446	155	346	69	54	552
19	62	99	188	105	438	385	413	368	275	95	52	417
20	62	95	166	113	1,400	389	377	3,040	220	95	52	293
21	62	86	155	124	1,070	335	354	2,080	182	81	52	210
22	73	91	148	124	835	323	335	1,040	160	73	50	163
23	103	101	166	541	685	397	335	705	150	76	50	146
24	101	97	522	1,400	575	397	413	501	243	95	47	124
25	93	84	705	808	509	377	484	381	223	79	47	107
26	97	97	539	552	1,130	365	417	327	196	72	48	97
27	117	93	401	417	1,860	357	377	361	171	70	50	90
28	145	90	316	409	1,620	331	354	308	158	79	50	83
29	131	84	264	835	-	308	1,030	243	188	76	49	84
30	124	84	227	1,470	-----	289	1,010	210	250	75	47	97
31	153	-----	194	1,220	-----	264	-----	185	-----	70	45	-----
Total	2,634	3,732	5,743	10,387	28,260	20,631	37,833	15,368	9,033	3,067	1,613	4,295
Mean	85.0	124	185	335	1,009	666	1,261	496	301	99.6	52.0	143
Cfsm	0.175	0.255	0.380	0.688	2.007	1.37	2.59	1.02	0.618	0.205	0.107	0.294
In.	0.20	0.28	0.44	0.79	2.16	1.58	2.89	1.18	0.69	0.24	0.12	0.33
Calendar year 1956: Max		2,500		Min	41	Mean	235	Cfsm	0.483	In.	6.56	
Water year 1956-57: Max		7,540		Min	42	Mean	391	Cfsm	0.803	In.	10.90	

Peak discharge (base, 5,000 cfs).--Apr. 6 (12:30 a.m.) 12,900 cfs (13.16 ft).

* Discharge measurement made on this day.

Maury River near Buena Vista, Va.

Location--Lat 37°45'45", long 79°23'30", on right bank 0.5 mile downstream from South River and 2.8 miles northwest of Buena Vista, Rockbridge County.

Drainage area--649 sq mi.

Records available--March 1939 to September 1957. Prior to October 1945, published as North River near Buena Vista.

Gage--Water-stage recorder. Datum of gage is 846.58 ft above mean sea level, datum of 1929.

Average discharge--18 years, 653 cfs.

Extremes--Maximum discharge during year, 12,500 cfs Apr. 6 (gage height, 12.39 ft); minimum, 62 cfs Sept. 6, 7 (gage height, 1.56 ft).

1939-57: Maximum discharge, 22,400 cfs Sept. 10, 1950 (gage height, 16.2 ft); minimum, 20 cfs Oct. 10, 1941 (gage height, 1.23 ft), occurred during filling of a small reservoir 2 miles upstream.

Flood of Mar. 18, 1936, reached a stage of about 22 ft, from information by local residents.

Remarks--Records good.

Revisions (water years)--WSP 952: 1940-41.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 14, Sept. 18-30				June 15 to Sept. 17			
1.8	95	4.0	1,000	1.5	52	3.0	472
2.1	164	6.0	2,600	1.8	102	4.0	1,000
2.5	289	8.0	4,880	2.1	170	5.0	1,740
3.0	472	11.0	9,760	2.5	290		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	170	590	143	272	1,660	3,200	376	1,070	250	351	100	66
2	151	604	136	230	2,330	2,640	2,080	840	234	310	94	65
3	151	476	*151	187	1,860	2,030	2,160	728	237	249	88	63
4	151	383	126	190	1,440	1,550	1,580	628	*263	210	88	66
5	156	326	122	190	1,100	1,250	6,090	554	309	184	*88	65
6	154	286	120	199	1,510	1,000	8,110	497	489	160	85	62
7	143	259	117	*193	1,400	870	*3,310	444	628	150	82	62
8	136	243	115	178	1,280	1,000	2,290	405	558	*138	80	68
9	126	221	115	181	1,360	1,100	2,290	372	444	134	78	*95
10	117	202	113	202	1,740	968	1,860	344	398	127	76	106
11	113	190	109	212	1,620	840	1,550	326	351	122	76	108
12	109	*178	109	6,212	1,320	782	1,280	316	323	114	76	104
13	107	164	117	215	1,070	754	1,140	289	282	108	76	124
14	105	156	154	224	935	702	1,000	373	409	106	75	323
15	*105	151	224	212	810	652	840	417	1,250	102	83	234
16	105	146	313	205	728	604	754	299	1,040	99	100	160
17	103	178	369	176	652	554	702	*256	628	100	90	712
18	103	240	337	170	581	523	652	438	456	106	85	728
19	103	227	303	176	604	527	604	558	372	116	85	532
20	101	205	272	184	1,680	536	558	2,880	313	134	85	390
21	101	190	253	193	*1,400	480	523	2,430	268	116	85	292
22	139	196	237	202	1,100	*472	497	1,280	240	104	80	234
23	199	199	292	564	902	532	580	870	213	114	76	205
24	199	187	652	1,740	782	536	782	652	280	162	75	176
25	202	176	902	1,040	702	510	870	514	306	124	76	156
26	218	173	728	728	1,540	497	728	432	271	112	80	138
27	316	170	558	581	2,640	489	628	480	246	108	80	126
28	330	159	456	549	2,240	460	581	440	228	114	80	117
29	296	151	390	968	-	432	1,320	351	255	114	76	117
30	282	146	340	1,700	-----	409	1,510	303	297	108	73	138
31	440	-----	303	1,580	-----	383	-----	272	-----	106	68	-----
Total	5,211	7,172	8,656	13,855	36,966	27,282	47,245	20,058	11,838	4,402	2,539	5,832
Mean	168	239	279	447	1,320	880	1,575	647	395	142	81.9	194
Cfsm	0.259	0.368	0.430	0.689	2.03	1.36	2.43	0.997	0.609	0.219	0.126	0.299
In.	0.30	0.41	0.50	0.79	2.11	1.57	2.71	1.15	0.68	0.25	0.15	0.33
Calendar year 1956: Max	3,770			Min 64		Mean 330		Cfsm 0.508		In. 6.94		
Water year 1956-57: Max	8,110			Min 62		Mean 523		Cfsm 0.806		In. 10.95		

Peak discharge (base, 6,200 cfs)--Apr. 6 (1:30 a.m.) 12,500 cfs (12.39 ft).

* Discharge measurement made on this day.

James River at Holcombs Rock, Va.

Location.--Lat 37°30'04", long 79°15'46", on right bank at Holcombs Rock, Bedford County, 0.9 mile downstream from Pedlar River and at mile 263.2.

Drainage area.--3,250 sq mi.

Records available.--January 1900 to September 1915 (gage heights only), December 1926 to September 1957. Published as "at Salt Creek" December 1926 to June 1931.

Gage.--Water-stage recorder. Datum of gage is 548.53 ft above mean sea level, datum of 1929. January 1900 to September 1915 float gage in powerhouse of Virginia Electrolytic Co. 1,000 ft upstream at different datum. December 1926 to June 1931 water-stage recorder at site 2 miles downstream at different datum.

Average discharge.--29 years (1927-30, 1931-57), 3,668 cfs.

Extremes.--Maximum discharge during year, 60,500 cfs Apr. 6 (gage height, 22.36 ft); minimum, 334 cfs Sept. 3 (gage height, 3.68 ft); minimum daily, 384 cfs Sept. 7. 1926-57: Maximum discharge, 115,000 cfs Mar. 18, 1936 (gage height, 30.78 ft), from rating curve extended above 57,000 cfs on basis of records for other stations in James River basin; minimum, 100 cfs Sept. 21, 1941 (gage height, 3.02 ft); minimum daily, 223 cfs July 28, 1930.

Flood in March 1913 reached a stage of 31.3 ft, from floodmarks (discharge, 118,000 cfs, from rating curve extended above 57,000 cfs on basis of records for other stations in James River basin).

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by powerplants above station.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 972: 1932-33, 1935(M), 1936. WSP 1203: 1928(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

3.7	345	10.0	11,800
4.4	870	14.0	23,500
5.5	2,290	21.0	53,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,250	4,860	1,200	2,200	19,500	19,500	2,440	4,000	1,510	2,200	750	438
2	1,100	4,760	1,160	2,000	18,500	20,800	9,440	3,400	1,350	2,500	710	438
3	940	5,290	1,100	1,700	16,000	15,300	10,800	3,000	1,480	2,000	662	424
4	830	4,450	1,080	1,500	13,000	12,000	9,440	2,800	1,520	1,600	655	410
5	880	3,570	958	1,480	9,600	10,100	21,400	2,500	2,080	1,300	565	431
6	970	3,070	*980	1,500	10,000	8,520	*52,500	2,400	2,860	1,200	565	466
7	1,080	2,380	969	1,420	10,500	6,910	27,500	2,200	6,450	1,100	536	384
8	1,150	2,070	903	1,350	10,500	5,760	15,000	2,000	4,450	990	588	438
9	1,050	1,850	880	1,360	14,000	5,990	13,200	1,900	3,160	910	522	680
10	920	1,670	840	1,600	19,000	6,220	14,000	1,700	2,910	870	466	*670
11	840	1,520	820	2,860	16,000	5,990	11,000	1,600	2,590	840	473	678
12	770	1,420	800	3,910	13,000	5,300	8,750	1,550	2,440	850	*480	670
13	700	1,330	800	3,400	11,000	4,650	7,600	1,550	2,140	780	445	670
14	650	1,280	900	2,910	9,000	4,340	6,220	1,600	2,070	710	494	2,120
15	630	1,280	1,100	2,590	7,200	3,900	5,300	1,800	3,480	690	438	3,020
16	*620	1,180	1,550	2,290	6,100	3,700	4,650	*1,800	4,860	*655	588	2,120
17	648	1,450	2,600	1,950	5,200	3,400	4,180	1,660	4,080	565	565	7,840
18	648	2,140	2,700	1,700	*4,400	3,200	3,810	1,490	3,070	875	720	11,500
19	618	1,930	2,500	1,600	3,910	3,200	3,520	2,560	2,580	662	620	*13,000
20	618	1,690	2,200	1,650	6,910	3,070	3,320	5,600	*2,220	705	710	8,750
21	640	1,560	2,000	1,700	10,600	2,890	3,150	12,700	1,860	740	602	4,550
22	1,140	1,630	1,900	1,900	7,830	2,750	2,990	7,140	1,580	715	508	3,360
23	3,070	1,520	2,200	4,000	6,220	2,990	2,840	4,650	1,250	685	494	2,580
24	2,990	1,510	3,000	11,000	5,190	3,480	3,230	3,480	1,680	1,000	515	2,120
25	2,220	1,500	8,000	11,000	4,450	3,400	3,130	2,990	1,380	765	480	1,620
26	1,860	1,440	7,600	7,000	7,600	3,320	3,100	2,320	1,850	725	515	1,280
27	3,780	1,410	6,200	5,600	15,300	3,070	2,800	2,280	1,550	692	494	1,240
28	6,910	1,330	5,000	5,400	13,700	3,070	2,800	2,110	1,360	690	508	1,120
29	4,260	1,340	4,000	9,000	-	2,760	3,400	2,140	1,500	700	473	1,140
30	3,400	1,260	3,200	20,000	-----	2,670	4,400	1,860	1,340	730	494	1,640
31	4,260	-----	2,700	20,000	-----	2,520	-----	1,710	-----	755	438	-----
Total	51,442	64,390	71,840	137,570	294,210	184,870	265,910	90,490	72,650	30,299	17,073	75,797
Mean	1,659	2,146	2,317	4,438	10,510	5,964	8,864	2,919	2,422	977	551	2,527
Cfs/m	0.510	0.660	0.713	1.37	3.23	1.84	2.73	0.898	0.745	0.301	0.170	0.778
In.	0.58	0.74	0.82	1.58	3.36	2.12	3.05	1.04	0.83	0.35	0.20	0.87

Calendar year 1956: Max 16,700 Min 445 Mean 2,282 Cfs/m 0.702 In. 9.56
Water year 1956-57: Max 52,500 Min 384 Mean 3,717 Cfs/m 1.14 In. 15.55

Peak discharge (base, 25,500 cfs).--June 31 (time unknown) 25,700 cfs (14.63 ft); Apr. 6 (10 a.m.) 60,500 cfs (22.36 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1-16, Dec. 9-31, Jan. 1-10, 17-31, Feb. 1-18, Mar. 15-19, Apr. 27 to May 16, July 1-15; discharge estimated on basis of recorded range in stage, 4 discharge measurements, and records for stations at Buchanan and Bent Creek.

JAMES RIVER BASIN

29

James River at Bent Creek, Va.

Location.--Lat 37°32', long 78°50', on left bank 100 ft downstream from highway bridge at town of Bent Creek, Appomattox County, 150 ft downstream from Bent Creek, 1 mile downstream from Gladstone, and at mile 222.9.

Drainage area.--3,671 sq mi.

Records available.--March 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 381.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Sept. 13, 1930, chain gage at same site and datum.

Average discharge.--32 years, 4,112 cfs.

Extremes.--Maximum discharge during year, 60,200 cfs Apr. 6 (gage height, 16.60 ft); minimum, 410 cfs Aug. 14 (gage height, 2.49 ft); minimum daily, 440 cfs Aug. 14.
1925-57: Maximum discharge, 115,000 cfs Mar. 18, 1936 (gage height, 23.02 ft), from rating curve extended above 74,000 cfs on basis of velocity-area studies and records for other stations in James River basin; minimum, 222 cfs Oct. 13, 14, 1930 (gage height, 2.21 ft); minimum daily, 222 cfs Oct. 13, 1930.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by powerplants above station.

Revisions (water years).--WSP 742: 1931(m). WSP 757: Drainage area. WSP 972: 1935-36. WSP 1066: 1940. WSP 1203: 1942.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Sept. 17

Sept. 18-30

2.5	420	8.0	14,900	3.3	1,580
3.0	1,010	11.0	27,600	3.6	2,160
3.5	1,860	14.0	43,500	4.0	3,020
4.0	2,860	16.0	56,000	6.0	8,330
5.0	5,290			9.0	18,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	5,280	1,420	2,920	16,900	19,600	3,210	6,080	1,750	1,760	914	a570
2	1,080	5,620	1,180	2,480	19,200	22,500	5,980	4,880	1,880	2,160	765	a520
3	1,200	5,950	1,260	2,250	17,600	16,000	11,800	4,130	1,980	2,690	836	a520
4	1,110	5,880	1,260	1,900	13,800	12,500	10,800	3,660	1,780	2,000	823	a500
5	970	4,400	1,220	1,660	10,800	10,200	13,900	3,230	2,740	1,580	680	a480
6	1,040	3,460	1,200	1,740	9,230	8,300	50,800	3,310	3,180	1,560	757	520
7	1,120	2,640	1,160	2,000	10,500	7,370	38,000	2,750	5,080	1,220	702	590
8	1,120	2,380	1,110	1,580	10,500	7,520	18,800	2,640	5,990	1,190	615	550
9	1,460	2,020	795	1,810	11,800	7,370	16,000	2,580	4,060	935	704	580
10	1,260	2,120	940	1,820	16,000	7,220	15,600	2,220	3,290	1,030	738	984
11	1,050	1,580	1,170	2,230	16,800	6,570	13,100	2,200	3,130	1,040	610	1,260
12	870	1,680	1,000	4,220	15,800	5,980	10,800	1,910	2,900	885	550	a1,000
13	645	1,310	1,150	4,280	11,500	5,340	9,230	2,270	2,580	915	510	a1,000
14	755	1,350	1,440	3,480	9,550	5,200	7,990	2,100	2,300	845	440	a2,000
15	710	1,280	2,100	3,310	8,300	4,920	7,220	1,740	2,400	890	490	a3,000
16	830	*1,330	2,820	2,970	7,680	4,450	6,140	2,430	4,900	810	*530	a2,500
17	765	2,300	3,400	2,520	6,420	4,500	5,180	1,960	5,160	910	550	a6,000
18	745	3,990	3,860	2,280	5,430	4,110	*5,020	1,910	3,840	*1,000	644	a10,000
19	775	2,480	3,270	1,940	4,750	4,040	4,530	2,840	3,280	1,780	1,040	a15,000
20	755	2,080	2,440	1,800	5,570	3,520	4,380	3,500	2,620	755	844	a10,000
21	810	1,920	2,660	2,000	11,200	3,980	3,930	12,800	2,410	560	1,100	a7,000
22	875	2,040	2,340	2,180	9,550	3,560	a3,800	9,230	1,950	687	600	a5,000
23	3,960	1,750	2,460	2,550	7,520	3,580	3,710	6,550	1,670	1,010	600	a3,500
24	3,560	1,860	2,730	4,240	7,060	3,910	4,240	4,680	2,120	789	570	a3,000
25	5,190	1,640	5,980	10,200	5,430	4,220	4,920	3,550	1,500	1,140	600	a2,500
26	2,280	1,700	8,300	7,990	6,900	4,040	3,760	3,400	1,890	892	610	a2,000
27	2,070	1,780	7,220	6,230	16,200	3,920	4,100	2,740	1,940	932	590	a1,800
28	6,860	1,460	5,100	5,580	14,900	3,730	3,550	2,350	1,580	796	570	a1,700
29	6,560	1,480	4,370	5,700	-	3,620	3,600	2,440	2,040	893	a560	a1,600
30	3,970	1,480	3,580	11,500	-----	3,100	5,300	2,310	1,360	764	a590	a1,600
31	4,560	-----	3,000	23,000	-----	3,260	-----	2,010	-----	839	a580	-----
Total	58,635	76,200	81,935	130,360	303,790	208,130	299,370	109,980	83,280	35,257	20,690	87,274
Mean	1,891	2,540	2,643	4,205	10,850	6,714	9,979	3,548	2,776	1,137	667	2,909
Cfs/m	0.515	0.692	0.720	1.15	2.96	1.83	2.72	0.966	0.756	0.310	0.182	0.792
In.	0.59	0.77	0.83	1.33	3.08	2.11	3.04	1.11	0.84	0.36	0.21	0.88
Calendar year 1956: Max	62,300			Min 645		Mean 4,331		Cfs/m 1.18		In. 16.07		
Water year 1956-57: Max	50,800			Min 440		Mean 4,096		Cfs/m 1.12		In. 15.15		

Peak discharge (base, 26,500 cfs).--Apr. 6 (7 p.m.) 60,200 cfs (16.60 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station at Holcombs Rock.

Tye River near Lovington, Va.

Location.--Lat 37°43', long 78°58', on right bank at downstream side of highway bridge, 2 miles downstream from Hat Creek, 4 miles upstream from Piney River, and 6 miles southwest of Lovington, Nelson County.

Drainage area.--92 sq mi, approximately.

Records available.--August 1938 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 578.39 ft above mean sea level, datum of 1929, Culpeper supplementary adjustment of 1943.

Average discharge.--19 years, 148 cfs.

Extremes.--Maximum discharge during year, 3,150 cfs Feb. 26 (gage height, 7.18 ft); minimum, 8.6 cfs Sept. 5, 6 (gage height, 0.61 ft).
1938-57: Maximum discharge, 9,670 cfs Sept. 19, 1944 (gage height, 13.7 ft); minimum, 3.2 cfs Sept. 13, 1954 (gage height, 0.56 ft); minimum gage height, 0.29 ft Oct. 4, 1943.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 892: 1938.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 5

June 6 to Sept. 30

0.7	24	2.0	269	0.6	8.0	1.5	145
1.0	62	3.0	576	.7	14	2.0	269
1.6	176	5.0	1,540	1.0	45	3.0	576

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	558	89	110	304	614	138	316	114	110	30	10
2	59	390	84	100	327	487	1,320	284	105	100	26	12
3	52	302	*82	91	302	421	654	255	110	87	23	12
4	54	262	81	96	276	349	454	233	107	78	22	9.8
5	48	223	77	96	247	306	*1,200	216	203	70	27	9.8
6	45	196	76	89	235	276	1,040	198	370	63	20	11
7	43	176	74	*86	219	257	654	183	316	59	18	10
8	38	161	70	82	212	299	522	172	262	56	17	11
9	34	142	69	84	231	250	454	161	222	53	15	*19
10	32	130	65	103	223	228	366	150	199	47	14	48
11	31	118	64	89	216	216	327	144	176	44	14	31
12	30	*109	67	82	203	214	299	140	162	42	18	21
13	30	98	76	79	191	203	309	158	143	39	17	42
14	28	91	107	79	183	194	276	194	138	37	14	176
15	*27	86	124	b70	172	189	252	*203	182	*35	20	31
16	27	82	130	b64	161	180	238	140	140	32	33	81
17	28	180	120	b59	150	172	226	130	136	32	19	494
18	30	203	112	b64	140	165	219	122	131	37	18	179
19	30	169	107	b70	163	*174	205	198	*107	37	22	134
20	30	154	105	b79	200	163	196	235	94	32	25	98
21	30	148	101	89	172	148	187	203	84	31	20	78
22	151	163	98	103	*167	156	183	185	78	29	*16	67
23	163	138	142	338	161	161	358	169	120	35	13	55
24	112	130	178	259	152	150	314	150	104	74	12	48
25	163	122	172	226	148	138	316	136	82	39	13	39
26	163	120	165	198	1,540	136	289	167	80	33	27	34
27	264	112	158	180	1,180	134	169	78	32	27	31	252
28	240	103	148	207	694	328	340	138	80	35	18	30
29	198	100	138	221	-	124	488	124	200	48	14	34
30	212	93	124	226	-----	122	369	118	130	33	13	51
31	540	---	118	257	-----	116	-----	110	-----	30	11	-----
Total	3,006	5,059	3,321	3,976	8,569	6,870	12,425	5,481	4,453	1,509	596	1,906.6
Mean	97.0	169	107	128	306	222	414	177	148	48.7	19.2	63.6
Cfs/m	1.05	1.84	1.16	1.39	3.33	2.41	4.50	1.92	1.61	0.529	0.209	0.691
In.	1.21	2.05	1.34	1.60	3.47	2.78	5.02	2.21	1.80	0.61	0.24	0.77

Calendar year 1956: Max 558 Min 7.0 Mean 83.8 Cfs/m 0.911 In. 12.39
Water year 1956-57: Max 1,540 Min 9.8 Mean 157 Cfs/m 1.71 In. 23.10

Peak discharge (base, 1,200 cfs).--Feb. 26 (4:30 p.m.), 3,150 cfs (7.18 ft); Apr. 2 (6:30 a.m.), 2,320 cfs (6.15 ft); Apr. 5 (2 p.m.), 1,760 cfs (5.45 ft); Apr. 23 (6:30 p.m.), 1,640 cfs (5.20 ft); Apr. 28 (11:30 p.m.), 1,210 cfs (4.40 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record June 29 to July 15; discharge estimated on basis of records for Buffalo River near Norwood and Piney River at Piney River.

Piney River at Piney River, Va.

Location.--Lat 37°42'10", long 79°01'40", on right bank 20 ft downstream from bridge on State Highway 151, 0.2 mile southwest of Piney River Post Office, Nelson County, 1.7 miles downstream from Indian Creek, and 2.5 miles southeast of Lowesville.

Drainage area.--48 sq mi, approximately.

Records available.--July 1949 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 633.58 ft above mean sea level, datum of 1929, Culpeper supplementary adjustment of 1943.

Average discharge.--8 years, 84.5 cfs.

Extremes.--Maximum discharge during year, 1,700 cfs Feb. 26 (gage height, 5.06 ft); minimum, 5.5 cfs Aug. 24, Sept. 4, 5; minimum gage height, 0.80 ft Sept. 4, 5.
1949-57: Maximum discharge, 4,930 cfs Aug. 18, 1955 (gage height, 7.90 ft); minimum, 1.8 cfs Sept. 18, 1954; minimum gage height, 0.71 ft Oct. 13, 14, 1954.
Flood in June 1949 reached a stage of 9.9 ft, from floodmarks.

Remarks.--Records good except those for periods of ice effect and no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 9, 10, 13, 16, 17, 29, 30)

0.8	5.5	2.0	145
1.0	12	2.5	281
1.2	26	3.0	460
1.5	61	4.1	980

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	300	53	46	213	585	76	174	59	76	11	6.5
2	26	270	52	40	231	464	562	160	59	66	9.8	7.1
3	23	243	*51	38	222	364	420	141	60	59	9.8	6.8
4	24	205	47	42	199	294	323	129	59	54	10	5.8
5	21	171	44	41	178	240	*630	117	100	47	14	5.5
6	20	149	43	37	160	199	652	103	240	42	9.8	7.4
7	20	131	42	*35	149	178	480	96	170	39	8.7	11
8	19	119	39	39	141	194	380	90	140	35	8.4	12
9	17	103	39	42	153	156	360	82	110	34	8.1	*46
10	17	90	36	49	143	139	290	76	96	32	7.7	33
11	16	79	36	42	141	129	240	74	88	27	7.7	14
12	16	*72	38	39	133	121	210	72	80	26	7.7	10
13	15	66	40	39	127	116	230	66	70	24	7.1	34
14	15	61	56	38	119	110	210	91	64	24	6.8	30
15	*15	57	76	36	110	106	180	*91	68	*21	8.4	16
16	14	54	70	b33	103	102	160	67	64	19	9.5	35
17	14	105	64	b31	97	98	140	67	70	20	7.4	127
18	15	120	55	b32	91	92	125	73	78	21	7.7	74
19	14	100	52	b33	103	*96	116	91	*74	20	8.4	56
20	15	82	48	b35	110	90	110	98	66	17	9.1	45
21	15	72	54	37	98	84	103	88	59	17	8.1	37
22	53	80	68	45	*97	88	97	91	55	15	*6.8	33
23	56	74	86	174	94	86	121	88	60	16	6.5	27
24	57	66	96	171	92	80	114	85	76	23	6.1	24
25	76	62	86	153	91	76	114	82	67	15	6.8	22
26	85	58	76	137	954	74	106	88	64	14	8.7	20
27	129	56	70	121	898	72	102	84	59	14	8.1	22
28	125	56	63	133	650	70	131	73	55	15	8.4	47
29	116	54	58	137	-	68	171	70	110	13	7.4	61
30	110	53	52	135	-----	66	186	68	86	12	7.1	176
31	276	-----	48	168	-----	64	-----	60	-----	11	6.5	-----
Total	1,462	3,207	1,738	2,178	5,877	4,701	7,139	2,835	2,506	868	258.6	1,051.1
Mean	47.2	107	56.1	70.3	210	152	238	91.5	83.5	28.0	8.34	35.0
Cfsm	0.983	2.23	1.17	1.46	4.58	3.17	4.96	1.91	1.74	0.583	0.174	0.729
In.	1.33	2.49	1.35	1.68	4.56	3.66	5.53	2.20	1.94	0.67	0.20	0.81

Calendar year 1956: Max 300

Min 5.8

Mean 48.8

Cfsm 1.02

In. 13.83

Water year 1956-57: Max 954

Min 5.5

Mean 92.7

Cfsm 1.93

In. 26.22

Peak discharge (base, 500 cfs).--Feb. 26 (3 p.m.) 1,700 cfs (5.06 ft); Apr. 2 (8:30 a.m.) 770 cfs (3.69 ft); Apr. 5 (1 p.m.) 820 cfs (3.82 ft); June 6 (time unknown) 720 cfs (3.60 ft); Sept. 13 (9 p.m.) 520 cfs (3.13 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Nov. 1, 2, 17-30, Dec. 1, 2, 13-31, Jan. 1-7, Apr. 8-17, June 6-19; discharge estimated on basis of records for Buffalo River near Norwood and Tye River near Lovingson.

Buffalo River near Norwood, Va.

Location.--Lat 37°38', long 78°53', on right bank 1 mile downstream from Tye River, 3 miles upstream from Rucker Run, and 4½ miles upstream from mouth and Norwood, Nelson County.

Drainage area.--360 sq mi, approximately.

Records available.--March 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 400.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--17 years, 476 cfs.

Extremes.--Maximum discharge during year, 4,540 cfs Feb. 26 (gage height, 5.77 ft); minimum, 34 cfs Sept. 5, 6 (gage height, 1.80 ft).
1940-57: Maximum discharge, 33,500 cfs Oct. 15, 1942, Sept. 19, 1944 (gage height, 18.1 ft, from floodmarks), from rating curve extended above 13,000 cfs by logarithmic plotting; minimum, 23 cfs Oct. 8, 9, 1954 (gage height, 1.77 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-31, Apr. 7 to Sept. 30		Nov. 1 to Apr. 6	
1.8	34	2.2	126
2.0	71	2.5	240
2.3	161	3.0	580
2.5	258	4.0	1,760
3.0	630	5.0	3,250
4.1	1,900		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	169	1,230	223	284	1,250	2,400	319	965	283	283	88	48
2	144	986	218	262	1,420	1,700	1,920	792	270	247	84	41
3	126	760	210	206	1,070	1,400	1,700	702	277	230	78	44
4	126	620	206	262	958	1,150	1,290	648	277	208	71	41
5	130	516	197	256	791	986	a2,000	588	385	199	78	37
6	117	448	193	236	730	846	a3,000	537	932	182	71	44
7	114	390	*190	227	690	760	1,900	487	711	178	63	55
8	102	343	186	218	710	1,020	1,540	465	639	165	61	65
9	96	313	183	227	879	813	1,580	442	521	165	59	91
10	91	284	175	*290	824	690	1,170	420	481	161	55	161
11	86	262	172	337	710	630	998	390	428	147	53	126
12	84	240	175	236	660	600	890	390	398	144	53	91
13	84	223	190	227	600	556	1,010	369	355	136	53	86
14	86	210	321	223	556	524	880	405	320	133	49	477
15	86	197	500	218	508	500	774	675	362	126	57	161
16	84	*193	485	b200	485	485	720	405	320	117	88	126
17	*81	690	362	b170	448	462	684	369	414	114	71	1,900
18	81	868	313	b160	418	440	*830	362	505	133	81	774
19	84	485	284	b150	432	*448	596	937	*369	140	74	481
20	84	411	268	b160	720	425	570	702	308	120	84	341
21	84	376	262	b230	524	390	529	562	277	111	74	474
22	225	425	256	278	485	397	505	521	258	102	61	412
23	390	355	369	876	462	440	642	481	321	120	55	236
24	252	313	524	760	440	397	860	420	383	*258	49	203
25	285	301	485	630	418	369	890	369	295	140	51	174
26	301	295	440	548	2,220	355	693	376	289	111	63	161
27	513	278	411	485	3,090	349	613	435	277	105	84	154
28	529	262	383	640	2,110	337	646	355	258	108	*67	136
29	442	246	355	879	-	-	325	1,700	502	117	57	150
30	420	236	319	914	-----	319	1,370	308	320	102	51	203
31	977	-----	301	938	-----	307	-----	289	-----	94	48	-----
Total	6,471	12,816	9,156	11,727	24,588	20,820	32,619	15,486	11,755	4,696	2,011	7,493
Mean	209	427	295	378	878	672	1,087	500	391	151	64.9	250
Cfsm	0.581	1.19	0.819	1.05	2.44	1.87	3.02	1.39	1.09	0.419	0.180	0.694
In.	0.67	1.33	0.94	1.21	2.54	2.16	3.37	1.60	1.22	0.48	0.21	0.77
Calendar year 1956: Max	1,450			Min	34	Mean	248	Cfsm	0.689	In.	9.38	
Water year 1956-57: Max	3,090			Min	37	Mean	437	Cfsm	1.21	In.	16.50	

Peak discharge (base, 3,000 cfs).--Feb. 26 (10 p.m.) 4,540 cfs (5.77 ft); Apr. 2 (8:30 a.m.) 3,300 cfs (5.03 ft); Apr. 5 or 6 (time unknown) about 3,500 cfs.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Piney River at Piney River and Tye River near Lovington.

b Stage-discharge relation affected by ice.

Rockfish River near Greenfield, Va.

Location.--Lat 37°52'10", long 78°49'25", on left bank 50 ft downstream from bridge on State Highway 634, 2.8 miles downstream from confluence of North and South Forks, and 4.1 miles south of Greenfield, Nelson County.

Drainage area.--96 sq mi, approximately.

Records available.--April 1943 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 530.29 ft above mean sea level, datum of 1929, Culpeper supplementary adjustment of 1943. Prior to Aug. 21, 1943, wire-weight gage at same site and datum.

Average discharge.--14 years, 135 cfs.

Extremes.--Maximum discharge during year, 2,210 cfs Apr. 5 (gage height, 8.17 ft); minimum, 5.0 cfs Sept. 5, 6 (gage height, 1.32 ft).

1943-57: Maximum discharge, 13,700 cfs Sept. 19, 1944 (gage height, 17.2 ft), from rating curve extended above 8,500 cfs on basis of slope-area determinations at gage heights 17.2 and 23.4 ft; minimum, 1.6 cfs Oct. 1, 2, 1954; minimum gage height, 1.25 ft Sept. 17, 18, 19, 1946; Sept. 16, 17, 1954.

Flood of Oct. 15, 1942, reached a stage of 23.4 ft, from floodmarks (discharge, about 30,000 cfs).

Remarks.--Records good except those for period of no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 18, 19)

1.3	4.5	3.0	202
1.5	10	4.0	390
1.7	21	5.0	680
1.9	39	6.7	1,450
2.5	125		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	875	80	95	202	698	116	133	62	70	28	6.8
2	78	530	78	88	229	515	1,160	122	85	61	24	6.5
3	68	378	*74	84	216	415	620	116	195	57	21	6.2
4	65	325	72	83	209	335	455	110	106	51	19	5.8
5	61	275	72	84	195	295	1,450	106	212	49	23	5.2
6	55	222	71	80	216	255	1,150	98	440	45	20	5.8
7	51	202	70	*76	188	229	732	90	402	41	17	7.6
8	45	176	66	72	184	305	*560	84	345	40	15	7.9
9	41	154	65	72	195	265	470	78	285	41	14	*17
10	34	131	64	76	195	229	365	76	237	39	13	39
11	32	116	62	71	186	209	315	72	202	34	13	22
12	32	*106	62	68	180	202	285	72	178	33	16	16
13	31	96	62	68	170	188	295	70	147	31	14	17
14	30	92	98	66	160	184	255	77	130	29	12	35
15	*27	86	102	65	146	178	237	*95	122	*29	14	20
16	27	83	101	65	138	165	222	71	100	29	18	69
17	25	195	95	64	128	154	209	65	88	29	19	530
18	25	245	92	64	118	144	209	72	80	32	15	160
19	26	195	88	64	157	*152	195	209	*74	34	18	104
20	26	173	88	68	222	135	195	182	68	32	20	77
21	26	160	84	68	180	122	186	155	64	28	15	61
22	187	154	83	77	*167	131	174	148	59	27	*10	51
23	222	130	138	276	154	138	195	128	96	30	9.7	45
24	159	116	152	216	146	120	202	104	86	40	8.8	41
25	209	107	138	185	138	113	182	92	92	58	8.5	37
26	209	104	130	162	1,130	110	168	92	90	40	10	34
27	528	100	125	146	1,060	107	154	96	72	30	14	29
28	390	92	119	174	715	102	143	77	70	30	10	28
29	295	89	112	173	-	100	180	72	149	35	8.5	31
30	345	84	102	162	-----	95	154	66	84	40	8.2	45
31	1,120	-----	100	176	-----	92	-----	84	-----	32	7.3	-----
Total	4,565	5,791	2,845	3,287	7,324	6,482	11,233	3,090	4,400	1,196	463.0	1,559.8
Mean	147	193	91.8	106	262	209	374	99.7	147	38.6	14.9	52.0
Cfs/m	1.53	2.01	0.956	1.10	2.73	2.18	3.90	1.04	1.53	0.402	0.155	0.542
In.	1.76	2.24	1.10	1.27	2.84	2.51	4.35	1.20	1.71	0.46	0.18	0.60

Calendar year 1956: Max 1,120 Min 4.0 Mean 82.0 Cfs/m 0.854 In. 11.61
Water year 1956-57: Max 1,450 Min 5.2 Mean 143 Cfs/m 1.49 In. 20.22

Peak discharge (base, 1,200 cfs).--Oct. 31 (8 a.m.) 1,300 cfs (8.43 ft); Feb. 26 (7:30 p.m.) 2,100 cfs (7.98 ft); Apr. 2 (8 a.m.) 2,100 cfs (7.98 ft); Apr. 5 (4 p.m.) 2,210 cfs (8.17 ft).

* Discharge measurement made on this day.
Note.--No gage-height record July 16 to Aug. 22; discharge estimated on basis of 1 discharge measurement and records for Tye River near Lovingston.

James River at Scottsville, Va.

Location--Lat 37°47'50", long 78°29'30", on left bank 50 ft downstream from highway bridge at Scottsville, Albemarle County, 6.8 miles upstream from Hardware River, and at mile 184.6.

Drainage area--4,571 sq mi.

Records available--February 1925 to September 1957.

Gage--Water-stage recorder. Datum of gage is 253.18 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 28, 1928, chain gage at same site and datum.

Average discharge--32 years, 5,098 cfs.

Extremes--Maximum discharge during year, 64,200 cfs Apr. 7 (gage height, 19.14 ft); minimum, 525 cfs Aug. 15, 16 (gage height, 1.95 ft); minimum daily, 558 cfs Aug. 15, 1925-57; Maximum discharge, 133,000 cfs Sept. 19, 1944 (gage height, 26.0 ft); minimum, 302 cfs Oct. 1, 1930 (gage height, 1.46 ft); minimum daily, 307 cfs Oct. 15, 1930.

Data for some outstanding floods prior to establishment of this station are given in the following table:

Date	Discharge (cfs)	Gage height (feet)	Remarks
October 1870.....	-	30.7	Gage height from information by local resident.
November 1877.....	a160,000	27.9	Do.
March 1913.....	121,000	25.16	From floodmarks.

a About.

Remarks--Records good except those for periods of doubtful or no gage-height record, which are fair. Flow regulated by powerplants above station.

Revisions (water years)--WSP 727: 1931(m). WSP 757: Drainage area. WSP 972: 1936(M), 1940(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.0	545	8.0	11,500
2.5	850	12.0	25,900
3.0	1,400	18.0	57,000
5.0	4,630		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,090	7,940	2,100	3,630	21,100	a23,000	3,900	7,720	a2,300	2,020	1,020	640
2	1,810	7,060	1,950	3,370	21,000	27,200	5,610	6,640	a2,300	2,320	1,010	652
3	1,280	6,640	1,610	2,940	21,500	21,900	14,300	5,410	a2,500	2,620	904	658
4	a1,370	7,500	2,020	2,620	17,400	15,700	15,300	5,210	a2,500	2,860	904	630
5	a1,280	6,010	1,810	2,480	13,000	12,400	14,600	4,540	a3,500	2,320	877	*590
6	a1,130	4,820	1,780	2,320	10,600	10,100	44,800	4,280	a5,000	1,950	763	572
7	a1,100	4,080	1,710	2,400	10,400	8,870	*55,800	3,900	a6,000	1,770	818	615
8	a1,170	3,280	1,710	2,400	12,100	9,110	26,800	5,540	a7,000	1,460	742	652
9	a1,130	3,030	1,490	2,100	12,100	9,110	21,100	3,460	a6,000	1,320	676	670
10	a1,190	2,620	1,270	2,550	16,000	8,400	18,100	2,940	a5,000	1,310	742	794
11	a1,220	2,700	1,540	2,620	19,600	8,170	16,700	3,030	a4,000	1,210	756	1,480
12	1,110	2,020	1,630	3,540	16,000	7,280	13,000	2,780	a3,700	1,190	688	1,160
13	960	2,250	1,570	5,210	12,700	6,850	11,200	2,700	a3,500	1,100	*625	895
14	778	1,860	2,250	4,440	10,100	6,220	10,100	2,860	a3,500	1,110	590	1,020
15	895	1,810	3,630	3,900	8,630	5,810	8,630	3,630	a3,500	*1,050	558	2,100
16	826	1,810	4,170	3,630	a7,800	5,410	8,170	2,860	a5,000	1,110	590	3,280
17	940	2,760	4,080	2,940	a7,200	5,210	6,640	2,680	a6,000	1,020	630	7,880
18	931	7,060	*4,630	2,780	6,220	5,010	6,010	2,550	a4,500	1,150	630	10,400
19	904	4,260	4,260	2,480	5,410	4,720	6,010	3,900	a4,500	1,300	756	12,400
20	922	3,630	3,900	2,320	6,850	4,720	5,610	5,010	a3,500	1,950	1,160	12,700
21	904	3,030	2,940	2,320	9,430	4,540	5,610	8,400	a3,000	913	1,110	8,400
22	1,110	3,120	2,280	3,540	a11,000	4,540	5,010	12,700	a2,500	756	980	6,220
23	2,450	3,030	a3,400	3,540	a10,000	4,440	5,010	8,400	a2,500	955	682	4,260
24	4,350	2,550	a3,700	4,440	a9,000	4,440	6,430	6,220	a3,000	1,200	682	3,200
25	3,990	2,620	a7,400	10,700	a7,400	4,820	6,850	5,210	a2,500	1,300	652	2,700
26	3,370	2,550	a10,000	9,600	a10,000	4,820	5,610	3,990	a2,500	1,310	707	2,320
27	a4,080	2,320	a8,000	7,720	a20,000	4,630	5,010	3,720	*a3,000	1,120	735	1,800
28	a4,820	2,480	a6,000	6,850	a22,000	4,540	5,010	3,460	2,550	1,080	728	1,530
29	a7,000	2,180	5,210	7,280	4,350	6,220	2,860	2,550	2,550	1,010	664	1,490
30	*6,010	2,180	4,540	10,400	-----	4,080	6,850	a3,000	2,480	1,050	646	1,730
31	5,610	-----	3,990	23,900	-----	3,810	-----	a2,500	-----	950	658	-----
Total	66,730	109,220	107,570	150,200	355,440	254,100	367,690	140,260	109,880	43,779	23,683	93,438
Mean	2,153	3,641	3,470	4,845	12,690	8,197	12,260	4,525	3,663	1,412	764	3,115
Cfsm	0.471	0.797	0.759	1.06	2.78	1.79	2.68	0.990	0.801	0.309	0.167	0.681
In.	0.54	0.89	0.88	1.22	2.90	2.08	2.99	1.14	0.89	0.36	0.19	0.76

Calendar year 1956: Max 18,500 Min 462 Mean 2,960 Cfsm 0.648 In. 8.81
Water year 1956-57: Max 55,800 Min 558 Mean 4,992 Cfsm 1.09 In. 14.82

Peak discharge (base, 27,000 cfs)--Jan. 31 (6 p.m.) 28,000 cfs (12.46 ft); Mar. 2 (4 p.m.) 28,000 cfs (12.50 ft); Apr. 7 (6 p.m.) 64,200 cfs (19.14 ft).

* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of records for stations at Bent Creek and Carterville.

Hardware River below Briery Run, near Scottsville, Va.

Location.--Lat 37°48'45", long 78°27'20", on left bank 75 ft upstream from highway bridge, 0.8 mile downstream from Briery Run, 2.4 miles northeast of Scottsville, Albemarle County, and 10.8 miles upstream from mouth.

Drainage area.--116 sq mi.

Records available.--December 1938 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 294.96 ft above mean sea level, datum of 1929, Culpeper supplementary adjustment of 1943.

Average discharge.--18 years (1939-57), 120 cfs.

Extremes.--Maximum discharge during year, 1,520 cfs Apr. 6 (gage height, 8.84 ft); minimum, 8.6 cfs Sept. 4 (gage height, 1.14 ft).
1938-57: Maximum discharge, 23,000 cfs Sept. 19, 1944 (gage height, 23.8 ft, from floodmark in gage house), from rating curve extended above 11,000 cfs on basis of slope-area determination of peak flow; minimum, 2.8 cfs Oct. 1, 1941 (gage height, 1.34 ft); minimum daily, 4.8 cfs Oct. 5, 1941.

Remarks.--Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Prior to November 1947, occasional small diurnal fluctuation at low flow caused by dam and gristmill 2.5 miles above station.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 952: 1941(M). WSP 1002: 1940, 1943. WSP 1032: 1940, 1944.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 24 to Feb. 28, Feb. 28 to Apr. 4)

Oct. 1 to June 2

June 3 to Sept. 30

1.3	15	3.0	194	1.1	7	2.5	131
1.6	31	4.0	352	1.5	26	3.0	196
2.0	67	6.0	712	2.0	72	4.0	352
2.5	128	8.0	1,240				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	194	50	62	215	*406	60	84	45	58	14	a17
2	30	150	48	55	289	289	254	79	44	33	12	a13
3	27	127	47	b40	180	201	194	76	191	30	11	a10
4	25	144	44	b50	148	164	141	74	106	30	10	*9.0
5	25	118	42	56	123	142	620	72	111	28	10	9.0
6	24	96	42	54	151	127	949	71	a190	26	9.4	9.4
7	24	86	42	53	123	120	315	69	a140	24	*9.4	10
8	22	77	41	50	118	276	265	65	a150	24	a9	11
9	20	70	40	50	132	222	316	63	a150	24	a9	12
10	19	64	38	66	140	159	236	60	a100	24	a9	28
11	18	60	37	60	123	136	201	59	a80	22	a11	27
12	18	58	37	55	122	127	187	61	a76	27	a11	28
13	18	52	43	54	111	114	187	57	a90	23	a10	28
14	18	50	174	54	103	105	180	55	a80	21	a12	32
15	18	49	201	52	95	100	157	72	a66	25	a14	21
16	18	*48	208	b45	96	95	148	58	a56	*22	a16	18
17	18	454	129	b40	84	88	139	52	a66	20	a15	340
18	19	444	98	b40	78	94	131	54	a70	22	a12	127
19	19	166	82	b45	88	88	127	229	a66	22	a16	72
20	18	119	76	b50	194	89	122	146	a50	20	a20	49
21	18	102	72	77	129	79	118	119	*a40	18	a18	38
22	51	112	67	111	111	78	112	*91	38	17	a16	30
23	105	88	122	194	101	97	106	79	39	16	a14	27
24	61	74	180	151	95	83	107	65	46	22	a13	24
25	57	68	133	*108	90	76	102	57	40	20	a15	22
26	49	66	105	95	308	72	98	56	46	16	a20	22
27	474	63	95	85	442	70	92	62	16	a23	20	
28	317	56	*84	137	258	57	90	55	40	16	a20	18
29	145	54	73	159	-	65	100	49	72	16	a15	22
30	119	52	68	132	-----	64	*92	47	45	21	a14	29
31	186	-----	65	146	-----	61	-----	46	-----	16	a15	-----
Total	2,017	3,361	2,589	2,424	4,227	3,944	5,942	2,282	2,357	699	422.8	1,122.4
Mean	65.1	112	83.5	78.2	151	127	198	73.6	78.6	22.5	13.6	37.4
Cfsm	0.561	0.966	0.720	0.674	1.30	1.09	1.71	0.634	0.678	0.194	0.117	0.322
In.	0.65	1.08	0.83	0.78	1.35	1.26	1.91	0.73	0.76	0.22	0.13	0.36

Calendar year 1956: Max 474 Min 7.8 Mean 58.4 Cfsm 0.503 In. 6.84

Water year 1956-57: Max 949 Min 9.0 Mean 86.0 Cfsm 0.741 In. 10.06

Peak discharge (base, 1,500 cfs).--Apr. 6 (3 a.m.), 1,520 cfs (8.84 ft).

* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of records for nearby stations.

b Stage-discharge relation affected by ice.

Slate River near Arvonja, Va.

Location.--Lat 37°42'10", long 78°22'40", on left bank 100 ft upstream from Bumpers Bridge, 1.8 miles northwest of Arvonja, Buckingham County, 2.9 miles upstream from Hunts Creek, and 3.8 miles upstream from mouth.

Drainage area.--235 sq mi.

Records available.--April 1926 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 238.78 ft above mean sea level (levels by Corps of Engineers). Prior to Sept. 18, 1935, chain gage and Sept. 18, 1935, to Feb. 14, 1936, staff gage, at same site and datum.

Average discharge.--30 years (1926-35, 1936-57), 222 cfs.

Extremes.--Maximum discharge during year, 3,340 cfs Apr. 5 (gage height, 10.10 ft); minimum, 14 cfs Aug. 15 (gage height, 1.81 ft).
1926-57: Maximum discharge, 13,600 cfs Sept. 6, 1935 (gage height, 22.18 ft, from floodmarks), from rating curve extended above 5,500 cfs on basis of velocity-area studies; minimum, 2 cfs Sept. 28 to Oct. 2, 1930.

Remarks.--Records good.

Revisions (water years).--WSP 972: 1928-29, 1932, 1933-34(M), 1935.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 4, 18-20)

Oct. 1 to Nov. 17

Nov. 18 to Sept. 30

2.2	33	4.0	286	1.8	14	4.0	300
2.5	55	5.0	600	2.1	28	5.0	600
3.0	108	6.0	988	2.5	58	7.0	1,500
				3.0	114	10.0	3,280
				3.5	194		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	287	99	114	955	*850	131	150	79	70	29	34
2	54	218	96	103	1,180	582	169	132	77	60	27	29
3	48	156	95	87	500	350	180	124	101	56	24	23
4	60	160	94	88	365	269	153	120	104	54	21	26
5	69	159	92	110	274	230	1,520	118	135	51	21	22
6	56	112	90	108	245	208	2,800	118	282	47	21	20
7	53	100	90	103	293	200	715	113	180	44	18	19
8	49	92	90	99	515	578	594	107	214	43	17	23
9	45	90	88	100	635	544	1,560	103	148	44	16	30
10	41	86	87	165	565	315	548	98	132	46	16	57
11	38	80	84	180	350	247	350	95	117	44	15	65
12	38	75	84	132	274	222	280	98	100	40	16	52
13	38	72	93	125	230	200	260	95	143	37	16	37
14	40	69	496	122	206	183	256	88	92	36	15	32
15	41	68	870	117	187	180	218	100	81	38	15	37
16	41	68	932	108	174	181	198	100	74	36	20	42
17	40	811	470	100	169	169	192	85	108	36	36	132
18	45	1,650	252	100	152	158	185	83	118	44	24	232
19	49	395	183	100	187	167	178	158	78	47	29	90
20	48	222	155	105	600	180	192	172	69	47	52	72
21	45	172	142	134	312	160	181	152	63	38	46	56
22	76	325	134	208	238	155	169	115	60	33	34	48
23	239	245	334	230	204	222	160	111	57	35	28	43
24	136	163	582	210	185	196	198	98	422	89	25	39
25	89	136	345	158	172	171	202	86	142	78	27	38
26	75	125	222	142	299	158	172	90	100	45	44	35
27	611	120	180	131	548	153	153	162	*95	40	59	34
28	488	108	*153	576	434	145	209	131	83	39	41	32
29	181	*103	142	914	-	*141	220	*100	84	41	*32	35
30	*156	100	128	548	-----	138	*190	89	85	*36	28	*54
31	345	-----	118	*530	-----	132	-----	81	-----	32	27	-----
Total	3,401	6,547	6,960	6,047	10,448	7,784	12,533	3,452	3,623	1,424	839	1,488
Mean	110	218	225	195	373	251	418	111	121	45.9	27.1	49.6
Cfsm	0.468	0.928	0.957	0.830	1.59	1.07	1.78	0.472	0.515	0.195	0.115	0.211
In.	0.54	1.04	1.10	0.96	1.66	1.23	1.99	0.54	0.57	0.22	0.13	0.24

Calendar year 1956: Max 1,650

Min 9.7

Mean 124

Cfsm 0.528

In. 7.20

Water year 1956-57: Max 2,800

Min 15

Mean 177

Cfsm 0.753

In. 10.22

Peak discharge (base, 2,100 cfs).--Nov. 18 (2 a.m.) 2,260 cfs (8.34 ft); Apr. 5 (p.m.) 3,340 cfs (10.10 ft).

* Discharge measurement made on this day.

North Fork Moormans River near Whitehall, Va.

Location.--Lat 38°08'25", long 78°45'05", on left bank 0.5 mile upstream from confluence with South Fork, 0.8 mile upstream from city of Charlottesville dam, and 5.1 miles west of Whitehall, Albemarle County.

Drainage area.--11.4 sq mi.

Records available.--December 1951 to September 1957.

Gage.--Water-stage recorder. Concrete control since November 1952. Altitude of gage is 999 ft (by barometer).

Average discharge.--5 years, 13.7 cfs.

Extremes.--Maximum discharge during year, 520 cfs Feb. 26 (gage height, 4.70 ft); minimum daily, 0.05 cfs Sept. 5, 6.

1951-57: Maximum discharge, 2,400 cfs Aug. 18, 1955 (gage height, 7.94 ft); no flow Oct. 1-14, 1954.

Flood of Oct. 15, 1942, reached a stage of 11.7 ft, from floodmarks (discharge, 7,620 cfs, by slope-area method).

Revisions.--The maximum discharge for the water year 1956 has been revised to 158 cfs July 20, 1956 (gage height, 3.33 ft), superseding figure published in WSP 1433.

Remarks.--Records good except those below 10 cfs and for periods of no gage-height record, which are fair.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 24,
Sept. 17-30

Apr. 25 to Sept. 16

1.3	0.2	1.9	6.0	0.6	0.05	1.5	1.9
1.4	.6	2.1	14	.8	.07	1.6	3.0
1.5	1.2	2.5	35	1.0	.09	1.8	6.3
1.6	1.8	3.0	90	1.1	.1	2.0	11
1.7	2.8	3.5	200	1.2	.2	2.4	29
1.8	4.0	4.5	400	1.3	.4	2.8	64
				1.4	1.0		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	150	6	10	*25	90	9.0	17	5.2	a2.5	1.0	a0.07
2	12	81	5.6	7.5	33	87	58	15	5.4	a2.0	.8	a.06
3	9.1	57	5.4	6.3	38	69	64	14	9.2	a1.7	.5	a.06
4	8.3	45	5.0	6.3	34	49	50	13	8.7	a1.5	.4	a.06
5	6.9	39	4.4	6.6	30	37	*99	11	12	a1.4	.4	a.05
6	6.0	33	4.4	5.6	27	30	115	10	30	a1.4	.3	*a.05
7	5.4	28	4.4	5.6	26	26	74	9.5	22	a1.3	.2	a.06
8	4.6	24	4.2	5.2	25	26	56	8.5	17	a1.3	.2	a.2
9	3.8	21	4.0	5.4	28	26	42	8.3	14	a1.0	.1	a.5
10	3.4	18	3.8	6.3	29	24	33	7.8	11	a1.0	.09	1.2
11	3.3	16	3.6	4.8	28	22	28	7.6	9.2	a.8	.08	1.3
12	*3.3	14	3.6	4.0	26	24	26	7.6	8.5	a.8	.08	.8
13	3.1	*12	4.2	4.2	26	24	26	7.0	7.6	a.6	.07	.8
14	3.1	9.5	7.9	4.4	24	24	22	6.7	8.1	a.6	*.07	2.2
15	3.0	8.7	12	3.6	21	23	20	7.2	8.3	*a.5	.08	1.7
16	2.9	7.9	22	3.8	20	20	18	5.9	7.8	.5	.09	1.5
17	3.0	14	22	3.2	18	18	18	5.5	6.5	.5	.2	5.5
18	3.0	22	20	3.2	15	16	18	5.7	5.9	.5	.1	2.0
19	3.0	19	*18	3.2	18	18	15	10	5.4	.7	.09	1.2
20	2.8	18	16	3.0	28	16	14	15	*5.0	.5	.09	1.4
21	2.8	18	15	3.8	28	13	12	14	4.6	.4	.2	.9
22	62	16	14	5.4	28	14	11	*12	4.4	.3	.2	.7
23	67	14	18	14	26	14	10	10	4.4	.4	.2	.6
24	38	12	22	15	23	14	24	8.5	4.4	1.1	.1	.4
25	28	11	24	16	22	12	62	7.6	4.3	.9	.1	.4
26	36	10	24	16	260	*12	42	7.6	4.4	.5	.1	.3
27	140	9.1	23	14	*215	12	32	8.3	4.1	.4	.1	.3
28	90	7.5	20	18	98	10	26	7.0	4.1	.4	.1	.2
29	59	7.2	18	19	-	9.9	22	5.9	a4.5	2.8	.09	.2
30	75	6.6	14	18	-----	9.1	18	5.5	a5.0	3.0	.08	.7
31	384	-----	12	20	-----	7.5	-----	5.2	-----	1.4	a.07	-----
Total	1,088.8	748.5	380.7	261.4	1,219	796.5	1,062.0	283.9	247.0	32.7	6.28	25.41
Mean	35.1	25.0	12.3	8.43	43.5	25.7	35.4	9.16	8.23	1.05	0.203	0.847
Cfsm	3.08	2.19	1.08	0.739	3.82	2.25	3.11	0.804	0.722	0.092	0.018	0.074
In.	3.55	2.44	1.24	0.85	3.98	2.59	3.47	0.93	0.81	0.11	0.02	0.08
Calendar year 1956: Max	384				Min 0.50	Mean 12.2	Cfsm 1.07	In. 14.56				
Water year 1956-57: Max	384				Min 0.05	Mean 16.9	Cfsm 1.47	In. 20.07				

Peak discharge (base, 150 cfs).--Oct. 27 (12 m.) 178 cfs (3.41 ft); Oct. 31 (7 a.m.) 490 cfs (4.59 ft); Feb. 26 (5 p.m.) 520 cfs (4.70 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Rivanna River at Palmyra.

South Fork Rivanna River near Earlsyville, Va.

Location.--Lat 38°07'30", long 78°31'05", on left bank 0.3 mile upstream from Fishing Creek, 3.0 miles southwest of Earlsyville, Albemarle County, and 8.7 miles upstream from confluence with North Fork.

Drainage area.--216 sq mi.

Records available.--December 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 369 ft (by barometer).

Average discharge.--5 years (1952-57), 176 cfs.

Extremes.--Maximum discharge during year, 3,300 cfs Feb. 26 (gage height, 8.75 ft); minimum daily, 2.5 cfs Sept. 5, 6.
1951-57: Maximum discharge, 30,200 cfs Aug. 18, 1955 (gage height, 26.1 ft), from rating curve extended above 6,600 cfs on basis of contracted-opening determination of peak flow; minimum observed, 2.2 cfs Sept. 18, 1954 (gage height, 0.71 ft).
Flood in October 1942 reached a stage of about 33 ft, from information by local resident.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Some diurnal fluctuation, mostly at medium flow, by city of Charlottesville reservoir on Moormans River. Records of discharge do not include diversions for Charlottesville municipal water supply which averages about 6 cfs.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 18 to June 3)

Oct. 1 to Jan. 23

Jan. 24 to Sept. 30

1.4	44	3.0	329	0.3	1.5	0.8	16	2.4	215
1.6	64	4.0	630	.4	3.5	1.0	26	3.0	360
2.0	122	5.6	1,290	.5	6.0	1.4	56	4.0	685
2.5	218			.6	9.0	1.9	120	7.0	2,120

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	1,010	102	117	*275	1,420	152	175	54	51	18	6
2	133	596	98	107	375	940	971	159	52	42	16	4.5
3	108	594	98	96	336	705	650	149	322	38	14	3.5
4	100	465	89	105	310	495	528	143	167	36	12	3
5	94	326	84	100	278	465	*1,760	158	195	33	11	2.5
6	82	299	83	96	336	354	1,420	130	369	32	10	*2.5
7	75	267	83	94	290	333	805	120	260	31	9	3
8	69	236	80	90	270	495	650	112	195	31	8	5
9	63	204	77	87	290	480	545	108	169	30	7	11
10	58	176	76	104	310	360	435	102	155	28	6	30
11	53	154	71	93	300	325	390	100	128	26	6	27
12	*48	145	75	83	300	308	342	111	119	25	6	16
13	48	*127	84	84	275	280	342	96	101	25	5	14
14	46	119	122	89	258	262	310	90	92	35	*4.5	19
15	48	110	154	80	243	255	280	108	108	35	4.5	21
16	46	105	210	b80	223	241	262	92	120	25	5	22
17	46	237	196	b85	211	225	251	84	86	22	6	528
18	45	407	182	b85	189	215	243	95	76	22	7	175
19	44	269	*154	b85	209	235	231	213	67	22	10	90
20	44	228	147	b90	520	223	225	199	*62	20	12	63
21	44	206	140	99	375	195	237	191	55	17	11	47
22	121	204	133	120	288	197	223	*154	52	*15	10	38
23	329	172	172	201	290	231	207	136	52	17	9	34
24	202	153	222	219	243	199	229	106	64	30	8	32
25	172	142	202	193	234	187	262	86	59	25	8	28
26	154	138	184	185	1,380	*179	247	79	77	18	10	26
27	1,140	131	178	169	*1,870	177	225	83	59	16	13	23
28	647	119	166	207	1,140	165	209	80	56	16	10	21
29	435	114	158	247	-	161	223	65	90	15	8	24
30	465	107	136	235	-----	155	199	60	58	40	7	34
31	1,260	-----	122	233	-----	148	-----	56	-----	21	6	-----
Total	6,397	7,562	4,074	3,958	11,618	10,608	13,053	3,620	3,512	839	277.0	1,353.0
Mean	206	252	131	128	415	342	435	117	117	27.1	8.94	45.1
Cfsm	0.954	1.17	0.606	0.595	1.92	1.58	2.01	0.542	0.542	0.125	0.041	0.208
In.	1.10	1.30	0.70	0.68	2.00	1.82	2.24	0.62	0.60	0.14	0.05	0.23
Calendar year 1956: Max			1,580		Min 6.2	Mean 121		Cfsm 0.560	In. 7.61			
Water year 1956-57: Max			1,870		Min 2.5	Mean 183		Cfsm 0.847	In. 11.48			

Peak discharge (base, 2,000 cfs).--Feb. 26 (8 p.m.) 3,300 cfs (8.75 ft); Apr. 5 (6 p.m.) 2,720 cfs (8.05 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Oct. 6-12, July 6-24, July 28 to Sept. 8; discharge estimated on basis of records for Rivanna River at Palmyra.

Rivanna River at Palmyra, Va.

Location.--Lat 37°51'28" long 78°15'58", on left bank 10 ft upstream from highway bridge at Palmyra, Fluvanna County, 0.5 mile upstream from Cunningham Creek, and 15 miles upstream from mouth.

Drainage area.--675 sq mi.

Records available.--May 1934 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 210.39 ft above mean sea level, datum of 1929, Culpeper supplementary adjustment of 1943. Prior to Oct. 16, 1942, water-stage recorder at site 200 ft downstream at same datum. Oct. 24, 1942, to Dec. 18, 1947, wire-weight gage on upstream side of highway bridge 10 ft downstream at same datum.

Average discharge.--23 years, 706 cfs.

Extremes.--Maximum discharge during year, 7,930 cfs Apr. 6 (gage height, 14.15 ft); minimum, 25 cfs Aug. 13, 14, 15, Sept. 7 (gage height, 2.48 ft).

1934-57: Maximum discharge, 78,000 cfs Oct. 16, 1942 (gage height, 36.5 ft at site then in use, 37.4 ft at present site); minimum, 11 cfs Sept. 14, 15, 1954 (gage height, 2.36 ft); minimum gage height, 1.53 ft Oct. 9, 1941, site then in use.

Remarks.--Records fair.

Revisions (water years).--WSP 802: 1936(M). WSP 852: 1937. WSP 892: 1934-35. Revised figures of discharge, in cubic feet per second, for the water year 1956, superseding those published in WSP 1433, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1956		1956-Con.		1956-Con.		1956-Con.		1956-Con.	
July 21	2,750	Aug. 5	120	Aug. 20	63	Sept. 4	178	Sept. 19	75
22	1,480	6	235	21	79	5	101	20	66
23	838	7	230	22	138	6	125	21	61
24	1,080	8	290	23	107	7	190	22	56
25	535	9	182	24	87	8	270	23	54
26	340	10	158	25	73	9	118	24	52
27	250	11	115	26	63	10	85	25	58
28	190	12	105	27	58	11	72	26	66
29	161	13	95	28	55	12	66	27	1,120
30	152	14	99	29	83	13	93	28	2,900
31	146	15	93	30	61	14	77	29	991
Aug. 1	128	16	85	31	79	15	66	30	626
2	120	17	79	Sept. 1	158	16	68		
3	128	18	73	2	72	17	89		
4	125	19	68	3	75	18	91		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
July 1956.....	9,919	2,750	33	320	0.474	0.55
August.....	3,454	290	55	111	.164	.19
September.....	8,117	2,900	52	271	.401	.45
Water year 1955-56.....	-	2,900	33	260	.385	5.24

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	451	1,220	322	382	1,080	3,680	400	486	210	158	79	49
2	546	1,430	305	358	1,830	2,940	1,550	444	202	138	63	39
3	275	1,090	295	300	1,370	2,180	1,900	418	842	122	54	30
4	245	1,250	290	322	991	1,450	1,140	406	610	115	46	*26
5	230	982	270	346	856	1,220	3,450	382	586	109	42	31
6	220	820	265	334	964	1,000	5,770	376	973	107	36	28
7	210	730	260	316	928	937	2,660	358	784	97	34	25
8	190	634	260	310	811	1,860	1,860	340	586	91	31	26
9	*184	556	260	300	811	1,720	1,860	316	500	93	30	28
10	143	472	250	322	928	1,160	1,160	290	444	91	30	59
11	135	412	240	334	865	991	1,010	280	382	85	30	97
12	128	382	240	300	865	910	928	280	340	77	28	97
13	128	358	270	290	784	838	892	*275	295	75	26	79
14	128	322	570	290	714	766	892	270	260	73	26	114
15	130	300	757	290	674	*722	766	409	285	*99	28	103
16	128	285	946	255	610	698	706	328	260	103	*30	73
17	122	920	*748	270	570	634	674	260	255	75	34	*1,140
18	128	2,190	610	159	521	594	650	260	206	66	34	907
19	125	991	514	260	514	594	626	793	186	66	42	352
20	125	739	465	270	1,260	642	594	658	170	66	49	230
21	120	626	444	300	1,030	570	602	682	*164	63	52	178
22	157	668	418	418	849	535	536	152	56	46	145	66
23	444	563	528	766	748	802	542	493	140	54	43	120
24	507	479	865	892	682	586	*542	418	167	75	37	109
25	388	430	784	*658	618	528	838	352	182	85	42	99
26	334	406	626	570	1,290	500	674	295	164	75	52	91
27	1,590	394	556	514	*4,400	493	586	295	182	63	54	85
28	2,540	364	521	650	5,020	472	521	310	155	55	50	79
29	1,070	*346	486	892	-	451	658	265	186	52	43	77
30	910	334	444	802	-	437	563	235	230	96	40	101
31	1,110	-	406	764	-	418	-	220	-	116	37	-
Total	12,921	20,741	14,215	13,254	30,172	30,828	35,520	11,743	10,098	2,696	1,268	4,614
Mean	417	691	459	428	1,078	994	1,184	379	337	87.0	40.9	154
Cfsm	0.618	1.02	0.680	0.634	1.60	1.47	1.75	0.561	0.499	0.129	0.061	0.228
In.	0.71	1.14	0.78	0.73	1.67	1.70	1.95	0.65	0.56	0.15	0.07	0.25

Calendar year 1956: Max 2,900 Min 35 Mean 342 Cfsm 0.507 In. 6.89
Water year 1956-57: Max 5,770 Min 25 Mean 515 Cfsm 0.763 In. 10.36

Peak discharge (base, 6,000 cfs).--Apr. 6 (3 a.m.) 7,930 cfs (14.15 ft).

* Discharge measurement made on this day.

Willis River at Planagan Mills, Va.

Location.--Lat 37°40', long 78°11', on left bank 15 ft upstream from highway bridge, a quarter of a mile downstream from Planagan Mills, Cumberland County, half a mile downstream from Trices Lake, 4 miles downstream from Reynolds Creek, and 5½ miles upstream from mouth.

Drainage area.--247 sq mi.

Records available.--April 1926 to January 1935, September 1936 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 178.98 ft above mean sea level (levels by Corps of Engineers). Prior to Jan. 3, 1935, chain gage at site a quarter of a mile upstream at same datum.

Average discharge.--29 years (1926-34, 1936-57), 236 cfs.

Extremes.--Maximum discharge during year, 1,320 cfs Apr. 11 (gage height, 11.32 ft); minimum, 8.7 cfs Aug. 12-15 (gage height, 2.47 ft).
1926-35, 1936-57: Maximum discharge, 9,580 cfs Apr. 27, 1937 (gage height, 23.86 ft, from floodmarks), from rating curve extended above 5,800 cfs on basis of velocity-area studies, with backwater correction; minimum, 2 cfs Sept. 30, Oct. 1, 4, 12, 1930.

Remarks.--Records good. Complete regulation of flow from Trices Lake, tributary to Willis River, slightly affects flow at gage.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 872: 1936-37. WSP 892: 1928-29, 1932-34(M). WSP 972: 1937, 1940. WSP 1203: 1929.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 17, June 8-25;
stage-discharge relation affected by ice Jan. 18, 19)

Oct. 1 to Nov. 18

Nov. 19 to Sept. 30

2.9	21	5.0	180	2.4	8	4.0	86
3.2	35	6.0	296	2.7	14	6.0	340
3.5	51	8.0	651	3.0	25	9.0	840
4.0	82	9.0	841	3.5	51	12.0	1,470

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	174	102	132	804	1,100	147	129	57	36	20	20
2	39	334	94	121	940	1,040	157	117	55	30	28	17
3	51	208	94	107	960	840	167	105	76	28	29	16
4	34	158	87	99	920	442	161	98	209	26	23	30
5	30	118	85	117	541	320	202	92	202	25	18	38
6	34	92	84	129	382	280	660	91	333	29	16	35
7	30	*79	82	124	382	261	840	91	382	22	*14	34
8	31	71	80	115	541	455	900	88	304	*23	13	26
9	*27	69	76	109	732	628	1,040	83	178	22	12	19
10	25	71	76	129	786	558	1,080	80	*132	20	12	22
11	26	67	71	162	732	347	1,290	77	103	22	9.0	34
12	28	70	70	156	575	287	732	76	86	20	8.8	*44
13	25	67	81	132	368	254	340	*76	76	26	8.8	38
14	21	61	138	127	300	*228	313	73	75	23	8.7	30
15	24	58	235	121	*268	222	287	69	61	20	8.9	29
16	23	52	427	114	242	254	248	62	52	17	9.6	27
17	23	260	*427	99	222	261	222	57	59	16	10	50
18	32	784	340	90	209	216	216	59	64	19	10	180
19	38	609	228	85	215	202	202	69	50	112	12	183
20	38	490	176	95	524	254	222	114	44	62	14	91
21	32	248	158	112	507	228	222	135	37	38	25	59
22	43	254	149	152	368	209	202	103	38	27	29	44
23	71	274	320	*202	274	254	176	85	52	22	22	36
24	80	248	660	222	235	268	*170	77	33	44	20	30
25	80	176	643	196	216	228	190	69	34	46	19	26
26	61	147	524	165	504	209	176	62	44	32	28	26
27	106	131	287	144	840	190	153	68	45	34	41	27
28	137	124	222	352	714	176	135	91	43	24	36	25
29	134	109	196	660	-	167	130	80	42	23	26	23
30	109	100	167	643	-----	164	126	73	38	19	20	26
31	164	-----	145	660	-----	153	-----	59	-----	19	19	-----
Total	1,634	5,703	6,524	5,871	14,302	10,693	11,106	2,608	2,984	926	569.8	1,285
Mean	52.7	190	210	189	511	345	370	84.1	99.5	29.9	18.4	42.8
Cfsm	0.213	0.769	0.850	0.765	2.07	1.40	1.50	0.340	0.403	0.121	0.074	0.173
In.	0.25	0.86	0.98	0.88	2.16	1.61	1.67	0.39	0.45	0.14	0.09	0.19

Calendar year 1956: Max 900 Min 14 Mean 133 Cfsm 0.538 In. 7.35
Water year 1956-57: Max 1,290 Min 8.7 Mean 176 Cfsm 0.715 In. 9.67

Peak discharge (base, 1,700 cfs).--No peak above base.

* Discharge measurement made on this day.

James River at Cartersville, Va.

Location.--Lat 37°40', long 78°05', on left bank 200 ft downstream from highway bridge between Pemberton and Cartersville, Cumberland County, 2 miles downstream from Willis River, and at mile 152.4.

Drainage area.--6,242 sq mi.

Records available.--January 1899 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 161.57 ft above mean sea level (levels by Corps of Engineers). Prior to June 4, 1927, wire or chain gage at same site and datum.

Average discharge.--57 years (1899-1904, 1905-57), 7,070 cfs.

Extremes.--Maximum discharge during year, 67,400 cfs Apr. 7 (gage height, 19.47 ft); minimum, 546 cfs Aug. 17 (gage height, 0.34 ft); minimum daily, 600 cfs Aug. 16.
1899-1957: Maximum discharge, 180,000 cfs Sept. 20, 1944 (gage height, 29.6 ft, from floodmark in gage well); minimum, 320 cfs Sept. 22, 1932; minimum daily, 348 cfs Oct. 5, 1930; minimum gage height, 0.10 ft Oct. 2, 1941.

Remarks.--Records good. Flow regulated by powerplants above station.

Revisions (water years).--WSP 582: Drainage area. WSP 972: 1936(M). WSP 1203: 1901-2(M), 1924-25(M), 1928(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-27, Feb. 1 to Sept. 30				Oct. 28 to Jan. 31			
0.4	600	10.0	24,100	1.2	1,860		
2.0	3,080	15.0	44,500	3.0	5,080		
5.0	9,000	20.0	70,200	6.0	11,600		
				10.0	24,100		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,020	10,500	2,920	4,720	28,600	28,600	4,630	8,520	2,820	2,480	1,180	859
2	2,400	11,100	2,920	4,450	27,000	33,400	5,200	8,280	2,910	2,400	1,230	808
3	1,950	9,280	2,650	4,090	26,300	29,400	15,000	7,000	3,080	2,740	1,130	784
4	1,720	9,500	2,380	3,640	22,700	21,000	16,500	6,000	3,930	3,000	1,080	808
5	1,740	8,800	2,650	3,550	17,100	16,200	17,800	5,600	3,340	2,740	1,080	*748
6	1,640	6,710	2,470	3,280	14,200	13,600	46,400	5,010	5,200	2,480	965	690
7	1,480	5,620	2,380	3,280	12,400	11,600	*65,200	4,820	7,000	2,090	859	670
8	1,520	4,900	2,290	3,280	14,700	12,200	41,000	4,360	7,840	1,930	898	735
9	1,530	*4,270	2,290	3,100	15,000	14,400	30,200	4,100	8,060	1,710	820	808
10	1,530	3,910	1,940	3,010	17,800	12,200	23,000	3,930	6,200	1,550	748	898
11	*1,720	3,550	1,940	3,730	22,400	10,800	21,700	3,420	5,010	1,600	846	1,180
12	1,500	3,550	2,200	3,640	20,300	9,500	17,400	3,590	4,720	1,440	846	1,920
13	1,320	2,920	2,200	5,440	16,200	8,760	14,200	3,420	4,360	1,450	*748	1,400
14	1,160	2,650	3,370	5,800	13,300	8,060	13,000	*3,340	3,930	1,340	670	1,150
15	1,020	2,650	5,980	4,900	11,100	7,620	11,100	3,590	3,680	1,340	630	1,480
16	1,130	2,470	7,500	4,720	9,500	7,200	10,000	3,930	3,500	1,320	600	2,820
17	1,070	3,840	6,900	4,270	9,000	6,600	8,520	3,680	5,600	*1,360	830	4,540
18	1,240	13,000	6,160	3,370	7,620	6,600	7,620	3,080	6,200	1,240	712	14,200
19	1,230	9,500	5,980	3,370	7,000	6,200	7,410	4,360	5,010	1,450	772	12,700
20	1,200	5,800	5,260	3,370	8,760	6,200	7,000	5,800	4,100	1,600	1,010	14,400
21	1,160	4,900	4,720	3,280	10,300	5,800	6,800	6,400	3,590	1,820	1,340	11,300
22	1,280	4,900	4,180	3,550	14,400	5,800	6,200	15,000	3,340	1,020	1,420	7,620
23	1,930	4,900	4,720	4,540	11,600	5,800	6,200	10,800	2,740	898	1,040	5,010
24	4,720	4,360	6,900	6,340	9,750	5,800	7,000	8,060	3,160	1,370	808	3,840
25	4,540	3,730	6,900	*8,920	9,000	5,800	8,060	6,000	3,760	1,450	872	3,250
26	4,270	3,640	9,500	13,000	9,000	6,000	7,620	5,010	2,910	1,600	872	2,660
27	4,740	3,550	11,100	9,500	23,400	*6,000	6,200	4,630	2,570	1,450	950	2,230
28	9,750	3,280	8,800	9,260	27,400	5,600	6,200	4,180	3,000	1,340	965	1,980
29	9,500	3,480	6,710	11,600	-----	5,400	7,200	3,840	2,740	1,210	911	1,760
30	8,570	3,010	5,980	11,300	-----	5,200	7,840	3,420	3,340	1,240	820	1,850
31	7,100	-----	5,260	21,700	-----	4,820	-----	3,760	-----	1,260	784	-----
Total	89,680	164,030	147,150	182,000	435,830	332,160	452,200	166,940	127,640	52,118	28,236	105,099
Mean	2,893	5,468	4,747	5,871	15,570	10,710	15,070	5,385	4,255	1,681	911	3,503
Cfs/m	0.463	0.876	0.760	0.941	2.49	1.72	2.41	0.863	0.682	0.269	0.146	0.561
In.	0.53	0.98	0.88	1.08	2.59	1.98	2.69	0.99	0.76	0.31	0.17	0.63
Calendar year 1956: Max	21,700				Min 591		Mean 3,818	Cfs/m 0.612	In. 8.33			
Water year 1956-57: Max	65,200				Min 600		Mean 6,255	Cfs/m 1.00	In. 13.60			

Peak discharge (base, 40,000 cfs).--Apr. 7 (5 p.m.) 67,400 cfs (19.47 ft).

* Discharge measurement made on this day.

Fine Creek at Fine Creek Mills, Va.

Location.--Lat 37°35'52", long 77°49'12", on right bank 75 ft downstream from highway bridge at Fine Creek Mills, Powhatan County, 0.8 mile upstream from mouth, and 6.7 miles northeast of Powhatan.

Drainage area.--23 sq mi, approximately.

Records available.--July 1944 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 160 ft (from topographic map). Prior to Oct. 28, 1953, chain gage or inclined staff gage and crest-stage indicator at site 75 ft upstream at same datum.

Average discharge.--13 years, 19.2 cfs.

Extremes.--Maximum discharge during year, 150 cfs Apr. 9 (gage height, 2.84 ft); minimum, 1.0 cfs Aug. 13, 14.

1944-57: Maximum discharge, 2,010 cfs Aug. 18, 1955 (gage height, 6.98 ft); minimum, 0.4 cfs Sept. 11, 1954 (gage height, 1.56 ft).

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1203: 1948. WSP 1383: 1954.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 9

Apr. 10 to Sept. 30

1.7	1.5	2.0	14	1.5	0.9	2.0	16
1.8	3.2	2.3	56	1.6	1.3	2.1	26
1.9	6.8	2.9	162	1.7	2.0	2.3	56
				1.8	4.3	2.5	89
				1.9	9.0		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	22	9.2	12	70	135	14	10	5.4	3.4	1.5	3.7
2	3.2	45	9.2	9.9	*84	106	16	9.6	7.8	2.8	1.4	2.4
3	3.8	24	9.2	8.5	48	43	14	9.0	13	2.2	1.3	2.6
4	3.8	24	8.5	11	40	33	14	9.6	9.6	2.0	1.3	3.4
5	3.8	15	9.2	14	29	29	27	9.6	13	2.0	1.3	2.4
6			9.9	12	26	26	54	9.0	27	1.8	1.2	2.0
7	3.5	*9.9	9.9	12	37	26	25	8.4	14	1.7	*1.2	2.0
8	2.6	9.9	9.9	11	40	46	41	7.8	26	*1.8	1.2	3.8
9	*2.4	15	9.9	12	58	37	*137	7.3	14	1.9	1.1	12
10	2.4	12	9.2	20	54	26	78	6.8	*12	1.9	1.1	13
11	2.2	9.2	8.5	13	37	24	26	6.8	10	1.8	1.1	18
12	2.4	8.5	8.5	12	30	24	21	6.8	9.0	1.9	1.1	*7.3
13	2.6	7.7	9.2	12	26	21	21	*6.8	7.8	3.2	1.1	4.7
14	2.8	7.4	12	12	*24	*19	19	6.3	6.8	2.4	1.0	3.7
15	2.6	6.8	18	9.9	21	20	16	5.4	6.3	1.9	1.3	4.3
16	2.4	7.4	36	9.8	20	20	14	5.0	6.8	1.7	2.2	3.4
17	2.6	37	*19	9.5	19	18	14	5.0	6.3	1.5	1.6	12
18	7.7	62	14	9.2	16	16	14	5.8	5.4	1.5	1.5	13
19	5.4	25	12	9.2	25	25	14	31	5.4	1.5	10	7.3
20	3.5	18	12	9.9	50	24	12	14	6.3	1.5	10	5.0
21	3.5	14	12	14	27	19	12	11	5.0	1.4	5.0	4.7
22	9.2	20	12	19	22	20	11	10	4.3	1.3	3.0	4.0
23	25	14	48	*21	20	24	11	9.0	4.0	1.3	2.2	3.7
24	11	12	45	14	20	18	14	7.8	3.7	2.6	2.0	3.4
25	6.4	11	26	13	20	16	74	5.8	4.3	2.4	1.1	3.2
26	5.4	9.9	19	13	66	16	38	5.8	5.4	1.8	9.0	3.0
27	29	9.9	16	12	*106	16	16	11	5.0	1.9	8.4	2.8
28	22	9.9	15	50	64	15	12	9.6	4.3	3.4	4.0	2.8
29	13	9.9	15	50	-	14	12	6.8	5.8	2.4	2.8	3.7
30	18	9.2	14	30	-	14	11	5.8	4.7	1.9	2.4	6.3
31	29	-	13	*46	-	14	-	5.4	-	1.5	2.4	-
Total	238.5	495.6	478.3	510.9	1,099	904	802	268.0	258.4	62.3	95.7	163.6
Mean	7.69	16.5	15.4	16.5	39.2	29.2	26.7	8.65	8.61	2.01	3.09	5.45
Cfsm	0.334	0.717	0.670	0.717	1.70	1.27	1.16	0.376	0.374	0.087	0.134	0.237
In.	0.39	0.80	0.77	0.83	1.77	1.46	1.29	0.43	0.42	0.10	0.15	0.26

Calendar year 1956: Max 112 Min 1.2 Mean 12.3 Cfsm 0.535 In. 7.28

Water year 1956-57: Max 137 Min 1.0 Mean 14.7 Cfsm 0.639 In. 8.67

Peak discharge (base, 500 cfs).--No peak above base.

* Discharge measurement made on this day.

James River & Kanawha Canal near Richmond, Va.

Location.--Lat 37°33'52", long 77°34'28", on left bank 75 ft downstream from canal bridge, 400 ft downstream from headgates, 1,200 ft north of north end of Bosher Dam on James River, 1.6 miles upstream from Huguenot Memorial Bridge, and 2.0 miles west of city limits of Richmond, Henrico County.

Records available.--September 1936 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 106.07 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1938, at datum 3.06 ft higher.

Average discharge.--21 years, 879 cfs.

Extremes.--Maximum discharge during year, 1,100 cfs Apr. 6 (gage height, 8.70 ft); no flow at times when headgates were closed.

1936-57: Maximum gage height, 19.7 ft Sept. 20, 1944 (discharge not determined); no flow at times when headgates were closed.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Canal diverts from James River 1,200 ft above Bosher Dam and discharges into river at several points below gaging station near Richmond. Figures given show flow in canal only; for record of flow of James River near Richmond, see following page.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.55	0	4.0	368
1.6	4.0	6.0	634
1.0	30	8.4	1,040
2.0	130		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	900	960	840	920	980	1,000	920	1,000	870	810	765	735
2	846	950	830	900	980	1,020	920	1,000	850	800	765	735
3	812	940	820	882	980	1,000	980	980	850	800	765	735
4	796	960	810	792	980	1,000	980	960	880	790	765	735
5	796	940	800	0	960	1,000	980	940	880	780	765	735
6	796	940	820	216	960	1,000	1,000	920	900	780	750	735
7	780	940	810	846	960	960	1,020	920	920	780	*750	720
8	780	*920	810	846	960	960	*1,040	900	950	*780	735	720
9	780	788	800	846	980	1,000	1,000	882	940	780	750	735
10	*780	220	800	846	1,000	980	1,000	771	930	780	735	750
11	780	864	800	864	1,000	960	1,000	257	920	765	735	765
12	780	864	800	864	980	960	980	882	910	780	735	765
13	780	846	800	882	980	960	1,000	864	900	765	735	796
14	780	828	800	940	980	960	1,000	*860	890	765	735	780
15	765	812	900	920	960	*960	980	860	880	765	720	765
16	750	828	980	900	960	960	960	880	890	750	648	780
17	755	840	1,000	900	960	960	960	880	900	750	564	846
18	780	900	*960	864	940	940	960	880	890	765	564	940
19	780	960	940	828	960	960	960	860	890	765	735	960
20	780	940	940	828	980	940	960	900	870	765	765	1,000
21	765	920	920	864	980	940	960	950	860	796	765	1,000
22	796	920	882	882	858	940	960	970	850	780	765	960
23	812	920	920	864	0	940	940	1,000	840	750	682	920
24	846	920	960	*900	333	950	960	960	820	735	287	864
25	920	900	960	960	960	940	1,000	950	830	765	765	828
26	900	890	960	1,000	960	960	960	940	820	780	765	812
27	920	880	960	960	1,000	940	960	920	800	780	750	796
28	960	870	940	960	1,000	940	960	900	800	780	750	780
29	960	860	920	960	-	940	980	880	810	785	*750	780
30	960	850	920	960	-----	940	1,000	880	800	765	750	780
31	940	-----	920	980	-----	920	-----	870	-----	765	735	-----
Total	25,585	26,180	27,342	26,174	25,531	29,847	29,300	27,576	26,140	23,976	22,245	24,252
Mean	825	873	882	844	912	963	977	890	871	773	718	808
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 1,020 Min 0 Mean 830 Cfsm - In. -
 Water year 1956-57: Max 1,040 Min 0 Mean 861 Cfsm - In. -

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 17, 18, Nov. 25 to Dec. 18, May 14 to July 8; discharge estimated on basis of records for James River near Richmond and James River at Cartersville.

James River near Richmond, Va.

Location.--Lat 37°33'47", long 77°32'50", on left bank 0.1 mile upstream from Huguenot Memorial Bridge, 0.5 mile west of city limits of Richmond, Henrico County, 1.7 miles downstream from Boshier Dam, 3.3 miles upstream from Powhite Creek, and at mile 111.7.

Drainage area.--6,757 sq mi.

Records available.--October 1934 to September 1957.

Gage.--Water-stage recorder. Control consists of two dams at Williams Island. Datum of gage is 98.82 ft above mean sea level, datum of 1929.

Average discharge.--22 years (1935-57), 7,398 cfs (includes flow in James River and Kanawha Canal).

Extremes.--Maximum discharge during year, 62,700 cfs Apr. 8 (gage height, 15.00 ft); minimum daily, 46 cfs Aug. 16, 17, Sept. 7, 8.

1934-57: Maximum discharge, 175,000 cfs Mar. 19, 1936 (gage height, 23.42 ft); minimum daily, 46 cfs Sept. 18-20, 25-27, Oct. 1-4, 7, 1941, Sept. 8, 9, 12, 1944, Aug. 31 to Sept. 6, Oct. 7-10, 18-21, 1953, Sept. 8-24, Oct. 6, 7, 1954, Aug. 30, 31, Sept. 1, 20-25, 1956, Aug. 16, 17, Sept. 7, 8, 1957.

Remarks.--Records good. City of Richmond diverts average of 46 cfs from gage pool. Flow regulated by powerplants above station. James River & Kanawha Canal diverts around station (see preceding page).

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 972: 1936(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.94	46	5.0	4,600
3.0	70	7.0	11,500
3.1	140	10.0	26,600
3.5	880	12.0	39,840
4.0	2,000	15.00	62,700

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,200	7,700	2,280	4,330	28,400	28,500	4,330	7,360	2,840	3,670	550	126
2	2,710	12,000	2,220	3,800	27,200	32,300	4,460	8,060	2,300	1,610	470	140
3	1,700	9,900	2,150	3,540	27,200	31,600	7,380	6,850	2,250	1,700	450	133
4	1,220	8,600	1,900	3,150	24,300	23,100	16,500	5,740	2,840	2,000	450	119
5	1,090	9,140	1,700	3,800	18,900	17,400	15,100	5,450	3,280	2,450	412	112
6	1,110	7,020	1,950	3,540	14,600	14,200	31,100	4,740	3,410	1,850	412	70
7	985	5,450	1,780	2,630	12,400	11,500	54,700	4,460	5,890	1,590	*275	46
8	817	4,740	1,750	2,600	13,300	10,700	*56,300	4,200	6,850	1,320	133	46
9	838	*3,930	1,680	2,680	15,100	13,700	33,000	3,670	8,060	*1,110	208	84
10	817	4,200	1,610	2,550	16,500	12,800	26,000	3,540	6,360	922	140	194
11	*817	3,020	1,300	2,860	19,900	10,700	21,500	3,800	5,020	733	91	431
12	1,010	2,860	1,300	3,020	21,000	9,900	18,400	3,020	4,330	775	119	590
13	796	2,580	1,590	3,540	17,400	8,800	14,600	2,860	3,930	670	133	1,220
14	630	2,220	1,750	5,300	13,700	8,060	12,800	*2,710	3,670	650	91	733
15	510	1,850	3,800	4,740	11,100	7,880	11,500	2,760	3,280	570	66	530
16	372	1,900	7,020	4,060	9,900	7,020	9,900	3,410	2,920	570	46	817
17	470	2,100	7,530	3,800	8,780	6,520	9,140	2,860	3,410	550	46	2,710
18	550	8,520	5,890	2,970	8,060	6,040	7,530	3,020	5,450	570	54	9,130
19	691	12,800	5,600	2,450	6,850	6,200	7,020	2,870	5,160	510	530	11,100
20	610	6,850	5,020	2,250	7,530	6,040	6,680	4,600	3,800	670	431	12,800
21	570	5,020	4,460	2,790	9,900	5,890	6,360	5,450	3,410	1,170	372	12,800
22	754	4,200	3,670	3,410	12,000	5,300	6,200	9,740	2,680	1,030	630	8,060
23	1,200	4,460	4,200	3,800	13,700	5,600	5,740	12,400	2,450	392	650	5,890
24	1,920	4,060	5,740	*4,600	10,700	5,600	5,600	8,240	1,920	275	922	3,800
25	4,600	3,410	7,190	5,740	8,780	5,160	7,880	6,200	3,020	610	294	2,940
26	3,930	3,020	7,020	11,500	9,140	5,890	8,060	5,160	2,810	733	353	2,390
27	4,060	2,920	10,300	10,300	17,000	5,890	6,360	4,060	1,920	838	294	1,920
28	7,540	2,810	9,140	8,960	*27,800	5,300	5,600	4,060	2,180	733	275	1,430
29	8,060	2,680	7,700	11,500	-	5,160	6,040	3,540	2,280	630	*275	1,260
30	8,960	2,530	5,740	10,700	-----	5,020	7,360	2,920	1,980	530	262	1,130
31	7,530	-----	5,020	14,600	-----	4,740	-----	2,840	-----	470	167	-----
Total	71,067	152,490	130,000	155,510	431,140	331,730	433,140	150,690	109,700	31,901	9,601	82,741
Mean	2,292	5,083	4,194	5,016	15,400	10,700	14,440	4,861	3,657	1,029	310	2,758
(f)	825	873	882	844	912	963	977	890	871	773	718	808

Adjusted for diversion by James River & Kanawha Canal

Mean	3,117	5,956	5,076	5,860	16,312	11,663	15,417	5,751	4,528	1,802	1,028	3,566
Cfsm	0.461	0.881	0.751	0.867	2.41	1.73	2.28	0.851	0.670	0.267	0.152	0.528
In.	0.53	0.98	0.87	1.00	2.51	1.99	2.54	0.98	0.75	0.31	0.18	0.59

	Observed						Adjusted					
Calendar year 1956:	Max	22,000	Min	46	Mean	3,351	Mean	4,181	Cfsm	0.619	In.	8.41
Water year 1956-57:	Max	56,300	Min	46	Mean	5,725	Mean	6,586	Cfsm	0.975	In.	13.23

Peak discharge (base, 50,000 cfs).--Apr. 8 (6:30 a.m.) 62,700 cfs (15.00 ft).

* Discharge measurement made on this day.

† Mean monthly discharge, in cubic feet per second, of James River & Kanawha Canal near Richmond.

Falling Creek near Chesterfield, Va.

Location.--Lat 37°26'37", long 77°31'21", on left upstream side of bridge on State Highway 651, 0.8 mile downstream from Licking Creek, 2.8 miles upstream from Focoshock Creek, and 4.7 miles northwest of Chesterfield, Chesterfield County.

Drainage area.--32.8 sq mi.

Records available.--October 1955 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 130 ft (from topographic map).

Extremes.--Maximum discharge during year, 503 cfs Feb. 26 (gage height, 8.42 ft); minimum, 1.3 cfs Aug. 11-15.
1955-57: Maximum discharge, that of Feb. 26, 1957; minimum, that of Aug. 11-15, 1957.

Remarks.--Records good above 5 cfs and fair below.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 18, 19)

Oct. 1 to Apr. 9				Apr. 10 to Sept. 30	
2.0	2.6	3.5	59	1.8	1.3
2.2	6.3	4.0	93	1.9	2.1
2.4	11	5.0	168	2.0	3.3
2.6	18	6.0	248	2.2	6.5
3.0	34	8.0	455	2.4	11

Note.--Same as preceding table above 2.4 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.7	107	25	33	184	272	34	18	8.4	11	2	3
2	6.1	124	24	29	224	218	37	15	8	6.7	1.8	2.8
3	5.1	85	24	26	156	128	33	14	14	5.3	1.6	2.7
4	4.5	63	22	28	136	96	32	14	14	4.5	1.6	*3.6
5	4.3	52	22	36	100	81	35	13	44	4.0	1.8	2.6
6	6.3	43	22	33	82	69	90	13	64	3.8	1.5	2.4
7	7.4	37	22	30	96	84	54	*13	37	3.3	1.4	2.3
8	5.7	*35	21	28	114	93	64	12	48	3.0	1.4	4.2
9	4.7	45	21	29	140	90	*240	11	26	2.7	1.4	16
10	*4.0	40	20	37	160	62	156	10	21	2.6	1.4	9.6
11	3.6	32	19	33	124	52	86	10	*16	2.4	1.4	8.6
12	3.6	30	20	28	93	50	65	11	12	2.3	1.3	6.5
13	3.6	27	20	28	76	46	60	11	10	2.2	1.3	5.0
14	3.8	25	23	28	*65	*42	57	9.3	8.6	2.1	1.3	4.0
15	3.8	24	55	26	58	71	47	8.4	7.8	2.1	*1.9	3.6
16	3.8	24	216	27	53	72	42	7.3	8.0	3.3	2.2	2.8
17	4.7	114	107	26	50	50	40	6.9	11	*2.3	1.5	14
18	42	114	*64	21	44	43	38	7.6	8.6	2.2	1.6	26
19	26	76	46	20	52	126	36	11	7.1	2.1	37	13
20	14	51	40	21	121	140	34	18	6.2	2.0	18	8.4
21	11	44	38	27	80	90	32	21	5.6	1.9	8.0	6.5
22	140	56	36	36	58	75	31	14	5.1	1.7	5.1	5.5
23	200	44	71	42	51	86	29	12	4.8	1.7	3.9	4.6
24	75	36	107	*33	46	63	29	9.3	4.8	2.4	3.3	3.9
25	46	33	80	30	44	52	34	8.0	5.4	2.0	8.8	3.3
26	34	32	52	30	202	48	42	9.3	6.7	1.8	11	3.0
27	120	30	44	30	395	45	29	37	6.5	1.9	7.1	2.6
28	121	28	40	64	216	42	24	26	6.9	4.6	5.0	2.5
29	65	27	42	93	-	40	21	13	9.1	3.6	3.9	2.7
30	83	26	42	90	-----	37	20	9.8	11	2.4	3.4	4.8
31	132	-----	36	100	-----	35	-----	8.8	-----	2.1	3.2	-----
Total	1,191.7	1,504	1,421	1,142	3,220	2,476	1,571	401.7	445.6	96.0	146.1	180.5
Mean	38.4	50.1	45.8	36.8	115	79.9	52.4	13.0	14.9	3.10	4.71	6.02
Cfsm	1.17	1.53	1.40	1.12	3.51	2.44	1.60	0.396	0.454	0.095	0.144	0.184
In.	1.35	1.71	1.61	1.29	3.66	2.81	1.78	0.46	0.51	0.11	0.17	0.21

Calendar year 1956: Max 235 Min 2.2 Mean 32.8 Cfsm 1.00 In. 13.64
Water year 1956-57: Max 395 Min 1.3 Mean 37.8 Cfsm 1.15 In. 15.67

Peak discharge (base, 350 cfs).--Feb. 26 (11 p.m.) 503 cfs (8.42 ft).

* Discharge measurement made on this day.

Buffalo Creek near Hampden Sydney, Va.

Location.--Lat 37°15', long 78°29', on left bank 20 ft downstream from bridge on State Highway 626, 0.8 mile upstream from Locket Creek, 2 miles northwest of Hampden Sydney, Prince Edward County, and 6 miles southwest of Farmville.

Drainage area.--70 sq mi, approximately.

Records available.--August 1946 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 340 ft (by barometer). Prior to Aug. 19, 1953, staff gage at same site and datum.

Average discharge.--11 years, 65.3 cfs.

Extremes.--Maximum discharge during year, 1,020 cfs Apr. 9 (gage height, 6.17 ft); minimum, 5.3 cfs Aug. 13, 14 (gage height, 1.52 ft).

1946-57: Maximum discharge, 6,440 cfs Aug. 18, 1955 (gage height, 9.00 ft); minimum, 5.1 cfs Sept. 18, 1954 (gage height, 1.38 ft).

Flood in August 1940 reached a stage of about 15 ft, from information by local resident.

Remarks.--Records good except those for periods of ice effect, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 17 to Dec. 23, July 5 to Aug. 19)

1.4	5.5	4.0	150
1.7	14	4.8	280
2.4	45	5.4	432
5.0	78	5.8	650

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	54	30	36	308	358	40	32	23	22	8.9	16
2	19	66	29	34	327	148	50	30	22	19	8.3	15
3	18	48	29	b30	199	90	46	29	38	18	7.8	16
4	18	39	28	34	176	72	44	29	39	17	7.8	*16
5	17	33	28	41	109	63	84	29	77	16	8.0	16
6	19	30	28	40	115	58	214	28	451	14	7.2	16
7	19	*30	27	34	105	58	95	28	162	14	6.8	19
8	17	30	27	32	141	166	120	28	392	14	6.8	20
9	*16	35	27	36	196	113	602	27	171	*13	6.8	50
10	15	34	26	40	105	77	*219	26	*77	14	6.5	180
11	16	29	26	36	100	63	97	26	57	13	6.5	60
12	17	28	26	34	79	58	77	27	48	12	6.2	38
13	18	27	28	35	70	55	74	*25	40	11	5.5	32
14	18	26	29	33	62	*52	70	24	36	11	*5.8	27
15	18	26	56	32	*56	61	59	23	32	14	7.5	24
16	19	27	122	b30	55	67	54	22	37	12	9.8	24
17	19	92	*70	b28	52	58	52	21	35	17	7.8	*147
18	26	156	48	b28	48	50	50	23	30	30	9.2	243
19	22	71	40	b30	55	53	48	27	28	19	125	91
20	22	50	36	b34	104	52	46	32	26	14	62	58
21	23	44	35	40	70	47	44	34	24	12	28	44
22	48	61	36	44	58	51	42	29	24	12	21	36
23	70	52	96	*50	53	68	53	28	23	12	18	34
24	44	40	139	47	50	56	58	24	22	18	18	28
25	32	37	94	40	48	50	46	22	22	14	64	26
26	28	36	60	38	90	47	42	22	24	12	67	25
27	40	38	52	39	110	46	38	39	23	12	34	24
28	46	34	46	65	133	44	35	40	22	12	24	24
29	35	32	43	120	-	43	34	27	24	11	20	30
30	39	30	38	115	-	42	34	24	22	10	19	42
31	61	-	36	164	-	40	-	23	-	9.5	18	-
Total	836	1,335	1,435	1,439	3,074	2,304	2,567	848	2,051	448.5	651.2	1,421
Mean	27.0	44.5	46.3	46.4	110	74.3	85.6	27.4	68.4	14.5	21.0	47.4
Cfsm	0.386	0.636	0.661	0.663	1.57	1.06	1.22	0.391	0.977	0.207	0.300	0.677
In.	0.44	0.71	0.76	0.76	1.64	1.22	1.36	0.45	1.09	0.24	0.35	0.76
Calendar year 1956: Max	446				Min 8.6	Mean 43.8	Cfsm 0.628	In. 8.52				
Water year 1956-57: Max	602				Min 5.5	Mean 50.4	Cfsm 0.720	In. 9.78				

Peak discharge (base, 500 cfs).--Apr. 9 (3:30 p.m.) 1,020 cfs (6.17 ft); June 6 (7:30 p.m.) 674 cfs (5.83 ft); June 8 (8 p.m.) 574 cfs (5.69 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Appomattox River at Farmville, Va.

Location.--Lat 37°18', long 78°23', on left bank 15 ft downstream from highway bridge, 1,000 ft north of town limits of Farmville, Prince Edward County, and $1\frac{1}{4}$ miles downstream from Buffalo Creek.

Drainage area.--506 sq mi.

Records available.--March 1926 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 281.93 ft above mean sea level, datum of 1929. Prior to Nov. 29, 1928, chain gage at same site and datum.

Average discharge.--31 years, 287 cfs.

Extremes.--Maximum discharge during year, 2,100 cfs Apr. 6, 10; maximum gage height, 13.72 ft Apr. 6; minimum discharge, 21 cfs Aug. 14 (gage height, 3.22 ft).
1926-57: Maximum discharge, 21,000 cfs Aug. 15, 1940 (gage height, 23.60 ft), from rating curve extended above 12,000 cfs by logarithmic plotting; minimum, 3.8 cfs Sept. 25, 1941; minimum daily, 9 cfs Sept. 20, 1932.

Remarks.--Records excellent above 50 cfs and good below. Diurnal fluctuation at low flow caused by mills above station.

Revisions (water years).--WSP 972: 1927-37, 1938(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 10, Sept. 18-30		Apr. 11 to Sept. 17	
3.6	45	3.2	20
4.2	99	4.0	92
5.0	200	5.0	215
6.0	344	6.0	360
8.0	685	8.0	685
12.0	1,600		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	299	111	130	1,180	1,210	149	152	83	67	39	69
2	63	277	108	118	1,470	956	182	135	82	59	35	60
3	58	200	105	94	912	484	193	128	162	57	32	130
4	57	152	99	125	665	344	168	124	140	54	30	236
5	55	131	96	133	484	284	277	123	236	52	29	113
6	58	118	96	135	404	256	1,540	121	608	49	27	65
7	61	*109	95	122	536	242	1,160	118	558	47	26	67
8	58	105	94	112	745	560	510	115	465	45	25	68
9	*56	114	95	117	827	665	1,600	109	526	46	*24	90
10	52	114	91	133	848	389	1,500	103	315	50	24	180
11	51	105	89	135	536	299	*558	101	187	48	24	250
12	51	100	91	120	382	263	390	103	149	*44	25	126
13	51	95	94	117	306	235	338	*102	125	42	24	*91
14	54	93	102	117	270	214	330	96	109	40	22	81
15	55	93	227	112	*242	*228	278	92	98	42	25	76
16	54	95	518	105	221	306	250	92	94	46	32	75
17	55	284	*389	87	214	242	236	86	109	49	33	345
18	67	968	242	78	186	207	229	83	108	71	33	626
19	66	513	178	100	214	214	222	146	91	80	148	420
20	64	270	150	112	468	214	215	152	81	68	187	270
21	64	214	142	119	366	193	201	148	*74	54	98	149
22	112	306	138	145	263	193	194	123	70	48	65	103
23	242	299	384	*193	228	270	194	113	68	48	55	86
24	193	193	827	235	214	249	222	103	68	65	51	77
25	118	154	536	175	200	214	222	92	68	70	107	72
26	97	145	314	149	329	193	187	86	75	54	174	68
27	148	142	228	142	705	183	168	106	83	49	124	66
28	235	130	193	249	500	175	154	141	74	50	88	64
29	158	120	169	608	-	165	147	104	77	50	66	74
30	145	116	149	725	-----	159	153	88	76	45	58	109
31	214	-----	136	626	-----	153	-----	86	-----	45	65	-----
Total	2,884	6,054	6,286	5,668	13,915	9,959	12,167	3,481	5,059	1,632	1,795	4,306
Mean	93.0	202	203	183	497	321	406	112	169	52.6	57.9	144
Cfsm	0.304	0.66C	0.663	0.598	1.62	1.05	1.33	0.366	0.552	0.172	0.189	0.471
In.	0.35	0.74	0.76	0.69	1.69	1.21	1.48	0.42	0.62	0.20	0.22	0.53

Calendar year 1956: Max 1,250 Min 33 Mean 167 Cfsm 0.546 In. 7.42
Water year 1956-57: Max 1,600 Min 22 Mean 201 Cfsm 0.657 In. 8.91

Peak discharge (base, 3,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Appomattox River at Mattoax, Va.

Location.--Lat 37°25'17", long 77°51'33", on right bank 75 ft upstream from Southern Railway bridge at Mattoax, Amelia County, 0.3 mile upstream from Skinquarter Creek, and 3.7 miles upstream from Flat Creek.

Drainage area.--729 sq mi.

Records available.--August 1900 to December 1905, March 1926 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 174.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. August 1900 to December 1905 chain gage at same site at different datum. March 1926 to October 1936 chain gage at present site and datum.

Average discharge.--36 years, 712 cfs.

Extremes.--Maximum discharge during year, 3,190 cfs Mar. 1 (gage height, 16.50 ft); minimum, 23 cfs July 30, 31, regulated, cause unknown (gage height, 4.47 ft).
1900-1905, 1926-57: Maximum discharge, 35,000 cfs Aug. 18, 1940 (gage height, 35.3 ft, from floodmark in gage house), from rating curve extended above 20,000 cfs on basis of records for stations at Farmville and near Petersburg; minimum, 11 cfs Oct. 2, 1930 (gage height, 3.52 ft).

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 782: Drainage area. WSP 892: 1938. WSP 972: 1928, 1932, 1934-38.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by Ice Jan. 17)

Oct. 1 to Nov. 18

Nov. 19 to Sept. 30

5.3	90	4.6	30	7.0	306
6.0	175	5.0	58	9.0	780
7.0	350	5.5	105	13.0	2,000
9.0	835	6.0	158	17.0	3,370
12.0	1,680				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	230	618	297	362	2,290	3,080	393	306	164	142	59	115
2	169	1,050	279	324	2,830	3,050	393	306	158	126	58	127
3	137	1,050	270	288	2,940	2,970	416	279	176	113	52	170
4	123	655	261	270	3,080	1,900	452	261	324	101	47	115
5	117	474	236	324	2,660	1,020	476	252	324	95	*44	208
6	113	390	236	333	1,470	840	890	244	1,290	86	40	228
7	119	340	228	342	1,320	780	1,840	236	2,000	80	37	138
8	119	312	220	315	1,810	1,020	2,060	228	1,320	*77	35	108
9	*117	312	220	297	2,100	1,740	2,580	220	1,350	*75	35	140
10	110	340	220	306	2,420	1,600	2,800	213	960	72	33	250
11	103	350	213	342	2,290	1,000	2,900	206	670	72	31	752
12	100	302	206	333	1,530	800	2,800	206	440	72	30	780
13	99	284	206	306	1,080	700	1,140	206	352	75	30	352
14	99	257	220	297	870	*630	900	*200	306	70	30	228
15	100	239	270	297	*752	596	810	194	244	65	30	182
16	100	230	644	279	670	632	683	182	220	61	31	152
17	102	356	*1,290	230	620	724	608	170	206	61	35	260
18	125	1,560	930	180	572	620	572	170	206	66	39	1,200
19	158	1,970	584	170	560	608	548	220	200	92	156	1,970
20	160	1,200	440	258	1,050	683	536	270	182	113	451	2,100
21	138	670	362	333	1,350	644	524	288	*164	105	524	810
22	146	572	362	362	990	572	468	299	147	90	261	452
23	313	620	536	428	724	620	465	244	138	78	176	324
24	592	620	1,530	440	644	724	*452	220	134	95	117	252
25	450	464	1,840	452	596	657	572	194	184	80	119	213
26	293	393	1,230	404	1,140	560	536	182	146	87	375	188
27	322	372	780	362	2,460	524	428	188	130	94	644	176
28	731	362	596	476	2,420	488	382	206	138	85	324	164
29	567	333	512	1,140	-	464	342	261	146	70	194	158
30	440	306	452	1,710	-	428	308	220	138	60	147	176
31	554	-	404	1,780	-	404	-	170	-	42	120	-
Total	7,046	17,001	16,094	13,740	43,258	31,078	28,302	7,021	12,557	2,599	4,304	12,488
Mean	227	567	519	443	1,544	1,003	943	226	419	83.8	139	416
Cfs/m	0.311	0.778	0.712	0.608	2.12	1.38	1.29	0.310	0.575	0.115	0.191	0.571
In.	0.36	0.87	0.82	0.70	2.21	1.59	1.44	0.36	0.64	0.13	0.22	0.64
Calendar year 1956: Max				2,970	Min 62	Mean 452	Cfs/m 0.620	In. 8.44				
Water year 1956-57: Max				3,080	Min 30	Mean 536	Cfs/m 0.735	In. 9.98				

Peak discharge (base, 4,000 cfs).--No peak above base.

* Discharge measurement made on this day.

Deep Creek near Mannboro, Va.

Location.--Lat 37°16'59", long 77°52'22", on left bank at upstream side of bridge on State Highway 38, 0.9 mile upstream from Sweathouse Creek, 3.4 miles northwest of Mannboro, Amelia County, and 7.5 miles southeast of Amelia.

Drainage area.--156 sq mi.

Records available.--September 1946 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 177.20 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Sept. 2, 1949, staff gage at same site and datum.

Average discharge.--11 years, 133 cfs.

Extremes.--Maximum discharge during year, 2,240 cfs Sept. 18 (gage height, 8.77 ft); minimum, 4.8 cfs Aug. 9, 10, 11, 12 (gage height, 0.29 ft).
1946-57: Maximum discharge, 7,140 cfs Sept. 25, 1947 (gage height, 13.1 ft, from floodmarks); minimum, 2.4 cfs Sept. 17, 18, 1954, July 24, 1955; minimum gage height, 0.29 ft Aug. 9, 10, 11, 12, 1957.

Flood in August 1940 reached a stage of 14.8 ft (discharge, 10,000 cfs, from rating curve extended above 3,800 cfs), from information by local resident.

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1203: 1948 (calendar year figures only).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17-19)

Oct. 1 to Feb. 26,
Sept. 18-30

1.0	18	5.5	543
1.6	59	6.0	715
2.5	138	8.0	1,700
4.0	306		

Feb. 27 to Sept. 17

0.2	3	3.0	209
.4	7	4.0	362
.7	17	5.5	675
1.0	31	7.0	1,220
1.5	62	8.0	1,700
2.0	104		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	157	64	80	471	795	96	57	30	26	9.4	57
2	31	152	62	73	875	1,100	104	54	30	21	8.2	133
3	27	157	61	56	850	556	104	52	84	19	7.9	54
4	24	124	59	69	543	272	96	51	80	17	7.0	35
5	23	102	58	84	471	203	108	52	73	17	*6.6	30
6	23	86	57	99	300	175	410	50	460	15	6.2	24
7	25	*5.8	57	84	254	170	560	49	650	15	5.8	32
8	25	*1	57	74	280	258	272	47	400	13	5.4	51
9	*22	82	57	73	345	380	768	45	625	*15	*4.8	81
10	21	1.1	56	88	408	265	*1,270	43	309	15	5.0	284
11	19	88	53	84	358	175	460	41	109	13	5.0	776
12	19	75	53	73	235	158	222	47	76	12	5.6	*865
13	19	67	55	71	182	143	186	47	59	12	11	226
14	22	61	58	72	152	*133	180	*42	49	12	7.9	82
15	23	59	80	66	*138	133	153	38	42	17	6.8	56
16	23	58	202	55	129	148	133	36	37	21	10	42
17	24	102	*224	50	124	133	123	33	35	16	11	*182
18	47	254	138	45	110	116	119	33	34	13	9.1	1,360
19	69	286	101	50	111	158	115	33	30	13	159	1,150
20	50	167	87	57	274	265	110	73	28	12	460	300
21	41	1.6	82	68	300	192	103	84	*25	12	340	129
22	60	1.6	80	98	172	153	100	58	24	11	67	90
23	157	108	124	*134	138	236	93	49	22	9.4	37	68
24	134	92	260	129	124	203	94	40	20	36	28	54
25	83	81	260	100	116	158	91	34	20	54	34	43
26	61	79	162	106	261	138	84	30	64	30	98	36
27	126	*7	120	105	1,220	133	74	34	42	18	107	31
28	300	73	104	151	1,100	120	68	58	31	14	53	28
29	241	69	98	267	-	113	64	40	37	13	34	31
30	129	67	99	319	-----	108	62	33	35	12	27	65
31	167	-----	86	326	-----	100	-----	31	-----	11	27	-----
Total	2,076	3,212	3,114	3,206	10,041	7,390	6,422	1,414	3,560	534.4	1,602.7	6,395
Mean	67.0	107	100	105	559	238	214	45.6	119	17.2	51.7	213
Cfsm	0.429	0.686	0.641	0.660	2.30	1.53	1.37	0.292	0.763	0.110	0.331	1.37
In.	0.49	0.77	0.74	0.76	2.40	1.76	1.53	0.34	0.85	0.13	0.38	1.53

Calendar year 1956: Max 1,050 Min 9.0 Mean 103 Cfsm 0.660 In. 8.95
Water year 1956-57: Max 1,360 Min 4.8 Mean 134 Cfsm 0.859 In. 11.68

Peak discharge (base, 1,200 cfs).--Feb. 27 (8 p.m.) 1,760 cfs (8.08 ft); Apr. 10 (4:30 a.m.) 1,550 cfs (7.73 ft); Sept. 18 (7 p.m.) 2,240 cfs (8.77 ft).

* Discharge measurement made on this day.

Appomattox River near Petersburg, Va.

Location.--Lat 37°13'33", long 77°32'20", on right bank 2.2 miles upstream from dam of Virginia Electric & Power Co., 4.2 miles downstream from Wipponock Creek, and 5.9 miles west of corporate limits of city of Petersburg.

Drainage area.--1,335 sq mi.

Records available.--May 1927 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 118 ft (by barometer). Prior to Sept. 22, 1931, at site 0.8 mile downstream at different datum.

Average discharge.--29 years (1927-30, 1931-57), 1,189 cfs.

Extremes.--Maximum discharge during year, 5,890 cfs Mar. 1 (gage height, 8.28 ft); minimum, 46 cfs Aug. 12 (gage height, 1.83 ft).
1927-57: Maximum discharge, 28,000 cfs Aug. 20, 1940 (gage height, 18.15 ft); minimum, 19 cfs Sept. 21-27, 1932.

Remarks.--Records good.

Revisions (water years).--WSP 757: 1932-33, drainage area. WSP 802: 1936(M). WSP 972: 1932, 1934-35.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 19, 20; shifting-control method used Apr. 18 to June 6)

Oct. 1 to July 25

July 26 to Sept. 30

2.2	104	3.5	685	1.8	40	4.0	1,100
2.4	180	4.0	1,100	2.2	125	5.0	2,100
2.7	256	6.0	3,200	2.6	245	7.0	4,300
3.0	385	8.2	5,760	3.2	510		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a250	1,580	570	792	4,190	5,760	824	538	264	272	105	214
2	a200	2,380	544	708	5,020	5,760	840	528	256	256	84	252
3	a190	1,830	520	629	5,260	5,260	857	508	322	228	96	356
4	a190	1,680	508	596	5,260	4,080	857	479	496	202	94	308
5	a180	1,140	496	671	4,760	2,160	874	457	629	184	*88	231
6	a180	882	479	792	3,530	1,580	1,480	440	1,810	172	78	295
7	a190	745	479	760	2,380	1,430	2,260	*435	3,420	163	70	342
8	a190	671	474	768	2,760	1,630	2,760	425	3,420	*131	62	273
9	a190	792	468	664	3,420	2,430	4,540	415	2,760	139	58	*256
10	*190	882	452	758	3,970	2,650	*5,020	395	2,320	133	52	360
11	178	800	440	745	3,860	1,990	4,780	385	*1,430	125	50	824
12	168	700	435	700	3,090	1,480	3,860	376	950	122	50	2,040
13	168	615	435	671	2,100	1,280	2,840	380	700	120	56	1,280
14	163	563	452	643	1,630	1,180	1,580	376	589	122	52	594
15	168	514	589	629	1,430	*1,150	1,330	362	502	136	56	415
16	172	490	1,880	602	1,240	1,280	1,160	330	430	130	58	347
17	181	715	2,160	570	1,190	1,240	1,040	313	395	125	60	513
18	314	1,630	*1,990	400	1,100	1,190	959	288	376	112	68	1,830
19	376	2,700	1,280	420	1,080	1,480	916	296	371	107	189	3,750
20	367	2,480	976	430	2,100	1,940	882	436	348	112	798	3,200
21	335	1,430	840	563	2,380	1,630	874	622	330	169	1,190	1,630
22	576	1,090	776	800	2,040	1,380	840	520	292	154	749	912
23	1,120	1,030	993	1,010	1,480	1,480	792	457	268	145	396	624
24	1,060	1,010	1,940	*1,050	1,240	1,480	784	405	246	133	262	485
25	976	891	2,760	942	1,130	1,380	950	344	246	172	228	406
26	700	760	2,430	950	2,210	1,240	1,040	309	409	217	280	352
27	1,490	700	1,580	882	5,500	1,110	840	296	371	183	763	320
28	2,100	664	1,170	1,100	5,380	1,030	692	353	288	174	826	256
29	1,780	635	1,050	1,920	-	976	622	395	288	165	460	280
30	1,330	602	1,050	2,650	-----	925	582	380	292	142	320	312
31	1,430	-----	900	3,090	-----	868	-----	322	-----	125	248	-----
Total	17,096	32,602	31,116	27,825	80,750	60,447	47,675	12,563	24,818	4,890	7,946	23,297
Mean	551	1,087	1,004	898	2,684	1,950	1,589	405	827	158	256	777
Cfsm	0.413	0.814	0.752	0.673	2.16	1.46	1.19	0.303	0.619	0.118	0.192	0.582
In.	0.48	0.91	0.87	0.78	2.25	1.68	1.33	0.35	0.69	0.14	0.22	0.65

Calendar year 1956: Max 5,840 Min 109 Mean 863 Cfsm 0.646 In. 8.81

Water year 1956-57: Max 5,760 Min 50 Mean 1,017 Cfsm 0.762 In. 10.35

Peak discharge (base, 5,000 cfs).--Feb. 4 (3 a.m.) 5,260 cfs (7.85 ft); Mar. 1 (12 m. to 7 p.m.) 5,890 cfs (8.28 ft); Apr. 10 (11 p.m.) 5,140 cfs (7.66 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records at Farmville.

Chickahominy River near Providence Forge, Va.

Location.--Lat 37°26'10", long 77°03'40", on left bank at upstream side of highway bridge, 1.1 miles southwest of Providence Forge, New Kent County, and 1.7 miles downstream from Schimnoe Creek.

Drainage area.--249 sq mi.

Records available.--January 1942 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 6.07 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years, 249 cfs.

Extremes.--Maximum discharge during year, 1,700 cfs Nov. 4, Mar. 3; maximum gage height, 9.04 ft Nov. 4; minimum discharge, 11 cfs July 23, Aug. 14.
1942-57: Maximum discharge, 7,710 cfs Aug. 15, 1955 (gage height, 11.67 ft); minimum, 3.4 cfs Aug. 1, 1954; minimum gage height, 1.56 ft Aug. 25, 26, 1943.

Remarks.--Records fair except those for period of no gage-height record, which are poor.

Rating table, water year 1956-57 (gage height, in feet, and discharge,
in cubic feet per second)
(Shifting-control method used June 25, 26, July 3-29, 31,
Aug. 1-19)

2.3	12	6.0	393
2.5	23	7.0	568
3.0	64	8.0	955
5.0	270	9.0	1,700

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	379	270		546	811	292	147	99	51	21	232
2	94	448	242		725	1,060	281	142	85	47	16	193
3	73	858	220	a350	1,000	1,590	270	132	210	32	14	130
4	57	1,700	204		1,180	1,490	254	112	167	25	12	*104
5	49	1,320	193		1,180	1,320	242	102	182	23	12	87
6	42	1,060	182		1,120	1,180	281	96	423	21	16	67
7	40	*955	172		1,120	1,060	292	90	568	19	20	50
8	38	857	167	a300	1,000	905	292	85	725	18	30	42
9	*40	811	162		955	857	*408	78	686	18	22	43
10	38	725	157		905	767	488	72	*546	16	16	59
11	36	620	152		857	651	568	68	455	15	12	76
12	32	526	147		811	568	620	68	353	14	13	92
13	30	455	147	a250	767	506	568	*68	270	14	12	104
14	30	366	147		*767	*488	568	67	198	13	12	101
15	30	316	177		725	488	546	62	137	14	*12	87
16	31	281	292		651	526	488	56	96	*14	13	71
17	31	270	*393	a200	568	488	408	50	78	14	16	65
18	68	284	546		506	488	329	47	65	14	15	113
19	102	259	551		439	488	292	92	57	20	34	137
20	113	270	592		488	546	259	198	51	16	82	152
21	119	316	620	a260	506	651	237	304	49	16	99	147
22	137	340	620	a260	488	686	220	292	44	12	120	137
23	157	353	620	*a260	488	686	198	215	40	12	129	125
24	157	423	651	270	455	620	188	147	36	22	129	95
25	162	506	a600	270	455	620	177	103	36	26	152	67
26	167	506		281	506	592	167	79	35	26	177	51
27	177	439		281	592	506	157	96	36	23	167	41
28	226	366		328	*620	455	152	142	45	18	193	35
29	316	328	a500	379	-	408	142	157	59	23	204	35
30	366	292		423	-----	366	142	152	53	46	204	60
31	393	-----		439	-----	328	-----	132	-----	34	215	-----
Total	3,455	16,609	11,324	8,951	20,420	22,195	9,525	3,651	5,884	678	2,189	2,798
Mean	111	554	365	289	729	716	318	118	196	21.8	70.6	93.3
Cfsm	0.446	2.22	1.47	1.16	2.93	2.68	1.28	0.474	0.787	0.068	0.284	0.375
In.	0.51	2.48	1.70	1.54	3.05	3.32	1.43	0.55	0.88	0.10	0.33	0.42

Calendar year 1956: Max 1,700 Min 22 Mean 261 Cfsm 1.05 In. 14.25
Water year 1956-57: Max 1,700 Min 12 Mean 295 Cfsm 1.18 In. 16.11

Peak discharge (base, 1,000 cfs).--Nov. 4 (11 a.m.) 1,700 cfs (9.04 ft); Feb. 4 (1 p.m.) 1,180 cfs (8.45 ft); Mar. 3 (6 p.m.) 1,700 cfs (8.95 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Blackwater River near Dendron.

Lake Drummond in Dismal Swamp, Va.

Location.--Lat 36°35'40", long 76°26'20", on left bank in outlet canal, in Norfolk County, 200 ft upstream from dam and gates, 0.5 mile downstream from Lake Drummond, 2.5 miles east of Nansemond County line, 3.1 miles north of North Carolina State line, and 20 miles southwest of Norfolk.

Records available.--May 1926 to September 1957.

Gage.--Staff gage read twice daily. Altitude of gage is 15 ft (from topographic map).

Extremes.--Maximum gage height during year, 6.20 ft Feb. 9; minimum, 2.30 ft Aug. 15.
1926-57: Maximum gage height, that of Feb. 9, 1957; minimum, -0.67 ft Nov. 3, 1952.

Revisions (water years).--WSP 1032: 1934-43.

Gage height, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.19	5.41	5.26	5.11	5.52	5.30	5.12	5.39	4.70	3.70	2.71	2.63
2	5.16	5.37	5.26	5.13	5.57	5.30	5.16	5.35	4.67	3.67	2.68	2.59
3	5.13	5.39	5.27	5.14	5.76	5.30	5.17	5.30	4.63	3.61	2.66	2.55
4	5.12	5.40	5.26	5.12	6.00	5.34	5.21	5.28	4.59	3.57	2.61	2.51
5	5.09	5.35	5.25	5.14	6.08	5.32	5.25	5.28	4.61	3.51	2.66	2.54
6	5.05	5.21	5.24	5.16	6.16	5.34	5.36	5.27	4.65	3.54	2.61	2.52
7	5.00	5.13	5.25	5.16	6.18	5.36	5.34	5.22	4.61	3.50	2.59	2.51
8	4.99	5.00	5.26	5.16	6.16	5.39	5.38	5.17	4.60	3.47	2.54	2.52
9	5.00	5.06	5.25	5.17	6.18	5.47	5.50	5.19	4.58	3.43	2.49	2.50
10	4.99	5.01	5.25	5.19	6.17	5.46	5.50	5.14	4.52	3.39	2.48	2.52
11	4.98	4.97	5.23	5.18	6.17	5.53	5.43	5.12	4.47	3.34	2.43	2.59
12	4.99	4.95	5.21	5.16	6.09	5.50	5.43	5.12	4.44	3.31	2.39	2.58
13	4.98	4.91	5.22	5.15	5.97	5.48	5.42	5.09	4.39	3.29	2.37	2.56
14	4.95	4.95	5.21	5.13	5.80	5.43	5.45	5.05	4.37	3.28	2.33	2.53
15	4.90	4.91	5.23	5.11	5.70	5.35	5.38	5.01	4.34	3.27	2.31	2.49
16	4.86	4.90	5.29	5.16	5.58	5.24	5.32	5.00	4.31	3.23	2.71	2.44
17	4.88	5.00	5.28	5.16	5.53	5.13	5.29	4.99	4.26	3.17	2.79	2.48
18	5.10	5.08	5.28	5.18	5.38	5.04	5.24	4.98	4.20	3.13	2.78	2.61
19	5.25	5.08	5.29	5.14	5.24	5.06	5.18	4.91	4.14	3.11	2.80	2.61
20	5.30	5.09	5.32	5.09	5.13	4.99	5.11	4.93	4.10	3.07	2.91	2.60
21	5.34	5.11	5.33	5.08	5.02	5.03	5.16	4.98	4.07	3.01	2.93	2.61
22	5.37	5.17	5.22	5.06	5.09	5.09	5.17	4.98	4.01	2.97	2.90	2.64
23	5.41	5.18	5.18	5.10	5.16	5.19	5.21	4.91	3.97	2.97	2.90	2.61
24	5.45	5.16	5.18	5.11	5.16	5.20	5.23	4.91	3.89	3.00	2.86	2.63
25	5.40	5.18	5.17	5.16	5.11	5.20	5.30	4.83	3.84	2.98	2.80	2.55
26	5.43	5.17	5.15	5.18	5.11	5.25	5.30	4.78	3.87	2.94	2.80	2.49
27	5.48	5.18	5.07	5.19	5.15	5.26	5.38	4.82	3.83	2.91	2.80	2.47
28	5.46	5.19	5.10	5.25	5.17	5.20	5.37	4.81	3.80	2.87	2.77	2.42
29	5.15	5.20	5.18	5.33	-	5.19	5.36	4.82	3.77	2.83	2.71	2.41
30	5.33	5.28	5.13	5.34	-----	5.15	5.37	4.78	3.70	2.79	2.68	2.50
31	5.37	-----	5.16	5.38	-----	5.12	-----	4.75	-----	2.74	2.67	-----

Cypress Swamp at Cypress Chapel, Va.

Location.--Lat 36°37'30", long 76°36'10", on right bank 10 ft upstream from bridge on State Highway 32, 0.5 mile downstream from Dragon Swamp, 0.8 mile northwest of Cypress Chapel, Nansemond County, and 6.5 miles south of Suffolk.

Drainage area.--23 sq mi, approximately.

Records available.--October 1953 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map).

Extremes.--Maximum discharge during year, 690 cfs Feb. 1 (gage height, 5.87 ft); no flow at times during year.

1953-57: Maximum discharge, 1,170 cfs Sept. 20, 1955 (gage height, 6.65 ft); no flow at times.

Remarks.--Records fair except those for period of ice effect, which are poor.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 18 to Dec. 16, Feb. 1 to May 3)

2.1	0	3.0	24
2.2	.2	3.5	60
2.3	.5	4.0	130
2.5	1.6	5.0	350
2.6	2.6	6.0	720
2.7	4.0		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	142	23	36	598	259	23	0.7	0		0	0
2	31	104	22	29	408	190	25	.3	0		0	0
3	13	92	16	22	250	104	28	.1	0		0	0
4	7.9	70	10	21	196	70	24	0	0		0	0
5	5.3	54	7.9	28	144	55	27	0	0		0	0
6	6.6	43	6.0	38	125	57	98	0	0		0	0
7	15	36	4.6	36	116	146	80	0	3.6		0	0
8	29	30	3.9	31	90	200	50	0	1.1		0	0
9	23	35	3.6	29	144	237	136	0	.4		0	0
10	12	44	3.6	32	250	158	114	0	.2		0	.7
11	4.0	44	3.3	32	194	86	*59	0	0		0	1.2
12	3.0	38	*3.3	26	116	62	43	0	0		0	*1.8
13	2.4	30	3.3	22	77	51	36	0	.2		0	3.0
14	2.0	24	3.6	22	63	43	34	0	0		0	1.6
15	1.7	19	27	b20	57	39	29	0	0		*0	.7
16	1.5	16	178	b19	51	38	24	0	0		3.9	.3
17	9.4	14	160	b18	47	34	21	0	0		3.9	.5
18	*343	12	89	b18	43	30	19	0	0		.5	5.4
19	261	11	61	b15	42	50	16	0	*0		1.6	27
20	114	9.8	49	16	*92	92	13	0	0		16	15
21	58	*8.6	43	24	98	*66	9.8	0	0		22	8.0
22	106	*8.6	39	31	63	54	25	0	0		6.0	10
23	224	7.2	39	*32	50	90	22	0	0		1.7	6.0
24	154	6.0	52	33	43	104	14	0	0		.6	2.6
25	88	5.3	65	34	40	63	9.8	0	0		1.4	1.3
26	58	5.3	56	48	70	50	20	0	0		1.4	.6
27	49	4.6	43	50	184	43	18	0	0		.6	.2
28	48	4.0	36	53	144	38	6.6	0	0		.2	.1
29	55	3.9	34	71	-	34	2.6	0	0		0	.2
30	105	9.8	42	148	-----	29	*1.4	0	0		0	7.2
31	184	-----	43	188	-----	28	-----	0	-----		0	-----
Total	2,033.8	931.1	1,170.1	1,220	3,793	2,598	1,026.2	1.1	5.5	0	59.8	91.4
Mean	65.6	31.0	37.7	39.4	135	83.8	34.2	0.04	0.18	0	1.93	3.05
Cfs/m	2.85	1.35	1.64	1.71	5.87	3.64	1.49	0.0017	0.0078	0	0.084	0.133
In.	3.29	1.51	1.89	1.97	6.11	4.20	1.66	0.002	0.009	0	0.10	0.15

Calendar year 1956: Max 350 Min 0 Mean 35.8 Cfs/m 1.56 In. 21.18
Water year 1956-57: Max 598 Min 0 Mean 35.4 Cfs/m 1.54 In. 20.89

Peak discharge (base, 200 cfs).--Oct. 18 (4:30 p.m.) 436 cfs (5.41 ft); Oct. 23 (8 a.m.) 239 cfs (4.72 ft); Dec. 16 (3 p.m.) 208 cfs (4.46 ft); Feb. 1 (11 a.m.) 690 cfs (5.87 ft); Feb. 10 (9 a.m.) 261 cfs (4.53 ft); Mar. 1 (2 p.m.) 281 cfs (4.62 ft); Mar. 9 (6 a.m.) 245 cfs (4.46 ft).

* Discharge measurement or observation of no flow made on this day.

b Stage-discharge relation affected by ice.

Nottoway River near Burkeville, Va.

Location.--Lat 37°05', long 78°12', on left bank at downstream side of bridge on State Highway 723, 2½ miles upstream from Modest Creek, 6 miles north of Victoria, and 7½ miles south of Burkeville, Nottoway County.

Drainage area.--38 sq mi, approximately.

Records available.--September 1946 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 354.58 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 4, 1951, wire-weight gage at same site and datum.

Average discharge.--11 years, 34.4 cfs.

Extremes.--Maximum discharge during year, 2,980 cfs Sept. 18 (gage height, 18.06 ft, from floodmark); minimum, 0.1 cfs Aug. 11-18; minimum gage height, 0.97 ft Aug. 17, 18. 1946-57: Maximum discharge, 3,320 cfs Aug. 18, 1955 (gage height, 19.06 ft); no flow Aug. 29 to Oct. 14, 1954. Maximum stage known, 27.4 ft August 1940, from Corps of Engineers floodmark.

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1383: 1946-47, 1949. WSP 1433: 1948.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 21-25, 27-31, Sept. 2-6, 8, 12-17, 19-30; stage-discharge relation affected by ice Jan. 16, 18)

1.0	0.1	2.5	29
1.1	.5	3.0	51
1.2	1.2	5.0	170
1.3	2.0	7.0	320
1.5	4.1	9.0	558
1.7	7	11.0	942
2.0	13		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	38	13	13	312	366	19	10	3.7	4.0	0.5	50
2	3.2	46	12	11	282	89	21	9.6	4.2	2.8	.4	11
3	2.9	24	12	10	144	52	19	9.0	20	2.3	.4	4.3
4	2.8	17	12	12	149	38	18	9.0	9.2	2.1	.3	2.8
5	2.8	14	12	18	66	33	43	9.0	111	1.9	.4	2.2
6	3.0	12	12	17	63	30	182	9.0	258	1.8	.4	1.8
7	3.2	11	12	14	50	31	49	8.6	32	1.6	.3	6
8	3.0	11	12	13	83	110	110	8.0	48	1.4	.3	3.9
9	2.7	16	12	14	143	101	*738	7.4	23	1.4	.2	40
10	2.5	18	*11	18	113	44	92	7.0	20	1.4	.2	25
11	2.3	12	11	16	66	34	52	6.8	14	*1.2	.2	*130
12	2.3	11	11	14	42	32	40	6.0	11	1.1	.1	21
13	2.5	10	11	14	35	27	37	7.0	9.0	1.0	.1	10
14	2.8	9.4	12	13	31	25	35	6.2	7.2	.9	*1	6.7
15	*2.9	9.0	16	12	26	28	29	5.6	6.2	.8	.1	4.8
16	2.9	9.0	24	11	26	31	25	5.2	5.5	.8	.1	3.9
17	3.0	42	20	10	24	24	25	4.7	5.1	.8	.1	4.5
18	8.2	148	26	9	*21	*23	24	4.8	*4.6	.8	.2	900
19	7.4	*39	13	10	27	52	22	7.0	4.1	.8	93	116
20	4.8	25	13	12	119	44	21	22	4.1	.8	18	40
21	4.7	22	13	*17	41	30	20	11	3.6	.6	3.4	24
22	26	33	14	24	31	33	19	8.4	3.3	.8	1.8	18
23	41	24	58	29	27	70	18	8.0	3.0	.7	1.2	14
24	14	19	83	24	24	37	18	6.5	2.9	2.2	1.0	11
25	9.0	17	44	20	23	31	16	5.2	2.7	1.4	4.1	9.4
26	7.2	17	24	24	287	27	15	4.8	3.1	.8	45	8.4
27	30	17	20	22	161	25	13	8.7	3.3	.8	9.2	7.2
28	30	15	18	52	158	23	12	9.6	3.3	.8	4.5	6.7
29	14	14	17	122	-	22	11	5.3	4.7	.8	3.0	9.8
30	20	14	14	125	-	20	11	4.5	4.1	.7	2.3	21
31	41	-	13	156	-	19	-	3.9	-	.6	2.3	-
Total	308.0	713.4	585	876	2,554	1,551	1,754	239.8	633.9	39.7	193.2	1,513.4
Mean	9.87	23.8	18.9	28.3	91.2	50.0	58.5	7.74	21.1	1.28	6.23	50.4
Cfsm	0.260	0.626	0.497	0.745	2.40	1.32	1.54	0.204	0.555	0.034	0.164	1.33
In.	0.30	0.70	0.57	0.86	2.50	1.52	1.72	0.24	0.82	0.04	0.19	1.48
Calendar year 1956: Max	440			Min	0.5	Mean	25.7	Cfsm	0.876	In.	9.19	
Water year 1956-57: Max	900			Min	0.1	Mean	30.0	Cfsm	0.789	In.	10.74	

Peak discharge (base, 600 cfs).--Feb. 26 (9 p.m.) 700 cfs (9.85 ft); Mar. 1 (6 a.m.) 681 cfs (9.72 ft); Apr. 9 (9 a.m.) 1,460 cfs (13.21 ft); Sept. 18 (time unknown) 2,980 cfs (18.06 ft).

* Discharge measurement made on this day.

Nottoway River near Rawlings, Va.

Location.--Lat 36°59'00", long 77°48'00", on right bank at downstream side of bridge on State Highway 612, at Harpers Bridge, 2.6 miles northwest of Rawlings, Brunswick County.

Drainage area.--323 sq mi.

Records available.--October 1950 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 174 ft (by barometer).

Average discharge.--7 years, 270 cfs.

Extremes.--Maximum discharge during year, 4,090 cfs Sept. 19 (gage height, 9.57 ft); minimum, 8.0 cfs Aug. 9, 10 (gage height, 2.15 ft).
1950-57: Maximum discharge, 6,580 cfs Oct. 2, 1955; minimum, 0.4 cfs Oct. 14, 15, 1954; minimum gage height, 1.83 ft Oct. 15, 1954.

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17)

2.0	5.0	3.1	148
2.1	10	3.4	262
2.4	28	4.0	574
2.6	50	7.0	2,290
2.8	78	9.0	3,640

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	387	142	198	1,750	1,630	262	170	110	87	21	366
2	92	655	137	177	2,230	1,990	272	164	108	87	18	564
3	73	736	134	158	1,870	*852	272	158	151	55	16	180
4	68	434	134	158	1,310	623	257	154	164	48	14	106
5	70	314	131	202	1,030	517	253	154	293	46	14	75
6	80	248	131	234	952	470	501	154	952	44	12	62
7	82	209	128	209	590	465	817	151	1,340	44	9.5	58
8	72	191	128	187	623	590	501	148	527	43	8.5	60
9	67	278	128	180	817	1,280	*1,170	142	527	42	8.5	384
10	61	376	128	202	979	952	2,110	134	340	42	8.5	356
11	58	267	*120	191	790	585	1,110	128	253	*40	8.5	*817
12	56	216	118	180	601	496	538	142	202	37	10	763
13	56	191	120	174	486	444	460	148	170	38	14	262
14	58	170	120	174	434	402	434	134	145	40	12	148
15	60	161	208	167	382	392	382	123	126	65	*12	108
16	*60	154	979	150	361	423	335	115	110	58	16	91
17	60	154	736	140	350	382	330	101	101	44	18	254
18	113	219	392	131	314	345	324	96	96	39	14	1,750
19	137	449	272	128	*324	*397	309	122	*87	38	118	3,500
20	103	*262	230	142	671	532	288	579	78	34	387	1,230
21	92	216	212	158	677	465	272	309	75	31	180	376
22	178	209	202	*191	470	402	262	*202	70	26	89	253
23	376	205	299	298	387	491	248	174	67	25	60	198
24	319	191	606	330	350	496	253	148	62	65	50	151
25	191	174	596	272	324	408	257	128	57	70	63	120
26	137	164	418	278	709	378	234	110	122	46	353	103
27	1,360	164	304	278	2,170	345	212	175	103	36	335	92
28	1,250	158	257	319	2,170	319	198	272	82	32	126	85
29	506	151	253	506	-	304	184	174	85	28	80	108
30	356	148	253	1,140	-----	268	180	131	89	26	62	225
31	408	---	209	1,060	-----	272	-----	120	-----	23	62	-----
Total	6,683	7,851	8,225	8,312	24,121	18,033	13,225	5,160	6,672	1,355	2,199.5	12,845
Mean	216	262	265	268	861	582	441	166	222	43.7	71.0	428
Cfs/m	0.669	0.811	0.820	0.830	2.67	1.80	1.37	0.514	0.687	0.136	0.220	1.33
In.	0.77	0.90	0.95	0.96	2.78	2.08	1.53	0.59	0.77	0.16	0.25	1.48

Calendar year 1956: Max 2,050 Min 36 Mean 272 Cfs/m 0.842 In. 11.47
Water year 1956-57: Max 3,500 Min 8.5 Mean 314 Cfs/m 0.972 In. 13.22

Peak discharge (base, 2,500 cfs).--Feb. 28 (1 a.m.) 2,740 cfs (7.67 ft); Sept. 19 (11 a.m.) 4,090 cfs (9.57 ft).

* Discharge measurement made on this day.

Nottoway River near Stony Creek, Va.

Location.--Lat 36°54'00", long 77°24'00", on left bank 15 ft downstream from bridge on U. S. Highway 301, 1.8 miles upstream from Island Swamp, 3.3 miles south of town of Stony Creek, Sussex County, and 4.4 miles upstream from Stony Creek.

Drainage area.--586 sq mi.

Records available.--March 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 58.42 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 11, 1934, chain gage at same site and datum.

Average discharge.--27 years, 539 cfs.

Extremes.--Maximum discharge during year, 4,920 cfs Feb. 2 (gage height, 15.12 ft); minimum daily, 15 cfs Aug. 11-15.

1930-57: Maximum discharge, 25,200 cfs Aug. 17, 1940 (gage height, 23.66 ft), from rating curve extended above 13,000 cfs by logarithmic plotting on basis of records for stations on Appomattox River; minimum, 5 cfs Sept. 2, 5, 1932 (gage height, 0.62 ft).

Remarks.--Records fair except those for periods of no gage-height record, which are poor.

Revisions (water years).--WSP 802: 1935(M). WSP 972: 1931(M), 1932, 1934-35, 1939.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17-20; shifting-control method used May 21 to June 7)

Oct. 1 to June 30				July 1 to Sept. 30			
2.4	76	12.0	2,930	1.9	12	3.0	130
3.0	165	14.0	4,000	2.1	26	4.0	310
6.0	800	15.0	4,820	2.3	44	6.0	800
9.0	1,730			2.5	66		

Note.--Same as preceding table above 6.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	224	1,170	322	522	3,600	4,300	582	372	332	183	70	150
2	167	1,890	312	472	4,730	*3,480	582	352	312	188	55	500
3	153	2,050	302	422	4,640	2,850	582	342	292	167	45	550
4	120	1,320	292	392	3,720	1,690	582	322	292	130	40	300
5	110	875	292	452	2,650	1,200	542	322	352	120	*30	150
6	100	650	282	562	1,600	1,000	625	322	825	100	25	130
7	135	562	272	502	1,500	1,000	850	312	1,450	80	25	120
8	153	502	272	462	1,300	1,100	950	302	1,290	*85	20	90
9	120	582	262	442	1,580	2,370	292	775	60	20	*85	
10	100	800	260	502	2,300	2,410	*2,450	282	700	60	20	525
11	95	700	*252	502	1,700	1,650	2,570	272	562	60	15	700
12	90	542	244	442	1,300	1,140	1,320	272	400	55	15	975
13	85	482	246	422	1,000	950	900	292	320	55	15	750
14	80	432	258	422	850	850	825	302	270	60	15	300
15	80	402	442	412	750	775	750	282	240	70	15	200
16	*90	382	2,690	402	700	775	675	262	220	90	18	180
17	99	382	2,410	380	650	775	625	252	200	105	20	150
18	144	392	1,110	350	600	700	602	244	180	108	20	500
19	282	492	700	300	*630	*775	602	236	170	90	25	1,930
20	262	*625	562	320	1,150	1,050	562	975	*140	80	80	2,770
21	200	482	502	402	1,400	950	562	*1,140	130	75	450	1,080
22	372	442	492	*470	1,150	850	522	725	125	70	300	438
23	850	442	775	540	700	1,000	522	562	120	70	200	350
24	700	412	1,350	900	680	950	542	472	115	75	150	300
25	492	382	1,260	700	680	850	522	412	110	90	130	250
26	392	372	950	800	1,750	775	522	362	130	130	180	202
27	1,240	362	700	840	3,930	725	482	342	185	127	600	176
28	4,300	352	582	950	4,000	675	442	422	236	116	400	165
29	3,390	322	502	1,000	-	650	412	502	218	106	300	160
30	1,380	352	2,400	602	602	392	432	212	90	200	180	
31	1,340	-----	602	2,530	-----	582	-----	372	-----	80	170	-----
Total	17,345	19,122	20,377	20,214	51,040	39,449	24,386	12,352	10,903	2,955	3,648	14,362
Mean	560	637	657	652	1,823	1,273	813	398	363	95.3	118	479
Cfsm	0.956	1.09	1.12	1.11	3.11	2.17	1.59	0.679	0.619	0.163	0.201	0.817
In.	1.10	1.22	1.29	1.28	3.24	2.50	1.55	0.78	0.69	0.19	0.23	0.91

Calendar year 1956: Max 4,300 Min 54 Mean 541 Cfsm 0.923 In. 12.60
Water year 1956-57: Max 4,730 Min 15 Mean 647 Cfsm 1.10 In. 14.98

Peak discharge (base, 3,500 cfs).--Oct. 28 (9:30 p.m.) 4,820 cfs (14.95 ft); Feb. 2 (11:30 p.m.) 4,920 cfs (15.12 ft); Mar. 1 (12:30 p.m.) 4,380 cfs (14.54 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 4-6, 9-16, Jan. 22-30, Feb. 6-8, 10-26, Mar. 5-8, June 12-26, July 4-16, 19-28, 30, 31, Aug. 1 to Sept. 9; discharge estimated on basis of weather records, 7 discharge measurements, and records for stations near Rawlings and Sebrell.

Stony Creek near Dinwiddie, Va.

Location.--Lat 37°04'00", long 77°36'10", on right bank at upstream side of bridge on U. S. Highway 1, 1.2 miles southwest of Dinwiddie, Dinwiddie County, 1.7 miles downstream from Chamberlains Bed Creek, and 5.7 miles downstream from confluence of White Oak and Butterhook Creeks.

Drainage area.--111 sq mi.

Records available.--September 1946 to September 1957. Published as "at Dinwiddie" September 1946 to September 1947 and October 1949 to September 1950.

Gage.--Water-stage recorder. Altitude of gage is 131 ft (by barometer). Prior to June 12, 1957, wire-weight gage and crest-stage indicator at same site and datum.

Average discharge.--11 years, 100 cfs.

Extremes.--Maximum discharge during year, 2,600 cfs Oct. 28 (gage height, 10.96 ft); minimum, 3.1 cfs Aug. 17 (gage height, 1.16 ft).
1946-57: Maximum discharge, 3,000 cfs Aug. 18, 1955 (gage height, 11.52 ft); no flow for part of Oct. 13, 1954; minimum daily discharge, 0.1 cfs Sept. 4 to Oct. 14, Oct. 16-28, Nov. 1, 1954.

Remarks.--Records fair to June 11, good thereafter.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1433: 1951(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17-19)

1.1	1.4	2.2	92
1.2	4.2	3.0	222
1.3	7.8	7.0	842
1.4	12	8.0	1,100
1.6	25	9.0	1,470
1.8	42	11.0	2,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	371	57	131	965	690	86	48	32	22	11	17
2	28	999	57	115	965	606	94	45	31	16	10	15
3	22	1,170	60	95	645	385	92	42	46	13	10	14
4	19	497	57	96	645	270	86	41	48	12	10	13
5	19	329	53	159	511	222	84	41	322	11	10	12
6	28	205	54	139	238	188	106	42	745	12	8.6	12
7	28	155	57	131	270	123	104	39	708	10	7.8	11
8	24	139	54	115	300	310	139	38	619	10	7.8	12
9	22	188	53	106	371	539	*483	37	567	9.5	7.4	24
10	19	285	52	139	371	427	427	36	254	8.6	6.7	38
11	16	196	*50	115	385	270	222	37	120	*7.8	6.4	*44
12	16	155	51	95	285	205	147	38	79	7.4	6.0	26
13	15	125	51	94	222	180	123	38	59	7.1	7.8	19
14	14	104	51	91	200	155	151	38	49	6.7	7.8	15
15	14	95	155	77	180	147	107	34	41	6.4	*5.6	12
16	*14	89	740	70	163	123	96	31	36	5.6	3.6	10
17	15	85	606	65	163	155	92	28	31	4.9	3.1	96
18	72	100	300	60	139	131	88	27	28	4.9	3.9	427
19	79	94	180	60	*131	*196	84	25	*27	5.3	26	274
20	58	*86	139	77	567	343	84	34	25	5.3	43	151
21	38	77	131	92	214	214	78	91	22	4.9	42	68
22	214	85	115	*115	254	171	74	66	20	4.6	27	49
23	329	78	222	238	180	238	74	52	19	3.9	17	50
24	180	72	399	180	155	196	75	43	17	21	12	38
25	115	72	329	151	139	155	78	35	16	44	14	35
26	86	72	214	188	330	139	74	32	17	36	18	24
27	1,340	72	163	155	1,430	131	65	48	20	24	23	20
28	2,260	63	139	238	789	115	58	94	23	26	19	19
29	801	66	139	329	-	107	53	65	31	24	16	22
30	385	65	222	413	-----	102	*50	42	29	16	13	48
31	413	-----	163	567	-----	95	-----	35	-----	13	12	-----
Total	6,722	6,187	5,113	4,656	11,364	7,328	3,554	1,402	4,081	402.9	415.5	1,593
Mean	217	206	165	150	406	235	118	45.2	136	13.0	13.4	53.1
C'sm	1.95	1.86	1.49	1.35	3.66	2.13	1.06	0.407	1.23	0.117	0.121	0.478
In.	2.25	2.08	1.72	1.56	3.81	2.46	1.18	0.47	1.37	0.13	0.14	0.53

Calendar year 1956: Max 2,260 Min 7.8 Mean 124 C'sm 1.12 In. 15.27
Water year 1956-57: Max 2,260 Min 3.1 Mean 145 C'sm 1.31 In. 17.70

Peak discharge (base, 1,200 cfs).--Oct. 28 (10:30 a.m.) 2,600 cfs (10.96 ft); Nov. 3 (3 a.m.) 1,550 cfs (9.16 ft); Feb. 27 (4 p.m.) 1,950 cfs (9.95 ft); June 6 (1 a.m.) 1,390 cfs (8.82 ft).

* Discharge measurement made on this day.

Nottoway River near Sebrell, Va.

Location.--Lat 36°46'13", long 77°09'59", on right bank at upstream side of highway bridge, 1 mile downstream from Three Creek, 2.5 miles southwest of Sebrell, Southampton County, and 5.5 miles upstream from Assamocsick Swamp.

Drainage area.--1,451 sq mi.

Records available.--September 1941 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 5.94 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Aug. 23, 1950, wire-weight gage at same site and datum.

Average discharge.--16 years, 1,200 cfs.

Extremes.--Maximum discharge during year, 9,440 cfs Feb. 5 (gage height, 18.35 ft); minimum daily, 35 cfs Aug. 14-17.

1941-57: Maximum discharge, 25,000 cfs July 22, 1945 (gage height, 24.5 ft); minimum observed, 12 cfs Oct. 23, 1941 (gage height, 3.30 ft).

Flood in August 1940 reached a stage of 29.7 ft, from floodmarks (discharge, 48,000 cfs, from rating curve extended above 25,000 cfs by logarithmic plotting).

Remarks.--Records good except those for period of no gage-height record, which are fair.

Revisions (water years).--WSP 1333: 1942, 1944, 1948-49.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 25-28, July 5 to Aug. 12)

3.2	35	9.0	1,530
3.6	89	13.0	3,150
4.0	155	16.0	5,680
5.0	354	18.0	8,600
6.0	604	19.0	10,700

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	682	4,820	784	2,610	4,250	4,050	1,600	708	438	214	119	a400
2	526	5,360	764	2,410	5,580	5,800	1,490	630	378	230	97	a700
3	366	5,160	736	2,050	6,940	7,180	1,460	578	343	232	83	a800
4	280	4,770	708	1,780	8,100	7,620	1,420	559	321	212	76	a900
5	238	4,680	682	1,600	9,230	6,940	1,410	513	378	177	74	a500
6	214	4,770	656	1,630	9,230	5,980	1,490	487	936	157	*64	a300
7	206	4,680	643	1,810	8,200	4,860	1,710	474	1,850	140	59	a200
8	218	4,130	650	1,800	6,940	4,010	1,890	482	2,350	131	56	a150
9	242	3,150	630	1,650	9,920	4,090	2,610	438	2,530	*123	51	a130
10	246	2,450	630	1,630	5,260	4,410	3,200	426	2,700	115	47	*a120
11	204	2,210	617	1,670	5,010	4,770	*3,720	402	2,740	110	47	308
12	184	2,170	*617	1,690	5,060	5,260	4,170	402	2,490	105	43	643
13	168	1,930	604	1,600	5,260	5,160	4,590	402	1,490	102	a40	966
14	157	1,630	617	1,460	5,060	4,540	4,350	426	876	97	a35	921
15	148	1,390	1,120	1,390	4,500	3,790	3,380	438	643	94	a35	539
16	*145	1,190	2,170	1,360	3,790	3,260	2,570	402	513	89	a35	332
17	159	1,090	3,050	1,290	3,100	3,010	2,050	354	426	84	a35	250
18	310	1,120	3,970	1,190	2,700	2,790	1,670	332	378	102	a40	220
19	390	1,150	4,860	1,030	*2,450	2,570	1,490	310	332	111	a50	402
20	462	1,190	5,360	996	2,370	*2,650	1,390	378	290	99	a400	1,490
21	578	*1,290	4,860	1,060	2,570	2,920	1,320	*1,000	270	89	a800	1,970
22	708	1,220	3,790	1,190	2,920	3,100	1,220	1,650	242	78	a900	2,170
23	1,322	1,120	2,920	*1,420	3,150	3,200	1,120	1,320	220	77	a600	1,320
24	1,850	1,060	2,790	1,780	3,200	3,290	1,090	891	206	94	a400	630
25	2,010	996	3,050	2,130	2,920	3,320	1,220	708	191	88	a350	462
26	1,810	936	3,350	2,250	2,530	3,150	1,290	565	178	83	a600	366
27	1,560	906	3,580	2,290	2,590	2,830	1,220	438	168	140	a900	300
28	1,810	876	3,510	2,370	3,050	2,490	1,150	414	180	191	a1,000	250
29	2,450	848	3,050	2,570	2,940	2,210	996	552	250	157	a600	250
30	2,920	820	2,700	2,940	-----	1,970	834	695	230	126	a500	230
31	3,720	-----	2,630	3,380	-----	1,740	-----	565	-----	123	a400	-----
Total	26,283	69,112	66,058	56,066	131,880	122,960	59,100	17,899	24,517	3,970	8,536	18,199
Mean	848	2,304	2,131	1,809	4,710	3,966	1,970	577	817	128	275	607
Cfs/m	0.584	1.59	1.47	1.25	3.25	2.73	1.36	0.399	0.563	0.088	0.190	0.418
In.	0.67	1.77	1.70	1.44	3.38	3.15	1.52	0.46	0.63	0.10	0.22	0.47
Calendar year 1956: Max	5,800	Min	95	Mean	1,369	Cfs/m	0.943	In.	12.65			
Water year 1956-57: Max	9,230	Min	35	Mean	1,656	Cfs/m	1.14	In.	15.51			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for stations near Rawlings and Story Creek.

Blackwater River near Dendron, Va.

Location.--Lat 37°01'30", long 76°52'30", on left bank 10 ft upstream from Walls Bridge, 1.2 miles downstream from Cypress Swamp, and 3.5 miles southeast of Dendron, Surry County.

Drainage area.--285 sq mi.

Records available.--January 1942 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 30.99 ft above mean sea level (Corps of Engineers benchmark).

Average discharge.--15 years, 274 cfs.

Extremes.--Maximum discharge during year, 2,130 cfs Feb. 4, 5 (gage height, 6.20 ft); no flow for many days.

1942-57: Maximum discharge, 4,710 cfs July 21, 1945 (gage height, 8.90 ft); no flow at times.

Flood in August 1940 reached a stage of 13.1 ft, from Corps of Engineers floodmarks (discharge, 10,000 cfs, from rating curve extended above 4,800 cfs by logarithmic plotting).

Remarks.--Records good except those for period of ice effect, which are fair.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 2-18)

Oct. 1 to June 10

June 11 to Sept. 30

1.6	13	3.5	248	0.8	0	2.0	30
2.0	25	4.0	500	.9	1.0	2.5	52
2.5	45	5.0	1,150	1.0	3.0	3.0	90
3.0	87	7.0	2,850	1.2	7.0	3.5	248
				1.5	15		

Note.--Same as preceding table above 3.5 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	975	188	732	1,500	975	375	77	60	4.0	0	59
2	137	1,010	174	650	1,880	1,120	360	66	56	2.6	3.6	67
3	116	1,040	164	572	2,040	1,340	325	60	52	1.6	25	62
4	81	1,040	161	472	2,130	1,340	290	54	49	.9	25	53
5	81	1,080	164	472	2,090	1,260	286	51	51	.5	*23	40
6	103	1,150	167	506	1,960	1,120	315	48	70	.3	15	31
7	110	1,260	161	548	1,790	975	320	44	134	0	9.0	26
8	94	1,220	149	524	1,660	975	380	40	291	*0	5.2	23
9	76	1,120	137	494	1,540	1,150	644	36	732	0	2.6	*25
10	62	975	137	489	1,460	1,420	700	31	975	0	.9	28
11	52	842	161	484	1,380	1,540	784	27	1,010	0	.4	27
12	43	732	167	434	1,340	1,620	*593	29	875	0	0	25
13	56	620	*152	412	1,260	1,660	518	31	732	0	0	19
14	30	512	156	434	1,120	1,460	484	28	602	0	0	14
15	28	467	484	428	1,010	1,260	512	25	428	0	0	11
16	30	462	674	b390	940	1,080	506	21	300	0	0	8.8
17	37	445	778	b370	842	1,120	445	17	214	0	0	11
18	*76	440	686	b350	752	1,010	375	14	143	0	0	23
19	96	396	810	b340	706	908	315	15	86	0	4.6	26
20	119	390	810	b350	712	975	273	85	63	0	6.0	28
21	152	385	842	b330	*693	*1,190	244	151	*46	0	5.6	30
22	199	*360	842	b360	700	1,120	231	116	31	0	5.6	30
23	300	330	797	390	602	1,040	223	110	23	0	5.2	28
24	290	300	842	*412	584	975	219	103	16	0	4.4	30
25	273	286	940	434	638	940	227	94	12	0	7.0	50
26	320	273	940	462	738	875	223	119	10	0	6.2	83
27	449	256	875	536	842	146	195	7.8	0	0	5.9	106
28	758	244	810	650	842	644	127	131	6.0	0	5.2	94
29	842	219	745	712	-	512	128	94	5.2	0	8.5	84
30	875	202	712	940	-----	450	98	74	4.0	0	19	88
31	940	-----	752	1,190	-----	406	-----	66	-----	0	38	-----
Total	6,973	19,031	15,577	15,847	33,751	33,231	10,852	1,983	7,084.0	9.9	232.8	1,229.8
Mean	225	634	502	511	1,205	1,072	362	64.0	236	0.32	7.51	41.0
Cfs/m	0.789	2.22	1.76	1.79	4.23	3.76	1.27	0.225	0.828	0.001	0.026	0.144
In.	0.91	2.48	2.03	2.06	4.40	4.34	1.42	0.26	0.92	0.001	0.03	0.16

Calendar year 1956: Max 1,260 Min 0.2 Mean 328 Cfs/m 1.15 In. 15.65
 Water year 1956-57: Max 2,130 Min 0 Mean 399 Cfs/m 1.40 In. 19.01

Peak discharge (base, 1,000 cfs).--Nov. 7 (12 m. to 4 p.m.) 1,260 cfs (5.14 ft); Feb. 4, 5 (6 p.m. to 4 a.m.) 2,130 cfs (6.20 ft); Mar. 3, 4 (8 p.m. to 1 a.m.) 1,380 cfs (5.30 ft); Mar. 13 (1 a.m. to 6 a.m.) 1,660 cfs (5.67 ft); Mar. 21 (1 p.m.) 1,190 cfs (5.06 ft); June 10, 11 (8 p.m. to 7 a.m.) 1,010 cfs (4.81 ft).

* Discharge measurement or observation of no flow made on this day.

b Stage-discharge relation affected by ice.

Blackwater River at Zuni, Va.

Location.--Lat 36°52'05", long 76°50'07", on left bank at downstream side of bridge on U. S. Highway 460 at Zuni, Isle of Wight County, 1.6 miles downstream from Pope Swamp and 4.2 miles upstream from Antioch Swamp.

Drainage area.--448 sq mi.

Records available.--January 1943 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 8.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 18, 1957, staff gage at same site and datum.

Average discharge.--14 years, 410 cfs.

Extremes.--Maximum discharge observed during year, 2,860 cfs Feb. 4, 5 (gage height, 11.80 ft); minimum, 0.6 cfs July 23 (gage height, 0.95 ft).

1943-57: Maximum discharge, 5,200 cfs July 25, 1945 (gage height, 15.05 ft); no

flow Sept. 10-18, 1944, Sept. 28 to Oct. 31, 1954.

Flood in August 1940 reached a stage of 23.2 ft.

Remarks.--Records fair except those below 10 cfs, which are poor.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 6-30)

Oct. 1 to Nov. 2, Feb. 5 to Sept. 30					Nov. 3 to Feb. 4				
0.9	0.6	2.0	14	6.0	244	6.0	210		
1.0	1.1	2.5	27	7.0	515	6.5	300		
1.2	2.4	3.0	44	9.0	1,340	7.0	430		
1.4	4.1	4.0	89	12.0	2,980	8.0	820		
1.6	6.6	5.0	149			12.0	2,980		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	1,340	300	1,020	1,720	1,300	740	*280	156	10	4.5	13
2	260	1,480	300	970	2,260	1,480	700	231	129	7.2	3.5	12
3	208	1,520	280	920	2,680	1,520	660	179	99	6.0	2.7	15
4	197	1,470	280	870	2,860	1,570	620	156	94	4.9	2.5	26
5	197	1,420	280	775	2,860	1,620	585	142	94	4.6	2.3	40
6	208	1,370	260	685	2,800	1,570	620	129	142	4.3	*1.8	50
7	188	1,320	260	685	2,680	1,570	620	117	244	3.9	1.6	50
8	171	1,320	260	640	2,440	1,570	660	99	208	2.9	3.4	42
9	156	1,370	240	685	2,260	1,620	985	89	179	*2.3	6.2	38
10	142	1,420	240	730	2,260	1,770	1,300	79	197	2.0	6.3	*34
11	142	1,370	225	730	2,260	1,820	*1,440	69	380	1.9	5.5	32
12	135	1,270	210	685	2,140	1,820	1,480	64	860	1.8	4.4	56
13	117	1,170	*210	685	1,970	1,820	1,480	64	1,030	1.5	4.1	52
14	105	1,020	225	640	1,770	1,820	1,120	56	985	1.3	3.4	42
15	99	920	260	600	1,670	1,720	985	52	900	1.5	3.0	32
16	84	730	400	560	1,570	1,670	860	48	780	1.8	3.2	24
17	111	640	775	525	1,440	1,520	820	44	660	1.8	3.0	20
18	*156	600	1,320	525	1,260	1,440	780	33	515	1.5	2.6	22
19	171	560	1,370	490	1,120	1,440	660	30	350	1.2	5.1	27
20	188	525	1,220	460	*1,120	*1,440	585	33	*280	1.2	22	24
21	219	525	1,270	460	1,120	1,440	550	44	197	1.0	22	24
22	244	*490	1,120	460	1,080	1,390	480	56	142	.8	11	22
23	445	490	1,120	*490	1,030	1,520	445	123	99	.6	12	22
24	515	490	1,220	525	985	1,520	410	163	56	2.2	11	22
25	620	460	1,270	560	940	1,570	410	171	38	27	16	22
26	620	430	1,320	600	860	1,440	445	163	27	114	74	21
27	660	400	1,370	640	965	1,340	515	142	24	117	60	21
28	660	375	1,320	730	1,120	1,210	445	156	20	48	52	28
29	660	350	1,220	820	-	1,080	380	171	14	20	34	56
30	820	325	1,120	1,070	-----	985	325	188	12	10	21	111
31	1,210	-----	1,070	1,320	-----	860	-----	163	-----	6.3	14	---
Total	10,058	27,170	22,335	21,555	49,260	46,455	22,105	3,534	8,911	410.5	418.1	1,000
Mean	324	906	720	695	1,759	1,499	737	114	297	13.2	13.5	33.3
Cfsm	0.723	2.02	1.61	1.55	3.93	3.35	1.65	0.254	0.663	0.029	0.030	0.074
In.	0.63	2.25	1.86	1.79	4.09	3.66	1.84	0.29	0.74	0.03	0.03	0.08
Calendar year 1956: Max	1,620				Min 3.9	Mean 491		Cfsm 1.10		In. 14.91		
Water year 1956-57: Max	2,860				Min 0.6	Mean 584		Cfsm 1.30		In. 17.69		

* Discharge measurement made on this day.

Blackwater River near Franklin, Va.

Location.--Lat 36°45'45", long 76°53'55", on right bank 0.4 mile south of town of Burdette, 0.5 mile upstream from Black Creek, 3.3 miles downstream from Corrowaugh Swamp, and 6 miles north of Franklin, Southampton County.

Drainage area.--613 sq mi.

Records available.--August 1944 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--13 years, 570 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 3,930 cfs Feb. 4, 5 (gage height, 11.55 ft); minimum, 1.9 cfs Aug. 8 (gage height, 0.56 ft).

1944-57: Maximum discharge, 5,360 cfs July 25, 1945 (gage height, 13.4 ft, from graph based on gage readings); minimum, 0.4 cfs Sept. 10, 11, 1944 (gage height, 0.36 ft).

Remarks.--Records fair except those for periods of indefinite stage-discharge relation, which are poor. Diversion above station by city of Norfolk for municipal supply some years.

Rating tables, water year 1956-57, except periods of indefinite stage-discharge relation (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 4

Feb. 5 to Sept. 30

2.3	74	6.0	490	0.5	1.0	1.5	34	6.0	555
2.5	84	7.0	800	.6	2.5	2.0	60	7.0	820
3.0	110	8.0	1,260	.7	4.2	3.0	140	8.0	1,260
4.0	190	10.0	2,650	.8	6.2	4.0	240	10.0	2,650
5.0	310	12.0	4,250	1.0	11	5.0	375	12.0	4,250

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	382	1,760	470	1,500	2,650	1,900	1,110	439	135	14	e12	27
2	400	1,970	480	1,380	3,290	2,180	960	367	140	11	e10	21
3	382	2,110	440	1,290	3,690	2,330	880	307	121	9.8	e7.5	16
4	342	2,110	410	1,210	3,850	2,330	850	246	116	9.8	e8	24
5	260	1,970	382	1,160	3,850	2,250	790	200	160	e10	e8	32
6	244	1,900	368	1,080	3,770	2,180	820	170	220	e10	*4.8	42
7	238	1,760	350	1,010	3,610	2,180	880	150	282	e7	2.5	46
8	220	1,690	342	960	3,370	2,330	880	130	351	5.6	2.0	48
9	175	1,690	334	940	3,290	2,490	1,210	116	328	*5.2	2.4	48
10	143	1,690	326	960	3,290	2,650	1,760	99	282	4.2	5.2	*53
11	125	1,760	310	1,010	3,290	2,730	*2,110	86	294	3.7	6.9	41
12	116	1,690	*318	985	3,210	2,650	2,110	90	447	3.7	6.7	38
13	104	1,580	318	960	2,970	2,570	1,970	94	705	e5	9.2	53
14	94	1,410	310	940	2,730	2,410	1,760	87	880	e8.5	6.4	50
15	86	1,260	479	900	2,410	2,330	1,500	77	880	e8.5	e8.5	42
16	76	1,110	1,010	860	2,180	2,330	1,260	67	820	e6	e15	34
17	*79	960	1,320	820	1,970	2,180	1,110	59	730	e6	e8	30
18	326	880	1,560	712	1,760	2,040	960	49	630	e7	e7	26
19	642	765	1,970	695	1,620	2,040	880	47	495	e4.5	22	24
20	580	712	1,970	678	*1,620	*2,110	850	69	*399	3.7	26	25
21	502	*695	1,630	678	1,620	2,110	760	116	288	3.4	26	28
22	552	678	1,620	712	1,560	2,110	705	105	180	3.0	24	33
23	695	642	1,620	*765	1,500	2,250	655	111	91	3.5	13	33
24	960	625	1,690	800	1,440	2,410	592	155	47	e5	11	28
25	985	610	1,900	840	1,320	2,410	568	155	46	4.2	27	21
26	920	595	1,900	920	1,260	2,250	605	140	40	28	62	22
27	920	565	1,900	1,010	1,380	2,040	630	130	32	94	82	28
28	940	528	1,900	1,110	1,560	1,830	630	135	28	86	62	22
29	920	502	1,760	1,260	-	1,620	592	130	25	46	51	32
30	965	480	1,690	1,620	-----	1,440	505	140	16	28	40	71
31	1,410	-----	1,620	1,970	-----	1,260	-----	145	-----	16	32	-----
Total	14,823	36,657	32,675	31,735	70,060	67,940	30,892	4,411	9,208	456.3	608.1	1,039
Mean	478	1,222	1,060	1,024	2,502	2,192	1,030	142	307	14.7	19.6	34.6
Cfs/m	3.7	0	0	0	0	0	0	9.0	6.9	0	0	0

Adjusted for pumpage by city of Norfolk

Mean	482	1,222	1,060	1,024	2,502	2,192	1,030	151	314	14.7	19.6	34.6
Cfs/m	0.766	1.99	1.73	1.67	4.08	3.58	1.68	0.246	0.512	0.024	0.032	0.056
In.	0.91	2.22	1.99	1.92	4.25	4.13	1.87	0.28	0.57	0.03	0.04	0.06

	Observed						Adjusted					
Calendar year 1956:	Max	2,110	Min	4	Mean	637	Mean	640	Cfs/m	1.04	In.	14.22
Water year 1956-57:	Max	3,850	Min	2.0	Mean	824	Mean	825	Cfs/m	1.35	In.	18.27

* Discharge measurement made on this day.

† Pumpage, equivalent in cubic feet per second, by city of Norfolk.

e Stage-discharge relation indefinite; discharge estimated on basis of weather records and records for station at Zuni.

North Meherrin River near Keysville, Va.

Location.--Lat 37°03', long 78°25', on right bank at upstream side of highway bridge, 3 miles northeast of Keysville, Charlotte County, and 4 miles upstream from Owl Creek.

Drainage area.--9.2 sq mi, approximately.

Records available.--October 1948 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 475 ft (by barometer).

Average discharge.--9 years, 9.10 cfs.

Extremes.--Maximum discharge during year, 720 cfs Sept. 17 (gage height, 6.45 ft), from rating curve extended above 220 cfs by logarithmic plotting; minimum, 0.1 cfs Aug. 9 (gage height, 0.44 ft).

1948-57: Maximum discharge, 910 cfs Apr. 14, 1955 (gage height, 7.28 ft), from rating curve extended above 220 cfs by logarithmic plotting; minimum, 0.1 cfs Sept. 8, Oct. 4, 1954, Aug. 9, 1957; minimum gage height, 0.10 ft July 17-22, Aug. 31, 1953.

Remarks.--Records fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 9-14)

0.45	0.2	0.9	11
.5	.3	1.4	53
.55	.8	1.8	94
.6	1.1	2.5	136
.7	2.5	3.0	174
.8	6.2	4.0	300

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	7.0	3.1	3.4	85	54	5.4	1.8	1.5	1.2	0.3	1.2
2	1.1	7.2	2.8	3.4	48	15	7.2	2.0	3.4	1.1	.3	1.2
3	1.1	3.8	2.8	3.1	38	11	5.8	2.0	16	1.1	.2	1.1
4	1.1	3.1	2.5	3.1	21	8.6	5.8	2.5	2.8	1.1	.3	1.1
5	1.1	2.8	2.5	5.0	15	7.6	20	2.5	27	1.1	.3	1.1
6	1.1	2.5	2.5	4.2	10	7.2	24	2.5	24	1.1	.2	3.0
7	1.1	2.5	2.5	4.2	10	8.6	8.6	2.5	5.4	1.0	.2	5.0
8	1.1	2.5	2.5	3.4	18	40	11.8	2.0	3.4	.9	.2	2.8
9	1.1	5.0	2.5	4.6	29	17	68	2.0	3.4	1.0	.2	38
10	1.0	3.4	*2.5	6.2	21	9.6	9.1	1.8	3.4	.9	.2	*80
11	1.0	2.5	2.5	4.6	11	8.6	5.4	2.2	2.8	.8	.3	12
12	1.1	2.5	2.5	4.2	8.1	8.1	3.4	2.5	2.5	*.7	.2	5.8
13	1.1	2.5	2.5	3.8	7.6	7.2	4.2	2.0	2.0	.5	*.2	3.8
14	1.1	2.5	3.1	3.8	7.2	7.2	3.4	1.8	1.8	.5	*.2	2.8
15	*1.1	2.5	14	3.4	5.8	11	2.8	1.6	1.6	.6	.3	2.2
16	1.1	2.5	19	3	6.2	8.6	2.2	1.5	1.8	.5	.5	2.2
17	1.2	33	7.2	3	5.4	7.6	2.2	1.5	2.0	.5	.3	240
18	3.1	19	4.6	3	*5.0	*6.7	2.0	1.6	*1.6	.7	.5	50
19	2.0	*6.7	4.2	3	16	12	2.0	1.8	1.4	.7	37	18
20	1.6	5.0	4.2	4.2	15	9.1	2.0	*3.1	1.3	.5	2.8	7.2
21	1.6	5.0	3.8	*5.4	7.6	7.2	2.0	2.5	1.3	.5	1.3	5.0
22	10	11	4.2	5.4	6.3	14	2.0	2.5	1.3	.3	1.1	4.2
23	8.8	4.6	22	7.6	5.8	15	2.0	2.2	1.2	.5	1.1	3.4
24	2.8	3.8	20	5.0	5.4	8.6	2.2	1.8	1.2	1.2	1.1	2.8
25	1.8	3.8	8.1	5.0	5.4	7.6	2.0	1.5	1.2	.6	81	2.2
26	1.8	4.6	5.4	5.4	55	7.2	2.0	1.5	1.4	.5	7.2	2.2
27	3.1	5.4	5.0	5.4	17	6.7	1.8	3.1	1.3	.6	3.1	1.8
28	2.8	5.0	4.2	16	56	6.2	1.8	2.0	1.4	.5	1.8	2.0
29	2.2	3.8	4.2	29	-	6.2	1.8	1.6	1.6	.4	1.5	5.4
30	5.0	3.4	3.8	18	-	5.4	1.8	1.5	1.2	.3	1.3	6.7
31	7.6	-	3.8	62	-	5.0	-	1.5	-	.3	1.2	-
Total	72.9	168.9	174.5	240.8	538.7	353.8	318.9	62.9	122.2	22.2	126.4	512.2
Mean	2.35	5.63	5.63	7.77	19.2	11.4	10.6	2.03	4.07	0.72	4.08	17.1
Cfsm	0.255	0.612	0.612	0.845	2.09	1.24	1.15	0.221	0.442	0.078	0.443	1.86
In.	0.29	0.68	0.71	0.97	2.18	1.43	1.28	0.25	0.49	0.09	0.51	2.08

Calendar year 1956: Max 100 Min 0.3 Mean 6.28 Cfsm 0.683 In. 9.30
Water year 1956-57: Max 240 Min 0.2 Mean 7.44 Cfsm 0.809 In. 10.95

Peak discharge (base, 300 cfs).--Apr. 8 (9 p.m.) 510 cfs (5.27 ft); Sept. 17 (5 p.m.) 720 cfs (6.45 ft).

* Discharge measurement made on this day.

North Meherrin River near Lunenburg, Va.

Location.--Lat 36°59', long 78°21', on right bank at downstream side of bridge on State Highway 40, 0.5 mile downstream from Tusekiah Creek, 4 miles upstream from Juniper Creek, and 5 miles northwest of Lunenburg, Lunenburg County.

Drainage area.--60 sq mi, approximately.

Records available.--August 1946 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 333.7 ft above mean sea level, levels by Corps of Engineers. Prior to July 5, 1951, wire-weight gage at same site and datum.

Average discharge.--11 years, 47.1 cfs.

Extremes.--Maximum discharge during year, 4,160 cfs Sept. 17 (gage height, 20.80 ft), from rating curve extended above 1,600 cfs by logarithmic plotting; minimum, 0.2 cfs Aug. 12-15; minimum gage height, 0.78 ft Aug. 14, 15.
1946-57: Maximum discharge, that of Sept. 17, 1957; no flow Sept. 5-21, Oct. 8-14, 1954.

Flood in August 1940 reached a stage of 48 ft, from information by local resident.

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 16-18)

0.8	0.2	3.0	129
.9	.6	4.0	271
1.0	1.3	6.0	624
1.2	4.0	9.0	1,160
1.4	10	12.0	1,780
1.8	27	14.0	2,240
2.2	51		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	45	15	16	498	383	29	16	7.9	3.7	1.0	3.2
2	4.9	50	14	15	349	104	34	15	9.8	3.2	1.0	3.4
3	4.6	23	14	15	224	68	30	14	32	3.2	.8	3.1
4	4.3	18	13	16	160	51	28	14	14	3.1	.7	2.8
5	4.3	16	13	21	77	45	70	14	273	3.2	.8	2.6
6	4.9	14	13	20	63	41	286	14	235	4.0	1.0	2.5
7	5.2	12	13	18	53	41	64	13	38	3.2	.6	16
8	4.9	13	17	100	270	445	12	24	3.0	.5	7.3	
9	4.3	19	13	18	188	137	*636	12	21	3.0	.4	60
10	4.0	19	*12	24	132	65	94	11	20	3.0	.4	210
11	3.8	15	12	21	78	50	62	11	17	2.8	.3	*72
12	4.0	13	12	18	51	46	48	14	15	*2.3	.2	22
13	4.6	12	12	18	44	40	47	12	12	2.0	.2	14
14	4.9	11	13	18	39	37	45	10	10	2.0	.2	10
15	*4.9	11	21	16	34	46	56	9.4	9.4	2.3	.2	8.5
16	4.3	11	45	15	34	47	32	8.5	8.5	2.3	.6	7.6
17	4.6	78	24	13	31	38	31	8.2	9.4	2.0	1.1	2,080
18	12	142	19	12	*28	*35	30	8.5	*7.6	2.0	.7	372
19	9.7	*38	16	15	52	74	29	17	6.4	2.4	149	91
20	8.2	27	16	17	136	57	27	*19	5.8	1.8	18	40
21	7.9	24	16	*21	49	42	26	14	5.2	1.4	5.8	26
22	40	40	17	28	39	58	24	12	4.9	1.2	3.4	20
23	30	24	101	35	34	91	24	12	4.3	2.0	3.0	17
24	15	19	104	26	32	51	24	9.7	4.0	12	2.8	13
25	9.7	18	49	24	31	43	22	8.2	3.7	3.1	221	10
26	8.5	18	29	29	526	40	20	7.9	4.6	2.0	46	9.7
27	16	21	24	27	159	37	20	18	4.9	1.9	12	8.5
28	21	18	22	74	292	34	18	14	4.9	1.8	6.4	8.2
29	13	17	20	234	-	33	18	9.4	8.2	1.7	4.9	14
30	18	16	18	150	-	31	17	8.5	4.6	1.4	3.8	25
31	41	-	17	345	-	28	-	8.2	-	1.2	3.4	-
Total	334.3	802	740	1,336	3,553	2,163	2,317	374.5	825.1	84.2	490.2	3,179.4
Mean	10.8	26.7	23.9	43.1	126	69.8	77.2	12.1	27.5	2.72	15.8	106
Cfsm	0.180	0.445	0.398	0.718	2.10	1.16	1.29	0.202	0.458	0.045	0.263	1.77
In.	0.21	0.50	0.46	0.83	2.19	1.34	1.44	0.23	0.51	0.05	0.30	1.98

Calendar year 1956: Max 698 Min 1.2 Mean 35.0 Cfsm 0.583 In. 7.93

Water year 1956-57: Max 2,080 Min 0.2 Mean 44.3 Cfsm 0.738 In. 10.04

Peak discharge (base, 850 cfs).--Feb. 26 (2 p.m.) 1,430 cfs (10.35 ft); Feb. 28 (12 p.m.) 984 cfs (7.93 ft); Apr. 9 (1 a.m.) 2,280 cfs (14.15 ft); June 5 (9 p.m.) 1,430 cfs (10.38 ft); Sept. 17 (7 p.m.) 4,160 cfs (20.80 ft).

* Discharge measurement made on this day.

Meherrin River near Lawrenceville, Va.

Location.--Lat 36°43'00", long 77°49'55", on right bank 50 ft upstream from Gholson Bridge, 0.6 mile upstream from Allen Creek, and 3 miles southeast of Lawrenceville, Brunswick County.

Drainage area.--553 sq mi.

Records available.--December 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 136.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 17, 1931, chain gage at same site and datum.

Average discharge.--28 years (1929-57), 490 cfs.

Extremes.--Maximum discharge during year, 6,060 cfs Feb. 2; maximum gage height, 18.53 ft Feb. 2; minimum discharge, 17 cfs Aug. 13, 14 (gage height, 1.27 ft).
1928-57: Maximum discharge, 88,000 cfs Aug. 17, 1940 (gage height, 42.0 ft, from floodmark), from rating curve extended above 13,000 cfs on basis of velocity-area studies and records for Nottoway River near Stony Creek; minimum, 4.2 cfs Oct. 7, 8, 1954 (gage height, 0.92 ft).

Remarks.--Records good.

Revisions (water years).--WSP 972: 1932(M), 1935.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 15-17, 20; rate of change in stage used as a factor for most days above 650 cfs)

Oct. 1 to June 6					June 7 to Sept. 30				
2.0	84	8.0	1,490		1.2	13	3.0	225	
2.5	147	12.0	3,000		1.5	32	4.0	432	
3.0	226	19.0	6,250		2.0	79	8.0	1,490	
4.0	432				2.5	143	12.0	3,000	

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	129	501	179	282	4,970	*3,890	386	244	164	96	46	181
2	111	851	176	263	5,960	*3,300	386	244	158	91	42	99
3	101	873	173	235	4,080	1,180	398	235	151	85	39	78
4	97	512	168	224	2,110	925	386	226	150	81	36	66
5	95	364	164	263	1,400	769	375	226	189	76	35	59
6	111	302	164	292	1,000	669	812	223	1,770	75	*28	53
7	113	254	162	292	647	644	1,230	218	1,700	76	26	52
8	107	235	161	263	795	860	798	209	501	72	24	55
9	96	292	161	254	1,700	2,640	3,680	202	322	*72	23	229
10	91	432	*161	272	2,240	1,440	*3,840	195	272	66	22	*354
11	88	375	160	282	1,300	847	1,010	192	243	61	21	700
12	86	302	160	282	899	719	769	216	214	56	20	560
13	86	254	158	263	719	644	669	221	190	54	18	202
14	89	226	164	244	620	584	620	206	168	52	18	122
15	*89	212	384	225	572	548	572	187	151	52	18	98
16	88	202	2,160	200	524	560	501	187	139	62	23	86
17	88	197	1,160	180	501	584	478	172	133	54	25	81
18	146	199	572	160	*478	*512	455	166	129	77	23	2,680
19	133	*465	398	176	478	572	444	187	*121	70	41	2,880
20	122	332	322	210	1,050	694	420	*302	113	59	136	478
21	134	244	292	*244	1,050	644	409	409	107	53	234	282
22	327	235	302	282	608	584	386	244	101	48	104	209
23	744	263	524	478	560	744	398	207	97	46	78	209
24	455	272	1,270	795	512	795	375	187	93	61	67	173
25	282	223	1,050	512	478	608	364	173	90	76	113	124
26	194	207	644	524	1,590	536	332	161	93	64	686	107
27	2,480	200	432	536	4,980	501	312	192	101	65	432	97
28	1,940	195	375	584	1,870	466	292	420	99	65	150	90
29	548	197	364	1,090	-	444	272	312	113	62	97	106
30	432	189	354	2,970	-----	420	254	194	116	56	78	195
31	478	-----	302	2,390	-----	398	-----	168	-----	51	75	-----
Total	10,080	9,585	13,216	15,267	43,891	28,721	21,623	6,905	7,988	2,034	2,778	10,705
Mean	325	320	426	492	1,568	926	721	223	266	65.6	89.6	357
Cfsm	0.588	0.579	0.770	0.890	2.84	1.67	1.30	0.403	0.481	0.119	0.162	0.646
In.	0.68	0.65	0.89	1.03	2.96	1.92	1.45	0.46	0.54	0.14	0.19	0.72
Calendar year 1956: Max			4,350	Min 58		Mean 430		Cfsm 0.788	In. 10.60			
Water year 1956-57: Max			5,960	Min 18		Mean 473		Cfsm 0.855	In. 11.63			

Peak discharge (base, 4,500 cfs).--Feb. 2 (1 p.m.) 6,060 cfs (18.53 ft from 4 to 5 p.m.); Feb. 27, 28 (9 p.m. to 1 a.m.) 5,400 cfs (17.27 ft from 12 p.m. to 1 a.m.); Mar. 1 (11 p.m.) 4,730 cfs (15.91 ft at 3 a.m. Mar. 2); Apr. 10 (7 to 9 a.m.) 4,900 cfs (16.27 ft from 9 to 10 a.m.).

* Discharge measurement made on this day.

Meherrin River at Emporia, Va.

Location--Lat 36°41'20", long 77°32'20", on left bank at downstream side of bridge on U. S. Highway 301, in Emporia, Greensville County.

Drainage area--749 sq mi.

Records available--January 1951 to September 1957.

Gage--Water-stage recorder. Altitude of gage is 68 ft (by barometer).

Average discharge--6 years, 610 cfs.

Extremes--Maximum discharge during year, 7,580 cfs Feb. 3 (gage height, 19.78 ft), from rating curve extended above 6,000 cfs by logarithmic plotting; minimum, 22 cfs Oct. 4, 5 (gage height, 1.30 ft).

1951-57: Maximum discharge, 12,600 cfs Aug. 21, 1955 (gage height, 22.80 ft), from rating curve extended above 6,000 cfs by logarithmic plotting; minimum, 5 cfs Nov. 11, 1954 (gage height, 1.00 ft).

Flood in August 1940 reached a stage of 30.0 ft, from floodmarks.

Remarks--Records good except those for period of no gage-height record, which are fair. Low and medium flow regulated by powerplant 0.8 mile above station.

Cooperation--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.3	22	5.0	620
2.0	66	12.0	2,200
2.4	110	15.0	3,400
3.0	220	19.5	7,250

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	412	774	140	500	5,400	4,140	642	282	34	243	32	36
2	156	1,010	220	472	7,250	*5,110	612	398	34	124	62	50
3	152	1,220	296	409	7,250	*2,480	651	460	171	152	23	351
4	156	1,030	284	506	3,670	1,400	649	30	269	39	25	30
5	242	772	280	330	2,410	1,160	640	218	264	196	134	36
6	35	492	338	340	1,560	1,050	710	562	696	30	24	126
7	34	400	466	586	1,250	980	1,310	440	2,320	30	23	35
8	160	400	35	420	1,120	1,030	1,130	262	954	49	23	36
9	156	410	36	468	1,640	1,970	3,050	339	740	200	23	39
10	150	520	368	500	2,900	2,500	*5,110	347	314	*29	24	419
11	154	640	304	472	2,100	1,340	2,740	34	32	94	25	519
12	240	500	*266	410	1,430	1,070	1,230	290	332	123	26	*959
13	32	522	314	410	1,120	954	986	514	346	27	27	392
14	31	404	416	312	898	902	942	383	344	27	26	35
15	156	368	825	438	844	945	854	384	30	122	*27	40
16	162	370	2,290	400	780	720	742	264	29	32	27	232
17	*160	370	2,680	388	760	720	750	a300	370	60	27	120
18	330	380	1,210	480	708	783	722	a50	144	28	27	641
19	406	370	802	342	670	*860	616	a300	*148	180	27	3,400
20	36	*562	499	36	*964	1,050	504	a600	150	26	26	1,310
21	36	620	494	372	1,450	1,030	604	a450	249	28	90	410
22	468	320	410	*520	1,030	972	792	308	29	30	286	400
23	636	354	722	569	800	858	666	382	28	30	191	178
24	766	42	1,450	888	740	1,100	501	372	150	146	25	52
25	660	366	1,540	906	714	1,060	541	38	154	124	26	197
26	500	420	1,140	740	1,230	914	665	189	152	116	273	218
27	1,090	420	816	800	4,800	782	74	594	150	25	853	236
28	4,860	314	546	920	6,100	792	470	440	196	24	450	35
29	1,950	338	520	1,210	-	691	698	585	30	138	124	34
30	1,060	478	640	2,310	-----	560	518	720	30	47	215	334
31	672	-----	696	3,520	-----	560	-----	312	-----	50	31	-----
Total	16,258	15,186	21,063	20,974	61,668	40,483	30,089	10,847	8,899	2,569	3,222	11,100
Mean	524	506	679	677	2,002	1,306	1,003	350	296	82.9	104	370
Cfsm	0.700	0.676	0.907	0.904	2.94	1.74	1.34	0.487	0.395	0.111	0.139	0.494
In.	0.81	0.75	1.05	1.04	3.06	2.01	1.50	0.54	0.44	0.13	0.16	0.55

Calendar year 1956: Max 5,750 Min 24 Mean 614 Cfsm 0.820 In. 11.16

Water year 1956-57: Max 7,250 Min 23 Mean 664 Cfsm 0.887 In. 12.04

Peak discharge (base, 6,000 cfs)--Feb. 3 (3 a.m.) 7,580 cfs (19.78 ft); Feb. 28 (11:30 a.m.) 6,500 cfs (18.77 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for nearby stations.

Fontaine Creek near Brink, Va.

Location.--Lat 36°36'55", long 77°42'00", on left bank 10 ft downstream from bridge on State Highway 603, 0.3 mile downstream from Quarrel Creek, 2.7 miles west of Brink, Greensville County, and 10 miles southwest of Emporia.

Drainage area.--68.6 sq mi.

Records available.--October 1953 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 150 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,940 cfs Feb. 1 (gage height, 14.37 ft); no flow at times during year.
1953-57: Maximum discharge, that of Feb. 1, 1957; no flow at times.

Remarks.--Records good.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17)

Oct. 1-28

Oct. 29 to Sept. 30

2.8	6.2	2.3	0	3.0	6.9	6.0	209
3.0	11	2.4	.25	3.5	24	9.0	590
4.0	50	2.5	.8	4.0	50	11.0	960
		2.6	1.6	4.5	75	14.0	1,780
		2.8	3.7	5.0	110		

Note.--Same as following table above 4.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	221	33	72	1,530	432	56	13	7.5	2.7	0.7	1.3
2	13	281	31	62	1,150	287	60	12	6.5	2.0	.5	5.6
3	11	197	30	56	523	180	58	11	5.6	1.6	.2	4.0
4	10	118	30	55	341	122	50	11	5.1	1.3	.2	2.2
5	9.2	86	28	66	227	103	82	11	6.5	1.0	.2	1.4
6	10	71	28	70	203	96	215	11	26	1.1	.2	1.0
7	15	62	28	64	164	122	96	9.7	52	1.4	.1	.7
8	14	58	28	56	149	175	90	8.9	26	1.4	.1	.6
9	12	92	28	55	379	305	341	7.7	13	1.0	0	.6
10	10	96	28	66	497	197	159	6.9	11	*.8	0	1.4
11	8.3	74	*25	58	329	118	92	6.4	8.9	.7	0	.29
12	7.6	62	26	52	180	100	72	65	6.5	.5	0	*19
13	7.4	54	26	50	126	92	71	58	5.3	.4	0	4.7
14	7.4	48	34	50	106	80	74	30	4.4	.4	0	2.8
15	*7.4	44	445	48	96	74	63	16	3.7	.2	*0	2.0
16	7.4	43	1,180	45	87	71	56	11	3.3	.2	0	1.4
17	8.8	42	760	43	83	66	53	8.6	2.9	.2	0	1.3
18	45	45	305	40	74	62	51	6.9	2.8	.2	0	1.3
19	40	44	135	40	78	110	49	6.9	*2.8	.2	0	1.4
20	29	39	96	44	*215	*135	46	*24	2.6	.1	0	1.7
21	23	*38	83	*50	140	96	43	18	2.4	.1	0	1.7
22	186	42	78	64	100	110	39	14	2.2	.2	0	1.5
23	137	42	196	76	84	317	38	12	2.0	.2	0	1.4
24	69	37	293	76	77	192	36	9.1	1.8	.5	0	1.1
25	54	36	263	79	72	118	33	6.9	1.6	.5	.1	.9
26	44	36	149	122	394	96	26	6.5	1.7	.4	0	.7
27	553	36	100	103	820	85	23	14	2.1	.5	.4	.7
28	1,100	34	81	130	471	73	20	29	2.1	.6	2.2	.6
29	529	32	92	221	-	68	17	18	2.6	1.7	1.6	.7
30	305	34	114	329	-----	64	16	9.7	3.4	2.2	1.1	1.4
31	287	-----	89	380	-----	58	-----	8.0	-----	1.3	.7	-----
Total	3,656.5	2,144	4,862	2,722	8,695	4,204	2,125	480.2	224.5	25.6	8.3	94.1
Mean	118	71.5	157	87.8	311	136	70.8	15.5	7.48	0.83	0.27	3.14
Cfsm	1.72	1.04	2.29	1.28	4.53	1.98	1.03	0.226	0.109	0.012	0.0039	0.046
In.	1.98	1.16	2.64	1.48	4.72	2.28	1.15	0.26	0.12	0.014	0.004	0.05
Calendar year 1956: Max	1,180											
Water year 1956-57: Max	1,530											
Calendar year 1956: Min	0											
Water year 1956-57: Min	0											
Calendar year 1956: Mean	79.4											
Water year 1956-57: Mean	80.1											
Calendar year 1956: Cfsm	1.16											
Water year 1956-57: Cfsm	1.17											
Calendar year 1956: In.	15.76											
Water year 1956-57: In.	15.86											

Peak discharge (base, 1,000 cfs).--Oct. 28 (11:30 a.m.) 1,350 cfs (12.62 ft); Dec. 16 (5 p.m.) 1,280 cfs (12.30 ft); Feb. 1 (3 p.m.) 1,940 cfs (14.37 ft).

* Discharge measurement or observation of no flow made on this day.

Ahoskie Creek at Ahoskie, N. C.

Location.--Lat 36°17', long 77°00', on right bank 10 ft downstream from bridge on State Highway 350, half a mile upstream from Atlantic Coast Line Railroad bridge, and three-quarters of a mile southwest of Ahoskie, Hertford County.

Drainage area.--64.3 sq mi.

Records available.--January 1950 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 22 ft (by barometer). Prior to May 24, 1951, staff gage at same site and datum.

Average discharge.--7 years, 53.4 cfs.

Extremes.--Maximum discharge during year, 798 cfs Feb. 2, 3 (gage height, 7.63 ft); no flow for several days in July, August, and September.

1950-57: Maximum discharge, 1,420 cfs Sept. 22, 1955 (gage height, 8.77 ft); no flow at times during most years.

Flood in August 1940 reached a stage of 11.1 ft, from floodmark witnessed by local resident (discharge not determined).

Remarks.--Records fair except those below 30 cfs, which are poor.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 13 to Dec. 20, Dec. 23, 28, Dec. 31 to Jan. 28)

Oct. 1 to July 24 July 24 to Sept. 30

3.9	0.2	5.2	42	4.0	0
4.0	.7	5.4	69	4.1	.4
4.2	2.0	5.7	131	4.2	1.0
4.4	4.5	6.0	200	4.3	2.0
4.6	8	6.5	350	4.4	3.5
4.8	15	7.0	525	4.6	7.5
5.0	25	7.6	785	4.8	15
				5.0	25

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	248	19	83	557	317	73	2.5	0.7	0.6	*0	2.3
2	*45	305	18	68	787	347	66	*2	.5	.5	0	.8
3	*40	399	16	58	762	335	57	1.5	3	.4	0	.4
4	31	483	16	49	610	290	53	1.5	9	.4	.5	.1
5	24	500	16	48	462	239	61	1.5	10	.8	*.8	*0
6	18	413	16	42	*371	209	83	1	14	1.5	.5	0
7	14	311	16	39	314	198	85	.8	13	.9	a.3	0
8	9.5	248	15	35	278	242	91	.7	17	.7	a.2	0
9	7	221	15	33	293	347	108	.6	19	.7	a.1	.2
10	*5	182	14	31	308	413	108	.5	18	.6	a0	.2
11	4	157	14	33	323	427	100	.6	12	.7	a.1	.5
12	3	129	14	31	320	*357	91	1	7	.7	a.2	.7
13	2.5	102	14	31	287	275	81	.9	4.5	.8	a.3	.7
14	2	87	*14	28	239	209	69	.7	3	.8	a.4	.3
15	2	75	16	26	195	170	56	.6	2.5	.8	.5	.2
16	1.5	66	37	26	166	144	49	.5	1.5	.8	.6	.2
17	5.1	80	46	26	142	120	43	.5	1	*.8	.1	1.4
18	75	52	69	26	120	106	38	.5	1	.8	.1	7.5
19	43	43	81	24	116	131	32	.5	4.5	.9	.5	3.5
20	71	38	102	22	139	127	27	.7	16	.8	.2	1.5
21	110	35	112	22	139	137	24	.6	18	.9	.1	.7
22	217	32	112	22	152	159	22	.6	14	.9	.1	.5
23	230	30	102	24	161	180	19	.6	7	1	0	.6
24	230	25	110	24	161	180	16	.6	3.5	2.6	0	.6
25	188	24	106	28	146	164	12	.8	2	.4	.1	.5
26	164	22	106	35	164	154	9.5	.6	2.5	0	.2	.6
27	170	21	106	48	185	142	7.5	1	2	0	22	.6
28	166	18	102	85	233	127	5.5	.7	1	0	5.5	.6
29	157	16	108	142	-	110	4	.6	1	0	1.5	*6
30	198	18	106	218	-	97	3	.6	.7	0	.6	
31	239	-	100	335	-	85	-	.6	-	0	.3	-
Total	2,511.6	4,360	1,738	1,742	8,110	6,538	1,493.5	26.2	209.0	20.8	35.8	32.2
Mean	81.0	145	56.1	56.2	290	211	49.8	0.85	6.97	0.67	1.15	1.07
Cfsm	1.26	2.26	0.872	0.874	4.51	3.28	0.774	0.013	0.108	0.010	0.018	0.017
In.	1.45	2.52	1.01	1.01	4.69	3.78	0.86	0.02	0.12	0.10	0.02	0.02

Calendar year 1956: Max 713 Min 0.2 Mean 75.4 Cfsm 1.17 In. 15.97
Water year 1956-57: Max 767 Min 0 Mean 75.5 Cfsm 1.14 In. 15.51

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of weather records.

Roanoke River at Lafayette, Va.

Location.--Lat 37°14'10", long 80°12'30", on right bank at Lafayette, Montgomery County, 0.4 mile downstream from confluence of North and South Forks and 1.1 miles upstream from Cove Hollow.

Drainage area.--257 sq mi.

Records available.--September 1943 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,174.47 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 30, 1949, staff gage at same site and datum.

Average discharge.--14 years, 249 cfs.

Extremes.--Maximum discharge during year, 8,000 cfs Jan. 29 (gage height, 9.02 ft); minimum, 30 cfs Sept. 1-3 (gage height, 0.94 ft).

1943-57: Maximum discharge, 13,200 cfs Aug. 4, 1948 (gage height, 11.0 ft, from graph based on gage readings); minimum daily, 24 cfs Sept. 16-19, 1954.

Flood in August 1940 reached a stage of 12.2 ft, from information by local residents (discharge, 19,000 cfs, from rating curve extended above 12,000 cfs by logarithmic plotting).

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1333: 1944-47(M), 1948-49.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.9	25	3.0	980
1.0	38	5.0	2,340
1.2	68	6.0	3,250
1.5	192	7.0	4,650
2.0	430		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	700	105	145	1,900	1,550	192	248	100	58	60	34
2	60	500	103	130	1,580	980	607	231	100	53	49	30
3	56	350	100	110	1,070	722	546	218	103	45	53	32
4	63	260	97	130	832	596	460	209	125	38	49	32
5	77	200	94	130	722	510	3,010	201	235	45	66	32
6	71	180	92	120	805	450	1,830	192	235	49	60	32
7	64	155	91	115	750	420	980	181	165	49	56	42
8	58	140	90	115	1,310	425	1,070	173	136	60	53	71
9	54	130	90	120	2,670	390	1,940	165	150	66	51	53
10	52	120	90	200	1,690	340	1,070	162	147	85	49	*58
11	50	110	90	220	1,100	320	805	162	122	71	49	51
12	47	105	90	210	832	300	629	165	115	60	47	49
13	46	100	100	200	695	280	541	154	112	60	45	45
14	44	96	170	185	596	271	465	143	205	60	45	47
15	43	*90	330	175	505	266	410	196	240	58	*49	60
16	41	88	350	*150	465	248	375	143	177	56	51	60
17	39	310	270	129	410	235	350	132	162	*56	47	300
18	40	450	240	112	365	226	320	132	162	94	47	450
19	43	300	220	125	525	244	*305	209	140	80	74	300
20	53	250	*200	136	890	*226	295	173	112	66	65	220
21	68	210	184	147	662	205	271	*147	103	60	53	150
22	750	190	169	165	541	244	258	136	100	58	47	120
23	500	170	170	253	470	290	271	129	149	56	45	105
24	271	160	250	262	420	266	420	115	188	66	42	92
25	218	150	350	231	385	258	370	109	112	63	42	84
26	*196	140	290	218	607	248	305	109	97	56	42	80
27	1,010	135	250	201	*690	271	240	147	77	135	42	76
28	500	125	220	310	832	218	248	132	106	230	38	100
29	310	120	190	3,880	-	205	271	109	103	103	38	450
30	480	110	175	2,540	-----	205	285	103	71	94	37	700
31	832	-----	155	1,760	-----	192	-----	103	-----	71	35	-----
Total	6,207	6,144	5,415	12,924	24,319	11,570	19,170	4,928	4,149	2,201	1,524	3,955
Mean	200	205	175	417	869	373	639	159	138	71.0	49.2	132
Cfsm	0.778	0.798	0.661	1.62	3.38	1.45	2.48	0.619	0.537	0.276	0.191	0.514
In.	0.90	0.89	0.79	1.87	3.52	1.67	2.78	0.71	0.60	0.32	0.22	0.57

Calendar year 1956: Max 2,600 Min 28 Mean 161 Cfsm 0.626 In. 8.54
 Water year 1956-57: Max 3,880 Min 30 Mean 281 Cfsm 1.09 In. 14.84

Peak discharge (base, 4,500 cfs).--Jan. 29 (6 p.m.) 8,000 cfs (9.02 ft); Apr. 5 (3 p.m.) 4,650 cfs (6.95 ft).

* Discharge measurement made on this day.

Note.--Doubtful or no gage-height record Oct. 7-20, Nov. 1-15, 18-30, Dec. 1-20, 23-31, Jan. 1-16, Sept. 17-30; discharge estimated on basis of recorded range in stage, 3 discharge measurements, and records for Roanoke River at Roanoke.

Roanoke River at Roanoke, Va.

Location.--Lat 37°15'30", long 79°56'20", on left bank 50 ft downstream from Walnut Street Bridge in Roanoke, Roanoke County, 3.2 miles upstream from Tinker Creek, and at mile 360.6.

Drainage area.--388 sq mi.

Records available.--February 1899 to September 1957 in reports of Geological Survey. Records for July 1896 to January 1899 published in WSP 11, 15, 27, and 20th Annual Report, Part IV, have been found to be unreliable, due to doubtful gage-height record, and should not be used. February 1899 to September 1904, with some revisions and corrections, republished in Virginia Geological Survey Bulletin 31.

Gage.--Water-stage recorder. Datum of gage is 906.84 ft above mean sea level (levels by Corps of Engineers). Prior to June 7, 1937, wire or chain gage on downstream side of highway bridge 50 ft upstream at same datum.

Average discharge.--56 years (1899-1905, 1907-57), 379 cfs.

Extremes.--Maximum discharge during year, 8,900 cfs Jan. 29 (gage height, 9.20 ft); minimum, 44 cfs Sept. 1 (gage height, 0.50 ft); minimum daily discharge, 46 cfs Aug. 31, Sept. 1.

1899-1957: Maximum discharge, 26,400 cfs Aug. 14, 1940 (gage height, 18.25 ft), from rating curve extended above 15,000 cfs by logarithmic plotting on basis of slope-area determination, and records for other stations in Roanoke River basin; practically no flow Dec. 23, 1909, when flow was retarded by freezing (gage height, 0.0 ft); minimum daily, 27 cfs Feb. 20, 1934.

Remarks.--Records fair. Diurnal fluctuation at low flow caused by powerplant above station.

Revisions (water years).--WSP 972: 1928, 1930, 1933. WSP 1433: 1899-1904, 1914-17(M), 1918-24, 1925-34(M), 1935, 1936-40(M). See also Records available.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.5	44	2.0	585
.7	70	3.0	1,300
1.0	147	5.0	3,300
1.4	281	7.0	5,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	124	1,150	175	227	2,860	2,640	310	394	138	169	88	46
2	100	780	169	204	2,420	1,600	854	355	314	153	88	65
3	83	585	162	162	1,730	1,500	888	328	230	141	79	51
4	100	454	156	191	1,360	888	724	310	194	159	74	52
5	105	360	144	194	1,150	738	*3,840	294	449	124	83	47
6	132	310	141	191	1,220	664	3,190	277	444	113	79	48
7	127	277	138	178	1,220	645	1,600	262	315	105	*67	47
8	110	251	135	169	1,560	652	1,330	248	244	105	63	94
9	90	230	132	188	3,780	627	2,660	241	251	108	60	108
10	81	213	127	298	2,750	567	1,640	230	255	*115	55	*100
11	77	204	121	332	1,780	514	1,190	227	224	113	55	81
12	70	194	127	302	1,340	486	a925	227	200	97	55	70
13	68	178	141	289	1,150	444	a750	217	210	90	51	65
14	67	*166	197	270	1,000	423	a645	207	492	88	51	62
15	65	156	408	244	850	408	a580	234	460	85	62	72
16	62	150	615	*224	773	379	a550	210	394	83	58	127
17	58	423	520	204	710	360	a525	188	454	79	55	591
18	58	850	403	162	658	346	*a485	197	364	83	74	962
19	65	555	*332	169	710	*360	470	446	281	118	91	724
20	67	418	298	184	1,360	341	449	302	234	90	92	439
21	118	351	274	197	1,080	315	418	*230	200	85	74	302
22	1,530	346	251	207	902	351	394	200	181	79	67	230
23	1,100	302	251	251	801	439	476	191	172	81	60	194
24	*525	270	402	346	724	418	684	172	301	77	53	166
25	384	248	555	306	678	403	615	159	217	85	53	147
26	360	241	444	294	1,330	389	498	153	194	74	56	132
27	2,260	224	384	270	*1,420	379	454	178	224	74	55	127
28	1,080	204	357	351	1,300	346	423	197	257	309	52	121
29	621	191	302	3,690	-	323	470	159	230	172	49	265
30	1,000	181	266	4,520	-----	315	444	147	197	135	47	1,300
31	1,860	-----	244	2,460	-----	298	-----	141	-----	108	46	-----
Total	12,547	10,462	6,351	17,294	38,656	18,208	28,661	7,321	8,300	3,497	1,982	6,835
Mean	405	349	289	558	1,381	587	955	236	277	113	63.9	228
Cfsm	1.04	0.899	0.693	1.44	3.56	1.51	2.46	0.608	0.714	0.291	0.165	0.588
In.	1.20	1.00	0.80	1.66	5.71	1.74	2.74	0.70	0.80	0.34	0.19	0.66

Calendar year 1956: Max 3,070 Min 38 Mean 242 Cfsm 0.624 In. 8.48

Water year 1956-57: Max 4,520 Min 46 Mean 444 Cfsm 1.14 In. 15.54

Peak discharge (base, 4,000 cfs).--Jan. 29 (11:30 p.m.) 8,900 cfs (9.20 ft); Feb. 9 (3 to 5 p.m.) 4,380 cfs (5.90 ft); Apr. 5 (7 p.m.) 6,080 cfs (7.20 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station at Lafayette.

Tinker Creek near Daleville, Va.

Location.--Lat 37°25'03", long 79°56'08", on left bank 300 ft. below footbridge, 1,100 ft. below Norfolk and Western Railway bridge, a quarter of a mile below unnamed tributary, half a mile south of Glebe Mills, and 1.3 miles northwest of Daleville, Botetourt County.

Drainage area.--11.5 sq mi.

Records available.--April 1956 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 1,220 ft (from topographic map).

Extremes.--1956: Maximum discharge during period April to September, 127 cfs Sept. 27 (gage height, 3.04 ft); minimum, 1.3 cfs Aug. 10 (gage height, 1.14 ft).

1956-57: Maximum discharge during water year, 245 cfs Oct. 27, Apr. 5; maximum gage height, 3.91 ft Apr. 5; minimum discharge, 1.8 cfs Aug. 7 (gage height, 1.26 ft).

Flood in 1940 reached a stage of 9.0 ft, from information by local resident.

Remarks.--Records good except those above 100 cfs and below 5 cfs, which are fair. Some pumpage for irrigation occurred during low flows.

Discharge, in cubic feet per second, 1956													
Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	6.5	3.8	3.0	3.2	3.6	16	-	4.6	4.2	3.2	2.8	3.6
2	-	6.5	8.6	2.8	3.2	3.6	17	-	4.6	4.0	3.2	2.8	3.8
3	-	8.4	5.9	4.8	3.2	3.6	18	-	4.4	4.0	3.0	3.2	4.0
4	-	7.1	5.0	3.6	3.2	3.6	19	-	4.2	4.6	3.2	3.2	4.0
5	-	6.2	4.8	7.6	2.8	3.8	20	-	4.2	4.2	3.8	3.4	4.0
6	-	5.9	4.8	4.6	2.8	16.0	21	-	4.4	4.2	3.8	4.4	3.8
7	-	5.6	4.6	3.8	2.6	7.4	22	-	4.6	4.0	3.8	3.4	3.8
8	-	5.3	4.4	4.6	2.6	4.2	23	-	4.4	3.8	5.5	3.2	3.8
9	-	5.0	4.4	4.2	2.2	3.6	24	-	4.2	3.4	6.8	3.2	4.4
10	-	5.0	4.4	3.6	2.2	3.4	25	-	4.0	3.2	*6.5	3.2	4.2
11	-	5.0	4.0	3.4	2.6	3.4	26	8.0	3.8	*3.2	4.2	3.4	*5.0
12	-	4.8	3.8	3.0	3.2	3.2	27	*7.7	3.8	3.0	4.6	3.0	*4.8
13	-	4.6	3.8	3.2	2.8	3.0	28	7.4	4.2	3.0	3.8	3.0	9.5
14	-	4.4	5.8	3.4	2.8	3.0	29	7.1	3.8	3.0	3.6	3.2	6.8
15	-	4.6	4.8	3.2	2.8	3.6	30	6.8	*3.8	2.8	3.4	3.4	6.2
							31		3.8	-	3.4	*3.4	-
Total.....	-							-	151.7	127.5	124.4	94.4	183.9
Mean.....	-							-	4.89	4.25	4.01	3.05	6.13
Cubic feet per second per square mile.....	-							-	0.425	0.370	0.349	0.265	0.533
Runoff in inches.....	-							-	0.49	0.41	0.40	0.31	0.59

Peak discharge (base, 200 cfs).--No peak above base.

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1956 to September 1957												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	28	8.3	9.8	51	*63	16	11	5.9	4.1	2.4	3.0
2	5.0	22	8.3	8.6	39	43	48	11	6.8	4.1	2.3	2.8
3	5.0	18	8.3	8.6	32	35	23	11	6.2	3.8	2.3	2.8
4	7.7	16	8.0	8.6	27	30	24	11	7.4	3.8	3.0	2.8
5	6.8	15	7.7	9.4	26	27	*110	10	11	3.6	2.3	2.8
6	6.8	14	7.7	8.6	24	24	49	9.8	8.6	3.4	*2.3	2.6
7	6.5	13	7.7	8.3	35	24	35	9.8	6.8	3.2	2.2	3.0
8	5.9	12	7.7	8.3	44	31	42	9.0	6.2	3.2	2.3	3.8
9	5.6	11	7.7	12	69	24	34	9.0	6.2	*3.4	2.3	4.7
10	5.3	9.8	7.1	12	46	22	28	8.6	6.2	3.2	2.3	*4.8
11	5.3	9.8	7.1	11	37	20	25	8.3	6.8	3.0	2.3	3.0
12	5.3	9.0	7.4	10	31	20	23	8.0	5.3	2.6	2.3	2.8
13	5.3	8.6	7.4	9.8	27	18	23	7.4	5.0	2.6	2.3	7.9
14	5.3	8.6	13	9.0	25	18	21	8.3	9.8	2.6	2.3	6.8
15	5.0	*8.0	22	8.6	22	18	20	7.7	7.4	2.6	3.4	5.0
16	5.0	8.3	20	8.6	22	16	18	7.4	5.9	5.5	2.8	7.1
17	5.3	26	15	*8.3	20	15	18	7.4	6.2	2.8	2.6	26
18	5.6	18	13	8.3	18	15	17	7.1	5.6	3.0	3.6	40
19	5.6	14	*11	8.0	42	*18	16	23	5.0	2.6	3.6	20
20	5.9	13	11	8.0	34	15	16	11	4.7	2.6	3.2	13
21	8.0	14	10	9.0	26	15	15	9.0	4.7	2.4	2.8	9.4
22	51	13	9.8	9.8	24	20	15	*8.0	4.4	2.3	2.8	8.3
23	21	11	12	16	22	18	14	7.4	5.3	3.2	3.0	7.7
24	15	11	20	13	20	17	14	6.8	5.6	3.2	3.0	6.8
25	13	10	15	12	20	16	13	6.5	5.0	2.4	3.2	6.2
26	*13	10	13	11	52	15	13	6.5	4.7	2.6	3.2	5.9
27	80	9.4	12	11	35	15	12	7.7	4.4	3.0	3.0	5.6
28	24	9.0	11	20	*73	14	13	6.5	5.9	3.0	2.6	5.6
29	20	9.0	11	71	-	14	13	6.2	6.2	3.0	3.0	20
30	25	8.6	10	44	-	13	12	6.2	5.0	2.8	3.0	29
31	35	-	10	56	-	13	-	5.9	-	2.4	3.0	-
Total.....												
Mean.....												
Cfs/m.....												
In.....												
Calendar year 1956: Max - Min - Mean - Cfs/m - In. -												
Water year 1956-57: Max 110 Min 2.2 Mean 13.3 Cfs/m 1.16 In. 15.71												

Peak discharge (base, 200 cfs).--Oct. 27 (2 a.m.) 245 cfs (3.89 ft); Jan. 29 (1 p.m.) 215 cfs (3.69 ft); Feb. 28 (7:30 p.m.) 208 cfs (3.64 ft); Apr. 5 (8:30 a.m.) 245 cfs (3.91 ft).

* Discharge measurement made on this day.

Roanoke River at Niagara, Va.

Location--Lat 37°15'18", long 79°52'18", on right bank 200 ft downstream from powerplant of Appalachian Electric Power Co. at Niagara, Roanoke County, 2 miles downstream from Tinker Creek, 2.1 miles southeast of Vinton, and at mile 355.3.

Drainage area--511 sq mi.

Records available--July 1926 to September 1957. Records for period 1928-42 republished in Bulletin 6, Virginia Conservation Commission, Division of Water Resources and Power, with some revisions and corrections.

Gage--Water-stage recorder. Datum of gage is 820.15 ft above mean sea level (levels by Corps of Engineers).

Average discharge--31 years, 519 cfs.

Extremes--Maximum discharge during year, 10,800 cfs Jan. 29 (gage height, 12.33 ft); minimum, 1.0 cfs Oct. 16, 20 (gage height, 0.45 ft); minimum daily, 51 cfs Oct. 16. 1926-57: Maximum discharge, 35,000 cfs Aug. 14, 1940 (gage height, 17.5 ft, from floodmark), from rating curve extended above 12,000 cfs by logarithmic plotting on basis of velocity-area study by Geological Survey, unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin; minimum, that of Oct. 16, 20, 1956; minimum daily, 8 cfs Oct. 9, 1954.

Remarks--Records good except those below 100 cfs and for periods of no gage-height record, which are fair. Flow regulated at dam and powerplant 200 ft above station.

Revisions (water years)--WSP 892: 1928(M), 1930(M), 1933(M), 1935-36(M), 1938(M). WSP 972: 1927(M), 1929(M), 1934(M), 1937(M). See also Records available.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 29

Jan. 30 to Sept. 30

1.0	48	1.3	88	4.0	915
1.3	89	1.6	139	6.0	2,080
1.6	139	2.0	221	8.0	3,800
		3.0	520	10.0	6,400

Note.--Same as following table above 1.6 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	1,380	252	311	3,300	a3,300	a400	533	232	250	166	94
2	187	915	234	273	2,770	a2,220	a1,600	459	399	227	164	234
3	174	703	234	248	a2,080	a1,680	a1,250	430	404	208	152	108
4	163	597	218	259	a1,680	a1,300	1,040	414	295	188	150	119
5	148	415	204	266	a1,550	a1,000	5,730	377	630	198	148	120
6	200	452	206	260	a1,320	a900	3,800	385	690	184	*154	136
7	172	372	200	244	a1,320	a900	1,840	354	520	176	140	122
8	154	368	196	244	a1,730	a900	1,610	347	370	174	142	142
9	169	310	189	252	4,400	a900	3,120	329	350	154	134	244
10	122	324	209	383	3,300	a800	1,940	314	386	214	135	241
11	129	268	178	400	a2,150	a700	1,440	312	332	213	124	136
12	170	304	194	397	a1,680	a600	1,190	303	307	214	138	118
13	52	249	214	368	a1,360	a600	1,040	312	284	124	121	142
14	62	*234	317	350	a1,150	a550	892	291	605	208	122	120
15	180	224	560	304	a1,100	a550	780	326	677	124	134	116
16	51	216	729	*290	a1,050	a500	760	288	474	162	134	266
17	118	256	676	285	a1,000	a500	638	276	555	155	129	488
18	115	1,010	510	235	a1,000	a450	628	262	523	231	169	1,140
19	114	689	*418	238	a1,050	a450	*599	851	413	216	164	924
20	122	512	378	254	a1,680	a450	597	496	332	122	169	542
21	236	491	366	276	a1,450	a450	514	332	268	198	154	396
22	1,700	424	340	277	a1,150	a500	542	316	266	156	144	262
23	1,440	452	345	355	a1,050	a550	548	311	263	166	138	317
24	700	405	496	466	a960	a550	798	282	356	158	117	320
25	*504	311	698	382	a940	a540	760	248	289	165	116	220
26	544	328	554	388	a1,650	a500	618	280	268	159	128	168
27	2,700	304	488	364	*a1,840	a500	510	300	350	146	123	188
28	1,550	274	427	502	a2,380	a450	562	280	396	362	120	171
29	780	268	377	4,180	-	a450	654	258	309	245	110	450
30	1,060	248	360	5,570	-----	a400	624	263	271	194	116	1,870
31	2,080	-----	322	2,850	-----	a400	-----	222	-----	184	109	-----
Total	16,090	13,303	11,089	21,471	48,100	24,540	37,124	10,729	11,894	5,875	4,264	9,914
Mean	519	443	358	693	1,718	792	1,237	346	396	190	138	330
Cfs/m	1.02	0.867	0.701	1.36	3.38	1.55	2.42	0.677	0.775	0.372	0.270	0.646
In.	1.18	0.97	0.81	1.57	3.50	1.79	2.70	0.78	0.86	0.43	0.31	0.72

Calendar year 1956: Max 4,000 Min 10 Mean 325 Cfs/m 0.636 In. 8.66
 Water year 1956-57: Max 5,730 Min 51 Mean 587 Cfs/m 1.15 In. 15.62

Peak discharge (base, 7,000 cfs)--Jan. 29 (12 p.m.) 10,800 cfs (12.33 ft); Apr. 5 (6:30 p.m.) 8,000 cfs (10.98 ft).

* Discharge measurement made on this day.

No gage-height record; discharge estimated on basis of partial record and records for station at Roanoke.

Blackwater River near Union Hall, Va.

Location.--Lat 37°02'35", long 79°41'07", on left bank 100 ft upstream from highway bridge at Kemps Ford, 3 miles upstream from Gills Creek, and 3 miles north of Union Hall, Franklin County.

Drainage area.--208 sq mi.

Records available.--March 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 693.13 ft above mean sea level. Prior to Nov. 22, 1929, chain gage at same site and datum.

Average discharge.--32 years, 228 cfs.

Extremes.--Maximum discharge during year, 4,250 cfs Sept. 17 (gage height, 8.44 ft); minimum, 52 cfs Aug. 15, Sept. 2 (gage height, 1.66 ft).

1925-57: Maximum discharge, 19,700 cfs Aug. 14, 1940 (gage height, 19.52 ft), from rating curve extended above 6,500 cfs by logarithmic plotting on basis of unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin; minimum, 13 cfs Sept. 20, 1932 (gage height, 1.42 ft).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Revisions (water years).--WSP 892: 1930(M), 1933(M), 1938-39(M).

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 5,
Sept. 18-30

Apr. 6 to Sept. 17

1.6	45	3.0	655	1.6	44	3.0	655
1.8	95	4.0	1,200	1.8	73	4.0	1,200
2.0	160	6.0	2,390	2.0	125	6.0	2,390
2.5	385			2.5	380		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a100	606	125	a135	738	1,400	208	303	170	170	75	54
2	a90	395	122	a130	704	710	1,040	259	165	149	73	53
3	a80	300	119	a120	490	534	877	254	170	137	73	57
4	a70	254	116	a130	425	435	479	242	180	125	77	62
5	a70	220	116	a150	350	375	2,360	232	391	119	77	56
6	a80	196	116	a135	345	345	1,580	226	452	112	75	54
7	a100	180	116	a130	320	325	765	210	281	110	*65	70
8	a90	168	113	a120	405	400	710	205	220	107	62	77
9	a70	153	110	a130	1,180	375	1,100	205	205	107	60	125
10	a60	142	110	a160	848	320	672	200	270	*119	59	185
11	a60	139	107	a150	550	295	556	200	226	116	57	*125
12	a55	*132	110	a140	452	277	484	205	200	98	56	93
13	a55	122	119	a135	375	258	452	205	180	95	54	157
14	a55	*119	136	*a130	325	249	418	200	226	95	53	231
15	a55	113	380	125	295	254	369	237	347	113	63	200
16	a55	113	285	125	277	236	342	232	303	95	65	285
17	a55	287	*232	b125	258	224	*325	195	254	91	60	2,320
18	a50	567	196	b125	232	*220	314	190	396	116	73	1,290
19	a70	277	176	b125	249	228	303	518	*205	149	119	699
20	a70	220	164	b125	420	228	281	*1,100	175	104	95	430
21	a300	192	a160	b125	330	212	281	369	153	93	75	310
22	a1,000	184	a150	b125	285	224	281	264	145	86	65	258
23	*a700	168	a160	b140	262	258	457	259	145	82	63	224
24	555	153	a220	188	244	228	506	226	270	149	62	192
25	224	142	a250	156	*240	216	374	200	210	110	63	168
26	168	142	a220	150	567	212	308	190	175	86	65	156
27	1,120	142	a170	142	985	212	281	232	161	80	65	146
28	523	132	a160	150	792	200	259	226	200	110	60	136
29	315	128	a150	192	-	200	276	185	292	122	57	408
30	335	125	a140	415	-----	196	501	175	220	91	57	985
31	738	-----	a140	512	-----	192	-----	175	-----	82	56	-----
Total	7,198	6,211	4,988	4,940	12,943	10,039	16,959	8,119	6,987	3,419	2,079	9,606
Mean	232	207	161	159	462	324	565	262	233	110	67.1	320
Cfsm	1.12	0.995	0.774	0.764	2.22	1.56	2.72	1.26	1.12	0.529	0.323	1.54
In.	1.29	1.11	0.89	0.88	2.31	1.80	3.04	1.45	1.25	0.61	0.37	1.72

Calendar year 1956: Max 1,120 Min 19 Mean 135 Cfsm 0.649 In. 8.82
Water year 1956-57: Max 2,360 Min 53 Mean 256 Cfsm 1.23 In. 16.72

Peak discharge (base, 2,000 cfs).--Mar. 1 (4 a.m.) 2,060 cfs (5.52 ft); Apr. 5 (8 p.m.) 3,770 cfs (7.75 ft); May 20 (11:30 a.m.) 2,120 cfs (5.62 ft); Sept. 17 (2:30 a.m.) 4,250 cfs (8.44 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and records for nearby stations.

b Stage-discharge relation affected by ice.

Roanoke (Staunton) River near Toshes, Va.

Location.--Lat 37°02'03", long 79°31'18", on right bank $1\frac{1}{2}$ miles downstream from Witchers Creek, 3 miles upstream from Pigg River, 5 miles northwest of Toshes, Pittsylvania County, and at mile 313.1.

Drainage area.--1,020 sq mi.

Records available.--September 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 588.99 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 14, 1929, staff gage at same site and datum.

Average discharge.--32 years, 1,001 cfs.

Extremes.--Maximum discharge during year, 15,900 cfs Apr. 5 (gage height, 13.68 ft); minimum, 138 cfs Oct. 14, 19, Sept. 2, 3 (gage height, 1.05 ft).
1925-57: Maximum discharge, 70,000 cfs Aug. 15, 1940 (gage height, 27.36 ft, from floodmark); from rating curve extended above 31,000 cfs by logarithmic plotting on basis of unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin; minimum, 55 cfs Sept. 14, 1954.

Remarks.--Records fair. Diurnal fluctuation at low flow caused by powerplant at Niagara.

Revisions (water years).--WSP 1032: 1933(M), 1938-39(M), 1940, 1944(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.1	156	4.0	2,570
1.5	358	7.0	5,850
2.0	685	10.0	9,900

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	430	3,410	495	560	5,370	6,810	805	1,080	505	580	318	190
2	350	2,270	480	525	5,030	4,260	3,190	970	500	570	300	190
3	310	1,620	470	505	3,520	a2,900	3,200	910	735	470	290	302
4	300	1,250	460	470	a2,850	a2,450	2,270	865	670	450	280	250
5	300	1,000	*420	530	a2,600	a2,050	7,930	825	1,240	420	290	220
6	300	820	435	510	a2,350	1,770	9,900	815	2,020	400	280	200
7	340	790	439	492	a2,300	1,620	4,600	755	1,220	390	270	248
8	310	695	445	470	a2,350	1,870	3,300	*728	1,020	370	*240	250
9	300	665	439	480	5,850	1,820	5,370	700	820	360	230	268
10	*278	575	426	500	6,210	1,520	*3,940	640	830	410	228	600
11	250	585	420	610	3,830	1,390	a2,900	570	765	*a390	218	450
12	250	520	408	670	a2,850	1,230	a2,200	620	710	380	210	348
13	290	525	435	640	a2,400	*1,200	a2,100	615	630	360	218	340
14	160	*465	464	a600	a2,000	1,170	a1,850	590	685	330	200	550
15	228	458	1,250	a550	a1,800	1,160	a1,650	650	1,380	350	230	610
16	290	439	1,430	*a500	1,570	1,080	1,520	685	1,080	400	290	450
17	160	570	1,280	a450	1,430	1,040	1,420	580	1,140	320	250	6,700
18	230	2,470	1,060	a450	1,280	985	1,320	570	1,540	358	310	4,480
19	234	1,670	885	457	1,240	950	1,230	3,040	885	428	480	2,570
20	252	1,140	715	508	*2,520	1,030	1,200	2,570	700	390	388	1,720
21	270	890	725	561	2,370	935	1,160	1,210	620	312	320	1,020
22	3,000	875	690	618	1,920	920	1,090	870	550	310	280	822
23	5,030	821	690	632	1,620	1,100	1,080	775	525	360	260	715
24	1,970	730	785	709	1,480	1,030	1,760	730	655	750	240	600
25	1,150	690	1,120	773	1,330	970	1,520	635	745	390	240	510
26	870	585	1,040	757	1,920	955	1,340	575	615	320	260	460
27	4,920	605	875	701	4,260	830	1,180	635	565	300	250	440
28	5,620	535	820	670	3,200	820	1,090	685	775	300	232	420
29	1,870	512	745	1,130	745	1,100	572	640	570	270	220	585
30	1,570	495	670	7,840	695	1,400	545	720	422	210	3,520	
31	3,720	-----	615	4,480	805	-----	525	-----	350	210	-----	---
Total	33,552	28,694	21,627	29,348	77,450	48,110	74,615	26,535	25,685	12,510	8,242	30,008
Mean	1,082	956	698	947	2,766	1,552	2,487	856	856	404	266	1,000
Cfsm	1.06	0.937	0.684	0.928	2.71	1.52	2.44	0.839	0.839	0.396	0.261	0.980
In.	1.22	1.05	0.79	1.07	2.82	1.75	2.72	0.97	0.94	0.46	0.30	1.09

Calendar year 1956: Max 5,350 Min 90 Mean 611 Cfsm 0.599 In. 8.17
Water year 1956-57: Max 9,900 Min 160 Mean 1,141 Cfsm 1.12 In. 15.18

Peak discharge (base, 7,500 cfs).--Oct. 22 (11:30 p.m.) 8,550 cfs (9.12 ft); Jan. 30 (10:30 a.m.) 9,900 cfs (10.02 ft); Feb. 10 (2:30 a.m.) 7,570 cfs (8.43 ft); Mar. 1 (7 a.m.) 7,840 cfs (8.62 ft); Apr. 5 (11:30 p.m.) 15,900 cfs (13.68 ft); Sept. 17 (5:30 a.m.) 12,200 cfs (11.50 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, reconstructed gage-height graph, and records for stations at Roanoke and at Niagara.

Pigg River near Toshes, Va.

Location.--Lat 36°59'01", long 79°30'52", on right bank 0.5 mile downstream from Fryingpan Creek and 1.7 miles northwest of Toshes, Pittsylvania County.

Drainage area.--394 sq mi.

Records available.--August 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 602.55 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--27 years, 393 cfs.

Extremes.--Maximum discharge during year, 11,500 cfs Sept. 17 (gage height, 19.17 ft); minimum, 74 cfs Aug. 14 (gage height, 2.91 ft).

1930-57: Maximum discharge, 34,300 cfs Aug. 15, 1940 (gage height, 32.5 ft, from floodmark), from rating curve extended above 11,000 cfs by logarithmic plotting on basis of slope-area determination at gage height 25.8 ft, and records for other stations in Roanoke River basin; minimum, 22 cfs Aug. 31, 1932 (gage height, 2.32 ft).

Remarks.--Records good. Diurnal fluctuation at low flow caused by mill above station.

Revisions (water years).--WSP 972: 1931-32(M), 1933, 1934-35(M), 1936, 1937(M), 1938-40.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 18-20)

2.9	72	6.0	1,010
3.2	127	9.0	2,520
3.5	190	13.0	5,200
4.0	329	17.0	9,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	335	712	208	215	1,130	1,750	293	302	205	198	121	103
2	168	472	192	205	1,260	818	533	270	198	181	121	101
3	141	374	192	190	800	574	660	262	202	172	119	136
4	137	311	195	202	748	489	403	256	210	168	116	160
5	141	287	*188	226	540	422	3,200	256	1,230	168	135	123
6	139	282	183	215	455	400	3,720	250	1,620	164	125	211
7	145	253	190	205	438	384	975	239	472	153	110	220
8	151	239	179	198	625	540	906	*237	422	151	*101	205
9	123	231	177	210	1,750	523	2,280	228	374	153	103	523
10	*118	218	170	253	1,220	458	855	220	371	166	95	574
11	112	208	190	242	695	393	642	215	329	*160	92	284
12	114	202	177	220	540	335	540	223	284	141	90	*215
13	114	202	192	215	472	*356	523	218	253	139	88	218
14	112	*192	215	210	409	344	489	208	544	133	86	232
15	112	192	472	202	374	384	422	270	489	131	102	455
16	112	179	574	*198	359	374	396	226	314	141	119	290
17	118	344	374	200	344	329	387	198	267	121	108	8,570
18	116	678	299	200	320	320	374	200	293	131	174	3,250
19	123	419	259	200	335	329	359	298	*242	218	299	905
20	139	332	242	215	*523	338	335	591	208	149	208	625
21	151	284	242	253	438	311	326	378	186	125	153	455
22	1,830	284	237	234	362	338	329	262	202	123	131	543
23	2,700	286	264	276	338	406	350	253	192	207	119	438
24	642	239	353	284	323	371	438	234	198	574	116	335
25	384	226	362	264	305	329	371	215	237	212	133	273
26	308	220	302	234	590	341	314	205	282	151	145	242
27	2,350	228	270	234	975	323	296	311	256	137	155	215
28	905	208	253	259	712	311	290	341	231	159	119	208
29	489	205	242	362	-	305	276	242	335	160	114	414
30	400	198	226	525	-	305	311	212	250	141	114	1,260
31	608	-	218	660	-	296	-	210	-	125	108	-
Total	13,517	8,675	7,839	7,804	17,380	13,476	21,573	8,030	10,896	5,232	3,899	21,783
Mean	436	289	253	252	621	435	719	259	363	169	126	726
Cfsm	1.11	0.734	0.642	0.640	1.58	1.10	1.82	0.657	0.921	0.429	0.320	1.84
In.	1.28	0.82	0.74	0.74	1.64	1.27	2.03	0.76	1.03	0.49	0.37	2.05

Calendar year 1956: Max 2,880 Min 44 Mean 248 Cfsm 0.629 In. 8.57

Water year 1956-57: Max 8,570 Min 86 Mean 384 Cfsm 0.975 In. 13.22

Peak discharge (base, 4,000 cfs).--Oct. 23 (4 a.m.) 4,390 cfs (11.86 ft); Oct. 27 (12 m.) 4,040 cfs (11.38 ft); Apr. 5 (11:30 p.m.) 6,900 cfs (15.04 ft); Sept. 17 (7 p.m.) 11,500 cfs (19.17 ft).

* Discharge measurement made on this day.

Goose Creek near Huddleston, Va.

Location.--Lat 37°10', long 79°32', on left bank a quarter of a mile upstream from Haden Bridge, three-eighths of a mile upstream from Rockcastle Creek, and 4 miles upstream from Huddleston, Bedford County.

Drainage area.--187 sq mi.

Records available.--March 1925 to September 1927 (gage heights only), September 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 592.91 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Mar. 15, 1925, to Sept. 30, 1927, chain gage at site a quarter of a mile downstream at different datum.

Average discharge.--27 years (1930-57), 180 cfs.

Extremes.--Maximum discharge during year, 6,420 cfs May 19 (gage height, 14.67 ft); minimum, 32 cfs Aug. 11, 12, 14; minimum gage height, 1.17 ft Oct. 17, 1930-57; Maximum discharge, 20,300 cfs Oct. 19, 1937 (gage height, 25.75 ft, from floodmarks), from rating curve extended above 6,400 cfs on basis of slope-area determination at gage height 24.1 ft; minimum, 3 cfs Aug. 31, 1932, Jan. 30, 1934.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 892: 1933, 1935(M), 1939. WSP 972: 1931-32(M), 1934(M), 1935-38, 1940, 1941(M). WSP 1082: 1940(P). WSP 1142: 1938-40(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-26				Oct. 27 to Sept. 30			
1.1	30	2.0	210	1.1	30	2.5	480
1.2	38	3.1	530	1.2	38	5.0	1,480
1.5	79			1.4	72	7.0	2,280
				1.6	159		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	337	a90	107	840	1,560	132	146	110	97	39	41
2	46	242	88	97	680	880	1,200	139	114	84	39	42
3	44	186	88	b70	379	425	560	135	168	78	37	45
4	44	153	84	b90	311	311	326	132	121	70	36	42
5	50	135	84	107	258	261	2,000	128	588	68	37	44
6	44	117	84	97	250	231	*a1,300	128	448	64	35	49
7	44	107	84	88	239	220	a600	121	212	60	34	56
8	40	103	84	88	337	284	a550	121	168	60	33	49
9	38	91	81	97	880	242	a1,500	114	150	64	33	*78
10	38	84	75	132	580	208	a400	110	143	78	33	121
11	37	81	72	125	345	194	318	110	128	64	32	68
12	38	*78	84	110	288	186	273	114	125	58	32	58
13	38	72	107	75	242	175	261	107	117	56	*33	52
14	38	75	150	*100	216	171	242	107	117	56	32	84
15	38	*70	330	94	194	175	212	117	179	51	37	110
16	38	70	258	b80	179	164	205	100	125	*56	56	94
17	37	458	*205	b70	171	157	197	91	135	49	39	*1,440
18	37	391	a170	b60	157	*150	194	107	128	186	114	432
19	38	223	a140	b60	190	161	190	1,680	107	70	117	354
20	38	182	*128	b80	356	157	182	341	97	54	64	205
21	45	161	155	97	269	143	179	205	91	51	52	161
22	518	175	121	117	223	157	175	*171	84	58	49	150
23	*457	146	150	153	201	162	171	161	84	133	45	121
24	155	155	212	157	186	161	171	150	121	125	45	103
25	116	a120	208	139	*175	150	171	132	94	52	49	91
26	96	a100	175	128	402	146	161	132	97	45	56	84
27	1,370	a110	157	121	448	146	157	157	97	44	49	81
28	421	a100	143	146	740	139	150	143	212	46	46	72
29	216	a95	132	780	-	135	171	121	168	45	45	323
30	179	a90	117	720	-	135	179	117	117	44	45	508
31	288	-	110	740	-	128	-	114	-	41	44	-
Total	4,678	4,487	4,146	5,125	9,736	7,734	12,527	5,961	4,645	2,107	1,437	5,138
Mean	151	150	134	165	348	249	418	192	155	68.0	46.4	171
Cfs/m	0.607	0.602	0.717	0.862	1.86	1.33	2.24	1.03	0.829	0.364	0.248	0.914
In.	0.93	0.89	0.83	1.02	1.94	1.53	2.50	1.19	0.92	0.42	0.29	1.02

Calendar year 1956: Max 1,370 Min 23 Mean 100 Cfs/m 0.535 In. 7.30
 Water year 1956-57: Max 2,000 Min 32 Mean 186 Cfs/m 0.995 In. 13.48

Peak discharge (base, 3,000 cfs).--Apr. 5 (2 p.m.) 3,880 cfs (10.50 ft); May 19 (4 a.m.) 6,420 cfs (14.67 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Pigg River near Tushes.

b Stage-discharge relation affected by ice.

Roanoke (Staunton) River at Altavista, Va.

Location.--Lat 37°06'16", long 79°17'44", on right bank 12 ft upstream from highway bridge, a quarter of a mile south of Altavista, Campbell County, half a mile downstream from Sycamore Creek, $3\frac{1}{2}$ miles upstream from Otter River, and at mile 286.5.

Drainage area.--1,802 sq mi.

Records available.--August 1930 to September 1957.

Gage.--Water-stage recorder and Telemark. Datum of gage is 503.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Feb. 22, 1951, at site 50 ft downstream at same datum.

Average discharge.--27 years, 1,917 cfs.

Extremes.--Maximum discharge during year, 30,100 cfs Apr. 6 (gage height, 23.96 ft); minimum, 319 cfs Aug. 15 (gage height, 2.63 ft).

1930-57: Maximum discharge, 105,000 cfs Aug. 15, 1940 (gage height, 40.08 ft, from floodmark), from rating curve extended above 52,000 cfs by logarithmic plotting on basis of unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin: minimum, 94 cfs Jan. 31, 1934 (gage height, 1.66 ft).

Remarks.--Records good. Diurnal fluctuation at low flow caused by powerplant at Niagara, 69 miles above station.

Revisions (water years).--WSP 892: 1938(M). WSP 972: 1931-33.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 18, June 7 to Sept. 30				Nov. 19 to June 6			
2.7	340	13.0	9,600	3.4	730	15.0	12,200
5.0	1,740	17.0	15,500	4.0	1,090	20.0	21,300
9.0	5,200			10.0	6,400	22.0	25,700

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	970	5,900	970	1,120	8,940	11,900	1,520	2,250	1,060	1,180	560	392
2	730	3,960	940	1,060	9,270	6,590	3,510	1,960	1,030	970	526	375
3	610	2,940	*910	940	6,600	5,600	6,600	1,800	1,200	865	516	364
4	508	2,700	910	910	5,310	4,500	4,050	1,680	1,520	795	490	550
5	560	1,980	880	1,030	4,230	3,780	9,830	1,640	2,170	754	485	469
6	565	1,700	850	1,060	3,780	3,330	24,400	1,560	5,800	730	498	424
7	970	1,560	850	3,780	3,060	8,610	*1,480	2,780	676	477	560	
8	550	1,420	850	970	4,050	3,330	5,900	2,620	640	445	586	
9	490	1,320	820	940	6,390	3,690	*10,300	1,440	1,740	622	*410	760
10	*477	1,220	790	1,090	10,700	3,060	7,300	1,370	1,670	670	406	1,560
11	445	1,080	772	1,230	6,900	2,790	5,310	1,340	1,600	730	392	1,320
12	424	1,040	784	1,260	5,130	2,520	4,410	1,300	1,480	*664	382	900
13	445	1,000	850	1,200	4,230	2,340	3,960	1,300	1,320	604	375	760
14	434	*935	970	1,160	5,000	*2,250	3,690	1,260	1,220	580	375	760
15	350	865	1,920	1,090	3,150	2,250	3,240	1,260	2,220	560	375	1,360
16	428	865	3,150	*1,030	2,880	2,250	2,880	1,340	2,060	616	461	1,220
17	428	1,220	2,520	1,000	2,700	2,000	2,790	1,200	1,640	586	477	12,400
18	347	3,870	2,160	900	2,430	1,920	2,520	1,090	*2,220	718	512	15,300
19	414	3,510	1,720	800	2,340	1,920	2,430	4,770	1,780	760	1,180	5,100
20	438	2,340	1,520	940	*3,780	1,960	2,340	4,220	1,360	795	1,000	3,600
21	465	1,880	1,370	1,090	4,320	1,840	2,250	3,420	1,180	616	712	2,540
22	2,550	1,800	1,340	1,120	3,420	1,800	2,160	1,880	1,080	580	570	2,060
23	12,300	1,560	1,340	1,260	2,970	2,080	2,160	1,640	1,000	550	503	1,980
24	4,500	1,480	1,640	1,400	2,700	2,160	2,610	1,440	1,000	1,340	465	1,700
25	2,460	1,400	2,000	1,440	2,430	2,000	2,790	1,340	1,360	1,140	461	1,500
26	1,820	1,200	2,040	1,370	2,790	1,920	2,430	1,230	1,320	688	498	1,390
27	7,410	1,300	1,720	1,260	6,800	1,840	2,160	1,300	1,220	586	498	1,320
28	8,500	1,120	1,520	1,300	5,400	1,760	2,040	1,560	1,250	560	465	1,220
29	3,690	1,060	1,400	2,250		1,680	1,880	1,370	1,670	748	458	1,180
30	2,700	1,000	1,300	9,860		1,640	2,160	1,160	1,500	830	417	4,810
31	3,960		1,160	7,510		1,560		1,120		622	414	
Total	60,538	55,225	41,986	50,590	133,020	93,120	138,230	53,160	51,050	23,355	15,783	68,460
Mean	1,953	1,841	1,354	1,632	4,751	3,004	4,608	1,715	1,702	753	509	2,282
Cfsm	1.08	1.02	0.751	0.906	2.64	1.67	2.56	0.952	0.945	0.418	0.282	1.27
In.	1.24	1.14	0.87	1.04	2.75	1.92	2.66	1.20	1.05	0.48	0.33	1.42

Calendar year 1956: Max 12,500 Min 200 Mean 1,188 Cfsm 0.659 In. 8.94
Water year 1956-57: Max 24,400 Min 347 Mean 2,149 Cfsm 1.19 In. 16.20

Peak discharge (base, 18,000 cfs).--Apr. 6 (7:30 a.m.) 30,100 cfs (23.96 ft).

* Discharge measurement made on this day.

Otter River near Bedford, Va.

Location.--Lat 37°21'50", long 79°25'10", on left bank 10 ft upstream from bridge on U. S. Highway 460, 1 mile downstream from Roaring Run, 5 miles upstream from Elk Creek, 6½ miles northeast of Bedford, Bedford County, and 8 miles upstream from Little Otter River.

Drainage area.--116 sq mi.

Records available.--October 1943 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 647.16 ft above mean sea level, datum of 1929.

Average discharge.--14 years, 133 cfs.

Extremes.--Maximum discharge during year, 2,750 cfs Feb. 28 (gage height, 6.19 ft); minimum, 7.0 cfs Aug. 14 (gage height, 1.00 ft).

1943-57: Maximum discharge, 12,100 cfs Mar. 23, 1949 (gage height, 17.3 ft), from rating curve extended above 4,000 cfs on basis of slope-area determinations at gage heights 12.1 and 17.3 ft; minimum, 5.3 cfs Sept. 15, 1956 (gage height, 0.92 ft).

Flood in 1937 or 1939 reached a stage of 21.8 ft, from mud lines on bridge piers.

Flood in August 1940 reached a stage of 12.1 ft, from floodmarks (discharge, 8,080 cfs), from rating curve extended above 4,000 cfs as explained above.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1142: 1940(M), 1944(M), 1948(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17, 19)

Oct. 1 to June 6

June 7 to Sept. 30

1.1	11	2.3	150	1.0	7.0	2.0	91
1.2	15	3.0	375	1.2	14	2.4	170
1.5	35	4.0	880	1.4	24	3.0	375
1.9	83	5.0	1,590	1.7	50	4.0	880

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	300	64	83	500	1,040	103	146	61	48	16	11
2	24	286	62	74	431	520	866	122	62	40	14	11
3	23	199	61	70	328	399	419	125	71	37	14	11
4	24	150	56	72	307	321	321	122	64	34	14	10
5	28	124	56	76	276	304	1,150	116	98	32	14	9.7
6	25	111	56	71	265	272	732	114	165	28	11	46
7	24	101	55	68	290	256	464	106	97	26	10	19
8	20	95	53	64	343	307	419	101	73	25	10	17
9	16	88	52	80	545	265	439	96	69	26	10	25
10	14	82	49	106	363	232	328	92	68	29	9.4	*38
11	13	78	48	88	314	214	318	90	61	25	8.8	24
12	a13	*71	54	80	300	199	304	92	60	22	8.8	18
13	a14	45	64	78	268	178	307	86	54	21	8.2	17
14	a14	42	125	*74	241	170	276	82	52	20	7.6	36
15	a15	40	184	68	214	168	247	84	94	26	16	36
16	a14	40	136	66	199	159	229	76	62	*18	*23	38
17	a14	264	*116	64	184	144	*217	70	63	31	13	649
18	a14	250	98	82	162	*140	205	74	72	102	59	254
19	13	140	88	63	181	146	190	214	55	37	59	221
20	15	114	83	67	300	140	181	*148	47	27	25	117
21	19	108	83	74	235	128	170	111	42	23	19	92
22	110	122	78	80	205	136	162	98	40	22	16	114
23	*168	101	144	178	187	152	152	94	40	29	15	82
24	95	90	217	169	132	150	82	49	44	14	14	68
25	77	86	162	126	*155	127	168	72	40	27	15	56
26	76	83	132	116	582	122	150	76	42	22	18	49
27	616	80	120	108	515	117	140	95	46	21	16	43
28	220	74	111	175	1,000	112	130	82	91	22	14	41
29	144	71	103	746	-	109	178	67	94	20	13	96
30	122	68	90	419	-----	106	190	66	62	19	13	197
31	175	-----	88	464	-----	103	-----	64	-----	17	12	-----
Total	2,188	3,503	2,888	4,102	9,078	6,917	9,305	3,073	1,994	920	495.8	2,445.7
Mean	70.6	117	93.2	132	324	223	310	99.1	66.5	29.7	16.0	81.5
Cfs/m	0.609	1.01	0.803	1.14	2.79	1.92	2.67	0.854	0.573	0.256	0.138	0.703
In.	0.70	1.13	0.93	1.31	2.90	2.21	2.98	0.98	0.64	0.30	0.16	0.78

Calendar year 1956: Max 757 Min 5.9 Mean 67.2 Cfs/m 0.579 In. 7.88

Water year 1956-57: Max 1,150 Min 7.6 Mean 129 Cfs/m 1.11 In. 15.02

Peak discharge (base, 1,500 cfs).--Oct. 27 (6 a.m.) 1,750 cfs (5.21 ft); Jan. 29 (2:30 p.m.) 1,840 cfs (5.31 ft); Feb. 28 (10:30 p.m.) 2,750 cfs (6.19 ft); Apr. 2 (7:30 a.m.) 2,020 cfs (5.50 ft); Apr. 5 (2:30 p.m.) 2,530 cfs (6.01 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Otter River near Evington.

Otter River near Evington, Va.

Location.--Lat 37°12'30", long 79°18'14", on right bank 10 ft upstream from highway bridge, 2 miles upstream from Flat Creek, and 2 miles southwest of Evington, Campbell County.

Drainage area.--325 sq mi.

Records available.--November 1936 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 544.02 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--20 years (1937-57), 353 cfs.

Extremes.--Maximum discharge during year, 6,250 cfs May 19 (gage height, 15.18 ft); minimum, 43 cfs Aug. 14 (gage height, 1.10 ft).

1936-57: Maximum discharge, 27,500 cfs Oct. 19, 1937, Aug. 19, 1939 (gage height, 23.1 ft), from rating curve extended above 7,000 cfs by logarithmic plotting on basis of unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin; minimum, 33 cfs Sept. 19, 1956 (gage height, 1.02 ft).

Remarks.--Records good except those for period of no gage-height record, which are fair.

Revisions (water years).--WSP 852: 1937. WSP 892: 1938-39(M). WSP 972: 1937-39. WSP 1032: 1940.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.1	43	5.0	920
2.0	166	7.0	1,640
2.5	247	10.0	2,960
3.0	360		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	556	162	196	1,600	*2,920	257	301	156	140	a65	56
2	110	500	158	184	1,480	1,110	1,200	278	154	128	a60	53
3	99	374	157	157	864	836	808	267	257	120	a55	55
4	95	289	152	196	724	696	612	267	180	116	a55	51
5	98	247	150	201	598	612	2,670	257	454	112	a55	50
6	92	220	150	188	584	542	2,450	247	640	102	a54	69
7	87	204	*148	181	584	514	948	*238	386	98	a54	88
8	78	192	148	175	780	738	942	258	319	98	a52	73
9	70	178	147	196	1,440	626	*1,560	229	229	102	*a50	109
10	*64	168	143	257	1,040	514	780	220	212	115	50	148
11	56	162	138	238	752	472	654	212	196	98	44	116
12	57	160	154	209	654	444	584	220	188	*87	48	91
13	62	141	182	204	556	416	636	209	172	85	46	81
14	64	*123	278	199	486	556	*402	158	83	44	98	137
15	65	122	654	186	430	402	486	229	199	110	47	137
16	64	123	556	*181	402	374	458	190	175	a80	66	126
17	64	656	374	157	374	348	430	176	220	a130	66	1,900
18	62	963	301	143	323	335	416	180	*212	a250	126	825
19	68	458	247	190	402	348	402	2,800	170	a150	202	626
20	74	323	229	193	*836	323	374	542	150	a100	116	348
21	85	267	229	198	528	311	360	335	141	a90	92	257
22	557	335	212	209	444	335	348	267	137	a100	77	289
23	875	257	342	301	402	402	335	238	134	a180	70	220
24	348	220	584	335	360	335	430	209	154	a160	68	184
25	238	202	472	278	348	311	444	186	144	a90	69	158
26	206	201	348	257	948	301	348	176	152	a70	82	144
27	1,480	193	301	238	1,140	289	323	212	148	a70	76	150
28	640	180	267	335	1,550	278	301	196	180	a75	69	120
29	360	174	247	1,350	-	267	335	169	196	a70	64	238
30	289	169	220	1,540	-----	267	374	163	163	a70	62	808
31	360	-----	207	1,360	-----	257	-----	160	-----	a65	60	-----
Total	6,994	8,357	8,057	10,232	20,629	16,325	20,821	9,812	6,378	3,342	2,144	7,648
Mean	226	279	260	330	737	527	694	317	213	108	69.2	255
Cfs/m	0.695	0.858	0.800	1.02	2.27	1.62	2.14	0.975	0.655	0.332	0.213	0.785
In.	0.80	0.96	0.92	1.18	2.36	1.87	2.39	1.12	0.73	0.38	0.25	0.88

Calendar year 1956: Max 2,290 Min 35 Mean 193 Cfs/m 0.594 In. 8.09

Water year 1956-57: Max 2,920 Min 44 Mean 331 Cfs/m 1.02 In. 13.84

Peak discharge (base, 4,000 cfs).--Mar. 1 (5 a.m.) 4,680 cfs (13.22 ft); Apr. 5 (12:30 a.m.) 5,370 cfs (14.13 ft); May 19 (9:30 a.m.) 6,250 cfs (15.18 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station near Bedford.

Roanoke (Staunton) River at Brookneal, Va.

Location.--Lat 37°02'28", long 78°57'02", on left bank 1,600 ft upstream from highway bridge at Brookneal, Campbell County, 3 miles upstream from Falling River, and at mile 255.9.

Drainage area.--2,420 sq mi, approximately.

Records available.--April 1923 to September 1957.

Gage.--Water-stage recorder and Telemark. Datum of gage is 351.96 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Aug. 30, 1929, chain gage at site 1,800 ft downstream at same datum. Aug. 30, 1929, to Aug. 15, 1940, water-stage recorder at site 1,800 ft downstream at same datum (destroyed by flood). Aug. 16 to Oct. 1, 1940, staff gage at site 1,800 ft downstream at same datum. Oct. 2, 1940, to Sept. 30, 1941, chain gage at site 1,600 ft downstream at same datum.

Average discharge.--34 years, 2,448 cfs.

Extremes.--Maximum discharge during year, 31,000 cfs Apr. 6 (gage height, 26.36 ft); minimum, 428 cfs Aug. 14 (gage height, 5.83 ft).

1923-57: Maximum discharge, 130,000 cfs Aug. 15, 1940 (gage height, 46.5 ft, at present site from gage-height relation curve), from rating curve extended above 54,000 cfs by logarithmic plotting on basis of slope-area determination by Geological Survey, unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin; minimum, 191 cfs Sept. 2, 1932.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair.

Revisions (water years).--WSP 622: Drainage area. WSP 892: 1928(M). WSP 972: 1928-34.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

5.8	410	16.0	11,800
6.0	530	20.0	16,600
7.0	1,350	25.0	27,500
12.0	7,000		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	6,040	a1,200	1,420	11,400	a12,900	1,820	2,550	1,280	1,470	720	566
2	1,010	5,320	a1,150	1,380	a11,900	11,700	2,130	2,180	1,240	1,200	692	560
3	816	4,020	a1,150	1,280	8,880	7,000	7,800	1,870	1,330	1,070	644	524
4	744	a3,500	*a1,100	1,150	6,640	5,320	5,080	1,870	1,870	988	626	548
5	664	a2,500	1,090	1,240	5,200	4,370	a7,240	1,820	1,870	943	602	657
6	800	a2,200	1,060	1,330	4,370	3,800	a26,800	1,770	a6,880	880	608	578
7	784	a2,000	1,040	1,280	4,140	3,450	13,200	1,720	4,260	848	602	566
8	736	a1,800	1,040	1,200	4,480	3,910	7,360	1,670	4,960	808	*578	898
9	699	a1,700	1,020	1,200	a7,360	4,480	12,900	1,570	2,550	784	530	907
10	657	a1,600	997	1,280	a12,600	3,680	9,760	1,520	2,020	800	506	1,570
11		*608	a1,400	970	1,470	8,680	3,220	6,400	1,520	1,920	*864	482
12		572	a1,350	970	1,520	6,040	2,880	5,080	1,470	1,770	864	*1,200
13		560	a1,300	1,020	1,470	4,840	2,660	4,600	1,470	1,620	784	470
14		608	a1,200	1,200	1,420	4,020	2,550	4,370	1,420	1,470	736	458
15		560	*a1,100	2,080	1,380	3,560	*2,550	3,800	1,420	1,820	713	476
16		494	a1,100	4,140	1,330	3,100	2,600	3,450	1,570	2,440	720	536
17		590	a1,500	3,220	*1,240	2,880	2,340	3,220	1,470	1,920	824	620
18		542	3,910	2,500	997	2,660	2,240	2,890	1,330	2,080	880	650
19		500	4,720	2,080	800	2,500	2,180	2,880	a6,660	2,340	1,150	1,280
20		566	3,220	1,820	880	3,560	2,180	2,660	6,040	2,180	997	1,470
21		626	a2,500	1,620	1,240	*4,840	2,180	2,660	4,260	1,380	864	1,020
22		1,030	a2,400	1,620	1,470	3,910	2,080	2,500	2,390	1,200	752	792
23		10,800	a2,000	1,720	1,620	3,340	2,390	2,440	1,970	1,150	706	685
24		6,880	a1,900	2,290	1,720	2,880	2,500	*2,660	1,770	1,200	1,200	626
25		3,220	a1,800	2,600	1,770	2,660	2,340	3,560	1,620	1,598	1,670	626
26		2,180	a1,700	2,500	1,720	3,220	2,180	2,880	1,470	1,620	1,050	650
27		2,960	a1,600	2,130	1,570	6,880	2,080	2,550	1,520	1,420	784	685
28		10,700	a1,500	1,920	1,620	7,720	2,080	2,340	1,770	1,330	760	638
29		5,200	a1,400	1,770	2,180	-	1,970	2,180	1,720	1,770	728	596
30		3,340	a1,300	1,620	840	-----	1,920	2,340	1,420	1,770	981	566
31		3,100	-----	1,520	10,100	-----	1,870	-----	1,330	-----	848	554
Total	63,586	69,580	52,157	58,717	154,060	109,600	159,450	62,450	62,250	28,846	20,464	73,388
Mean	2,051	2,319	1,692	1,894	5,502	3,535	5,315	2,015	2,075	931	660	2,446
Cfsm	0.848	0.958	0.695	0.783	2.27	1.46	2.20	0.833	0.857	0.385	0.273	1.01
In.	0.98	1.07	0.80	0.90	2.36	1.68	2.46	0.96	0.96	0.44	0.31	1.13
Calendar year 1956: Max	11,800			Min	258		Mean	1,455	Cfsm	0.601	In.	8.18
Water year 1956-57: Max	26,800			Min	450		Mean	2,506	Cfsm	1.04	In.	14.05

Peak discharge (base, 21,000 cfs).--Apr. 6 (3 p.m.) 31,000 cfs (26.36 ft).

* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of 2 discharge measurements and records for station at Altavista.

East Fork Felling River near Appomattox, Va.

Location.--Lat 37°19'40", long 78°51'20", on right bank 130 ft downstream from bridge on State Highway 644 and 2.0 miles southwest of Appomattox, Appomattox County.

Drainage area.--5.1 sq mi, approximately.

Records available.--June 1954 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 740 ft (from topographic map).

Extremes.--Maximum discharge during year, 46 cfs Sept. 17 (gage height, 2.30 ft); minimum, 0.2 cfs Oct. 1 (gage height, 1.14 ft).

1954-57: Maximum discharge, 338 cfs Aug. 17, 1955 (gage height, 5.24 ft); minimum, 0.1 cfs Sept. 16-20, 1956.

Flood in 1928 reached a stage of 8.0 ft, from information by local resident.

Remarks.--Records good except those below 1.0 cfs, which are fair. Runoff completely controlled by Soil Conservation Service dam a quarter of a mile above station since August 1956.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 1

Feb. 2 to Sept. 30

1.1	0.06	1.5	6.8	1.1	0.2	1.6	10
1.2	.5	1.6	10	1.2	.9	1.8	18
1.3	1.6	1.8	18	1.3	2.1	2.1	34
1.4	3.8			1.4	4.0		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	4.4	2.5	2.5	14	12	2.6	2.6	1.6	2.1	1.3	3.5
2	.5	3.2	2.5	2.3	12	6.4	2.4	2.4	1.6	1.8	1.2	6.0
3	.5	2.5	2.5	2.1	7.0	4.8	2.6	2.4	1.8	1.8	1.2	2.9
4	.6	2.3	2.5	2.1	6.4	4.0	2.6	2.4	1.6	1.5	1.2	2.6
5	.6	2.3	2.5	2.5	5.4	3.5	2.2	2.4	5.4	1.3	1.1	2.1
6	.7	1.9	2.3	2.5	5.1	3.5	13	*2.4	4.8	1.2	1.0	2.1
7	.7	1.9	1.9	2.5	9.0	3.5	5.6	2.1	3.1	1.2	1.0	2.2
8	*.7	1.9	1.9	2.3	9.0	8.7	14	2.1	4.5	1.2	1.1	2.6
9	.6	2.3	1.8	2.5	11	5.1	14	2.1	2.6	1.3	*1.1	5.1
10	1.2	2.3	1.8	3.2	7.7	3.8	6.4	2.1	2.4	1.3	1.0	4.8
11	2.3	2.3	*1.6	2.5	5.4	*3.3	*5.4	2.1	2.2	1.1	.9	3.5
12	1.1	*1.9	1.6	2.5	4.5	3.3	4.3	2.1	1.9	*1.0	.8	2.7
13	.5	2.3	2.3	2.5	4.0	3.1	5.1	2.1	1.8	1.1	.6	*2.2
14	.5	1.9	6.5	*2.5	3.8	3.1	4.3	1.9	1.5	1.3	.6	2.2
15	.5	1.8	10	2.5	3.5	3.5	4.0	2.1	10	2.7	.8	2.4
16	.6	2.3	8.4	2.5	3.3	3.3	4.0	1.8	7.0	1.4	.8	3.2
17	.6	17	4.4	2.3	3.3	2.9	4.0	1.6	*4.5	3.1	.6	32
18	.6	9.5	3.2	2.1	*3.1	2.9	3.8	2.2	4.8	6.9	1.3	15
19	.6	4.4	2.7	1.9	4.8	2.9	3.8	3.3	3.3	2.4	2.2	16
20	.6	3.2	2.5	2.1	5.9	2.9	3.5	3.6	2.7	1.6	1.4	5.9
21	.6	3.9	2.5	2.5	4.0	2.7	3.5	2.7	2.6	1.4	.9	3.3
22	2.0	7.8	3.2	2.1	3.5	3.3	3.3	2.4	2.6	1.4	.8	2.7
23	7.6	4.1	13	6.5	3.3	3.8	5.2	2.4	2.6	1.6	.8	2.1
24	3.5	3.2	9.4	3.8	3.3	3.3	5.9	2.1	3.3	2.4	.8	1.8
25	2.5	2.9	5.0	2.9	3.3	2.9	3.5	1.8	3.8	1.5	1.3	1.6
26	2.3	2.9	3.8	2.7	14	2.9	2.9	1.8	3.3	1.5	1.6	1.6
27	2.9	2.9	3.2	2.7	7.4	2.9	2.6	2.7	2.7	1.5	1.6	1.4
28	2.9	2.7	2.9	7.4	10	2.7	2.4	2.2	2.9	1.5	1.1	1.4
29	2.3	2.7	2.7	13	-	2.6	3.1	1.8	3.1	1.4	.9	3.8
30	2.5	2.7	2.5	8.4	-	2.6	3.5	1.6	2.2	1.3	.9	5.6
31	5.3	-	2.5	11	-	2.4	-	1.6	-	1.3	.8	-
Total	48.8	107.4	116.1	110.9	177.0	118.6	163.3	68.9	98.2	54.1	32.7	147.3
Mean	1.57	3.58	3.75	3.58	6.32	3.83	5.44	2.22	3.27	1.75	1.05	4.91
Cfsm	0.308	0.702	0.735	0.702	1.24	0.751	1.07	0.435	0.641	0.343	0.206	0.963
In.	0.36	0.78	0.85	0.81	1.29	0.87	1.19	0.50	0.72	0.40	0.24	1.07
Calendar year 1956: Max	18				Min 0.1							
Water year 1956-57: Max	32				Min 0.4							
					Mean 2.46			Cfsm 0.482		In. 6.58		
					Mean 3.41			Cfsm 0.669		In. 9.08		

* Discharge measurement made on this day.

East Fork Falling River at Spring Mills, Va.

Location.--Lat 37°14'40", long 78°55'30", on right bank 300 ft downstream from bridge on State Highway 646 at Spring Mills, Appomattox County, 0.6 mile upstream from Burger Branch and 5 miles upstream from confluence with North Fork.

Drainage area.--52.2 sq mi.

Records available.--June 1954 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 470 ft (from topographic map).

Extremes.--Maximum discharge during year, 734 cfs Apr. 5 (gage height, 4.60 ft); minimum, 1.3 cfs Oct. 16, Aug. 3; minimum gage height, 0.56 ft Oct. 16.
1954-57: Maximum discharge, 1,530 cfs Aug. 18, 1955 (gage height, 7.93 ft); minimum, 0.7 cfs July 2, 1956 (gage height, 0.52 ft).
Flood in 1940 reached a stage of 19.2 ft, from information by local resident.

Remarks.--Records fair. Regulation caused by gristmill 400 ft above station. Runoff partly controlled by three Soil Conservation Service dams above station.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 19 to Sept. 2, Sept. 19, 23-28)

Oct. 1 to Jan. 31

Feb. 1 to Sept. 30

0.7	4.0	1.3	36	0.6	3.5	1.5	59
.8	7.0	1.6	73	.7	6.5	2.0	152
1.0	14	2.1	172	.9	12	2.7	298
				1.2	29		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	32	19	24	196	176	34	27	21	19	8.9	8.6
2	11	24	19	21	180	98	42	26	22	18	8.3	26
3	10	21	18	19	92	65	35	26	28	17	6.5	16
4	11	20	17	22	77	52	35	25	25	17	4.7	17
5	15	18	17	26	60	46	284	25	132	16	8.0	14
6	10	17	17	23	57	43	220	*25	98	17	6.8	14
7	9.7	17	17	21	96	43	116	25	45	13	6.8	15
8	*11	15	16	21	112	116	180	25	62	14	7.1	18
9	9.4	16	17	25	150	72	246	24	37	15	*7.1	32
10	11	14	16	28	100	52	102	24	32	17	7.4	31
11	5.5	14	*16	24	63	*46	*66	24	28	14	7.1	24
12	10	*16	18	24	51	44	52	25	26	*14	6.8	18
13	13	17	19	24	46	40	52	23	25	14	6.5	*16
14	6.8	12	47	*24	42	39	45	23	22	12	9.5	17
15	12	17	126	23	37	44	38	23	26	15	10	17
16	8.7	13	110	23	37	40	36	22	35	13	9.5	19
17	9.0	161	48	18	35	36	35	23	*24	13	5.6	213
18	12	104	35	18	*33	35	34	30	24	44	13	79
19	11	40	28	19	44	37	33	40	21	15	22	60
20	12	29	26	21	69	35	31	38	19	11	13	35
21	11	28	26	26	45	33	31	29	18	10	11	25
22	59	57	26	29	39	42	31	28	18	9.8	9.5	19
23	58	32	134	55	37	47	34	27	19	10	9.5	16
24	24	26	104	40	35	39	49	24	34	13	9.2	15
25	20	24	54	32	34	36	36	22	36	10	12	13
26	18	24	38	30	166	35	32	22	30	9.8	14	13
27	22	22	33	28	102	35	31	31	24	9.8	13	12
28	21	21	30	67	124	33	28	25	23	10	11	12
29	18	19	27	164	-	33	29	22	31	9.5	10	28
30	19	19	24	118	-----	33	35	22	22	9.5	9.8	39
31	32	-----	24	158	-----	31	-----	22	-----	9.2	9.2	-----
Total	510.1	889	1,166	1,195	2,159	1,556	2,052	797	1,007	438.6	292.8	881.6
Mean	16.5	29.6	37.6	38.5	77.1	50.2	68.4	25.7	33.6	14.1	9.45	29.4
Cfsm	0.316	0.567	0.720	0.758	1.46	0.962	1.31	0.492	0.644	0.270	0.181	0.563
In.	0.36	0.63	0.83	0.85	1.54	1.11	1.46	0.57	0.72	0.31	0.21	0.63

Calendar year 1956: Max 298 Min 2.3 Mean 24.7 Cfsm 0.473 In. 6.42
Water year 1956-57: Max 284 Min 4.7 Mean 35.5 Cfsm 0.680 In. 9.22

Peak discharge (base, 600 cfs).--Apr. 5 (4:30 p.m.) 734 cfs (4.60 ft); Apr. 9 (1 a.m.) 614 cfs (4.12 ft)

* Discharge measurement made on this day.

Falling River near Naruna, Va.

Location.--Lat 37°07', long 78°58', on left bank at upstream side of highway bridge, 2 miles upstream from Little Falling River and 2½ miles northeast of Naruna, Campbell County.

Drainage area.--172 sq mi.

Records available.--July 1929 to January 1935, September 1941 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 412.32 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 12, 1929, to Jan. 15, 1935, chain gage at same site and datum.

Average discharge.--21 years (1929-34, 1941-57), 144 cfs.

Extremes.--Maximum discharge during year, 2,790 cfs Apr. 9 (gage height, 10.16 ft); minimum, 20 cfs Oct. 9, 12, 17, Aug. 14.

1929-35, 1941-57: Maximum discharge, 15,800 cfs Sept. 18 or 19, 1944 (gage height, 23.9 ft, from floodmarks), from rating curve extended above 6,100 cfs on basis of slope-area determinations at gage heights 23.9 and 26.5 ft; minimum, 3 cfs Oct. 9, 1932 (gage height, 2.18 ft).

Flood in August 1940 reached a stage of 26.5 ft, from floodmarks (discharge, 22,000 cfs, by slope-area determination).

Remarks.--Records good except those for period of no gage-height record, which are fair. Diurnal fluctuation caused by gristmill at Spring Mills.

Revisions (water years).--WSP 1333: 1930, 1931-34(M), 1935.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-22, Apr. 10 to Sept. 30				Oct. 23 to Apr. 9			
2.4	16	3.5	203	2.6	38		
2.5	21	4.0	358	2.9	81		
2.7	42	7.0	1,430	3.4	190		
3.0	85			4.0	362		
				7.0	1,430		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	94	60	78	656	707	106	120	66	56	34	34
2	31	74	57	72	690	320	138	100	65	50	32	47
3	29	65	60	69	335	222	122	90	85	47	30	40
4	31	61	54	85	299	180	118	90	77	46	25	38
5	31	58	54	85	222	156	1,030	85	324	43	27	36
6	33	54	56	76	227	142	815	85	520	41	27	34
7	31	53	57	72	250	138	314	80	152	41	25	41
8	29	51	54	67	326	356	647	80	200	38	25	62
9	27	51	56	78	490	250	1,140	*80	150	41	*24	72
10	30	51	54	89	341	178	329	75	112	46	23	96
11	*28	48	53	78	230	154	*238	75	96	40	23	100
12	24	48	*51	72	185	144	215	79	89	*38	23	52
13	32	49	58	72	160	131	218	75	79	38	21	*46
14	27	48	104	72	144	124	206	71	72	38	20	54
15	31	*45	320	71	131	*156	160	71	69	43	33	66
16	29	49	368	71	127	147	150	68	87	39	34	58
17	28	304	175	*50	118	127	150	66	69	35	28	1,150
18	30	370	127	65	110	122	140	101	68	91	45	316
19	36	140	102	70	129	124	140	416	63	68	117	203
20	39	100	92	71	253	122	130	152	58	45	69	140
21	39	90	90	76	*158	114	130	114	*55	40	43	96
22	160	163	87	85	135	135	120	96	55	39	38	77
23	233	106	283	147	124	178	120	91	54	39	35	71
24	100	85	514	133	116	139	155	80	68	59	34	68
25	66	78	198	102	112	127	140	72	296	45	41	62
26	56	74	135	94	508	122	120	71	117	39	56	58
27	56	71	116	90	359	118	110	96	74	39	71	55
28	60	66	104	142	522	114	105	93	66	71	43	52
29	53	66	96	394	-	114	100	72	91	43	38	94
30	51	61	85	397	-----	106	145	69	61	39	38	172
31	72	-----	81	501	-----	104	-----	68	-----	36	35	-----
Total	1,557	2,671	3,621	3,624	7,457	5,370	7,751	2,981	3,438	1,413	1,157	3,468
Mean	50.2	89.0	117	117	266	173	258	96.2	115	45.6	37.3	116
Cfsm	0.292	0.517	0.680	0.680	1.55	1.01	1.50	0.559	0.669	0.265	0.217	0.674
In.	0.34	0.58	0.78	0.78	1.61	1.16	1.67	0.64	0.75	0.31	0.25	0.75

Calendar year 1956: Max 1,080 Min 16 Mean 78.8 Cfsm 0.458 In. 6.24
Water year 1956-57: Max 1,150 Min 20 Mean 122 Cfsm 0.709 In. 9.62

Peak discharge (base, 1,600 cfs).--Apr. 5 (7 p.m.) 2,590 cfs (9.29 ft); Apr. 9 (1 a.m.) 2,790 cfs (10.16 ft); June 5 (11:30 p.m.) 1,670 cfs (7.64 ft); Sept. 17 (10:50 a.m.) 2,610 cfs (9.84 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Apr. 15 to May 9; discharge estimated on basis of records for nearby stations.

Cub Creek at Phenix, Va.

Location.--Lat 37°05', long 78°46', on right bank 10 ft upstream from bridge on State Highway 40, 0.9 mile west of Phenix, Charlotte County, 2 miles downstream from Rough Creek, and 6 miles upstream from Louse Creek.

Drainage area.--102 sq mi.

Records available.--August 1946 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 370.19 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 14, 1950, staff gage at same site and datum.

Average discharge.--11 years, 93.6 cfs.

Extremes.--Maximum discharge during year, 1,090 cfs Apr. 9 (gage height, 7.73 ft); minimum, 6.7 cfs Aug. 14 (gage height, 0.84 ft).

1946-57: Maximum discharge, 2,720 cfs Dec. 4, 1948 (gage height, 13.0 ft, from graph based on gage readings); minimum, 6.5 cfs Sept. 7, 1954 (gage height, 0.86 ft). Flood in August 1940 reached a stage of 17.5 ft, from floodmark.

Remarks.--Records good except those for periods of ice effect, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1333: 1947(M), 1948, 1949(M).

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 2

Feb. 3 to Sept. 30

1.1	18	3.0	222	0.8	5.3	2.0	102
1.3	31	5.0	520	.9	8.9	3.0	232
2.0	96			1.0	14	6.0	723
				1.4	43		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	69	43	50	295	*328	63	63	37	32	14	17
2	24	55	41	45	415	342	79	56	35	27	12	26
3	23	48	41	41	358	151	78	54	48	26	11	24
4	23	44	39	42	225	112	68	53	55	24	11	24
5	22	41	39	52	147	96	135	52	116	24	11	22
6	23	38	39	54	141	89	640	52	446	22	10	19
7	26	37	39	48	125	87	513	50	113	21	8.9	22
8	24	37	39	45	170	160	211	48	136	21	8.9	26
9	22	39	38	48	290	197	720	*48	105	21	8.5	64
10	22	39	37	56	232	115	564	45	75	26	8.2	*80
11	*20	36	35	52	150	*85	*183	44	64	22	7.8	60
12	20	35	*36	46	111	89	135	48	56	19	8.2	41
13	20	33	38	b46	96	83	126	44	52	19	7.5	37
14	21	*33	40	b45	87	79	124	41	46	17	*7.5	30
15	21	*33	82	45	79	92	102	39	42	*17	9.4	78
16	21	33	154	b43	78	129	93	37	52	18	16	78
17	21	66	103	*b40	75	89	91	36	*52	17	13	131
18	22	208	72	b39	68	81	88	37	44	50	12	232
19	26	156	59	b37	74	81	84	57	39	47	73	102
20	28	72	55	b35	140	79	81	59	34	26	65	98
21	26	61	53	b40	*101	73	78	60	32	21	29	60
22	57	103	52	55	84	75	76	51	31	19	21	48
23	102	87	84	71	78	113	74	49	30	19	19	41
24	58	62	194	85	74	90	113	44	29	29	18	36
25	42	54	142	62	71	79	85	39	29	23	31	33
26	37	52	86	59	124	75	74	37	37	19	48	30
27	36	52	71	57	253	73	69	56	37	19	30	28
28	53	47	64	73	190	69	64	67	33	19	24	27
29	42	45	60	155	-	66	60	41	37	18	21	35
30	39	44	53	208	-----	65	74	38	33	16	20	63
31	61	-----	51	180	-----	61	-----	37	-----	15	18	-----
Total	1,010	1,759	1,979	1,956	4,331	3,413	4,943	1,482	1,975	713	601.9	1,612
Mean	32.6	58.6	63.8	63.1	155	110	165	47.8	65.8	23.0	19.4	53.7
Cfsm	0.320	0.575	0.625	0.619	1.52	1.08	1.62	0.469	0.645	0.225	0.190	0.526
In.	0.37	0.64	0.72	0.71	1.56	1.24	1.91	0.54	0.72	0.26	0.22	0.59
Calendar year 1956: Max	355				Min 11	Mean 53.1	Cfsm 0.521	In. 7.06				
Water year 1956-57: Max	720				Min 7.5	Mean 70.6	Cfsm 0.692	In. 9.40				

Peak discharge (base, 1,000 cfs).--Apr. 6 (6 p.m.) 1,070 cfs (7.58 ft); Apr. 9 (8:30 p.m.) 1,090 cfs (7.73 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Roanoke (Staunton) River at Randolph, Va.

Location.--Lat 36°54'54", long 78°44'28", on right bank 14 ft downstream from bridge on State Highway 746, 2.8 miles northwest of Randolph, Charlotte County, 3.6 miles upstream from Roanoke Creek, and at mile 227.3.

Drainage area.--3,000 sq mi, approximately.

Records available.--August 1900 to August 1906, October 1927 to March 1930, and October 1950 to September 1957 in reports of Geological Survey. Prior to January 1905, published as Staunton River at Randolph. Records prior to August 1906, republished in Virginia Geological Survey Bulletin 31, with some revisions and corrections.

Gage.--Water-stage recorder. Datum of gage is 307.53 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Aug. 27, 1900, to Oct. 13, 1902, wire-weight gage at site 3.2 miles downstream at different datum. Oct. 14, 1902, to Aug. 11, 1906, and Oct. 1, 1927, to Mar. 31, 1930, wire-weight or chain gage at site of original gage at datum 3.87 ft lower than present datum.

Average discharge.--12 years (1902-5, 1927-29, 1950-57), 3,081 cfs.

Extremes.--Maximum discharge during year, 28,600 cfs Apr. 7; maximum gage height, 24.77 ft Apr. 7; minimum daily discharge, 560 cfs Aug. 14, 15.

1900-1906, 1927-30, 1950-57: Maximum discharge, about 80,000 cfs Dec. 30, 1901 (gage height, 34.0 ft, site and datum then in use); minimum, 256 cfs Sept. 16, 1954 (gage height, 3.88 ft).

Flood of Aug. 16, 1940, reached a stage of 41.6 ft (discharge, 150,000 cfs), from information by Corps of Engineers.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records of water temperatures and suspended sediment loads for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 1203: 1927-30. See also Records available.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 26, Aug. 21, Sept. 11-13, 16, 22-29; rate of change in stage used as a factor for most days above 6,000 cfs)

4.6	550	17.0	10,800
6.0	1,400	21.0	17,800
9.0	4,100	25.0	29,100

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,820	5,160	1,440	1,740	11,700	13,500	2,260	2,900	1,540	1,980	al,000	a700
2	1,330	6,150	1,400	1,680	14,500	*15,200	2,350	2,800	1,500	1,580	a900	a700
3	1,120	4,640	1,360	1,540	10,400	*8,030	5,870	2,440	1,500	1,360	a810	a650
4	960	3,600	1,330	1,440	7,990	6,430	6,360	2,260	1,860	1,260	a770	a650
5	900	2,900	1,300	1,470	6,640	5,480	5,720	2,180	2,440	1,190	a770	a800
6	840	2,440	1,300	1,580	5,640	4,820	20,200	2,180	6,160	1,160	a720	a750
7	930	2,180	1,260	1,620	5,240	4,370	26,100	2,100	6,460	1,080	a720	a700
8	*870	1,980	1,260	1,500	5,480	4,820	11,100	2,020	5,400	1,020	*a700	al,000
9	840	1,860	1,260	1,440	7,230	5,870	16,300	1,940	4,640	990	a700	al,000
10	780	1,700	1,260	1,500	12,900	5,060	13,700	1,900	2,710	990	a670	2,150
11	750	1,540	*1,190	1,700	9,900	*4,280	7,710	1,860	2,440	*990	a620	2,620
12	700	*1,470	1,160	1,820	7,030	3,900	6,360	1,820	2,260	1,050	a600	*1,900
13	675	1,440	1,130	1,780	5,940	3,500	5,640	*1,820	2,100	990	a580	1,330
14	650	1,330	1,300	*1,700	5,160	3,300	5,400	1,780	1,900	930	a560	al,230
15	725	1,300	1,900	1,680	4,550	3,500	4,820	1,700	1,740	900	a560	al,230
16	630	1,300	5,000	1,580	4,190	3,700	4,370	1,780	2,710	870	a590	1,620
17	615	1,300	4,910	1,500	3,800	3,300	4,190	1,820	2,620	870	a750	7,240
18	700	3,900	3,600	1,300	*3,400	2,900	4,000	1,660	2,260	1,080	a750	21,800
19	650	5,940	2,900	1,080	3,100	2,800	3,800	2,180	2,710	1,300	al,180	14,200
20	675	4,370	2,350	1,120	3,900	2,800	3,600	7,550	2,350	al,300	2,080	6,310
21	725	3,100	2,180	1,330	5,480	2,710	3,500	5,240	1,820	al,080	1,660	4,640
22	960	2,900	2,020	1,700	2,620	2,620	3,300	3,900	1,580	al,000	al,100	3,300
23	6,270	2,800	2,180	1,940	4,280	3,000	3,100	2,530	1,740	a930	a900	2,710
24	9,340	2,260	3,400	2,180	3,800	3,300	3,100	2,260	1,400	a900	a800	2,440
25	5,000	2,020	3,900	2,260	3,400	3,100	4,000	1,980	1,470	2,090	a800	2,020
26	3,100	1,820	3,800	2,180	3,900	2,800	3,800	1,820	2,530	1,500	a800	1,740
27	2,260	1,700	3,000	2,020	6,820	2,620	3,300	1,820	1,900	al,130	a860	1,540
28	2,480	1,660	2,530	2,020	8,480	2,530	2,800	2,100	1,700	a960	a860	1,400
29	6,450	1,580	2,860	2,800	2,530	2,620	2,600	2,100	1,740	a930	a750	1,400
30	4,280	1,470	2,020	6,620	2,350	2,530	1,860	2,180	a900	a700	2,000	
31	3,300	---	1,900	11,800	-----	2,260	-----	1,620	-----	al,100	a700	-----
Total	68,325	77,810	67,860	67,580	179,810	137,200	191,900	73,920	75,090	35,410	25,960	91,770
Mean	2,204	2,594	2,189	2,180	6,422	4,428	6,397	2,385	2,503	1,142	837	3,059
Cfs/m	0.735	0.885	0.730	0.727	2.14	1.48	2.13	0.795	0.834	0.381	0.279	1.02
In.	0.86	0.97	0.84	0.84	2.23	1.71	2.38	0.92	0.93	0.44	0.32	1.14
Calendar year 1956: Max	14,100				Min 300		Mean 1,802	Cfs/m 0.601	In. 8.18			
Water year 1956-57: Max	26,100				Min 560		Mean 2,994	Cfs/m 0.998	In. 13.57			

Peak discharge (base, 20,000 cfs).--Apr. 7 (10 a.m.) 28,600 cfs (24.77 ft at 11:30 a.m.); Sept. 18 (10 a.m.) 23,900 cfs (23.22 ft at 11:30 p.m.).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for stations at Altavista and Brookneal.

Roanoke Creek at Saxe, Va.

Location.--Lat 36°55'49", long 78°39'56", on right bank at downstream side of highway bridge, 500 ft northwest of Saxe, Charlotte County, and 4 miles upstream from mouth.

Drainage area.--162 sq mi.

Records available.--August 1946 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 322.36 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 21, 1950, staff gage at same site and datum.

Average discharge.--11 years, 117 cfs.

Extremes.--Maximum discharge during year, 2,630 cfs Sept. 18 (gage height, 11.18 ft); minimum, 2.8 cfs Aug. 15 (gage height, 1.05 ft).

1946-57: Maximum discharge, 4,710 cfs Aug. 18, 1955 (gage height, 13.58 ft); no flow for part of Sept. 18, 1954, from information by local observer.

Flood of Aug. 16, 1940, reached a stage of 25.7 ft (backwater from Roanoke River), from floodmark.

Remarks.--Records good except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 1333: 1949.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-22, 29, 30,
Nov. 7-16, Sept. 21-30)

1.0	2.0	6.0	281
1.2	5.3	7.0	400
1.4	10	8.0	680
1.6	15	9.0	1,110
2.0	27	10.0	1,740
3.0	69	11.0	2,470
5.0	202		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	59	46	48	615	585	60	40	24	14	9.5	19
2	12	81	44	39	790	645	69	38	22	12	9.2	17
3	9.0	95	43	534	880	*379	78	36	28	12	12	16
4	7.8	90	41	34	525	202	72	35	25	11	10	16
5	6.8	69	41	43	400	132	84	34	68	12	9.0	15
6	7.5	51	40	55	280	108	217	33	170	12	7.8	15
7	12	30	40	57	188	99	315	53	195	10	6.6	19
8	*15	24	40	52	209	198	304	32	225	9.0	*6.0	37
9	16	25	40	51	297	348	850	30	111	8.8	5.7	260
10	14	26	40	57	362	297	1,060	29	72	8.2	5.1	870
11	12	36	*41	94	356	*170	499	29	53	*8.0	4.8	1,140
12	9.2	*40	39	53	241	122	249	30	44	7.1	3.9	*450
13	8.5	36	40	45	156	102	160	*30	37	6.2	3.4	146
14	9.8	34	42	*43	118	90	128	28	34	5.3	3.0	61
15	13	31	56	47	102	108	111	26	30	4.9	2.9	45
16	14	28	167	b43	93	158	93	25	26	6.8	3.0	41
17	14	47	265	b43	87	136	84	23	*25	18	4.4	558
18	19	144	217	b47	*81	102	78	22	23	67	7.5	2,310
19	22	195	96	b50	81	102	72	22	22	156	156	1,170
20	32	139	59	b50	150	105	69	25	20	52	225	400
21	41	81	53	b50	188	96	64	29	18	26	202	175
22	70	90	57	64	139	96	62	31	16	19	57	84
23	96	102	117	87	102	156	60	51	16	16	32	56
24	156	84	217	81	90	142	60	29	15	22	25	46
25	111	62	265	75	81	111	69	26	14	27	94	39
26	64	56	209	66	142	93	64	24	15	21	188	36
27	50	55	122	69	265	84	55	32	16	17	174	33
28	43	54	96	90	315	75	49	36	16	15	71	30
29	40	51	84	202	-	69	45	36	16	13	39	36
30	42	49	72	400	-----	64	42	29	16	12	26	45
31	47	-----	66	400	-----	62	-----	26	-----	10	22	-----
Total	1,028.6	1,962	2,795	2,569	7,113	5,194	5,202	929	1,410	618.3	1,422.8	8,185
Mean	33.2	65.4	90.2	82.9	254	168	173	30.0	47.0	19.9	45.9	273
Cfsm	0.205	0.404	0.557	0.512	1.57	1.04	1.07	0.185	0.290	0.123	0.283	1.69
In.	0.24	0.45	0.64	0.59	1.64	1.20	1.19	0.21	0.32	0.14	0.33	1.89

Calendar year 1956: Max 750 Min 2.7 Mean 78.1 Cfsm 0.482 In. 6.56
Water year 1956-57: Max 2,310 Min 2.9 Mean 105 Cfsm 0.646 In. 8.84

Peak discharge (base, 1,000 cfs).--Apr. 10 (4:30 a.m.) 1,170 cfs (9.13 ft); Sept. 11 (5 a.m.) 1,410 cfs (9.52 ft); Sept. 18 (1 to 2 p.m.) 2,630 cfs (11.18 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Dan River near Francisco, N. C.

Location.--Lat 36°30'54", long 80°18'12", on left bank 200 ft upstream from bridge on State Highway 704, an eighth of a mile downstream from Georges Mill, 3 miles east of Francisco, Stokes County, and 7.9 miles downstream from Little Dan River.

Drainage area.--124 sq mi.

Records available.--August 1924 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 830 ft (from topographic map). Prior to Nov. 15, 1929, chain gage at same site and datum.

Average discharge.--33 years, 184 cfs (unadjusted).

Extremes.--Maximum discharge during year, 6,590 cfs Sept. 16 (gage height, 8.60 ft); minimum, 50 cfs Oct. 17 (gage height, 1.08 ft); minimum daily, 60 cfs Oct. 11, 17.
1924-57: Maximum discharge, 12,400 cfs Oct. 19, 1937 (gage height, 12.45 ft), from rating curve extended above 8,500 cfs; minimum, 7.1 cfs Sept. 8, 1932 (gage height, 0.43 ft); minimum daily, 30 cfs Sept. 18, 20, 1932.
Flood in 1916 reached a stage about 3 ft higher than that of Oct. 19, 1937.

Remarks.--Records good except those for period of ice effect, which are fair. Considerable diurnal fluctuation and regulation from mills and powerplants above station. Talbot and Townes Reservoirs above Pinnacles hydroelectric plant in Virginia, 28 miles above station, with a combined capacity of 416,000,000 cu ft, were completed in 1938.

Revisions (water years).--WSP 892: Drainage area. WSP 1433: 1925-26, 1928-29, 1931, 1942, 1948.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 5

Apr. 6 to Sept. 30

1.1	52	3.0	750	1.3	80	3.0	750
1.5	109	4.0	1,490	1.7	164	4.0	1,490
1.9	207	6.0	3,470	2.1	284	6.0	3,470
2.5	462			2.5	462		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	184	108	126	478	441	150	214	155	169	134	99
2	74	172	112	133	485	314	304	210	147	172	129	88
3	70	171	114	*118	326	285	246	203	149	167	129	93
4	70	176	103	114	303	264	245	206	153	168	137	114
5	77	175	100	109	269	238	1,680	205	958	160	108	93
6	74	165	101	114	248	229	742	199	380	156	106	116
7	74	160	90	121	243	236	464	190	248	149	104	151
8	76	156	84	97	*264	263	587	187	220	147	102	153
9	67	158	92	96	320	223	782	183	178	151	104	144
10	62	157	94	102	283	209	473	180	171	146	106	125
11	60	168	86	94	230	220	404	205	178	138	105	119
12	61	162	88	94	247	184	366	187	170	138	98	124
13	65	141	91	102	239	161	343	*167	165	137	*105	116
14	64	133	123	105	224	190	313	397	766	138	104	123
15	73	132	207	93	221	220	301	252	285	148	142	127
16	*64	131	180	95	212	201	297	196	268	136	120	644
17	60	191	166	88	190	192	291	172	909	135	109	2,580
18	64	182	128	b90	184	202	288	200	368	147	213	499
19	64	189	125	b90	209	214	273	189	248	143	131	326
20	71	*139	135	b90	226	193	267	255	*192	128	123	261
21	85	148	137	b95	198	223	266	190	180	122	118	189
22	203	155	138	98	207	252	292	184	172	125	114	175
23	113	146	172	199	183	233	283	179	171	141	112	155
24	88	138	221	152	185	182	279	180	236	144	103	165
25	78	148	177	143	151	190	270	155	194	127	114	155
26	78	149	152	134	263	211	256	226	232	120	116	147
27	237	131	135	129	236	217	246	324	198	118	108	151
28	156	106	130	150	346	199	235	212	193	114	110	158
29	136	114	121	272	---	175	255	171	236	115	108	206
30	154	108	125	284	-----	*157	217	172	185	119	105	266
31	192	-----	159	353	-----	144	-----	172	-----	120	102	-----
Total	2,893	4,576	3,974	4,080	7,150	6,862	11,415	6,362	8,305	4,338	3,619	7,861
Mean	93.3	153	128	132	255	221	380	205	277	140	117	262
(t)	+29.5	-26.5	-0.5	+9.6	+5.9	-9.2	+13.5	+0.5	-6.5	-15.4	-31.9	+25.2

Observed

Adjusted

Calendar year 1956:	Max	1,350	Min	39	Mean	108	Mean	113	Cfsm	0.911	In.	12.41
Water year 1956-57:	Max	2,580	Min	60	Mean	196	Mean	195	Cfsm	1.57	In.	21.31

Peak discharge (base, 2,000 cfs).--Apr. 5 (10:30 a.m.) 3,150 cfs (5.71 ft); June 5 (9:30 a.m.) 2,750 cfs (5.26 ft); June 14 (2:30 a.m.) 3,470 cfs (6.02 ft); June 17 (7 p.m.) 3,580 cfs (6.10 ft); Sept. 16 (1 a.m.) 6,590 cfs (8.60 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Talbotts and Townes Reservoirs; furnished by city of Danville, Virginia.

b Stage-discharge relation affected by ice.

North Mayo River near Spencer, Va.

Location.--Lat 36°34'05", long 79°59'15", on left bank 800 ft downstream from highway bridge at Moores Mill, 2 miles downstream from Horse Pasture Creek, and 4 miles south-east of Spencer, Henry County.

Drainage area.--108 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 730.94 ft above mean sea level (levels by Corps of Engineers). Prior to Jan. 23, 1936, chain gage at site 800 ft upstream at datum 1.50 ft higher. July 25 to Sept. 27, 1936, staff gage at present site and datum.

Average discharge.--27 years (1929-35, 1936-57), 118 cfs.

Extremes.--Maximum discharge during year, 6,350 cfs Sept. 17 (gage height, 9.77 ft); minimum, 34 cfs Sept. 4-6 (gage height, 1.37 ft).
1928-57: Maximum discharge, 17,200 cfs Oct. 9, 1947 (gage height, 15.80 ft), from rating curve extended above 7,200 cfs by logarithmic plotting on basis of velocity-area study; minimum, 14 cfs Aug. 11, 1956 (gage height, 1.10 ft).

Remarks.--Records good except those for periods of ice effect and no gage-height record, which are fair.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.3	28	3.0	500
1.5	50	4.0	1,010
1.6	67	6.0	2,270
2.0	133	8.0	4,040
2.5	310		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	200	57	62	404	430	90	90	75	75	52	37
2	60	150	57	58	362	202	161	86	73	67	64	36
3	53	120	57	b58	202	161	133	86	78	65	50	35
4	50	100	55	60	177	136	113	86	75	62	50	34
5	50	90	53	64	146	122	1,130	84	359	58	94	35
6	55	85	53	62	128	113	970	82	240	58	53	109
7	53	80	53	58	118	109	278	78	138	55	48	196
8	45	76	53	55	122	156	385	76	103	53	45	96
9	44	72	52	56	227	124	591	76	103	52	44	*196
10	41	70	50	60	202	111	240	75	101	57	41	124
11	37	66	50	54	150	105	188	75	92	52	40	90
12	35	64	50	54	128	101	166	80	86	49	40	86
13	38	62	52	52	113	96	156	73	80	52	*40	87
14	40	*57	69	52	105	96	143	90	96	49	40	80
15	44	57	172	*50	96	124	130	99	99	76	45	450
16	40	58	140	52	96	113	126	73	80	*55	53	128
17	36	99	94	b48	88	103	124	69	120	52	42	3,450
18	38	146	*80	b47	86	99	*118	71	111	396	76	*1,300
19	45	92	71	b46	92	*105	113	73	82	216	101	310
20	55	80	67	b52	136	103	111	118	*78	86	69	217
21	150	76	67	b58	103	96	109	82	71	71	58	169
22	700	76	65	65	92	111	113	78	69	62	50	138
23	350	69	86	115	86	133	153	78	69	64	46	124
24	*161	65	124	101	86	113	124	82	67	76	45	111
25	111	62	103	78	86	107	113	71	92	62	49	101
26	94	62	86	71	*288	103	105	103	240	55	52	94
27	559	62	78	67	247	96	96	261	103	52	46	88
28	202	58	75	71	275	94	96	128	86	168	44	86
29	128	58	69	113	-	94	94	90	126	71	42	184
30	140	58	64	196	-----	88	103	82	86	60	41	331
31	350	-----	64	263	-----	86	-----	78	-----	55	38	-----
Total	3,875	2,470	2,264	2,298	4,441	3,828	6,572	2,771	3,278	2,481	1,596	8,482
Mean	125	82.3	73.0	74.1	159	123	219	89.4	109	80.0	51.5	283
Cfsm	1.16	0.762	0.676	0.686	1.47	1.14	2.03	0.828	1.01	0.741	0.477	2.62
In.	1.34	0.85	0.78	0.79	1.53	1.31	2.26	0.95	1.13	0.85	0.55	2.92

Calendar year 1956: Max 1,300 Min 15 Mean 75.0 Cfsm 0.694 In. 9.46

Water year 1956-57: Max 3,450 Min 34 Mean 122 Cfsm 1.13 In. 15.26

Peak discharge (base, 1,400 cfs).--Apr. 5 (12 a.m.) 2,580 cfs (6.39 ft); Sept. 17 (4:30 p.m.) 6,350 cfs (9.77 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Oct. 12-23, Oct. 30 to Nov. 13, Jan. 4-14; discharge estimated on basis of records for Sandy River near Danville and nearby stations.

Mayo River near Price, N. C.

Location.--Lat 36°32'00", long 79°59'30", on right bank 300 ft downstream from Anglins Bridge, half a mile downstream from confluence of North and South Mayo Rivers, three-quarters of a mile downstream from Virginia-North Carolina State line, and 4 miles west of Price, Rockingham County.

Drainage area.--260 sq mi.

Records available.--July 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 689.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 29, 1929, staff gage at same site and datum.

Average discharge.--28 years, 315 cfs.

Extremes.--Maximum discharge during year, 13,200 cfs Sept. 17 (gage height, 10.00 ft); minimum, 90 cfs Oct. 17, 18, Sept. 4, 5.
1929-57: Maximum discharge, 30,000 cfs Oct. 19, 1937 (gage height, 14.00 ft), from rating curve extended above 8,000 cfs by logarithmic plotting; minimum, 32 cfs Oct. 8, 1954 (gage height, 0.55 ft).

Remarks.--Records good except those for periods of ice effect, which are fair, and those for the period of no gage-height record, which are poor. Slight infrequent diurnal fluctuation at low flow caused by small mills above station.

Revisions (water years).--WSP 1433: 1930(m), 1931(m), 1932, 1949(M).

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	85	4.0	1,900
1.2	142	5.0	3,020
1.6	260	6.0	4,450
2.0	445	8.0	8,200
3.0	1,060		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	435	149	173	999	1,040	228	246	208	a300	279	101
2	*140	318	147	163	952	562	416	242	198	a240	242	96
3	140	264	147	b160	562	435	360	235	208	a210	151	96
4	121	235	144	b160	485	365	304	231	202	a190	144	*90
5	127	214	142	165	385	327	2,870	228	1,070	a180	202	94
6	136	202	142	163	*345	304	2,210	228	730	a170	144	203
7	127	189	142	160	318	296	768	221	410	a170	127	374
8	112	178	140	156	327	390	1,080	218	304	a170	125	249
9	108	176	138	154	525	327	1,660	211	280	a170	125	396
10	103	168	138	160	515	288	702	208	272	a160	116	300
11	99	163	132	158	395	272	556	211	253	a160	112	202
12	99	160	136	149	336	260	480	221	238	a160	110	195
13	99	154	142	149	304	256	440	208	221	a160	107	165
14	99	151	172	149	280	256	395	214	329	a155	103	149
15	98	*149	506	144	260	365	370	284	494	a155	124	1,000
16	94	149	377	144	253	322	340	214	345	a155	178	320
17	90	228	246	b145	238	276	332	195	623	a155	119	*7,760
18	92	360	208	b140	228	268	322	202	a820	a200	268	2,710
19	99	235	187	b140	238	280	314	202	a360	a520	256	850
20	108	202	178	b150	336	264	300	311	a260	a190	178	589
21	171	189	176	b160	256	246	300	235	a230	a180	149	465
22	1,050	195	173	b170	238	284	355	211	a440	*a170	134	380
23	1,090	178	221	294	231	332	390	211	a1,200	187	125	340
24	365	168	345	276	224	288	336	211	a300	242	121	300
25	249	160	292	218	221	272	318	192	a480	173	127	276
26	214	160	235	198	585	260	288	290	a780	154	129	256
27	1,070	160	214	187	625	253	272	873	a380	149	117	246
28	480	156	202	195	601	242	260	392	a330	431	108	231
29	304	151	189	318	-	235	253	253	a440	178	108	401
30	284	151	178	520	-----	228	264	224	a360	156	108	885
31	465	---	173	644	-----	221	-----	218	-----	147	105	---
Total	8,006	5,998	6,111	6,262	11,282	10,014	17,483	7,840	12,765	6,137	4,541	19,719
Mean	258	200	197	202	402	323	583	253	426	198	146	657
Cfsm	0.992	0.769	0.758	0.777	1.55	1.24	2.24	0.973	1.64	0.762	0.562	2.53
In.	1.15	0.87	0.87	0.90	1.61	1.43	2.50	1.12	1.83	0.88	0.65	2.82

Calendar year 1956: Max 3,020 Min 36 Mean 195 Cfsm 0.750 In. 10.20
Water year 1956-57: Max 7,760 Min 90 Mean 318 Cfsm 1.22 In. 16.62

Peak discharge (base, 3,500 cfs).--Apr. 5 (4 p.m.) 5,280 cfs (6.47 ft); Sept. 17 (1 p.m.) 13,200 cfs (10.00 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.

b Stage-discharge relation affected by ice.

Dan River near Wentworth, N. C.

Location.--Lat 36°25', long 79°50', on right bank 600 ft downstream from Settles Bridge, $\frac{3}{4}$ miles northwest of Wentworth, Rockingham County, and $7\frac{1}{2}$ miles downstream from Mayo River.

Drainage area.--1,050 sq mi, approximately.

Records available.--November 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 518 ft (by barometer). Prior to Aug. 3, 1949, at site 150 ft upstream at same datum.

Average discharge.--18 years, 1,135 cfs.

Extremes.--Maximum discharge during year, 21,500 cfs Sept. 18 (gage height, 22.38 ft); minimum, 242 cfs Oct. 13 (gage height, 1.75 ft); minimum daily, 285 cfs Oct. 13.
1939-57: Maximum discharge, 56,800 cfs Sept. 18, 1945 (gage height, 27.78 ft), from rating curve extended above 16,500 cfs on basis of slope-area determination of peak flow at gage height 26.9 ft and runoff comparisons; minimum, 65 cfs Oct. 8, 1954 (gage height, 0.93 ft); minimum daily, 107 cfs Oct. 2, 1954.
Flood in 1908 reached a stage about 7 ft higher than that of Sept. 18, 1945, and flood in 1937 reached a stage of 29.8 ft, from information by local residents.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Slight diurnal fluctuation and regulation at low flow caused by powerplants above station.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 21-30)

1.9	282	7.0	3,060
2.0	510	14.0	9,500
3.0	675	21.0	18,400
4.0	1,120		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	675	a1,200	a450	675	12,000	5,010	862	862	595	775	586	593
2	506	a985	a450	655	8,590	2,560	1,040	*818	595	675	750	351
3	* 471	a720	a445	576	3,130	1,750	1,360	818	715	595	506	332
4	438	a700	a440	576	2,280	1,450	1,100	755	675	595	456	*304
5	416	a640	a435	635	1,810	1,240	5,800	775	2,130	576	675	338
6	416	a610	*430	615	*1,570	1,120	15,200	795	3,340	556	517	416
7	413	a590	438	595	1,450	1,070	3,970	755	1,510	513	390	908
8	396	a560	399	595	1,480	1,390	3,770	715	975	521	*354	1,190
9	351	a540	410	556	2,630	1,510	10,600	715	818	487	347	1,360
10	335	a510	427	556	2,770	1,170	3,520	675	795	483	526	1,040
11	310	521	406	556	2,000	1,070	2,350	675	735	490	315	775
12	304	544	410	517	1,570	1,020	1,870	735	715	456	319	595
13	285	513	413	517	1,330	952	1,690	735	675	427	360	556
14	295	479	574	536	1,200	930	1,510	635	1,070	416	373	494
15	310	*464	4,960	517	1,100	1,450	1,390	1,160	1,570	424	370	1,200
16	302	471	7,020	487	1,020	1,690	1,270	862	975	449	1,100	735
17	287	587	1,690	490	975	1,220	1,170	675	1,160	434	521	8,340
18	a285	1,330	1,120	347	908	1,100	1,200	635	2,530	1,320	1,090	*17,700
19	a310	a915	*998	360	885	1,070	1,170	655	1,120	1,810	1,360	2,980
20	a335	755	840	502	1,270	1,070	1,120	1,050	795	675	775	1,750
21	a380	a675	795	595	1,140	*975	1,070	980	715	540	556	1,330
22	a3,000	a715	908	635	975	1,120	1,120	715	1,910	521	475	1,040
23	a3,200	a635	1,420	889	908	1,570	1,510	695	3,700	556	434	1,680
24	a1,400	a555	2,350	1,420	885	1,240	1,240	675	930	818	396	1,140
25	a780	a520	1,930	930	885	1,140	1,100	635	1,340	595	416	862
26	a650	a490	1,220	755	1,090	1,070	1,040	556	2,410	479	509	755
27	a2,700	a480	998	715	2,320	1,020	952	1,160	1,700	456	434	556
28	2,500	a470	885	775	1,930	975	908	1,670	1,020	605	393	655
29	975	a460	818	1,160	-	930	908	840	1,330	552	380	896
30	795	a455	715	3,400	-----	885	908	675	952	430	373	2,880
31	a1,200	-----	675	4,100	-----	840	-----	635	-----	410	373	-----
Total	25,018	18,979	35,469	26,237	60,101	41,607	72,718	25,336	39,500	18,617	16,041	53,670
Mean	807	633	1,144	846	2,146	1,342	2,424	817	1,317	601	517	1,789
Cfsm	0.769	0.603	1.09	0.806	2.04	1.28	2.31	0.778	1.25	0.572	0.492	1.70
n.	0.89	0.67	1.26	0.93	2.13	1.47	2.58	0.90	1.40	0.66	0.57	1.90

Calendar year 1956: Max 11,800 Min 136 Mean 777 Cfsm 0.740 In. 10.08
Water year 1956-57: Max 17,700 Min 285 Mean 1,187 Cfsm 1.13 In. 15.36

Peak discharge (base, 12,000 cfs).--Feb. 1 (1 p.m.) 12,600 cfs (16.82 ft); Apr. 6 (12 m.) 16,800 cfs (20.11 ft); Apr. 9 (12 m.) 12,800 cfs (15.91 ft); Sept. 18 (8 a.m.) 21,500 cfs (22.38 ft).

* Discharge measurement made on this day

No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for nearby stations.

Smith River near Philpott, Va.

Location.--Lat 36°47', long 80°02', on left bank 900 ft downstream from Philpott Dam, 3.1 miles west of Philpott, Henry County, and 10.9 miles upstream from Reed Creek.

Drainage area.--212 sq mi.

Records available.--August 1946 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 804.27 ft above mean sea level (Corps of Engineers benchmark). Prior to Oct. 8, 1952, at site 1.9 miles downstream at different datum.

Average discharge.--11 years, 283 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 1,340 cfs June 7 (gage height, 5.03 ft); minimum, 6.8 cfs Jan. 17 (gage height, 1.78 ft); minimum daily, 34 cfs Jan. 19, 20, 1946-57; Maximum discharge, 17,000 cfs June 29, 1949 (gage height, 20.3 ft, datum then in use), from rating curve extended above 9,700 cfs on basis of slope-area determinations at gage heights 18.2 and 20.3 ft; minimum, 4 cfs Aug. 12, 1953 (gage height, 1.50 ft); minimum daily, that of Jan. 19, 20, 1957.

Remarks.--Records good. Flow regulated since August 1950 by Philpott Reservoir (usable capacity, 145,200 acre-ft).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	128	39	62	120	119	137	264	51	281	250	60
2	144	117	39	123	39	45	118	260	51	235	243	234
3	134	40	117	116	39	45	114	241	234	233	54	284
4	138	40	122	130	116	136	125	51	240	52	56	250
5	134	120	118	40	117	132	128	50	242	232	274	241
6	47	122	116	40	116	134	54	270	566	52	248	248
7	47	124	118	116	112	133	52	266	560	52	*242	60
8	134	124	42	121	121	133	122	264	51	239	240	62
9	108	118	42	124	39	45	122	266	51	232	240	292
10	101	40	130	122	39	45	124	254	390	*249	62	260
11	120	46	130	116	113	127	124	50	378	254	64	*235
12	138	124	132	40	120	108	118	50	376	236	277	242
13	56	*120	132	40	118	119	54	250	394	52	254	246
14	56	120	132	*118	118	115	52	272	387	52	250	46
15	138	118	41	122	132	122	120	256	51	234	241	48
16	133	113	40	116	39	45	*124	250	51	242	251	280
17	136	40	*130	120	39	45	120	266	284	241	62	229
18	138	40	*136	116	135	*118	125	50	523	236	62	820
19	138	118	126	34	130	116	132	50	531	232	254	1,200
20	57	122	124	34	134	114	52	*252	502	52	250	1,020
21	57	125	126	116	142	118	52	272	528	52	246	45
22	139	120	40	123	131	122	119	269	51	230	249	45
23	126	125	40	109	45	48	118	250	52	222	258	614
24	*129	40	118	116	45	48	128	258	286	244	62	624
25	126	40	117	120	136	124	122	50	280	240	62	620
26	125	119	119	39	*128	122	122	50	284	246	250	622
27	44	121	118	39	136	123	52	260	276	52	250	616
28	40	144	114	116	140	120	54	248	278	54	256	45
29	125	118	39	116	-	120	128	242	52	247	253	45
30	*124	120	39	116	-----	40	122	92	52	250	257	341
31	129	-----	124	116	-----	40	-----	272	-----	260	60	-----
Total	3,403	3,006	3,000	2,976	2,839	3,021	3,134	6,195	8,052	5,785	6,077	9,974
Mean	110	100	96.8	96.0	101	97.5	104	200	268	187	196	332
(†)	+179	+135	+76	+88	+358	+228	+540	0	0	-59	-108	+181

Adjusted for change in contents in Philpott Reservoir

Mean	289	235	173	184	459	326	644	200	268	128	88	513
Cfs	1.36	1.11	0.816	0.868	2.17	1.54	3.04	0.943	1.26	0.604	0.415	2.42
In.	1.57	1.24	0.94	1.00	2.26	1.78	3.39	1.09	1.41	0.70	0.48	2.70

		Observed				Adjusted						
Calendar year 1956:	Max	394	Min	39	Mean	188	Mean	165	Cfsm	0.778	In.	10.61
Water year 1956-57:	Max	1,200	Min	34	Mean	157	Mean	289	Cfsm	1.36	In.	18.56

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir; furnished by Corps of Engineers.

Smith River at Bassett, Va.

Location.--Lat 36°46'15", long 80°00'00", on left bank 5 ft upstream from highway bridge at north edge of Town Bassett, 1.0 mile northwest of Bassett, Henry County, 3.0 miles downstream from Town Creek, and 5.6 miles upstream from Reed Creek.

Drainage area.--253 sq mi.

Records available.--April 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 753.09 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--18 years, 339 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 5,350 cfs Sept. 17 (gage height, 6.49 ft); minimum, 46 cfs Jan. 18; minimum daily, 54 cfs Jan. 20.
1939-57: Maximum discharge, 26,600 cfs Aug. 14, 1940 (gage height, 18.28 ft); minimum, 19 cfs July 19, 1956 (gage height, 1.25 ft); minimum daily, that of Jan. 20, 1957.
Maximum stage known, about 22.9 ft Oct. 19, 1937, from information by local residents (discharge, 38,200 cfs, from rating curve extended above 24,000 cfs on basis of backwater studies and records for station at Martinsville).

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated since August 1950 by Philpott Reservoir (usable capacity, 145,200 acre-ft).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-31

Nov. 1 to Sept. 30

1.6	67	1.5	40	2.5	360
1.9	128	1.7	85	3.0	620
2.2	215	2.0	175	4.0	1,650
2.6	380				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	198	80	90	298	312	a160	351	68	280	262	70
2	142	174	52	142	228	154	a150	352	68	245	255	242
3	144	87	144	142	157	130	a150	334	262	236	60	294
4	144	80	142	150	212	198	a160	97	252	72	70	242
5	144	154	144	75	192	192	a160	97	526	a250	300	243
6	71	156	142	68	180	187	a100	324	652	a70	266	320
7	67	153	147	147	174	192	a95	340	683	a70	*269	156
8	145	154	68	142	118	215	a150	354	138	a250	242	110
9	117	148	65	154	318	115	a150	308	94	a260	244	384
10	114	68	156	158	179	106	a160	315	455	*a260	72	304
11	130	70	154	149	206	166	a160	78	432	245	70	256
12	141	146	154	72	188	168	a150	78	430	240	274	250
13	76	*142	162	68	178	162	a100	318	449	70	252	246
14	76	146	167	142	172	162	a95	332	744	68	240	90
15	144	148	109	*146	180	182	a150	324	127	240	245	91
16	151	143	91	146	94	97	a150	336	94	240	248	660
17	146	138	164	136	82	94	a140	318	346	242	72	1,480
18	147	130	*172	134	170	154	a150	75	574	312	97	1,000
19	146	167	162	56	182	*a150	162	78	593	255	277	1,440
20	78	161	162	54	203	a150	115	330	*579	75	252	*1,340
21	104	154	166	136	190	162	118	*294	566	72	255	120
22	335	152	78	149	182	171	179	282	98	243	250	129
23	224	159	80	181	94	103	196	309	78	255	244	664
24	*159	75	183	160	85	100	182	300	290	268	72	706
25	152	68	174	156	172	164	177	68	306	255	75	690
26	150	146	162	80	*327	a160	174	68	303	254	259	692
27	324	154	160	72	254	a160	106	354	292	65	252	675
28	116	160	155	152	314	a150	106	297	296	60	248	90
29	165	154	72	192	-	a150	204	287	94	245	245	159
30	166	149	68	218	-----	a100	204	114	78	248	243	500
31	*208	-----	148	258	-----	a100	-----	303	-----	248	70	-----
Total	4,576	4,134	4,093	4,125	5,329	4,806	4,473	7,815	9,967	6,193	6,280	13,623
Mean	148	138	132	133	190	155	149	252	332	200	203	454
(†)	+179	+135	+76	+88	+358	+228	+540	0	0	-59	-108	+181

Adjusted for change in contents in Philpott Reservoir

Mean	327	273	208	221	248	383	689	252	332	141	95	635
Cfs	1.29	1.08	0.82	0.874	2.17	1.51	2.72	0.996	1.31	0.557	0.375	2.51
In.	1.48	1.20	0.95	1.01	2.46	1.74	3.04	1.15	1.46	0.64	0.43	2.80

		Observed				Adjusted						
Calendar year 1956:	Max	770	Min	61	Mean	226	Mean	203	Cfs	0.802	In.	10.91
Water year 1956-57:	Max	1,480	Min	54	Mean	206	Mean	338	Cfs	1.34	In.	18.17

Peak discharge (base, 4,580 cfs)--Sept. 17 (2:30 a.m.) 5,350 cfs (6.49 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir; furnished by Corps of Engineers.

a No gage-height record; discharge estimated on basis of weather records and records for station near Philpott.

Smith River at Martinsville, Va.

Location.--Lat 36°39'45", long 79°52'55", on right bank 800 ft downstream from bridge on U. S. Highways 58 and 220, at south edge of Martinsville, Henry County, and 5.0 miles downstream from Beaver Creek.

Drainage area.--374 sq mi.

Records available.--August 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 657.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--28 years, 450 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 10,900 cfs Sept. 17 (gage height, 10.10 ft); minimum, 18 cfs Sept. 28 (gage height, 1.48 ft); minimum daily, 47 cfs Oct. 14, Nov. 25, Dec. 2, 30, Jan. 20.

1929-57: Maximum discharge, 39,000 cfs Oct. 19, 1937 (gage height, 21.50 ft), from rating curve extended above 14,000 cfs on basis of computations of flow over dam at gage heights 16.76 and 21.50 ft; minimum, 3.8 cfs Mar. 19, 1955 (gage height, 1.14 ft); minimum daily, 19 cfs Oct. 6, 1935.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Philpott Reservoir since August 1950 (usable capacity, 145,200 acre-ft). Some additional regulation by powerplant 1,000 ft above station.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 1032: 1933-35(M), 1936-39, 1940-41(P).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-26		Oct. 27 to June 4		June 5 to Sept. 30	
1.6	35	1.6	35	1.6	35
1.8	86	1.8	86	1.8	86
2.0	152	2.0	152	2.0	152
2.5	403	2.2	250	2.4	320
3.0	790	2.5	440	3.0	740
4.0	1,720	3.0	800	4.0	1,720
		4.0	1,720	5.0	2,860
		5.0	2,860	8.0	7,400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	220	367	166	158	768	864	262	362	210	350	300	57
2	222	272	47	192	722	412	422	420	189	297	270	287
3	174	202	201	165	340	239	302	366	372	330	230	353
4	206	143	187	200	415	278	248	206	368	126	90	292
5	204	226	195	176	332	282	2,510	159	1,160	292	280	312
6	172	218	186	100	282	288	1,100	377	778	160	260	648
7	64	218	198	164	294	266	413	362	732	82	230	511
8	190	222	158	158	318	546	564	368	375	300	250	285
9	154	198	70	181	674	270	994	362	184	288	230	*624
10	146	178	192	209	468	163	559	361	472	318	230	506
11	194	78	192	205	350	256	372	177	496	287	80	372
12	168	194	194	205	317	248	304	133	481	307	230	337
13	168	185	211	102	269	239	243	366	476	152	*240	320
14	47	*194	270	186	264	248	214	454	740	68	254	426
15	168	184	350	*176	294	256	256	576	256	292	305	454
16	175	206	252	186	211	264	258	405	166	*290	312	416
17	170	315	196	186	115	130	248	378	388	302	157	6,140
18	182	222	*285	194	258	235	*244	194	536	525	158	*1,370
19	197	270	220	150	270	*244	247	146	636	430	396	1,570
20	162	246	236	47	332	230	177	436	*618	200	312	1,470
21	196	234	234	202	290	230	180	*408	624	90	314	400
22	1,360	234	206	200	282	305	324	418	323	270	303	204
23	1,110	201	140	293	198	197	476	400	95	290	314	518
24	*329	202	311	253	126	160	268	392	338	320	158	725
25	268	47	318	240	*272	262	270	204	385	300	91	744
26	252	213	252	163	472	232	222	247	425	290	301	686
27	904	196	242	102	558	228	210	550	386	200	307	715
28	314	217	236	236	509	219	180	474	384	80	304	368
29	300	208	218	357		222	255	402	228	260	300	304
30	296	194	47	509	-----	172	422	197	108	250	302	775
31	366	-----	234	510	-----	93	-----	414	-----	240	183	-----
Total	9,078	6,271	6,405	6,383	10,020	8,078	12,744	10,774	12,939	7,986	7,731	22,180
Mean	293	209	207	206	358	261	425	348	431	258	249	740
(†)	+179	+135	+76	+88	+358	+228	+540	0	0	-59	-108	+181

Adjusted for change in contents in Philpott Reservoir

Mean	472	344	283	294	716	489	965	348	431	199	141	921
Cfs/m	1.26	0.920	0.757	0.766	1.91	1.31	2.58	0.930	1.15	0.532	0.377	2.46
In.	1.45	1.03	0.87	0.91	1.99	1.51	2.88	1.07	1.28	0.61	0.43	2.74

		Observed				Adjusted						
Calendar year 1956:	Max	1,980	Min	40	Mean	313	Mean	290	Cfs/m	0.775	In.	10.55
Water year 1956-57:	Max	6,140	Min	47	Mean	330	Mean	462	Cfs/m	1.24	In.	16.77

Peak discharge (base, 6,500 cfs).--Sept. 17 (8 a.m.) 10,900 cfs (10.10 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir; furnished by Corps of Engineers.

Note.--No gage-height record July 8, July 19 to Aug. 13; discharge estimated on basis of records for station at Spray, N. C.

Smith River at Spray, N. C.

Location.--Lat 36°31'45", long 79°46'10", on right bank 0.9 mile south of Virginia-North Carolina State line, 1 mile downstream from Stuart Creek, and 1 mile north of Spray, Rockingham County.

Drainage area.--538 sq mi.

Records available.--October 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 539.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--18 years, 601 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 11,800 cfs Sept. 17 (gage height, 10.58 ft); minimum, 80 cfs Aug. 12 (gage height, 1.50 ft); minimum daily, 127 cfs Aug. 11, 1939-57; Maximum discharge, 45,600 cfs Aug. 15, 1940 (gage height, 19.28 ft), from rating curve extended above 12,000 cfs on basis of computation of peak flow over dam 1½ miles downstream; minimum, 60 cfs Oct. 12, 1953; minimum daily, 66 cfs Sept. 10, 1944.

Remarks.--Records good. Flow regulated since August 1950 by Philpott Reservoir (usable capacity, 145,200 acre-ft). Some additional regulation by powerplant at Martinsville, Va.

Revisions (water years).--WSP 1433: 1946.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 28,
Sept. 19-30

May 29 to Sept. 18

1.8	149	4.0	1,690	1.7	114	4.0	1,690
2.0	212	6.0	3,840	2.1	222	6.0	3,840
2.5	460	9.0	8,400	2.5	425	9.0	8,400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	265	475	240	284	1,760	1,650	300	445	505	276	325	141
2	235	385	175	212	1,560	790	556	558	204	433	348	130
3	*247	331	171	213	717	454	536	539	396	371	312	302
4	239	199	245	264	652	399	393	504	476	378	138	350
5	236	265	239	267	530	398	3,610	257	1,890	160	262	311
6	263	268	242	191	442	376	2,750	296	1,830	446	346	631
7	154	274	228	191	415	376	864	520	1,170	157	295	875
8	161	264	245	235	434	573	1,500	505	914	194	311	361
9	203	256	182	235	944	523	2,500	500	315	354	302	635
10	180	255	176	259	1,030	306	919	486	380	369	304	817
11	189	157	220	*268	534	304	631	492	656	364	127	471
12	213	205	232	250	509	354	531	231	644	346	143	406
13	220	243	253	203	420	330	506	295	624	366	307	373
14	150	232	304	209	376	326	392	579	744	150	301	367
15	133	*250	2,100	223	347	418	370	1,130	760	189	312	812
16	198	233	1,300	235	359	431	406	561	259	329	313	294
17	198	380	463	235	227	235	368	514	282	346	303	7,520
18	211	560	377	234	260	317	398	490	645	533	191	3,020
19	231	349	343	236	339	*332	400	254	834	563	383	2,020
20	224	330	317	163	483	344	388	430	791	397	405	1,740
21	180	319	308	172	383	324	316	557	745	152	336	1,000
22	1,270	340	308	252	358	365	350	534	716	*177	330	331
23	2,470	286	240	361	322	429	787	577	170	346	318	355
24	664	271	603	337	222	292	*477	538	241	371	325	884
25	369	194	549	297	273	295	433	495	473	357	133	864
26	334	195	391	286	522	349	392	393	629	335	190	832
27	1,200	268	349	169	894	330	395	1,490	590	337	320	836
28	706	263	321	259	714	322	280	865	553	147	512	783
29	397	277	308	516	317	333	*577	727	160	320	325	525
30	375	260	198	984	-----	308	628	514	199	316	304	951
31	411	-----	189	1,020	-----	195	-----	340	-----	308	312	-----
Total	12,546	8,584	11,796	9,260	16,026	12,760	22,829	16,416	19,362	9,727	8,928	28,737
Mean	405	286	381	299	572	412	761	530	645	314	288	958
Cfsam	+179	+135	-76	+88	+358	+228	+540	0	0	-59	-108	+181

Adjusted for change in contents in Philpott Reservoir

	584	421	457	587	930	640	1,301	530	645	255	180	1,139
Mean	1.09	0.783	0.849	0.719	1.73	1.19	2.42	0.985	1.20	0.474	0.335	2.12
Cfsam	1.26	0.87	0.98	0.83	1.80	1.37	2.70	1.14	1.34	0.55	0.39	2.36

	Observed				Adjusted			
Calendar year 1956:	Max	3,360	Min	93	Mean	380	Cfsam	0.706 In.
Water year 1956-57:	Max	7,520	Min	127	Mean	617	Cfsam	1.15 In.

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir; furnished by Corps of Engineers.

Sandy River near Danville, Va.

Location.--Lat 36°37'10", long 79°30'10", on right bank 200 ft downstream from Hickory Forest Creek, 400 ft upstream from bridge on road between Callahans Store and Mount Cross, 5.5 miles northwest of western corporate limits of Danville, Pittsylvania County, and 5.8 miles upstream from mouth.

Drainage area.--113 sq mi.

Records available.--November 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 460.38 ft above mean sea level, unadjusted. Prior to June 26, 1942, at site 1,200 ft downstream at datum 5.57 ft lower.

Average discharge.--27 years (1930-57), 101 cfs.

Extremes.--Maximum discharge during year, 3,260 cfs Apr. 8 (gage height, 5.94 ft); minimum, 10 cfs Aug. 14, 17, 18 (gage height, 1.05 ft); minimum daily, 14 cfs Aug. 14.
1929-57: Maximum discharge, 23,000 cfs Aug. 14, 1940 (gage height, 14.8 ft, present datum, from floodmarks), from rating curve extended above 3,600 cfs by logarithmic plotting; minimum, 3 cfs Sept. 29, 1930 (gage height, 0.40 ft, site and datum then in use); minimum daily, 8 cfs Aug. 29, 31, Sept. 1, 2, 1932.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Diurnal fluctuation at low flow caused by small mill above station.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Revisions (water years).--WSP 972: 1930-41.

Rating table, water year 1956-57 (gage height, in feet, and discharge,
in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 18, 19)

1.1	13	2.5	350
1.2	18	3.0	595
1.5	80	4.0	1,190
2.0	203	5.0	2,050

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	200	58	78	894	309	82	82	56	52	20	24
2	50	150	58	73	576	187	104	80	58	46	20	22
3	46	120	58	70	245	133	90	76	67	46	18	18
4	44	90	58	73	200	116	82	71	58	44	20	18
5	42	80	58	78	157	106	986	70	280	44	36	22
6	48	70	*57	78	138	99	701	68	226	46	34	177
7	45	65	58	71	128	97	211	62	142	40	24	114
8	40	60	54	67	138	177	1,120	60	87	32	22	76
9	*38	58	54	69	326	142	*1,210	60	80	36	20	162
10	36	54	54	73	265	111	262	58	76	40	17	*109
11	34	52	52	67	174	102	187	58	71	34	16	80
12	36	50	52	65	140	97	157	58	65	30	17	54
13	38	*47	54	65	123	*92	152	60	60	30	*16	48
14	42	46	76	62	114	92	135	*62	54	28	14	42
15	42	44	732	*62	104	165	123	76	54	*30	16	104
16	36	44	955	65	102	140	116	62	50	30	20	76
17	34	99	242	62	94	114	114	54	48	28	16	1,280
18	38	170	160	60	90	104	109	58	67	65	46	*564
19	52	106	123	62	*89	104	106	54	52	54	87	180
20	54	90	109	65	126	97	104	76	48	36	46	123
21	147	88	102	71	94	90	104	65	*42	32	28	94
22	700	80	111	73	87	106	104	58	42	28	22	80
23	300	75	147	99	82	116	109	60	42	30	24	71
24	150	72	234	73	80	99	104	56	40	38	22	60
25	90	70	162	69	80	94	99	52	54	32	42	54
26	70	68	123	69	170	92	92	69	62	26	38	52
27	500	64	111	71	164	87	87	250	62	30	24	48
28	250	62	102	80	185	85	80	104	95	28	22	46
29	120	60	94	199	-	80	90	69	138	22	22	87
30	130	60	87	300	-	78	116	60	62	24	22	150
31	350	-	82	364	-	78	-	58	-	22	18	-
Total	3,656	2,394	4,475	2,631	4,975	3,589	7,136	2,202	2,316	1,103	809	4,035
Mean	118	79.8	144	91.3	178	116	238	71.0	77.2	35.6	26.1	134
Cfsm	1.04	0.706	1.27	0.808	1.58	1.03	2.11	0.628	0.683	0.315	0.231	1.19
In.	1.20	0.79	1.46	0.93	1.64	1.19	2.35	0.72	0.76	0.36	0.27	1.33

Calendar year 1956: Max 955 Min 14 Mean 88.7 Cfsm 0.785 In. 10.65

Water year 1956-57: Max 1,280 Min 14 Mean 108 Cfsm 0.956 In. 13.00

Peak discharge (base, 1,500 cfs).--Oct. 22 (time unknown) 1,570 cfs (4.52 ft); Dec. 15 (8:30 p.m.) 2,050 cfs (4.97 ft); Apr. 8 (5:30 p.m.) 1,950 cfs (4.88 ft); Apr. 8 (9:30 p.m.) 3,260 cfs (5.94 ft); Sept. 17 (time unknown) 2,270 cfs (5.18 ft).

* Discharge measurements made on this day.

Note.--No gage-height record Oct. 4-9, Oct. 22 to Nov. 13, Nov. 21 to Dec. 6, May 5-14, Sept. 17, 18; discharge estimated on basis of records for North Mayo River near Spencer and nearby stations.

Dan River at Danville, Va.

Location.--Lat 36°35'15", long 79°22'55", on left bank 50 ft downstream from Southern Railway bridge in Danville, Pittsylvania County, 1,000 ft upstream from Fall Creek, and at mile 62.7.

Drainage area.--2,050 sq mi, approximately.

Records available.--August 1934 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 379.29 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--23 years, 2,306 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 25,500 cfs Sept. 19 (gage height, 11.82 ft); minimum, 278 cfs Dec. 3 (gage height, 1.66 ft); minimum daily, 530 cfs Aug. 9.
1934-57: Maximum discharge, 75,000 cfs Aug. 15, 1940 (gage height, 20.96 ft); minimum, 40 cfs Dec. 8, 1946 (gage height, 1.19 ft); minimum daily, 245 cfs Sept. 14, 1954.

Remarks.--Records good except those for periods of no gage-height record or indefinite stage-discharge relation, which are fair. Diurnal fluctuation caused by cotton mills above station. Flow regulated since August 1950 by Philpott Reservoir on Smith River (usable capacity, 145,200 acre-ft).

Revisions (water years).--WSP 972: 1936.

Rating table, water year 1956-57, except period of indefinite stage-discharge relation (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 19-30)

2.1	480	4.0	3,300
2.5	790	9.0	17,400
3.0	1,300	11.0	23,900

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	a2,300	950	1,210	16,800	7,960	1,160	1,900	1,180	a1,300	805	735
2	1,030	a2,300	1,080	1,140	19,600	6,420	1,420	1,620	1,050	a1,100	875	645
3	820	a1,700	680	1,120	9,640	3,520	1,980	1,650	1,080	a1,100	1,280	625
4	790	a1,600	940	1,000	5,440	2,480	1,800	1,570	1,320	a1,000	570	755
5	770	a1,100	925	1,090	4,220	2,090	7,060	1,350	2,280	a1,000	1,080	765
6	790	a1,300	*920	1,060	3,180	1,840	21,900	1,300	9,080	a900	1,080	1,030
7	760	a1,100	895	1,040	2,770	1,710	15,000	1,470	5,530	a900	890	1,800
8	665	a1,100	935	1,040	2,660	2,220	5,440	1,450	2,710	a800	*845	2,090
9	*705	a1,100	830	1,020	4,880	2,800	*17,400	1,420	1,680	a650	530	2,340
10	655	a1,000	785	1,010	6,980	2,180	11,300	1,400	1,370	a900	635	2,990
11	645	a950	905	1,060	5,020	1,660	5,440	1,390	1,600	*a900	715	1,740
12	625	a950	865	1,050	3,420	1,640	3,840	1,290	1,500	895	585	*1,240
13	670	*a900	885	920	2,800	1,500	3,260	1,230	1,440	845	565	1,020
14	585	975	955	940	2,310	1,420	2,960	*1,320	1,360	725	755	1,020
15	590	950	3,780	*980	2,040	2,120	2,540	1,980	2,700	670	815	1,140
16	605	925	15,900	935	1,850	2,860	2,370	2,410	1,800	780	920	2,030
17	690	1,220	6,280	945	1,710	2,210	2,170	1,460	1,390	835	1,480	e7,600
18	590	2,680	2,480	875	1,540	1,670	2,120	1,300	2,390	1,030	900	e23,000
19	755	2,460	1,940	630	*1,660	1,620	2,120	1,140	3,450	3,260	2,460	16,500
20	690	1,580	1,480	770	2,210	1,640	1,940	1,170	1,920	1,740	1,600	5,720
21	900	1,410	1,390	940	2,480	1,500	2,050	2,040	1,520	920	1,160	4,100
22	4,320	1,680	1,450	1,110	1,910	1,550	1,770	1,520	1,570	780	960	1,960
23	9,640	1,490	2,200	1,230	1,720	2,360	3,320	1,360	5,300	835	910	1,580
24	4,440	1,210	4,150	2,040	1,520	2,180	2,920	1,340	2,350	1,060	860	3,000
25	1,840	1,120	4,640	1,830	1,440	1,690	2,140	2,160	1,700	1,240	905	2,160
26	1,280	985	3,020	1,340	2,130	1,710	1,920	1,200	3,380	995	780	1,820
27	3,660	1,120	2,040	1,180	3,690	1,560	1,680	3,070	3,140	880	905	1,700
28	5,580	1,060	1,690	1,220	4,320	1,500	1,550	5,440	2,160	730	900	1,740
29	2,470	1,000	1,460	1,960	-	1,390	1,460	2,280	2,600	820	800	1,300
30	1,650	1,000	1,360	5,720	-----	1,340	1,820	1,470	1,860	835	845	3,560
31	1,570	-----	1,130	7,120	-----	1,220	-----	1,220	-----	830	785	-----
Total	51,940	40,265	68,940	45,525	120,080	69,560	133,850	52,900	72,460	31,125	29,395	99,705
Mean	1,675	1,342	2,224	1,469	4,289	2,244	4,462	1,706	2,415	1,004	948	3,324
(\bar{x})	+179	+135	+76	+88	+358	+288	+540	0	0	-59	-108	+181

Adjusted for change in contents in Philpott Reservoir

Mean	1,854	1,477	2,300	1,557	4,647	2,472	5,002	1,706	2,415	945	840	3,505
Cfsm	0.904	0.720	1.12	0.760	2.27	1.21	2.44	0.832	1.18	0.461	0.410	1.71
In.	1.04	0.80	1.29	0.88	2.36	1.40	2.72	0.96	1.32	0.53	0.47	1.91

Observed				Adjusted			
Calendar year 1956:	Max 15,900	Min 294	Mean 1,641	Mean 1,618	Cfsm 0.789	In. 10.73	
Water year 1956-57:	Max 23,000	Min 530	Mean 2,235	Mean 2,367	Cfsm 1.15	In. 15.68	

Peak discharge (base, 22,000 cfs).--Apr. 6 (12 m.) 22,900 cfs (10.67 ft); Sept. 19 (3 a.m.) 25,500 cfs (11.82 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir; furnished by Corps of Engineers.

a No gage-height record; discharge estimated on basis of records for station near Paces.

e Stage-discharge relation indefinite; discharge estimated on basis of records for stations near Paces and at South Boston.

Dan River at Paces, Va.

Location.--Lat 36°38'32", long 79°05'23", on right bank 12 ft downstream from highway bridge, 0.5 mile southeast of Paces, Halifax County, 0.5 mile upstream from Big Toby Creek, 2.7 miles upstream from Birch Creek, and at mile 36.0.

Drainage area.--2,550 sq mi, approximately.

Records available.--November 1950 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 317.37 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--6 years (1951-57), 2,283 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 26,100 cfs Feb. 2; minimum gage height, 22.53 ft Feb. 3; minimum discharge, 268 cfs Aug. 14 (gage height, 2.16 ft); minimum daily, 400 cfs Aug. 10.

1950-57: Maximum discharge, 34,000 cfs Oct. 17, 1954 (gage height, 25.40 ft); minimum, 193 cfs Sept. 4, 1956 (gage height, 1.71 ft); minimum daily, 244 cfs Sept. 4, 1956.

Flood of Aug. 16, 1940, reached a stage of 32.3 ft, from levels to floodmark.

Remarks.--Records good. Diurnal fluctuation caused by cotton mills at Danville. Flow regulated since August 1950 by Philpott Reservoir on Smith River (usable capacity, 145,200 acre-ft). Records of water temperatures and suspended sediment loads for the water year 1957 are given in WSP 1520.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 20 to Sept. 30; rate of change in stage used as a factor for most days above 5,000 cfs)

2.3	400
5.0	1,790
12.0	7,400
17.0	14,300
22.0	24,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,670	2,760	1,200	1,400	15,900	8,410	1,670	1,970	1,300	1,670	775	775
2	1,450	2,760	1,220	1,450	23,800	9,050	1,750	1,790	1,500	1,350	750	675
3	1,150	2,250	975	1,400	21,900	5,700	2,110	1,790	1,220	1,400	1,000	555
4	1,080	2,040	1,000	1,350	7,720	3,580	2,460	1,730	1,350	1,250	1,050	540
5	1,050	1,400	1,150	1,300	4,920	2,920	3,940	1,610	3,080	1,220	650	725
6	1,100	1,500	*1,080	1,400	3,960	2,600	17,200	1,400	8,510	1,080	975	3,040
7	1,080	1,450	1,080	1,350	3,400	2,390	21,800	1,400	8,140	1,080	*1,050	1,550
8	950	1,400	1,050	1,300	3,160	2,760	10,700	1,610	3,800	1,020	775	2,680
9	*850	1,400	1,020	1,300	4,680	3,880	17,400	1,500	2,460	825	725	2,600
10	850	1,350	1,000	1,300	6,860	3,320	18,200	1,500	1,790	*1,080	400	2,680
11	725	1,220	950	1,250	5,740	2,460	6,440	1,450	1,670	1,000	530	*2,320
12	725	1,220	1,050	1,250	4,120	*2,250	4,440	1,500	1,910	1,000	600	1,610
13	725	*1,150	1,020	1,180	3,320	2,250	3,640	1,350	1,790	1,020	405	1,250
14	700	1,220	1,080	1,200	2,840	2,110	3,400	*1,350	1,670	900	442	1,100
15	650	1,180	1,610	*1,150	2,460	2,180	2,920	1,450	2,110	775	700	1,020
16	650	1,120	11,100	1,180	2,250	3,400	2,680	2,320	2,760	725	725	1,830
17	675	1,220	9,300	1,120	2,110	3,080	2,530	1,790	1,790	975	1,120	4,240
18	750	3,000	3,480	1,050	1,970	2,390	2,390	1,450	2,250	1,100	1,300	16,700
19	750	3,480	2,320	975	*1,910	2,250	2,390	1,400	3,480	1,870	1,980	22,200
20	1,180	2,320	1,970	775	2,840	2,180	2,250	1,350	2,600	2,940	2,810	10,800
21	1,080	1,850	1,790	1,020	3,000	2,110	2,250	1,670	1,970	1,400	1,610	4,520
22	3,160	1,970	1,850	1,150	2,530	2,040	2,320	1,910	1,730	900	1,100	3,080
23	8,300	1,970	3,080	1,500	2,180	2,920	3,240	1,550	2,520	750	950	2,040
24	6,620	1,670	4,840	2,040	1,970	3,240	3,800	1,450	4,200	1,000	850	2,920
25	2,680	1,400	5,160	2,530	1,850	2,600	2,680	1,790	1,610	1,200	1,390	3,080
26	1,790	1,400	3,880	1,910	3,010	2,320	2,250	1,720	2,320	1,250	2,040	2,180
27	3,880	1,250	2,680	1,610	4,440	2,250	2,040	1,830	3,480	975	1,250	1,970
28	5,960	1,350	2,180	1,610	5,520	2,110	1,910	4,760	2,680	800	1,080	1,790
29	4,120	1,300	1,970	2,040	-	1,970	1,730	3,240	2,320	725	900	2,040
30	2,460	1,220	1,730	4,680	-----	1,850	1,850	1,850	2,530	855	800	2,740
31	2,320	-	1,610	7,670	-----	1,730	-----	1,550	-----	825	800	-----
Total	61,130	50,820	75,425	52,440	150,360	93,660	154,360	55,030	80,540	34,930	31,532	105,350
Mean	1,972	1,694	2,433	1,692	5,370	3,021	5,145	1,775	2,685	1,127	1,017	3,572
(†)	+179	+135	+78	+88	+358	+228	+540	0	0	-59	-108	+181

Adjusted for change in contents in Philpott Reservoir

	Mean	2.151	1.829	2.509	1.760	5.728	3.249	5.685	1.775	2.685	1.068	909	3.693
Cfsm	0.844	0.717	0.984	0.698	2.25	1.27	2.23	0.696	1.05	0.419	0.358	1.45	
In.	0.97	0.80	1.13	0.80	2.34	1.46	2.49	0.80	1.17	0.48	41	1.62	

	Observed				Adjusted			
Calendar year 1956:	Max	16,000	Min	244	Mean	1,918	Mean	1,895
Water year 1956-57:	Max	23,800	Min	400	Mean	2,591	Mean	2,723
							Cfsm	0.743
							Cfsm	1.07
							In.	10.09
							In.	14.47

Peak discharge (base, 22,000 cfs).--Feb. 2 (10 to 11 p.m.) 26,100 cfs (22.53 ft at 1 a.m. Feb. 3); Apr. 7 (11 a.m. to 5 p.m.) 22,600 cfs (21.16 ft from 4 to 5 p.m.); Sept. 19 (4 to 5 p.m.) 23,200 cfs (21.36 ft from 7 to 8 p.m.).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott Reservoir, furnished by Corps of Engineers.

Georges Creek near Gretna, Va.

Location.--Lat 36°56'10", long 79°18'50", on left bank 15 ft downstream from bridge on State Highway 40, 2.8 miles southeast of Gretna, Pittsylvania County, and 5.8 miles upstream from Whitethorn Creek.

Drainage area.--9.2 sq mi, approximately.

Records available.--September 1949 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 629.54 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--8 years, 8.71 cfs.

Extremes.--Maximum discharge during year, 390 cfs Sept. 17 (gage height, 4.60 ft), from rating curve extended above 120 cfs, as explained below; minimum daily, 3.4 cfs Oct. 3, 9.

1949-57: Maximum discharge, 932 cfs Oct. 15, 1954 (gage height, 6.23 ft), from rating curve extended above 120 cfs on basis of slope-area determinations at gage heights, 4.93 and 6.23 ft; minimum daily, 1.0 cfs Mar. 12, Apr. 5, 1956.

Remarks.--Records poor.

Cooperation.--Subsequent to July 1, 1957, station maintained and records computed and furnished by Virginia Department of Conservation and Development, Division of Water Resources.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	7.6	5.7	7.2	4.0	1.8	8.4	6.8	6.9	5.8	3.8	5.6
2	3.5	6.6	5.7	6.9	3.0	1.3	10	6.6	6.7	5.6	3.7	5.9
3	<u>3.4</u>	6.0	*5.7	6.9	15	11	8.4	6.6	6.9	5.5	<u>3.6</u>	6.4
4	3.7	5.7	5.7	7.2	13	10	8.4	6.8	7.3	5.3	4.4	7.6
5	3.7	5.2	5.7	7.9	13	9.4	<u>6.6</u>	6.6	<u>7.1</u>	5.3	4.1	6.6
6	4.4	5.1	5.6	7.2	12	9.0	29	*6.6	35	5.3	4.1	6.6
7	4.1	5.0	5.2	6.6	16	9.7	16	6.4	26	5.1	4.3	13
8	3.5	5.0	5.0	6.3	25	16	36	6.4	58	5.1	4.4	14
9	*3.4	<u>4.8</u>	4.8	7.2	20	12	*29	6.1	22	5.0	4.4	14
10	3.7	5.0	4.6	8.5	17	10	17	6.1	15	5.1	4.4	*12
11	3.9	5.4	<u>4.5</u>	6.6	14	9.4	14	6.4	13	4.9	4.4	9.9
12	4.1	5.8	4.6	6.3	11	9.0	13	6.3	12	4.9	4.4	10
13	4.3	*5.8	4.6	6.0	9.0	8.4	16	5.9	9.9	4.8	4.4	9.1
14	4.3	5.8	5.4	5.8	8.0	*9.0	13	5.8	9.5	4.7	*4.5	8.8
15	4.3	5.8	<u>3.0</u>	*5.7	7.5	12	12	6.3	8.8	*4.7	4.9	9.5
16	4.3	5.8	24	5.7	7.2	9.7	12	5.8	8.0	4.7	5.0	22
17	4.4	<u>2.0</u>	15	5.2	<u>7.0</u>	8.7	12	<u>5.6</u>	8.0	5.0	4.7	*115
18	4.6	15	10	5.0	7.0	8.4	12	5.8	7.6	6.3	12	22
19	4.8	8.8	8.5	<u>4.6</u>	*15	8.7	12	<u>4.4</u>	*6.6	5.2	<u>2.1</u>	13
20	5.0	7.6	7.9	5.0	12	8.1	12	38	5.8	4.9	8.0	9.9
21	13	7.6	7.9	7.0	9.7	7.4	11	12	5.6	4.8	6.4	8.8
22	<u>5.0</u>	8.5	8.5	10	9.0	11	12	11	5.6	4.7	6.1	8.0
23	47	7.2	15	9.0	8.7	11	11	9.9	5.5	13	6.1	7.3
24	9.1	6.6	18	7.5	8.4	9.0	12	8.0	<u>5.3</u>	<u>4.4</u>	6.1	6.9
25	6.9	6.2	13	6.6	8.4	8.4	12	7.3	16	4.4	6.9	6.7
26	6.0	6.0	9.1	6.0	18	8.1	9.7	6.9	8.4	4.1	6.7	6.6
27	36	5.8	8.8	7.0	13	7.8	8.7	17	8.6	4.1	5.9	6.4
28	13	5.8	8.2	13	16	7.4	8.4	9.9	11	4.1	5.6	6.4
29	7.9	5.8	7.9	20	-	7.4	7.4	8.0	8.0	3.9	5.8	17
30	7.2	5.7	7.9	15	-----	7.8	<u>7.1</u>	7.6	6.1	<u>3.8</u>	5.9	15
31	8.5	--	7.6	<u>3.0</u>	-----	7.4	-----	7.3	-----	3.8	5.6	-----
Total	285.7	207.0	280.1	259.1	389.9	302.2	457.5	299.8	422.1	197.9	181.6	410.0
Mean	9.22	6.90	9.04	8.36	13.9	9.75	15.2	9.67	14.1	6.33	5.86	15.7
Cfsm	1.00	0.750	0.983	0.909	1.51	1.06	1.65	1.05	1.53	0.693	0.637	1.49
In.	1.15	0.84	1.13	1.05	1.57	1.22	1.84	1.21	1.71	0.80	0.73	1.66

Calendar year 1956: Max 59 Min 1.0 Mean 6.52 Cfsm 0.709 In. 9.64
 Water year 1956-57: Max 115 Min 3.4 Mean 10.1 Cfsm 1.10 In. 14.91

Peak discharge (base, 150 cfs).--Oct. 23 (12:30 a.m.) 252 cfs (3.91 ft); Apr. 5 (1 p.m.) 200 cfs (3.61 ft); Apr. 8 (10:30 p.m.) 203 cfs (3.63 ft); May 19 (6:30 p.m.) 270 cfs (4.01 ft); June 5 (5 p.m.) 200 cfs (3.58 ft); June 8 (1 a.m.) 225 cfs (3.76 ft); July 24 (2 a.m.) 261 cfs (3.96 ft); Sept. 17 (5 a.m.) 390 cfs (4.60 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 25 to Dec. 2, Jan. 18 to Feb. 19; discharge estimated on basis of records for Banister River at Halifax and Cub Creek at Phenix.

Banister River at Halifax, Va.

Location.--Lat 36°46'35", long 78°54'58", on left bank 10 ft downstream from bridge on U. S. Highway 360, 1,700 ft downstream from Terrible Creek, 1 mile northeast of Halifax, Halifax County, and 10 miles upstream from mouth.

Drainage area.--552 sq mi.

Records available.--September 1904 to December 1905 (gage heights only), December 1928 to September 1957. Published as "near Houston" 1904-5.

Gage.--Water-stage recorder. Datum of gage is 318.54 ft above mean sea level (levels by Corps of Engineers). Sept. 28, 1904, to Dec. 31, 1905, chain gage at site 400 ft upstream at different datum. Dec. 9, 1928, to Sept. 20, 1950, water-stage recorder at site 400 ft upstream at same datum.

Average discharge.--28 years (1929-57), 522 cfs.

Extremes.--Maximum discharge during year, 5,400 cfs Apr. 10 (gage height, 16.80 ft); minimum daily, 18 cfs July 21.

1928-57: Maximum discharge, 50,000 cfs Sept. 20, 1944 (gage height, 40.8 ft, from floodmarks), from rating curve extended above 11,000 cfs on basis of slope-area determination of peak flow and velocity-area study; minimum, 6 cfs on many days in August and September 1932; minimum daily, 6 cfs Aug. 30, 1932.

Remarks.--Records fair. Low and medium flow regulated by powerplant half a mile above station.

Revisions (water years).--WSP 892: 1929-30, 1932-35. WSP 972: 1938(M), 1940. WSP 1112: 1943(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

-0.6	15	1.0	120
-.4	23	2.0	262
0.0	43	4.0	660
.1	48	9.0	2,100
.3	59	16.0	5,000
.5	75		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	446	174	288	2,450	2,530	349	234	182	164	110	206
2	164	248	215	276	2,950	2,060	511	262	151	128	81	315
3	116	280	174	224	2,340	1,000	308	232	151	148	96	28
4	172	211	268	282	1,810	874	394	224	221	143	170	106
5	71	204	147	290	1,070	510	330	179	679	146	61	152
6	132	176	190	239	928	508	3,010	212	1,010	141	92	168
7	131	154	202	301	733	593	3,250	206	980	145	*84	206
8	154	184	166	216	716	623	*823	198	2,340	84	106	410
9	*86	181	162	244	1,210	1,050	4,370	200	2,310	154	54	752
10	114	193	166	297	2,200	928	4,910	182	868	*70	76	656
11	90	157	*182	307	1,390	554	1,960	142	830	121	70	*680
12	106	98	176	244	952	*488	925	185	512	104	80	299
13	84	*218	224	220	747	478	743	206	329	99	51	239
14	100	171	310	*266	584	552	928	157	256	114	84	184
15	106	150	510	274	478	608	452	*214	334	108	97	114
16	108	242	1,240	198	450	904	597	220	225	105	51	243
17	108	344	1,820	252	414	465	405	138	276	119	134	1,070
18	100	844	1,000	130	420	455	482	168	210	247	264	4,240
19	128	890	435	122	*390	462	460	168	208	70	881	1,450
20	166	330	389	224	773	458	428	535	206	209	712	928
21	198	334	283	296	530	404	328	712	196	18	258	862
22	556	658	435	367	533	456	440	172	200	112	160	792
23	392	740	484	342	414	491	440	251	118	118	132	300
24	1,150	364	976	374	334	444	553	266	173	580	134	261
25	656	324	952	286	456	404	362	122	190	663	558	248
26	462	248	695	253	692	388	358	218	232	94	254	170
27	115	300	460	270	1,210	372	238	275	277	158	206	246
28	402	224	425	406	1,120	302	400	536	226	92	136	254
29	1,020	237	321	608	-	386	288	498	262	138	132	270
30	666	274	206	1,420	-----	334	282	644	314	84	159	515
31	324	-----	291	1,510	-----	250	-----	194	-----	111	120	-----
Total	8,294	9,424	13,678	11,026	28,074	20,332	29,325	8,160	14,486	4,785	5,603	16,362
Mean	268	314	441	356	1,003	656	978	263	463	154	181	545
Cfs/m	0.486	0.569	0.799	0.645	1.82	1.19	1.77	0.476	0.875	0.279	0.328	0.987
In.	0.56	0.63	0.92	0.74	1.90	1.37	1.98	0.55	0.98	0.32	0.38	1.10

Calendar year 1956: Max 2,730 Min 26 Mean 324 Cfs/m 0.587 In. 8.00

Water year 1956-57: Max 4,910 Min 18 Mean 465 Cfs/m 0.842 In. 11.43

Peak discharge (base, 5,000 cfs).--Apr. 10 (5 a.m.) 5,400 cfs (16.80 ft).

* Discharge measurement made on this day.

Hyco River near Denniston, Va.

Location.--Lat 36°35'16", long 78°53'56", on left bank 10 ft upstream from bridge on U. S. Highway 501, 0.8 mile upstream from Mayo Creek, 2 miles east of Denniston, Halifax County, and 8 miles south of South Eoston.

Drainage area.--289 sq mi.

Records available.--July 1929 to March 1934, October 1950 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 315.24 ft above mean sea level. July 10, 1929, to Mar. 14, 1934, chain gage at same site and datum.

Average discharge.--11 years (1929-33, 1950-57), 232 cfs.

Extremes.--Maximum gage height during year, 19.92 ft Feb. 2 (discharge not determined); minimum, 1.4 cfs Aug. 15 (gage height, 3.88 ft).

1929-34, 1950-57: Maximum gage height, 21.88 ft Oct. 3, 1929, from graph based on gage readings (discharge uncertain); minimum discharge, 0.004 cfs Sept. 14, 1932 (gage height, 3.58 ft), from discharge measurement.

Floods in August 1928 and September 1945 reached stages of 26.4 and 25.6 ft, respectively, from levels to floodmarks.

Revisions.--The maximum discharge for the water year 1930, published in WSP 1303, 1383 and 1433, is considered to be in error owing to absence of sufficient information to make corrections for backwater from Mayo Creek, and should not be used.

Remarks.--Records good below 1,000 cfs and poor above. Some regulation at low flow, cause unknown.

Revisions (water years).--WSP 1383: Drainage area, 1930.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 10,
Sept. 19-30

Apr. 11 to Sept. 18

4.9	27	3.89	1.5	4.7	20
5.0	32	3.9	1.6	5.0	36
6.0	91	4.0	2.4	6.0	105
7.0	190	4.1	3.3	7.0	215
10.0	680	4.3	6.3	10.0	690
14.0	1,500	4.5	12	14.0	1,500
20.0	6,300				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	851	85	130	3,440	2,400	152	425	54	16	4.8	40
2	67	832	90	113	5,800	2,300	175	50	14	9.7	35	
3	55	347	77	98	5,880	*2,220	162	125	58	13	8.5	36
4	47	229	76	94	4,000	856	146	104	48	12	7.3	31
5	42	174	73	103	1,550	398	179	94	146	9.7	5.9	19
6	42	146	71	108	626	315	851	87	221	8.8	4.7	713
7	55	130	71	98	500	278	775	81	117	8.5	*4.1	1,140
8	*96	110	71	92	466	540	*500	77	67	8.2	3.3	192
9	61	122	70	88	930	910	1,310	70	52	8.5	3.1	170
10	44	169	70	90	1,230	536	1,340	66	50	*8.0	2.8	192
11	38	146	67	89	1,090	330	1,010	63	50	6.3	2.5	*298
12	32	*116	*64	82	608	*270	410	66	46	5.9	2.1	155
13	31	104	64	80	398	242	328	68	43	5.4	1.8	91
14	31	95	65	80	3.5	216	305	66	37	4.9	1.5	65
15	30	88	83	*78	262	229	252	*71	39	4.4	2.0	51
16	30	85	372	76	229	229	215	62	43	3.6	3.6	43
17	30	87	483	77	210	196	192	47	32	5.7	4.4	130
18	32	231	270	74	*184	174	180	46	*32	168	4.4	*970
19	34	322	179	76	179	184	180	45	59	58	155	990
20	145	184	140	77	449	236	165	82	50	20	350	424
21	315	140	125	77	483	196	155	125	40	13	130	196
22	554	146	146	83	292	159	73	37	10	44	117	
23	930	162	695	248	308	554	990	56	77	8.2	23	90
24	1,110	125	1,070	572	203	608	870	53	19	49	16	203
25	548	104	1,150	415	134	398	449	50	16	67	679	162
26	190	100	851	255	533	356	252	55	16	24	1,360	70
27	273	104	356	222	1,230	300	180	260	17	12	890	67
28	756	100	248	216	1,500	242	150	350	19	10	245	55
29	662	92	203	554	-	210	130	160	27	8.0	101	59
30	270	89	168	1,110	184	160	81	21	6.3	6.3	64	424
31	490	-----	140	1,290	-----	168	-----	61	-----	5.4	49	-----
Total	7,129	5,729	7,683	6,845	32,999	16,478	12,300	3,244	1,533	601.8	4,182.5	7,228
Mean	230	191	248	221	1,178	532	410	105	51.1	19.4	135	241
Cfsm	0.796	0.661	0.858	0.765	4.308	1.84	1.42	0.363	0.177	0.067	0.467	0.834
In.	0.92	0.74	0.99	0.88	4.25	2.12	1.58	0.42	0.20	0.08	0.54	0.93

Calendar year 1956: Max 2,030 Min 5.6 Mean 231 Cfsm 0.799 In. 10.89

Water year 1956-57: Max 5,880 Min 1.5 Mean 290 Cfsm 1.00 In. 13.65

Peak discharge (base, 2,500 cfs).--Feb. 2 (12 p.m.) discharge unknown (19.92 ft); Mar. 3 (2 p.m.) discharge unknown (15.99 ft).

* Discharge measurement made on this day.

Roanoke River at Buggs Island, Va.

Location.--Lat 36°36'06", long 78°17'56", on left bank 1,200 ft downstream from John H. Kerr Dam, 2.4 miles upstream from Allens Creek, 5.3 miles upstream from bridge on U. S. Highway 1, 6.7 miles southeast of Boydton, Mecklenburg County, and at mile 178.4.

Drainage area.--7,780 sq mi, approximately.

Records available.--November 1921 to August 1923 (gage heights only), April 1947 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 196.72 ft above mean sea level (Corps of Engineers benchmark). November 1921 to August 1923 at site 0.3 mile upstream at different datum. April 1947 to Sept. 30, 1952, at site 2,800 ft downstream at different datum.

Average discharge.--10 years, 7,515 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 42,000 cfs Feb. 4 (gage height, 10.60 ft); minimum, 132 cfs Oct. 7 (gage height, 1.63 ft); minimum daily, 140 cfs Oct. 7. 1947-57: Maximum discharge, 76,000 cfs Dec. 7, 1948 (gage height, 14.97 ft); minimum, 99 cfs July 3, Oct. 24, 1953 (gage height, 1.53 ft); minimum daily, that of Oct. 7, 1956.

Flood in August 1940 reached a stage of 33.9 ft, from levels by Corps of Engineers.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated since August 1950 by Philpott Reservoir on Smith River (usable capacity, 145,200 acre-ft) and by John H. Kerr Reservoir (usable capacity, 2,324,300 acre-ft).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.6	120	3.5	2,870
1.8	210	4.0	4,350
2.0	370	5.0	8,250
2.5	970	7.0	18,400
3.0	1,820	9.0	30,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,900	9,520	706	6,280	4,900	17,800	5,020	9,540	610	4,720	3,010	a160
2	4,810	8,000	1,030	10,300	2,930	10,200	3,850	9,190	238	3,160	3,660	a160
3	5,320	1,260	5,500	9,300	2,860	8,450	5,080	8,220	5,810	3,370	520	a5,000
4	5,270	170	7,480	965	16,000	18,400	6,790	6,470	5,160	252	240	8,870
5	4,650	8,080	7,020	714	18,100	*18,400	8,840	4,780	4,860	8,250	2,820	4,260
6	692	7,940	7,720	3,590	19,600	*18,000	14,900	8,600	5,740	1,240	a7,000	6,010
7	140	7,720	6,830	9,460	18,200	17,800	23,300	8,680	17,300	252	a2,000	420
8	5,050	9,680	1,750	6,320	15,000	15,800	a25,000	8,930	238	7,620	1,920	144
9	4,490	8,840	410	4,850	5,620	1,120	a25,000	8,540	245	8,360	5,080	7,180
10	4,720	696	7,260	5,000	7,120	210	a30,000	7,150	12,400	4,840	2,320	7,520
11	7,480	180	5,970	8,550	23,300	4,770	28,600	5,100	11,600	4,480	160	7,490
12	4,420	5,870	5,590	1,220	23,800	6,970	28,700	1,610	12,500	6,620	8,000	7,480
13	160	6,520	5,860	343	15,900	8,020	15,400	10,200	10,500	460	3,130	7,640
14	160	5,830	5,720	4,420	16,100	6,820	11,700	8,800	11,600	210	4,770	3,540
15	5,260	6,180	605	6,200	17,400	6,320	15,400	7,920	446	8,920	5,970	148
16	4,770	5,930	245	4,240	2,000	1,220	17,700	6,610	238	2,440	7,640	6,080
17	5,180	690	6,500	5,580	1,020	210	17,600	4,360	11,600	2,860	160	5,300
18	3,710	200	9,020	5,620	17,600	5,190	17,000	4,450	9,340	2,140	160	10,200
19	4,290	5,870	7,820	3,220	18,100	6,280	17,800	2,000	8,790	4,400	5,250	12,300
20	387	7,020	7,960	586	15,700	6,060	4,020	5,120	6,320	390	5,160	13,000
21	170	4,840	5,990	4,420	17,200	6,810	195	6,280	5,840	200	5,760	3,430
22	3,480	210	710	4,560	16,800	5,440	7,630	6,540	360	7,760	5,420	580
23	5,960	5,850	190	4,290	680	210	7,980	5,930	245	7,340	4,480	11,600
24	6,220	1,310	2,320	4,750	238	205	8,140	8,560	8,380	2,880	148	16,300
25	5,640	280	210	4,340	6,580	6,430	7,260	1,310	5,890	1,800	160	14,000
26	4,560	6,620	9,370	1,000	7,580	7,430	6,780	238	6,070	2,660	a9,000	14,600
27	370	7,920	6,640	259	9,910	7,910	6,450	7,220	4,960	180	a5,000	14,300
28	170	7,960	11,000	5,540	18,900	8,670	3,540	5,900	6,820	163	a5,000	1,890
29	9,200	6,850	3,220	5,360	-----	6,740	8,090	7,580	252	5,550	a5,000	190
30	9,420	5,630	280	4,920	-----	200	8,010	2,860	252	4,040	7,170	10,100
31	9,680	-----	10,300	4,450	-----	200	-----	8,230	-----	4,120	a200	-----
Total	132,729	153,666	153,326	140,677	339,138	228,285	385,765	197,418	174,604	111,719	117,308	199,892
Mean	4,282	5,122	4,946	4,538	12,110	7,364	12,860	6,368	5,820	3,604	3,784	6,663
(t)	+501	-468	+627	+758	+5,259	+2,609	+775	-2,270	+187	-1,449	-1,459	+653

Adjusted for change in reservoir contents

Mean	4,783	4,654	5,573	5,296	17,370	9,973	13,640	4,098	6,007	2,155	2,325	7,516
Cfsm	0.615	0.598	0.716	0.681	2.23	1.28	1.75	0.527	0.772	0.277	0.299	0.966
In.	0.71	0.67	0.83	0.79	2.32	1.48	1.95	0.61	0.86	0.32	0.34	1.08
Observed												
Calendar year 1956:	Max	17,700	Min	140	Mean	4,375	Mean	4,681	Cfsm	0.602	In.	8.20
Water year 1956-57:	Max	30,000	Min	140	Mean	6,396	Mean	6,852	Cfsm	0.881	In.	11.96

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott and John H. Kerr Reservoirs; furnished by Corps of Engineers.

a No gage-height record; discharge estimated on basis of records for station at Roanoke Rapids, N. C.

Roanoke River at Roanoke Rapids, N. C.

Location.--Lat 36°28', long 77°38', on right bank $1\frac{1}{2}$ miles downstream from bridge on State Highway 48 at Roanoke Rapids, Halifax County, $2\frac{1}{2}$ miles upstream from Chocoyott Creek, and at mile 133.6.

Drainage area.--8,410 sq mi, approximately.

Records available.--December 1911 to September 1957. Published as "at Old Gaston" prior to January 1933. Records published for both sites February 1930 to December 1932.

Gage-height records collected at site of auxiliary gage since November 1890 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder at present site and datum since February 1930. Datum of gage is 43.84 ft above mean sea level, datum of 1923, supplementary adjustment of 1936. Dec. 7, 1911, to Nov. 21, 1921, and Apr. 7 to Dec. 31, 1932, chain gage and Nov. 21, 1921, to Apr. 7, 1932, water-stage recorder, both at site 9 miles upstream at different datum. Since Aug. 6, 1941, auxiliary water-stage recorder 3.6 miles downstream from base gage.

Average discharge.--45 years (1912-57), 8,201 cfs (adjusted for storage).

Extremes.--Maximum discharge during year, 43,200 cfs Apr. 11; maximum gage height, 12.79 ft Apr. 11; minimum discharge, 336 cfs Jan. 2 (gage height, 1.06 ft); minimum daily, 588 cfs Nov. 25.

1911-57: Maximum discharge, 261,000 cfs Aug. 18, 1940 (gage height, 39.0 ft, from floodmarks); minimum, about 250 cfs Dec. 16, 1955; minimum daily, 472 cfs Sept. 21, 1932.

Flood in November 1877 at Old Gaston reached a stage about 2 ft lower than flood of August 1940, which was 21.5 ft.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Flow regulated since August 1950 by Philpott Reservoir on Smith River (usable capacity, 145,200 acre-ft) and John H. Kerr Reservoir (usable capacity, 2,324,300 acre-ft) and since June 1955 by Roanoke Rapids Reservoir (usable capacity, 79,600 acre-ft).

Revisions (water years).--WSP 712: 1930. WSP 822: 1936. WSP 1032: 1912, 1928(M), 1930(M), 1932-33(M). WSP 1433: 1912-23, 1925-28, 1930, 1932-33, 1935, 1937-39.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Fall between gages used as a factor Apr. 9-13)

1.4	550	6.0	9,500
2.0	1,050	8.0	17,000
3.0	2,320	11.0	33,000
4.0	4,100		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,620	10,600	2,520	1,840	15,200	19,000	4,520	8,600	2,180	2,490	5,140	1,620
2	5,370	9,740	1,380	8,870	17,800	20,000	3,070	9,480	2,180	2,410	3,760	1,830
3	4,840	4,960	6,000	11,000	12,400	17,200	4,420	8,600	3,980	3,220	2,040	6,350
4	5,610	1,200	7,060	12,700	11,900	13,000	6,730	8,600	3,150	2,380	a1,910	3,180
5	5,140	6,780	6,240	6,630	18,500	19,000	8,740	8,600	5,820	6,500	a2,320	4,220
6				820	18,500	14,600		8,600	10,200	2,580	a3,740	7,520
7	1,700	9,120	9,050	772	18,500	17,900	19,000	8,300	10,200	2,040	a2,770	1,940
8	4,930	10,500	1,730	5,420	18,500	16,700	18,800	9,440	3,080	4,850	2,780	1,510
9	3,720	11,100	1,600	4,830	12,500	9,400	29,300	9,150	2,040	8,560	3,520	6,140
10	4,490	2,950	6,300	7,670	13,000	1,780	30,600	8,000	11,800	4,960	2,460	7,420
11	6,540	822	6,910	8,460	13,000	4,510	31,600	8,300	9,640	4,870	2,180	7,260
12	5,250	6,620	5,360	932	18,000	7,630	29,400	5,980	11,600	5,880	6,800	7,070
13	2,220	6,280	5,530	625	22,200	8,440	25,000	6,990	12,300	3,220	3,220	7,560
14	1,700	5,360	8,120	3,820	18,200	8,610	19,000	9,190	11,500	2,180	5,250	4,780
15	4,300	6,590	5,620	5,200	18,100	8,360	18,000	8,610	2,190	5,320	6,800	1,870
16	4,300	8,030	6,300	4,880	13,100	2,820	19,500	7,530	2,040	3,490	6,390	6,280
17	5,690	1,580	7,810	7,550	1,540	1,100	17,400	5,750	7,120	3,180	2,040	6,710
18	5,640	618	7,700	6,560	13,000	5,680	17,200	5,880	10,300	3,070	2,110	10,500
19	5,010	6,440	9,270	2,730	18,500	8,210	17,200	5,880	8,820	2,560	5,660	14,600
20	1,830	5,920	8,790	790	18,500	7,340	6,050	6,000	6,840	2,580	4,980	15,200
21	1,760	6,360	8,160	4,250	18,500	6,990	5,620	5,880	5,280	2,180	5,140	2,490
22	3,940	922	2,710	5,000	18,000	6,980	6,110	5,880	2,110	8,780	6,070	1,680
23	3,320	5,340	708	5,290	5,560	1,440	5,750	6,000	2,040	4,800	5,730	13,200
24	6,580	1,880	5,010	5,810	633	1,180	8,160	7,810	5,250	2,780	2,040	9,970
25	7,300	588	956	7,690	3,120	6,380	9,350	5,750	13,700	4,030	2,720	12,800
26	6,370	6,500	8,400	1,340	8,940	7,390	8,460	2,320	7,080	2,210	5,130	17,600
27	2,450	5,920	11,600	641	16,600	9,100	5,910	5,750	6,040	2,180	6,720	12,800
28	1,760	9,030	11,800	6,110	19,000	10,600	8,720	5,800	5,700	2,180	5,820	6,130
29	8,970	8,630	6,410	5,080	-	8,300	8,600	7,960	2,720	2,440	5,080	1,960
30	9,780	7,530	11,300	7,770	-----	1,800	8,600	3,250	2,180	2,970	7,210	10,500
31	9,140	-----	3,370	8,960	-----	2,180	-----	9,080	-----	5,270	1,980	-----
Total	145,380	174,880	191,762	159,840	400,293	273,620	419,810	222,860	192,680	115,960	129,380	212,690
Mean (†)	4,690	5,829	6,186	5,156	14,300	8,826	13,990	7,189	6,423	3,741	4,174	7,090
	+621	-549	+282	+1,173	+5,189	+2,648	+721	-2,234	+311	-1,449	-1,417	+564

	Observed				Adjusted			
Calendar year 1956:	Max 18,500	Min 588	Mean 5,176		Mean 5,448	Cfsm 0.648	In. 8.81	
Water year 1956-57:	Max 31,600	Min 588	Mean 7,231		Mean 7,677	Cfsm 0.913	In. 12.39	

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Philpott and John H. Kerr Reservoirs (furnished by Corps of Engineers) and Roanoke Rapids Reservoir (furnished by Virginia Electric and Power Co.).

a No gage-height record; discharge estimated on basis of records for auxiliary gage.

Tar River near Tar River, N. C.

Location.--Lat 36°12', long 78°34', on right bank 90 ft upstream from bridge on State Highway 96 (bridge relocated), $1\frac{1}{2}$ miles upstream from Fishing Creek, $2\frac{1}{2}$ miles east of town of Tar River, Granville County, and 8 miles south of Oxford.

Drainage area.--161 sq mi.

Records available.--November 1939 to September 1957.

Gage.--Water-stage recorder and concrete control with a sharp-crested weir notch. Datum of gage is 287.04 ft above mean sea level, datum of 1929.

Average discharge.--18 years, 150 cfs.

Extremes.--Maximum discharge during year, 6,500 cfs Feb. 1 (gage height, 13.00 ft); minimum, 0.7 cfs Aug. 17.
1939-57: Maximum discharge, 13,100 cfs Aug. 18, 1955 (gage height, 18.07 ft); minimum, 0.07 cfs Oct. 14, 1954.

Remarks.--Records good Oct. 1 to Jan. 4, May 10 to Sept. 30; fair Jan. 5 to May 9 except those for periods of doubtful or no gage-height record, which are poor. Town of Oxford diverts about 0.5 cfs for municipal water supply.

Revisions (water years).--WSP 972: 1940-41. WSP 1112: 1941 (calendar year figures). WSP 1273: 1941(M).

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2	10	107	17	*55	5,240	2,210	a63	41	15	11	3.1	6.3
3	6.4	659	16	47	2,500	a680	a72	39	14	8.9	*2.6	5.1
4	4.8	223	16	40	693	a350	a74	37	13	7.6	1.9	4.3
5	3.6	88	15	38	475	a240	a68	36	12	6.6	1.9	3.4
6	3.4	56	15	41	321	a180	66	35	7.14	6.0	3.1	5.1
7												
8	14	41	14	41	241	155	150	35	414	5.4	6.6	6.0
9	63	33	14	39	228	129	117	29	104	4.8	*4.3	88
10	32	29	14	38	178	a190	99	24	52	4.3	4.0	27
11	16	54	14	36	547	a400	627	21	33	4.0	3.7	16
12	9.6	140	14	41	650	167	243	*19	27	3.7	3.1	84
13												
14	6.4	76	14	41	*321	129	*130	19	24	3.4	5.4	36
15	4.8	50	14	39	202	112	97	45	21	3.1	1.9	18
16	*5.0	37	14	36	155	98	82	42	19	2.6	1.9	11
17	3.1	30	14	34	128	94	78	38	16	2.4	1.7	7.6
18	2.8	26	253	33	104	102	72	*29	14	2.2	1.7	6.0
19												
20	2.6	23	1,040	33	94	96	62	21	12	1.9	1.9	4.6
21	2.6	*21	306	35	87	94	*59	24	111	1.7	1.3	*4.8
22	2.6	20	139	30	79	87	57	20	30	*1.9	1.9	11
23	2.8	20	88	27	87	155	55	19	16	1.9	5.7	12
24	2.8	19	69	27	455	167	51	49	13	1.9	4.0	9.2
25												
26	3.6	18	*57	28	215	101	50	48	12	1.7	8.0	8.6
27	66	20	72	34	142	a220	50	27	11	1.9	8.9	7.0
28	117	24	621	164	121	a710	715	22	9.5	2.4	7.0	6.6
29	43	23	760	321	102	a270	291	20	8.2	3.1	5.4	6.0
30	26	20	380	*140	84	a200	125	20	8.2	62	422	5.4
31												
32	16	20	162	134	1,290	a182	78	32	8.2	22	429	5.4
33	12	18	105	142	2,110	a135	61	96	8.6	11	61	4.6
34	24	18	83	231	877	a107	53	93	8.2	7.9	24	4.0
35	34	18	77	*300	-	a88	47	32	8.6	6.0	15	6.0
36	26	18	72	1,080	-----	a76	44	20	12	4.6	11	54
37	28	-----	62	1,450	-----	a68	-----	17	-----	4.0	7.9	-----
Total	593.9	1,949	4,550	4,775	17,723	7,993	3,836	1,049	1,768.5	211.9	1,056.9	471.0
Mean	19.2	65.0	147	154	633	258	128	33.8	58.0	6.84	34.1	15.7
Cfs/m	0.119	0.404	0.913	0.957	3.93	1.60	0.795	0.210	0.366	0.042	0.212	0.098
In.	0.14	0.45	1.05	1.10	4.09	1.85	0.89	0.24	0.41	0.05	0.24	0.11

Calendar year 1956: Max 3,260 Min 0.3 Mean 118 Cfs/m 0.733 In. 10.01
Water year 1956-57: Max 5,240 Min 1.3 Mean 126 Cfs/m 0.783 In. 10.62

Peak discharge (base, 2,000 cfs).--Feb. 1 (4:30 p.m.) 6,500 cfs (13.00 ft); Feb. 27 (2:30 a.m.) 3,490 cfs (9.72 ft); Mar. 1 (11:30 a.m.) 2,650 cfs (8.52 ft).

* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of weather records, recorder chart, and observer's readings.

Cedar Creek near Louisburg, N. C.

Location.--Lat 36°03'15", long 78°20'25", on downstream end of center pier of bridge on U. S. Highway 401, three-quarters of a mile downstream from Camping Creek, 3.7 miles southwest of Louisburg, Franklin County, and 5.5 miles upstream from mouth.

Drainage area.--47.8 sq mi.

Records available.--September 1956 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 205 ft (by barometer).

Extremes.--1956: Maximum discharge during September, 82 cfs Sept. 27 (gage height, 2.37 ft); minimum, 5.1 cfs Sept. 17, 18, 19, 24 (gage height, 1.50 ft).

1956-57: Maximum discharge during water year, 1,180 cfs Dec. 16 (gage height, 5.26 ft); minimum, 4.2 cfs Aug. 13, 17, 18 (gage height, 1.45 ft).

Flood of Aug. 18, 1955, reached a stage of 6.78 ft (discharge, 2,100 cfs). Flood in 1935 reached a stage of about 14 ft, from information from State Highway and Public Works Commission.

Remarks.--Records fair.

Rating table, Sept. 1, 1956, to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)

1.4	3.2	2.0	38
1.5	5.1	2.5	100
1.6	8.0	3.0	207
1.7	12	4.0	580
1.8	18	5.0	1,050

Discharge, in cubic feet per second, 1956

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
Sept. 1	10	Sept. 9	11	Sept. 17	8.0	Sept. 25	12
2	11	10	10	18	8.0	26	21
3	27	11	10	19	8.0	27	78
4	24	12	10	20	9.2	28	46
5	23	13	10	21	8.4	29	25
6	15	14	9.2	22	8.4	30	19
7	15	15	9.2	23	8.8		
8	14	16	8.8	24	11		
Total.....							488.0
Mean.....							16.3
Cubic feet per second per square mile.....							0.341
Runoff in inches.....							0.38

Peak discharge (base, 450 cfs).--No peak above base.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	64	25	33	*602	306	44	*29	21	11	7.4	8.8
2	15	157	22	31	422	141	45	27	18	*9.6	7.4	8.8
3	14	80	21	28	178	83	41	26	19	9.2	7.1	8.8
4	15	47	21	30	112	68	*40	28	*20	8.8	7.4	8.0
5	15	36	*21	32	78	67	54	28	18	8.8	8.4	8.0
6	18	33	22	29	67	66	65	25	25	9.2	6.6	8.8
7	23	*29	22	28	59	61	48	24	25	8.4	5.7	9.2
8	16	30	22	26	59	76	45	23	29	8.0	5.7	8.8
9	15	39	23	30	85	47	23	*56	*86	6.0	5.4	*9.2
10	14	34	21	30	118	63	40	22	33	7.4	4.7	11
11	14	28	21	26	77	55	39	30	24	7.1	4.5	45
12	14	26	21	26	62	54	38	69	20	6.6	4.3	18
13	14	24	22	26	55	50	38	34	17	6.8	4.3	12
14	15	23	30	26	51	51	37	28	16	6.6	5.1	10
15	14	23	537	24	48	49	36	24	14	7.1	7.7	9.6
16	14	23	986	27	*45	46	36	23	17	13	7.7	8.8
17	17	23	407	27	44	42	36	22	14	13	4.7	16
18	30	23	103	25	40	42	36	22	14	15	42	82
19	25	22	68	26	48	66	35	22	13	9.2	89	40
20	23	21	53	25	80	56	34	24	13	8.0	27	21
21	25	22	46	27	55	47	32	22	12	7.4	14	16
22	61	22	42	28	48	63	32	23	11	6.8	11	14
23	46	21	61	32	45	113	68	22	11	8.2	10	12
24	30	20	82	29	42	72	48	18	10	51	10	12
25	24	21	76	31	42	69	37	18	10	17	14	10
26	22	21	53	31	186	61	32	21	12	11	14	10
27	23	21	45	32	375	56	31	35	14	9.6	13	10
28	23	20	40	38	168	50	29	30	12	9.2	10	10
29	21	21	47	37	47	29	26	22	14	6.8	9.6	28
30	27	28	42	116	45	31	21	11	11	8.4	9.6	81
31	34	36	168	42	42	22	22	22	8.0	8.8	8.8	40
Total	678	1,002	2,838	1,125	3,302	2,190	1,203	807	543	326.2	386.1	554.8
Mean	21.9	33.4	91.5	36.3	116	70.6	40.1	26.0	18.1	10.5	12.5	18.5
Cfsm	0.458	0.699	1.91	0.759	2.47	1.48	0.839	0.544	0.379	0.220	0.262	0.387
In.	0.53	0.78	2.21	0.88	2.57	1.70	0.94	0.63	0.42	0.25	0.30	0.43

Calendar year 1956: Max -

Min -

Mean -

Cfsm -

In. -

Water year 1956-57: Max 986

Min 4.3

Mean 41.0

Cfsm 0.858

In. 11.64

Peak discharge (base, 450 cfs).--Dec. 16 (6 a.m.) 1,180 cfs (5.26 ft); Feb. 1 (12 p.m.) 692 cfs (4.25 ft); Feb. 27 (8 a.m.) 477 cfs (3.74 ft).

* Discharge measurement made on this day.

Tar River near Nashville, N. C.

Location.--Lat 35°51'00", long 77°55'50", on left bank 15 ft downstream from Cockrell Bridge on State Highway 58, 5 miles upstream from Sapony Creek, 10 miles south of Nashville, Nash County, and at mile 93.8.

Drainage area.--701 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 110.96 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Oct. 18, 1928, to Oct. 10, 1929, and Mar. 26, 1930, to Oct. 12, 1934, chain gage at bridge at same datum. Oct. 11, 1929, to Mar. 25, 1930, staff gage at site 45 ft upstream at same datum. Oct. 13, 1934, to Feb. 27, 1935, staff gage at present site and datum.

Average discharge.--29 years, 736 cfs.

Extremes.--Maximum discharge during year, 7,700 cfs Feb. 5 (gage height, 14.25 ft); minimum, 18 cfs Aug. 12, 13 (gage height, 1.69 ft).

1928-57: Maximum discharge, 16,900 cfs Dec. 3, 1934 (gage height, 20.8 ft); minimum, 7.0 cfs Sept. 7, 1954 (gage height, 1.51 ft); minimum daily, 11 cfs Sept. 20, 1932.

Remarks.--Records good except those for the period of no gage-height record, which are poor. Considerable diurnal fluctuation and some regulation at low flow caused by small mills above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1273: 1930.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 9				June 10 to Sept. 30			
2.3	90	7.0	2,200	1.7	18	3.0	293
2.6	155	11.0	4,800	2.0	50	4.0	700
3.0	290	15.0	8,600	2.3	98	5.0	1,140
4.0	700			2.6	168		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	243	354	250	518	3,400	4,730	570	450	215	*137	53	91
2	*197	610	232	466	4,240	4,880	570	362	185	126	54	75
3	164	1,220	222	418	5,040	4,380	570	306	*288	106	50	76
4	148	1,330	*209	386	6,230	3,080	570	302	498	100	42	82
5	138	630	197	382	7,600	1,260	590	290	597	72	*31	63
6	142	450	188	382	5,950	1,140		290	532	87	61	61
7	170	362	182	382	*1,340	1,030	*740	810	278	1,260	80	46
8	191	314	185	366	1,140	1,080	740	262	720	54	47	56
9	246	*330	173	358	1,220	1,160	650	232	886	80	35	174
10	203	354	182	382	1,540	1,340	1,100	229	522	67	60	133
11	161	450	179	382	1,980	1,050	1,080	232	386	67	40	125
12	135	458	173	358	1,440	855	720	412	304	67	20	404
13	135	354	*187	358	1,010	765	610	570	242	69	43	252
14	122	306	182	350	855	700	590	550	211	48	45	147
15	104	270	473	318	740	700	550	390	190	22	48	100
16	108	243	2,420	314	675	700	514	298	171	52	*45	80
17	138	243	3,890	322	630	650	494	254	155	39	27	*96
18	197	246	4,310	310	610	610	474	215	142	78	216	119
19	203	236	2,460	266	590	675	466	187	205	78	740	330
20	218	229	900	243	790	810	458	203	199	119	514	319
21	203	218	675	298	1,100	880	438	222	161	93	386	202
22	254	206	590	330	1,030	740	422	226	142	69	214	137
23	394	212	570	346	765	1,010	418	250	135	64	125	119
24	570	215	1,030	380	650	1,760	865	218	119	72	94	108
25	442	206	1,900	880	590	1,490	1,110	212	108	199	128	100
26	302	206	1,700	675	1,510	1,080	650	250	103	223	210	85
27	258	212	960	a570	3,190	985	474	254	32	165	87	87
28	236	206	700	a610	3,960	855	402	442	98	117	563	80
29	236	203	610	a765	-	740	378	570	163	87	247	89
30	236	226	590	1,120	-----	675	773	366	133	78	152	254
31	270	-----	590	2,100	-----	610	-----	250	-----	76	108	-----
Total	6,764	11,099	27,089	15,295	59,815	42,420	18,816	9,562	9,162	2,818	5,412	4,116
Mean	218	370	874	493	2,136	1,368	627	308	305	90.9	175	137
Cfsm	0.311	0.528	1.25	0.703	3.05	1.95	0.894	0.439	0.435	0.130	0.250	0.195
In.	0.36	0.59	1.44	0.81	3.17	2.25	1.00	0.51	0.49	0.15	0.29	0.22

Calendar year 1956: Max 5,690 Min 52 Mean 642 Cfsm 0.916 In. 12.47
 Water year 1956-57: Max 7,600 Min 20 Mean 582 Cfsm 0.830 In. 11.28

Peak discharge (base, 4,000 cfs).--Dec. 18 (3 p.m.) 4,380 cfs (10.35 ft); Feb. 5 (7 p.m.) 7,700 cfs (14.25 ft); Mar. 2 (10 a.m.) 4,960 cfs (11.18 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and streamflow continuity.

Sapony Creek near Nashville, N. C.

Location.--Lat 35°53'05", long 77°54'45", near center of span on downstream side of highway bridge, 1 mile upstream from mouth and 6½ miles southeast of Nashville, Nash County.

Drainage area.--64.8 sq mi.

Records available.--April 1950 to September 1957.

Gage.--Wire-weight gage and masonry control; gage read twice daily. Altitude of gage is 100 ft (from topographic map). Prior to July 14, 1953, staff gage at same site and datum.

Average discharge.--7 years, 56.9 cfs.

Extremes.--Maximum discharge during year, 652 cfs Feb. 28 (gage height, 8.4 ft); minimum, 0.1 cfs several days in August.

1950-57: Maximum discharge, 2,200 cfs Jan. 24, 1954 (gage height, 14.34 ft, from floodmark); minimum, 0.02 cfs on several days in September 1954.

Remarks.--Records fair except those for period of no gage-height record, which are poor.

Rating table, water year 1956-57 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Nov. 5 to Dec. 18)

0.95	0.1	2.0	24
1.0	.2	3.0	62
1.1	.7	4.0	125
1.2	2.0	6.0	310
1.4	6.0	8.0	580
1.7	14		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	47	27	62	239	532	45	62	7.9	*4.7	0.4	2.8
2	*12	58	34	49	343	427	43	103	4.7	3.4	.3	2.6
3	8.2	62	36	*49	343	354	41	158	*22	2.6	.3	2.8
4	6.0	62	*30	39	354	*280	41	75	280	2.3	.3	2.6
5	6.5	51	24	37	280	219	41	15	290	2.6	*.2	1.2
6	6.8	51	21	37	192	210	96	14	229	3.0	.1	.8
7	7.1	30	19	37	*153	184	103	12	158	2.8	.1	.7
8	6.5	32	19	34	150	219	*96	11	158	3.0	.1	.7
9	6.1	*32	17	36	159	239	73	8.2	201	2.1	.1	*9.9
10	4.5	32	17	37	201	239	39	7.1	249	1.3	.1	*6.0
11	4.2	34	16	43	249	229	41	7.1	210	.9	.1	3.0
12	3.8	32	15	43	239	184	43	18	90	.7	.1	2.3
13	3.8	30	15	41	167	103	47	36	45	.7	.2	2.6
14	3.4	30	19	41	110	84	34	39	32	.5	.2	2.6
15	3.8	28	26	39	84	96	32	30	30	.7	.2	2.6
16	3.8	30	34	36	*73	73	30	12	21	*1.6	*.1	2.6
17	4.7	30	117	34	67	73	27	7.6	16	2.0	.1	*3.6
18	21	30	192	36	62	67	27	7.1	14	2.5	.2	36
19	27	36	249	37	62	84	26	6.0	13	3.2	.2	45
20	26	45	175	34	90	90	24	5.6	12	5.1	73	43
21	26	39	103	34	67	96	21	4.7	11	8.7	259	22
22	32	28	67	34	96	96	21	3.8	a8	2.5	110	14
23	39	26	62	37	125	96	18	4.2	a6	.9	37	15
24	43	26	73	37	78	117	16	4.7	4.2	4.9	14	6.5
25	39	26	84	41	62	150	16	14	4.5	4.0	10	5.3
26	28	26	110	47	117	117	13	53	4.0	2.8	11	4.7
27	24	18	103	53	*249	110	9.9	53	4.2	2.5	24	5.1
28	24	18	78	58	580	103	8.2	49	4.2	1.8	75	4.9
29	22	19	62	58	84	84	8.2	27	4.7	.8	47	6.3
30	19	24	58	73	-----	67	*26	18	5.3	.7	18	39
31	21	-----	62	125	-----	51	-----	9.9	-----	.6	4.9	-----
Total	500.2	1,032	1,964	1,398	4,995	5,073	1,106.3	873.0	2,138.7	75.9	684.3	296.2
Mean	16.1	34.4	63.4	45.1	178	164	36.9	28.2	71.3	2.45	22.1	9.87
Cfsm	0.248	0.531	0.978	0.696	2.75	2.53	0.569	0.435	1.10	0.038	0.341	0.152
In.	0.29	0.59	1.13	0.80	2.67	2.91	0.63	0.50	1.23	0.04	0.39	0.17

Calendar year 1956: Max 892 Min 0.4

Water year 1956-57: Max 580 Min 0.1

Mean 60.1 Cfsm 0.927 In. 12.63

Mean 55.2 Cfsm 0.852 In. 11.56

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and streamflow continuity.

Fishing Creek near Enfield, N. C.

Location.--Lat 36°09', long 77°42', on right bank 15 ft downstream from bridge on U. S. Highway 301, 2,000 ft downstream from Atlantic Coast Line Railroad bridge, 2 miles southwest of Enfield, Halifax County, 4½ miles downstream from Rocky Creek, and at mile 27.7.

Drainage area.--521 sq mi.

Records available.--October 1923 to September 1957. Figures of discharge below 250 cfs Oct. 1, 1923, to July 3, 1924, below 350 cfs May 30, 1925, to May 31, 1926, below 150 cfs June 1 to Nov. 16, 1926, and below 100 cfs Nov. 17, 1926, to Sept. 30, 1928, published in WSP 622, 642, and 662, have been found subject to considerable error and should not be used. Gage-height records collected at site 2,000 ft upstream at different datum July 1, 1910, to Apr. 30, 1914, and at present site and datum since May 1, 1914, are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 76.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 28, 1932, staff gage at same site and datum.

Average discharge.--34 years (1923-57), 492 cfs.

Extremes.--Maximum discharge during year, 5,600 cfs Feb. 4 (gage height, 14.77 ft); minimum, 25 cfs Aug. 16-18 (gage height, 0.18 ft).

1923-57: Maximum discharge, 12,600 cfs Dec. 2, 1934, Aug. 18, 1940; maximum gage height, 17.72 ft Aug. 18, 1940; minimum discharge, 10 cfs Oct. 19, 1933, Sept. 21, 1954.

The flood of Apr. 19, 1910, reached a stage of 20.1 ft, present datum (from flood-marks of Atlantic Coast Line Railroad Co.) at site 2,000 ft upstream. Flood of July 24, 1919, reached a stage of 19.6 ft (discharge, 20,300 cfs).

Remarks.--Records fair. Slight diurnal fluctuation and some regulation at low flow caused by mills above station.

Revisions (water years).--WSP 872: 1935(M). WSP 1172: Drainage area. WSP 1333: 1928(M), 1932-33, 1935. See also Records available.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Oct. 30 to Dec. 15; rate of change in stage used as a factor Dec. 15, 16, 20, 21, 24, Jan. 30, 31, Feb. 6, 7, 9, 26, 27, Mar. 3-4, 6-10, 23, Apr. 6, 9, 10, July 8, 26, 24, Aug. 26-29, Sept. 17)

Oct. 1 to Dec. 15

Dec. 16 to Sept. 30

0.9	91	0.1	17	11.0	1,750
1.0	101	.5	57	12.0	2,070
5.0	547	1.0	107	13.0	2,700
9.0	1,280	4.0	420	14.0	3,980
		7.0	870	15.0	5,900

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	444	234	456	2,780	2,890	409	207	162	*96	*47	72
2	161	513	239	409	3,800	2,430	398	197	147	102	46	67
3	*136	456	223	376	4,900	1,610	409	192	*142	97	42	55
4	118	420	*203	354	5,300	1,040	*398	187	162	79	35	*50
5	113	365	192	354	*3,940	761	409	187	157	71	39	48
6	104	321	187	365	1,880	711	583	192	152	64	35	44
7	146	*277	182	376	1,230	680	778	187	157	59	35	43
8	278	255	177	354	1,010	834	572	182	162	64	36	37
9	223	272	177	354	1,060	1,820	572	172	152	92	34	76
10	166	299	177	376	1,370	1,430	873	167	132	53	35	76
11	131	299	172	398	1,410	1,000	695	162	124	45	33	96
12	113	288	172	398	1,110	711	493	177	122	41	33	152
13	103	250	172	365	796	605	432	197	119	27	31	147
14	94	223	177	343	650	561	420	207	112	27	27	104
15	96	208	1,120	332	590	547	409	197	106	28	*27	77
16	97	198	2,490	321	533	533	376	172	116	27	26	68
17	103	198	3,920	332	506	493	354	152	119	27	25	90
18	166	272	4,710	332	480	456	354	142	107	30	29	202
19	255	277	4,160	277	468	493	343	132	99	41	32	257
20	266	255	1,890	287	620	650	332	137	107	219	42	192
21	218	223	862	332	832	665	332	162	115	232	47	147
22	234	213	576	343	727	547	310	148	148	118	53	115
23	354	213	543	365	561	1,020	310	172	162	72	64	90
24	420	213	902	420	493	1,320	299	167	123	153	52	75
25	354	208	1,150	506	468	1,130	299	152	106	157	40	68
26	272	203	1,010	547	892	796	277	172	94	117	171	57
27	800	208	727	561	2,170	650	262	207	79	122	505	55
28	814	198	547	605	2,470	575	247	272	72	85	532	50
29	711	182	493	680	-	506	232	262	92	69	232	49
30	590	203	506	1,270	-	468	*222	227	101	55	116	70
31	468	-	506	1,730	-	432	-	187	-	49	78	-
Total	8,325	8,164	28,796	14,498	43,046	28,114	12,357	5,717	3,748	2,518	2,581	2,729
Mean	269	272	929	468	1,537	907	412	184	125	81.2	85.3	91.0
Cfsm	0.516	0.522	1.78	0.898	2.95	1.74	0.791	0.353	0.240	0.156	0.160	0.175
In.	0.59	0.58	2.06	1.03	3.07	2.01	0.88	0.41	0.27	0.18	0.18	0.19

Calendar year 1956: Max 4,710 Min 46 Mean 487 Cfsm 0.935 In. 12.67
 Water year 1956-57: Max 5,300 Min 25 Mean 440 Cfsm 0.845 In. 11.45

* Discharge measurement made on this day.

Tar River at Tarboro, N. C.

Location.--Lat 35°53'40", long 77°32'00", near right bank on downstream end of pier of bridge on U. S. Highway 64 in Tarboro, Edgecombe County, 6½ miles downstream from Fishing Creek and at mile 46.2.

Drainage area.--2,140 sq mi, approximately.

Records available.--July 1896 to December 1900, October 1931 to September 1957. Gage-height records collected at same site since 1905 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 10.37 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 1896 to December 1900 chain gage at Atlantic Coast Line Railroad bridge 600 ft downstream at different datum. Oct. 1 to Dec. 8, 1931, chain gage at site 100 ft upstream at present datum.

Average discharge.--30 years, 2,216 cfs.

Extremes.--Maximum discharge during year, 15,500 cfs Feb. 8 (gage height, 22.83 ft); minimum discharge, 111 cfs Aug. 15 (gage height, 1.12 ft).

1896-1900, 1931-57: Maximum discharge, 37,200 cfs Aug. 20, 1940 (gage height, 31.77 ft); minimum, 36 cfs Oct. 17, 22, 1933 (gage height, 0.45 ft).

Maximum stage known, 34.0 ft July 27, 1919 (present datum), from floodmarks 20 ft downstream (discharge, 52,800 cfs, from rating curve extended above 38,000 cfs).

Revisions.--The maximum discharge for the water year 1932 has been revised to 12,100 cfs Mar. 12, 1932 (gage height, 20.24 ft), superseding figure published in WSP 727.

Remarks.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Town of Henderson diverted an average of 1.1 cfs out of the basin above station. Town of Tarboro diverted 0.8 cfs for municipal supply.

Revisions (water years).--WSP 1172: Drainage area. WSP 1273: 1899-1900, 1933. Revised figures of discharge, in cubic feet per second, for the water year 1932, superseding those published in WSP 727, are given herewith:

1932		1932-Con.	
Mar.	7..... 4,730	Mar.	12..... 11,800
	8..... 6,470		13..... 10,900
	9..... 7,420		14..... 8,050
	10..... 8,890		15..... 4,940
	11..... 10,900		31..... 4,140

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
March 1932.....	11,800	1,100	3,820	1.79	2.06
Water year 1931-32.....	11,800	55	1,140	.533	7.24

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

(Rate of change in stage used as a factor Dec. 16-18, 23, 24, Jan. 31, Feb. 1-3, 9-11, 15, 16, 26-28, Mar. 6, 7, 14, 15, Apr. 30, June 3, 4, Aug. 28)

1.1	107	7.0	2,380
1.5	188	16.0	8,050
2.0	314	21.0	13,100
3.0	636	23.0	15,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	1,860	1,010	2,480	5,830	7,400	2,430	1,640	692	365	232	512
2	1,120	2,090	1,030	2,230	7,560	8,890	2,230	1,180	600	339	*206	377
3	970	2,840	1,070	*2,000	9,120	10,000	2,090	990	679	336	167	348
4	810	3,030	1,030	1,820	10,200	11,100	2,000	910	2,140	322	173	254
5	730	2,250	*1,010	1,680	12,100	11,200	2,000	830	3,030	306	182	289
6	673	2,700	850	1,640	*13,900	9,260	2,280	730	3,300	292	150	246
7	582	2,180	910	1,590	15,200	6,830	2,590	692	3,480	227	138	232
8	565	*1,910	910	1,590	15,100	6,250	2,810	673	2,920	190	169	202
9	548	1,770	870	1,460	11,600	6,050	2,810	636	2,280	234	161	228
10	636	1,730	850	1,510	9,160	6,520	2,590	618	2,230	232	134	264
11	636	1,680	870	1,550	7,720	6,850	2,860	600	1,730	229	156	383
12	565	1,690	830	1,510	7,260	6,650	3,140	600	1,330	210	122	297
13	478	1,640	850	1,550	6,720	5,980	2,840	673	1,070	197	163	383
14	459	1,460	810	1,460	5,850	4,680	2,090	950	830	234	140	600
15	512	1,330	830	1,380	4,560	3,900	1,950	990	654	188	122	478
16	371	1,160	1,510	1,380	3,640	3,480	1,820	850	548	180	*156	388
17	424	1,120	1,450	1,380	3,250	3,200	1,680	711	512	208	144	415
18	770	1,120	5,660	1,380	2,860	2,860	1,590	618	459	163	156	430
19	1,070	1,070	6,450	1,330	2,640	2,920	1,510	548	462	167	286	618
20	950	1,160	7,620	1,290	2,920	3,250	1,460	565	412	195	749	750
21	890	1,160	8,290	1,200	3,300	3,360	1,380	495	462	270	810	850
22	1,120	1,070	7,980	1,200	3,720	3,360	1,530	495	436	342	930	711
23	1,290	1,030	6,770	1,290	3,780	3,360	1,250	530	430	368	770	548
24	1,380	1,010	5,430	1,380	3,250	3,600	1,200	565	377	311	478	478
25	1,550	990	4,620	1,460	2,810	4,450	1,530	530	421	249	336	478
26	1,590	990	4,680	1,910	3,000	4,860	1,770	512	377	278	274	383
27	1,420	990	4,740	2,180	4,670	4,680	1,460	654	334	400	334	331
28	1,330	950	4,140	2,180	6,410	4,320	1,120	673	311	427	1,110	300
29	1,680	970	3,560	2,280	-	3,780	390	750	356	371	1,550	297
30	1,770	950	2,860	2,860	-	3,250	1,200	970	409	308	1,120	351
31	1,950	-	2,590	4,160	-	2,760	-	870	-	252	692	-
Total	30,298	46,690	94,680	54,310	188,130	168,850	57,500	23,048	33,251	8,390	12,310	12,421
Mean	977	1,556	3,054	1,752	6,713	5,447	1,917	1,108	271	397	397	414
Cfs/m	0.457	0.727	1.43	0.819	3.14	2.55	0.896	0.347	0.518	0.127	0.186	0.193
In.	0.53	0.81	1.65	0.94	3.27	2.93	1.00	0.40	0.58	0.15	0.21	0.22

Calendar year 1956: Max 12,800 Min 229 Mean 2,151 Cfs/m 1.01 In. 13.68
 Water year 1956-57: Max 15,200 Min 122 Mean 2,000 Cfs/m 0.935 In. 12.69

* Discharge measurement made on this day.

Conetoe Creek near Bethel, N. C.

Location.--Lat 35°46'32", long 77°27'46", on right bank 5 ft downstream from bridge on county road, 5½ miles downstream from Crisp Creek, and 5½ miles west of Bethel, Pitt County.

Drainage area.--78.1 sq mi.

Records available.--December 1956 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map).

Extremes.--Maximum discharge during period, 500 cfs Mar. 20, June 9; maximum gage height, 9.20 ft June 9; minimum discharge, 2.5 cfs Aug. 12, 14, 30.

Flood in 1955 reached a stage of 16.7 ft, from information by local resident (discharge not determined).

Remarks.--Records good.

Rating table, Dec. 1, 1956, to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)

0.5	1.8	1.5	34
.6	5.4	2.0	55
1.0	17	9.0	487

Discharge, in cubic feet per second, December 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			a27	44	335	355	84	22	13	16	5.1	17
2			a37	*39	*296	266	87	*20	12	12	*5.4	5.7
3			a35	36	230	194	*84	19	12	12	6.7	4.0
4			a33	35	194	156	70	20	52	*11	4.8	3.3
5			a31	35	163	*166	68	21	*28	11	4.4	*5.6
6			a30	34	*173	242	102	19	90	11	4.4	5.7
7			28	34	179	266	81	18	158	10	3.6	5.4
8			26	32	184	304	67	17	183	9.7	3.6	3.6
9			26	32	246	455	69	16	368	9.4	3.6	4.0
10			25	37	316	376	62	15	184	8.9	3.6	4.0
11			*24	39	224	228	53	16	114	8.9	3.3	4.8
12			25	37	166	179	48	20	81	8.7	3.3	5.4
13			25	36	135	144	46	18	61	8.0	2.9	4.0
14			25	34	117	123	42	16	47	8.0	2.9	3.6
15			26	31	99	114	39	15	40	8.9	3.6	3.6
16			64	34	90	188	36	14	33	*8.7	5.4	3.3
17			70	38	84	180	34	14	29	7.8	4.8	40
18			56	36	72	134	32	13	25	8.7	25	130
19			47	33	78	374	31	14	24	7.8	35	26
20			43	31	207	453	30	28	22	7.3	8.0	17
21			41	32	174	279	29	19	20	7.0	5.7	14
22			41	34	132	206	27	16	18	6.7	4.8	12
23			49	38	111	294	25	15	17	6.4	4.0	22
24			97	37	96	242	24	13	16	7.0	4.0	27
25			108	46	87	206	22	15	16	6.7	4.4	14
26			78	75	214	194	22	13	18	6.7	4.4	12
27			64	68	466	206	21	17	15	6.4	15	11
28			57	78	358	173	20	20	14	6.4	5.7	11
29			54	78	-	141	19	15	14	6.1	3.6	17
30			52	152	-----	117	24	14	13	5.7	2.9	*100
31			47	212	-----	96	-----	13	-----	5.4	2.9	-----
Total			1,391	1,557	5,226	7,031	1,398	525	1,737	264.3	196.8	534.0
Mean			44.9	50.2	187	227	46.6	16.9	57.9	8.53	6.35	17.8
Cfsm			0.575	0.643	2.39	2.91	0.597	0.216	0.741	0.109	0.081	0.228
In.			0.66	0.74	2.49	3.35	0.67	0.25	0.83	0.13	0.09	0.25

Calendar year	: Max	Min	Mean	Cfsm	In.
Water year	: Max	Min	Mean	Cfsm	In.

Peak discharge (base, 470 cfs).--Feb. 27 (10:30 a.m.) 480 cfs (8.98 ft); Mar. 20 (3 a.m.) 500 cfs (9.18 ft); June 9 (12:30 a.m.) 500 cfs (9.20 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.

Herring Run near Washington, N. C.

Location.--Lat 35°34'03", long 77°01'09", on left bank 10 ft downstream from bridge on county road, 1 mile upstream from bridge on U. S. Highway 264, 1½ miles upstream from mouth, and 2¼ miles northeast of Washington, Beaufort County.

Drainage area.--About 15 sq mi.

Records available.--January 1950 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 2 ft (from topographic map). Prior to May 8, 1951, staff gage at same site and datum.

Average discharge.--7 years, 7.17 cfs.

Extremes.--Maximum discharge during year, 110 cfs Mar. 8 (gage height, 9.26 ft); minimum, 0.7 cfs several days in July and August (gage height, 5.05 ft).

1950-57: Maximum discharge, 548 cfs Sept. 19, 1955 (gage height, 14.77 ft, from floodmark), from rating curve extended above 330 cfs by logarithmic plotting; minimum, 0.7 cfs at times in several years.

Flood in 1946 reached a stage of 17 ft, from information by local resident (discharge not determined).

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Natural runoff affected by ditches and canals above station.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

5.0	0.5	5.8	13
5.1	.9	6.0	16
5.3	2.1	7.0	37
5.5	5.0	8.0	66
5.6	7.0	9.0	101

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	4.5	4.5	3.4	16	62	17	2.6	2.3	1.0	0.7	0.8
2	1.7	3.9	4.6	3.2	15	46	18	2.8	2.1	1.0	.7	.8
3	1.5	3.2	4.5	3.0	14	38	18	2.4	1.8	1.0	.7	.8
4	1.4	27	4.3	2.9	13	31	17	2.6	1.6	1.0	.7	.9
5	3.6	23	3.9	2.9	12	45	19	4.3	1.8	1.0	.7	.9
6	2.3	21	3.7	2.8	14	93	26	5.0	2.2	1.0	.7	.8
7	1.6	18	3.6	2.8	14	72	24	4.5	2.3	.9	.7	.9
8	1.4	16	3.2	2.6	14	92	21	3.9	3.2	.9	.7	.8
9	1.3	a17	3.1	2.6	18	73	22	3.2	4.5	.9	.7	.9
10	1.2	a16	3.0	2.8	19	56	21	2.8	5.8	.9	.7	.8
11	1.2	a13	2.9	2.8	17	48	18	2.4	6.4	.9	.7	.8
12	1.1	a11	2.9	2.9	15	42	16	2.5	6.2	.9	.7	.8
13	1.0	a10	2.9	3.0	14	*37	15	2.4	5.2	.9	.7	.8
14	1.0	*a8.7	2.9	2.8	12	31	14	2.2	4.6	.9	.7	.8
15	1.0	7.7	2.9	2.6	11	30	12	1.9	3.9	1.0	.7	.8
16	1.0	6.8	3.4	2.8	9.7	28	9.4	1.8	3.1	1.0	.8	.8
17	22	6.6	3.4	2.8	9.4	24	8.0	1.6	2.6	1.0	.7	1.7
18	31	6.6	3.7	2.9	8.4	26	7.0	1.5	2.3	1.0	.7	3.1
19	18	6.2	3.6	2.8	12	50	*6.6	2.3	a2.0	.9	.8	.9
20	14	6.0	3.4	2.6	21	39	5.8	2.2	a1.7	.9	.8	.8
21	14	5.6	3.4	2.5	20	31	5.4	2.0	a1.5	.9	.8	.8
22	25	5.2	3.2	2.4	17	30	4.8	1.9	a1.3	.9	.8	.8
23	24	5.0	3.1	2.6	16	37	4.5	1.9	a1.3	.9	.8	2.7
24	20	4.8	4.1	2.8	14	30	4.1	1.9	a1.2	1.0	.9	2.0
25	18	4.6	4.8	4.5	12	32	4.3	1.8	a1.2	.9	.9	.9
26	16	4.5	5.0	6.4	33	32	3.9	1.9	1.2	.8	.8	.9
27	14	4.3	4.8	6.4	36	28	3.1	2.3	1.1	.7	.8	.9
28	14	3.9	4.5	6.4	54	25	2.6	2.6	1.1	.7	.8	.9
29	17	3.7	4.1	16.8		22	2.3	2.8	1.0	.7	.8	9.7
30	49	4.1	3.9	15		20	2.3	2.6	1.0	.7	.8	35
31	58		3.7	16		18		2.5		.7	.7	
Total	388.3	382.3	115.0	126.8	480.5	1,268	352.1	79.1	77.5	27.9	23.2	74.3
Mean	12.5	12.7	3.71	4.09	17.2	40.9	11.7	2.55	2.58	0.90	0.75	2.48
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 79

Min 0.9

Mean 9.24

Cfsm -

In. -

Water year 1956-57: Max 93

Min 0.7

Mean 9.30

Cfsm -

In. -

Peak discharge (base, 120 cfs).--No peak above base.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for Swift Creek near Vanceboro.

Eno River at Hillsboro, N. C.

Location.--Lat 36°04', long 79°06', on right bank 1,000 ft downstream from bridge on State Highway 86 at Hillsboro, Orange County, and 2 miles downstream from Sevenmile Creek.

Drainage area.--66.5 sq mi.

Records available.--November 1927 to September 1957 (fragmentary prior to April 1930).

Gage.--Water-stage recorder and rectangular weir. Datum of gage is 487.44 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 29, 1937, staff gage at same site and datum with natural control.

Average discharge.--27 years (1930-57), 62.7 cfs.

Extremes.--Maximum discharge during year, 3,120 cfs Feb. 1 (gage height, 15.05 ft); minimum, 0.9 cfs Aug. 13, 14, 15.

1927-57: Maximum discharge, 11,000 cfs Sept. 18, 1945 (gage height, 20.01 ft), from rating curve extended above 6,000 cfs by logarithmic plotting; minimum, 0.1 cfs Sept. 5, 1953, Oct. 6-14, 1954.

Remarks.--Records good except those below 5 cfs, which are fair. Diversion of about 0.8 cfs for Hillsboro water supply is partly returned above station as sewage.

Revisions (water years).--WSP 1032: 1939(M), 1944(M). WSP 1203: 1930(M). WSP 1333: 1928-29, 1932, 1933-34(M), 1938(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 28				Mar. 1 to Sept. 30			
1.5	7.3	4.0	254	1.1	0.8	2.8	105
1.8	16	8.0	1,030	1.2	1.7	3.5	224
2.1	33	12.0	1,930	1.5	7.3	4.0	308
2.9	99.			1.8	16	5.0	487
				2.1	34	7.0	861
				2.4	59		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	105	20	36	*1,760	770	48	62	19	12	2.6	10
2	15	69	19	33	556	201	51	44	18	10	2.5	9.2
3	13	53	19	30	175	127	47	38	17	9.2	2.1	8.1
4	12	44	19	30	136	98	44	37	17	8.1	3.3	7.0
5	10	39	18	32	104	*81	84	35	27	7.8	5.4	6.5
6	121	34	18	32	87	73	108	33	25	7.6	5.0	6.3
7	30	31	18	30	76	69	60	30	22	7.3	3.5	6.3
8	18	30	18	29	72	170	57	27	19	6.8	*2.8	6.5
9	14	70	18	27	133	252	146	27	18	5.8	1.8	8.9
10	12	58	18	29	121	104	63	25	20	5.4	1.5	9.2
11	11	41	17	27	88	81	51	26	19	4.8	1.4	13
12	9.7	34	17	25	71	73	46	31	16	4.4	1.5	9.5
13	*9.5	30	17	26	63	65	46	63	16	4.2	1.1	7.3
14	9.5	27	19	25	58	67	44	54	14	3.8	1.0	6.3
15	8.9	25	94	24	53	68	38	33	17	4.2	1.2	5.6
16	8.6	24	213	24	50	62	37	27	15	5.4	1.4	9.2
17	8.6	*24	73	24	48	54	37	23	15	7.5	1.6	38
18	8.9	34	53	22	45	50	*36	23	14	13	21	221
19	290	32	41	21	49	72	35	26	16	10	110	56
20	95	26	36	21	113	68	35	34	21	6.8	44	*29
21	218	25	34	23	66	53	33	25	14	5.4	15	22
22	331	32	44	26	54	137	214	23	12	4.6	8.9	20
23	87	29	294	54	49	200	770	23	11	8.9	6.3	164
24	55	24	237	63	46	98	123	26	9.7	2.8	5.0	51
25	39	23	113	41	45	111	69	39	92	9.5	323	26
26	34	22	72	*38	616	97	53	34	36	6.5	132	19
27	72	23	59	40	283	78	47	45	19	5.0	139	16
28	69	22	51	63	327	65	41	37	15	4.6	33	14
29	43	22	48	60	-	59	65	23	25	4.0	19	52
30	53	21	43	261	-----	54	179	21	16	3.6	14	284
31	352	38	1,120	-----	50	-----	21	-----	3.1	12	-----	-----
Total	2,076.7	1,073	1,798	2,336	5,344	3,607	2,704	1,015	614.7	227.3	921.9	1,140.9
Mean	67.0	35.8	58.0	75.4	191	116	90.1	32.7	20.5	7.33	29.7	38.0
Cfs/m	1.01	0.538	0.872	1.13	2.87	1.74	1.35	0.492	0.308	0.110	0.447	0.571
In.	1.16	0.60	1.01	1.31	2.99	2.02	1.51	0.57	0.34	0.13	0.52	0.64

Calendar year 1956: Max 1,110 Min 2.8 Mean 48.2 Cfs/m 0.725 In. 9.87

Water year 1956-57: Max 1,760 Min 1.0 Mean 62.6 Cfs/m 0.941 In. 12.78

Peak discharge (base, 1,500 cfs).--Feb. 1 (4:30 a.m.) 3,120 cfs (15.05 ft); Mar. 1 (1:30 a.m.) 1,540 cfs (10.38 ft).

* Discharge measurement made on this day.

Flat River at Bahama, N. C.

Location.--Lat 36°11'00", long 78°52'45", on right bank half a mile upstream from Lake Michie, 1½ miles upstream from highway bridge, 1½ miles north of Bahama, Durham County, and 1½ miles upstream from Dial Creek.

Drainage area.--150 sq mi.

Records available.--July 1925 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 356 ft (from topographic map). Prior to Oct. 22, 1925, staff gage at same site at datum 0.58 ft lower.

Average discharge.--32 years, 142 cfs.

Extremes.--Maximum discharge during year, 6,700 cfs Feb. 1 (gage height, 8.06 ft); minimum, 2.8 cfs Aug. 17, 18 (gage height, 0.92 ft).

1925-57: Maximum discharge, about 20,000 cfs July 26, 1938 (gage height not determined), computed from records at nearby stations; minimum, 0.37 cfs Sept. 26, 27, 1932 (gage height, 0.23 ft).

Remarks.--Records good except those for period of no gage-height record, which are poor. Some diurnal fluctuation and infrequent regulation at low flow caused by small mill 5 miles above station.

Revisions (water years).--WSP 1333: 1926, 1928(M), 1938, 1946.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-4		Oct. 5 to Sept. 30	
1.2	11	0.9	2.3
1.3	17	1.0	4.8
1.4	25	1.2	11
1.5	36	1.4	25
		1.6	53
		2.0	153
		2.5	341
		3.0	580
		4.0	1,220
		5.0	2,100
		7.0	4,750

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	223	28	57	4,110	1,410	86	80	a28	17	6.5	13
2	21	162	26	50	1,420	410	96	63	a28	14	6.2	11
3	16	93	25	46	490	257	90	59	a25	12	5.4	10
4	13	67	26	42	364	196	80	55	a25	11	5.4	9.6
5	12	57	24	46	253	159	98	53	442	11	10	9.6
6	*17	48	23	47	212	145	256	50	a110	10	25	9.6
7	28	41	24	46	193	133	120	44	a60	9.6	14	9.6
8	29	40	23	42	171	186	124	42	a45	8.8	*10	10
9	23	104	24	41	520	300	783	41	a40	7.7	9.2	11
10	16	128	25	42	431	156	196	40	a45	7.7	7.7	11
11	13	*69	23	41	262	128	142	38	a36	7.1	6.5	11
12	11	53	23	38	177	117	117	42	a30	6.5	6.0	11
13	9.9	46	23	37	147	106	112	*40	a26	6.2	4.8	10
14	9.6	41	24	38	131	109	106	37	a24	6.2	3.8	9.6
15	9.6	35	*72	37	117	117	93	32	20	6.2	3.6	9.2
16	9.2	34	350	34	103	112	80	29	17	6.2	3.3	9.2
17	8.8	33	147	33	98	96	80	29	17	6.8	2.8	9.9
18	9.2	37	80	28	90	90	78	26	15	27	4.8	19
19	12	48	65	*26	101	112	76	23	15	38	13	40
20	91	40	53	29	345	136	73	80	15	18	59	35
21	64	35	48	32	165	101	69	53	16	11	28	24
22	509	37	70	34	120	296	265	35	16	9.6	16	21
23	176	41	569	210	*103	574	2,590	a32	14	8.8	11	18
24	78	37	485	234	98	226	366	a35	12	8.8	9.2	41
25	48	32	248	106	93	193	183	a40	*11	14	889	32
26	40	32	136	101	1,020	189	131	a45	28	11	233	25
27	42	30	103	103	614	147	103	a180	28	9.6	54	20
28	182	33	86	199	862	120	86	a100	17	8.4	33	15
29	76	32	78	212	-	106	73	a55	17	8.1	22	16
30	55	30	71	658	-----	*98	105	a40	18	7.7	16	117
31	396	---	61	1,510	-----	90	-----	a32	-----	7.4	14	-----
Total	2,052.3	1,758	3,073	4,199	12,810	6,615	6,897	1,550	1,236	341.4	1,532.2	597.3
Mean	66.2	57.9	99.1	135	458	213	230	50.0	41.2	11.0	49.4	19.9
Cfsm	0.441	0.366	0.661	0.900	3.05	1.42	1.53	0.333	0.275	0.073	0.329	0.133
In.	0.51	0.43	0.76	1.04	3.18	1.64	1.71	0.38	0.31	0.08	0.38	0.15
Calendar year 1956: Max	3,680			Min	4.3		Mean	111	Cfsm	0.740	In.	10.08
Water year 1956-57: Max	4,110			Min	2.8		Mean	117	Cfsm	0.780	In.	10.57

Peak discharge (base, 4,500 cfs).--Feb. 1 (7 a.m.) 6,700 cfs (8.06 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and recorded range in stage.

Dial Creek near Bahama, N. C.

Location.--Lat 36°10'35", long 78°51'20", on right bank three-eighths of a mile upstream from mouth and Lake Michie and 1½ miles northeast of Bahama, Durham County.

Drainage area.--4.9 sq mi, approximately.

Records available.--October 1925 to September 1957. Prior to October 1929, published as "at Bahama."

Gage.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 356 ft (from topographic map).

Average discharge.--32 years, 4.26 cfs.

Extremes.--Maximum discharge during year, 377 cfs June 5 (gage height, 4.14 ft); no flow Aug. 3, 1925-57; Maximum gage height, 7.60 ft May 24, 1940 (discharge not determined); no flow at times in many years.

Remarks.--Records fair except those for periods of no gage-height record, which are poor.

Revisions (water years).--WSP 1233: 1926-40, 1941-42(M), 1944-45, 1946-47(M), 1948-50(P). WSP 1333: 1931.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.0	C	1.0	2.42
.1	.01	1.3	4.75
.2	.07	1.6	8.0
.3	.17	2.0	14
.4	.30	2.3	26
.6	.73	2.6	50
.8	1.38	3.1	109

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	0.34	8.1	0.87	1.85	106	26	3.15	2.18	0.99	0.56	0.01	0.37	
2	.27	5.1	.87	1.60	28	11	3.55	2.06	.43	.01	.34		
3	.26	2.30	.87	1.50	13	7.9	2.80	1.90	1.05	.37	0	.32	
4	.29	1.65	.87	1.60	9.5	6.2	2.73	1.85	.99	.35	.02	.27	
5	.43	1.34	.81	1.75	6.8	5.4	4.03	1.85	106	.30	.33	.26	
6	1.58	1.15	.84	1.60	5.8	4.84	3.63	1.65	9.2	.26	.11	.32	
7	.97	1.05	.84	1.55	5.0	4.66	2.80	1.55	5.0	.24	.04	.43	
8	.48	1.11	.84	1.46	4.93	7.2	7.5	1.50	2.73	.20	.02	.35	
9	.39	3.36	.84	1.50	8.0	5.7	9.7	1.38	2.42	.18	.01	.80	
10	.30	1.90	.81	1.60	6.8	4.39	5.1	1.30	2.30	.15	.01	.61	
11	.26	1.50	.78	1.38	5.2	3.95	4.12	1.47	1.85	.13	.01	.93	
12	.26	1.30	.81	1.34	4.21	3.87	3.63	2.34	1.60	.10	.01	.43	
13	.27	1.15	.81	1.42	3.87	3.55	3.47	1.50	1.30	.10	.01	.35	
14	.29	1.02	.92	1.38	3.63	3.87	a3.3	1.38	1.11	.09	.01	.32	
15	.29	1.02	a18	1.30	3.23	3.63	a3.2	1.22	.96	.18	.02	.27	
16	.27	.99	a22	1.38	3.23	3.39	a3.0	1.11	.87	.18	.01	.24	
17	.27	.96	a5	1.42	2.94	3.08	a2.9	1.02	.87	.65	.01	.54	
18	.41	1.08	a3	1.26	2.80	3.01	a2.7	1.08	.75	1.58	.84	*2.78	
19	1.76	.96	2.42	1.18	5.5	5.1	a2.6	1.15	1.43	.38	4.76	.96	
20	1.06	.93	2.12	1.30	7.3	3.79	a2.5	3.03	.93	.24	1.36	.73	
21	2.07	.96	2.00	1.46	4.30	3.08	a2.4	1.38	.73	.18	.48	.60	
22	6.2	1.74	3.41	1.60	3.63	7.3	a12	1.34	.63	.15	.22	.50	
23	1.95	1.15	14	6.2	3.39	8.0	a63	1.30	.56	.14	.15	.66	
24	1.07	1.02	12	3.48	3.15	5.3	9.4	1.05	.50	.60	.14	.80	
25	.81	.96	5.9	2.80	3.23	5.6	5.4	.99	.53	.27	45	.43	
26	.73	1.02	3.63	2.73	52	4.75	4.12	1.08	.78	.15	4.53	.37	
27	1.14	1.02	2.94	3.58	15	4.03	3.39	3.58	.78	.11	1.42	.39	
28	1.28	.90	2.60	4.48	36	3.55	2.87	1.55	.66	.09	.84	.34	
29	.84	.93	2.54	9.7	-	3.39	2.54	1.11	1.36	.06	.68	2.21	
30	.87	.93	2.12	14	-----	*3.15	2.48	1.05	.60	.03	.58	4.75	
31	3.30	--	1.95	89	-----	2.87	-----	1.08	-----	.02	.44	---	
Total	30.71	48.60	117.41	168.40	356.44	171.55	184.01	48.03	150.35	8.47	61.88	22.67	
Mean	0.991	1.62	3.79	5.43	12.7	5.53	6.13	1.55	5.01	0.273	2.00	0.756	
Cfsm	0.202	0.331	0.773	1.11	2.60	1.13	1.25	0.316	1.02	0.056	0.408	0.154	
In.	0.23	0.37	0.89	1.28	2.71	1.30	1.40	0.36	1.14	0.06	0.47	0.17	
Calendar year 1956: Max	104					Min	0	Mean	3.16	Cfsm	0.645	In.	8.75
Water year 1956-57: Max	106					Min	0	Mean	3.75	Cfsm	0.765	In.	10.38

Peak discharge (base, 160 cfs).--Feb. 1 (1:30 a.m.) 331 cfs (4.02 ft); Apr. 23 (time unknown) 216 cfs (3.65 ft); June 5 (6:30 a.m.) 377 cfs (4.14 ft); Aug. 25 (12:30 p.m.) 160 cfs (3.40 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, normal recession, and records for nearby stations.

Flat River at dam, near Bahama, N. C.

Location.--Lat 36°08'55", long 78°49'43", on right bank 900 ft downstream from Durham municipal dam, 3 miles southeast of Bahama, Durham County, and 5 miles upstream from confluence with Eno River.

Drainage area.--171 sq mi.

Records available.--August 1927 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 255.05 ft above mean sea level (levels by Corps of Engineers). Prior to Nov. 19, 1927, at datum 1.30 ft higher.

Average discharge.--30 years, 154 cfs.

Extremes.--Maximum discharge during year, 7,190 cfs Feb. 1 (gage height, 13.14 ft); minimum, 2.5 cfs Aug. 22 (gage height, 0.70 ft).

1927-57: Maximum discharge, 19,700 cfs July 26, 1938 (gage height, 19.50 ft), from rating curve extended above 4,000 cfs on basis of computation of peak flow over Durham municipal dam at gage heights 13.1, 13.60, 14.60, 16.70, and 19.50 ft; no flow Sept. 3-14, 1938 (result of construction work upstream).

Remarks.--Records fair. Considerable regulation since 1926 by Lake Michie (usable capacity, 12,610 acre-ft) above station. An average of 12.1 cfs was diverted above station for Durham municipal water supply. About 8.2 cfs was returned as sewage to Neuse River 3 miles upstream from Northside gage and the remainder, about 4.0 cfs, is diverted into the Cape Fear River basin.

Revisions (water years).--WSP 1333: 1928-30, 1932(M), 1934, 1935-39(M), 1944.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 15					Dec. 16 to Sept. 30				
0.6	1.6	1.1	23		0.7	2.5	2.5	257	
.7	3.4	1.4	54		.8	5.5	3.0	398	
.8	6.4	2.0	160		.9	10	4.0	720	
.9	10	3.0	398		1.1	25	8.0	2,550	
					1.4	53	10.0	3,900	
					1.8	110	12.0	5,800	

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	165	7.2	50	5,410	1,980	50	95	68	3.0	3.3	44
2	2.8	217	6.8	50	1,950	595	52	70	42	3.3	3.3	20
3	2.8	221	6.8	50	863	398	55	55	43	3.3	3.3	8.7
4	3.0	221	6.8	50	458	280	70	78	44	3.6	3.3	6.7
5	2.8	144	6.8	61	380	278	82	75	511	3.6	3.3	6.7
6	*3.2	113	6.8	57	374	275	81	55	395	3.3	3.3	8.0
7	3.0	99	5.7	50	307	216	77	16	223	3.3	3.3	6.7
8	3.0	7.2	4.7	50	307	196	136	14	88	3.3	*3.3	7.1
9	3.0	21	5.4	50	286	191	673	14	88	3.6	3.0	7.1
10	2.8	7.2	6.0	77	307	164	379	14	53	11	3.0	12
11	3.6	*7.2	6.8	84	374	164	221	14	53	3.0	3.0	7.5
12	5.0	7.6	7.2	86	327	162	191	14	53	3.3	3.0	7.5
13	5.7	7.6	6.8	84	245	162	191	*13	69	3.3	3.0	7.5
14	5.7	7.6	7.2	57	202	189	123	7.7	75	3.6	3.0	7.5
15	5.7	7.6	16	19	122	88	59	3.9	28	3.6	3.3	9.0
16	5.7	8.0	156	12	90	87	53	3.9	3.9	3.6	3.3	7.5
17	5.7	115	191	12	51	64	54	3.9	3.3	3.6	2.8	8.0
18	6.4	115	*206	12	39	49	54	3.6	3.3	3.6	3.6	*7.5
19	6.4	115	110	*12	99	52	64	3.6	18	3.3	4.6	7.5
20	6.4	115	105	13	148	53	81	3.9	28	3.6	2.8	7.5
21	6.8	120	105	12	189	66	81	3.9	3.3	3.6	2.8	7.5
22	74	59	105	12	202	136	65	3.9	3.3	3.6	2.8	7.5
23	120	7.2	181	15	189	571	2,650	3.6	3.6	3.6	2.8	8.0
24	120	7.2	452	49	*160	413	661	29	3.6	3.6	2.8	7.5
25	122	7.2	375	90	160	383	251	42	*3.9	3.6	16	7.5
26	152	7.2	254	65	705	344	187	42	3.9	3.6	215	8.0
27	225	7.2	250	38	1,020	204	194	42	3.6	3.6	182	7.5
28	162	7.2	154	116	624	170	194	42	3.6	3.6	95	8.0
29	111	7.2	169	216	505	67	198	64	3.3	3.6	78	9.0
30	111	6.8	174	505	---	*70	206	78	3.0	3.6	78	9.0
31	109	---	79	1,270	---	59	---	77	---	3.3	68	---
Total	1,398.5	1,937.2	3,173.0	3,324	15,388	8,155	7,440	984.9	1,924.6	115.1	808.0	281.5
Mean	45.1	64.6	102	107	550	263	248	31.8	64.2	3.71	26.1	9.38
Cfsm	---	---	---	---	---	---	---	---	---	---	---	---
In.	---	---	---	---	---	---	---	---	---	---	---	---

Calendar year 1956: Max 3,360 Min 2.8 Mean 114 Cfsm - In. -
 Water year 1956-57: Max 5,410 Min 2.8 Mean 123 Cfsm - In. -

* Discharge measurement made on this day.

Neuse River near Northside, N. C.

Location.--Lat 35°02'07", long 78°44'59", on right bank 25 ft upstream from Fish Dam Bridge, 1½ miles downstream from Rocky Creek, 2½ miles downstream from Seaboard Air Line Railroad bridge, 2½ miles south of Northside, Granville County, 8½ miles downstream from confluence of Eno and Flat Rivers, and 9½ miles northeast of Durham, Durham County.

Drainage area.--526 sq mi.

Records available.--July 1927 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 226.32 ft above mean sea level (levels by Corps of Engineers). Prior to June 2, 1928, chain gage at site 10 ft upstream at same datum. Since Sept. 29, 1950, auxiliary water-stage recorder at bridge on U. S. Highway 15, 4 miles upstream. Mar. 25, 1949, to Sept. 28, 1950, auxiliary wire-weight gage at same site.

Average discharge.--30 years, 524 cfs.

Extremes.--Maximum discharge during year, 11,000 cfs Feb. 2 (gage height, 23.00 ft); minimum daily, 16 cfs Aug. 16.

1927-57: Maximum discharge, 36,600 cfs Sept. 18, 1945; maximum gage height, 31.02 ft Sept. 18, 1945, from floodmark; minimum discharge, 3.1 cfs Sept. 20, 1932 (gage height, 0.87 ft).

Remarks.--Records good except those for period of doubtful gage-height record which are fair, and those for periods of no gage-height record, which are poor. Moderate diurnal fluctuation caused by powerplant above station. Flow regulated by Durham municipal dam. For diversion see records for Flat River at dam near Bahama, preceding page.

Revisions (water years).--WSP 822: Drainage area. WSP 1032: 1933(M), 1935-36, 1937(M), 1938-39, 1944(M). WSP 1333: 1928-31, 1933, 1934(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge,

in cubic feet per second)

(Shifting-control method used Mar. 24 to Apr. 5; fall used as a factor Oct. 23, 24, Nov. 2, 3, Dec. 17, Feb. 3-7, 28, Mar. 2-4, Apr. 24, 25, June 6, Aug. 27)

Oct. 1 to Nov. 1

Nov. 2 to Sept. 30

1.5	44	1.2	13	5.0	593
2.0	96	1.3	18	8.0	1,290
4.0	390	1.4	26	15.0	3,590
6.0	770	1.6	56	19.0	6,010
10.0	1,880	2.0	113	21.0	8,000
		3.0	246	23.0	11,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	1,240	117	a265	d6,130	d4,360	291	456	141	90	26	113
2	81	<u>1,340</u>	112	a240	d10,500	d4,750	315	284	125	68	24	91
3	66	814	108	a215	d6,180	d2,650	315	217	103	56	25	58
4	61	555	105	a210	d3,800	d1,240	291	217	309	48	24	49
5	118	442	105	a215	d2,250	800	315	217	992	39	30	44
6	127	307	103	a230	d1,570	714	*a500	190	<u>1,330</u>	39	27	41
7	590	276	100	a210	d978	673	a420	170	688	38	*26	39
8	207	210	103	a200	d778	673	a320	127	344	36	21	38
9	103	274	100	a180	d1,050	1,480	a1,150	106	508	38	21	46
10	81	479	99	a210	d1,460	1,040	a1,000	100	246	39	20	125
11	68	291	99	a220	d1,130	673	a580	100	177	48	18	125
12	63	210	97	a215	d866	593	a450	146	151	35	17	87
13	*59	177	96	a210	d675	555	a430	*132	136	32	18	64
14	57	158	101	a180	d574	555	a375	136	141	27	18	53
15	53	146	325	a150	d498	555	a280	151	130	26	18	41
16	52	137	1,850	a140	d382	460	a250	268	76	27	16	38
17	53	156	1,620	a135	d356	416	246	143	729	34	17	*48
18	57	224	721	a130	d276	359	246	81	294	41	175	1,130
19	118	231	479	a125	d251	416	246	87	117	74	356	760
20	619	238	356	a125	d800	536	261	113	159	63	390	246
21	411	224	323	a120	d756	433	254	143	143	46	168	146
22	<u>1,880</u>	231	315	a130	d574	556	246	105	92	35	86	a185
23	1,460	163	750	a205	d498	1,760	1,440	94	73	31	56	a190
24	535	143	a2,200	a500	d433	1,240	<u>2,800</u>	87	*56	79	39	a390
25	366	126	a1,850	a415	d407	932	867	112	56	87	802	a165
26	295	120	a800	a385	d1,520	910	433	172	190	68	<u>2,750</u>	a110
27	342	122	*633	*d250	d3,460	693	398	210	178	44	1,090	a85
28	493	121	498	d440	d3,870	536	373	190	100	34	398	a72
29	382	<u>117</u>	451	d593	-	460	356	177	97	29	203	a120
30	288	117	460	d1,770	-----	348	544	158	95	26	164	a1,100
31	773	-----	390	d2,680	-----	<u>331</u>	-----	148	-----	27	142	-----
Total	10,004	9,389	15,466	11,293	52,060	31,677	15,792	5,049	7,976	1,404	7,185	5,859
Mean	323	313	499	364	1,859	1,022	526	163	266	45.3	232	195
Cfsm	0.614	0.595	0.949	0.692	3.53	1.94	1.00	0.310	0.506	0.086	0.441	0.371
In.	0.71	0.66	1.09	0.80	3.68	2.24	1.12	0.36	0.56	0.10	0.51	0.41

Calendar year 1956: Max 6,270 Min 28 Mean 423 Cfsm 0.804 In. 10.93
Water year 1956-57: Max 10,500 Min 18 Mean 474 Cfsm 0.901 In. 12.24

Peak discharge (base, 4,500 cfs).--Feb. 2 (4 a.m.) 11,000 cfs (23.00 ft); Mar. 2 (3 a.m.) 5,260 cfs (17.96 ft).

a No gage-height record; discharge estimated on basis of observer's reading, discharge measurements, records for auxiliary gage, and nearby stations.

d Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorded graph and observer's readings.

Neuse River near Clayton, N. C.

Location.--Lat 35°39', long 78°25', on left bank 5 ft downstream from bridge on State Highway 42, 1.8 miles upstream from Mill Creek, and 3 miles east of Clayton, Johnston County.

Drainage area.--1,140 sq mi, approximately.

Records available.--July 1927 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 128.12 ft above mean sea level (levels by Corps of Engineers). Prior to Mar. 18, 1942, at site 1,100 ft upstream at same datum.

Average discharge.--30 years, 1,190 cfs.

Extremes.--Maximum discharge during year, 9,150 cfs Feb. 6 (gage height, 12.50 ft); minimum, 83 cfs Aug. 12, 13 (gage height, 0.92 ft).

1927-57: Maximum discharge, 22,900 cfs Sept. 19, 1945 (gage height, 22.12 ft); minimum, 44 cfs Sept. 15, 1932 (gage height, 0.28 ft, site then in use).

Flood of July 23, 1919, reached a stage of 21.15 ft, from floodmark at former site (discharge, 21,200 cfs).

Remarks.--Records good.

Revisions (water years).--WSP 822: Drainage area. WSP 1032: 1930, 1935(M). WSP 1333: 1935. Revised figures of discharge, in cubic feet per second, for period in water year 1949, superseding those published in WSP 1142, are given herewith:

Jan. 22, 1949..... 1,550

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
January 1949.....	66,610	5,590	960	2,149	1.89	2.17
Water year 1948-49.....	579,417	8,950	219	1,587	1.39	18.91
Calendar year 1949.....	452,062	7,750	219	1,239	1.09	14.75

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 5

Feb. 6 to Sept. 30

1.2	134	0.9	78	2.5	770
1.6	266	1.2	160	3.0	1,080
2.0	468	1.5	254	7.0	4,000
		2.0	468	13.0	9,650

Note.--Same as following table above 2.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	462	1,400	368	860	4,920	6,510	746	890	368	*254	*120	230
2	357	1,400	362	*897	6,680	7,080	733	830	362	251	117	261
3	284	3,090	*338	636	7,270	6,230	715	570	*342	234	140	*224
4	223	2,400	306	600	*7,850	5,950	691	492	1,040	215	154	212
5	266	1,450	279	568	8,650	4,940	697	447	1,640	184	175	196
6	230	990	279	582	9,050	2,080	1,020	420	1,690	196	160	181
7	315	727	279	570	7,950	1,580	1,020	410	2,380	178	131	178
8	616	618	279	546	4,400	1,550	925	379	2,180	148	123	160
9	516	636	286	529	2,180	1,750	618	349	1,550	163	117	166
10	310	752	284	516	3,320	2,360	1,220	324	1,750	157	103	196
11	238	890	268	510	3,010	1,950	1,480	320	1,050	137	90	268
12	199	733	275	510	2,290	1,380	1,020	4,070	666	131	83	305
13	163	558	270	510	1,750	1,150	812	8,010	510	134	98	283
14	165	474	270	492	1,420	1,050	746	1,650	426	140	90	228
15	154	427	1,510	480	1,180	1,020	709	727	379	123	*86	164
16	165	393	5,370	480	1,050	1,050	612	606	379	224	96	160
17	171	378	5,310	456	890	890	552	570	362	187	90	169
18	250	362	3,580	399	788	808	522	570	618	267	158	531
19	216	398	1,920	383	715	890	516	426	776	209	1,770	1,330
20	226	433	1,220	378	1,040	1,120	510	431	685	166	1,210	1,400
21	655	438	925	362	1,620	1,080	498	402	397	151	648	624
22	1,060	438	824	378	1,460	960	498	398	366	157	*463	406
23	2,060	421	630	415	1,120	1,860	1,040	397	317	169	517	345
24	2,210	409	1,660	450	960	2,790	1,700	353	268	328	241	313
25	1,070	343	3,090	636	860	2,650	2,940	328	238	328	309	324
26	648	324	3,160	764	1,850	2,150	2,080	436	221	231	1,210	388
27	570	310	2,060	878	4,770	1,880	830	588	276	218	2,430	283
28	570	297	1,280	630	4,940	1,490	654	597	384	193	2,010	231
29	624	297	1,080	708	---	1,150	606	540	397	180	760	354
30	860	352	1,050	708	---	990	660	457	313	157	442	2,040
31	582	---	990	2,830	---	824	---	410	---	134	341	---
Total	16,255	24,128	39,844	20,108	94,163	69,160	27,770	27,467	22,350	5,924	14,284	12,230
Mean	524	804	1,285	649	3,363	2,231	926	887	745	191	461	408
Cfsm	0.460	0.705	1.113	0.569	2.95	1.96	0.812	0.778	0.654	0.168	0.404	0.358
In.	0.53	0.79	1.30	0.66	3.07	2.26	0.91	0.90	0.73	0.19	0.47	0.40

Calendar year 1956: Max 8,550

Water year 1956-57: Max 9,050

Min 100

Mean 83

Mean 968

Mean 1,024

Cfsm 0.849

Cfsm 0.898

In. 11.57

In. 12.21

Peak discharge (base, 7,100 cfs).--Feb. 6 (4 a.m.) 9,150 cfs (12.50 ft); Mar. 2 (5 a.m.) 7,270 cfs (10.62 ft); May 13 (11 a.m.) 8,850 cfs (12.25 ft).

* Discharge measurement made on this day.

Middle Creek near Clayton, N. C.

Location.--Lat 35°34'10", long 78°35'30", on right bank 300 ft downstream from bridge on State Highway 50, a quarter of a mile upstream from Buffalo Branch, 3½ miles downstream from county line, and 9½ miles southwest of Clayton, Johnston County.

Drainage area.-- 80.7 sq mi.

Records available.--November 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 177 ft (by barometer).

Average discharge.--18 years, 87.7 cfs.

Extremes.--Maximum discharge during year, 2,030 cfs June 9 (gage height, 10.42 ft); minimum, 3.6 cfs Aug. 15 (gage height, 0.75 ft).

1939-57: Maximum discharge, 5,400 cfs Sept. 4, 1955 (gage height, 13.14 ft); no flow Oct. 11-13, 1954.

Remarks.--Records fair.

Revisions (water years).--WSP 952: 1940(M), 1941. WSP 1933: 1943(M), 1945, 1949.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-4, Oct. 9 to Nov. 11)

Oct. 1 to Nov. 6

Nov. 7 to Sept. 30

1.3	18	0.7	2.9	5.0	293
2.0	46	1.2	6.2	6.0	455
3.0	105	1.2	14	7.0	640
5.0	268	1.5	23	8.0	910
6.0	389	2.0	45	9.0	1,250
7.0	565	3.0	105	10.0	1,760
8.0	827	4.0	185		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*31	*218	68	85	172	*515	*82	105	29	*29	*13	23
2	24	*723	54	*79	210	557	112	53	26	12	12	22
3	20	484	48	72	200	366	85	41	*25	22	11	*21
4	19	231	44	71	*150	162	71	48	80	20	10	19
5	92	130	42	74	126	185	92	56	175	19	11	19
6	244	108	41	71	119	230	195	42	300	17	15	20
7	350	94	41	68	116	225	158	54	291	17	12	26
8	147	88	41	66	112	210	105	31	158	14	8.5	22
9	69	116	41	62	134	210	94	25	*1,390	13	6.7	22
10	49	116	40	64	167	180	82	22	1,260	12	5.8	37
11	39	94	40	62	146	138	74	29	526	12	5.2	54
12	34	82	38	56	112	122	70	152	254	11	5.0	56
13	32	75	39	56	94	112	63	519	116	11	4.3	42
14	31	69	44	56	88	119	61	448	88	11	3.7	32
15	30	63	*106	54	82	142	58	88	71	12	*3.6	23
16	28	60	414	55	77	150	55	57	75	25	4.1	20
17	33	60	804	60	77	119	53	46	54	12	3.8	19
18	80	62	415	58	72	112	52	40	46	9.8	13	44
19	112	62	176	52	72	172	52	38	49	9.8	129	51
20	135	58	108	50	94	190	50	86	79	9.2	276	43
21	108	57	94	52	85	130	48	72	56	8.3	187	34
22	174	59	94	54	73	112	46	51	42	7.4	48	43
23	210	55	105	63	65	176	90	45	34	8.8	31	40
24	162	50	173	69	63	185	95	39	30	140	24	51
25	98	48	220	68	82	150	59	32	27	90	60	35
26	80	48	188	78	232	154	42	34	29	45	158	26
27	81	48	122	70	427	138	34	71	35	28	176	22
28	98	46	112	68	451	116	33	71	32	21	70	20
29	84	*56	108	82	-	102	40	48	46	18	43	82
30	79	82	105	158	-----	91	200	34	40	16	33	491
31	126	-----	94	158	-----	85	-----	31	-----	14	27	-----
Total	2,900	3,542	3,859	2,191	3,878	5,655	2,351	2,508	5,443	708.3	1,409.7	1,459
Mean	93.5	118	124	70.7	138	182	78.3	80.9	181	22.8	45.5	48.6
Cfsm	1.12	1.46	1.54	0.876	1.71	2.26	0.970	1.00	2.24	0.283	0.564	0.602
In.	1.34	1.63	1.78	1.01	1.79	2.61	1.08	1.16	2.51	0.33	0.65	0.67

Calendar year 1956: Max 1,140 Min 4.5 Mean 89.8 Cfsm 1.11 In. 15.13

Water year 1956-57: Max 1,390 Min 3.6 Mean 98.4 Cfsm 1.22 In. 16.56

Peak discharge (base, 600 cfs).--Nov. 2 (11:30 a.m.) 894 cfs (8.23 ft); Dec. 17 (11 a.m.) 666 cfs (7.14 ft); May 13 (6:30 p.m.) 770 cfs (7.47 ft); June 9 (7 p.m.) 2,030 cfs (10.42 ft).

* Discharge measurement made on this day.

Little River near Princeton, N. C.

Location.--Lat 35°30'20", long 78°09'30", on left bank 400 ft downstream from highway bridge, three-quarters of a mile upstream from Little Creek, and 3 miles north of Princeton, Johnston County.

Drainage area.--229 sq mi.

Records available.--February 1930 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 108 ft (by barometer). Prior to Nov. 17, 1934, staff gage at same site and datum.

Average discharge.--27 years, 235 cfs.

Extremes.--Maximum discharge during year, 1,360 cfs Mar. 2 (gage height, 8.79 ft); minimum, 4.6 cfs Aug. 16 (gage height, 0.81 ft).

1930-57: Maximum discharge, 4,770 cfs Jan. 24, 1954 (gage height, 12.79 ft); minimum, 1.0 cfs several times in September and October 1932 (gage height, 0.30 ft). Flood in July 1919 reached a stage of 14.57 ft; September 1924, 14.90 ft; September 1928, 13.3 ft; October 1929, 13.47 ft; from information by local resident.

Remarks.--Records fair except those for period of no gage-height record, which are poor. Slight diurnal fluctuation and occasionally some regulation for short periods caused by mills above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1233: 1935(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 17

Dec. 18 to Sept. 30

1.2	24	0.7	3.9	2.3	187
1.6	59	.8	6.1	3.0	294
2.0	106	1.0	15	4.0	444
3.0	257	1.2	29	6.0	774
4.0	426	1.4	50	9.0	1,410
5.0	594	1.8	109		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	94	116	234	489	1,330	219	212	96	79	26	27
2	105	188	116	211	549	1,330	200	286	68	61	28	17
3	79	354	98	190	549	1,180	177	187	54	45	19	16
4	70	325	92	171	*579	980	168	136	182	63	27	21
5	61	249	79	160	*579	810	173	108	142	37	25	20
6	77	233	76	157	519	720	279	102	226	*35	13	22
7	77	217	78	150	*459	670	354	96	249	51	14	33
8	60	187	74	157	414	670	294	76	239	49	11	34
9	55	191	64	150	429	720	286	70	*714	45	23	27
10	53	263	63	153	489	675	294	56	1,210	43	20	14
11	44	257	71	150	504	*549	234	57	936	37	27	23
12	40	206	69	134	459	459	190	96	501	47	*15	17
13	43	164	71	132	414	399	163	142	294	*21	8.0	49
14	32	134	59	138	369	347	152	234	196	26	22	54
15	*26	112	71	121	316	316	138	286	149	10	*9.6	34
16	32	100	140	118	264	309	134	294	136	5.9	5.9	27
17	39	94	*440	142	249	286	122	226	108	55	19	26
18	74	97	684	124	226	264	114	141	142	302	12	30
19	101	98	756	116	219	362	109	103	142	234	14	27
20	81	101	756	102	294	474	110	92	147	264	8.8	62
21	61	*97	573	102	399	414	102	104	242	185	92	85
22	96	92	399	*109	332	346	96	55	234	76	122	73
23	168	76	324	114	279	362	*97	76	234	60	103	60
24	170	73	339	134	242	354	100	*66	157	72	52	63
25	130	73	429	152	219	369	92	74	92	48	34	*55
26	103	72	414	182	487	429	80	120	66	46	25	a40
27	86	74	362	193	1,070	399	78	378	61	57	102	a30
28	79	76	359	177	1,260	346	67	350	57	61	102	a25
29	70	*79	309	176	309	309	61	209	54	30	76	a40
30	79	86	279	226	-----	256	73	133	60	37	43	a200
31	87	-----	249	362	-----	226	-----	109	-----	29	35	-----
Total	2,403	4,461	7,989	4,937	12,657	16,660	4,756	4,734	7,248	2,210.9	1,133.3	1,251
Mean	77.5	149	258	159	452	537	159	153	242	71.3	36.6	41.7
Cfsm	0.338	0.651	1.13	0.694	1.97	2.34	0.694	0.668	1.06	0.311	0.160	0.182
In.	0.39	0.72	1.30	0.80	2.06	2.71	0.77	0.77	1.18	0.36	0.18	0.20

Calendar year 1956: Max 1,880 Min 8.0 Mean 210 Cfsm 0.917 In. 12.45

Water year 1956-57: Max 1,330 Min 5.9 Mean 193 Cfsm 0.843 In. 11.44

Peak discharge (base, 1,200 cfs).--Mar. 2 (3 a.m.), 1,360 cfs (8.79 ft); June 10 (12 m.), 1,230 cfs (8.27 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, observers' readings and records for Contentnea Creek at Hookerton.

Neuse River near Goldsboro, N. C.

Location--Lat 35°20', long 78°00', on left bank 5 ft downstream from highway bridge, 0.2 mile upstream from Stony Creek, 1.5 miles downstream from Atlantic Coast Line Railroad bridge, 3 miles south of Goldsboro, Wayne County, 4.3 miles downstream from Little River, and at mile 135.

Drainage area--2,390 sq mi, approximately.

Records available--February 1930 to September 1957.

Gage--Water-stage recorder. Datum of gage is 42.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 24, 1931, chain gage at railroad bridge 1.5 miles upstream at datum 2.00 ft higher. July 24, 1931, to Aug. 31, 1948, water-stage recorder at site 2.3 miles upstream at datum 1.71 ft higher than present datum.

Average discharge--27 years, 2,385 cfs.

Extremes--Maximum discharge during year, 10,600 cfs Mar. 8 (gage height, 18.62 ft); minimum, 156 cfs Aug. 15 (gage height, 2.01 ft).

1930-57: Maximum discharge, 30,700 cfs Sept. 23, 1945; maximum gage height, 26.72 ft Sept. 23, 1945, site and datum then in use; minimum unregulated discharge, 85 cfs Sept. 14, 1932 (gage height, 1.03 ft, site and datum then in use); minimum, 80 cfs Dec. 3, 1951 (result of temporary closure of river channel upstream).

Maximum discharge known, 38,600 cfs Oct. 5, 1929 (gage height, 27.3 ft, at railroad bridge and present datum).

Remarks--Records good.

Revisions (water years)--WSP 822: Drainage area. WSP 1333: 1931, 1935.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

(Rate of change in stage used as a factor Oct. 1, 27, Nov. 2, 3, 8, 9, Dec. 17, 23, 24, 30, Feb. 1, 14, 16, 25-28, Mar. 12-15, 30, Apr. 28, May 13, 14, 17, 18, June 6, 14, 16, July 5, Aug. 18, 20, 28, 30, Sept. 20, 21)

Oct. 1 to Nov. 6

Nov. 7 to June 13

June 14 to Sept. 30

3.3	565	3.8	790	2.0	153
3.5	634	4.0	870	4.0	812
4.0	912	8.0	2,690	7.0	2,130
7.0	2,130	14.0	6,350	13.0	5,650
11.0	4,350	19.0	11,200		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,050	1,590	1,110	2,390	3,260	5,860	2,590	1,280	1,190	740	293	794
2	2,120	1,870	1,240	2,190	3,850	6,630	2,340	1,480	1,030	686	268	634
3	1,680	3,180	1,320	1,990	4,290	7,550	2,190	1,670	910	599	240	565
4	1,330	3,680	1,280	1,800	*4,670	8,360	2,090	1,530	790	532	216	500
5	1,160	4,120	1,240	1,620	5,120	9,250	1,990	1,320	910	519	210	448
6	1,000	4,350	1,150	1,570	5,720	10,000	2,040	1,240	1,940	669	240	430
7	1,000	4,470	1,110	1,530	*6,350	10,400	2,390	1,190	2,490	500	265	398
8	1,120	3,640	1,070	1,480	6,940	10,600	2,740	1,110	2,940	428	262	366
9	1,240	2,580	1,010	1,440	7,730	10,400	2,840	1,030	3,740	398	228	431
10	1,460	2,290	990	1,440	8,450	9,780	2,690	950	4,350	360	210	392
11	1,280	2,240	970	1,400	9,050	*8,550	2,540	870	4,930	328	201	363
12	1,000	2,240	970	1,360	9,050	6,920	2,690	870	5,370	308	*187	366
13	912	2,190	950	1,320	8,450	5,850	2,580	1,440	5,580	293	175	448
14	704	1,940	930	1,280	7,090	4,580	2,190	3,010	4,810	259	167	532
15	616	1,710	930	1,280	5,460	3,550	1,900	3,450	3,090	243	156	548
16	565	1,570	1,110	1,240	3,600	3,280	1,710	3,900	1,800	256	173	500
17	582	1,440	*2,630	1,190	2,790	3,100	1,620	3,610	1,410	299	178	414
18	849	1,360	3,570	1,190	2,390	2,990	1,480	2,130	1,160	500	290	398
19	923	1,280	4,120	1,190	2,190	2,890	1,400	1,440	1,080	548	448	385
20	1,040	1,280	4,600	1,150	2,140	2,940	1,360	*1,280	1,280	599	621	692
21	1,080	*1,240	5,120	1,110	2,340	3,340	1,280	1,280	1,500	565	1,550	1,550
22	1,240	1,240	5,440	*1,070	2,790	3,510	1,280	1,240	1,460	565	1,550	1,550
23	1,640	1,240	4,190	1,110	2,990	3,390	*1,320	1,110	1,200	431	1,330	1,060
24	2,130	1,190	2,970	1,150	2,740	3,280	1,360	970	1,020	465	1,040	*886
25	2,830	1,150	2,890	1,240	2,390	3,800	1,800	910	886	431	776	794
26	2,880	1,110	3,510	1,360	2,770	4,280	2,390	870	740	652	599	740
27	1,960	1,070	3,950	1,620	4,000	4,600	2,890	890	634	722	659	704
28	1,550	1,030	4,170	1,710	5,180	4,790	2,340	1,570	565	565	1,700	686
29	1,410	1,010	4,230	1,710	-	4,540	1,570	1,800	599	465	2,330	704
30	1,410	1,030	3,360	1,800	-----	3,670	1,280	1,670	704	398	1,960	923
31	1,550	-----	2,740	2,240	-----	3,040	-----	1,360	-----	331	1,160	-----
Total	43,211	60,330	74,870	46,170	133,790	175,710	60,890	48,570	60,108	14,654	19,692	19,201
Mean	1,394	2,011	2,415	1,489	4,778	5,668	2,030	1,567	2,004	473	635	640
Cfs/m	0.583	0.841	1.01	0.625	2.00	2.37	0.849	0.656	0.858	0.199	0.266	0.268
In.	0.67	0.94	1.17	0.72	2.08	2.73	0.95	0.76	0.94	0.23	0.31	0.30

Calendar year 1956: Max 10,600 Min 301 Mean 2,096 Cfs/m 0.877 In. 11.95
 Water year 1956-57: Max 10,600 Min 156 Mean 2,075 Cfs/m 0.868 In. 11.80

* Discharge measurement made on this day.

Neuse River at Kinston, N. C.

Location.--Lat 35°15'30", long 77°35'10", on left bank at Kinston, Lenoir County, 600 ft downstream from bridge on State Highway 11 and at mile 90.

Drainage area.--2,690 sq mi, approximately.

Records available.--February 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 10.90 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 25, 1934, chain gage at highway bridge 1 mile downstream at datum 0.80 ft lower.

Average discharge.--27 years, 2,729 cfs.

Extremes.--Maximum discharge during year, 10,800 cfs Mar. 11 (gage height, 16.40 ft); minimum, 229 cfs Aug. 15 (gage height, 2.20 ft).

1930-57: Maximum discharge, 25,900 cfs Sept. 27, 1945; maximum gage height, 22.44 ft Sept. 27, 1945; minimum discharge, 124 cfs Sept. 26, 1932 (gage height, 1.29 ft, site and datum then in use).

Maximum stage known, 25.0 ft July 1919, present site and datum (discharge, about 39,000 cfs), from information by North Carolina Highway and Public Works Commission.

Remarks.--Records good.

Revisions (water years).--WSP 822: Drainage area. WSP 1333: 1931-32.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Rate of change in stage used as a factor Dec. 18, Feb. 17-20, Mar. 16, 17, Apr. 30, May 14, 15, 19, 20, June 7, 17, 18, Aug. 22, 29, Sept. 1, 22, 30)

Oct. 1 to Mar. 13				Mar. 14 to Sept. 30			
3.8	798	13.0	6,440	2.2	229	10.0	4,000
4.0	880	16.0	10,100	2.5	300	14.0	7,390
7.0	2,340	17.0	11,900	3.0	441	16.0	10,100
				6.0	1,730		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,940	2,020	1,240	3,800	2,400	4,340	4,210	1,500	1,500	762	410	1,410
2	2,120	2,070	1,280	3,120	3,000	5,120	3,490	1,350	1,310	804	352	998
3	2,820	2,170	1,380	2,640	3,480	5,800	2,890	1,500	1,170	783	326	762
4	2,170	2,820	1,470	2,340	3,990	6,360	2,550	1,680	998	676	305	676
5	1,710	3,360	1,470	2,120	4,480	7,100	2,400	1,780	934	*616	308	656
6	1,470	3,800	1,420	1,970	4,830	7,970	2,340	1,590	998	762	292	578
7	1,280	4,130	1,330	1,810	5,260	8,740	2,340	1,400	1,650	890	277	578
8	1,190	4,480	1,280	1,760	5,640	9,620	2,500	1,310	2,230	697	297	542
9	1,240	4,620	1,240	1,710	6,120	10,300	2,830	1,210	2,720	542	300	475
10	1,380	4,150	1,150	1,660	6,620	10,600	3,060	1,120	3,240	490	292	507
11	1,510	3,240	1,150	1,610	7,200	10,800	3,000	1,080	3,800	441	264	507
12	1,510	2,700	1,120	1,560	7,730	*10,400	2,830	1,080	4,280	410	250	441
13	1,240	2,580	1,120	1,560	8,340	9,780	2,830	1,120	4,630	380	246	426
14	1,040	2,460	1,100	1,510	8,740	8,740	2,830	1,390	5,080	380	*235	441
15	880	2,250	1,100	1,470	8,740	7,610	2,500	2,440	5,320	352	272	507
16	798	2,020	1,100	1,470	8,210	6,710	2,130	2,940	5,080	326	269	542
17	798	1,810	1,280	1,420	6,840	5,380	1,930	3,360	3,720	326	248	542
18	970	1,660	*2,370	1,420	5,210	4,140	1,830	3,610	1,960	352	277	560
19	1,240	1,560	3,060	1,380	3,820	3,730	1,680	3,010	1,540	426	578	616
20	1,330	1,510	3,600	1,380	2,960	3,550	1,590	1,910	1,450	507	697	542
21	1,380	1,470	4,060	1,330	2,700	3,490	1,500	1,500	1,450	578	656	597
22	1,470	1,420	4,480	1,280	2,640	3,490	1,450	1,400	1,590	578	1,280	1,280
23	1,610	1,420	4,900	*1,280	2,880	3,730	*1,400	1,310	1,590	542	1,500	1,540
24	1,910	1,420	5,340	1,280	3,120	3,730	1,400	*1,210	1,350	542	1,350	1,350
25	2,280	1,380	5,040	1,380	3,180	3,730	1,450	1,080	1,170	542	1,170	1,120
26	2,760	1,330	4,270	1,510	3,000	3,860	1,730	998	1,080	507	955	955
27	3,060	1,280	3,860	1,610	3,120	4,210	2,180	998	955	578	762	848
28	2,700	1,240	3,990	1,760	3,600	4,560	2,600	1,080	848	718	697	785
29	2,070	1,150	4,200	1,910	4,850	2,800	1,500	762	616	524	1,330	869
30	1,860	1,190	4,410	1,970	5,000	1,860	1,780	718	524	1,980	1,890	1,890
31	1,910	---	4,340	2,070	---	4,770	---	1,730	---	457	2,080	---
Total	53,646	68,710	79,150	55,090	137,850	192,210	69,930	50,966	65,123	17,104	20,255	23,536
Mean	1,731	2,290	2,553	1,777	4,923	6,200	2,331	1,644	2,171	552	653	785
Cfsm	0.643	0.851	0.949	0.661	1.83	2.30	0.867	0.611	0.807	0.205	0.243	0.292
In.	0.74	0.95	1.09	0.76	1.91	2.66	0.97	0.70	0.90	0.24	0.28	0.33

Calendar year 1956: Max 9,670 Min 386 Mean 2,352 Cfsm 0.874 In. 11.90
Water year 1956-57: Max 10,900 Min 235 Mean 2,284 Cfsm 0.849 In. 11.53

* Discharge measurement made on this day.

Nahunta Swamp near Shine, N. C.

Location.--Lat 35°29', long 77°48', on downstream side of highway bridge near center of span, 2 miles upstream from Appletree Swamp, 3½ miles north of Shine, Greene County, and 8 miles northwest of Snow Hill.

Drainage area.--77.6 sq mi.

Records available.--July 1954 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 48 ft (estimated from description of benchmark in vicinity). Prior to Apr. 1, 1955, wire-weight gage at same site and datum.

Extremes.--Maximum discharge during year, 582 cfs Aug. 18 (gage height, 7.45 ft); minimum daily, 2.5 cfs Aug. 10-12.
1954-57: Maximum discharge, 2,050 cfs Sept. 20, 1955 (gage height, 12.37 ft); minimum, 1.0 cfs Oct. 7, 8, 1954 (gage height, 0.80 ft).

Remarks.--Records fair.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 21 to Dec. 26, May 23-25)

Oct. 1 to Feb. 25				Feb. 26 to Sept. 30			
1.9	22	4.0	146	1.0	2.1	3.0	85
2.5	48	5.0	240	1.2	6.2	4.0	164
3.0	76			1.5	14	5.0	263
				2.0	34		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	68	57	46	94	215	60	29	26	14	4.4	6.9
2	38	74	46	42	85	168	69	24	24	12	3.8	6.7
3	34	69	40	40	74	130	85	21	20	11	3.4	7.4
4	35	60	37	40	71	99	58	31	19	11	3.2	6.7
5	42	54	35	42	66	131	61	47	24	*10	4.2	8.1
6	41	50	34	42	61	168	81	34	44	12	4.0	7.2
7	40	48	33	41	58	164	66	27	52	12	3.2	8.6
8	34	48	33	40	65	180	58	24	50	10	3.0	8.1
9	30	67	33	40	99	200	86	21	*224	8.9	2.9	9.7
10	*28	65	32	42	104	146	65	19	180	8.4	2.5	9.2
11	26	57	33	38	85	114	56	20	98	7.9	2.5	8.4
12	25	51	38	36	68	99	51	44	57	*7.2	*2.5	7.9
13	25	48	34	36	59	88	48	35	40	7.2	5.1	6.7
14	25	44	34	36	54	80	47	27	31	6.9	4.4	6.0
15	24	*42	36	35	50	80	45	22	25	6.9	5.9	5.5
16	24	42	97	37	49	81	43	40	23	7.3	14	5.1
17	52	40	*85	38	50	72	42	27	28	10	6.2	11
18	235	40	58	36	46	74	*40	22	20	7.4	186	32
19	132	38	48	34	43	176	39	20	22	6.4	239	17
20	78	38	42	33	88	130	38	156	20	6.0	40	12
21	116	38	40	35	72	99	35	116	23	5.5	22	10
22	160	39	41	*35	58	85	33	46	17	4.7	15	11
23	110	37	44	40	51	110	32	33	14	4.0	12	11
24	82	36	85	39	48	96	30	*25	13	38	11	*10
25	67	35	29	48	46	120	27	51	13	24	13	8.4
26	58	36	72	56	128	130	25	65	13	10	16	7.4
27	54	35	59	49	210	118	23	58	14	7.4	*14	6.9
28	52	34	54	46	210	99	21	96	15	6.4	11	6.2
29	52	*33	52	44	-	81	20	48	20	5.8	8.9	34
30	57	51	51	88	-----	72	32	33	18	5.8	7.9	163
31	74	-----	47	85	-----	64	-----	28	-----	5.1	7.4	-----
Total	1,897	1,417	1,525	1,342	2,197	3,669	1,396	1,289	1,187	299.2	678.4	458.1
Mean	61.2	47.2	49.2	43.3	78.5	118	46.5	41.6	39.6	9.65	21.9	15.3
Cfsm	0.789	0.608	0.634	0.558	1.01	1.52	0.599	0.536	0.510	0.124	0.282	0.197
In.	0.91	0.68	0.73	0.64	1.05	1.76	0.67	0.62	0.57	0.14	0.33	0.22

Calendar year 1956: Max 582 Min 6.5 Mean 64.2 Cfsm 0.827 In. 11.25
Water year 1956-57: Max 239 Min 2.3 Mean 47.5 Cfsm 0.612 In. 8.32

Peak discharge (base, 390 cfs).--Aug. 18 (10:30 p.m.) 582 cfs (7.45 ft).

* Discharge measurement made on this day.

Contentnea Creek at Hookerton, N. C.

Location.--Lat 35°25'40", long 77°35'05", on right bank at Hookerton, Greene County, 0.3 mile upstream from bridge on State Highway 123 and 2½ miles upstream from Wheat Swamp Creek.

Drainage area.--729 sq mi.

Records available.--November 1928 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 16 ft (from topographic map). Prior to Nov. 26, 1934, staff gage at site 200 ft downstream at same datum.

Average discharge.--28 years (1929-57), 707 cfs.

Extremes.--Maximum discharge during year, 2,560 cfs Mar. 7, 8; maximum gage height, 13.02 ft Mar. 8; minimum discharge, 27 cfs Aug. 13-15 (gage height, 1.90 ft).

1928-57: Maximum discharge, 11,100 cfs Oct. 6, 1929 (gage height, 18.90 ft); minimum (revised), 15 cfs Oct. 28, 1933 (gage height, 1.22 ft).

Maximum stage known, 23.3 ft in September 1928, from floodmark. High water of autumn 1924 was at practically the same stage.

Revisions.--The minimum discharge for the water year 1932 previously published as 13 cfs Sept. 16, 17, 1932, is believed to be too low and should not be used. The minimum discharge for the water year 1932 is not determined.

Remarks.--Records fair except those for period of no gage-height record, which are poor.

Revisions (water years).--WSP 1333: 1930-35. WSP 1333: Drainage area. Revised figures of monthly discharge for September 1932 and corrected figures for March 1951, superseding those published in WSP 727 and 1203, are given herewith:

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
September 1932.....	-	-	-	27.5	0.038	0.04
Water year 1931-32.....	-	1,640	-	399	.547	7.44
Calendar year 1932.....	-	1,920	-	453	.621	8.46
March 1951.....	14,907	1,030	226	461	.660	.76
Water year 1950-51.....	-	1,030	28	242	.332	4.23
Calendar year 1951.....	-	1,030	25	211	.289	3.71

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Nov. 26 to Dec. 17; rate of change in stage used as a factor Oct. 4, 5, 17-19, Dec. 17, Feb. 18, Apr. 2, 13, May 4, 7, 21, 23, 29, June 1, 6-9, 15-17, Aug. 18, 19, 21, 22, Sept. 17, 18, 19, 21, 22, 29, 30)

Oct. 1 to Dec. 17

Dec. 18 to Sept. 30

3.6	155	1.9	27
4.0	197	3.0	118
7.0	640	5.0	361
10.0	1,250	9.0	1,060
		11.0	1,580
		13.0	2,560

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	856	a610	368	744	780	1,190	1,020	224	339	99	42	54
2	910	a680	413	572	852	1,340	861	230	267	89	40	50
3	946	a760	443	618	943	1,580	798	242	218	*63	38	49
4	721	a810	459	564	1,040	1,860	690	366	182	81	38	48
5	544	a840	443	498	1,140	2,180	654	498	176	88	38	65
6	428	a820	428	451	1,240	2,420	672	498	263	86	35	59
7	368	a800	363	451	1,290	2,560	690	363	441	74	34	55
8	360	a770	339	451	1,310	2,560	726	293	693	70	35	70
9	353	a740	332	436	1,340	2,420	816	254	922	68	34	63
10	312	a690	316	436	1,310	2,300	888	224	1,020	66	33	55
11	273	a660	312	421	1,260	2,130	888	200	1,100	65	32	50
12	240	a630	312	421	1,210	1,980	816	224	1,120	*70	30	47
13	215	a600	325	406	1,160	1,900	638	242	1,120	66	28	46
14	197	a580	332	406	1,140	1,820	564	267	1,080	58	27	47
15	175	*a570	332	406	1,120	1,700	498	280	886	60	*51	47
16	160	507	363	406	1,100	1,550	451	306	563	70	41	47
17	198	443	537	391	1,020	1,370	436	347	348	74	43	70
18	523	398	*636	391	861	1,190	*406	333	286	74	68	674
19	774	383	708	376	762	1,120	391	254	260	80	243	521
20	638	368	762	368	708	1,140	361	218	224	68	406	391
21	a900	368	834	368	744	1,140	340	380	206	56	250	296
22	a1,000	363	906	363	798	1,140	326	466	199	50	151	209
23	a1,050	363	981	*368	870	1,140	312	*343	154	45	105	154
24	a1,080	368	1,040	376	906	1,160	293	267	138	56	78	*159
25	a1,050	353	1,040	406	924	1,190	274	218	123	74	67	148
26	a1,000	339	981	466	943	1,210	254	206	117	109	66	133
27	a800	339	943	514	981	1,210	236	236	123	92	80	111
28	a600	325	943	530	1,060	1,190	218	306	125	74	82	96
29	a540	318	943	547	-	1,190	206	446	123	62	74	130
30	a550	516	824	618	-	1,140	212	514	109	51	66	644
31	a570	-	892	690	-	1,100	-	482	-	45	58	-
Total	18,531	16,153	18,952	14,557	28,812	49,120	15,935	9,747	12,925	2,203	2,393	4,588
Mean	598	538	611	470	1,029	1,585	531	314	431	71.1	77.2	153
Csm	0.820	0.738	0.838	0.645	1.41	2.17	0.728	0.431	0.591	0.098	0.106	0.210
In.	0.95	0.82	0.97	0.74	1.47	2.51	0.81	0.50	0.66	0.11	0.12	0.23

Calendar year 1956: Max 2,720 Min 50 Mean 621 Cfsm 0.852 In. 12.23
 Water year 1956-57: Max 2,560 Min 27 Mean 531 Cfsm 0.728 In. 9.89

* Discharge measurement made on this day.
 a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations.

Little Contentnea Creek near Farmville, N. C.

Location.--Lat 35°32'41", long 77°30'41", on downstream side of bridge on U. S. Highway 264, 1½ miles upstream from Middle Swamp and 5½ miles southeast of Farmville, Pitt County.

Drainage area.--93.3 sq mi.

Records available.--October 1956 to September 1957.

Gage.--Wire-weight gage read once daily. Altitude of gage is 30 ft (from topographic map).

Extremes.--Maximum discharge during year, 498 cfs Sept. 30 (gage height, 12.15 ft, from graph based on gage readings); minimum, 0.1 cfs Aug. 11 (gage height, 6.43 ft).

Remarks.--Records fair except for periods of doubtful or no gage-height record, which are poor.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-3, 6-11, 17-31, Nov. 1 to Dec. 25)

6.4	0.1	8.0	19
6.5	.2	8.5	38
6.6	.2	9.0	64
6.8	.6	10.0	142
7.0	1.7	11.0	262
7.2	3.5	12.0	460
7.5	7.8		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	168	52	55	180	327	79	9.4	10	2.0	3.1	1.7
2	30	163	48	54	186	270	80	10	8.8	1.4	3.2	1.5
3	21	147	45	48	207	240	82	12	7.3	1.2	2.6	1.3
4	18	109	41	46	163	207	78	12	6.0	1.1	2.1	1.0
5	18	91	38	44	147	247	76	12	5.4	*1.0	1.2	5.1
6	46	77	31	44	123	262	75	12	4.1	.8	1.0	9.0
7	58	77	31	42	108	327	77	11	3.1	.9	.8	10
8	82	65	30	41	115	388	80	11	5.8	.8	.4	7.3
9	70	74	29	42	126	327	82	10	6.3	.8	.4	5.0
10	*34	85	30	44	188	270	74	10	15	.8	.2	4.3
11	26	77	30	34	137	226	67	9.4	30	.8	.1	4.0
12	19	73	31	46	126	180	63	11	3.3	*.6	.2	3.3
13	15	69	32	a42	107	147	51	10	20	.6	.2	3.0
14	14	54	34	a40	91	115	38	10	16	4.9	.2	2.6
15	12	*50	44	a40	72	101	36	8.6	6.4	*6.8	.3	2.1
16	13	48	80	38	66	91	34	6.4	5.5	3.6	2.4	1.9
17	28	44	111	36	58	96	31	5.8	4.8	31	2.3	15
18	294	40	*116	37	87	167	28	6.3	4.0	12	8.6	206
19	388	33	109	33	84	278	*26	9.6	12	6.6	8.6	78
20	310	34	77	32	90	423	24	a70	11	3.5	4.6	52
21	270	34	62	31	99	345	21	a55	8.4	3.1	14	17
22	228	32	52	30	81	327	20	a40	6.3	2.1	9.6	14
23	270	30	76	38	88	262	17	*a30	4.6	2.5	8.0	14
24	213	31	94	42	83	232	15	a25	3.3	14	7.1	32
25	152	30	124	*50	111	219	14	a25	2.0	11	5.7	20
26	103	29	147	60	163	226	13	a40	2.2	6.6	4.0	*11
27	91	28	123	72	318	207	12	a50	2.3	4.2	3.3	6.3
28	82	27	94	91	388	202	11	20	2.5	2.5	2.8	9.8
29	75	35	88	108	163	126	10	14	3.0	1.4	2.5	68
30	92	42	75	123	126	2.8	13	2.5	2.2	2.3	4.23	
31	190	-----	63	163	-----	99	-----	12	-----	3.6	2.1	-----
Total	3,303	1,886	2,037	1,657	3,772	7,097	1,333.8	580.5	251.6	168.8	222.7	1,029.2
Mean	107	62.9	65.7	53.5	135	229	44.5	18.7	8.39	5.45	7.18	34.3
Cfsm	1.15	0.674	0.704	0.573	1.45	2.45	0.477	0.200	0.090	0.058	0.077	0.368
In.	1.32	0.75	0.81	0.66	1.50	2.83	0.53	0.23	0.10	0.07	0.09	0.41

Calendar year 1956: Max - Min - Mean - Cfsm - In. -
Water year 1956-57: Max 423 Min 0.1 Mean 63.9 Cfsm 0.685 In. 9.30

* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of weather records, 1 discharge measurement, and records for nearby stations.

Swift Creek near Vanceboro, N. C.

Location.--Lat 35°20'42", long 77°11'44", on left bank at highway bridge, 2½ miles upstream from bridge on State Highway 118, 2½ miles downstream from Clayroot Swamp, and 3½ miles northwest of Vanceboro, Craven County.

Drainage area.--182 sq mi.

Records available.--January 1950 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 5 ft (from topographic map). Prior to Jan. 17, 1951, staff gage at same site and datum.

Average discharge.--7 years, 124 cfs.

Extremes.--Maximum discharge during year, 1,200 cfs Mar. 9 (gage height, 7.47 ft); minimum, 1.0 cfs Aug. 14, 15 (gage height, 2.36 ft).

1950-57: Maximum discharge, 6,060 cfs Sept. 22, 1955 (gage height, 13.67 ft); no flow Aug. 8-29, Oct. 4 to Nov. 9, 1954.

Flood in 1909 reached a stage of 16 ft, and flood in 1928 reached a stage of 11.7 ft, from information by local resident.

Remarks.--Records fair except those for period of no gage-height record, which are poor. Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 10-30)

2.3	0.8	3.9	31
2.4	1.1	4.2	55
2.5	1.6	4.5	100
2.7	2.8	5.0	210
2.9	4.9	6.0	540
3.2	9.6	7.0	970
3.6	19	7.5	1,220

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	845	50	72	213	600	173	61	41	8.2	3.2	11
2	17	820	57	66	232	600	166	51	35	7.0	2.8	9.4
3	15	800	59	60	213	560	188	43	30	*6.4	2.5	8.2
4	14	820	55	55	188	451	185	58	28	5.7	2.2	8.1
5	14	465	52	53	185	408	171	113	26	5.0	2.2	20
6	16	356	50	51	173	560	224	139	26	4.8	2.2	35
7	50	277	47	51	185	820	311	110	24	4.2	2.1	26
8	52	221	46	50	192	1,040	274	83	23	3.8	1.8	37
9	33	180	44	50	210	1,200	250	63	66	3.3	1.7	36
10	26	168	44	50	265	1,170	277	51	117	3.3	1.5	26
11	*21	159	43	49	308	1,020	262	44	83	*3.3	1.4	21
12	18	137	43	48	274	800	216	47	52	3.7	1.2	17
13	18	*119	43	46	224	620	a190	53	39	2.9	1.2	14
14	14	*98	45	45	185	437	a170	51	42	2.7	1.0	12
15	14	86	46	45	161	330	a150	43	30	3.0	1.4	9.6
16	13	80	47	44	146	274	a130	42	24	13	2.2	8.3
17	43	75	62	43	155	241	a110	35	20	27	4.1	8.1
18	292	70	92	42	129	200	a100	30	18	18	3.7	28
19	600	66	*88	40	123	213	*86	30	17	12	35	137
20	660	62	77	37	135	362	78	33	20	7.5	*208	89
21	560	59	69	36	190	420	72	55	17	5.6	154	43
22	465	55	66	36	190	352	65	60	14	4.4	50	30
23	520	53	63	38	168	314	87	36	12	3.5	28	28
24	520	52	73	*39	148	343	153	28	11	7.2	21	30
25	430	50	106	52	135	352	100	52	9.4	43	20	50
26	330	47	148	77	148	385	70	36	8.9	24	18	43
27	259	46	129	117	302	423	55	70	11	11	18	29
28	224	45	111	117	520	378	47	166	13	7.3	*15	22
29	219	43	100	110	-	314	48	166	15	5.3	14	31
30	321	46	90	123	-----	262	75	78	11	4.3	11	210
31	580	-----	80	183	-----	216	-----	50	-----	3.6	9.2	-----
Total	6,375	6,298	2,125	1,925	5,675	15,663	4,443	1,957	883.3	264.0	639.6	1,076.7
Mean	208	210	68.5	62.1	203	505	148	63.1	29.4	8.52	20.6	35.9
Cfs/m	1.13	1.15	0.376	0.341	1.12	2.77	0.813	0.347	0.162	0.047	0.113	0.197
In.	1.30	1.29	0.43	0.39	1.16	3.20	0.31	0.40	0.18	0.05	0.13	0.22

Calendar year 1956: Max 820 Min 4.1 Mean 137 Cfs/m 0.753 In. 10.22
Water year 1956-57: Max 1,200 Min 1.0 Mean 130 Cfs/m 0.714 In. 9.68

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.

Trent River near Trenton, N. C.

Location.--Lat 35°03'54", long 77°27'25", on left bank 50 ft downstream from Free Bridge, 800 ft downstream from Little Chinquapin Branch, 1½ miles southwest of Phillips Cross-roads, and 6 miles west of Trenton, Jones County.

Drainage area.--168 sq mi.

Records available.--January 1951 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 18.75 ft above mean sea level (unadjusted). Prior to Mar. 21, 1951, wire-weight gage on bridge 50 ft upstream at same datum.

Average discharge.--6 years, 142 cfs.

Extremes.--Maximum discharge during year, 772 cfs Mar. 10 (gage height, 10.62 ft); minimum, 3.4 cfs Aug. 26 (gage height, 2.44 ft).

1951-57: Maximum discharge, 9,100 cfs Sept. 21, 1955 (gage height, 17.84 ft); minimum, 1.3 cfs Oct. 11-15, 1954.

Flood in 1928 reached a stage of 17.3 ft (discharge, 7,600 cfs), from information furnished by North Carolina Highway and Public Works Commission.

Remarks.--Records fair. Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 8-16)

Oct. 1 to Dec. 18

Dec. 19 to Sept. 30

2.4	4.0	2.4	2.8	5.0	123
2.7	10	2.5	4.2	7.0	275
3.0	19	2.7	8.3	9.0	488
5.0	112	3.0	17	10.6	772
8.0	329	4.0	65		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	301	36	60	135	400	171	19	16	21	8.6	4.8
2	9.6	301	39	55	126	400	157	17	15	17	7.2	4.8
3	8.8	287	41	49	111	380	171	16	23	16	6.9	4.6
4	8.6	215	40	46	105	330	164	18	20	14	6.5	4.6
5	9.0	168	39	44	102	340	149	25	43	12	6.8	12
6	9.2	136	38	42	93	434	168	34	56	15	5.9	18
7	9.6	112	37	38	90	532	124	38	49	18	5.2	28
8	9.8	94	36	36	87	650	186	33	50	23	4.8	36
9	9.4	83	36	35	90	728	164	28	144	22	4.6	33
10	8.6	73	36	36	96	772	149	24	312	21	4.6	84
11	8.0	68	36	38	96	708	129	21	350	22	4.6	84
12	7.2	60	36	36	87	580	111	20	320	22	4.6	63
13	6.6	*55	36	33	78	*474	99	19	241	19	4.4	52
14	6.0	50	37	31	73	360	90	20	250	15	*4.1	44
15	5.6	46	37	30	68	275	81	22	301	14	5.2	38
16	5.4	43	36	31	64	225	73	23	310	23	5.7	32
17	14	42	34	32	65	194	68	17	241	69	5.5	27
18	39	40	34	34	68	175	59	15	149	102	4.6	30
19	58	39	*32	34	64	186	54	13	102	58	5.5	38
20	57	38	32	30	68	217	51	14	73	33	5.5	42
21	52	37	31	28	76	225	46	14	60	21	5.0	38
22	56	35	30	28	76	225	*42	*15	56	16	3.9	32
23	70	33	29	32	70	258	36	15	50	12	3.6	31
24	78	32	28	*38	65	275	34	15	44	12	3.6	90
25	76	32	68	52	61	310	40	13	40	12	3.5	*114
26	66	31	81	114	114	370	44	13	36	11	3.6	93
27	58	32	81	157	284	390	37	15	33	9.9	3.8	81
28	54	31	76	160	360	390	30	18	32	9.4	3.8	65
29	58	26	70	146	-	370	26	17	31	8.3	4.1	76
30	135	31	68	135	-	292	23	17	25	8.1	4.2	*228
31	287	-	64	138	-	225	-	17	-	8.3	4.2	-
Total	1,268.4	2,551	1,364	1,798	2,872	11,690	2,846	605	3,472	684.0	154.0	1,528.0
Mean	40.9	85.0	44.0	58.0	103	377	94.9	19.5	116	22.1	4.97	50.9
Cfsm	0.243	0.506	0.262	0.345	0.613	2.24	0.565	0.116	0.690	0.132	0.030	0.303
In.	0.28	0.56	0.30	0.40	0.64	2.59	0.63	0.13	0.77	0.15	0.03	0.34

Calendar year 1956: Max 1,360 Min 4.8 Mean 122 Cfsm 0.726 In. 9.89
Water year 1956-57: Max 772 Min 3.5 Mean 84.5 Cfsm 0.503 In. 6.82

* Discharge measurement made on this day.

New River near Gum Branch, N. C.

Location.--Lat 34°51'05", long 77°31'05", on right bank 5 ft downstream from highway bridge, half a mile downstream from Jenkins Swamp, 1½ miles southwest of Gum Branch, Onslow County, and 3½ miles southeast of Richlands.

Drainage area.--74.5 sq mi.

Records available.--August 1949 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 3 ft above mean sea level (Corps of Engineers benchmark). Prior to Mar. 23, 1950, staff gage at same site and datum.

Average discharge.--8 years, 83.7 cfs.

Extremes.--Maximum discharge during year, 654 cfs Oct. 31 (gage height, 10.55 ft); minimum, 4.1 cfs Sept. 4 (gage height, 0.94 ft).

1949-57: Maximum discharge, 7,900 cfs Sept. 20, 1955 (gage height, 19.99 ft, from floodmark); minimum, 1.8 cfs Oct. 7, 1954 (gage height, 0.50 ft).

Flood in 1908 reached a stage of about 18 ft, from information by local resident.

Remarks.--Records fair except those for periods of no gage-height record, which are poor.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 20 to Dec. 7, Jan. 9-29,
Mar. 9-25, Mar. 28 to May 5)

Oct. 1 to Mar. 8

Mar. 9 to Sept. 30

1.3	7.9	7.0	254	0.9	3.3	4.0	149
1.6	15	9.0	452	1.2	9.8	6.0	305
3.0	58	10.0	590	1.7	26	8.0	545
5.0	132			2.5	61	10.0	860

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	573	53	36	86	262	87	14	14	34	8.6	4.4
2	14	392	53	33	79	238	104	14	13	*27	7.4	4.4
3	12	246	48	31	72	185	132	14	12	25	7.4	4.2
4	12	167	44	30	70	137	110	16	17	21	6.7	13
5	16	128	40	32	74	164	95	38	58	19	6.5	90
6	21	108	38	34	83	276	113	33	154	42	6.3	71
7	21	95	37	33	79	374	116	24	162	39	6.1	30
8	17	84	36	32	76	395	95	20	242	26	5.6	38
9	14	81	36	29	78	399	81	17	636	20	5.6	38
10	11	76	35	29	81	377	68	15	575	18	5.4	84
11	9.7	70	36	29	78	265	62	14	460	*16	5.2	120
12	8.9	65	38	28	69	175	57	17	320	15	5.2	87
13	8.7	a58	40	27	60	138	54	18	197	14	*5.2	101
14	8.5	a54	42	26	56	120	51	16	394	13	5.0	34
15	8.1	a51	48	25	51	116	48	13	402	12	11	21
16	8.1	*50	46	28	50	113	44	13	208	11	34	18
17	30	50	44	33	53	104	42	13	149	a20	14	16
18	93	48	40	30	51	92	40	11	113	a45	8.8	49
19	124	46	*38	27	48	104	39	12	81	a21	8.8	68
20	93	45	36	25	58	129	36	15	78	15	9.1	38
21	60	44	34	25	56	*126	34	13	78	12	7.6	25
22	95	44	34	26	50	126	*31	*11	71	10	6.1	19
23	112	44	34	28	46	172	28	9.3	57	9.3	5.2	17
24	100	40	*31	45	196	25	9.1	46	14	14	5.4	37
25	78	40	69	52	44	203	22	9.1	40	15	6.5	*53
26	58	40	76	111	128	257	20	11	40	12	9.8	35
27	48	39	58	147	231	257	19	11	56	10	16	24
28	45	39	48	132	287	189	18	33	78	10	9.8	20
29	62	38	44	104	-	146	17	26	60	9.8	7.4	30
30	238	40	40	90	-----	116	15	16	41	9.3	*122	
31	585	---	38	88	-----	98	-----	14	-----	10	5.2	---
Total	2,028.0	2,895	1,343	1,431	2,239	6,049	1,703	509.5	4,852	572.4	257.0	1,311.0
Mean	65.4	96.5	43.3	46.2	80.0	195	56.8	16.4	162	18.5	8.29	43.7
Cfsm	0.878	1.30	0.581	0.620	1.07	2.62	0.762	0.220	2.17	0.248	0.111	0.587
In.	1.01	1.45	0.67	0.71	1.12	3.02	0.85	0.25	2.42	0.29	0.13	0.65

Calendar year 1956 Max 687 Min 6.5 Mean 78.6 Cfsm 1.06 In. 14.37
Water year 1956-57 Max 636 Min 4.2 Mean 69.0 Cfsm 0.926 In. 12.57

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, and records for Trent River near Trenton.

Haw River near Benaja, N. C.

Location.--Lat 36°15', long 79°34', on left bank 200 ft upstream from site of old High Rock Mill, 500 ft upstream from highway bridge, half a mile upstream from Rockingham-Guilford County line, 6 miles downstream from Troublesome Creek, and 6 miles east of Benaja, Rockingham County.

Drainage area.--168 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 629 ft (by barometer).

Average discharge.--29 years, 160 cfs.

Extremes.--Maximum discharge during year, 2,280 cfs Feb. 2 (gage height, 9.53 ft); minimum, 12 cfs Aug. 12 (gage height, 0.91 ft).

1928-57: Maximum discharge, 12,300 cfs Sept. 25, 1947 (gage height, 19.22 ft, from high-water mark), from rating curve extended above 4,000 cfs on basis of slope-area determination of peak flow; minimum, 0.6 cfs Oct. 7-9, 1954.

Flood in July 1916 reached a stage of about 17.5 ft, from floodmark on tree 500 ft below gage.

Remarks.--Records good except those for period of ice effect, which are fair.

Revisions (water years).--WSP 1383: 1933(M), 1941.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	11	2.3	172
1.1	21	3.0	320
1.4	44	7.0	1,410
1.8	92	10.0	2,480

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	142	76	98	1,670	342	109	72	55	103	20	25
2	233	144	74	91	2,240	376	118	*70	54	60	22	23
3	118	132	72	83	1,840	353	121	67	69	45	31	23
4	*79	114	72	82	1,060	268	114	69	88	40	27	20
5	67	99	71	91	618	192	340	66	310	35	49	19
6	69	91	70	95	435	158	655	65	543	37	48	*92
7	86	83	70	91	*310	142	811	60	423	33	27	1,270
8	59	79	70	87	234	165	706	58	192	28	21	840
9	51	82	70	84	268	178	680	55	110	26	18	212
10	44	83	69	86	299	183	605	52	99	23	16	147
11	40	74	66	83	299	139	495	54	88	22	14	109
12	38	67	66	79	265	126	320	67	79	19	13	98
13	38	62	72	79	218	118	221	64	70	17	13	70
14	38	59	75	79	182	116	176	55	80	16	15	54
15	38	56	103	74	158	123	151	91	54	15	18	45
16	36	*56	144	72	144	131	139	112	59	14	41	43
17	36	82	168	b60	134	129	131	79	53	15	45	155
18	38	186	158	b66	124	118	126	67	49	62	66	300
19	56	232	*121	b61	134	121	124	72	48	127	78	212
20	75	240	102	b69	221	*126	118	115	47	124	71	146
21	108	178	95	78	238	*120	114	126	43	123	51	105
22	274	140	144	87	194	134	109	99	46	75	39	94
23	278	121	234	164	158	186	144	79	71	*43	32	547
24	240	108	299	207	139	196	132	67	76	53	27	284
25	182	95	299	236	131	182	114	60	61	47	54	134
26	132	89	270	207	161	167	99	54	98	36	72	87
27	212	89	203	158	188	154	92	80	109	29	56	67
28	225	83	154	142	221	137	84	121	98	26	40	58
29	192	80	129	164	-	124	79	99	95	25	33	86
30	152	79	112	310	-	115	75	71	116	22	29	263
31	144	102	545	-	-	109	-	61	-	20	26	-
Total	3,688	3,225	3,830	3,920	12,283	5,210	7,302	2,327	3,363	1,360	1,112	5,430
Mean	118	108	124	126	439	168	243	75.1	112	43.9	35.9	181
Cfsm	0.702	0.643	0.738	0.750	2.61	1.00	1.45	0.447	0.667	0.261	0.214	1.08
In.	0.81	0.71	0.85	0.87	2.72	1.15	1.62	0.52	0.74	0.30	0.25	1.20

Calendar year 1956: Max 922 Min 6.2 Mean 113 Cfsm 0.673 In. 9.17
 Water year 1956-57: Max 2,240 Min 13 Mean 145 Cfsm 0.863 In. 11.74

Peak discharge (base, 1,400 cfs).--Feb. 2 (3 p.m.) 2,280 cfs (9.53 ft); Sept. 7 (5:30 p.m.) 1,600 cfs (7.57 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Reedy Fork near Oak Ridge, N. C.

Location--Lat 36°10', long 79°57', on left bank at downstream side of county road bridge, three-quarters of a mile downstream from Beaver Creek and 2 miles east of Oak Ridge, Guilford County.

Drainage area--19.9 sq mi.

Records available--October 1955 to September 1957.

Gage--Water-stage recorder. Prior to Dec. 13, 1955, wire-weight gage at same site and datum.

Extremes--Maximum discharge during year, 719 cfs Feb. 1 (gage height, 8.69 ft); minimum, 3.7 cfs Sept. 3 (gage height, 1.76 ft).
1955-57: Maximum discharge, 767 cfs Sept. 27, 1956 (gage height, 8.94 ft); minimum, 2.8 cfs July 29, 1956 (gage height, 1.68 ft).

Remarks--Records fair except those for period of ice effect, which are poor.

Rating table, water year 1956-57 except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 4 to Apr. 5, July 19 to Aug. 24)

1.6	2.6	4.0	92
1.8	6.1	5.0	156
2.0	11	6.0	251
2.5	30	7.0	384
3.0	50	8.0	560

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	13	11	13	417	56	15	9.9	7.1	17	7.2	5.5
2	*12	14	11	12	209	33	18	9.9	13	15	7.0	5.4
3	10	12	11	12	56	29	14	9.4	12	12	5.5	*4.0
4	9.9	12	10	13	44	26	13	9.1	9.9	11	5.9	4.2
5	10	11	10	15	36	24	163	8.8	20	11	6.5	4.2
6	9.6	10	10	12	32	24	85	8.8	18	11	5.3	81
7	9.1	10	11	12	31	22	34	8.1	11	9.6	4.8	38
8	7.9	10	10	11	30	25	92	8.1	8.6	8.6	4.6	50
9	7.9	12	10	12	35	21	72	7.9	9.9	7.2	4.4	25
10	7.4	10	9.4	12	33	19	35	7.6	9.9	7.0	4.4	25
11	7.2	9.4	9.6	11	30	18	28	8.8	8.8	6.3	4.0	22
12	7.2	9.1	10	12	26	17	25	9.6	8.3	6.3	4.6	16
13	7.2	8.8	10	11	26	16	24	8.2	7.4	6.1	4.2	13
14	7.0	*9.1	14	12	25	21	22	7.6	7.2	5.9	4.4	12
15	7.0	9.1	34	11	23	20	21	8.6	8.6	5.7	9.4	10
16	6.8	9.6	26	11	21	17	20	7.6	7.0	6.1	11	10
17	7.0	36	18	11	19	15	20	7.4	*7.2	18	5.9	23
18	7.4	45	15	b11	18	15	20	7.6	6.6	109	8.8	21
19	8.3	26	14	b10	26	19	18	13	5.9	22	9.6	17
20	8.3	20	*12	10	28	15	17	19	6.2	12	7.6	14
21	24	19	12	12	21	14	17	10	5.5	9.1	6.1	13
22	37	19	33	14	20	*29	17	8.8	51	7.4	5.7	11
23	21	15	50	91	19	26	18	8.8	14	9.1	5.3	22
24	14	14	53	40	19	21	16	7.6	9.1	14	5.3	13
25	12	13	33	29	19	24	12	7.4	35	*9.1	14	11
26	12	13	26	26	25	*20	12	11	33	8.6	9.6	9.6
27	25	13	23	25	21	17	11	16	19	7.6	7.6	9.1
28	16	12	19	24	42	16	10	10	40	6.8	6.5	21
29	12	12	17	26	-	15	11	8.1	50	6.1	*5.3	43
30	13	12	14	35	-	14	*12	7.9	20	*5.3	5.5	43
31	22	-	14	187	-	13	-	7.9	-	5.2	5.5	-
Total	379.2	442.1	560.0	743	1,351	664	892	288.5	449.2	395.1	201.7	562.1
Mean	12.2	14.7	18.1	24.0	48.2	21.4	29.7	9.31	15.0	12.7	6.51	18.7
Cfs/m	0.613	0.739	0.910	1.21	2.42	1.08	1.49	0.468	0.754	0.638	0.327	0.940
In.	0.71	0.83	1.05	1.39	2.52	1.24	1.67	0.54	0.84	0.74	0.38	1.05

Calendar year 1956: Max 499 Min 3.2 Mean 16.9 Cfs/m 0.849 In. 11.54
Water year 1956-57: Max 417 Min 4.0 Mean 19.0 Cfs/m 0.955 In. 12.96

Peak discharge (base, 350 cfs)--Feb. 1 (3:30 a.m.) 719 cfs (8.69 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Horsepen Creek at Battle Ground, N. C.

Location.--Lat 36°08'34", long 79°51'24", on right bank 10 ft downstream from highway bridge, 0.5 mile downstream from bridge on U. S. Highway 220, three-quarters of a mile north of Battle Ground, Guilford County, and 2 miles upstream from mouth.

Drainage area.--15.9 sq mi.

Records available.--November 1925 to July 1931 (fragmentary November 1925 to October 1928), May 1934 to September 1957.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 737.94 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Nov. 9, 1925, to July 31, 1931, water-stage recorder at site 1,000 ft upstream at datum 1.45 ft higher.

Average discharge.--25 years (1928-30, 1934-57), 14.7 cfs.

Extremes.--Maximum discharge during year, 870 cfs Feb. 1 (gage height, 6.98 ft); minimum, 1.6 cfs Sept. 3, 4 (gage height, 0.75 ft).
1925-31, 1934-57: Maximum discharge, 6,400 cfs Sept. 24, 1947 (gage height, 10.36 ft), from rating curve extended above 800 cfs on basis of contracted-opening determination of peak flow; minimum, 0.4 cfs Oct. 7, 1954 (gage height, 0.59 ft).

Remarks.--Records fair except those for the period of no gage-height record, which are poor.

Revisions (water years).--WSP 1383: 1926, 1927(M), 1929, 1937(m).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 31 to Dec. 22)

0.7	1.1	4.0	80
1.9	3.1	5.0	125
1.3	9.2	5.5	165
2.0	24	6.0	230
3.0	47	6.4	350

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	17	8.4	7.2	340	69	a9	5.6	4.6	4.6	14	2.0
2	*6.4	13	8.2	8.4	*184	26	a11	5.4	4.4	4.1	6.0	1.9
3	6.1	12	12	7.7	45	18	a9	5.4	5.2	3.9	3.1	*1.8
4	6.1	11	23	7.2	31	14	a8	5.2	4.8	3.6	4.2	1.8
5	6.1	10	22	9.2	23	12	a250	5.0	96	4.0	3.6	1.8
6	7.6	9.6	18	8.0	19	11	a40	4.8	95	4.1	2.7	16
7	6.5	9.0	*12	7.3	16	11	a20	4.7	18	4.1	2.4	4.4
8	5.4	8.9	7.3	6.4	16	19	a70	4.7	11	3.5	2.3	7.0
9	5.2	15	7.5	6.2	28	15	a35	4.4	2.9	3.2	2.1	5.9
10	4.8	10	7.0	6.4	23	11	a20	4.4	8.4	3.1	2.1	5.7
11	4.7	9.4	7.2	*5.6	16	9.9	a14	5.0	6.9	3.0	1.9	4.7
12	4.8	8.9	7.5	5.8	13	9.4	a12	5.3	6.2	2.9	2.0	3.9
13	5.0	8.5	7.7	5.9	11	8.9	a11	4.6	5.3	2.9	2.1	3.6
14	4.8	*8.2	8.8	5.8	10	10	a10	37	5.3	2.7	3.8	3.4
15	4.7	8.0	21	5.4	9.0	11	a9	35	6.9	2.7	3.5	3.2
16	4.6	8.0	17	5.4	8.5	9.4	a8.5	9.7	5.4	3.1	3.6	*3.8
17	5.0	57	12	5.2	8.0	8.5	a8	6.9	*5.0	8.1	2.7	6.8
18	5.4	40	9.9	5.3	7.5	8.2	a8	6.2	5.3	23	2.9	9.1
19	7.0	20	8.9	5.0	27	12	a7.5	6.5	4.6	6.7	3.5	4.8
20	7.2	15	8.5	5.0	29	9.9	a7	7.5	4.6	4.7	3.1	4.3
21	23	14	8.7	5.4	15	8.4	a7	5.4	4.6	4.0	2.7	4.0
22	22	15	100	7.8	11	25	a13	5.0	6.2	3.5	2.4	4.1
23	*19	12	98	117	10	22	a9	5.0	5.0	4.5	2.2	27
24	12	11	58	27	9.2	14	a8	4.7	4.4	5.2	2.3	6.9
25	8.4	10	23	15	9.4	25	a7	4.4	11	*3.4	5.5	4.4
26	7.5	10	14	12	18	*17	a6	9.3	10	3.1	3.6	3.9
27	22	9.7	18	13	13	14	a5.5	15	5.8	3.0	3.0	3.8
28	9.2	9.0	24	13	79	11	a5.5	7.0	11	3.0	2.6	3.6
29	9.4	9.0	21	20	-	9.9	*a5	5.3	9.8	2.8	2.4	12
30	11	8.5	20	28	-----	9.0	6.1	5.0	5.2	2.7	2.2	34
31	31	---	15	159	-----	8.2	-----	4.8	-----	2.6	2.0	-----
Total	322.5	406.7	633.6	545.6	1,028.6	468.7	640.1	244.2	383.6	135.8	102.5	199.6
Mean	10.4	13.6	20.4	17.6	36.7	15.1	21.3	7.88	12.8	4.38	3.31	6.65
Cfs/m	0.654	0.855	1.28	1.11	2.31	0.950	1.34	0.489	0.805	0.275	0.208	0.418
In.	0.75	0.95	1.48	1.28	2.41	1.10	1.50	0.57	0.90	0.32	0.24	0.47

Calendar year 1956: Max 354 Min 0.9 Mean 13.4 Cfs/m 0.843 In. 11.47

Water year 1956-57: Max 340 Min 1.8 Mean 14.0 Cfs/m 0.881 In. 11.97

Peak discharge (base, 300 cfs).--Feb. 1 (3 a.m.) 870 cfs (6.98 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations.

Reedy Fork near Gibsonville, N. C.

Location.--Lat 36°11', long 79°37', on right bank a quarter of a mile downstream from Huffines Mill, 1½ miles upstream from Buffalo Creek, and 6 miles northwest of Gibsonville, Guilford County.

Drainage area.--133 sq mi.

Records available.--September 1928 to September 1957.

Gage.--Water-stage recorder and rock-masonry control. Datum of gage is 626.88 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--29 years, 109 cfs.

Extremes.--Maximum discharge during year, 2,100 cfs Feb. 2 (gage height, 8.45 ft); minimum daily, 3.0 cfs Aug. 11, Sept. 2.
1928-57: Maximum discharge, 11,600 cfs Sept. 25, 1947 (gage height, 20.77 ft); minimum daily, 0.4 cfs Oct. 14, 1954.
Flood in July 1916 reached a stage of 17.90 ft, from information by local resident (discharge, 8,640 cfs).

Remarks.--Records good except those for periods of no gage-height record, which are poor. Considerable diurnal fluctuation caused by powerplants above station. Flow partly regulated since 1923 by Lake Brandt (capacity, 113,256,000 cu ft) 14 miles above station and since 1943 by Richland Lake 12 miles above station. City of Greensboro diverted from Lake Brandt an average of 15.2 cfs for municipal supply and Cone Mills diverted from Richland Lake an average of 4.3 cfs during the water year.

Revisions (water years).--WSP 1383: 1929-30, 1933(M), 1934, 1937(M), 1939-42(M), 1948.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.7	3.0	1.6	86
.8	6.7	2.0	160
.9	11	4.0	710
1.0	17	8.0	1,960
1.3	45		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	88	34	71	1,400	245	61	a30	19	64	8.0	5.4
2	65	94	33	64	1,840	237	61	*a30	17	49	12	3.0
3	49	83	33	52	818	253	64	30	17	29	12	6.0
4	*38	63	33	49	402	197	63	27	23	21	14	5.8
5	32	61	34	49	279	136	354	24	109	17	21	*5.6
6	47	55	37	49	147	107	654	23	198	17	12	11
7	49	50	38	52	*125	94	751	23	197	13	9.3	6.5
8	31	45	38	44	119	109	435	21	163	11	8.0	5.8
9	26	33	38	44	134	112	323	21	94	8.9	8.9	26
10	23	45	34	44	147	109	388	23	63	9.3	4.4	94
11	18	45	32	44	142	94	268	16	51	7.1	3.0	a38
12	16	42	28	38	127	83	197	23	44	7.1	6.2	a35
13	14	40	30	40	105	74	136	20	*34	4.1	4.2	a30
14	13	*34	32	43	89	76	107	21	29	5.2	6.5	a25
15	14	30	56	42	77	71	91	57	24	4.8	9.0	a22
16	8.9	29	70	41	67	77	77	123	23	5.6	21	a21
17	17	71	91	37	64	74	78	100	29	97	11	a100
18	16	109	*97	28	60	71	71	59	31	88	22	a130
19	13	123	80	30	76	77	70	46	24	34	18	a110
20	22	147	64	30	123	76	64	56	25	30	19	a70
21	34	130	57	30	121	71	60	51	17	51	9.5	a50
22	165	37	138	32	107	94	58	41	23	37	8.6	a45
23	147	78	232	128	86	123	136	35	20	40	4.8	a250
24	130	63	318	167	76	125	96	30	19	41	7.8	a220
25	109	52	310	188	70	130	74	25	33	21	34	a85
26	72	50	237	185	102	116	58	22	67	24	25	a50
27	89	47	195	127	109	107	51	28	53	15	17	a17
28	78	44	149	105	178	92	a45	38	70	14	12	a14
29	82	41	82	123	-	78	a40	34	70	12	10	a50
30	70	38	76	169	-----	68	a34	30	55	11	7.8	a250
31	80	---	77	546	-----	61	-----	24	-----	6.7	13	-----
Total	1,671.9	1,927	2,803	2,691	7,190	3,437	4,965	1,129	1,661	794.8	379.0	1,780.9
Mean	53.9	64.2	90.4	86.8	257	111	166	36.4	55.4	25.6	12.2	59.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	1,040			Min 1.2		Mean 69.4	Cfsm -		In. -			
Water year 1956-57: Max	1,840			Min 3.0		Mean 83.4	Cfsm -		In. -			

Peak discharge (base, 1,600 cfs).--Feb. 2 (8:30 a.m.) 2,100 cfs (8.45 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations.

South Buffalo Creek near Greensboro, N. C.

Location.--Lat 36°03'37", long 79°43'33", on left bank 5 ft downstream from bridge on McConnel Road, 3.8 miles east of post office in Greensboro, Guilford County, and 6 miles upstream from North Buffalo Creek.

Drainage area.--33.6 sq mi.

Records available.--August 1928 to September 1957. Prior to October 1952, published as Buffalo Creek near Greensboro.

Gage.--Water-stage recorder. Datum of gage is 696.2 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--29 years, 38.0 cfs.

Extremes.--Maximum discharge during year, 2,500 cfs Jan. 31 (gage height, 8.60 ft); minimum, 4.5 cfs Sept. 1, 15.
1928-57: Maximum discharge, 10,000 cfs July 15, 1949 (gage height, 11.54 ft), from rating curve extended above 2,000 cfs on basis of contracted-opening determinations at gage heights 8.69, 10.64, and 11.54 ft; minimum, 0.2 cfs Oct. 2, 1930.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Sewage from Greensboro enters above station affecting low-water flow.

Revisions (water years).--WSP 972: 1928-30, 1932-33, 1934(M), 1935-37, 1939, 1940(M). WSP 1383: Drainage area, 1931, 1941(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 1, 6-15)

2.8	4.0	5.5	152
3.0	7.8	6.0	235
3.3	18	6.5	393
3.6	32	7.0	632
4.0	49	7.5	925
4.5	70	8.0	1,350
5.0	103	8.5	1,970

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	47	15	a17	1,550	a200	20	16	8.8	a15	16	5.3
2	*14	30	14	a16	*a500	a85	38	13	7.4	a20	57	5.7
3	13	24	14	a15	a135	a45	24	13	8.4	a15	12	7.1
4	12	19	*15	a20	a70	a40	20	12	20	a10	a50	7.4
5	13	18	15	a19	*a60	a35	564	11	94	a10	a14	*7.6
6	41	19	14	a17	57	a32	406	11	124	a10	a9	53
7	31	18	15	a17	49	a30	70	12	54	a6	a8	24
8	14	21	14	a18	49	a90	134	11	23	a7	7.6	12
9	13	80	13	a19	108	a70	360	11	20	a8	7.6	18
10	13	56	14	20	115	a35	77	11	18	a9	6.9	32
11	11	26	14	17	58	a30	40	12	15	a9	5.7	32
12	10	21	14	16	46	a25	32	12	13	a9	5.9	12
13	10	20	15	15	40	a30	26	11	a12	a9	7.1	10
14	8.4	*17	17	16	35	a35	22	15	a35	a6	14	7.8
15	8.8	17	96	21	32	a40	21	58	a20	a15	11	6.1
16	10	16	62	16	a30	a30	21	18	a11	a9	11	8.5
17	11	59	33	15	a27	a22	20	12	a54	a40	7.4	45
18	10	238	*24	13	a25	a20	19	11	a30	a100	9.2	81
19	17	104	19	11	a80	a50	19	12	a20	a35	8.1	24
20	15	38	17	12	a80	*a26	18	18	a18	a15	9.4	15
21	47	32	a16	16	a45	24	15	12	a17	a10	8.8	12
22	*208	38	a150	25	a30	67	37	11	a55	a9	7.8	9.4
23	186	21	a300	105	a27	99	43	11	a12	a11	7.4	97
24	41	21	a150	80	a25	41	22	10	a11	a10	6.3	50
25	26	17	a35	42	a25	64	a19	8.8	a100	a8	28	14
26	21	18	a30	33	a90	56	a18	8.4	a60	a7	13	11
27	49	20	a25	37	a60	38	a15	26	a17	a6	8.8	9.7
28	35	18	a21	44	a200	30	a12	19	a100	a6	7.8	9.1
29	22	18	a19	39	-	26	a15	11	a90	a6.5	7.6	29
30	22	17	a18	a150	-----	22	38	10	a15	a7	7.6	138
31	64	---	a17	a310	-----	19	-----	10	-----	7.1	6.3	---
Total	992.2	1,123	1,235	1,710	3,748	1,455	2,185	437.2	1,052.6	444.6	386.3	792.7
Mean	32.0	37.4	39.8	55.2	134	46.9	72.8	14.1	35.1	14.3	12.5	26.4
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956:	Max	1,250	Min	5.9	Mean	37.0	Cfsm	-	In.	-	-	-
Water year 1956-57:	Max	1,550	Min	5.3	Mean	42.6	Cfsm	-	In.	-	-	-

Peak discharge (base, 650 cfs).--Jan. 31 (11:30 p.m.) 2,500 cfs (8.60 ft); Apr. 5 (8 p.m.) 1,160 cfs (7.85 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, and records for nearby stations.

North Buffalo Creek near Greensboro, N. C.

Location.--Lat 36°07'13", long 79°42'30", on left bank 5 ft downstream from highway bridge, 4.2 miles upstream from mouth, and 5.8 miles northeast of post office in Greensboro, Guilford County.

Drainage area.--37.0 sq mi.

Records available.--August 1928 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 679 ft (from topographic map).

Average discharge.--29 years, 46.3 cfs.

Extremes.--Maximum discharge during year, 1,930 cfs Feb. 1 (gage height, 10.87 ft); minimum, 9.8 cfs Oct. 14 (gage height, 1.89 ft).

1928-57: Maximum discharge, 6,000 cfs Sept. 25, 1947 (gage height, 15.96 ft), from rating curve extended above 2,900 cfs on basis of contracted-opening determinations at gage heights 14.15 and 15.96 ft; minimum, 1.6 cfs Aug. 28, 1932.

Remarks.--Records good. Diurnal fluctuation at low flow caused by mills above station. Diversion into basin from Greensboro and Proximity Mills enters above station.

Revisions (water years).--WSP 1383: Drainage area, 1928(M), 1929, 1933-34(M), 1936(M), 1941(M), 1943(M), 1945(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.9	10	2.5	58
2.0	15	3.0	133
2.2	29	7.0	955

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	49	25	27	938	193	31	31	21	23	64	14
2	*28	39	17	27	421	85	43	*31	15	26	42	15
3	26	32	22	27	133	61	35	27	21	25	23	16
4	24	23	25	27	92	49	34	24	31	19	143	21
5	28	25	27	31	*68	47	647	19	290	21	47	*22
6	76	27	27	19	54	39	186	20	192	19	29	252
7	26	27	26	23	49	41	67	25	49	13	28	31
8	24	31	21	29	58	124	344	25	29	17	27	47
9	24	79	16	28	124	66	296	25	27	24	22	60
10	24	33	20	33	85	39	74	25	27	24	19	90
11	24	20	24	35	57	35	57	27	29	24	14	58
12	25	23	25	23	51	40	49	19	*27	24	17	31
13	21	27	26	19	47	37	42	21	27	19	24	28
14	13	*26	36	20	44	44	33	61	65	13	57	22
15	17	27	109	23	42	46	33	169	45	79	40	16
16	21	27	44	25	36	39	36	39	26	66	34	29
17	21	197	32	26	31	27	35	29	115	140	17	195
18	23	111	*31	21	30	29	35	25	71	857	25	131
19	44	43	33	18	96	71	35	26	35	67	23	41
20	26	36	34	16	92	40	29	38	31	32	24	34
21	132	33	30	20	46	35	23	29	24	20	23	27
22	265	38	188	29	40	134	23	26	46	19	23	20
23	59	26	246	254	35	79	62	27	19	42	19	204
24	37	23	175	67	29	40	35	26	21	42	15	52
25	31	19	62	42	31	98	33	21	135	21	76	34
26	27	27	40	34	136	59	34	19	84	*18	24	31
27	91	34	37	42	62	47	29	73	35	17	23	28
28	31	31	35	40	257	42	23	35	92	15	24	25
29	29	31	31	96	-	42	75	27	79	20	23	120
30	36	31	20	114	-----	39	46	27	23	24	22	220
31	112	-----	26	649	-----	27	-----	26	-----	*25	17	-----
Total	1,392	1,195	1,510	1,884	3,182	1,794	2,524	1,040	1,721	1,594	1,008	1,914
Mean	44.9	39.8	48.7	60.8	114	57.9	84.1	33.5	57.4	51.4	32.5	63.8
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 728 Min 11 Mean 47.5 Cfsm - In. -
 Water year 1956-57: Max 938 Min 13 Mean 56.9 Cfsm - In. -

Peak discharge (base, 920 cfs).--Feb. 1 (2 a.m.) 1,930 cfs (10.87 ft); Apr. 5 (4 p.m.) 1,500 cfs (9.72 ft); Apr. 8 (11 p.m.) 1,170 cfs (8.23 ft); July 18 (5 a.m.) 1,560 cfs (9.90 ft).

* Discharge measurement made on this day.

Stony Creek near Burlington, N. C.

Location--Lat 36°11', long 79°25', on right bank a quarter of a mile upstream from highway bridge, half a mile upstream from Buttermilk Creek, 4½ miles upstream from mouth, and 6 miles north of Burlington, Alamance County.

Drainage area--44.2 sq mi.

Records available--July 1952 to September 1957.

Gage--Water-stage recorder. Datum of gage is 536.3 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge--5 years, 33.8 cfs.

Extremes--Maximum discharge during year, 2,480 cfs Feb. 1 (gage height, 12.39 ft); minimum, 0.08 cfs July 16, 17 (gage height, 0.43 ft); minimum daily, 0.11 cfs July 16, 17. 1952-57: Maximum gage height, 15.26 ft Oct. 16, 1954 (discharge not determined); no flow at times in most years.

Remarks--Records fair. Records of chemical analyses for the water year 1957 are given in WSP 1520.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.4	0.05	1.4	11
.5	.15	1.7	24
.6	.34	2.0	44
.7	.68	2.5	86
.8	1.2	3.0	146
1.0	3.0	4.0	330
1.2	6.3	9.0	1,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	78	11	18	*1,570	521	20	*9.0	3.4	1.8	0.41	2.4
2	7.4	38	10	15	590	102	28	8.3	2.9	1.4	.30	1.9
3	6.3	28	10	14	131	59	22	7.6	2.5	1.1	.19	1.6
4	*4.8	21	*9.8	14	86	45	19	7.8	2.6	1.0	.30	1.4
5	8.4	18	9.5	16	64	38	268	7.0	2.9	1.7	1.8	1.2
6	9.8	15	9.2	15	54	34	348	6.1	42	1.4	2.3	*1.3
7	7.4	13	9.2	14	45	31	79	5.7	12	.65	1.2	52
8	5.5	12	9.0	13	50	52	178	5.5	6.5	.51	.68	10
9	4.6	22	9.2	13	192	63	309	5.4	5.5	.48	.51	6.1
10	4.1	22	8.8	13	140	37	71	5.2	4.8	.44	.34	5.5
11	3.1	15	8.5	11	80	30	46	5.2	5.2	.34	.26	5.0
12	3.0	13	8.5	11	83	28	37	6.7	4.4	.41	.23	3.8
13	2.9	*10	8.8	11	43	25	33	6.3	3.6	.58	.19	3.0
14	2.8	9.8	9.8	11	37	25	29	5.2	2.8	.26	22	2.3
15	2.9	9.2	56	10	31	29	24	4.4	2.3	.19	8.8	1.9
16	2.9	9.0	90	10	28	29	22	4.0	2.0	.11	3.2	1.8
17	2.5	47	*42	9.5	26	22	20	3.4	2.4	.11	1.5	73
18	2.6	170	28	9.3	22	*20	19	3.7	5.7	15	35	209
19	34	53	21	2.1	30	30	19	5.2	4.3	21	78	79
20	37	34	18	9.2	116	31	17	14	3.8	3.0	35	29
21	155	26	17	10	49	22	15	7.8	2.1	1.6	7.6	15
22	281	31	209	12	36	55	19	5.4	1.6	1.2	3.8	11
23	84	24	335	161	30	132	79	5.0	3.7	*1.2	2.5	150
24	*31	18	219	97	27	54	31	4.4	3.0	1.6	1.8	43
25	19	16	94	45	26	62	20	3.7	2.5	2.3	289	16
26	15	16	50	38	269	53	16	3.6	2.5	1.5	116	9.8
27	157	17	38	36	152	40	13	19	2.6	.99	21	7.4
28	79	15	31	51	233	32	11	16	2.4	.78	9.8	5.5
29	34	13	27	106	-	28	10	5.9	2.2	.65	5.9	23
30	28	13	22	282	-----	24	9.5	4.3	2.0	.58	4.4	241
31	133	---	19	450	-----	22	-----	3.7	-----	.58	3.1	-----
Total	1,177.8	826.0	1,447.3	1,534.1	4,210	1,775	1,831.5	204.5	172.3	64.48	635.11	1,012.9
Mean	38.0	27.5	46.7	49.5	150	57.3	61.0	8.60	5.74	2.08	20.5	33.8
Cfsm	0.860	0.622	1.06	1.12	3.39	1.30	1.38	0.149	0.130	0.047	0.464	0.765
In.	0.99	0.69	1.22	1.29	3.54	1.49	1.54	0.17	0.14	0.05	0.53	0.85

Calendar year 1956: Max 1,010

Min 0.28

Mean 36.9

Cfsm 0.835

In. 11.35

Water year 1956-57: Max 1,570

Min 0.11

Mean 40.8

Cfsm 0.923

In. 12.50

Peak discharge (base, 900 cfs)--Feb. 1 (7 a.m.) 2,480 cfs (12.39 ft); Mar. 1 (4:30 a.m.) 1,060 cfs (6.87 ft).

* Discharge measurement made on this day.

Haw River at Haw River, N. C.

Location.--Lat 36°05', long 79°22', on left bank at town of Haw River, Alamance County, 650 ft downstream from Southern Railway bridge and 3 miles downstream from Stony Creek.

Drainage area.--599 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 471.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--29 years, 574 cfs.

Extremes.--Maximum discharge during year, 12,800 cfs Feb. 1 (gage height, 21.15 ft); minimum, 31 cfs July 16 (gage height, 1.37 ft); minimum daily, 40 cfs July 15, Aug. 13. 1928-57: Maximum discharge, 37,000 cfs Sept. 18, 1945 (gage height, 31.10 ft, from floodmark), from rating curve extended above 26,000 cfs on basis of contracted-opening determination of peak flow; minimum, 3 cfs Sept. 5, 1930 (gage height, 0.92 ft); minimum daily, 5 cfs Sept. 6, 1930.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Large diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station. City of Burlington diverted from Stony Creek an average of 7.4 cfs for municipal supply, about 4.5 cfs of which is returned above station as sewage, and 2.9 cfs is returned to Haw River below station. Records of chemical analyses for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 757: 1929(M). WSP 782: 1934. WSP 822: Drainage area. WSP 1383: 1930, 1932-33(M), 1936, 1943, 1944(M), 1947(m).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.4	34	6.0	1,460
1.7	77	10.0	3,400
2.0	140	15.0	6,700
3.0	384	20.0	11,300

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	678	775	226	320	11,000	3,350	a345	*233	136	283	69	65
2	474	540	180	296	9,320	1,580	a415	180	125	190	139	65
3	326	427	197	276	4,640	1,180	a365	174	122	153	144	59
4	*219	412	233	250	2,500	915	a360	169	144	129	136	60
5	246	346	180	283	1,630	678	a3,100	204	459	83	392	60
6	290	273	169	333	1,140	556	a3,200	190	1,380	81	171	84
7	384	223	216	333	a850	474	a2,300	153	1,180	77	122	1,110
8	308	286	180	278	a720	685	a2,000	167	641	77	87	1,200
9	167	346	180	233	1,180	898	a2,600	147	384	77	77	412
10	133	358	197	283	1,250	678	a1,600	136	263	54	72	351
11	127	398	183	273	1,020	540	a1,200	147	223	65	60	333
12	122	296	199	270	810	427	a840	171	204	108	63	238
13	85	209	162	273	678	398	a620	207	180	56	40	176
14	103	240	190	246	573	398	a530	144	153	46	62	142
15	91	233	486	199	474	412	a460	273	209	40	101	103
16	91	169	915	280	412	427	a420	371	164	90	110	*131
17	122	247	622	233	442	427	a410	308	158	105	136	423
18	144	1,370	507	185	384	384	a390	223	405	1,820	248	1,400
19	303	880	427	164	398	427	a385	228	243	764	318	844
20	407	775	326	180	935	490	a355	246	171	318	256	412
21	868	590	278	197	758	412	a330	266	169	266	157	296
22	2,100	442	925	197	608	565	a355	238	122	219	87	211
23	1,340	412	2,720	887	490	985	a1,150	197	171	196	63	1,540
24	880	333	2,240	1,200	458	775	a600	180	151	380	70	926
25	590	326	1,630	845	412	a860	a370	155	147	176	1,170	477
26	382	293	1,060	722	1,450	a830	a325	131	377	142	636	276
27	821	258	775	622	1,460	a560	a290	240	328	99	266	195
28	846	228	622	622	1,610	a480	a255	326	263	81	173	167
29	556	228	458	697	-	a430	a220	228	378	74	89	370
30	442	276	412	1,960	-----	a365	a350	178	356	83	130	1,780
31	770	-----	371	3,980	-----	a340	-----	167	-----	79	67	-----
Total	14,415	12,139	17,466	17,097	47,560	21,946	26,140	6,375	9,388	6,411	5,932	13,906
Mean	465	406	563	552	1,699	708	871	206	313	207	191	464
Cfsm	0.776	0.678	0.940	0.922	2.84	1.18	1.45	0.344	0.523	0.346	0.319	0.775
In.	0.89	0.76	1.08	1.06	2.95	1.36	1.62	0.40	0.58	0.40	0.37	0.86
Calendar year 1956: Max	4,480			Min 16		Mean 463		Cfsm 0.773		In. 10.52		
Water year 1956-57: Max	11,000			Min 40		Mean 545		Cfsm 0.910		In. 12.33		

Peak discharge (base, 6,000 cfs).--Feb. 1 (7 a.m.) 12,800 cfs (21.15 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.

CAPE FEAR RIVER BASIN

Haw River near Pittsboro, N. C.

Location.--Lat 35°42', long 79°05', on left bank 100 ft upstream from Robeson Creek, 2 miles downstream from bridge on U. S. Highway 64, and 5 miles east of Pittsboro, Chatham County.

Drainage area.--1,310 sq mi, approximately.

Records available.--November 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 180.06 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 15, 1929, staff gage at same site and datum.

Average discharge.--29 years, 1,223 cfs.

Extremes.--Maximum discharge during year, 28,900 cfs Feb. 1 (gage height, 17.85 ft); minimum, 26 cfs Aug. 17 (gage height, 1.58 ft); minimum daily, 65 cfs July 13.

1928-57: Maximum discharge, 79,000 cfs Sept. 18, 1945 (gage height, 28.58 ft, from floodmark in gage shelter); minimum, 3.1 cfs Sept. 13, 1954; minimum daily, 5.3 cfs Sept. 20, 1953.

Flood in August 1908 reached a stage of 32.1 ft, from floodmarks 1,000 ft upstream (discharge, 38,000 cfs). Flood in 1865 reached a stage about 1 ft lower than flood in 1908, from information by local residents. Flood in September 1928 reached a stage of 20.3 ft, from floodmarks (discharge, 39,200 cfs).

Remarks.--Records good. Considerable diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1383: 1929(M), 1931, 1933-34, 1936(m), 1937, 1941-44(m), 1946-47(m), 1948.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.8	52	4.0	1,370
2.0	86	6.0	3,500
2.3	169	10.0	9,320
2.6	318	15.0	19,700
3.0	580	17.0	26,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	2,200	396	740	26,000	12,600	920	722	248	539	186	210
2	816	1,420	431	888	*20,000	4,880	896	634	217	431	160	90
3	559	1,000	444	627	9,220	2,910	920	383	280	348	84	271
4	498	762	375	587	5,240	2,200	872	251	412	212	147	271
5	615	792	352	528	3,440	1,700	864	227	461	199	251	224
6	1,220	702	336	559	2,470	1,370	7,020	406	1,370	186	683	207
7	1,120	615	356	630	2,000	*1,240	4,180	470	2,550	169	340	72
8	672	695	305	642	1,800	1,240	2,740	354	2,220	242	235	1,370
9	573	431	330	554	3,060	5,080	5,210	317	1,990	134	236	1,160
10	484	784	372	541	3,620	1,850	3,040	230	1,200	189	100	645
11	269	740	392	531	2,580	1,420	2,260	350	840	152	122	589
12	169	702	367	484	1,950	1,200	1,650	638	526	218	159	581
13	104	622	318	484	1,600	1,080	1,240	479	516	65	67	456
14	151	559	392	468	1,370	1,080	1,040	809	423	79	169	518
15	227	594	1,980	531	1,200	1,160	960	525	200	186	159	165
16	159	473	420	504	1,040	1,040	920	1,060	262	98	79	161
17	159	183	2,110	459	858	920	762	872	375	132	103	320
18	155	931	1,280	466	912	936	*762	620	518	1,060	178	3,420
19	2,390	1,640	1,000	445	920	1,080	740	397	722	3,310	1,220	2,430
20	*1,820	1,200	864	392	1,910	1,320	710	477	696	1,060	933	1,200
21	1,930	1,000	657	421	1,800	1,120	418	587	466	423	535	802
22	6,430	864	587	384	1,280	1,250	629	547	283	421	352	516
23	4,140	725	4,650	441	1,080	3,260	3,910	460	307	7,090	278	1,360
24	1,950	665	6,880	1,750	880	2,250	1,730	420	318	2,340	184	2,620
25	1,240	478	4,260	1,320	912	2,140	1,080	425	421	960	3,330	1,220
26	952	568	2,360	1,080	6,840	2,310	880	397	366	510	4,100	748
27	785	587	1,700	960	6,480	1,750	724	420	469	227	1,560	569
28	1,640	471	1,280	1,000	5,640	1,420	352	411	554	155	643	329
29	1,200	440	*1,120	1,080	-----	1,200	561	577	509	209	561	698
30	936	449	881	3,920	-----	960	710	484	627	142	355	6,910
31	1,330	-----	879	7,260	-----	880	-----	408	-----	190	386	-----
Total	36,093	23,292	42,354	30,476	16,100	62,826	48,700	15,357	20,384	21,676	17,715	29,720
Mean	1,164	776	1,366	963	4,146	2,027	1,623	495	679	699	571	991
Cfsm	0.889	0.592	1.04	0.750	3.16	1.55	1.24	0.378	0.518	0.534	0.436	0.756
In.	1.02	0.66	1.20	0.87	3.30	1.78	1.38	0.44	0.58	0.62	0.50	0.84
Calendar year 1956: Max	13,000			Min	27	Mean	944	Cfsm	0.721	In.	9.78	
Water year 1956-57: Max	26,000			Min	65	Mean	1,273	Cfsm	0.972	In.	13.19	

Peak discharge (base, 17,000 cfs).--Feb. 1 (3 p.m.) 28,900 cfs (17.85 ft.).

* Discharge measurement made on this day.

New Hope River near Pittsboro, N. C.

Location.--Lat 35°44', long 79°02', on right bank at downstream side of bridge on U. S. Highway 64, a quarter of a mile downstream from Whiteoak Creek and $8\frac{1}{2}$ miles east of Pittsboro, Chatham County.

Drainage area.--285 sq mi.

Records available.--January 1949 to September 1957.

Gage.--Water-stage recorder and concrete control since 1953. Datum of gage is 176.42 ft above mean sea level (Corps of Engineers benchmark). Prior to Mar. 18, 1950, staff gage at same site and datum.

Average discharge.--8 years, 230 cfs.

Extremes.--Maximum discharge during year, 4,100 cfs Feb. 3 (gage height, 17.39 ft); minimum, 6.1 cfs Aug. 14, 15.
1949-57: Maximum discharge, 7,900 cfs Mar. 5, 1952 (gage height, 19.74 ft); minimum, 2.0 cfs Sept. 4, 1953.
Flood in September 1945 reached a stage of 27.65 ft; 1929 flood, 25.3 ft; 1908 flood, 23.85 ft; from information by State Highway and Public Works Commission.

Remarks.--Records fair. City of Durham discharged an average of about 4.0 cfs sewage effluent into basin above station, diverted from Neuse River during water year 1957. Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.3	2.6	4.0	128
2.4	7.0	6.0	355
2.5	13	9.0	885
2.6	21	13.0	1,760
2.7	34	16.0	3,050
3.0	57	18.0	4,700
3.5	82		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	210	49	185	1,250	3,300	164	67	39	56	12	44
2	49	648	56	144	*2,780	3,380	164	124	36	36	11	37
3	34	576	54	114	3,840	2,810	164	77	30	26	10	30
4	26	441	45	96	2,860	1,980	144	52	218	21	11	25
5	30	313	43	92	2,020	1,150	127	41	920	19	11	21
6	116	190	42	97	*1,360	484	174	38	1,120	17	15	19
7	243	125	38	94	815	*397	210	35	1,100	15	15	19
8	326	97	38	85	575	282	174	34	909	14	12	24
9	236	156	36	76	689	420	280	31	815	13	*10	22
10	195	270	35	72	945	504	154	28	925	12	8.8	34
11	104	282	35	71	1,040	456	121	38	745	11	7.6	45
12	52	220	34	67	1,120	411	101	465	439	11	7.6	39
13	34	154	34	65	845	282	*86	712	186	11	7.0	30
14	28	101	38	64	420	225	78	398	79	11	6.1	22
15	26	77	622	63	288	205	72	*299	58	10	6.1	18
16	21	67	1,190	60	225	200	69	180	43	9.4	6.6	17
17	19	63	1,280	62	195	230	65	139	49	9.4	7.0	17
18	19	62	1,240	60	169	190	64	101	42	16	18	80
19	36	60	1,200	51	154	205	64	64	79	22	330	260
20	*131	56	767	49	333	306	64	58	73	50	352	282
21	406	52	346	52	504	282	63	63	144	28	154	320
22	716	51	214	52	426	258	59	62	136	17	62	242
23	905	50	228	61	348	689	68	48	63	19	43	105
24	985	*51	596	67	236	845	164	38	35	642	49	83
25	935	49	825	71	185	965	180	63	28	288	302	77
26	558	45	885	72	584	965	185	642	*53	78	972	62
27	268	40	795	72	1,320	736	106	304	99	45	1,080	40
28	154	38	494	76	1,800	506	83	159	98	29	1,050	30
29	110	42	306	103	-	352	55	96	63	19	492	105
30	101	43	270	410	-	246	60	63	58	16	123	1,050
31	138	-	230	732	-	200	-	49	-	13	61	-
Total	7,112	4,629	12,075	3,455	27,326	23,441	3,442	4,568	8,662	1,583.8	5,251.8	3,199
Mean	229	154	390	111	976	756	115	147	289	51.1	169	107
Cfsm	0.804	0.540	1.37	0.389	3.42	2.65	0.404	0.516	1.01	0.179	0.593	0.375
In.	0.93	0.60	1.58	0.45	3.57	3.06	0.45	0.60	1.13	0.21	0.69	0.42
Calendar year 1956:	Max	3,420		Min	5.7		Mean	231	Cfsm	0.811	In.	11.01
Water year 1956-57:	Max	3,840		Min	6.1		Mean	287	Cfsm	1.01	In.	13.69

Peak discharge (base 2,500 cfs).--Feb. 3 (5 a.m.) 4,100 cfs (17.39 ft); Mar. 2 (4 a.m.) 3,450 cfs (16.64 ft).

* Discharge measurement made on this day.

West Fork Deep River near High Point, N. C.

Location--Lat 36°00'15", long 79°58'42", on left bank 2,300 ft upstream from highway bridge and High Point Lake, 2.3 miles west of Jamestown, and 2.5 miles northeast of High Point College, High Point, Guilford County.

Drainage area--32.1 sq mi.

Records available--June 1923 to September 1926, July 1928 to September 1957.

Gage--Water-stage recorder and Parshall flume. Altitude of gage is 758 ft (from topographic map). June 14, 1923, to Sept. 30, 1926, staff gage at site 2,300 ft downstream at different datum.

Average discharge--32 years, 31.5 cfs.

Extremes--Maximum discharge during year, 2,210 cfs Jan. 31 (gage height, 12.65 ft); minimum, 3.1 cfs Aug. 11, 12, Sept. 4 (gage height, 2.50 ft).

1923-26, 1928-57: Maximum discharge, 8,450 cfs Sept. 24, 1947 (gage height, 19.92 ft, from floodmark), from rating curve extended above 2,000 cfs on basis of contracted-opening determination of peak flow; minimum, 0.3 cfs Sept. 1, 1932.

Remarks--Records good. Occasionally some slight diurnal fluctuation at low flow caused by gristmill 4 miles upstream.

Revisions (water years)--WSP 852: Drainage area. WSP 922: 1928-29(M), 1933(M), 1936(M). WSP 1383: 1924-25, 1930-31, 1947.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.5	3.1	5.0	160
2.6	4.9	7.0	352
3.0	16	9.0	634
3.5	35	10.0	850
4.0	61		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	19	11	16	844	136	19	12	8.3	13	6.7	4.1
2	12	15	11	15	*401	46	22	12	19	11	7.2	4.1
3	11	14	11	14	85	33	19	12	26	10	5.1	*4.1
4	11	13	10	15	60	28	18	12	15	9.6	7.0	3.2
5	11	12	10	19	48	25	465	11	89	9.4	6.8	3.5
6	10	12	10	16	42	23	159	11	101	9.4	4.9	26
7	10	11	10	15	35	24	48	10	36	8.0	4.2	18
8	9.4	12	10	14	34	40	252	10	116	7.5	4.1	17
9	9.1	18	10	14	79	27	167	10	52	6.9	4.1	13
10	8.6	13	10	14	51	22	46	9.9	25	6.6	3.7	15
11	8.3	12	9.9	13	35	20	33	11	18	6.0	3.5	11
12	8.3	12	10	13	29	20	28	12	15	6.0	3.7	7.2
13	8.3	11	11	13	26	19	24	9.9	12	5.7	4.1	6.0
14	8.3	10	14	13	23	25	22	9.4	12	5.5	5.7	6.2
15	8.0	10	45	12	21	25	20	11	16	5.5	6.0	5.1
16	7.7	*11	37	12	21	21	19	11	11	5.5	6.6	*5.3
17	8.0	101	20	12	19	19	19	9.9	9.9	24	4.4	19
18	8.8	69	17	12	18	18	18	9.9	9.6	80	7.3	18
19	9.6	25	15	12	59	27	18	11	9.9	17	8.6	9.4
20	9.6	19	*14	13	54	21	17	16	10	9.1	6.4	8.6
21	21	18	14	13	26	18	17	15	8.6	7.5	5.5	7.7
22	39	20	135	19	23	62	20	9.9	134	6.6	4.7	8.2
23	17	15	224	202	22	44	19	9.6	26	6.4	4.4	38
24	12	13	180	54	20	29	16	8.8	13	7.7	4.2	9.4
25	11	13	54	51	20	62	14	9.1	119	6.2	9.0	6.9
26	10	13	32	26	32	36	13	19	115	5.5	8.6	6.4
27	23	12	26	29	25	*29	13	26	25	5.5	6.2	8.6
28	14	12	23	29	156	24	12	12	56	5.5	4.9	7.7
29	12	12	20	65	-	22	14	9.4	54	5.1	4.7	26
30	15	12	17	82	-----	20	16	9.1	17	5.1	4.2	65
31	27	-----	17	800	-----	19	-----	9.4	-----	4.9	4.4	-----
Total	393.0	589	1,037.9	1,627	2,310	986	1,587	358.3	1,178.3	321.7	170.7	368.7
Mean	12.7	18.6	33.5	52.5	82.5	31.8	52.9	11.6	39.3	10.4	5.51	13.0
Cfsm	0.396	0.579	1.04	1.64	2.57	0.991	1.65	0.361	1.22	0.324	0.172	0.405
In.	0.46	0.65	1.20	1.88	2.68	1.14	1.84	0.42	1.37	0.37	0.20	0.45
Calendar year 1956:	Max 747	Min 3.2	Mean 28.6	Cfsm 0.891	In. 12.11							
Water year 1956-57:	Max 844	Min 3.2	Mean 29.9	Cfsm 0.931	In. 12.66							

Peak discharge (base, 700 cfs)--Jan. 31 (11 p.m.) 2,210 cfs (12.65 ft); Apr. 5 (2:30 p.m.) 1,420 cfs (11.42 ft); Apr. 6 (8:30 p.m.) 890 cfs (10.07 ft).

* Discharge measurement made on this day.

East Fork Deep River near High Point, N. C.

Location--Lat 36°02'15", long 79°56'46", on left bank 5 ft upstream from highway bridge, 3.3 miles upstream from High Point Dam, and 5.2 miles northeast of High Point College, High Point, Guilford County.

Drainage area--14.7 sq mi.

Records available--July 1928 to September 1957.

Gage--Water-stage recorder. Datum of gage is 764.02 ft above mean sea level, unadjusted. Intake pipe extended to downstream side of bridge since Mar. 1, 1934.

Average discharge--29 years, 14.6 cfs.

Extremes--Maximum discharge during year, 2,560 cfs Jan. 31 (gage height, 5.50 ft); minimum daily, 1.9 cfs Sept. 4.

1928-57: Maximum discharge, 6,300 cfs Sept. 24, 1947 (gage height, 10.87 ft, from floodmark), from rating curve extended above 1,600 cfs on basis of contracted-opening determination of peak flow using floodmarks at gage height 14.11 ft on upstream side of bridge and 10.87 ft on downstream side of bridge; minimum, 0.7 cfs Sept. 22, 1941 (result of temporary regulation); minimum unregulated, 1.1 cfs Oct. 7, 1954.

Remarks--Records fair except those for period of no gage-height record, which are poor. Occasional temporary regulation of unknown origin during low flow in some water years.

Revisions (water years)--WSP 1383: Drainage area, 1941.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.2	1.3	1.3	82
.3	2.8	1.6	154
.4	4.9	2.0	280
.6	11	2.5	470
.8	21	3.0	790
1.0	38		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	12	4.9	7.3	372	45	9.6	7.1	4.3	4.7	6.2	2.4
2	6.5	8.3	4.7	6.8	108	20	11	6.5	5.7	4.3	4.3	2.4
3	4.9	7.3	4.7	6.2	32	15	9.3	6.2	6.8	4.3	3.6	*2.2
4	4.9	6.5	4.7	6.8	24	12	9.0	6.0	5.2	4.1	4.9	1.3
5	4.7	6.2	4.7	7.9	20	11	420	5.7	7.9	4.1	3.8	2.0
6	4.9	6.0	7.0	7.1	19	10	54	5.4	32	4.3	3.2	25
7	4.7	5.4	6.6	7.1	16	11	20	5.2	13	3.8	3.2	4.9
8	3.8	5.7	4.7	6.8	18	20	187	5.2	14	3.6	2.8	a8.5
9	3.8	9.0	4.5	6.8	36	13	45	4.9	10	3.4	2.8	a7.5
10	3.6	6.2	4.5	6.8	24	10	20	4.9	8.3	3.2	2.8	a6.5
11	3.6	5.7	4.5	6.2	16	9.6	16	5.7	7.1	3.0	2.6	a5.5
12	3.6	5.4	4.7	6.0	13	9.3	14	5.4	6.0	3.0	2.5	a5.0
13	3.6	5.4	4.7	6.0	12	9.0	11	4.7	5.4	3.0	2.6	a4.5
14	3.6	5.2	6.2	6.0	11	11	10	4.5	6.8	2.8	3.6	a4.0
15	3.4	4.9	20	5.7	9.6	11	9.3	4.9	6.3	2.8	4.6	a3.5
16	3.4	4.9	16	5.7	9.3	9.3	9.0	4.5	5.2	2.8	4.1	*a3.4
17	3.6	36	9.0	5.4	8.6	8.6	8.6	4.5	5.7	55	3.0	7.2
18	3.8	27	7.3	5.0	9.3	8.3	8.3	4.7	5.7	29	4.6	6.8
19	4.3	12	6.8	5.0	36	12	8.3	5.7	5.2	7.0	4.3	5.2
20	4.5	9.3	*6.8	5.0	23	9.0	7.9	6.2	4.9	4.7	3.8	4.7
21	12	8.5	6.8	5.0	14	8.3	7.6	4.7	4.5	4.1	3.4	4.1
22	28	11	96	14	11	32	13	4.5	7.2	3.6	3.0	4.3
23	8.6	8.3	107	119	10	20	10	4.5	5.2	3.8	3.0	28
24	6.2	7.3	72	21	9.6	14	8.3	4.3	4.5	4.3	3.0	5.7
25	5.4	6.8	22	14	9.3	33	7.3	4.3	18	3.8	6.7	4.3
26	4.9	6.5	14	12	16	18	6.8	14	10	3.6	4.1	3.8
27	22	6.0	12	14	12	15	6.2	19	6.2	3.8	3.2	4.1
28	8.3	5.7	10	14	92	12	6.2	6.8	21	3.6	3.0	4.1
29	6.2	5.7	9.0	29	-	11	17	5.2	11	3.4	2.6	16
30	9.0	5.2	7.9	28	-----	10	*9.4	4.7	6.0	3.4	2.5	29
31	27	-----	7.6	656	-----	9.0	-----	4.7	-----	3.4	2.5	-----
Total	224.1	289.4	501.3	1,051.6	989.7	446.4	979.1	184.6	330.2	193.7	110.3	216.5
Mean	7.23	9.65	16.2	33.9	35.3	14.4	32.6	5.95	11.0	6.25	3.56	7.22
Cfsm	0.492	0.658	1.10	2.31	2.40	0.980	2.22	0.405	0.748	0.425	0.242	0.491
In.	0.57	0.73	1.27	2.66	2.50	1.13	2.48	0.47	0.84	0.49	0.28	0.55
Calendar year 1956:	Max 314			Min 1.9			Mean 12.8	Cfsm 0.871	In. 11.90			
Water year 1956-57:	Max 656			Min 1.9			Mean 15.1	Cfsm 1.03	In. 13.97			

Peak discharge (base, 800 cfs)--Jan. 31 (8:30 p.m.) 2,560 cfs (5.50 ft); Apr. 5 (10 a.m.) 1,980 cfs (4.58 ft); Apr. 8 (3:30 p.m.) 1,790 cfs (4.33 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.

Deep River near Randleman, N. C.

Location.--Lat 35°54'10", long 79°51'15", on left bank 500 ft downstream from highway bridge, a quarter of a mile downstream from Coltrane's mill, half a mile south of Guilford County line, 4 $\frac{1}{4}$ miles upstream from Muddy Creek, and 7 miles north of Randleman, Randolph County.

Drainage area.--124 sq mi.

Records available.--October 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 638.11 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--29 years, 118 cfs.

Extremes.--Maximum discharge during year, 5,800 cfs Feb. 1 (gage height, 20.60 ft); minimum, 5.2 cfs Oct. 16 (gage height, 1.65 ft); minimum daily, 8.9 cfs Sept. 2, 3.
1928-57: Maximum discharge, 20,000 cfs Sept. 25, 1947 (gage height, 32.2 ft, from floodmark), from rating curve extended above 7,100 cfs on basis of contracted-opening determination of peak flow at bridge $1\frac{1}{2}$ miles upstream; minimum, 0.5 cfs Nov. 28, 1931 (gage height, 1.41 ft); minimum daily, 1.2 cfs Nov. 12, 1933.

Remarks.--Records fair except those for periods of doubtful or no gage-height record, which are poor. Large diurnal fluctuation at low flow caused by Coltrane's mill. Flow slightly regulated by High Point Lake (capacity, 220,588,000 cu ft). City of High Point diverts about 3 cfs for municipal supply and discharges sewage effluent about half into Richland Creek above station and half into Rich Fork in Pee Dee River basin.

Revisions (water years).--WSP 782: 1929-30. WSP 1383: 1934-35, 1941.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.7	6.7	3.0	139
1.9	15	6.0	785
2.1	29	12.0	2,360
2.5	66	17.0	4,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	106	34	59	3,980	618	110	58	24	90	33	22
2	*30	54	32	65	1,770	257	93	46	24	50	40	*8.9
3	24	56	31	37	467	186	82	45	58	30	26	8.9
4	53	48	24	51	325	169	79	28	27	30	34	9.2
5	36	65	22	60	251	138	2,010	29	215	50	48	10
6	85	31	23	53	202	102	839	57	308	28	24	35
7	62	58	20	88	187	115	265	26	156	26	14	27
8	58	58	25	40	162	160	518	24	175	50	26	20
9	25	85	24	36	265	136	826	34	227	30	36	11
10	18	53	20	64	265	113	239	40	119	30	23	25
11	30	46	25	33	209	132	184	24	46	20	20	19
12	18	64	29	33	156	89	126	29	57	20	18	15
13	16	32	36	42	141	101	98	52	27	12	11	20
14	17	26	43	64	115	130	96	56	51	12	31	12
15	17	28	80	31	128	72	119	47	55	28	20	13
16	19	51	133	30	84	79	68	57	32	30	34	14
17	15	211	92	58	100	50	79	26	45	30	19	16
18	18	391	62	27	119	82	79	23	35	100	22	36
19	20	162	33	26	146	118	63	28	55	160	21	23
20	21	83	59	27	187	82	71	52	40	95	25	23
21	41	67	135	58	144	83	47	28	45	70	14	17
22	282	99	433	34	121	180	86	20	160	60	14	17
23	144	46	874	407	78	250	110	25	180	65	32	87
24	56	54	746	249	95	150	79	35	75	48	17	30
25	51	48	292	130	122	240	69	39	46	26	23	16
26	30	72	165	78	150	214	39	31	190	30	50	20
27	77	35	121	101	146	150	60	54	180	30	22	14
28	58	72	58	145	511	115	31	42	80	15	23	11
29	72	37	89	172	-	114	73	23	250	*30	14	29
30	49	38	68	427	-----	59	83	25	150	30	19	103
31	135	-----	86	2,450	-----	77	-----	20	-----	23	11	-----
Total	1,621	2,250	3,995	5,175	10,626	4,561	6,721	1,103	3,092	1,328	764	712.0
Mean	52.3	74.3	129	167	380	147	224	35.6	103	42.8	24.6	23.7
Cfsm	0.422	0.599	1.04	1.35	3.06	1.19	1.81	0.287	0.851	0.345	0.198	0.191
In.	0.49	0.67	1.20	1.55	3.19	1.37	2.02	0.53	0.93	0.40	0.23	0.21

Calendar year 1956: Max 2,500 Min 7.8 Mean 98.2 Cfsm 0.792 In. 10.77
Water year 1956-57: Max 3,980 Min 8.9 Mean 115 Cfsm 0.927 In. 12.59

Peak discharge (base, 2,600 cfs).--Feb. 1 (4:30 a.m.) 5,800 cfs (20.60 ft); Apr. 5 (5 p.m.) 4,240 cfs (17.63 ft).

* Discharge measurement made on this day.

Note.--Doubtful or no gage-height record Oct. 1, June 15 to July 30; discharge estimated on basis of weather records, and appearance of recorder chart and records for nearby stations.

Deep River at Ramseur, N. C.

Location.--Lat 35°44', long 79°39', on right bank 1,600 ft downstream from railroad station at Ramseur, Randolph County, and $\frac{1}{2}$ miles downstream from Sandy Creek.

Drainage area.--346 sq mi.

Records available.--November 1922 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 419.50 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--34 years (1923-57), 339 cfs.

Extremes.--Maximum discharge during year, 13,700 cfs Feb. 1 (gage height, 19.76 ft); minimum, 12 cfs July 14 (gage height, 0.46 ft); minimum daily, 16 cfs Aug. 31.

1922-57: Maximum discharge, 43,000 cfs Sept. 18, 1945 (gage height, 34.04 ft, from floodmark), from rating curve extended above 18,000 cfs on basis of slope-area determination of peak flow; minimum, 0.4 cfs May 27, Nov. 28, 29, 1941; minimum daily, 0.7 cfs Nov. 29, 1941.

Flood in August 1901 reached a stage of 28.75 ft, from floodmarks, about a quarter of a mile upstream (discharge, 30,000 cfs).

Remarks.--Records good except those for period of no gage-height record, which are poor. Large diurnal fluctuation caused by powerplants above station. Flow regulated by High Point Lake and small powerplant reservoirs. Town of Asheboro diverted an average of 1.6 cfs from Pee Dee River basin into this basin above station. Records of chemical analyses for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 822: Drainage area. WSP 1032: 1923-24, 1925(M), 1926, 1927-28(M), 1929, 1930(M), 1932-33, 1934(M), 1935, 1936-37(M), 1944(M). WSP 1383: 1923(m), 1925, 1927, 1930, 1936.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.5	16	3.0	930
.7	40	6.0	2,860
1.0	94	11.0	6,220
1.5	226	17.0	11,100
2.0	408		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*211	255	76	167	11,000	2,870	265	180	50	189	42	18
2	82	177	92	136	4,800	934	312	117	56	107	217	20
3	119	75	157	142	1,310	536	220	128	91	58	118	24
4	75	123	79	115	840	406	228	128	79	54	54	26
5	193	188	89	125	566	334	2,860	114	128	56	289	26
6	135	69	63	128	485	333	3,400	152	506	53	147	136
7	172	138	72	175	441	275	742	115	402	51	98	87
8	201	60	31	142	*415	391	515	64	161	109	35	48
9	53	203	65	127	1,030	498	1,560	45	332	37	37	111
10	95	263	126	113	858	307	582	74	314	65	39	91
11	69	96	66	126	553	314	410	67	164	37	37	40
12	31	167	76	106	436	298	348	105	109	37	37	80
13	34	128	73	80	332	210	280	144	40	36	64	53
14	36	119	73	148	290	253	223	133	92	27	39	42
15	83	66	244	122	246	321	312	104	51	17	42	a40
16	32	86	471	136	237	242	227	384	56	43	39	a38
17	32	37	313	53	220	200	222	143	103	61	26	a160
18	35	755	214	103	220	265	145	92	40	2,130	22	a300
19	133	353	197	40	256	406	214	92	122	631	70	a520
20	46	216	100	84	560	412	204	172	60	202	36	a250
21	203	166	138	153	325	284	174	164	82	109	36	a150
22	1,100	151	431	95	253	411	161	136	54	142	36	a50
23	613	150	2,360	222	247	918	416	36	345	81	36	a360
24	287	174	2,200	595	194	476	319	50	223	303	34	a220
25	153	94	960	247	227	840	180	61	121	139	372	147
26	114	144	443	176	859	755	146	76	448	59	330	114
27	71	131	310	156	755	501	140	159	349	45	145	40
28	138	80	262	250	2,720	372	138	76	150	43	122	42
29	214	94	216	260	-	330	172	123	817	96	73	147
30	96	124	191	1,290	-----	240	252	40	290	39	34	787
31	166	-----	194	3,560	-----	188	-----	42	-----	66	16	-----
Total	5,022	4,904	10,382	9,396	30,677	15,120	15,367	3,516	5,855	5,122	2,722	4,167
Mean	162	163	335	303	1,096	488	512	113	195	165	87.8	139
Cfsm	0.468	0.471	0.968	0.876	3.17	1.41	1.48	0.327	0.564	0.477	0.254	0.402
In.	0.54	0.53	1.12	1.01	5.30	1.63	1.65	0.38	0.63	0.55	0.29	0.45

Calendar year 1956: Max 4,840 Min 11 Mean 252 Cfsm 0.728 In. 9.95
 Water year 1956-57: Max 11,000 Min 16 Mean 308 Cfsm 0.890 In. 12.08

Peak discharge (base, 6,000 cfs)--Feb. 1 (5:30 a.m.) 13,700 cfs (19.76 ft); Apr. 5 (11:30 p.m.) 7,620 cfs (12.79 ft); July 18 (9:30 a.m.) 6,150 cfs (10.86 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for nearby stations.

Bear Creek at Robbins, N. C.

Location.--Lat 35°26', long 79°36', on right bank 300 ft downstream from Cabin Creek and half a mile west of Robbins, Moore County.

Drainage area.--134 sq mi.

Records available.--November 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 323.23 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by North Carolina Highway and Public Works Commission).

Average discharge.--18 years, 144 cfs.

Extremes.--Maximum discharge during year, 3,100 cfs Feb. 28 (gage height, 8.34 ft, from graph based on temporary staff-gage readings 800 ft downstream); minimum, 2.7 cfs Aug. 16.

1939-57: Maximum discharge, 43,600 cfs July 20, 1956 (gage height, 34.57 ft, from floodmark), from rating curve extended above 7,000 cfs on basis of slope-area determinations of peak flow at gage heights 27.52 and 34.57 ft; no flow Oct. 2, 22-27, 1941 (result of storage of flow in gage pool after construction of new station control); minimum unregulated flow, 0.1 cfs Oct. 21, 22, 1941, Oct. 12-14, 1954.

Remarks.--Records good except those above 600 cfs from Dec. 21 to June 19 and those for period June 20 to Sept. 30, which are fair. Diversion of about 300,000 gal daily, from gage pool, for municipal water supply of town of Robbins is included in these records.

Revisions (water years).--WSP 1433: 1944-45, 1950(M), 1952, 1955(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 29 to Dec. 14)

Oct. 1 to Dec. 20 Dec. 21 to June 19 June 20 to Sept. 30

2.5	23	0.5	19	8.1	3.1
2.8	52	.7	35	8.2	5.2
3.0	83	1.1	84	8.4	12
3.3	144	1.5	162	8.6	22
4.0	390	2.0	283	8.8	43
5.0	920	3.0	589	9.0	81
6.0	1,440	5.0	1,400	9.5	244
		6.0	1,890	10.0	467
				10.5	765
				11.0	1,150

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	83	58	*78	700	751	101	80	38	30	12	21
2	62	68	38	74	520	324	110	54	32	26	19	21
3	51	63	36	66	220	220	94	46	101	25	19	18
4	58	60	33	64	185	174	91	232	886	30	15	18
5	69	58	37	84	208	151	94	99	514	20	38	*18
6	74	53	40	78	220	138	174	61	913	19	29	21
7	73	51	*40	74	151	140	103	54	296	18	18	26
8	51	53	40	68	151	220	87	49	247	17	14	22
9	38	141	41	64	368	151	92	47	1,040	15	12	82
10	36	98	46	64	270	118	81	40	466	13	11	57
11												
12	34	71	45	59	196	109	76	118	174	12	8.0	33
13	34	52	48	56	140	101	75	*409	112	10	8.0	27
14	36	39	46	56	*114	96	74	214	91	9.1	7.7	26
15	36	26	943	54	91	265	69	282	69	8.7	6.6	21
								96	59	8.7	4.1	19
16	*37	26	1,150	55	91	185	66	64	49	22	3.3	21
17	53	29	178	54	91	116	66	55	*43	14	5.2	62
18	80	38	112	54	81	101	64	52	43	419	8.4	580
19	92	35	93	50	181	490	65	50	37	33	27	104
20	86	30	80	49	349	220	66	162	61	20	36	57
21	100	30	*78	49	132	140	69	81	57	16	21	43
22	348	38	78	52	101	276	64	54	43	13	15	31
23	*130	40	336	64	89	257	60	30	35	*25	12	48
24	71	36	693	59	84	162	64	22	31	128	11	45
25	59	35	257	57	80	*441	57	34	29	30	873	27
26	53	36	136	65	1,200	283	52	69	43	20	180	24
27	58	37	109	75	411	208	48	70	89	16	57	22
28	59	37	98	80	*1,540	151	47	59	45	14	35	21
29	55	34	109	*109	130	45	44	57	12	26	482	
30	58	58	99	430	118	45	39	43	*12	*22	1,100	
31	90		84	247	107		42		12	20		
Total	2,190	1,484	5,232	2,544	8,063	6,461	2,268	2,808	5,743	1,067.5	1,573.3	3,087
Mean	70.6	49.5	169	82.1	268	208	75.6	90.8	191	34.4	50.8	103
Cfs/m	0.527	0.369	1.26	0.613	2.15	1.55	0.564	0.676	1.43	0.257	0.379	0.769
In.	0.61	0.41	1.45	0.71	2.24	1.79	0.63	0.78	1.59	0.30	0.44	0.86

Calendar year 1956: Max 18,800 Min 3.2 Mean 172 Cfs/m 1.28 In. 17.47
Water year 1956-57: Max 1,540 Min 3.3 Mean 117 Cfs/m 0.873 In. 11.81

Peak discharge (base, 3,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--Discharge for Dec. 21 to June 19 computed from readings of temporary staff gage at site 800 ft downstream.

Deep River at Moncure, N. C.

Location.--Lat 35°36', long 79°05', on right bank $1\frac{1}{2}$ miles northwest of Moncure, Chatham County, $2\frac{1}{4}$ miles downstream from Rocky River, and $4\frac{1}{2}$ miles upstream from confluence with Haw River.

Drainage area.--1,410 sq mi, approximately.

Records available.--July 1930 to September 1957. Records for May 1898 to December 1899 published in Bulletins 34 and 39 of North Carolina Department of Conservation and Development have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 185.88 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--27 years, 1,397 cfs.

Extremes.--Maximum discharge during year, 17,800 cfs Mar. 1 (gage height, 8.07 ft); minimum, 68 cfs Aug. 14, 15 (gage height, 0.95 ft).
1930-57: Maximum discharge, 80,300 cfs Sept. 18, 1945 (gage height, 17.20 ft), from rating curve extended above 66,000 cfs; minimum, 5.5 cfs Oct. 10, 1954 (gage height, 0.35 ft).

Remarks.--Records good except those below 250 cfs, which are fair. Diurnal fluctuation and some regulation at low flow caused by small powerplants above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1082: 1930-42. See also Records available.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.9	57	2.5	1,110
1.1	106	3.0	1,800
1.4	224	4.0	3,740
1.7	398	6.0	9,340
2.0	621	8.0	17,300

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	900	860	366	880	9,960	14,800	1,000	763	347	960	178	360
2	589	1,060	392	800	14,400	11,500	1,020	664	328	541	170	240
3	526	920	412	735	13,200	4,250	1,080	737	367	428	158	122
4	426	698	372	655	5,480	2,350	1,010	965	7,380	360	250	178
5	614	526	396	630	3,000	1,850	900	630	4,200	328	192	210
6	1,300	534	379	647	2,800	1,660	3,920	621	5,740	250	299	201
7	2,700	541	366	673	2,370	1,640	5,080	557	12,000	158	353	206
8	1,600	460	347	655	1,980	1,620	1,870	504	4,380	106	334	245
9	830	610	322	655	3,580	2,100	1,310	432	5,480	129	322	245
10	630	880	317	613	4,780	1,940	2,150	398	5,610	158	276	419
11	439	1,000	282	581	3,410	1,400	1,400	412	2,780	151	178	446
12	353	781	234	519	2,290	1,220	1,060	1,430	1,490	158	92	366
13	288	581	398	511	1,710	1,150	950	2,130	1,000	155	75	299
14	271	a450	354	519	1,470	1,460	870	2,240	744	129	72	276
15	188	a400	3,460	489	1,190	2,130	772	1,240	597	147	79	224
16	207	a360	11,400	489	1,070	2,800	735	810	511	139	98	122
17	234	a350	5,780	497	1,020	1,770	772	716	474	182	92	196
18	379	a340	2,100	504	940	1,240	673	726	379	1,730	748	736
19	7,630	a800	1,300	453	900	2,010	681	534	271	5,190	4,070	a2,800
20	4,990	a900	1,000	419	2,050	3,410	630	694	353	1,620	1,420	a1,900
21	2,580	a800	850	419	2,500	2,060	664	860	299	735	605	a1,100
22	6,590	a720	744	398	1,500	1,900	690	698	360	460	334	a780
23	5,500	a560	1,290	497	1,170	3,960	900	541	392	580	245	a380
24	2,520	a480	7,160	534	1,090	3,200	1,060	467	266	2,240	187	a400
25	1,310	446	7,600	814	920	3,340	990	467	384	1,360	5,680	a570
26	900	439	3,390	810	7,030	4,540	735	638	800	744	8,750	a400
27	698	426	1,800	681	10,600	3,100	597	1,270	647	439	5,580	a340
28	630	398	1,330	664	9,470	2,130	526	970	930	360	1,160	a270
29	581	392	*1,180	730	-	1,620	541	690	726	271	605	a710
30	581	398	1,160	2,580	-----	1,370	664	504	800	201	453	a2,400
31	858	-----	1,010	3,960	-----	1,220	-----	432	-----	196	392	-----
Total	47,822	18,110	57,473	24,011	111,680	90,760	35,250	24,740	60,035	20,603	33,447	23,121
Mean	1,543	604	1,854	775	3,989	2,928	1,175	798	2,001	665	1,079	771
Cfs/m	1.09	0.428	1.31	0.550	2.83	2.08	0.833	0.566	1.42	0.472	0.765	0.547
In.	1.26	0.48	1.52	0.63	2.95	2.39	0.93	0.65	1.58	0.54	0.88	0.61
Calendar year 1956: Max	16,500			Min 77		Mean 1,261	Cfs/m 0.894	In. 12.18				
Water year 1956-57: Max	14,800			Min 72		Mean 1,499	Cfs/m 1.06	In. 14.42				

Peak discharge (base, 15,000 cfs).--Mar. 1 (2 a.m.) 17,800 cfs (8.07 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage when available, and records for nearby station.

Cape Fear River at Lillington, N. C.

Location.--Lat 35°24', long 78°49', near right bank in downstream end of pier of bridge on U. S. Highway 401, 1,800 ft downstream from Norfolk Southern Railway bridge, 0.5 mile north of Lillington, Harnett County, and 1 mile downstream from Neill Creek.

Drainage area.--3,440 sq mi, approximately.

Records available.--December 1923 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 105.71 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 8, 1927, chain gage at same site and datum.

Average discharge.--33 years (1924-57), 3,268 cfs.

Extremes.--Maximum discharge during year, 41,800 cfs Feb. 2 (gage height, 16.8 ft); minimum, 88 cfs July 15, Aug. 18 (gage height, 0.51 ft).
1923-57: Maximum discharge uncertain, occurred Sept. 19, 1945 (gage height, 33.19 ft, from floodmark); minimum, 11 cfs Oct. 14, 15, 1954 (gage height, -0.17 ft).

Remarks.--Records fair. Large diurnal fluctuation and considerable regulation at low flow caused by powerplants above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1002: 1930(M). WSP 1032: 1942(M). WSP 1333: 1945(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.6	107	3.0	1,900
.8	163	5.0	4,910
1.0	240	8.0	10,900
1.5	503	13.0	26,200
2.0	870	17.0	42,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,790	3,720	1,200	2,300	27,900	35,700	2,440	1,660	933	1,600	430	822
2	1,900	4,240	1,030	1,720	40,500	26,200	2,300	1,800	714	1,550	405	732
3	1,370	3,840	933	1,660	32,400	12,900	2,300	1,270	343	896	249	232
4	924	2,720	915	1,800	18,000	7,790	2,230	1,300	7,220	667	295	336
5	2,700	2,030	906	1,550	9,920	6,350	2,370	1,390	7,380	548	663	616
6	3,290	1,660	897	1,440	7,610	4,910	7,520	947	7,180	481	479	735
7	4,240	1,660	879	1,390	6,170	4,080	11,300	730	12,400	335	1,260	373
8	3,600	1,660	782	1,440	4,910	3,840	5,900	1,300	9,090	363	327	753
9	2,300	1,520	697	1,600	6,230	5,680	5,870	838	17,200	483	602	2,030
10	1,550	1,730	690	1,260	10,400	5,450	6,080	720	11,400	144	548	1,440
11	1,120	2,370	697	1,310	8,170	4,000	4,400	713	6,350	295	260	1,020
12	897	1,980	814	1,340	5,990	3,360	3,220	3,190	3,610	323	274	1,140
13	740	1,660	728	1,020	4,740	3,000	2,720	4,500	2,510	309	324	1,060
14	223	1,600	774	1,070	3,760	3,140	2,300	3,650	1,720	328	188	915
15	432	1,160	3,780	1,290	3,140	4,240	1,900	2,900	1,430	128	180	448
16	734	1,500	17,300	1,060	2,790	4,910	1,840	2,030	924	241	250	477
17	261	1,140	13,000	1,290	2,510	3,840	1,660	2,300	915	350	210	513
18	720	790	5,900	963	2,300	2,860	1,600	1,660	898	1,440	748	1,990
19	6,520	1,920	4,080	1,140	2,100	3,310	1,500	1,340	1,240	7,740	9,350	5,990
20	12,500	2,230	3,290	987	2,970	5,630	1,500	1,230	1,230	3,690	4,680	3,690
21	5,410	2,100	2,510	960	5,450	4,460	1,440	1,460	1,420	1,930	2,370	2,440
22	15,100	1,720	2,100	960	3,920	3,440	1,340	1,660	915	830	1,090	1,660
23	13,400	1,180	3,010	987	3,000	7,310	3,450	1,430	898	830	712	1,020
24	6,980	1,500	13,600	1,500	2,580	7,430	3,770	697	814	7,860	637	3,180
25	4,240	1,020	15,200	2,510	2,300	7,070	2,650	960	806	4,490	7,560	2,370
26	3,140	1,010	8,180	2,300	7,960	8,580	1,960	1,680	915	*2,300	19,000	1,600
27	2,370	1,250	5,090	2,100	24,800	6,710	1,660	3,140	1,510	1,340	7,780	1,120
28	2,300	1,040	3,840	1,660	16,400	4,910	1,360	2,510	1,280	602	3,810	774
29	2,440	933	3,140	1,960	-	3,760	824	1,660	1,600	510	2,510	1,680
30	2,030	996	2,860	5,030	-	3,070	1,650	1,390	1,250	281	1,650	19,000
31	2,030	-	2,370	8,970	-	2,652	-	960	-	339	846	-
Total	108,251	53,879	121,392	56,373	268,920	210,580	91,194	53,195	106,075	43,423	69,577	60,186
Mean	3,492	1,796	3,916	1,818	9,604	6,793	3,040	1,716	3,536	1,401	2,244	2,006
Cfs/m	1.02	0.522	1.14	0.528	2.79	1.97	0.884	0.499	1.03	0.407	0.652	0.583
In.	1.17	0.58	1.31	0.61	2.91	2.28	0.99	0.58	1.15	0.47	0.75	0.65

Calendar year 1956: Max 42,800 Min 82 Mean 2,841 Cfs/m 0.826 In. 11.23

Water year 1956-57: Max 40,500 Min 128 Mean 3,406 Cfs/m 0.990 In. 13.45

Peak discharge (base, 30,000 cfs).--Feb. 2 (2 p.m.) 41,800 cfs (16.8 ft); Mar. 1 (3 p.m.) 38,700 cfs (16.1 ft).

* Discharge measurement made on this day.

Little River at Linden, N. C.

Location.--Lat 35°16', long 78°47', on left bank 10 ft downstream from bridge on U. S. Highway 401, 1.6 miles west of Linden, Cumberland County, 2 miles upstream from Stewart Creek, and 4½ miles upstream from mouth.

Drainage area.--460 sq mi.

Records available.--November 1928 to September 1957. Prior to October 1950, published as Lower Little River at Linden.

Gage.--Water-stage recorder. Datum of gage is 73.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Aug. 27, 1934, chain gage at same site and datum. Since June 18, 1948, auxiliary wire-weight gage 2½ miles downstream read twice or more often daily during periods of backwater.

Average discharge.--28 years (1929-57), 532 cfs.

Extremes.--Maximum discharge during year, 3,310 cfs Mar. 1 (gage height, 11.27 ft); maximum gage height, 11.32 ft Mar. 1 (backwater from Cape Fear River); minimum discharge, 58 cfs Aug. 14, 15 (gage height, 1.98 ft).

1928-57: Maximum discharge, 13,500 cfs Sept. 18, 1945, occurred during period of backwater from Cape Fear River; maximum gage height, 41.47 ft Sept. 19 or 20, 1945 (from floodmark); minimum discharge, 26 cfs Oct. 14, 1940.

Flood of Sept. 21, 1928, reached a stage of 37.3 ft, from floodmark, maximum discharge, 13,000 cfs Sept. 20 or 21.

Remarks.--Records good except those for periods of backwater from Cape Fear River, which are poor.

Revisions (water years).--WSP 822: Drainage area. WSP 1383: 1930-33, 1937, 1945.

Rating table, water year 1956-57, except periods of backwater from Cape Fear River (gage height, in feet, and discharge, in cubic feet per second)

1.9	50	4.0	520
2.3	98	7.0	1,660
3.0	235	11.0	3,220

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	520	603	586	536	c713	c3,080	638	258	411	303	85	214
2	367	845	586	488	c700	c2,590	620	252	367	250	87	180
3	285	769	536	442	c660	c2,340	603	260	325	201	90	174
4	*262	731	442	426	c619	1,700	569	295	301	176	104	152
5	322	656	382	442	586	1,430	569	411	477	158	108	184
6		358	*550	350	457	536	1,430	807	472	1,080	138	123
7		358	488	330	457	504	1,540	864	411	1,470	132	122
8		319	472	322	442	504	1,580	826	303	1,740	*127	107
9		275	603	319	411	536	1,470	731	240	1,350	98	88
10		233	769	311	396	603	1,270	674	214	1,120	87	81
11		201	845	*298	382	638	1,120	586	253	1,080	80	72
12		180	750	290	382	603	959	536	1,220	*940	78	66
13		168	586	293	352	536	826	488	2,090	712	72	61
14		164	504	293	344	504	864	457	2,600	603	81	60
15		164	442	308	*338	457	997	442	1,680	504	97	*59
16		142	426	651	347	442	1,040	411	1,120	442	128	74
17		160	426	940	355	442	959	396	712	355	172	76
18		214	411	1,040	364	*426	788	396	536	308	182	71
19		403	596	902	350	411	940	382	488	272	180	85
20		1,430	582	656	330	457	1,080	382	520	589	164	110
21		1,970	367	552	319	536	1,150	382	883	536	160	208
22		2,050	367	504	322	520	1,120	358	1,040	442	140	188
23		1,620	367	488	355	457	1,040	335	807	324	101	125
24		1,510	352	620	364	411	978	361	552	262	152	104
25		1,150	341	807	396	396	*1,120	364	536	212	170	234
26		845	338	864	457	680	1,190	293	586	381	170	520
27		674	333	*845	504	c1,170	1,190	260	712	807	146	656
28		603	324	674	488	1,780	1,120	240	788	603	138	731
29		552	319	603	457	-	902	217	788	426	125	520
30		552	442	569	504	-----	769	*210	569	367	104	340
31		569	-----	569	603	-----	674	457	-----	92	228	-----
Total	18,620	15,204	16,930	12,790	16,827	39,256	14,397	22,053	18,806	4,402	5,583	11,425
Mean	601	507	546	413	601	1,266	480	711	627	142	180	381
Cfs/m	1.31	1.10	1.19	0.898	1.31	2.75	1.04	1.55	1.36	0.309	0.391	0.828
In.	1.51	1.23	1.37	1.03	1.36	3.17	1.16	1.78	1.52	0.36	0.45	0.92

Calendar year 1956: Max 2,440 Min 54 Mean 506 Cfs/m 1.10 In. 14.98
 Water year 1956-57: Max 3,080 Min 59 Mean 538 Cfs/m 1.17 In. 15.86

Peak discharge (base, 2,100 cfs).--Oct. 22 (4 a.m.) 2,290 cfs (8.57 ft); Mar. 1 (6 a.m.) 3,310 cfs (11.27 ft); May 14 (10 a.m.) 2,710 cfs (9.67 ft).

* Discharge measurement made on this day.
 c Backwater from Cape Fear River.

Cape Fear River at lock 3, near Tarheel, N. C.

Location.--Lat 34°50', long 78°48', on right bank 100 ft upstream from lock 3, 1 mile downstream from county line, 7 miles north of Tarheel, Bladen County, 9 miles upstream from Philips Creek, and at mile 95.

Drainage area.--4,810 sq mi, approximately.

Records available.--October 1937 to September 1957.

Gage.--Water-stage recorder and concrete lock and dam control. Datum of gage is 28.935 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Jan. 8, 1939, staff gage on upper lock wall 100 ft downstream at same datum. Auxiliary water-stage recorder 1.8 miles downstream: prior to Jan. 14, 1943, auxiliary staff gage 400 ft downstream on lower end of lock wall. Jan. 14, 1943, to Sept. 30, 1953, auxiliary water-stage recorder at site 600 ft downstream.

Average discharge.--20 years, 4,712 cfs.

Extremes.--Maximum discharge during year, 37,000 cfs Mar. 2; maximum gage height, 22.05 ft Mar. 2; minimum discharge, 480 cfs July 12, Aug. 16, 19 (gage height, 0.80 ft); minimum daily, 534 cfs Aug. 16.

1937-57: Maximum gage height, 43.44 ft Sept. 22, 1945 (discharge not determined); minimum discharge, 170 cfs Sept. 20, 1954; minimum daily, 208 cfs Sept. 13, 1954.

Remarks.--Records good except those computed using submergence as a factor and those computed from graph based on staff-gage readings, which are fair. Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station.

Rating table, water year 1956-57, except periods computed using submergence as a factor (gage height, in feet, and discharge, in cubic feet per second)

0.8	480	3.0	3,460
1.0	670	4.0	5,690
1.5	1,200	5.0	8,370
2.0	1,830	6.0	11,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,300	4,030	2,340	3,960	k14,400	k28,100	4,390	2,420	2,120	2,120	770	1,430
2	3,960	6,070	2,420	3,560	k33,200	k35,800	4,170	2,270	1,760	2,420	969	1,530
3	2,900	6,600	2,200	2,990	k36,300	k31,200	3,960	2,120	1,530	2,120	861	1,210
4	2,340	5,080	2,200	2,740	k31,900	k21,900	3,850	1,970	2,460	1,470	700	861
5	2,200	4,170	2,040	2,740	k21,000	k16,000	3,850	2,200	9,250	1,100	690	870
6	4,180	3,650	1,760	2,500	k14,900	k12,100	4,610	2,200	g8,660	991	g980	1,180
7	4,390	3,180	1,830	2,420	k9,930	k9,940	k12,400	1,970	g12,000	790	g1,200	1,830
8	5,080	2,990	1,830	2,660	7,270	8,370	12,700	1,830	gk14,400	770	g1,500	1,760
9	4,060	3,080	1,520	2,580	6,600	8,090	8,090	1,970	gk15,700	750	g925	2,560
10	2,820	3,080	1,390	2,740	9,680	9,550	8,950	1,570	k19,700	861	g980	3,650
11	2,270	3,460	1,540	2,340	11,500	8,090	7,540	1,220	16,100	650	g820	2,990
12	1,760	4,060	1,480	2,420	9,440	6,730	5,820	2,380	k9,150	543	g670	2,500
13	1,620	3,650	1,700	2,040	7,270	5,940	4,610	6,360	5,690	670	g670	2,420
14	1,220	3,080	1,540	1,830	6,070	5,440	3,750	7,540	4,500	590	580	1,970
15	750	2,740	g1,670	2,120	4,960	6,330	3,460	7,270	3,460	670	580	1,670
16	980	2,420	g8,980	2,200	4,280	7,270	3,180	5,560	2,900	600	534	1,300
17	1,240	2,580	gk15,800	2,120	3,750	7,270	2,990	4,610	2,200	670	710	1,310
18	1,090	2,040	gk13,400	2,040	3,460	5,940	2,820	3,850	1,970	760	570	1,670
19	1,840	1,900	g9,770	1,970	3,460	5,440	2,660	2,900	1,900	2,820	3,140	4,840
20	k13,400	3,180	g5,940	1,850	3,460	7,000	2,500	2,500	2,500	7,540	8,540	6,860
21	k11,800	3,270	4,960	1,690	5,230	8,090	2,270	2,900	2,820	3,780	4,460	4,500
22	k12,100	3,080	3,850	1,830	6,200	6,860	2,270	3,270	2,580	2,120	2,820	3,270
23	k17,000	2,500	3,360	1,900	4,840	7,270	2,340	3,360	1,970	1,360	1,700	2,580
24	k14,400	2,270	7,590	2,040	3,850	10,500	5,100	2,740	1,900	2,590	1,320	2,380
25	k9,660	2,200	k16,900	2,960	3,460	9,850	4,280	2,040	1,690	7,910	1,200	3,750
26	6,600	1,690	k14,700	3,650	4,600	11,100	3,270	2,040	1,530	4,360	k13,600	2,900
27	5,080	1,900	k10,100	3,460	k17,500	11,800	2,660	3,960	1,970	2,740	k14,600	2,770
28	3,850	2,120	7,270	3,130	k23,400	9,250	2,120	4,960	2,740	1,700	k8,620	1,700
29	3,960	1,900	5,440	3,560	-	7,270	1,760	4,060	2,740	1,000	4,960	1,700
30	3,850	1,900	4,500	3,750	-----	5,940	1,540	3,270	2,420	892	3,480	k7,940
31	3,560	-----	4,170	8,780	-----	4,960	-----	2,580	-----	770	2,270	-----
Total	156,060	93,870	165,180	86,170	311,910	359,390	133,910	99,890	160,270	58,047	85,419	77,221
Mean	5,034	3,129	5,328	2,790	11,140	10,950	4,464	3,222	5,342	1,872	2,755	2,574
Cfsm	1.05	0.651	1.11	0.578	2.32	2.28	0.928	0.670	1.11	0.389	0.573	0.535
In.	1.21	0.73	1.28	0.67	2.41	2.62	1.04	0.77	1.24	0.45	0.66	0.60
Calendar year 1956: Max	34,700			Min	392	Mean	4,217	Cfsm	0.877	In.	11.94	
Water year 1956-57: Max	36,300			Min	534	Mean	4,842	Cfsm	1.01	In.	13.68	

g Computed from graph based on twice-daily staff-gage readings.
k Computed by using submergence as a factor.

Hood Creek near Leland, N. C.

Location.--Lat 34°16'42", long 78°07'32", on right bank at bridge on U. S. Highways 74 and 76, 0.4 mile downstream from Pasture Pond Branch, 1 mile southeast of Maco, and 4¼ miles northeast of Leland, Brunswick County.

Drainage area.--21.6 sq mi.

Records available.--November 1956 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 15 ft (from topographic map).

Extremes.--Maximum discharge during period, 620 cfs Sept. 30 (gage height, 7.68 ft); minimum, 0.05 cfs for several days in August and September.

Flood of Sept. 20, 1955, reached a stage of 10.39 ft, from crest-stage indicator then in use (discharge, 2,050 cfs, from rating curve extended above 640 cfs).

Remarks.--Records fair.

Rating table, Nov. 28, 1956, to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)

1.1	0.05	3.5	34
1.2	.2	4.0	51
1.3	.6	4.5	76
1.5	1.8	5.0	111
1.8	4.0	6.0	222
2.1	6.6	7.0	425
2.5	12	8.0	730
3.0	21		

Discharge, in cubic feet per second, November 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	13	5.8	21	38	41	2.1	6.3	3.8	0.1	0.1
2		-	14	5.4	17	40	42	1.8	6.2	4.2	.05	.35
3		-	12	5.1	15	32	39	1.7	7.7	3.2	.1	.15
4		-	10	5.1	15	25	36	2.8	6.7	2.4	.1	.15
5		-	9.4	7.5	13	46	34	6.9	17	1.7	.15	.3
6		-	8.8	9.6	11	89	41	7.8	34	1.0	.15	.15
7		-	8.3	9.2	9.8	82	41	5.2	74	.7	.15	.15
8		-	8.0	8.2	9.4	71	35	3.4	75	.4	.1	.35
9		-	7.6	7.3	8.9	66	26	2.6	162	*.3	.1	.4
10		-	7.4	6.8	8.7	58	21	2.0	340	.2	.05	.2
11		-	7.4	6.2	8.2	46	18	1.7	*182	.2	.05	.15
12		-	8.0	5.9	7.6	37	17	2.4	100	.2	.1	.1
13		-	*8.2	5.8	7.0	31	16	2.7	61	.2	** .05	.05
14		-	9.0	5.6	6.5	134	15	2.2	40	.2	.05	.05
15		-	9.9	5.8	6.2	453	13	1.6	37	.15	.15	.05
16		-	9.4	8.6	6.0	245	12	1.1	64	.15	.15	.05
17		-	8.4	*11	6.0	147	11	.8	50	.45	.1	.05
18		-	7.6	9.8	5.7	100	10	3.1	28	.45	.1	*.15
19		-	7.0	8.0	*6.0	82	9.4	8.4	17	.35	.45	1.1
20		-	6.6	7.2	7.3	70	8.6	9.8	13	.2	.25	.6
21		-	6.3	6.9	7.4	59	7.8	6.2	11	.15	*.3	1.0
22		-	6.2	6.7	6.6	62	6.9	3.8	8.6	.1	.3	1.1
23		-	6.3	7.3	6.0	82	6.2	2.7	6.2	.1	.15	5.0
24		-	8.1	7.7	5.6	76	5.4	2.0	4.6	.5	.15	14
25		-	11	12	5.5	160	4.7	1.7	3.6	*.45	.2	19
26		-	10	23	18	237	4.2	1.6	3.6	.2	.15	10
27		-	8.2	30	36	*152	3.7	1.9	6.0	.15	.35	5.2
28		8.2	7.1	22	42	100	3.2	5.9	7.0	.15	.3	3.7
29		8.1	6.7	16	-	75	2.8	7.3	5.5	.15	.25	68
30		9.9	6.3	14	-----	57	2.5	5.0	3.8	.1	.1	*509
31		-----	6.0	19	-----	47	-----	4.8	-----	.1	.05	-----
Total		-	262.2	308.5	322.4	2,999	533.4	113.0	1,580.8	22.60	4.80	640.65
Mean		-	8.46	9.95	11.5	96.7	17.8	3.65	46.0	0.729	0.155	21.4
Cfsm		-	0.392	0.461	0.532	4.48	0.824	0.169	2.13	0.034	0.007	0.991
In.		-	0.45	0.53	0.56	5.16	0.92	0.19	2.38	0.04	0.008	1.10

Calendar year : Max Min Mean Cfsm In.
Water year : Max Min Mean Cfsm In.

Peak discharge (base, 300 cfs).--Mar. 15 (7:30 a.m.) 545 cfs (7.43 ft); June 10 (5:30 a.m.) 400 cfs (6.90 ft); Sept. 30 (7:30 a.m.) 620 cfs (7.68 ft).

* Discharge measurement made on this day.

** Field estimate made on this day.

Little Coharie Creek near Roseboro, N. C.

Location.--Lat 34°57', long 78°29', on downstream end of center of pier of bridge on State Highway 24, 1½ miles east of Roseboro, Sampson County, and 1½ miles upstream from Bearskin Swamp.

Drainage area.--96.4 sq mi.

Records available.--January 1950 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 81 ft (estimated from description of previously destroyed benchmark at site). Prior to Jan. 12, 1951, wire-weight gage at same site and datum.

Average discharge.--7 years, 82.1 cfs.

Extremes.--Maximum discharge during year, 570 cfs June 10 (gage height, 7.14 ft); minimum, 2.8 cfs Aug. 12 (gage height, 1.58 ft).

1950-57: Maximum discharge, 1,860 cfs Sept. 6, 1955 (gage height, 9.00 ft); minimum, 0.1 cfs Sept. 13, 14, 27, Oct. 1-11, 1954.

Flood in 1924 reached a stage of 11.6 ft, from information furnished by North Carolina Highway and Public Works Commission.

Remarks.--Records fair.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 2-8, Jan. 25-27)

Oct. 1 to Jan. 24

Jan. 25 to Sept. 30

3.2	30	1.6	3.0	5.5	144
4.0	54	2.0	8.5	6.0	197
5.0	95	2.5	17	6.5	300
5.6	128	3.0	28	7.0	490
		4.0	60	7.1	540
		5.0	109		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	92	78	108	126	230	180	21	185	64	8.5	7.0
2	*124	102	78	100	122	260	163	24	133	56	7.3	7.2
3	121	98	80	92	118	285	153	*22	66	38	7.4	6.6
4	121	92	82	88	118	300	140	42	49	27	7.3	5.7
5	121	88	82	84	115	330	129	73	47	22	7.8	11
6	110	86	80	78	109	315	140	73	49	19	7.9	15
7	92	84	78	74	103	285	140	75	64	17	7.0	15
8	78	*84	72	72	100	270	132	67	85	17	5.7	25
9	68	90	66	68	109	260	168	42	287	13	4.8	34
10	60	90	62	68	106	250	185	29	540	*11	4.0	51
11	54	86	58	66	100	240	168	25	540	10	3.4	75
12	48	82	*54	64	92	221	153	39	440	9.6	*3.1	90
13	40	80	54	62	90	204	144	41	350	8.8	4.6	84
14	36	78	54	58	87	212	136	41	400	7.9	4.2	52
15	32	76	56	56	82	230	122	35	345	7.6	7.0	31
16	30	72	94	58	77	221	106	79	240	7.8	9.6	22
17	32	68	98	58	75	197	90	92	204	8.4	8.2	19
18	42	74	95	*58	73	197	80	94	168	8.8	11	20
19	54	74	95	56	75	204	73	55	155	13	10	*35
20	68	72	100	54	*77	197	66	36	158	20	10	56
21	62	74	108	52	75	191	60	30	136	26	11	77
22	95	76	110	52	77	185	54	26	92	26	9.7	109
23	95	72	110	54	84	185	49	40	82	26	7.4	136
24	92	68	115	56	77	180	42	36	94	36	6.4	158
25	88	64	118	75	70	191	36	31	112	42	7.2	148
26	88	62	115	100	112	212	31	110	97	*31	10	106
27	90	58	112	106	148	212	27	168	58	22	14	66
28	92	56	112	108	180	204	25	272	45	18	12	51
29	92	54	115	109	-	*204	22	360	58	15	9.6	67
30	92	68	115	118	-	204	20	300	64	12	8.5	132
31	92	-	112	126	-	191	-	240	-	10	7.0	-
Total	2,446	2,320	2,756	2,376	2,775	7,087	3,034	2,618	5,351	649.9	241.6	1,711.5
Mean	78.9	77.3	88.9	76.6	99.1	228	101	84.5	178	21.0	7.79	57.0
Cfsm	0.818	0.802	0.922	0.795	1.03	2.37	1.05	0.877	1.85	0.218	0.081	0.591
In.	0.94	0.90	1.06	0.92	1.07	2.73	1.17	1.01	2.06	0.25	0.09	0.66
Calendar year 1956: Max	259			Min 8.2		Mean 91.8		Cfsm 0.952		In. 12.96		
Water year 1956-57: Max	540			Min 3.1		Mean 91.4		Cfsm 0.948		In. 12.86		

* Discharge measurement made on this day.

Black River near Tomahawk, N. C.

Location.--Lat 34°45', long 78°17', near center of span on downstream side of bridge on State Highway 411, a quarter of a mile downstream from Clear Run Swamp and 3 $\frac{1}{2}$ miles northeast of Tomahawk, Sampson County.

Drainage area.--680 sq mi.

Records available.--October 1951 to September 1957.

Gage.--Wire-weight gage read twice daily. Datum of gage is 0.39 ft below mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--6 years, 517 cfs.

Extremes.--Maximum discharge observed during year, 3,640 cfs June 13 (gage height, 39.93 ft); minimum, 29 cfs Aug. 12 (gage height, 26.22 ft).

1951-57: Maximum discharge observed, 6,550 cfs Sept. 9, 1955 (gage height, 44.16 ft); minimum, 8.5 cfs Oct. 13, 1954 (gage height, 25.59 ft).

Flood in 1928 reached a stage of 47.0 ft (discharge, 9,000 cfs). Floods in 1945 and 1948 reached a stage of 42.6 ft, from information furnished by North Carolina Highway and Public Works Commission.

Remarks.--Records fair.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

26.2	27	33.0	1,200
26.5	57	37.0	2,340
27.0	116	40.0	3,700
28.0	246		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	628	648	352	514	668	1,220	1,090	160	668	218	65	52
2	*590	648	421	495	648	1,340	1,010	*160	668	205	59	45
3	571	698	405	476	648	1,390	969	154	609	179	56	32
4	605	668	386	457	628	1,420	928	218	552	166	52	47
5	898	628	386	439	609	1,470	888	457	533	141	49	57
6	928	571	352	421	590	1,590	888	708	495	129	58	86
7	868	*533	337	421	571	1,800	868	628	457	116	56	192
8	848	495	337	386	571	1,950	808	476	552	104	47	321
9	628	476	337	369	590	2,010	788	369	1,110	*98	42	260
10	552	495	321	352	628	2,040	868	305	1,740	98	36	218
11	476	495	321	337	590	1,980	908	218	2,130	86	32	205
12	403	476	*305	321	552	1,800	908	275	3,050	74	*32	179
13	352	439	305	321	533	1,620	868	386	3,580	65	58	166
14	305	421	305	305	476	1,540	808	369	3,520	60	86	154
15	290	403	290	305	457	1,470	748	321	3,050	58	76	141
16	260	386	305	321	439	1,490	688	280	2,520	68	148	122
17	246	369	352	*337	421	1,470	590	275	2,100	69	192	110
18	305	369	439	337	403	1,420	571	290	1,710	68	122	104
19	386	369	457	337	403	1,340	514	290	1,320	72	135	*110
20	403	352	457	321	*403	1,250	476	305	1,030	67	104	135
21	552	337	439	305	403	1,170	421	246	788	65	104	160
22	668	337	439	305	403	1,130	386	205	609	64	98	166
23	708	321	439	305	386	1,170	337	218	457	65	78	179
24	668	321	533	321	386	1,200	352	337	386	*66	75	321
25	590	305	708	457	369	1,270	305	352	337	179	61	668
26	571	305	708	668	514	1,390	275	590	305	166	104	748
27	533	305	668	828	868	1,490	246	748	305	129	104	552
28	514	305	648	788	1,070	*1,490	205	748	290	98	92	352
29	495	305	609	728	-	1,440	192	648	260	86	78	305
30	476	305	571	668	-----	1,340	166	571	246	76	67	698
31	590	---	552	668	-----	1,200	-----	590	-----	75	56	-----
Total	16,907	13,075	13,482	13,613	15,227	45,900	19,069	11,877	35,377	3,228	2,420	6,882
Mean	545	436	435	439	544	1,481	636	383	1,179	104	78.1	229
Cfsm	0.801	0.641	0.640	0.646	0.800	2.18	0.935	0.563	1.73	0.153	0.115	0.337
In.	0.92	0.72	0.74	0.74	0.83	2.51	1.04	0.65	1.93	0.18	0.13	0.38

Calendar year 1956: Max 2,770 Min 104 Mean 602 Cfsm 0.885 In. 12.05
 Water year 1956-57: Max 3,580 Min 32 Mean 540 Cfsm 0.794 In. 10.77

* Discharge measurement made on this day.

South River near Parkersburg, N. C.

Location--Lat 34°48', long 78°27', on downstream side of highway bridge near center of span, at Bladen-Sampson County line, 1.9 miles southwest of Parkersburg, Sampson County.

Drainage area--382 sq mi.

Records available--October 1951 to September 1957.

Gage--Wire-weight gage read twice daily. Datum of gage is 0.38 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge--6 years, 305 cfs.

Extremes--Maximum discharge during year, 1,560 cfs Mar. 6 (gage height, 60.97 ft); minimum, 5.3 cfs Aug. 12, Sept. 4 (gage height, 52.37 ft).
1951-57: Maximum discharge, 5,000 cfs Aug. 24, 1955 (gage height, 64.20 ft); minimum, 0.1 cfs Oct. 3-6, 11-14, 1954.

Flood in 1918 or 1928 reached a stage of 65.88 ft, from high-water mark witnessed by local resident.

Remarks--Records fair.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 1-3, Mar. 6, 7)

Oct. 1 to Nov. 3

Nov. 4 to Mar. 5

Mar. 6 to Sept. 30

56.4	207	56.7	210	52.3	4.0	56.0	186
57.0	265	57.0	240	52.6	9.7	57.0	290
58.0	402	58.0	375	53.0	20	58.0	442
59.0	620	59.0	561	53.5	36	59.0	663
		60.0	914	54.0	58	60.0	1,000
		61.0	1,520	55.0	113	61.0	1,650

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	244	370	328	487	359	634	780	89	253	113	17	8.1
2	*244	460	314	487	359	756	750	78	242	101	15	6.9
3	254	460	314	466	375	1,020	720	*84	212	78	14	6.0
4	299	466	314	446	375	1,320	691	113	186	65	12	5.4
5	370	466	300	427	392	1,520	637	221	169	56	14	6.6
6	402	487	287	409	392	1,550	612	277	169	49	14	13
7	440	509	287	392	392	1,470	585	253	177	40	11	16
8	440	*556	287	375	392	1,420	542	221	186	35	9.7	13
9	420	607	275	359	409	1,470	542	186	376	*31	7.3	14
10	370	662	275	343	427	1,390	565	153	565	28	6.6	16
11	355	692	275	328	427	1,320	612	132	812	25	5.8	19
12	326	723	*275	314	446	1,250	663	146	1,040	23	*6.9	20
13	299	692	275	287	427	1,140	663	153	1,190	20	15	22
14	265	692	275	275	409	1,140	637	139	1,090	19	14	20
15	244	662	263	263	392	1,040	588	119	960	18	8.9	19
16	216	607	275	251	375	1,000	565	125	846	16	29	17
17	207	581	300	251	359	960	520	186	780	16	40	17
18	225	556	328	*240	343	920	479	203	750	16	23	16
19	234	509	343	240	343	882	442	194	720	17	19	*16
20	244	487	328	229	*328	846	408	177	663	18	18	19
21	276	487	328	219	328	812	376	161	588	17	*16	25
22	312	466	328	219	314	812	344	146	520	16	13	36
23	340	446	328	219	314	780	315	146	460	15	11	42
24	340	427	343	210	314	750	277	161	425	22	9.7	67
25	326	409	359	229	300	780	242	169	329	35	10	72
26	312	375	375	275	343	812	203	194	242	33	10	60
27	287	359	392	314	409	812	177	203	169	29	9.7	55
28	347	343	427	328	509	*846	146	221	139	28	8.9	51
29	276	328	446	328	-----	846	125	212	125	25	8.5	60
30	287	328	466	328	-----	812	107	221	125	22	9.3	132
31	312	-----	497	343	-----	780	-----	242	-----	20	8.9	-----
Total	9,442	15,212	10,197	9,881	10,552	31,900	14,293	5,325	14,508	1,046	415.2	890.0
Mean	305	507	329	319	377	1,029	476	172	484	33.7	13.4	29.7
Cfs/m	0.798	1.33	0.861	0.835	0.987	2.89	1.25	0.450	1.27	0.088	0.035	0.078
In.	0.92	1.48	0.99	0.96	1.03	3.11	1.59	0.52	1.41	0.10	0.04	0.09

Calendar year 1956: Max 867 Min 49 Mean 359 Cfs/m 0.940 In. 12.80

Water year 1956-57: Max 1,560 Min 5.4 Mean 339 Cfs/m 0.887 In. 12.04

* Discharge measurement made on this day.

Colly Creek near Kelly, N. C.

Location.--Lat 34°27'50", long 78°15'28", on right bank 10 ft downstream from bridge on State Highway 53, 4 miles east of Kelly, Bladen County, and 6¼ miles upstream from mouth.

Drainage area.--108 sq mi.

Records available.--January 1950 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 15.4 ft above mean sea level, unadjusted. Prior to Dec. 13, 1950, staff gage at same site and datum.

Average discharge.--7 years, 73.9 cfs.

Extremes.--Maximum discharge during year, 287 cfs Mar. 14-16 (gage height, 5.39 ft); minimum, 0.4 cfs Aug. 28 to Sept. 4 (gage height, 0.58 ft).

1950-57: Maximum discharge, 910 cfs Sept. 22, 1955 (gage height, 7.20 ft); no flow at times during several years.

Flood in 1908 reached a stage of 11.1 ft; in September 1945, 10.2 ft, from information by local resident. Flood in 1928 reached a stage of 7.7 ft, from information by North Carolina Highway and Public Works Commission.

Remarks.--Records fair.

Revisions.--WSP 1438: Drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 2-20, Dec. 12-15, Jan. 21-26)

Oct. 1 to Jan. 26

Jan. 27 to Sept. 30

3.0	39	0.6	0.4	3.0	42
3.5	53	.7	.7	3.5	66
4.0	74	.8	1.2	4.0	101
4.5	109	1.2	4.2	4.5	150
5.0	166	1.6	8.7	5.0	215
		2.0	15	5.4	287
		2.5	25		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	128	52	48	102	124	224	30	15	39	6.4	0.4
2	53	137	57	46	105	134	224	*27	14	33	4.3	.4
3	*53	136	51	45	106	134	215	25	13	29	3.1	.4
4	50	127	50	45	110	139	208	26	15	24	2.3	.4
5	48	119	50	46	110	167	208	35	19	20	2.2	1.5
6	47	111	49	47	110	180	208	41	20	17	2.2	2.1
7	51	*100	48	49	112	193	200	42	29	14	1.8	2.0
8	53	92	46	50	112	224	193	38	26	12	1.6	2.2
9	55	87	45	51	112	241	193	33	70	*11	1.2	2.2
10	54	80	44	52	112	250	186	27	120	8.2	.9	2.3
11	53	76	43	50	110	250	180	24	*129	6.6	.6	2.6
12	55	72	42	49	108	250	173	27	116	4.9	*.6	4.3
13	56	70	*42	48	*104	250	161	25	107	3.9	*1.3	5.1
14	58	67	42	48	99	268	150	24	186	3.2	1.1	3.8
15	59	65	42	47	95	287	139	22	156	3.0	.8	2.7
16	59	63	43	48	91	287	129	23	125	5.7	1.0	2.1
17	61	61	42	*48	87	278	118	20	108	3.8	1.0	1.9
18	69	60	43	48	82	268	110	19	99	3.4	1.7	*1.8
19	72	60	42	48	*80	250	101	19	162	3.0	2.2	1.9
20	86	60	41	47	79	241	94	20	224	2.4	2.1	2.4
21	105	60	41	47	76	224	87	20	167	2.0	*1.8	2.2
22	114	59	40	47	72	232	80	20	123	1.8	1.5	1.8
23	120	58	38	47	69	232	75	18	91	1.5	1.2	2.6
24	121	57	46	47	66	224	68	16	71	15	1.0	21
25	120	56	49	63	64	250	61	14	56	*24	.9	30
26	117	55	50	84	86	259	55	13	47	22	.8	24
27	115	53	51	87	98	268	49	14	43	18	.6	16
28	115	52	52	88	107	*268	44	19	39	14	.4	12
29	116	51	52	89	-	259	40	16	43	9.4	.4	22
30	124	52	50	95	-	250	35	15	39	6.8	.4	*53
31	126	-	48	101	-	241	-	15	-	6.1	.4	-
Total	2,439	2,324	1,426	1,755	2,664	7,122	4,008	727	2,469	367.7	47.8	227.1
Mean	78.7	77.5	46.0	56.6	95.1	230	134	23.5	82.3	11.9	1.54	7.57
Cfs/m	0.729	0.718	0.426	0.524	0.881	2.13	1.24	0.218	0.762	0.110	0.014	0.070
In.	0.84	0.80	0.49	0.60	0.92	2.45	1.58	0.25	0.85	0.13	0.02	0.09

Calendar year 1956: Max 232 Min 1.2 Mean 83.6 Cfs/m 0.774 In. 10.53
Water year 1956-57: Max 287 Min 0.4 Mean 70.1 Cfs/m 0.649 In. 8.81

* Discharge measurement made on this day.

Northeast Cape Fear River near Chinquapin, N. C.

Location.--Lat 34°49', long 77°50', on right bank 540 ft downstream from bridge on State Highway 41, half a mile downstream from Muddy Creek, and 1½ miles west of Chinquapin, Duplin County.

Drainage area.--600 sq mi.

Records available.--July 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 17.28 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--17 years, 598 cfs.

Extremes.--Maximum discharge during year, 2,710 cfs June 11 (gage height, 11.42 ft); minimum, 14 cfs Aug. 14, 15.

1940-57: Maximum discharge, 15,200 cfs Sept. 22, 1955 (gage height, 17.97 ft); minimum, 5.8 cfs Oct. 10, 11, 1954.

Flood in 1908 reached a stage of 22.6 ft at old bridge at site 1,000 ft upstream from gage. Flood in 1928 reached a stage 0.8 ft lower than that in 1908, from information by State Highway and Public Works Commission.

Remarks.--Records fair. Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 24-30)

1.1	9.3	4.0	425
1.2	17	7.0	1,040
1.6	57	10.0	2,000
2.0	104	12.0	3,140

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	253	<u>1,430</u>	253	380	667	1,360	<u>871</u>	110	148	123	39	43
2	256	<u>1,430</u>	270	355	629	1,490	785	104	158	*100	33	39
3	228	1,360	278	330	581	1,550	724	97	130	84	30	38
4	253	1,190	278	304	572	1,490	686	100	<u>131</u>	72	27	32
5	346	986	278	287	534	1,490	629	142	174	62	26	62
6	338	848	270	278	515	1,660	686	212	190	74	28	121
7	346	724	262	270	497	1,850	686	262	253	204	41	315
8	350	648	253	262	479	2,040	648	321	316	296	36	497
9	205	591	244	253	497	<u>2,180</u>	610	<u>330</u>	1,120	346	28	610
10	270	534	<u>228</u>	244	497	<u>2,220</u>	572	278	2,160	<u>364</u>	25	515
11	168	479	228	236	497	2,090	534	228	<u>2,710</u>	312	21	425
12	141	<u>443</u>	228	236	461	*1,850	515	205	<u>2,410</u>	205	19	479
13	121	407	228	228	425	1,580	515	228	1,930	138	*17	497
14	107	372	228	220	398	1,360	497	244	1,490	99	<u>16</u>	398
15	97	346	228	220	364	1,270	479	244	1,190	76	19	270
16	90	*330	228	220	346	1,160	443	228	1,140	66	21	198
17	118	304	228	228	338	1,090	407	205	1,090	57	16	148
18	304	287	228	236	330	<u>986</u>	364	186	894	55	20	152
19	425	270	228	228	321	1,040	330	172	661	74	30	188
20	497	262	*228	220	338	1,040	296	178	1,010	70	40	236
21	515	253	236	220	330	986	270	184	726	65	78	220
22	553	244	253	220	330	986	*244	*163	479	59	95	198
23	572	228	262	*220	321	1,140	220	134	304	50	94	190
24	572	220	338	220	304	1,190	205	125	220	55	97	352
25	534	220	452	300	<u>296</u>	1,330	205	124	172	64	87	*497
26	497	212	497	553	424	1,490	212	205	146	80	104	534
27	443	212	515	686	724	1,550	186	190	141	74	<u>134</u>	553
28	389	205	497	<u>743</u>	<u>1,010</u>	1,520	156	205	145	65	127	515
29	355	<u>199</u>	479	743	-	1,390	135	220	152	61	94	497
30	532	212	443	724	-----	1,220	<u>120</u>	190	145	52	73	<u>542</u>
31	<u>1,080</u>	-----	418	705	-----	1,040	-----	162	-----	<u>45</u>	55	-----
Total	10,895	15,445	9,282	10,569	13,035	44,638	13,228	5,976	21,935	3,547	1,568	9,661
Mean	351	515	299	341	466	1,440	441	193	731	114	50.6	322
Cfsm	0.585	0.858	0.498	0.568	0.777	2.40	0.735	0.322	1.22	0.190	0.084	0.537
In.	0.68	0.96	0.58	0.66	0.81	2.77	0.82	0.37	1.36	0.22	0.10	0.60
Calendar year 1956: Max			3,850		Min 25		Mean 506		Cfsm 0.843		In. 11.51	
Water year 1956-57: Max			2,710		Min 16		Mean 458		Cfsm 0.730		In. 9.93	

* Discharge measurement made on this day.

Rockfish Creek near Wallace, N. C.

Location.--Lat 34°43'44", long 78°02'43", on downstream side of highway bridge, 0.2 mile upstream from Doctor Creek and 2½ miles west of Wallace, Duplin County.

Drainage area.--65.2 sq mi.

Records available.--July 1955 to September 1957.

Gage.--Wire-weight gage read once or twice daily. Sept. 28, 1955, to Jan. 19, 1956. staff gage at same site and datum.

Extremes.--Maximum discharge during year, 403 cfs June 11 (gage height, 9.53 ft, from graph based on gage readings); minimum daily, 0.5 cfs Aug. 12, 13.
1955-57: Maximum discharge, 2,800 cfs Sept. 20, 1955 (gage height, 15.5 ft, from graph based on gage readings); minimum daily, 0.4 cfs July 27-30, 1955.
Flood in 1948 reached about the same stage as that of Sept. 20, 1955. These two floods were the highest in 20 years (from information by local resident).

Remarks.--Records fair except those above 100 cfs, which are poor.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1, Jan. 30 to Feb. 7, June 4-5, Sept. 25-26)

Oct. 1 to Feb. 7

Feb. 8 to Sept. 30

2.7	10	2.1	0.5	2.6	8.4
3.3	31	2.2	1.1	3.0	28
4.0	49	2.3	2.0	6.0	145
5.0	76	2.4	3.3	8.0	268
6.0	110	2.5	5.1	10.0	460
7.0	150				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	56	25	24	60	239	84	7.4	14	7.4	1.1	6.1
2	*25	63	26	24	54	260	68	*6.8	9.3	5.8	1.1	5.1
3	17	65	28	18	48	239	68	6.1	6.8	4.6	1.8	8.8
4	33	66	28	19	49	176	60	5.1	*6.6	4.9	4.2	10
5	82	66	26	19	45	170	56	16	*10	4.7	1.7	36
6	118	56	23	19	40	246	60	19	34	3.3	1.6	49
7	122	*45	20	19	40	316	68	28	45	4.6	1.4	60
8	103	37	19	19	36	352	64	22	56	3.2	1.3	84
9	60	34	17	15	37	352	56	14	128	*2.3	1.1	127
10	45	32	14	15	36	316	45	9.3	325	2.0	.8	115
11	25	30	15	18	41	253	39	6.8	392	1.6	.7	127
12	18	30	*16	17	41	182	36	6.8	284	1.4	.5	115
13	14	28	17	17	37	135	34	9.8	165	1.1	.5	76
14	13	25	17	18	34	115	30	12	91	1.2	.6	45
15	12	23	16	17	30	160	30	8.4	72	1.1	1.0	30
16	11	*22	17	18	30	182	30	6.1	56	1.5	*2.6	21
17	10	22	17	20	30	188	28	4.9	47	2.0	3.5	21
18	24	21	19	20	28	155	26	4.6	39	3.3	4.7	*30
19	30	20	17	19	*28	140	26	4.2	30	2.0	5.1	36
20	32	20	16	18	30	140	25	4.9	23	1.7	5.1	34
21	51	19	16	17	28	131	24	6.1	30	1.3	6.4	30
22	72	18	16	17	28	131	21	7.4	28	1.1	4.4	25
23	92	17	15	*18	28	165	19	5.4	21	1.0	2.9	32
24	96	15	30	18	26	182	19	5.1	17	*1.1	2.0	99
25	79	17	45	36	26	239	18	5.1	5.8	1.8	53	*218
26	58	16	45	63	57	308	18	6.4	6.1	4.6	99	218
27	45	16	45	72	103	316	14	14	6.4	3.3	95	123
28	36	16	45	79	128	*260	8.4	25	6.8	2.3	84	76
29	28	15	37	82	-	194	8.4	30	7.7	2.0	41	64
30	42	17	30	69	-----	135	7.7	30	7.7	1.7	19	213
31	69	-----	26	63	-----	91	-----	22	-----	1.6	9.3	-----
Total	1,507	928	743	907	1,198	6,468	1,090.5	358.7	1,966.2	81.5	455.4	2,132.0
Mean	48.6	30.9	24.0	29.3	42.8	209	36.4	11.6	65.6	2.63	14.7	71.1
Cfsm	0.745	0.474	0.368	0.449	0.656	3.21	0.558	0.178	1.00	0.040	0.225	1.09
In.	0.86	0.53	0.42	0.52	0.68	3.69	0.62	0.20	1.12	0.05	0.26	1.22

Calendar year 1956: Max 880 Min 0.9 Mean 59.9 Cfsm 0.919 In. 12.51
Water year 1956-57: Max 392 Min 0.5 Mean 48.9 Cfsm 0.750 In. 10.17

* Discharge measurement made on this day.

Waccamaw River at Freeland, N. C.

Location.--Lat 34°05'43", long 78°32'56", on left bank 150 ft downstream from New Britton Bridge on State Highway 130, 1 mile southwest of Freeland, Brunswick County, and 7 miles downstream from Juniper Creek.

Drainage area.--626 sq mi.

Records available.--July 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 15.52 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 15, 1943, staff gage at site 150 ft upstream at same datum. Since July 15, 1952, auxiliary water-stage recorder at site 3.3 miles downstream; Oct. 7, 1949, to July 14, 1952, auxiliary staff gage at same site.

Average discharge.--18 years, 593 cfs.

Extremes.--Maximum discharge during year, 2,060 cfs Mar. 17 (gage height, 13.16 ft); minimum, 3.7 cfs Sept. 17.
1939-57: Maximum discharge, 10,200 cfs Sept. 25, 1955; maximum gage height, 16.63 ft Sept. 26, 1955; minimum discharge, 0.1 cfs Aug. 30, Sept. 9, 10, 28, Oct. 4-14, 1954.

Remarks.--Records fair. Records of chemical analyses for the water year 1957 are given in WSP 1520.

Revisions.--WSP 1172: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	152	525	222	104	288	456	1,900	*210	42	801	40	6.9
2	147	331	222	97	289	537	1,900	190	40	758	41	7.4
3	*135	238	203	90	289	558	1,900	180	38	691	41	8.5
4	131	337	205	91	294	563	1,900	160	44	633	34	7.8
5	120	344	189	101	289	633	1,800	170	54	554	32	8.7
6	109	454	187	108	282	818	1,700	170	78	521	30	7.2
7	129	*523	189	115	290	949	1,600	160	189	468	26	6.9
8	128	528	186	115	282	1,120	1,500	150	200	*402	24	8.8
9	117	501	179	115	286	1,290	1,500	140	351	360	20	8.2
10	107	485	161	108	300	1,450	1,400	120	600	320	19	7.8
11	101	450	149	104	317	1,560	1,300	110	*666	275	17	7.2
12	84	412	150	100	347	1,640	1,200	105	662	245	17	6.9
13	75	383	142	104	331	1,670	1,100	100	678	232	*18	6.1
14	74	*365	*139	111	310	1,670	950	95	671	217	16	5.5
15	71	346	131	108	304	1,800	850	85	634	185	17	5.0
16	68	329	126	*121	296	1,930	750	75	642	159	22	4.8
17	89	293	127	136	288	2,060	700	70	685	164	21	4.8
18	202	263	119	142	280	1,960	650	65	732	144	19	*6.4
19	267	260	112	134	*272	1,830	600	65	790	130	16	15
20	349	269	112	127	251	1,670	550	70	817	119	*15	9.3
21	572	248	109	128	248	1,540	500	65	835	104	15	8.1
22	777	245	107	122	232	1,410	450	60	889	95	11	7.9
23	956	231	104	127	216	1,330	400	55	936	85	10	8.8
24	1,080	216	108	127	213	1,250	370	50	918	86	9.9	*17
25	1,110	215	125	131	208	1,330	350	48	880	*84	11	20
26	1,090	214	132	172	236	1,470	320	46	815	73	9.5	17
27	989	207	128	222	360	*1,600	290	44	763	72	7.8	14
28	884	205	116	242	413	1,700	270	46	762	70	6.8	12
29	750	197	112	255	---	1,800	250	46	770	60	6.7	57
30	652	203	109	260	-----	1,800	230	44	770	54	6.6	349
31	560	---	111	262	-----	1,800	-----	42	-----	47	6.7	---
Total	12,075	9,822	4,511	4,277	8,011	43,194	29,180	3,036	16,951	8,210	585.8	660.0
Mean	390	327	146	138	286	1,393	973	97.9	565	265	18.9	22.0
Cfsm	0.823	0.522	0.233	0.220	0.457	2.23	1.55	0.156	0.903	0.423	0.030	0.035
In.	0.72	0.58	0.27	0.25	0.48	2.57	1.73	0.18	1.01	0.49	0.03	0.04

Calendar year 1956: Max 1,740 Min 34 Mean 432 Cfsm 0.690 In. 9.38
Water year 1956-57: Max 2,060 Min 4.8 Mean 385 Cfsm 0.615 In. 8.35

* Discharge measurement made on this day.

Waccamaw River near Longs, S. C.

Location.--Lat 33°54'45", long 78°42'55", near right bank on upstream side of bridge on State Highway 9, 500 ft downstream from Buck Creek and 2.1 miles southeast of Longs, Horry County.

Drainage area.--1,030 sq mi, approximately.

Records available.--March 1950 to September 1957.

Gage.--Wire-weight gage and crest-stage indicator; gage read twice daily. Datum of gage is 5.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers).

Average discharge.--7 years, 712 cfs.

Extremes.--Maximum discharge during year, 3,780 cfs Mar. 15, 16; maximum gage height, 10.38 ft Mar. 15; minimum discharge, 20 cfs Sept. 4.
1950-57: Maximum discharge, 10,300 cfs Sept. 28-30, 1955; maximum gage height, 13.82 ft Sept. 29, 1955; minimum discharge, 1 cfs Oct. 14, 1954.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-19, Feb. 26 to Apr. 14)

0.6	19	7.0	786
1.0	39	8.0	1,000
1.5	68	9.0	1,430
2.0	104	9.5	1,900
3.0	196	10.0	2,600
5.0	453	10.7	3,780

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	1,030	218	120	277	576	3,080	354	62	1,030	68	32
2	152	1,030	218	120	289	659	3,080	315	59	*1,000	65	28
3	160	1,000	218	112	302	748	3,080	289	56	950	62	24
4	160	975	207	112	315	805	3,080	265	56	928	59	21
5	160	906	207	112	328	928	2,920	253	56	884	53	26
6	152	864	207	112	341	1,060	2,920	229	59	864	50	28
7	152	805	196	112	341	*1,260	2,920	218	62	844	47	26
8	144	767	196	112	341	1,580	2,760	207	75	786	44	29
9	136	730	185	112	341	2,020	2,600	196	120	712	42	34
10	136	712	185	112	341	2,300	2,600	175	236	659	39	36
11	129	694	*175	112	341	2,440	2,440	165	396	625	36	36
12	122	676	165	112	341	2,600	2,300	155	560	544	39	39
13	122	642	165	112	341	2,600	2,160	155	676	468	34	59
14	115	625	155	112	341	3,240	2,020	137	786	424	33	89
15	108	592	155	112	354	3,780	1,680	128	906	354	32	112
16	108	560	146	112	354	3,780	*1,580	120	1,100	302	34	120
17	108	528	146	120	354	3,600	1,430	112	1,210	253	36	120
18	136	485	137	120	341	3,240	1,310	112	1,370	218	36	120
19	160	453	137	120	341	3,240	1,210	112	1,500	196	36	120
20	218	410	128	128	341	3,080	1,100	112	1,680	175	36	128
21	289	382	128	137	328	3,080	1,000	104	1,780	155	*36	120
22	396	354	120	137	328	3,080	950	*96	1,780	137	34	104
23	463	328	120	*137	315	3,080	864	89	1,580	128	32	89
24	560	315	120	137	289	3,080	805	86	1,430	112	30	82
25	625	289	120	137	289	3,240	730	78	1,370	112	30	82
26	694	265	120	155	328	3,240	676	75	1,310	104	30	82
27	767	253	120	165	410	3,420	608	72	1,260	89	28	82
28	844	241	120	196	498	3,420	544	68	1,210	89	27	78
29	928	229	120	218	-	3,240	468	68	1,130	86	24	254
30	*975	229	120	241	-----	3,240	410	65	1,060	78	22	836
31	1,030	-----	120	265	-----	3,080	-----	62	-----	72	22	-----
Total	10,413	17,367	4,874	4,221	9,450	78,736	53,325	4,672	24,935	13,378	1,196	3,038
Mean	336	579	157	136	338	2,540	1,778	151	831	432	38.6	101
Cfs/m	0.326	0.562	0.152	0.132	0.328	2.47	1.73	0.147	0.807	0.419	0.037	0.098
In.	0.38	0.63	0.18	0.15	0.34	2.85	1.93	0.17	0.90	0.48	0.04	0.11

Calendar year 1956: Max 2,230 Min 68 Mean 645 Cfs/m 0.626 In. 8.52

Water year 1956-57: Max 3,780 Min 21 Mean 618 Cfs/m 0.600 In. 8.16

* Discharge measurement made on this day.

Yadkin River at Patterson, N. C.

Location.--Lat 35°59'30", long 81°33'30", on left bank 200 ft upstream from bridge on State Highway 268, half a mile south of Patterson, Caldwell County, three-quarters of a mile upstream from Warrior Creek, and 2 miles downstream from Walnut Branch.

Drainage area.--28.8 sq mi.

Records available.--November 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,212.47 ft above mean sea level, unadjusted. Prior to Feb. 9, 1940, staff gage at same site and datum.

Average discharge.--18 years, 43.4 cfs.

Extremes.--Maximum discharge during year, 3,130 cfs Apr. 5 (gage height, 6.30 ft); minimum, 8.8 cfs Jan. 3 (gage height, 0.11 ft), result of freezeup.
1939-57: Maximum discharge, 16,200 cfs Aug. 13, 1940 (gage height, 12.70 ft), from rating curve extended above 1,300 cfs on basis of computations of peak flow over dam 1 mile upstream at gage heights 4.58, 7.70, and 12.70 ft; minimum observed, 3.0 cfs May 15, 1940.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating tables, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 5					June 5 to Sept. 30				
0.1	8.3	1.5	225		0.1	11	1.0	125	
.2	14	2.0	369		.2	17	1.5	232	
.3	20	3.0	727		.3	25	2.0	367	
.5	38	4.0	1,200		.5	46	3.0	727	
.7	61	5.0	1,870		.7	74			
1.0	107								

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	142	19	30	177	137	59	48	29	71	19	13
2	12	75	18	28	126	97	*279	41	28	58	19	13
3	11	46	19	b24	87	76	120	38	28	54	19	13
4	11	35	18	28	75	67	308	37	41	49	22	*12
5	20	30	17	31	64	59	1,230	35	*478	44	21	14
6	38	26	17	26	*60	54	322	33	166	38	*19	13
7	23	*25	17	26	57	*53	177	30	98	36	19	18
8	17	24	17	24	53	55	146	29	101	33	19	23
9	15	23	17	24	74	49	120	28	141	32	19	101
10	14	21	17	23	75	46	102	28	98	31	19	56
11	12	20	16	23	68	42	88	30	79	29	17	26
12	12	19	19	23	60	41	81	31	66	28	16	24
13	12	18	24	23	55	39	72	29	59	27	*15	22
14	12	17	76	22	49	44	68	27	55	26	15	19
15	11	17	*90	21	46	44	62	31	55	27	22	17
16	11	17	62	21	42	39	59	27	52	30	24	46
17	11	38	54	21	40	38	57	24	47	30	19	217
18	11	36	444	b18	38	37	59	24	46	32	20	76
19	11	28	38	b20	44	40	55	32	44	29	23	*59
20	17	27	35	b22	45	37	53	44	40	25	21	49
21	20	25	33	22	40	36	51	30	38	24	19	42
22	118	24	34	31	38	38	53	26	43	*23	18	38
23	68	23	38	122	36	37	60	28	45	28	16	44
24	35	23	106	69	35	36	64	34	68	35	16	36
25	27	22	69	55	38	40	56	30	73	25	16	30
26	26	22	54	47	86	42	53	61	*148	22	16	28
27	32	20	48	41	71	40	51	88	90	22	15	25
28	25	20	42	38	162	38	49	51	93	21	14	26
29	23	19	38	40	-	37	*50	40	118	20	14	88
30	22	19	34	39	-----	36	53	35	87	20	13	168
31	28	-----	32	113	-----	34	-----	53	-----	20	15	-----
Total	717	901	1,162	1,095	1,841	1,508	4,057	1,102	2,554	989	559	1,356
Mean	23.1	30.0	37.5	35.3	65.8	48.6	135	35.5	85.1	31.9	18.0	45.2
Cfs/m	0.802	1.04	1.30	1.23	2.28	1.69	4.69	1.23	2.95	1.11	0.625	1.57
In.	0.93	1.16	1.50	1.41	2.38	1.95	5.24	1.42	3.30	1.28	0.72	1.75

Calendar year 1956: Max 296 Min 5.3 Mean 26.0 Cfs/m 0.903 In. 12.33
Water year 1956-57: Max 1,230 Min 11 Mean 48.9 Cfs/m 1.70 In. 23.04

Peak discharge (base, 1,000 cfs).--Apr. 5 (1 a.m.) 3,130 cfs (6.30 ft); June 5 (8 a.m.) 1,020 cfs (3.65 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Reddies River at North Wilkesboro, N. C.

Location.--Lat 36°10', long 81°10', on left bank 400 ft upstream from highway bridge, 1 1/2 miles northwest of North Wilkesboro, Wilkes County, 1 1/2 miles upstream from North Wilkesboro municipal dam, and 2 miles upstream from mouth.

Drainage area.--93.9 sq mi.

Records available.--December 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 978.62 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--18 years, 132 cfs.

Extremes.--Maximum discharge during year, 4,290 cfs Apr. 5 (gage height, 9.26 ft); minimum, 35 cfs Oct. 16-18 (gage height, 0.72 ft).
1939-57: Maximum discharge, 27,000 cfs Aug. 14, 1940 (gage height, 22.02 ft), from rating curve extended above 2,100 cfs on basis of computation of peak flow over dam; minimum, 22 cfs Aug. 17, 1954 (gage height, 0.63 ft).

Remarks.--Records good except those for periods of ice effect, which are poor.

Revisions (water years).--WSP 1433: 1944.

Rating table, water year 1956-57, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	33	4.0	925
.8	43	5.0	1,410
1.0	66	6.0	1,970
1.5	142	7.0	2,600
2.0	237	8.0	3,270
3.0	525		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*44	194	54	78	378	445	*160	164	109	128	76	59
2	42	174	54	*74	250	280	658	156	108	115	74	58
3	40	120	54	b60	188	206	283	155	111	111	79	60
4	41	98	53	b70	165	178	391	*153	238	106	75	61
5	66	86	52	82	142	160	2,650	147	*593	104	78	*60
6	64	79	52	75	147	147	690	144	281	102	67	56
7	53	71	51	75	137	147	430	139	201	96	66	59
8	45	71	51	71	142	171	415	137	165	92	66	71
9	41	66	51	71	*220	147	415	135	251	91	65	290
10	38	64	50	71	216	137	320	130	208	90	64	218
11	38	62	48	69	182	130	286	142	180	85	69	122
12	38	61	54	67	153	125	260	137	162	84	80	119
13	38	59	75	67	137	120	242	128	140	82	65	94
14	37	56	306	67	125	158	226	130	146	85	66	88
15	37	55	252	65	114	149	214	137	137	108	99	79
16	36	56	158	65	109	135	206	120	127	102	78	201
17	35	141	123	64	103	128	203	115	132	*140	69	567
18	36	134	103	b55	98	123	201	120	146	128	123	329
19	38	94	92	b65	126	132	195	128	122	134	103	246
20	54	80	86	b70	130	120	195	140	112	98	86	199
21	103	74	84	72	109	114	193	117	109	92	72	167
22	576	72	84	89	104	127	188	122	135	102	70	189
23	194	66	96	203	100	122	189	122	159	117	69	246
24	108	65	140	125	97	115	188	119	172	128	69	169
25	84	62	117	98	97	135	178	139	140	102	69	135
26	82	62	103	88	361	140	169	139	230	90	71	119
27	152	60	96	84	253	132	164	196	165	86	66	111
28	98	58	91	99	422	125	160	159	174	85	64	112
29	82	56	85	165	119	119	203	119	136	*82	62	514
30	76	*56	80	147	-----	114	184	115	144	86	62	738
31	106	-----	79	304	-----	112	-----	115	-----	86	60	-----
Total	2,520	2,456	2,874	2,876	4,805	4,671	10,496	4,199	5,293	3,137	2,282	5,536
Mean	81.3	81.8	92.7	92.9	172	151	350	135	176	101	73.6	185
Cfs/m	0.866	0.871	0.987	0.989	1.83	1.61	3.73	1.44	1.87	1.08	0.784	1.97
In.	1.00	0.97	1.14	1.14	1.90	1.85	4.16	1.66	2.10	1.24	0.90	2.19

Calendar year 1956: Max 938

Water year 1956-57: Max 2,650

Min 23

Min 35

Mean 75.5

Mean 140

Cfs/m 0.804

Cfs/m 1.49

In. 10.92

In. 20.25

Peak discharge (base, 2,000 cfs).--Apr. 5 (4 a.m.) 4,290 cfs (9.26 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Yadkin River at Wilkesboro, N. C.

Location.--Lat 36°09', long 81°09', on right bank 150 ft upstream from bridge on U. S. Highway 421 between North Wilkesboro and Wilkesboro, 150 ft downstream from Reddies River, and half a mile northeast of Wilkesboro, Wilkes County.

Drainage area.--493 sq mi.

Records available.--April 1903 to June 1909, October 1920 to September 1957. Prior to October 1928, published as "at North Wilkesboro."

Gage.--Water-stage recorder. Datum of gage is 942.35 ft above mean sea level, datum of 1928, supplementary adjustment of 1936. Apr. 10, 1903, to June 30, 1909, and Oct. 17, 1920, to Apr. 10, 1929, staff or chain gages at site 1½ miles downstream at different datum. Apr. 11, 1929, to Jan. 9, 1930, chain gage at present site and datum. Datum used 1920-28 was about 1.2 ft lower than that used 1903-9.

Average discharge.--42 years (1903-8, 1920-57), 790 cfs.

Extremes.--Maximum discharge during year, 15,500 cfs Apr. 5 (gage height, 18.50 ft); minimum, 182 cfs Oct. 17 (gage height, 1.70 ft); minimum daily, 186 cfs Oct. 17, 18. 1903-9, 1920-57: Maximum discharge, 160,000 cfs Aug. 14, 1940 (gage height, 37.6 ft, from floodmarks), from rating curve extended above 20,000 cfs on basis of slope-area determination of peak flow; minimum, 99 cfs Sept. 28-30, 1954; minimum daily, 110 cfs Sept. 18, 19, 1956.

Flood in July 1916 reached a stage of 34.5 ft (present site and datum), from flood-mark (discharge, 116,000 cfs, from rating curve extended above 20,000 cfs as explained above).

Remarks.--Records good except those above 7,000 cfs and those for period of ice effect, which are fair. Slight diurnal fluctuation at low flow caused by powerplant on Reddies River 1 mile above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1433: 1903-9, 1922, 1925-26(M), 1930, 1932, 1934, 1946-48(M), drainage area.

Rating tables, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 2-26)

Oct. 1 to Nov. 17, June 6 to Sept. 17				Nov. 18 to June 5, Sept. 18-30			
1.7	182	2.5	561	1.8	193	5.0	2,170
1.8	220	3.0	870	1.9	232	7.0	3,650
2.0	306			2.0	276	10.0	6,100
				2.5	550	13.0	8,950
				3.0	870	17.0	13,400

Note.--Same as following table above 3.0 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*237	787	267	397	2,660	*2,450	*727	*688	*501	*902	411	288
2	216	1,110	263	*375	2,040	1,520	3,650	669	465	761	402	280
3	205	690	258	333	1,290	1,230	1,780	656	513	711	406	306
4	209	539	258	370	1,060	968	1,750	662	976	656	411	297
5	320	468	254	409	870	850	*13,200	618	*4,360	620	426	*288
6	352	426	254	375	850	779	5,100	593	2,530	590	372	284
7	338	386	250	359	772	753	2,170	569	1,390	550	352	489
8	249	372	245	344	746	844	1,980	544	1,000	533	343	513
9	224	562	241	353	1,080	753	1,980	532	3,090	511	329	*1,670
10	212	543	241	353	1,230	688	1,550	520	1,720	505	329	1,540
11	201	343	236	318	1,030	650	1,320	562	1,230	478	334	742
12	201	334	241	318	870	637	1,230	575	1,030	468	376	644
13	197	320	323	318	772	612	1,130	520	864	463	334	573
14	193	315	1,330	318	701	727	1,030	507	902	473	338	500
15	193	306	1,860	318	644	740	968	562	1,130	573	473	442
16	190	302	968	314	606	675	935	501	838	539	478	741
17	186	520	720	314	569	637	902	460	774	579	376	*6,840
18	186	708	587	b230	538	618	902	477	935	644	913	2,370
19	193	472	501	b250	656	669	902	483	786	644	573	1,520
20	258	403	448	b300	805	625	850	727	686	516	463	1,230
21	352	370	420	328	644	581	851	520	711	468	396	968
22	2,090	359	437	545	593	631	870	477	1,380	516	367	978
23	1,100	335	489	*1,290	682	825	902	495	1,190	550	352	1,100
24	590	314	*870	997	538	581	935	501	1,460	799	343	857
25	442	309	870	688	544	662	838	662	1,000	573	338	714
26	391	295	662	569	1,370	727	766	6,970	1,360	478	343	637
27	742	290	569	507	1,360	688	740	1,250	1,100	452	324	593
28	827	285	513	501	1,750	644	708	877	1,030	437	315	575
29	426	276	477	746	-	618	760	644	1,420	421	306	1,960
30	591	*272	443	694	-----	600	760	569	1,030	432	302	4,470
31	*473	---	420	1,340	-----	581	-----	550	-----	*447	297	-----
Total	12,084	12,599	15,915	14,629	27,130	24,363	52,166	24,920	37,399	17,289	12,126	34,399
Mean	390	420	513	472	969	786	1,739	804	1,247	558	391	1,147
Cfsm	0.791	0.852	1.04	0.957	1.97	1.59	3.53	1.63	2.53	1.13	0.793	2.33
In.	0.91	0.95	1.20	1.10	2.05	1.84	3.94	1.88	2.82	1.30	0.91	2.59

Calendar year 1956: Max 5,220 Min 110 Mean 399 Cfsm 0.809 In. 11.01

Water year 1956-57: Max 15,200 Min 186 Mean 781 Cfsm 1.58 In. 21.49

Peak discharge (base, 8,000 cfs).--Apr. 5 (1:30 p.m.) 15,500 cfs (18.50 ft); Sept. 17 (4 p.m.) 9,050 cfs (13.07 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Fisher River near Copeland, N. C.

Location.--Lat 36°20', long 80°40', on left bank 500 ft upstream from bridge on State Highway 268, 1 mile upstream from Cody Creek, and 2 miles northwest of Copeland, Surry County.

Drainage area.--121 sq mi.

Records available.--October 1931 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 913 ft (by barometer). Prior to Sept. 5, 1936, staff gage at same site and datum.

Average discharge.--26 years, 175 cfs.

Extremes.--Maximum discharge during year, 5,000 cfs Sept. 17 (gage height, 9.39 ft); minimum, 49 cfs Sept. 2, 3 (gage height, 2.01 ft).
1931-57: Maximum discharge, 27,300 cfs Aug. 14, 1940 (gage height, 18.4 ft, from floodmarks), from rating curve extended above 5,800 cfs on basis of slope-area determination of peak flow; minimum, 14 cfs Aug. 28, 1956.

Remarks.--Records good except those for period of ice effect, which are fair.

Revisions.--WSP 822: Drainage area.

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	48	4.0	806
2.3	98	5.0	1,380
2.6	178	6.0	2,090
3.0	328	7.0	2,890
3.5	562	8.0	3,700

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	232	78	98	482	591	147	175	114	145	189	52
2	88	214	76	*94	438	342	734	163	121	124	110	49
3	80	163	75	94	273	269	332	160	116	116	75	75
4	75	140	75	94	246	235	291	157	134	110	111	*58
5	88	126	73	103	210	210	3,080	148	700	105	84	57
6	78	116	73	94	200	200	935	148	577	94	66	69
7	75	107	73	94	191	191	480	137	340	92	61	305
8	64	105	71	90	194	254	590	134	200	88	61	140
9	61	96	71	88	294	200	576	132	184	84	60	274
10	58	92	70	92	281	184	382	129	175	88	57	169
11	57	88	70	88	228	172	328	134	154	80	54	182
12	56	88	70	86	197	169	298	140	143	78	57	148
13	54	82	84	86	184	163	273	*126	129	73	*54	103
14	53	78	361	84	172	204	254	124	223	73	56	86
15	52	76	479	84	160	242	235	129	212	82	98	80
16	*52	80	221	80	151	200	228	119	185	122	76	408
17	51	165	169	80	145	178	221	112	214	121	58	*3,070
18	51	200	143	b70	137	172	214	116	245	514	213	524
19	51	*132	126	b70	172	178	210	137	157	214	160	337
20	57	114	119	b80	232	163	200	163	134	124	100	266
21	63	107	116	94	172	154	207	121	*121	103	80	217
22	332	105	114	98	160	169	240	116	114	105	71	217
23	373	94	134	304	151	172	254	121	116	*110	66	246
24	157	92	221	178	145	157	228	128	126	114	63	175
25	116	88	169	140	140	160	200	188	143	96	64	148
26	108	88	140	124	362	157	184	133	357	84	71	137
27	399	84	129	121	302	154	178	273	210	80	66	124
28	191	82	119	134	518	145	169	166	172	78	60	124
29	143	82	114	280	-	143	172	126	345	75	57	573
30	129	80	105	262	-----	*137	235	119	178	71	56	*1,560
31	157	-----	103	386	-----	134	-----	119	-----	70	53	-----
Total	3,472	3,398	4,041	3,870	6,537	6,199	12,075	4,393	6,339	3,313	2,507	9,973
Mean	112	113	130	125	233	200	402	142	211	107	80.9	332
Cfsm	0.926	0.934	1.07	1.03	1.93	1.65	3.32	1.17	1.74	0.884	0.669	2.74
In.	1.07	1.04	1.24	1.19	2.01	1.90	3.71	1.35	1.95	1.02	0.77	3.07

Calendar year 1956: Max 2,420 Min 15 Mean 104 Cfsm 0.860 In. 11.66

Water year 1956-57: Max 3,080 Min 49 Mean 181 Cfsm 1.50 In. 20.32

Peak discharge (base, 2,200 cfs).--Apr. 5 (9 a.m.) 4,320 cfs (8.70 ft); Sept. 17 (3 a.m.) 5,000 cfs (9.39 ft); Sept. 30 (6 a.m.) 2,410 cfs (6.44 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Forbush Creek near Yadkinville, N. C.

Location.--Lat 36°08', long 80°33', on left bank 900 ft upstream from highway bridge, three-quarters of a mile north of Forbush Church, 2½ miles upstream from Logan Creek, 3½ miles upstream from mouth, and 6 miles east of Yadkinville, Yadkin County.

Drainage area.--21.7 sq mi.

Records available.--April 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 728 ft (by barometer).

Average discharge.--17 years, 20.7 cfs.

Extremes.--Maximum discharge during year, 2,060 cfs June 22 (gage height, 10.38 ft); minimum, 3.0 cfs Sept. 4 (gage height, 0.52 ft); minimum daily, 3.4 cfs Sept. 3, 4, 1940-57; Maximum discharge, 2,450 cfs Sept. 30, 1944 (gage height, 11.02 ft), from rating curve extended above 1,500 cfs on basis of velocity-area study and slope-area determination of peak flow at gage height 10.38 ft; minimum daily, 0.6 cfs Aug. 16, 17, Sept. 14-18, 1956.

Remarks.--Records good except those for period of indefinite stage-discharge relation, which are poor.

Rating tables, water year 1956-57, except period of indefinite stage-discharge relation (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 31				Feb. 1 to July 25				July 26 to Sept. 30			
0.6	4.5	1.5	61	0.6	5.9	3.0	227	0.5	2.5	0.7	8.6
.7	7.3	2.0	110	.8	13	4.0	370	.6	5.0	.8	13
.8	11	3.0	227	1.0	23	5.0	544				
1.0	22	4.0	370	1.5	62	6.0	734	Note.--Same as preceding table above 0.8 ft.			
				2.0	110						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	9.2	6.7	10	*339	80	15	15	8.9	14	9.4	3.7
2	10	8.4	6.7	*9.2	129	38	24	13	8.5	13	7.9	3.7
3	9.2	8.1	6.7	9.2	48	26	17	13	11	12	5.0	3.4
4	8.8	7.7	6.7	9.2	36	22	16	13	35	12	30	*3.4
5	8.1	7.7	6.7	10	28	19	377	12	122	e11	*11	3.7
6	7.7	7.3	6.7	9.2	23	18	94	12	63	e10	6.4	4.2
7	7.0	7.3	6.7	9.2	21	18	40	11	26	e10	5.4	4.5
8	6.2	7.3	6.5	8.4	20	23	106	11	19	e9	5.4	4.7
9	6.2	7.0	6.5	8.4	34	19	81	11	17	e8	5.0	10
10	5.9	6.7	6.5	8.4	32	17	36	10	16	e8	4.7	6.1
11	5.6	6.7	6.5	8.1	23	16	27	12	15	*e7	4.5	5.7
12	5.6	6.7	6.7	8.4	19	16	23	11	14	e7	8.2	5.0
13	5.6	6.5	6.7	8.4	17	15	21	*10	12	e7	7.5	4.7
14	5.3	6.5	15	8.1	16	36	19	10	69	e7	*5.4	4.5
15	5.3	6.5	69	8.1	15	38	*17	11	45	e7	26	4.5
16	*5.3	6.7	31	8.1	14	24	17	12	16	e7	21	19
17	5.3	15	17	8.1	14	19	16	10	*14	e9	8.2	536
18	5.6	13	14	7.7	13	18	16	10	15	e15	19	46
19	5.6	*9.6	12	7.7	25	18	16	10	20	e10	14	23
20	5.9	8.4	11	8.1	26	16	15	11	15	e8	11	17
21	7.0	8.4	10	8.1	18	15	15	9.6	*11	e7	9.4	14
22	20	8.8	23	8.8	16	18	15	10	*694	*e7	7.9	14
23	11	8.1	38	*24	15	16	16	10	47	e8	6.8	14
24	8.4	7.7	49	14	14	16	15	10	33	e10	6.8	13
25	7.3	7.3	27	11	14	17	14	9.2	*26	e6	7.9	11
26	7.3	7.7	18	10	38	16	13	9.2	*52	5.0	9.0	10
27	25.2	7.0	*18	10	30	16	13	14	32	5.0	6.1	9.0
28	12	7.0	14	10	125	15	12	9.6	26	5.0	5.4	10
29	9.6	7.0	12	25	-	15	45	8.9	22	4.7	*4.5	18
30	9.2	7.0	11	31	-	*14	20	*8.9	15	4.5	4.5	94
31	9.6	-	10	241	-	14	-	9.2	-	4.7	4.2	-
Total	259.6	238.6	483.3	564.9	1,162	667	1,171	336.6	1,519.4	257.9	287.5	919.8
Mean	8.37	7.95	15.6	18.2	41.5	21.5	39.0	10.9	50.6	8.32	9.27	30.7
Cfsm	0.586	0.566	0.719	0.839	1.91	0.991	1.80	0.502	2.33	0.583	0.427	1.41
In.	0.44	0.41	0.83	0.97	1.99	1.14	2.01	0.58	2.60	0.44	0.49	1.58

Calendar year 1956: Max 679 Min 0.6 Mean 14.3 Cfsm 0.659 In. 8.95

Water year 1956-57: Max 694 Min 3.4 Mean 21.6 Cfsm 0.995 In. 13.48

Peak discharge (base, 570 cfs).--Jan. 31 (11:30 p.m.) 954 cfs (6.89 ft); Apr. 5 (10:30 a.m.) 928 cfs (6.85 ft); June 22 (8 a.m.) 2,060 cfs (10.38 ft); Sept. 17 (8 a.m.) 1,220 cfs (7.94 ft).

* Discharge measurement made on this day.

e Stage-discharge relation indefinite; discharge estimated on basis of gage heights, weather records, and records for nearby streams.

Yadkin River at Yadkin College, N. C.

Location.--Lat 35°51'24", long 80°23'10", near left bank on downstream end of pier of bridge on U. S. Highway 64, 1½ miles south of Yadkin College, Davidson County, and 6½ miles downstream from Reedy Creek. Prior to July 26, 1957, at site on left bank 80 ft downstream.

Drainage area.--2,280 sq mi, approximately.

Records available.--July 1928 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 638.65 ft above mean sea level (levels by Corps of Engineers). Prior to July 26, 1957, at site on left bank 80 ft downstream at same datum.

Average discharge.--29 years, 2,803 cfs.

Extremes.--Maximum discharge during year, 33,400 cfs Apr. 7 (gage height, 22.00 ft); minimum, 616 cfs Sept. 4 (gage height, 0.52 ft); minimum daily, 793 cfs Oct. 18, 20.

1928-57: Maximum discharge, 80,200 cfs Aug. 15, 1940 (gage height, 33.75 ft); minimum observed, 177 cfs Oct. 12, 1954 (gage height, -0.42 ft); minimum daily, 330 cfs Oct. 9, 1954, Sept. 23, 1956.

Maximum stage known, 36.3 ft during July 1916, from floodmarks (discharge, 94,300 cfs).

Remarks.--Records good except those computed from wire-weight-gage readings, which are fair. Diurnal fluctuation during low flow caused by small powerplant with little storage capacity 10 miles upstream from station. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 822: Drainage area. WSP 852: 1935-37(m).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	780	9.0	9,740
1.0	915	12.0	14,000
1.5	1,300	14.0	17,100
2.0	1,710	17.0	22,300
4.0	3,660	21.0	30,800
6.0	5,900		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	g2,070	1,580	1,140	1,540	g18,100	11,000	2,020	2,860	1,890	g3,060	1,260	901
2	g1,620	1,890	1,140	1,500	g17,600	8,400	2,440	2,460	1,800	g2,560	2,140	845
3	g1,340	2,580	1,100	1,420	g9,040	5,300	8,130	2,360	1,980	g2,260	1,770	812
4	g1,180	2,120	1,100	1,380	g5,420	4,060	5,060	2,310	2,020	g2,020	1,300	812
5	g1,100	1,710	1,060	1,460	g4,280	3,460	9,960	2,260	3,160	g1,890	1,760	873
6	g1,100	1,540	1,060	1,500	g3,660	3,080	*28,700	2,210	*g12,100	g1,800	1,500	1,440
7	g1,180	1,420	1,060	1,460	g3,260	2,860	28,300	2,160	g8,230	1,660	1,180	2,100
8	g1,220	1,340	1,040	1,380	g3,080	3,060	9,270	2,070	g4,320	1,580	1,060	2,100
9	g1,140	1,340	1,060	1,340	g3,360	3,260	g14,200	2,020	g3,460	1,540	1,020	2,070
10	g957	1,260	1,020	1,340	g4,170	2,860	g8,570	1,980	4,600	1,460	985	2,620
11	g880	1,180	*1,020	1,300	g4,280	2,560	g5,900	1,940	4,000	g1,420	950	3,510
12	g887	1,140	1,010	1,260	g3,660	2,410	g4,830	2,070	3,160	g1,380	950	2,560
13	g880	1,140	1,060	1,260	g3,060	2,310	g4,060	2,020	2,760	g1,300	1,050	2,310
14	g826	1,100	1,140	1,260	g2,780	2,410	g3,860	2,120	2,510	g1,260	1,420	1,660
15	g812	1,060	5,690	1,260	g2,510	3,460	g3,560	2,360	g4,480	*1,260	1,040	1,500
16	*g819	1,060	10,000	1,260	2,310	3,560	g3,360	*2,160	3,420	1,300	1,770	1,380
17	812	1,260	3,960	1,260	2,210	2,860	g3,260	1,940	2,960	1,460	1,670	12,600
18	793	2,070	2,860	1,180	2,070	2,510	g3,060	1,800	3,360	2,820	1,640	*26,500
19	800	2,360	2,260	1,020	2,070	2,460	g3,060	1,890	3,060	6,020	2,960	14,100
20	793	1,840	1,940	1,040	2,960	2,460	g3,060	2,760	2,860	3,160	2,440	5,060
21	859	1,540	1,760	1,260	3,060	2,310	g2,860	2,660	2,210	2,020	1,620	4,280
22	1,220	1,460	1,980	1,380	2,460	2,410	g2,860	2,070	4,030	1,620	1,340	3,460
23	3,480	1,380	2,960	2,960	2,210	*2,560	3,160	1,890	6,680	1,540	1,180	4,970
24	3,560	1,300	3,960	*3,860	2,070	2,410	3,160	2,070	g4,180	1,840	1,100	4,060
25	2,070	1,260	3,660	3,260	1,980	2,460	3,060	2,020	g5,230	2,070	1,100	3,060
26	1,500	1,220	3,160	2,310	2,260	2,460	2,860	2,120	g5,570	1,840	1,180	2,560
27	1,780	1,220	2,460	2,020	3,990	2,410	2,860	2,620	g4,390	1,540	1,140	2,260
28	3,060	1,180	2,070	1,940	6,050	2,510	2,510	g3,860	g4,090	1,360	1,030	2,120
29	2,160	1,180	1,890	2,120	2,160	2,160	2,460	2,860	g4,120	1,340	978	2,260
30	1,710	1,140	1,710	4,280	-----	2,120	2,960	2,120	g3,810	1,600	*956	8,410
31	1,540	-----	1,620	7,100	-----	2,020	-----	1,940	-----	1,220	915	-----
Total	44,108	43,850	68,950	58,910	123,920	99,970	183,210	69,980	124,410	58,880	42,384	123,213
Mean	1,425	1,452	2,224	1,900	4,426	3,225	6,107	2,257	4,147	1,899	1,357	4,107
Cfsm	0.624	0.641	0.975	0.833	1.94	1.41	2.68	0.990	1.82	0.843	0.600	1.80
In.	0.72	0.72	1.12	0.96	2.02	1.63	2.99	1.14	2.03	0.96	0.69	2.01

Calendar year 1956: Max 27,600 Min 330
Water year 1956-57: Max 28,700 Min 793
Mean 1,712 Cfsm 0.751 In. 10.23
Mean 2,654 Cfsm 1.25 In. 16.99

Peak discharge (base, 18,000 cfs).--Feb. 1 (12 m.) 19,200 cfs (15.28 ft); Apr. 7 (2 a.m.) 33,400 cfs (22.00 ft); Sept. 18 (5 p.m.) 28,300 cfs (19.93 ft).

* Discharge measurement made on this day.

g Computed from once-daily, or more frequent wire-weight-gage readings.

Rocky Creek at Turnersburg, N. C.
(Formerly published as Rocky River at Turnersburg)

Location.--Lat 35°54', long 80°48', on right bank 1,000 ft downstream from bridge on U. S. Highway 21 at Turnersburg, Iredell County, 1 mile downstream from Mud Creek, and 1½ miles upstream from mouth.

Drainage area.--102 sq mi (revised).

Records available.--April 1940 to September 1957. Prior to October 1956, published as Rocky River at Turnersburg.

Gage.--Water-stage recorder. Datum of gage is 724.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 19, 1950, at site 170 ft upstream at same datum.

Average discharge.--17 years, 105 cfs.

Extremes.--Maximum discharge during year, 4,620 cfs Sept. 17 (gage height, 11.68 ft); minimum, 34 cfs Oct. 16, 19 (gage height, 1.49 ft); minimum daily, 36 cfs Sept. 4, 1940-57; Maximum discharge, 6,380 cfs Jan. 22, 1954 (gage height, 13.70 ft), from rating curve extended above 3,400 cfs on basis of computation of peak flow over dam; minimum, 1 cfs Oct. 18, 1940, Oct. 26, 1941; minimum daily, 8.8 cfs Aug. 17, 18, 1956. A stage of about 18 ft was reached by flood sometime during the years 1936-38, from information by local resident.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Revisions (water years).--WSP 1333: 1945(M).

Rating table, water year 1956-57 (gage height, in feet,
and discharge, in cubic feet per second)

1.5	35	3.0	348
1.6	44	3.5	542
1.8	68	4.0	776
2.0	102	6.0	1,770
2.5	203	9.0	3,270

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	68	44	68	*1,040	413	97	84	62	128	52	38
2	84	65	44	64	819	231	154	79	62	111	54	38
3	73	60	44	60	303	173	145	79	65	104	52	38
4	67	58	45	62	215	147	128	84	115	97	52	36
5	63	55	42	a70	171	131	722	78	341	91	*60	40
6	82	53	42	a65	152	120	786	76	266	84	47	60
7	63	52	42	a60	139	116	291	73	159	78	43	55
8	55	52	42	a60	128	131	344	71	115	74	42	64
9	51	51	42	a60	145	118	406	70	124	71	41	96
10	47	46	41	a60	147	107	223	68	113	68	40	108
11	45	46	40	a55	135	102	185	*71	97	64	38	68
12	44	46	44	a55	120	98	160	76	89	62	46	58
13	*44	45	47	a55	113	95	148	67	78	62	46	53
14	43	44	77	a55	106	120	135	67	86	59	*44	47
15	42	44	356	a55	98	124	128	106	137	56	54	46
16	41	45	213	a55	97	115	120	79	98	59	76	97
17	41	*68	135	a55	91	104	118	68	*88	78	52	*2,930
18	41	81	100	a46	86	98	118	68	202	173	102	1,050
19	41	83	84	a55	113	102	116	68	148	120	107	259
20	42	55	76	a60	143	98	111	74	138	82	76	189
21	47	53	71	a60	111	91	106	68	91	71	62	152
22	103	53	97	a60	102	102	106	64	457	64	54	126
23	107	52	163	176	95	*102	115	68	452	65	50	115
24	73	50	227	162	91	97	116	90	674	95	47	104
25	60	47	173	111	89	109	106	67	294	76	47	91
26	58	47	128	93	131	111	97	71	350	64	52	84
27	100	47	*106	84	158	106	93	93	292	60	46	78
28	78	45	93	82	268	98	89	93	198	59	43	78
29	63	45	84	81	-	97	86	68	187	56	42	113
30	59	45	76	91	-----	93	86	65	147	55	41	288
31	60	-----	73	405	-----	91	-----	85	-----	55	40	-----
Total	1,921	1,583	2,897	2,580	5,404	3,840	5,633	2,318	5,725	2,441	1,648	6,599
Mean	62.0	52.8	93.1	83.2	193	124	188	74.8	191	78.7	53.2	220
Cfsm	0.608	0.518	0.913	0.816	1.89	1.22	1.84	0.733	1.87	0.772	0.522	2.16
In.	0.70	0.58	1.05	0.94	1.97	1.40	2.05	0.85	2.09	0.89	0.60	2.41

Calendar year 1956: Max 3,510 Min 8.8 Mean 76.5 Cfsm 0.750 In. 10.20
Water year 1956-57: Max 2,930 Min 36 Mean 117 Cfsm 1.15 In. 15.53

Peak discharge (base, 2,000 cfs)--Sept. 17 (2 p.m.) 4,620 cfs (11.68 ft).

* Discharge measurement made on this day.

A no gage-height record; discharge estimated on basis of recorded range in stage and records for nearby streams.

South Yadkin River near Mocksville, N. C.

Location.--Lat 35°51', long 80°40', on right bank at downstream side of highway bridge, 1 mile upstream from Little Creek, 4 miles downstream from Fifth Creek, 4½ miles upstream from Hunting Creek, and 6½ miles southwest of Mocksville, Davie County.

Drainage area.--813 sq mi.

Records available.--October 1938 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 660 ft (by barometer).

Average discharge.--19 years, 302 cfs.

Extremes.--Maximum discharge during year, 6,550 cfs Sept. 18 (gage height, 14.26 ft); minimum, 94 cfs Aug. 12 (gage height, 1.74 ft).

1938-57: Maximum discharge, 9,240 cfs Jan. 23, 1954 (gage height, 16.73 ft); minimum, 30 cfs Aug. 14, 16, 1956.

Maximum stage known, 22.6 ft Oct. 3, 1929, from floodmark established by local resident.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.7	86	5.0	1,060
2.0	148	7.0	1,740
2.5	274	9.0	2,570
3.0	420	11.0	3,720
4.0	735	14.0	6,250

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	328	179	137	208	*3,080	1,400	247	255	170	302	141	a110
2	255	182	135	201	3,330	865	348	229	162	260	148	a110
3	216	174	133	189	2,420	575	590	224	178	234	160	a105
4	196	165	133	182	865	450	334	226	316	219	130	a100
5	184	160	130	204	622	384	1,450	224	498	208	*141	a100
6	191	153	130	206	525	346	1,970	214	1,260	191	139	a170
7	216	150	128	189	450	328	1,780	206	670	179	116	a150
8	160	148	128	184	405	369	1,355	201	405	170	109	a160
9	141	153	126	177	480	*346	1,160	198	420	162	105	*a220
10	128	144	126	174	525	302	770	194	372	155	99	511
11	122	139	124	167	465	288	558	194	305	148	97	201
12	118	137	130	165	390	280	465	211	269	141	96	160
13	*113	135	144	165	351	271	420	201	*237	137	120	141
14	111	130	146	165	322	294	387	186	226	135	141	128
15	109	130	655	160	296	354	360	350	354	137	126	120
16	105	128	995	160	280	325	343	296	277	135	170	570
17	101	*214	465	158	269	291	334	211	218	137	153	*2,530
18	103	308	325	153	252	277	325	196	324	459	194	5,360
19	105	221	266	144	350	282	*325	204	354	351	309	3,040
20	105	184	237	167	480	280	316	216	319	221	221	640
21	111	172	221	167	354	258	302	196	226	172	177	510
22	186	167	266	167	302	282	296	182	522	155	158	375
23	285	165	510	465	282	294	314	184	1,300	153	146	351
24	216	155	752	575	269	269	316	196	850	179	139	302
25	174	150	655	366	260	316	291	208	1,720	179	139	260
26	153	148	435	288	345	331	266	182	1,240	155	155	234
27	218	146	*337	258	495	305	255	214	818	139	139	226
28	242	141	294	250	831	282	247	239	558	137	128	214
29	194	139	263	242	-	269	239	194	465	133	124	274
30	177	139	237	296	-----	258	260	174	372	133	*113	558
31	174	-----	221	1,340	-----	250	-----	177	-----	137	a110	-----
Total	5,237	4,856	8,984	7,932	19,295	11,421	15,903	6,582	15,406	5,752	4,443	17,730
Mean	169	162	280	256	689	368	530	212	514	186	143	581
Cfsm	0.540	0.518	0.927	0.818	2.20	1.18	1.69	0.677	1.64	0.594	0.457	1.89
In.	0.62	0.58	1.07	0.94	2.29	1.36	1.89	0.78	1.83	0.68	0.53	2.11

Calendar year 1956: Max 5,220 Min 32 Mean 222 Cfsm 0.709 In. 9.67
 Water year 1956-57: Max 5,360 Min 96 Mean 338 Cfsm 1.08 In. 14.68

Peak discharge (base, 2,700 cfs).--Feb. 2 (12 m.) 3,460 cfs (10.57 ft); Sept. 18 (3 p.m.) 6,550 cfs (14.26 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for South Yadkin River at Cooleemee and Rocky Creek at Turnersburg.

Hunting Creek near Harmony, N. C.

Location.--Lat 36°00', long 80°44', on right bank at downstream side of highway bridge, three-quarters of a mile downstream from Kennedy Creek, 1 mile east of Houstonville, Iredell County, 2 miles downstream from U. S. Highway 21, and 3½ miles northeast of Harmony.

Drainage area.--153 sq mi.

Records available.--January 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 731 ft (by barometer). Prior to Apr. 5, 1951, wire-weight gage on upstream side of bridge at same datum.

Average discharge.--6 years, 147 cfs.

Extremes.--Maximum discharge during year, 4,690 cfs Sept. 17 (gage height, 15.78 ft); minimum, 57 cfs Oct. 15 (gage height, 0.90 ft).
1951-57: Maximum discharge, 6,110 cfs Jan. 22, 1954 (gage height, 18.30 ft); minimum, 18 cfs Oct. 8, 1954.

Remarks.--Records fair. Diurnal fluctuation at low flow caused by mills above station.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 23, Feb. 3-18, June 16-23, Sept. 18-30)

Oct. 1 to Nov. 23, Apr. 5 to Sept. 30				Nov. 24 to Apr. 5			
1.0	62	5.0	775	1.2	64	3.0	322
1.5	99	7.0	1,310	1.5	89	4.0	512
2.0	167	9.0	1,910	2.0	154	6.0	1,010
2.5	248	11.0	2,650	2.5	236	8.0	1,580
3.0	337	13.0	3,450				
4.0	542						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	101	70	97	*1,230	613	*147	*152	121	*195	118	75
2	91	99	70	93	835	349	309	145	119	173	127	78
3	84	91	70	89	404	270	253	149	118	166	118	75
4	80	87	70	96	304	219	214	151	170	156	135	*77
5	78	84	69	106	244	200	1,550	141	729	148	160	78
6	82	81	70	99	228	186	901	138	467	138	112	166
7	75	80	69	97	204	181	395	132	307	134	104	262
8	70	80	69	92	192	219	538	131	220	131	103	114
9	69	80	69	92	*219	196	610	128	251	125	100	*232
10	69	77	70	92	244	175	346	125	231	124	97	181
11	67	75	68	86	228	167	274	132	190	115	96	123
12	67	76	72	87	199	164	240	141	172	115	104	103
13	*65	75	74	87	186	159	222	128	154	110	99	95
14	67	75	111	87	175	195	204	125	*160	109	*95	87
15	64	74	392	85	162	228	193	181	387	110	121	83
16	62	75	240	86	159	202	187	134	201	110	144	254
17	62	*99	167	86	154	183	185	124	215	354	109	*3,440
18	62	130	132	74	146	173	185	127	232	949	176	*630
19	64	95	112	*66	179	181	185	123	238	350	186	356
20	63	86	104	99	246	170	178	148	193	180	144	282
21	68	83	100	91	180	157	174	142	155	145	121	240
22	191	84	150	92	162	176	176	131	*1,140	*163	111	201
23	158	78	202	*294	*152	*173	241	131	519	218	105	193
24	98	73	*262	210	146	160	201	237	1,060	204	99	174
25	83	71	218	148	145	183	174	151	425	149	99	158
26	78	73	164	129	246	186	164	135	553	131	99	148
27	139	73	*139	121	278	172	158	213	425	124	91	148
28	109	70	124	122	438	162	152	184	300	121	87	149
29	90	71	116	129	---	152	149	141	291	116	83	290
30	87	*70	104	176	---	146	177	131	222	114	81	899
31	91	---	100	598	---	139	---	131	---	114	79	---
Total	2,635	2,466	3,847	3,926	7,686	6,236	9,082	4,482	9,965	5,991	3,503	9,389
Mean	85.0	82.2	124	127	274	201	303	145	332	180	113	313
Cfs/m	0.556	0.537	0.810	0.850	1.79	1.31	1.98	0.948	2.17	1.18	0.739	2.5
In.	0.64	0.60	0.94	0.95	1.87	1.52	2.21	1.09	2.42	1.36	0.85	2.18

Calendar year 1956: Max 3,430 Min 22 Mean 111 Cfs/m 0.725 In. 9.86
Water year 1956-57: Max 3,440 Min 62 Mean 1.89 Cfs/m 1.24 In. 16.73

Peak discharge (base, 2,000 cfs).--Apr. 5 (3 p.m.) 2,450 cfs (10.52 ft); June 22 (10 a.m.) 2,250 cfs (9.61 ft); Sept. 17 (8 a.m.) 4,690 cfs (15.78 ft).

* Discharge measurement made on this day.

South Yadkin River at Cooleemee, N. C.

Location.--Lat 35°48', long 80°34' on left bank 150 ft downstream from tailrace of Erwin Cotton Mills at Cooleemee, Davie County, 550 ft upstream from bridge on State Highway 801, 2½ miles downstream from Bear Creek, and 2½ miles upstream from Third Creek.

Drainage area.--569 sq mi.

Records available.--June 1928 to September 1957. Figures of discharge above 2,000 cfs are subject to error owing to absence of sufficient information to make corrections for backwater from tributary inflow and High Rock Lake.

Gage.--Water-stage recorder. Datum of gage is 624.57 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers).

Average discharge.--27 years (1930-57), 600 cfs.

Extremes.--Maximum discharge during year, 9,610 cfs Sept. 18 (gage height, 20.65 ft); minimum, 47 cfs Oct. 13 (gage height, 1.14 ft); minimum daily, 141 cfs Sept. 5.
1928-57: Maximum discharge, 24,800 cfs Oct. 3, 1929 (gage height, 32.25 ft), from rating curve extended above 7,500 cfs on basis of computation of peak flow over dam half a mile upstream; minimum, 10 cfs Nov. 25, 1931 (gage height, 0.40 ft); minimum daily, 23 cfs Oct. 12, 19, 1941.
Flood of July 16, 1916, reached a stage of 27.2 ft, from floodmark in Erwin Cotton Mill.

Remarks.--Records fair except those above 1,500 cfs, which are poor. Large diurnal fluctuation and slight regulation during low and medium flow caused by Erwin Cotton Mill above station.

Revisions (water years).--WSP 822: Drainage area. WSP 1433: 1931. See also Records available.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 30, Feb. 5 to Sept. 30				Jan. 31 to Feb. 4			
1.4	121	9.0	2,810	6.0	1,770		
1.5	154	11.0	3,550	8.0	2,450		
2.0	324	13.0	4,350	10.0	3,150		
3.0	696	16.0	5,700	12.0	3,850		
5.0	1,440	20.0	8,690	15.0	4,900		
7.0	2,110			18.3	6,050		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	620	324	*244	414	5,400	3,290	488	488	324	658	296	184
2	465	335	237	378	*5,980	2,180	620	439	317	563	296	187
3	398	331	247	355	5,170	1,220	848	425	328	488	317	237
4	356	310	247	314	2,466	924	696	425	458	440	300	164
5	355	300	247	355	1,220	772	1,980	410	779	443	314	141
6	346	289	247	378	1,040	696	4,610	403	*2,110	488	324	240
7	378	282	247	364	828	639	4,230	365	1,510	365	264	1,470
8	310	278	244	353	772	734	2,190	389	791	346	251	731
9	282	286	244	349	1,040	734	2,210	364	867	374	310	506
10	261	278	240	324	1,080	620	1,840	371	734	328	261	658
11	237	268	237	306	962	563	1,220	*382	601	324	204	450
12	237	264	240	*296	772	544	962	535	525	314	197	360
13	324	261	268	289	677	525	848	592	462	286	204	317
14	184	261	314	292	620	544	753	382	441	289	261	258
15	220	230	1,210	296	563	715	696	374	886	278	289	268
16	223	223	2,240	296	525	696	658	601	563	282	310	392
17	*223	412	362	296	508	601	639	410	469	282	358	4,390
18	177	829	620	296	488	544	620	374	582	502	292	7,480
19	210	458	506	261	657	563	601	338	620	1,700	525	7,530
20	244	360	439	194	1,130	563	582	432	658	1,260	469	2,180
21	227	328	407	314	753	506	563	403	465	488	367	1,220
22	296	314	544	324	601	639	544	374	1,130	*410	220	772
23	563	306	1,230	1,020	563	*592	658	324	2,040	450	297	1,040
24	421	296	1,770	1,150	525	544	639	367	1,770	469	249	677
25	288	282	1,370	668	488	696	582	458	2,580	425	157	544
26	292	278	810	525	734	715	506	371	3,030	371	314	488
27	392	275	601	469	1,040	639	488	403	1,910	324	272	403
28	469	272	525	465	1,650	582	458	506	1,300	324	227	432
29	371	272	469	443	-	563	447	425	1,300	324	223	525
30	328	268	425	620	-----	450	458	274	905	300	*200	1,510
31	317	-----	425	2,060	-----	465	-----	335	-----	237	184	-----
Total	10,032	9,470	18,056	14,424	38,244	24,058	32,634	12,477	30,485	14,162	8,732	35,354
Mean	324	316	582	465	1,366	776	1,088	402	1,018	457	282	1,178
Cfsm	0.569	0.555	1.02	0.817	2.40	1.36	1.91	0.706	1.79	0.803	0.496	2.07
In.	0.66	0.62	1.18	0.94	2.50	1.57	2.13	0.82	1.99	0.93	0.57	2.31

Calendar year 1956: Max 8,530 Min 56 Mean 424 Cfsm 0.745 In. 10.15
Water year 1956-57: Max 7,480 Min 141 Mean 680 Cfsm 1.20 In. 16.22

* Discharge measurement made on this day.

Third Creek subwatershed No. 7A (Third Creek) near Stony Point, N. C.

Location.--Lat 35°52'20", long 81°04'00", on left bank 200 ft upstream from dam on Third Creek, 900 ft upstream from highway bridge, 1½ miles northwest of Stony Point, Alexander County, and 2½ miles upstream from Alexander-Iredell County line.

Drainage area.--4.84 sq mi.

Records available.--December 1955 to September 1957.

Gage.--Water-stage recorder and sharp-crested weir. Datum of gage is 976 ft above mean sea level (levels by Soil Conservation Service).

Extremes.--1955-56: Maximum outflow discharge during period December to September, 67 cfs Sept. 27 (gage height, 14.27 ft); no flow May 10-15 (reservoir filling after closure of cleanout gate valve). Maximum inflow, 394 cfs (average for 30-minute period) Apr. 15. 1956-57: Maximum outflow discharge during water year, 67 cfs Sept. 17 (gage height, 14.42 ft); minimum, 1.9 cfs Sept. 4. Maximum inflow, 514 cfs (average for 60-minute period) Sept. 17.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records of daily discharge are outflow from reservoir, determined from stage-discharge relation for outlet structure. Peak inflow rates are determined for short intervals of time on basis of change in reservoir contents and outflow. Reservoir is formed by earth dam; dam completed and storage began in December 1955. Outlet structure is 3 x 3 x 9-foot concrete drop inlet connected to a 24-inch concrete outlet pipe. Top of drop inlet is at elevation 978 ft. A 2-foot sharp-crested rectangular weir is set in one side of the drop inlet with crest at elevation 977 ft. There is an emergency spillway at elevation 1,003 ft. Top of dam embankment is 1,010 ft. There is an 18-inch diameter cleanout gate at elevation 969.5 ft at bottom of drop inlet. Available capacity, 876 acre-ft between elevations 977 ft (crest of weir) and 1,003 ft (crest of spillway).

Rating table, Dec. 22, 1955, to Sept. 30, 1957, except periods when cleanout gate in dam was open (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	2.8	41
1.2	1.2	3.0	48
1.4	1.8	4.0	51
1.7	3.5	8.0	59
2.0	7.2	12.0	64
2.3	15	16.0	66
2.5	23		

Discharge, in cubic feet per second, December 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	1.7	2.5	5.2	4	5	3.8	1.8	1.8	1.4
2			-	1.7	3.2	5.2	4	6	3.7	1.8	1.8	1.4
3			-	1.7	4.6	5.3	5	10	3.2	1.7	1.8	1.4
4			-	1.7	9.7	6.3	4	8	2.6	1.7	1.8	1.5
5			-	1.7	9.4	6.0	4	5	2.4	1.7	1.8	1.6
6			-	1.7	30	5.7	7	4	2.2	1.8	1.7	1.8
7			-	1.7	16	5.6	15	3.5	2.1	1.9	1.6	2.5
8			-	1.7	9.4	5.7	8	4	2.1	1.9	1.6	2.0
9			-	*1.7	7.4	9	6	3	2.0	1.9	1.6	1.7
10			-	1.8	6.2	19	6	0	12	2.0	1.6	1.7
11			-	1.8	9.2	12	10	0	9.6	1.8	1.6	1.6
12			-	1.8	9.2	7	15	0	4.1	1.7	1.5	1.6
13			-	1.8	7.0	5	8	0	2.9	1.7	1.5	1.6
14			-	1.8	5.7	5	6	0	2.4	1.9	1.5	1.6
15			-	1.8	5.1	5	6	0	2.3	1.9	1.4	1.5
16			-	1.9	4.4	18	44	.4	2.3	1.9	1.4	1.5
17			-	1.9	4.6	20	24	1.4	2.6	1.9	1.5	1.4
18			-	1.9	5.6	15	13	1.8	2.4	1.8	1.5	1.4
19			-	2.0	5.3	10	10	2.0	2.3	*1.7	1.6	1.5
20			-	2.1	5.8	6	8	2.0	2.3	6.4	1.7	1.5
21			-	2.0	5.8	6	6	2.1	2.2	5.5	7.6	1.4
22			1.7	2.0	5.3	5	6	2.0	2.3	3.4	3.4	1.5
23			1.7	2.0	4.7	4.5	5	2.0	2.1	2.8	2.3	1.5
24			1.8	2.4	4.9	4.5	5	2.0	2.1	2.3	1.9	2.6
25			1.8	2.3	5.5	4.5	5	2.0	2.0	2.2	1.7	7.2
26			1.8	2.2	6.0	4.5	5	2.0	1.9	2.7	1.7	42
27			1.7	2.1	5.6	4	4	2.0	1.9	2.3	1.6	66
28			1.7	2.1	5.8	4	4	2.1	1.8	2.1	1.6	64
29			1.7	2.0	5.5	4	4	2.0	1.7	2.0	1.6	58
30			1.8	2.1	-----	4.5	4	7.1	1.6	1.9	1.5	27
31			1.7	2.3	-----	4	-----	6.9	-----	1.8	1.4	-----
Total			-	59.4	209.4	227.5	255	88.3	89.1	85.2	58.6	303.4
Mean			-	1.82	7.22	7.34	8.50	2.85	2.97	2.75	1.89	10.1
(†)			-	+0.03	+0.08	-0.22	-0.02	+0.22	-0.08	0	-0.03	+0.16

Adjusted for change in reservoir contents

Mean				1.95	7.30	7.12	8.48	3.07	2.89	2.75	1.86	10.3
Cfsm			-	0.403	1.51	1.47	1.75	0.634	0.597	0.568	0.384	2.13
In.			-	0.46	1.63	1.70	1.95	0.73	0.67	0.65	0.44	2.38

				Observed				Adjusted			
Calendar year	:	Max	Min	Min	Mean	Mean	Mean	Mean	Cfsm	In.	In.
Water year	:	Max	Min	Min	Mean	Mean	Mean	Mean	Cfsm	In.	In.

Peak inflow into reservoir (average for interval shown).--Feb. 6 (8 to 8:30 a.m.) 100 cfs; Apr. 15 (11:30 to 12 p.m.) 394 cfs; Sept. 28 (2 to 2:30 p.m.) 305 cfs.

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in reservoir on which gage is located.

Note.--No gage-height record Mar. 9 to Apr. 15. Apr. 18 to May 9 (stage below outflow weir, cleanout gate open); discharge estimated on basis of records for nearby streams and weather records.

Third Creek subwatershed No. 7A (Third Creek) near Stony Point, N. C.--Continued

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	3.2	2.4	3.5	57	14	4.4	3.4	2.7	3.1	3.2	2.0
2	4.3	3.0	2.4	3.4	57	9.2	7.5	3.2	2.7	2.8	4.0	2.0
3	3.5	2.9	2.4	3.2	30	7.4	5.7	3.2	3.5	2.7	3.0	2.0
4	3.3	2.8	2.4	3.2	11	6.3	5.6	3.2	11	2.7	2.6	1.9
5	3.1	2.7	2.4	3.9	8.8	5.5	42	3.1	55	2.6	*2.6	2.0
6	4.4	2.6	2.4	3.6	8.0	5.1	*51	3.0	53	2.4	2.4	2.2
7	3.8	2.6	2.4	3.3	7.4	5.1	13	2.9	11	2.4	2.2	2.9
8	3.0	2.6	2.4	3.2	6.6	6.3	26	2.9	8.4	2.3	2.2	2.7
9	2.7	2.6	2.4	3.1	8.8	5.2	25	2.9	8.6	2.3	2.1	5.0
10	2.5	2.6	2.5	2.9	9.4	4.5	11	2.6	7.8	2.3	2.1	4.0
11	2.4	2.5	2.3	2.7	8.0	4.3	8.8	3.0	6.2	2.2	2.1	3.1
12	2.3	2.5	2.5	2.7	6.6	4.2	7.6	3.2	5.3	2.2	2.3	2.7
13	2.3	2.4	2.7	2.8	5.6	4.0	6.9	2.9	4.5	2.2	2.2	2.6
14	2.3	2.4	4.6	2.7	5.0	4.9	5.8	5.7	4.0	2.1	2.4	2.3
15	2.2	a2.4	12	2.7	4.5	5.1	5.3	9.7	4.1	2.2	2.9	2.1
16	2.2	a2.4	9.0	2.7	4.4	4.6	5.1	5.0	3.5	2.4	2.9	11
17	2.2	a3.0	6.0	2.7	4.1	4.2	5.0	3.7	3.4	2.3	2.5	*85
18	2.2	a4.0	4.6	2.6	3.9	4.1	5.0	3.4	3.4	*5.0	3.8	*64
19	2.2	a3.2	3.9	2.6	6.0	4.6	5.1	3.3	3.6	5.8	4.2	*58
20	2.4	a2.8	3.5	2.6	6.9	4.2	4.9	3.5	4.2	3.3	3.3	*31
21	3.0	a2.7	3.3	2.6	5.3	3.9	4.5	3.2	*3.5	2.7	2.8	7.2
22	9.9	a2.8	4.5	3.0	4.6	4.9	4.2	3.2	13	2.4	2.5	5.5
23	6.4	a2.7	11	6.7	4.3	4.9	4.3	3.2	8.0	2.2	2.4	5.0
24	4.3	a2.6	21	5.2	4.1	4.4	4.2	3.2	12	2.3	2.3	4.3
25	3.4	a2.5	11	4.0	4.0	5.5	4.1	3.4	7.6	2.2	2.3	3.8
26	3.1	a2.5	7.8	3.6	6.4	5.6	4.0	3.3	6.3	2.1	2.2	3.5
27	4.2	a2.5	6.2	3.4	6.4	5.1	3.7	3.4	5.1	2.1	2.2	3.2
28	3.5	2.4	5.2	3.4	11	4.5	3.5	3.2	4.3	2.1	2.2	3.4
29	3.1	2.5	4.5	3.4	-	4.0	3.3	2.9	3.9	2.0	2.1	7.5
30	3.0	2.4	4.0	3.8	-----	3.9	3.4	2.8	3.4	2.4	2.0	11
31	3.3	-----	3.6	*34	-----	3.7	-----	2.8	-----	3.2	2.0	-----
Total	106.5	80.8	157.1	133.2	305.1	163.2	290.9	108.6	273.0	81.0	80.0	322.9
Mean	3.44	2.69	5.07	4.30	10.9	5.26	9.70	3.50	9.10	2.61	2.58	10.8
(†)	-0.07	-0.03	+0.03	+1.43	-1.40	-0.16	-0.01	-0.02	+0.01	-0.01	-0.04	+0.15

Adjusted for change in reservoir contents

Mean	3.37	2.66	5.10	5.73	9.50	5.10	9.69	3.48	9.11	2.60	2.54	11.0
Cfsm	0.696	0.550	1.05	1.18	1.96	1.05	2.00	0.719	1.88	0.537	0.525	2.27
In.	0.80	0.61	1.21	1.36	2.04	1.21	2.23	0.83	2.10	0.82	0.61	2.53

Observed

Adjusted

Calendar year 1956:	Max 66	Min 0	Mean 4.70	Mean 4.71	Cfsm 0.973	In. 13.23
Water year 1956-57:	Max 65	Min 1.9	Mean 5.76	Mean 5.76	Cfsm 1.19	In. 16.15

Peak inflow into reservoir (average for interval shown).--Jan. 31 (8:30 to 9 p.m.) 269 cfs; Apr. 5 (7 to 7:30 p.m.) 209 cfs; Apr. 8 (3 to 3:30 p.m.) 183 cfs; June 5 (5:30 to 6 a.m.) 334 cfs; Sept. 17 (12:01 to 1 a.m. and 2 to 2:30 a.m.) 514 cfs.

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in reservoir on which gage is located.
 a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations.

Third Creek subwatershed No. 21 (IL Creek) at Troutman, N. C.

Location.--Lat 35°42', long 80°53', on right bank 150 ft upstream from dam, a quarter of a mile upstream from highway bridge, 1 mile east of Troutman, Iredell County, and 3½ miles upstream from mouth.

Drainage area.--1.62 sq mi.

Records available.--December 1954 to September 1956 (discontinued).

Gage.--Water-stage recorder and sharp-crested weir. Datum of gage is 871.0 ft above mean sea level (levels by Soil Conservation Service).

Extremes.--1954-55: Maximum outflow discharge during period December to September, 56 cfs Apr. 14 (gage height, 3.73 ft); minimum, 0.2 cfs Sept. 19-23. Maximum inflow, 110 cfs (average for 30-minute period) Apr. 14.

1955-56: Maximum outflow discharge during water year, 56 cfs Feb. 6 (gage height, 3.66 ft); minimum, 0.1 cfs Sept. 19. Maximum inflow, 151 cfs (average for 30-minute period) Feb. 6.

Remarks.--Records fair except those for periods of doubtful or no gage-height record, which are poor. Records of daily discharge are outflow from reservoir, determined from stage-discharge relation for outlet structure. Peak inflow rates are determined for short intervals of time on basis of change in reservoir contents and outflow. Reservoir is formed by earth dam; dam completed and storage began Nov. 1, 1954. No variable outflow control; outlet structure is a 3 x 3 x 12-foot concrete drop inlet connected to a 24-inch concrete outlet pipe. Top of drop inlet is at elevation 873.0 ft. A 2-foot sharp-crested rectangular weir is set in one side of the drop inlet with crest of elevation 872.0 ft. There is an emergency spillway at elevation 895.0 ft. Available capacity, 337 acre-ft between elevations 872.0 and 895.0 ft. Records of sediment loads for the water year 1956 are given in WSP 1450.

Rating table, Dec. 1, 1954, to Sept. 30, 1956, except period of indefinite stage-discharge relation (gage height, in feet, and discharge in cubic feet per second)

(Shifting-control method used Feb. 17-25, 1955)

1.0	0	2.0	6.9
1.1	.3	2.3	13
1.3	1.2	2.5	20
1.6	2.9	2.8	42
1.8	4.5		

Discharge, in cubic feet per second, December 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			1.3	a0.9		1.1	0.9	0.9	0.6	0.5	0.4	0.4
2			.9	a.9		1.0	.9	.9	.5	.5	.3	1.3
3			.9	a.9	a1.0	.9	1.0	.9	.5	.6	.3	.8
4			1.2	a.9		.9	.9	.9	.5	.8	.3	.6
5			1.5	a.9		.9	1.0	.9	.5	.6	*.5	.5
6			2.2	a.8	a5.0	.9	1.2	.9	.5	.8	.3	.5
7			1.3	a.8	a2.0	.9	1.2	.8	.6	.9	1.7	.5
8			.9	a.8	a3.5	.9	1.0	.8	.8	.7	4.9	*.5
9			.9	.8	a2.0	.8	.9	.7	.6	.6	1.2	.4
10			.9	.8	a1.5	.8	.9	.7	.6	.5	.7	.4
11			.9	1.2	a1.3	.9	1.2	.7	.9	.5	.5	.3
12			.9	1.0	a1.1	1.0	1.9	.7	.8	.7	.5	.3
13			1.4	.9	a1.0	1.0	9.3	2.0	.6	.7	.9	.3
14			5.0	.8	a.9		*3.4	1.7	.6	.6	.5	.3
15			1.6	.8	a.9	1.1	5.6	1.1	.6	.6	4.4	.3
16			1.3	.8	a.9	1.2	2.8	.9	.6	.5	1.3	.3
17			1.1	.8	.9	1.2	2.1	.9	.5	.5	.8	.3
18			1.4	.8	.9	1.2	1.7	.8	.5	.4	.8	.3
19			1.3	.9	.9	1.3	1.6	.8	.6	.5	.6	.2
20			1.1	.9	.9	1.4	1.4	.8	.8	2.6	.5	.2
21			1.0	.9	.9	1.3	1.4	1.2	.7	2.2	.5	.2
22			.9	.9	.9	1.8	1.2	2.0	.6	.9	.5	.2
23			.9	.9	.9	1.5	1.2	*1.9	.6	.6	.5	.2
24			.9	1.0	.9	1.3	1.4	1.2	.6	.5	.4	.3
25			.9	1.0	1.8	1.2	1.4	1.0	.6	.4	.4	.6
26			.9		1.4	1.2	1.2	.9	.7	.5	.4	.5
27			.9		1.1	1.0	1.7	.8	.6	.4	.4	.4
28					1.1	1.0	1.0	.7	*.6	.4	.3	.4
29			a1.0	a1.0		1.0	1.0	.7	.5	.3	.3	.4
30			a1.2			.9	.9	.6	.5	.3	.3	.6
31			a1.0			.9		.6		.4	.3	
Total			36.5	28.1	55.7	33.7	83.3	30.4	18.2	20.9	25.1	12.5
Mean			1.18	0.91	1.99	1.09	2.78	0.98	0.59	0.67	0.81	0.42
(t)			-0.02	+0.03	-0.03	0	0	-0.01	0	0	0	+0.08

Adjusted for change in reservoir contents

Mean			1.16	0.94	1.96	1.09	2.78	0.97	0.59	0.67	0.81	0.50
Cfs			0.716	0.580	1.21	0.673	1.72	0.599	0.364	0.414	0.500	0.309
In.			0.83	0.67	1.26	0.78	1.92	0.69	0.41	0.48	0.58	0.34

Observed				Adjusted			
Calendar year	Max	Min	Mean	Mean	Cfs	In.	
Water year	Max	Min	Mean	Mean	Cfs	In.	

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in reservoir on which gage is located.
a No gage-height record; discharge estimated on basis of weather records and records for Third Creek at Cleveland.

Third Creek subwatershed No. 21 (IL Creek) at Troutman, N. C.--Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	0.5	0.6	0.6	0.7	0.9	0.9	1.1	1.2	0.4	0.6	0.5
2	2.5	.5	.6	.6	1.2	1.0	.9	1.2	1.4	.4	.6	.5
3	*1.4	*.5	.6	.6	2.9	1.0	1.0	6.5	1.0	.4	.5	.4
4	.9	*.5	.7	.6	*8.0	1.0	.9	9.9	.8	.7	.6	.4
5	.7	.5	.7	.6	*4.6	1.0	.9	2.8	.8	.6	.6	.4
6	.6	.5	.6	.6	*20	.9	1.7	1.9	.7	.6	.5	.5
7	.5	.5	.6	.6	5.4	.9	1.9	1.6	.7	al.1	.4	.5
8	.9	.6	.6	.6	2.5	1.0	1.2	1.4	.7	a.8	.4	.5
9	.7	.5	.7	*.6	*1.9	.9	1.0	1.3	.7	1.5	.4	.4
10	.6	.7	.7	.7	1.6	.9	1.0	1.2	.8	.9	.4	.4
11	.5	.8	.6	.7	1.8	.9	3.1	1.2	.8	.6	.4	.3
12	.5	.6	.6	.7	1.7	.9	3.8	1.1	.6	.5	.3	.3
13	.5	.6	.6	.6	1.4	.9	2.0	1.0	.6	.5	.3	.3
14	.5	.6	.6	.6	1.3	.9	1.5	.9	.6	.6	.3	.3
15	.5	.6	.6	.6	1.2	1.1	1.5	.9	.6	.6	.3	.2
16	.5	.6	.6	.7	1.2	8.0	*23	.9	.5	.5	.3	.2
17	.5	.6	.6	.7	1.3	3.9	3.6	.9	.5	.6	.3	.2
18	.5	.5	.6	.7	1.6	2.2	2.2	.8	.5	.5	.3	.2
19	.5	.7	.6	.9	1.6	1.6	1.7	.8	.5	2.5	.4	.1
20	.5	.6	.6	.8	1.6	1.3	1.6	.8	.6	1.7	.4	.3
21	.5	.6	.6	.8	1.4	1.2	1.4	.8	.6	.9	.7	.2
22	.5	.6	.6	.7	1.3	1.1	1.3	.8	.6	.9	.8	.2
23	.5	.7	.6	.8	1.2	1.1	1.2	.8	.6	.5	.7	.3
24	.5	.7	.7	.9	1.2	1.0	1.2	.7	.5	.5	.5	.3
25	.4	.7	.7	.9	1.2	.9	1.1	.7	.5	.5	.5	.6
26	.4	.8	.6	.8	1.2	.9	1.1	.7	.5	.7	.4	*24
27	.4	.7	.6	.8	1.1	.9	1.1	.8	.5	.6	.4	*23
28	.4	.7	.6	.8	1.1	.9	1.1	.8	.5	.6	.6	e7.0
29	.5	.6	.6	.8	1.0	1.0	1.0	.8	.4	1.2	1.0	e4.0
30	.5	.6	.7	.8	-----	.9	1.0	.8	.4	.8	.8	e2.0
31	.5	-----	.6	.8	-----	.9	-----	.8	-----	.7	.6	-----
Total	22.0	18.2	19.3	22.0	74.2	42.0	66.9	46.7	19.7	23.7	15.3	68.5
Mean	0.71	0.61	0.62	0.71	2.56	1.35	2.23	1.51	0.66	0.76	0.49	2.28
Mean (†)	-0.07	0	0	0	+0.01	0	+0.01	-0.01	-0.01	+0.01	0	+0.08

Adjusted for change in reservoir contents

	Mean	Cfsm	In.
Mean	0.64	0.61	0.62
Cfsm	0.395	0.377	0.383
In.	0.46	0.42	0.44
Mean	0.71	0.61	0.62
Cfsm	0.395	0.377	0.383
In.	0.46	0.42	0.44

Observed

Adjusted

Calendar year 1955:	Max	34	Min	0.2	Mean	1.01	Mean	1.01	Cfsm	0.623	In.	8.45
Water year 1955-56:	Max	24	Min	0.1	Mean	1.20	Mean	1.20	Cfsm	0.741	In.	10.09

Peak inflow into reservoir (average for interval shown).--Feb. 6 (9 to 9:30 a.m.) 151 cfs; Apr. 15 (11 to 11:30 p.m.) 111 cfs; Sept. 26 (2:30 to 3 p.m.) 80 cfs.

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in reservoir on which gage is located. a No gage-height record; discharge estimated on basis of records for Third Creek at Cleveland and weather records.

e Stage-discharge relation indefinite; discharge estimated on basis of streamflow continuity and records for Third Creek at Cleveland.

Third Creek at Cleveland, N. C.

Location.--Lat 35°45', long 80°41', on left bank 200 ft downstream from highway bridge, three-quarters of a mile north of Cleveland, Rowan County, and 7 miles upstream from Fourth Creek.

Drainage area.--87.4 sq mi.

Records available.--April 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 684.47 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to May 22, 1950, on right bank at site 200 ft upstream at same datum.

Average discharge.--17 years, 84.4 cfs.

Extremes.--Maximum discharge during year, 2,070 cfs Feb. 1 (gage height, 10.94 ft); minimum, 22 cfs Sept. 6 (gage height, 0.58 ft).
1940-57: Maximum discharge, 3,080 cfs about Sept. 19, 1945 (gage height, 15.76 ft, from floodmarks), from rating curve extended above 900 cfs by logarithmic plotting; minimum, 10 cfs Sept. 19, 20, Oct. 7, 1954, Sept. 18, 19, 21, 22, 1956 (gage height, 0.20 ft).
Maximum stage known, 22.5 ft sometime in July 1916, from floodmark witnessed by local resident. Creek channel improved considerably by dredging since 1916.

Remarks.--Records good except those for periods of fragmentary gage-height record, which are poor. Town of Statesville diverts about 1 cfs sewage effluent into basin above station.

Revisions (water years).--WSP 1112: 1944-46.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 1				Feb. 2 to Sept. 30			
0.7	30	4.0	380	0.6	23	2.0	132
1.0	50	5.0	538	1.0	43	3.0	242
1.5	93	7.0	930	1.5	83	4.0	380
2.0	140	9.0	1,380	Note.--Same as preceding table above 4.0 ft.			
3.0	246	11.0	2,120				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	49	*42	84	*1,900	479	74	59	45	83	30	24
2	70	45	41	60	1,170	195	110	59	44	54	30	23
3	57	43	40	56	342	142	86	58	59	50	30	23
4	54	42	39	56	206	120	79	57	71	47	33	24
5	50	40	39	66	182	104	743	55	235	44	*47	24
6	74	40	39	59	147	96	535	54	*283	42	30	28
7	57	38	38	57	132	91	219	52	142	40	28	30
8	48	42	38	55	115	118	203	52	102	38	26	31
9	44	48	38	53	196	*92	218	51	113	38	26	53
10	40	41	37	53	184	82	142	50	83	36	25	41
11	37	39	37	51	142	78	121	53	70	34	25	34
12	37	38	40	49	113	77	109	56	63	34	24	30
13	36	37	45	50	101	73	100	51	57	32	25	29
14	35	37	58	49	89	90	91	51	74	32	24	28
15	34	36	278	47	60	102	85	66	98	31	29	27
16	33	37	237	47	78	86	81	*62	58	34	f79	64
17	*33	145	113	46	72	78	79	52	52	32	35	*973
18	37	134	85	44	69	74	79	51	49	61	f86	513
19	35	78	71	*43	165	85	*79	56	49	63	59	230
20	35	64	65	46	188	75	77	68	48	43	47	190
21	42	59	62	46	110	70	73	51	46	37	38	120
22	64	56	109	55	92	131	76	51	63	34	34	77
23	60	51	294	160	84	96	83	52	70	34	32	208
24	49	49	*407	100	78	83	73	49	51	35	32	74
25	43	47	194	78	76	137	68	*48	144	34	30	57
26	42	46	120	70	136	117	65	49	*180	32	32	51
27	78	46	99	70	139	98	63	56	89	31	30	48
28	57	44	87	72	493	88	81	49	69	30	28	46
29	49	44	80	69	-	81	60	45	265	29	28	67
30	47	43	70	77	-----	77	60	48	83	29	*27	104
31	51	-----	66	762	-----	72	-----	48	-----	36	26	-----
Total	1,517	1,558	3,008	2,610	6,859	3,386	3,992	1,659	2,855	1,209	1,073	3,271
Mean	48.9	51.9	97.0	84.2	245	109	133	53.5	95.2	59.0	34.6	109
Cfsm	0.559	0.594	1.11	0.963	2.80	1.25	1.52	0.612	1.09	0.446	0.396	1.25
In.	0.65	0.66	1.28	1.11	2.92	1.44	1.70	0.71	1.21	0.51	0.46	1.39
Calendar year 1956: Max 1,390 Min 10 Mean 69.9 Cfsm 0.800 In. 10.90												
water year 1956-57: Max 1,900 Min 23 Mean 90.4 Cfsm 1.03 In. 14.04												

Peak discharge (base, 1,050 cfs).--Feb. 1 (6 p.m.) 2,070 cfs (10.94 ft); Apr. 5 (5 p.m.) 1,260 cfs (6.54 ft); Sept. 17 (6 p.m.) 1,180 cfs (8.21 ft).

* Discharge measurement made on this date.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

PEE DEE RIVER BASIN

169

Abbotts Creek at Lexington, N. C.

Location.--Lat 35°48'24", long 80°14'06", on right bank 200 ft. downstream from small tributary, 300 ft upstream from highway bridge, 0.6 mile downstream from bridge on U. S. Highway 64, 1½ miles southeast of Lexington, Davidson County, and 4.9 miles downstream from Rich Fork.

Drainage area.--174 sq mi.

Records available.--March 1940 to December 1957 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 622.55 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to July 28, 1949, at site 600 ft upstream at present datum.

Average discharge.--17 years, 158 cfs.

Extremes.--1956-57: Maximum discharge during water year, 7,420 cfs Feb. 1 (gage height, 17.14 ft); minimum, 6.8 cfs Sept. 4, 16 (gage height, 1.27 ft); minimum daily, 7.1 cfs Sept. 4.

1957: Maximum discharge during period October to December, 3,360 cfs Nov. 26 (gage height, 12.62 ft); minimum, 14 cfs Oct. 15 (gage height, 1.51 ft).

1940-57: Maximum discharge, 14,800 cfs Sept. 25, 1947 (gage height, 22.12 ft, site then in use, from floodmarks); minimum, 0.4 cfs Oct. 8, 1954 (gage height, 0.89 ft).

Remarks.--Records good except those for period of no gage-height record, which are poor. The towns of Lexington and Thomasville diverted an average of 3.1 cfs and 2.0 cfs, respectively, during the water year 1957 above station for water supply. City of High Point discharges about 3 cfs sewage effluent diverted from Deep River (Cape Fear River basin) into Rich Fork above station. Abbotts Creek Water Supply Lake at Lexington, N. C. completed in 1957. Storage began in August 1957. Usable storage, 6,460.5 acre-ft. Dead storage, 61.3 acre-ft. Records of chemical analyses for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 1433: 1950.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	67	*44	85	*6,510	1,520	102	85	35	196	15	13
2	60	55	42	74	3,670	627	136	80	31	152	17	9.3
3	49	46	40	64	1,220	271	115	50	44	148	16	7.5
4	45	44	40	64	479	204	98	50	232	138	36	7.1
5	45	39	37	90	348	165	1,210	46	292	154	82	8.2
6	50	39	39	90	355	145	2,340	42	*453	118	22	10
7	46	35	39	72	268	134	576	40	268	107	14	18
8	36	37	36	67	232	196	292	40	180	96	12	12
9	30	64	36	62	563	*173	1,050	36	162	89	10	15
10	30	71	34	64	518	129	523	34	162	74	9.1	22
11	24	49	32	56	311	111	224	32	124	52	8.9	*28
12	24	41	34	*52	204	107	180	48	111	25	12	19
13	24	36	36	55	170	98	155	44	96	13	8.9	12
14	24	*35	41	54	145	120	136	42	85	11	9.6	9.6
15	24	33	115	49	129	175	115	50	71	35	22	8.4
16	24	34	191	49	120	138	107	45	62	24	38	7.7
17	24	131	186	49	113	109	94	37	45	13	10	22
18	24	412	79	36	98	98	89	34	36	133	19	52
19	26	210	66	36	168	152	*92	35	33	148	14	30
20	33	118	58	42	436	155	90	42	100	100	11	18
21	39	90	56	56	218	107	85	52	89	72	10	16
22	107	94	267	60	150	258	79	33	282	54	9.1	16
23	89	79	849	255	131	399	89	31	677	*44	8.2	589
24	52	64	1,360	588	118	224	81	30	261	46	8.0	85
25	41	56	854	178	111	309	69	*34	491	35	16	32
26	35	55	268	129	162	329	61	53	*1,510	26	54	22
27	58	54	175	122	183	224	56	122	642	22	20	23
28	72	49	140	162	883	170	55	107	297	21	12	33
29	49	46	120	160	-	145	52	67	1,020	18	10	45
30	42	46	96	609	-----	127	72	52	407	16	9.3	158
31	55	-----	89	1,520	-----	113	-----	42	-----	15	13	-----
Total	1,359	2,236	5,499	4,845	18,009	7,210	8,423	1,515	8,298	2,185	558.1	1,547.8
Mean	43.8	74.3	177	156	643	233	281	48.9	277	70.5	18.0	44.9
Cfs/m	0.252	0.428	1.02	0.897	3.70	1.34	1.61	0.281	1.59	-	-	-
In.	0.29	0.48	1.18	1.04	3.85	1.54	1.80	0.32	1.77	-	-	-
Calendar year 1956: Max			2,600									
Water year 1956-57: Max			6,510									
				Min	2.4	Mean	128	Cfs/m	0.736	In.	10.01	
				Min	7.1		168	Cfs/m		In.		

Peak discharge (base, 2,400 cfs).--Feb. 1 (9:30 a.m.) 7,420 cfs (17.14 ft); Apr. 5 (10 p.m.) 2,840 cfs (11.58 ft).

* Discharge measurement made on this day.

Discharge, in cubic feet per second, 1957

Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.
1	113	29	311	11	16	20	241	21	17	92	224
2	98	26	202	12	16	17	165	22	16	60	158
3	52	21	162	13	20	16	127	23	17	897	115
4	35	18	287	14	18	22	118	24	24	1,050	102
5	27	*18	268	15	15	34	118	25	39	1,590	100
6	22	*19	175	16	16	41	111	26	24	3,020	357
7	20	19	*143	17	19	45	104	27	18	958	385
8	18	22	715	18	39	37	96	28	18	456	*220
9	17	31	1,020	19	45	288	92	29	17	518	al60
10	17	30	440	20	24	188	107	30	18	426	al20
								31	*23	-	al10
Total										878	10,060
Mean										28.3	335
Calendar year 1957: Max											
				Min	7.1	Mean	193				

Peak discharge (base, 2,400 cfs).--Nov. 26 (9 a.m.) 3,360 cfs (12.62 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for nearby stations.

PEE DEE RIVER BASIN

Yadkin River at High Rock, N. C.

Location.--Lat 35°35'46", long 80°13'59", on right bank 0.3 mile downstream from High Rock Dam, 0.6 mile west of High Rock, Davidson County, 1½ miles upstream from Lick Creek, and at mile 252 (revised).

Drainage area.--4,000 sq mi, approximately.

Records available.--January 1919 to November 1927, November 1941 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 558.68 ft above mean sea level, datum of 1929, and 590.00 ft above Carolina Aluminum Co. datum. January 1919 to November 1927 at datum 590.00 ft lower.

Average discharge.--23 years (1919-27, 1942-57), 4,507 cfs (adjusted for storage).

Extremes.--1919: Maximum discharge during the period January to September, 85,000 cfs, estimated (revised) July 21; minimum, 2,160 cfs Sept. 29 (gage height, 594.1 ft). 1956-57: Maximum discharge during water year, 39,300 cfs Apr. 6 (gage height, 11.44 ft); minimum, 10 cfs Aug. 12, Sept. 2; minimum daily, 19 cfs Sept. 8. 1919-27, 1941-57: Maximum discharge, that of July 21, 1919; minimum, 10 cfs Aug. 10, 1942, Nov. 20, 21, 1955, Aug. 12, Sept. 2, 1957; minimum daily, 11 cfs Nov. 20, 1955. Maximum stage known, 22.1 ft (present datum) in July 1916, from floodmarks, from records by Tallassee Power Co.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
562	1919	July 21, 1919	85,000	-
562	1920	Feb. 5, 1920	47,600	602.5
562	1921	Feb. 11, 1921	43,800	602.0
562	1923	Mar. 18, 1923	76,900	(†)
582	1924	Sept. 30, 1924	59,000	-
602	1925	Oct. 1, 1924	73,000	(†)

† Previously published gage height unreliable and should not be used.

* Estimated.

a Occurred at 12 p.m. Sept. 30, stage rising; maximum independent peak discharge during the water year, 37,200 cfs Jan. 18, 1924 (gage height, 601.1 ft).

Remarks.--Records good except those below 2,000 cfs, which are fair. Except for major floods, flow completely regulated by High Rock Lake since 1927 (usable capacity, 10,230,000 cu ft).

Revisions.--WSP 1433: Drainage area. Revised figures of discharge, in cubic feet per second, for water years 1919-24 and 1926-27, superseding those published in WSP 562, 582, 622, and 642, are given herein. Complete tables of daily discharge are given for January to September 1919, but only revised figures are given for other water years.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1920		1921-Con.		1922-Con.		1923-Con.		1926-Con.	
Feb. 25	7,000	Oct. 24	1,600	Dec. 26	2,700	July 23	1,900	Oct. 25	1,300
26	7,500	25	1,600	27	2,700	24	1,900	26	2,500
27	6,500	26	1,650	28	2,800	25	1,900	Nov. 1	1,750
July 1	3,000	27	1,650	30	3,500	26	1,900	10	2,100
2	2,900	28	1,650	31	3,100	27	1,800	11	3,000
3	2,900	29	1,650			28	1,800	12	2,300
4	3,200	30	1,650	1923		Oct. 1	1,900	16	5,000
5	2,900	Dec. 1	3,500	Jan. 2	13,000	2	1,800	17	15,000
6	2,700	2	3,100	4	6,200	3	1,800	Dec. 11	3,200
7	2,600	5	4,000	5	5,200	4	1,800	12	2,900
8	3,500	6	3,400	6	4,400	5	1,800	14	7,000
9	3,900	7	3,100	7	3,700	6	1,700	28	10,000
10	3,200	8	2,800	10	4,400	7	1,600	27	11,500
11	3,600	9	2,700	11	3,700	8	1,800	29	23,000
12	4,500	10	2,600	12	3,200	9	1,650	30	20,000
13	7,000	11	2,600	13	2,800	10	1,650		
14	5,500	12	2,600	30	6,800	11	1,650	1927	
15	3,800	14	2,500	31	6,000	12	1,650	Jan. 7	2,800
16	4,000	15	2,400	Feb. 1	6,400	13	1,650	8	2,800
17	4,800	16	2,500	2	5,900	14	1,550	9	2,700
18	4,500	21	3,200	3	5,260	15	1,550	10	3,000
19	5,800	22	2,800	4	4,800	16	1,550	11	2,700
Aug. 28	28,000	23	2,600	7	7,200	17	1,550	12	2,600
29	25,000	24	2,500	8	6,200	18	1,550	13	2,400
30	13,000	27	3,000	9	5,500	19	1,550	14	2,400
		28	2,700	10	5,400	20	2,000	15	3,700
1921		29	2,500	11	5,200	21	2,000	16	3,300
Feb. 11	43,000	30	2,500	12	5,000	22	1,900	17	2,900
12	32,300	31	2,400	13	5,000	23	1,800	18	2,800
Oct. 1	1,800			15	5,600	24	2,100	19	3,500
2	1,900	1922		16	5,000	25	2,700	20	3,100
3	2,000	July 16	18,000	17	4,300	26	2,500	21	2,700
4	2,000	Aug. 17	16,000	18	3,800	27	2,200	22	2,400
5	2,700	18	12,000	19	3,500	28	1,900	23	2,400
6	1,900	19	7,000	20	3,300	29	1,900	24	2,500
8	1,800	23	3,000	July 2	2,500	30	1,850	25	2,500
9	1,700	24	2,700	3	3,000	31	1,850	26	2,500
10	1,800	25	2,600	4	3,700			27	2,600
11	1,800	26	2,600	5	3,000	1924		28	2,600
12	1,700	Dec. 13	2,800	7	2,500	Sept. 28	8,000	29	2,600
13	1,600	14	2,500	8	2,400	29	49,000	30	3,200
16	1,600	15	2,500	9	2,400	30	50,000	31	3,500
17	1,750	18	5,500	10	2,200			Sept. 2	2,100
18	1,750	20	4,500	11	2,100	1926		3	2,300
19	1,700	21	3,600	13	2,500	July 16	3,860	10	1,900
20	1,700	22	3,200	14	2,400	Oct. 2	1,500	11	3,000
21	1,700	23	3,000	15	2,800	8	1,450	20	2,900
22	1,650	24	2,800	16	2,600	14	1,300	21	5,000
23	1,600	25	2,700	17	5,000	17	1,300		

Yadkin River at High Rock, N. C.--Continued

Revised figures of monthly discharge, in cubic feet per second, 1920-24, 1926-27

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
February 1920.....	31,000	3,560	6,710	1.68	1.81
July.....	8,210	2,290	4,050	1.01	1.17
August.....	28,000	2,160	7,700	1.92	2.22
Water year 1919-20.....	42,000	2,030	5,570	1.39	18.96
Calendar year 1920.....	42,000	2,030	6,230	1.56	21.22
February 1921.....	43,000	6,210	11,900	2.98	3.09
Water year 1920-21.....	43,000	1,390	5,990	1.50	20.33
October 1921.....	5,130	1,430	1,860	.465	.54
December.....	5,130	2,290	3,000	.750	.86
Calendar year 1921.....	43,000	1,390	5,150	1.29	17.46
July 1922.....	18,000	3,860	6,940	1.74	2.00
August.....	16,000	2,600	4,570	1.14	1.32
Water year 1921-22.....	28,400	1,430	5,870	1.47	19.93
December 1922.....	5,830	2,290	3,070	.768	.88
Calendar year 1922.....	28,400	1,780	5,810	1.45	19.71
January 1923.....	13,000	2,560	4,480	1.12	1.29
February.....	9,890	2,970	5,150	1.29	1.34
July.....	6,990	1,800	2,810	.702	.81
Water year 1922-23.....	65,200	1,660	4,640	1.16	15.75
October 1923.....	2,700	1,550	1,820	.455	.52
Calendar year 1923.....	65,200	1,550	4,710	1.18	15.99
September 1924.....	50,000	1,310	5,750	1.44	1.60
Water year 1923-24.....	50,000	1,310	5,010	1.25	17.04
Calendar year 1924.....	71,700	1,310	5,590	1.40	18.99
December 1925.....	-	-	12,060	.515	.59
Calendar year 1925.....	-	916	3,700	.925	12.54
January 1926.....	-	-	15,810	1.45	1.68
July.....	10,800	972	3,060	.765	.88
Water year 1925-26.....	-	972	3,360	.840	11.40
October 1926.....	2,500	940	1,220	.305	.35
November.....	15,000	1,070	2,990	.748	.84
December.....	23,000	1,790	5,050	1.26	1.45
Calendar year 1926.....	-	940	3,580	.895	12.14
January 1927.....	6,250	2,400	3,050	.762	.88
September.....	5,000	1,020	1,630	.408	.45
Water year 1926-27.....	29,800	940	3,480	.865	11.73

† Estimated or partly estimated on basis of records for nearby stations.

Discharge, in cubic feet per second, January to September 1919

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				5,500	6,000	9,890	5,000	11,000	5,500	5,500	5,800	4,170
2				7,000	5,800	15,500	5,000	18,000	5,000	4,500	5,970	4,170
3				40,000	5,200	14,000	5,000	15,000	4,800	4,000	5,130	5,410
4				50,000	5,200	11,200	5,000	9,500	5,800	3,900	4,480	2,830
5				30,000	5,500	9,050	6,400	6,990	4,600	3,800	4,170	2,690
6				13,000	5,200	22,000	5,800	6,210	4,800	3,700	4,020	2,690
7				9,000	5,000	16,000	5,400	9,000	4,700	3,700	3,860	2,690
8				7,390	4,700	10,800	5,200	10,000	4,600	4,400	3,710	2,690
9				6,990	4,500	25,000	4,800	15,000	4,400	3,800	3,580	2,690
10				6,210	4,500	42,000	4,800	13,000	4,800	3,800	3,260	2,560
11				5,830	4,500	20,400	4,800	11,000	4,800	3,600	3,260	2,560
12				5,470	4,500	10,300	10,000	8,630	4,800	3,600	3,410	2,560
13				5,470	4,500	8,630	13,900	7,790	4,800	3,400	15,000	2,690
14				5,130	10,300	7,790	7,590	11,000	4,800	3,400	6,590	2,690
15				5,130	11,600	7,390	6,750	12,000	4,800	3,600	5,470	2,560
16				5,130	8,630	6,990	5,970	9,500	4,800	4,800	5,830	2,560
17				4,800	6,590	6,990	8,440	7,790	4,800	8,210	5,470	2,420
18				6,210	5,830	7,390	8,000	6,590	4,480	9,000	5,130	2,420
19				9,470	5,470	7,390	5,970	6,590	4,480	25,000	4,480	2,420
20				7,790	5,130	7,390	5,600	6,210	4,480	68,000	4,170	2,290
21				6,210	5,130	6,590	5,230	7,500	4,480	74,000	3,860	2,420
22				5,470	8,210	6,210	5,230	13,000	5,000	55,000	3,580	2,290
23				5,830	12,600	5,470	5,230	9,000	4,500	44,000	3,580	2,420
24				10,300	14,000	5,130	5,970	7,000	4,500	25,000	3,580	2,560
25				10,300	9,470	5,130	5,970	6,590	12,000	10,300	3,260	2,560
26				15,500	13,000	4,800	4,800	11,000	17,000	7,390	3,120	2,560
27				21,500	14,000	4,800	4,480	12,000	13,000	5,830	2,690	2,420
28				16,000	9,470	7,000	4,480	11,500	9,000	5,970	2,830	2,290
29				9,500	-	8,000	4,480	9,000	8,000	5,230	2,830	2,290
30				8,000	-----	6,500	4,480	6,500	6,500	5,600	3,260	2,420
31				6,500	-----	5,600	-----	6,200	-----	5,230	4,020	-----
Total				350,830	202,330	331,330	179,770	300,090	179,020	415,260	139,120	79,990
Mean				11,300	2,62	3,26	5,990	9,680	5,970	13,400	4,490	2,670
Cfsm				7,230	1.81	1.88	1.50	2.42	1.49	3.35	1.12	0.668
In.				10,700	2.68	3.08	1.67	2.79	1.66	3.86	1.29	0.74
Water year 1918-19: Max	-			Min	-		Mean	-	Cfsm	-	In.	-
Calendar year 1919: Max	-	74,000		Min	-	2,290	Mean	-	6,930	-	1.73	In. 23.50

Yadkin River at High Rock, N. C.--Continued

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.0	19	3.0	390	6.0	7,780
2.1	28	3.5	940	8.0	17,800
2.2	42	4.0	1,710	11.0	36,500
2.4	83	4.5	2,730		
2.7	189	5.0	4,130		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,660	5,580	2,890	4,620	6,590	20,000	4,790	4,290	3,150	5,490	3,590	21
2	3,630	3,390	53	5,120	8,640	15,400	4,790	4,290	1,290	4,450	3,600	3,130
3	3,840	3,040	3,210	4,100	12,300	8,890	4,790	4,290	2,970	3,340	3,680	3,150
4	3,870	3,400	3,460	4,970	12,200	6,970	4,450	4,030	4,500	2,120	35	2,890
5	2,780	3,970	3,270	4,290	7,880	6,780	19,200	3,780	2,970	4,500	1,900	2,670
6	2,040	3,840	3,170	3,130	6,590	6,210	33,400	3,940	4,100	3,400	1,780	3,140
7	39	3,840	3,170	5,230	5,310	4,820	36,200	4,130	2,730	3,310	3,000	2,640
8	2,830	4,030	3,390	6,100	5,850	4,030	20,800	3,940	3,830	3,370	3,290	19
9	2,890	3,970	*3,020	4,880	7,020	4,450	17,400	4,070	4,600	4,900	3,010	3,390
10	2,890	3,630	4,620	5,270	8,000	4,450	15,000	4,290	4,800	3,150	2,510	3,450
11	2,940	2,920	3,730	4,640	7,370	4,290	9,100	3,430	4,610	3,600	23	3,190
12	2,940	3,680	3,210	1,680	5,670	4,620	7,780	26	4,500	3,690	3,210	3,260
13	42	3,970	3,690	45	5,850	4,290	5,850	3,100	4,400	3,190	3,410	3,110
14	25	4,030	3,750	3,660	5,490	4,290	4,360	4,700	4,290	32	3,400	2,930
15	3,930	4,070	3,200	2,920	4,620	4,450	5,130	3,440	4,900	*2,840	3,320	33
16	3,950	4,030	1,680	2,860	3,970	4,620	4,620	3,130	4,500	2,810	3,010	2,920
17	4,060	3,540	3,460	3,300	3,970	4,620	4,620	4,000	4,900	2,970	2,650	2,840
18	4,030	49	3,840	3,430	4,790	4,620	4,620	4,040	4,000	2,540	30	3,910
19	4,170	2,820	3,980	3,380	4,030	4,620	4,620	28	4,900	2,300	2,790	20,400
20	60	3,200	3,980	3,750	4,290	4,290	4,290	3,270	4,370	2,550	3,060	10,500
21	24	3,400	3,650	3,880	4,790	4,620	4,290	4,290	4,600	4,600	42	3,170
22	3,040	3,310	2,970	2,360	4,290	4,130	*4,290	3,480	4,370	2,850	3,200	6,610
23	3,250	3,370	2,120	6,050	4,290	4,450	4,290	3,480	4,020	3,160	3,210	9,280
24	3,200	3,670	1,260	4,500	4,960	4,290	4,450	3,600	4,780	2,860	2,660	8,200
25	3,980	215	3,490	5,730	5,130	4,290	4,450	3,170	4,760	2,640	1,090	6,210
26	4,080	3,360	3,450	6,780	3,690	4,620	4,450	34	4,290	3,040	3,780	4,620
27	53	3,500	3,870	5,850	3,810	4,620	4,290	3,230	7,580	3,110	3,130	4,160
28	22	3,830	4,100	4,920	11,100	4,450	4,290	3,070	7,370	39	2,960	2,730
29	3,350	3,450	4,290	3,170	-	4,290	4,290	3,430	7,370	3,440	3,170	3,370
30	3,430	3,730	3,480	5,090	-----	4,450	4,290	3,910	6,970	3,800	3,100	3,660
31	4,140	-----	4,290	6,590	-----	4,620	-----	3,840	-----	3,310	2,480	-----
Total	83,185	102,814	101,963	132,275	172,490	175,540	259,190	104,058	153,730	90,843	83,248	134,013
Mean	2,693	3,427	3,289	4,267	6,160	5,663	8,640	3,357	5,124	2,930	2,685	4,467
(†)	-611	-1,231	+669	-1,321	+3,139	-173	+25	-653	+775	-418	-970	+1,434

Adjusted for change in reservoir contents

	Mean	2,072	2,195	3,958	2,946	9,299	5,490	8,665	2,704	5,899	2,512	1,715	5,901
Cfm	0.518	0.549	0.990	0.736	2.32	1.37	2.17	0.676	1.47	0.628	0.429	1.48	
In.	0.60	0.61	1.14	0.85	2.42	1.58	2.42	0.78	1.64	0.72	0.49	1.65	

Observed

Adjusted

Calendar year 1956:	Max	7,680	Min	18	Mean	2,785	Mean	2,953	Cfm	0.738	In.	10.04
Water year 1956-57:	Max	36,200	Min	19	Mean	4,365	Mean	4,393	Cfm	1.10	In.	14.90

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in High Rock Lake; furnished by Carolina Aluminum Company.

a No gage-height record; discharge estimated from powerplant records.

Uwharrie River near Eldorado, N. C.

Location.--Lat 35°25'30", long 80°01'00", on right bank 300 ft downstream from State Highway 109, 1 mile upstream from McLeans Creek, and 3 miles south of Eldorado, Montgomery County.

Drainage area.--347 sq mi.

Records available.--October 1938 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 297 ft (by barometer).

Average discharge.--19 years, 312 cfs.

Extremes.--Maximum discharge during year, 6,560 cfs Feb. 2 (gage height, 11.40 ft); minimum, 5.7 cfs Sept. 3 (gage height, 0.69 ft); minimum daily, 7.0 cfs Sept. 3.

1938-57: Maximum discharge, 23,300 cfs Sept. 18, 1945 (gage height, 26.22 ft, from floodmark), from rating curve extended above 13,000 cfs by logarithmic plotting; minimum, 0.5 cfs Sept. 21, Oct. 13, 14, 1941; minimum daily, 0.5 cfs Oct. 13, 1941.

Flood in August 1928 reached a stage of 22.2 ft, from floodmark established by local resident (discharge, 17,900 cfs).

Remarks.--Records good. Marked diurnal fluctuation and some regulation for short periods at low flow caused by gristmill above station. Town of Asheboro diverted an average of 1.6 cfs during water year 1957 from the basin above station for water supply. Sewage is discharged into Deep River (Cape Fear River basin). Records of chemical analyses for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 892: 1939.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.7	5.9	2.0	187
.9	11	2.5	343
1.1	22	3.0	555
1.3	41	5.0	1,720
1.6	91	11.0	6,200

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	70	64	142	4,670	3,520	244	171	63	127	27	18
2	97	77	56	129	5,690	1,180	247	154	58	80	21	12
3	73	75	58	116	1,540	635	244	116	63	59	29	7.0
4	68	64	58	107	858	466	218	120	144	53	64	16
5	82	64	54	122	650	365	1,270	116	127	39	182	*12
6	384	61	56	144	650	312	4,700	109	406	41	121	17
7	358	56	53	137	490	285	1,170	99	587	42	50	20
8	196	54	56	118	438	282	519	*91	598	37	31	13
9	116	77	52	109	641	336	555	91	959	34	25	18
10	86	144	53	109	1,190	278	430	87	398	29	23	28
11	70	116	53	101	700	232	332	109	212	28	23	30
12	61	89	52	93	*461	215	292	171	147	23	13	93
13	56	77	48	87	343	204	269	142	113	22	18	44
14	48	71	54	93	295	201	241	105	91	20	17	28
15	48	59	339	91	253	292	221	95	99	18	14	22
16	*46	58	448	86	238	308	207	129	68	71	14	17
17	40	61	241	86	224	238	195	101	70	94	13	20
18	44	168	163	84	201	209	190	89	56	577	11	35
19	46	265	122	75	217	418	187	84	56	688	14	128
20	48	150	103	71	490	555	182	155	48	153	18	63
21	53	113	93	77	380	326	171	125	46	75	20	38
22	116	99	99	82	272	386	163	95	44	52	15	30
23	266	101	1,180	91	232	782	861	80	87	40	11	76
24	147	81	2,660	111	212	506	472	77	118	468	10	337
25	101	77	1,490	120	204	855	238	78	64	209	56	91
26	77	78	502	103	410	979	187	73	112	80	25	52
27	71	73	322	97	645	582	163	93	188	50	50	37
28	64	70	250	103	2,010	425	144	86	97	37	41	30
29	70	68	221	132	-	340	132	75	425	33	28	34
30	64	68	187	614	-----	301	165	66	412	29	19	60
31	71	---	160	753	-----	266	-----	84	-----	27	17	-----
Total	3,201	2,694	9,347	4,383	24,584	16,279	14,609	3,226	5,956	3,335	1,000	1,426.0
Mean	103	89.8	302	141	878	525	487	104	199	108	32.3	47.5
Cfs/m	0.297	0.259	0.870	0.406	2.53	1.51	1.40	0.300	0.573	0.311	0.093	0.137
In.	0.34	0.29	1.00	0.47	2.63	1.74	1.57	0.35	0.64	0.36	0.11	0.15

Calendar year 1956: Max 5,670 Min 3.1 Mean 252 Cfs/m 0.726 In. 9.88
 Water year 1956-57: Max 5,690 Min 7.0 Mean 247 Cfs/m 0.712 In. 9.65

Peak discharge (base, 4,600 cfs).--Feb. 2 (6 a.m.) 6,560 cfs (11.40 ft); Apr. 6 (4 p.m.) 5,230 cfs (9.90 ft).

* Discharge measurement made on this day.

Big Bear Creek near Richfield, N. C.

Location.--Lat 35°20'00", long 80°20'10", 200 ft upstream from highway bridge, 300 ft downstream from Little Creek, and 10 miles southwest of Richfield, Stanly County.

Drainage area.--56.3 sq mi.

Records available.--May 1954 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 426.62 ft above mean sea level, unadjusted.

Extremes.--Maximum discharge during year, 7,460 cfs June 8 (gage height, 13.70 ft), from rating curve extended above 2,500 cfs on basis of computation of peak flow over dam 1 mile downstream; minimum, 0.1 cfs Sept. 4-8.
1954-57: Maximum discharge, that of June 8, 1957; no flow Sept. 12 to Oct. 14, 1954 (corrected).

Revisions.--Figures of maximum discharge for the water years 1955 and 1956 have been revised to 4,880 cfs Feb. 6, 1955 (gage height, 11.90 ft) and 4,200 cfs Mar. 16, 1956 (gage height, 11.30 ft), superseding those published in WSP 1383 and 1433, respectively.

Remarks.--Records good except those below 3 cfs and above 1,000 cfs, which are fair, and those for period of no gage-height record, which are poor.

Revisions.--Revised figures of discharge, in cubic feet per second, for high-water period in water year 1955, superseding those published in WSP 1383, are given herewith:

Feb. 6, 1955..... 1,790

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
February 1955.....	4,061	1,790	19	146	2.59	2.70
Water year 1954-55.....	-	1,940	0	49.1	.872	11.86
Calendar year 1955.....	-	1,940	.4	46.4	.824	11.20

Revised peak discharge.--1954-55: Feb. 6 (7 p.m.) 4,880 cfs (11.90 ft); Apr. 14 (8 a.m.) 4,100 cfs (11.20 ft); July 19 (11 p.m.) 3,700 cfs (10.82 ft).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.65	0.1	1.0	3.0	1.6	36	4.0	468
.7	.2	1.1	5.5	2.0	75	6.0	1,020
.8	.5	1.2	9.0	2.5	156	8.0	1,620
.9	1.4	1.4	20	3.0	252	9.0	2,320

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	9.4	5.0	18	607	349	26	6.4	3.6	18	a0.6	0.2
2	15	8.5	4.7	16	340	152	31	6.1	3.0	12	a1.2	.2
3	11	7.7	4.7	13	160	91	24	6.1	2.6	9.4	a1.0	.2
4	76	7.0	4.4	13	126	65	20	6.1	115	*7.3	a1.5	.1
5	55	6.4	4.1	23	197	52	1,990	6.1	71	7.3	a1.2	.1
6	98	6.1	4.1	20	205	45	301	5.5	531	13	a3	.1
7	71	6.1	*4.1	18	175	40	116	5.0	212	7.0	a1.0	.1
8	32	6.1	3.6	15	156	50	74	4.4	*862	5.3	a.6	.1
9	21	9.4	3.6	13	246	41	56	4.1	764	4.7	a.4	25
10	15	12	4.7	13	217	30	42	3.6	238	3.9	a.4	14
11	11	8.5	3.6	11	138	26	34	15	79	3.4	a.3	12
12	9.0	7.3	3.4	9.6	79	24	30	15	49	3.0	a.3	3.1
13	7.3	6.7	3.4	10	61	21	25	8.1	80	2.6	*.3	1.2
14	7.0	*6.1	4.1	9.8	50	21	22	7.0	259	2.5	.3	.6
15	5.6	5.5	165	9.0	40	26	19	12	46	2.3	.4	.5
16	*5.0	5.3	46	9.0	38	26	18	7.3	28	2.3	.4	2.7
17	2.4	5.3	26	8.5	33	20	18	5.8	96	2.0	.3	10
18	5.0	9.0	19	7.7	26	18	16	5.3	153	2.3	.2	100
19	5.3	9.8	15	7.0	59	*81	19	6.5	99	2.6	.2	11
20	5.5	7.7	12	6.7	105	51	17	42	102	2.1	.3	5.8
21	5.8	7.0	11	7.0	54	33	14	11	36	1.7	.3	3.6
22	74	7.0	55	7.7	40	153	*13	6.4	26	1.4	.2	2.5
23	36	7.3	258	11	33	91	60	5.3	20	1.2	.2	3.2
24	23	6.4	583	11	29	57	23	4.4	16	1.7	.2	1.8
25	17	6.1	149	*9.4	26	312	15	*22	75	*1.3	.6	1.3
26	13	6.1	67	9.4	104	151	11	6.1	42	a1.1	.5	1.2
27	11	6.1	48	11	169	84	9.8	7.0	24	a1.0	.3	1.0
28	10	5.5	37	13	1,090	57	6.1	5.0	53	a1.0	*.3	1.0
29	8.5	5.5	31	24	-	45	7.7	3.9	78	a.9	.2	2.2
30	6.1	5.3	24	169	-	36	6.7	3.6	26	a.8	.2	10
31	8.5	-	20	151	-	29	-	4.4	-	a.6	.2	-
Total	696.2	212.2	1,583.5	674.0	4,603	2,279	3,054.3	258.5	4,187.2	125.7	41.4	214.8
Mean	22.5	7.07	51.1	21.7	164	73.5	102	8.34	140	4.05	1.34	7.16
Cfsm	0.400	0.126	0.908	0.385	2.91	1.31	1.81	0.148	2.49	0.072	0.024	0.127
In.	0.46	0.184	1.05	0.45	3.04	1.51	2.02	0.17	2.77	0.08	0.03	0.14
Calendar year 1956: Max	1,750											
Water year 1956-57: Max	1,960											
Calendar year 1956: Min	0.3											
Water year 1956-57: Min	0.1											
Calendar year 1956: Mean	44.9											
Water year 1956-57: Mean	49.1											
Calendar year 1956: Cfsm	0.798											
Water year 1956-57: Cfsm	0.872											
Calendar year 1956: In.	10.87											
Water year 1956-57: In.	11.86											

Peak discharge (base, 1,600 cfs).--Feb. 28 (2 a.m.) 2,490 cfs (9.32 ft); Apr. 5 (12 m.) 6,950 cfs (13.37 ft); June 6 (6:30 p.m.) 1,620 cfs (8.05 ft); June 8 (10 p.m.) 7,460 cfs (13.70 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for stations on nearby streams.

Rocky River near Norwood, N. C.

Location.--Lat 35°09'00", long 80°10'30", on left bank 1,000 ft downstream from Lanes Creek, $\frac{1}{2}$ miles upstream from highway bridge, and 6 miles southwest of Norwood, Stanly County.

Drainage area.--1,370 sq mi, approximately.

Records available.--October 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 212.91 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--28 years, 1,223 cfs.

Extremes.--Maximum discharge during year, 23,600 cfs Apr. 5 (gage height, 17.28 ft); minimum, 32 cfs Sept. 6 (gage height, 0.13 ft).

1929-57: Maximum discharge, 105,000 cfs (revised) Sept. 18, 1945 (gage height, 46.37 ft, from floodmark), from rating curve extended above 70,000 cfs by logarithmic plotting; minimum, 17 cfs Oct. 8, 1954 (gage height, 0.00 ft).

Flood in August 1908 reached a gage of 35 ft, from information by local residents.

Revisions.--The maximum discharge for the water year 1945 has been revised to 105,000 cfs Sept. 18, 1945 (gage height, 46.37 ft, from floodmark), superseding figure published in WSP 1032.

Remarks.--Records good. Records of channel analyses and water temperatures for water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 822: Drainage area, WSP 852: 1937. WSP 1052: 1936(M).

Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1935 and 1945, superseding those published in WSP 762 and 1032, are given herewith:

July 22, 1935..... 1,150
Sept. 18, 1945..... 85,600

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
July 1935.....	20,162	2,730	83	650	0.474	0.55
Water year 1934-35.....	459,535	22,900	70	1,259	.919	12.47
Calendar year 1935.....	414,877	22,900	70	1,137	.850	11.26
September 1945.....	247,867	85,600	84	8,262	6.05	6.73
Water year 1944-45.....	590,010	85,600	63	1,616	1.18	16.02
Calendar year 1945.....	597,391	85,600	63	1,637	1.19	16.21

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.1	28	2.0	760
0.3	59	2.5	1,150
.6	127	3.0	1,690
1.0	248	8.0	7,900
1.5	456	13.0	15,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	554	186	168	375	8,150	13,900	670	224	351	323	52	51
2	384	198	163	*335	9,440	5,040	638	234	245	261	61	44
3	307	195	151	307	4,660	2,190	651	322	195	174	61	45
4	270	183	143	292	2,190	1,460	583	307	1,620	151	71	*47
5	477	168	149	*323	1,820	1,160	*7,060	350	675	140	93	36
6	431	154	151	411	3,300	1,040	15,200	296	1,780	306	168	34
7	1,180	151	151	393	2,260	940	4,430	241	4,270	468	157	52
8	614	160	149	346	2,260	932	1,460	212	1,240	231	97	51
9	*358	174	146	323	4,330	1,030	1,400	192	12,700	157	71	54
10	273	202	140	304	3,410	844	1,400	177	5,140	130	61	205
11	228	238	138	292	3,180	684	872	261	1,800	120	59	296
12	198	195	138	273	1,690	619	746	1,450	1,020	112	54	245
13	183	168	140	252	1,120	565	664	744	718	102	47	221
14	174	160	143	249	908	543	585	554	2,250	97	41	132
15	168	157	1,020	241	767	658	494	650	781	86	41	110
16	154	151	1,120	234	677	781	446	1,610	485	75	229	117
17	143	154	548	231	632	638	421	683	411	138	146	107
18	146	171	384	228	565	543	406	398	2,180	183	100	950
19	151	724	311	214	560	1,500	472	311	1,000	171	86	548
20	160	397	270	195	2,050	2,220	746	754	935	151	77	284
21	195	288	245	192	1,460	1,040	543	846	711	122	114	195
22	342	248	245	211	895	2,100	426	456	397	100	95	174
23	908	234	1,610	231	711	3,370	711	311	300	79	77	171
24	521	221	8,290	264	613	1,570	461	262	238	*75	67	149
25	339	198	5,140	342	560	5,570	375	666	208	90	77	278
26	262	183	1,880	358	1,060	5,160	319	655	445	93	77	180
27	228	*171	956	532	3,800	2,500	288	346	292	88	61	135
28	211	174	718	536	9,200	1,520	262	236	241	75	51	120
29	211	171	619	499	-	1,100	241	277	449	65	52	135
30	192	171	526	1,950	-----	900	224	221	436	56	56	151
31	183	-----	431	2,820	-----	767	-----	248	-----	52	54	-----
Total	10,145	6,345	24,363	13,774	72,266	62,884	43,192	14,544	43,491	4,441	2,553	5,317
Mean	327	212	768	444	2,581	2,029	1,440	469	1,450	143	82.4	177
Cfsm	0.259	0.155	0.574	0.324	1.88	1.48	1.05	0.342	1.06	0.104	0.060	0.129
In.	0.28	0.17	0.66	0.37	1.96	1.71	1.17	0.39	1.18	0.12	0.07	0.14
Calendar year 1956:	Max 25,900			Min 44			Mean 970	Cfsm 0.708	In. 9.65			
Water year 1956-57:	Max 15,200			Min 34			Mean 831	Cfsm 0.607	In. 8.22			

Peak discharge (base, 16,000 cfs).--Feb. 28 (10:30 p.m.) 21,600 cfs (16.28 ft); Apr. 5 (10:30 a.m.) 23,600 cfs (17.28 ft); June 9 (6:30 a.m.) 18,400 cfs (14.80 ft).

* Discharge measurement made on this day.

Brown Creek near Polkton, N. C.

Location.--Lat 35°02'10", long 80°08'40", on left bank 100 ft downstream from site of Medley's mill, 400 ft downstream from bridge on State Highway 742, 3½ miles downstream from Little Brown Creek, and 4 miles northeast of Polkton, Anson County.

Drainage area.--110 sq mi.

Records available.--October 1937 to September 1957.

Gage.--Water-stage recorder and sharp-crested weir. Altitude of gage is 216 ft (by barometer).

Average discharge.--20 years, 78.3 cfs.

Extremes.--Maximum discharge during year, 1,050 cfs June 10 (gage height, 9.44 ft); no flow for several days in July, August, and September.
1937-57: Maximum discharge, 17,300 cfs Sept. 18, 1945 (gage height, 17.68 ft, from floodmark), from rating curve extended above 3,000 cfs by logarithmic plotting; no flow for several days of most years.

Flood in August 1908 reached a stage of 16.4 ft, from floodmark, witnessed by local resident (discharge, 12,500 cfs); July 1916, 15.7 ft (discharge, 10,400 cfs); September 1928, about 15 ft (discharge, 8,500 cfs).

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
852	1938	July 27, 1938	1,870	10.63
872	1939	July 21, 1939	3,960	12.50
892	1940	Aug. 14, 1940	492	6.17
922	1941	July 11, 1941	2,880	11.63
952	1942	May 23, 1942	1,950	110.71

† From observed range in stage.

Remarks.--Records good above 5 cfs and fair below.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water years 1938-39, 1941-42, superseding those published in WSP 852, 872, 922, and 952, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1938		1939-Con.		1941-Con.		1942-Con.	
July 26	1,510	Mar. 7	454	Apr. 5	1,150	Mar. 6	536
27	1,560	July 5	42	6	1,030	8	268
		6	646	7	741	9	741
1939		20	211	8	425	10	763
Mar. 1	1,320	21	2,830			11	763
2	1,150	22	2,140	1942		12	448
3	1,190	23	849	Mar. 2	319	21	344
4	839	24	302	3	1,110	22	868
5	677			4	1,190	23	929
6	462	1941		5	929	24	686
		Apr. 4	381				

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
July 1938.....	5,907.92	1,560	0.8	191	1.74	2.00
Water year 1937-38.....	17,000.48	1,560	.05	46.6	.424	5.75
Calendar year 1938.....	16,824.50	1,560	0	46.1	.419	5.69
March 1939.....	8,096	1,320	22	261	2.37	2.74
July.....	8,215.11	2,830	.46	265	2.41	2.78
Water year 1938-39.....	36,161.12	2,830	0	99.1	.901	12.24
Calendar year 1939.....	35,575.84	2,830	0	97.5	.886	12.04
April 1941.....	6,054	1,150	12	202	1.84	2.05
Water year 1940-41.....	26,900.24	1,780	.20	73.7	.670	9.08
Calendar year 1941.....	25,092.28	1,780	0	68.7	.625	8.47
March 1942.....	12,519	1,190	54	404	3.67	4.23
Water year 1941-42.....	25,623.84	1,690	0	70.2	.638	8.65
Calendar year 1942.....	27,566.82	1,690	.3	75.5	.686	9.29

Revised peak discharge.--1940-41: Apr. 5 (4 p.m.) 1,470 cfs; July 7 (7 a.m.) 547 cfs; July 11 (6 a.m.) 2,880 cfs; July 17 (1 p.m.) 1,070 cfs.
1941-42: Mar. 3 (12:30 p.m.) 1,320 cfs; Mar. 4 (5 p.m.) 1,270 cfs; Mar. 22 (7:30 a.m.) 961 cfs; Mar. 23 (3 p.m.) 961 cfs; May 23, 1,950 cfs.

Brown Creek near Polkton, N. C.--Continued

 Rating table, water year 1956-57 (gage height, in feet, and discharge,
in cubic feet per second)

0.8	0	2.0	36
.9	.42	2.5	101
1.0	1.14	3.0	151
1.1	2.0	6.0	409
1.3	4.2	8.0	680
1.5	7.2	9.0	920
1.7	14	10.0	1,320

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	1.56	0.55	11	196	525	39	3.6	11	5.4	0	0.01
2	8.3	1.14	.48	8.8	206	453	34	3.9	8.3	.07	.07	0
3	5.1	.98	.48	7.2	194	472	30	5.3	5.9	.01	*0	0
4	3.5	.83	.55	6.7	186	244	26	6.3	4.3	.16	0	0
5	2.4	.76	.69	6.8	91	101	32	13	3.5	1.38	.11	0
6	1.56	.62	1.14	7.7	70	81	71	10	3.5	3.5	.01	0
7	1.14	.62	.98	7.7	54	81	44	8.3	4.8	3.6	0	0
8	.76	.76	.98	8.0	46	82	32	5.6	22	5.9	0	0
9	.55	.90	.90	7.7	64	78	108	3.9	624	5.0	0	.01
10	.42	.69	.76	6.8	65	68	120	1.83	955	2.4	0	.07
11	.31	.55	.69	6.1	59	50	175	136	650	1.30	0	1.98
12	.26	.76	.62	5.2	45	39	126	552	338	.76	0	1.69
13	.31	.98	.55	4.8	34	32	51	460	71	.48	0	.83
14	.26	.90	.55	4.4	26	29	34	595	112	.31	.14	.42
15	.26	.90	1.83	3.9	21	34	26	366	39	.21	.01	.26
16	.26	1.06	.26	3.7	18	51	21	96	21	.16	0	.37
17	.21	.98	.22	3.5	17	50	18	43	12	.11	0	.26
18	.26	.98	.19	3.2	14	38	16	27	8.6	2.5	.84	.42
19	.21	.76	.12	2.9	15	207	17	19	6.7	.76	4.6	.36
20	.26	.62	7.7	2.6	27	163	19	51	5.4	.21	2.0	.36
21	.26	.62	5.8	2.5	22	146	16	38	9.4	.11	.42	.55
22	.73	.69	4.7	2.6	19	205	13	23	19	.07	.16	.90
23	2.6	.62	7.2	3.1	16	206	13	14	9.9	.01	.04	.85
24	8.5	.62	.62	3.9	13	191	11	10	6.3	.07	.01	.55
25	13	.55	.77	6.3	12	381	8.6	14	4.0	.07	7.1	.31
26	8.6	.62	58	24	229	388	7.5	50	3.6	.04	5.4	.21
27	5.9	.42	52	46	268	377	6.5	23	7.2	.01	1.47	.16
28	4.2	.42	31	62	324	393	5.4	13	6.7	.01	.42	.16
29	3.0	.42	20	52	-	188	4.5	8.0	7.2	0	.21	1.28
30	2.3	.55	17	110	-----	75	4.0	7.2	5.0	0	.07	2.6
31	1.83	---	12	107	-----	51	-----	13	-----	0	.04	-----
Total	91.25	22.88	445.15	538.1	2,331	5,479	1,128.5	2,637.92	2,984.3	47.17	23.29	14.59
Mean	2.94	0.763	14.4	17.4	83.2	177	37.6	85.1	99.5	1.52	0.751	0.486
Cfsm	0.027	0.007	0.131	0.158	0.756	1.61	0.342	0.774	0.905	0.014	0.007	0.004
In.	0.03	0.008	0.15	0.18	0.79	1.85	0.38	0.89	1.01	0.02	0.008	0.005

Calendar year 1956: Max 1,590 Min 0 Mean 60.0 Cfsm 0.545 In. 7.40

Water year 1956-57: Max 955 Min 0 Mean 43.1 Cfsm 0.392 In. 5.32

Peak discharge (base, 810 cfs).--June 10 (3 a.m.) 1,050 cfs (9.44 ft).

* Observation of no flow made on this day.

PEE DEE RIVER BASIN

Little River near Star, N. C.

Location.--Lat 35°23', long 79°50', on left bank 12 ft downstream from highway bridge, a quarter of a mile upstream from Norfolk Southern Railway bridge, 0.3 mile downstream from West Fork Little River, and 3 miles west of Star, Montgomery County.

Drainage area.--97.6 sq mi.

Records available.--April 1954 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 409.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum discharge during year, 2,650 cfs Feb. 28 (gage height, 7.87 ft); minimum, 4.4 cfs Aug. 24 (gage height, 0.99 ft).
1954-57: Maximum discharge, 10,400 cfs Oct. 15, 1954 (gage height, 16.46 ft), from rating curve extended above 6,500 cfs by logarithmic plotting; minimum, 0.3 cfs Oct. 6, 9-14, 1954.

Flood in September 1945 reached a stage of about 20 ft, from information by local resident.

Remarks.--Records fair except those for period of no gage-height record, which are poor.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 2

Dec. 3 to Sept. 30

1.4	21	1.0	4.6	2.5	206
1.5	29	1.1	7.5	3.0	340
1.7	51	1.4	22	4.0	670
		1.7	51	6.0	1,550
		2.0	96		

Note.--Same as following table above 1.7 ft.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	41	33	*55	949	1,010	81	51	31	31	9.7	9.7
2	30	39	33	51	646	255	88	48	28	24	10	9.0
3	26	35	33	49	225	159	82	47	31	21	9.0	8.6
4	36	33	32	50	182	126	76	49	117	20	13	8.2
5	92	31	31	*60	187	111	234	51	94	19	45	9.0
6	499	30	31	64	228	100	456	47	163	17	28	9.4
7	285	29	*31	60	143	96	128	43	301	18	16	11
8	76	30	31	55	132	113	100	*40	141	17	13	9.4
9	47	53	31	52	199	115	96	39	776	15	11	15
10	38	70	32	51	213	93	84	38	249	14	9.4	18
11	33	46	31	49	157	82	78	61	102	12	8.6	14
12	30	37	31	48	107	79	76	138	72	11	7.5	13
13	29	33	31	48	*93	76	74	68	58	11	6.9	11
14	28	30	33	49	84	78	72	49	49	10	6.0	9.4
15	27	28	396	47	78	113	68	43	43	13	6.0	8.2
16	*26	27	760	47	74	114	66	50	40	54	6.6	8.2
17	27	29	134	46	74	82	66	44	*56	40	6.6	14
18	31	32	81	46	70	74	66	40	35	343	6.3	80
19	30	32	61	45	90	257	66	39	33	50	13	42
20	35	31	55	44	296	175	67	43	31	30	9.4	22
21	37	30	51	43	120	104	63	44	29	22	a7	17
22	255	31	58	46	88	158	60	37	28	19	a6	14
23	*134	32	397	51	79	216	155	34	26	17	a5.2	16
24	61	29	725	50	73	126	104	32	25	28	a4.6	20
25	46	27	285	48	72	252	68	40	24	36	a450	20
26	39	27	111	47	654	213	59	99	47	22	a95	15
27	37	*28	82	51	386	138	55	62	60	18	a35	12
28	36	27	70	54	1,380	109	52	56	41	15	a22	10
29	34	27	68	53	---	*96	50	38	38	*14	*15	33
30	34	34	84	31.7	---	89	49	32	44	12	13	234
31	37	---	56	173	---	84	---	33	---	11	11	---
Total	2,212	1,008	3,898	1,959	7,079	4,893	2,839	1,535	2,792	984	904.8	720.1
Mean	71.4	33.6	126	63.2	253	158	94.6	49.5	93.1	31.7	29.2	24.0
Cfs/m	0.732	0.344	1.29	0.648	2.59	1.62	0.969	0.507	0.954	0.325	0.299	0.246
In.	0.84	0.38	1.49	0.75	2.70	1.86	1.08	0.58	1.06	0.37	0.34	0.27

Calendar year 1956: Max 2,410 Min 4.6

Water year 1956-57: Max 1,380 Min 4.6

Mean 91.3

Mean 84.4

Cfs/m 0.935

Cfs/m 0.865

In. 12.74

In. 11.72

Peak discharge (base, 2,000 cfs).--Dec. 15 (11:30 p.m.) 2,270 cfs (7.28 ft); Feb. 28 (7 p.m.) 2,650 cfs (7.87 ft); June 9 (2 a.m.) 2,090 cfs (6.98 ft).

* Discharge measurement made on this day.

* No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for Bear Creek at Robbins.

Pee Dee River near Rockingham, N. C.--Continued

Discharge, in cubic feet per second, water year October 1906 to September 1907

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,600	5,930	5,580	15,000	4,810	10,800	4,920	7,120	12,800	13,900	4,310	2,580
2	7,480	5,820	5,360	25,500	5,020	10,800	7,480	6,400	39,100	7,500	3,900	2,210
3	7,480	5,700	5,360	14,200	5,020	13,500	6,640	6,400	34,000	6,800	3,700	2,210
4	11,100	5,700	5,470	10,500	5,360	12,500	5,700	8,220	20,600	7,120	7,120	3,120
5	16,600	5,470	5,140	8,480	9,600	9,900	4,810	7,980	11,400	6,520	4,100	4,920
6	12,800	5,580	5,140	7,720	10,200	7,720	5,240	7,000	8,100	5,140	3,700	3,700
7	9,000	5,470	5,360	7,000	8,350	6,880	10,800	6,640	6,520	5,700	4,100	5,240
8	8,480	5,360	5,240	6,760	7,480	5,580	18,900	5,930	5,580	5,140	4,100	3,900
9	7,480	5,360	5,240	6,520	6,280	7,120	12,100	6,400	5,470	4,920	4,310	2,930
10	6,280	5,360	5,020	6,280	6,280	7,240	8,480	7,600	5,020	4,100	3,900	2,580
11	5,930	5,140	5,930	6,040	6,760	9,300	7,240	9,600	22,300	4,100	5,360	2,930
12	6,280	5,240	10,500	5,820	7,120	10,800	6,520	8,100	28,500	3,700	7,480	3,310
13	5,820	5,360	8,220	5,820	5,580	9,000	6,040	6,400	20,600	4,100	5,020	5,700
14	5,580	5,240	6,760	5,700	5,700	7,480	5,700	5,580	32,000	12,800	4,510	4,700
15	5,580	5,470	5,820	5,700	5,470	9,000	5,560	5,140	19,800	13,500	4,100	3,700
16	5,240	5,360	5,700	5,470	5,240	20,600	5,140	4,810	12,800	8,100	4,310	2,740
17	5,140	5,580	5,470	5,240	5,020	12,100	4,810	4,810	8,350	5,580	4,100	2,580
18	5,240	5,580	5,700	5,240	4,810	9,000	4,810	4,920	6,760	5,700	3,700	2,580
19	15,400	5,360	7,000	5,240	4,700	7,600	5,020	4,700	5,820	6,400	4,280	2,380
20	41,300	9,900	9,300	5,240	5,240	7,000	7,600	4,100	5,240	6,640	6,620	2,380
21	37,000	28,000	11,400	5,020	17,300	6,520	6,400	4,100	5,470	6,160	4,520	2,380
22	14,200	18,000	11,100	5,240	13,500	5,160	5,700	3,900	5,580	5,240	3,700	2,380
23	12,500	9,000	9,000	4,810	7,360	5,700	13,900	3,900	5,930	4,100	4,100	3,310
24	10,200	7,850	7,240	4,700	6,400	5,700	35,000	3,700	6,160	3,700	3,700	3,310
25	8,480	6,880	6,400	4,700	9,600	5,020	18,900	3,900	8,350	3,310	3,700	25,000
26	7,850	6,520	5,470	5,020	15,800	5,140	11,400	5,820	7,000	3,700	3,120	10,500
27	7,360	6,400	5,020	5,020	15,000	4,920	8,220	6,280	5,700	6,040	3,310	6,160
28	6,160	5,700	5,470	4,810	13,500	4,810	8,220	5,470	5,240	5,140	2,930	4,700
29	5,400	5,820	5,020	5,020	5,020	4,920	10,500	5,350	13,900	3,700	2,740	6,400
30	6,400	5,700	6,880	4,520	-----	4,810	8,220	4,520	12,100	3,700	2,580	7,000
31	6,160	-----	6,880	4,520	-----	4,700	-----	4,100	-----	4,100	2,580	-----
Total	319,120	210,850	204,690	216,850	222,500	252,320	269,770	179,470	386,190	188,110	129,360	137,060
Mean	10,290	7,028	6,603	6,995	7,946	8,139	8,992	5,789	12,870	6,068	4,173	4,569
Cfs/m	1.51	1.03	0.987	1.02	1.16	1.19	1.32	0.848	1.88	0.888	0.611	0.689
In.	1.74	1.15	1.11	1.18	1.21	1.37	1.47	0.98	2.10	1.02	0.70	0.75

Calendar year 1906: Max - Min - Mean - Cfs/m - In. -
 Water year 1906-7: Max 41,300 Min 2,210 Mean 7,442 Cfs/m 1.09 In. 14.78

Discharge, in cubic feet per second, water year October 1907 to September 1908

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,280	2,930	5,820	29,000	16,600	9,300	7,850	7,000	5,360	3,700	6,160	8,100
2	5,240	2,930	5,240	16,900	27,500	8,220	7,850	10,800	4,520	4,100	5,360	6,880
3	4,100	2,930	4,520	12,100	15,400	8,350	12,800	7,720	4,100	8,350	4,100	6,400
4	3,700	2,930	4,310	9,600	10,500	8,100	13,200	6,280	4,100	28,500	3,900	5,700
5	3,500	4,100	4,100	21,000	8,220	7,850	9,600	5,930	7,120	28,000	3,700	5,360
6	3,310	3,700	4,100	24,100	7,850	8,220	7,980	5,580	16,900	27,500	4,100	21,400
7	3,120	3,310	4,100	19,800	8,600	10,500	7,480	5,580	9,000	19,800	8,220	24,100
8	3,310	2,930	3,700	60,400	9,600	10,200	7,360	5,580	6,280	13,500	8,350	20,600
9	3,120	2,930	4,100	50,900	8,220	8,350	7,120	9,900	5,580	10,200	10,800	18,500
10	3,310	2,930	6,040	24,100	7,480	10,200	6,760	8,350	5,020	12,100	7,600	12,800
11	3,310	2,930	13,500	14,200	11,400	9,000	6,520	6,520	5,140	10,800	6,040	7,980
12	3,120	3,310	13,500	55,500	25,000	18,900	6,280	8,040	6,280	7,980	4,810	5,700
13	2,930	3,310	9,800	69,200	27,500	25,200	5,930	5,470	5,700	6,280	4,100	5,360
14	2,560	3,310	29,000	46,000	41,300	14,600	5,820	5,360	7,120	5,470	4,100	5,020
15	2,560	3,120	56,900	21,400	50,900	10,800	5,930	5,020	5,470	5,140	3,900	4,920
16	2,930	3,120	39,700	14,200	70,800	9,300	7,720	4,810	6,520	5,470	3,700	4,310
17	2,560	3,120	19,800	11,100	60,400	8,100	12,100	4,520	9,600	5,140	3,700	4,100
18	2,560	2,930	12,800	9,600	28,000	7,600	11,100	4,810	7,480	4,100	2,500	10,100
19	2,560	3,310	9,600	8,600	18,900	7,240	9,000	5,470	5,360	4,100	3,900	4,100
20	2,560	4,520	7,600	7,850	30,000	16,600	7,600	9,000	4,810	3,700	9,600	4,100
21	2,560	4,100	6,520	7,360	22,300	26,000	7,000	9,000	4,520	4,100	9,300	4,100
22	2,380	6,040	6,040	7,120	16,600	19,300	6,520	9,900	6,880	4,100	9,600	4,100
23	2,560	16,600	16,900	6,880	12,800	20,600	6,040	7,480	7,720	15,000	7,240	3,700
24	2,560	38,000	56,200	6,640	10,800	55,500	5,820	7,360	6,040	16,200	38,600	5,700
25	2,560	38,000	50,900	6,280	9,600	60,400	5,820	6,640	5,470	6,640	116,000	3,700
26	2,560	25,000	22,700	5,930	9,300	34,000	6,160	6,040	7,120	6,160	221,000	3,700
27	2,560	12,500	12,800	6,640	10,800	17,300	6,520	5,240	7,120	5,930	230,000	3,700
28	2,560	5,930	9,600	10,200	11,400	12,800	7,850	5,020	5,470	5,240	135,000	7,720
29	2,560	6,640	8,100	8,480	10,200	10,500	6,520	4,520	4,920	5,360	41,300	9,600
30	3,120	6,520	22,700	7,240	-----	9,000	6,400	4,520	4,100	6,760	20,600	7,480
31	3,120	-----	48,400	6,280	-----	8,600	-----	4,920	-----	5,470	10,200	-----
Total	95,740	223,930	518,890	604,660	597,970	498,630	230,850	200,380	190,820	294,890	948,480	231,030
Mean	3,088	7,464	16,740	19,500	20,620	15,760	7,688	6,464	6,361	9,513	30,600	7,701
Cfs/m	0.452	1.09	2.45	2.88	3.02	2.31	1.13	0.948	0.931	1.39	4.48	1.13
In.	0.52	1.22	2.85	3.29	3.26	2.66	1.26	1.09	1.04	1.61	5.16	1.26

Calendar year 1907: Max 56,900 Min 2,210 Mean 7,727 Cfs/m 1.13 In. 15.35
 Water year 1907-8: Max 230,000 Min 2,380 Mean 12,640 Cfs/m 1.85 In. 25.20

Pee Dee River near Rockingham, N. C.--Continued

Discharge, in cubic feet per second, water year October 1908 to September 1909

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,040	18,900	5,470	10,500	5,700	9,000	8,600	28,000	6,880	10,800	8,220	4,100
2	4,810	11,400	5,470	9,000	5,360	8,100	7,600	52,200	8,600	16,600	23,600	3,700
3	4,100	9,000	5,930	7,600	4,920	7,850	7,120	31,500	7,360	10,800	69,200	3,700
4	3,900	7,850	5,700	7,000	5,470	8,220	6,760	13,200	46,000	7,850	61,800	3,310
5	3,700	8,100	5,240	6,880	5,470	8,480	6,400	9,000	74,000	6,760	30,000	3,310
6	3,700	7,360	5,020	8,980	5,820	7,480	6,280	7,480	58,300	6,280	15,800	3,310
7	3,700	6,640	5,240	14,200	8,520	9,000	5,930	6,640	25,000	5,930	18,900	3,500
8	3,700	6,160	6,040	12,100	8,520	11,400	5,820	6,040	14,200	6,760	12,500	3,500
9	3,700	5,930	11,400	9,000	6,160	9,600	5,820	5,700	11,400	7,600	8,480	3,500
10	20,600	5,930	8,600	7,480	17,300	9,000	5,820	5,700	26,000	7,000	7,120	3,700
11	26,000	5,580	7,000	7,000	31,000	10,800	5,930	6,280	29,000	6,040	7,980	3,700
12	23,200	5,820	6,520	8,880	15,800	8,480	5,700	7,980	18,900	5,580	6,400	3,700
13	10,800	8,480	10,800	8,640	11,100	7,980	5,580	7,980	13,500	5,240	6,160	3,700
14	7,000	7,720	8,500	6,640	9,000	9,600	5,930	6,280	11,400	6,280	6,880	3,500
15	5,820	32,000	7,600	6,880	7,720	10,500	17,300	5,470	15,800	8,480	10,800	3,310
16	5,140	25,000	6,400	8,600	7,600	9,000	15,800	5,140	15,000	6,760	8,100	3,310
17	4,810	13,900	6,040	18,100	7,600	7,600	10,200	5,020	18,100	7,000	8,100	4,100
18	4,520	10,200	5,820	19,800	7,360	6,880	7,850	5,020	17,300	5,360	9,000	7,120
19	4,310	7,980	5,700	15,800	7,360	6,520	6,760	4,520	41,300	5,020	7,360	9,000
20	4,310	7,120	5,700	11,400	9,980	5,930	6,400	5,020	23,200	5,020	8,350	6,880
21	4,100	6,640	5,470	9,300	9,600	5,930	6,040	32,000	11,400	4,310	5,140	6,040
22	4,100	6,160	11,400	8,350	9,600	6,640	5,820	65,300	8,600	4,100	4,700	5,020
23	5,360	5,820	72,400	7,600	15,000	7,120	5,820	63,200	8,220	4,100	4,100	4,100
24	43,000	5,930	67,600	7,000	21,900	6,880	5,820	33,000	7,660	4,520	4,100	9,600
25	32,000	5,700	32,000	6,880	17,300	6,640	7,000	14,200	7,240	5,360	4,100	7,360
26	28,000	5,700	15,400	6,880	18,900	15,000	6,520	11,100	7,120	4,520	3,900	6,520
27	13,500	5,580	12,600	8,520	13,500	18,900	5,930	12,100	17,300	4,520	3,700	4,700
28	10,500	5,470	6,600	6,400	10,500	12,500	5,360	12,100	5,100	3,800	4,100	3,800
29	31,000	5,470	8,550	6,040	15,000	7,040	11,700	10,800	15,400	3,700	3,700	3,700
30	39,100	5,240	7,720	5,930	13,500	6,040	9,600	14,200	13,500	3,700	3,310	3,310
31	28,500	-----	8,480	5,930	10,500	-----	7,480	-----	9,900	4,100	-----	-----
Total	393,020	268,780	385,510	277,320	299,980	290,030	213,990	496,950	584,880	228,490	379,890	138,400
Mean	12,680	8,959	12,440	8,946	10,710	9,356	7,133	16,030	19,500	7,371	12,250	4,613
Cfs/m	1.86	1.31	1.82	1.31	1.57	1.37	1.04	2.35	2.86	1.08	1.79	0.675
In.	2.14	1.46	2.10	1.51	1.63	1.58	1.17	2.71	3.18	1.24	2.07	0.76

Calendar year 1908: Max 230,000 Min 3,500 Mean 13,210 Cfs/m 1.93 In. 26.33

Water year 1908-9: Max 74,000 Min 3,310 Mean 10,840 Cfs/m 1.69 In. 21.54

Discharge, in cubic feet per second, water year October 1909 to September 1910

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,310	3,310	2,930	2,900	10,200	14,600	4,020	3,920	3,100	4,240	2,900	5,470
2	3,310	3,310	3,310	2,800	8,100	47,200	4,020	3,710	3,000	4,460	2,900	21,000
3	3,310	3,310	3,310	3,300	7,000	37,000	4,130	3,710	2,800	3,460	3,000	26,500
4	3,310	3,310	3,310	4,900	6,400	20,200	4,350	3,300	2,700	3,600	4,900	21,900
5	3,120	3,310	3,120	4,130	6,280	12,100	4,350	3,400	2,600	3,500	6,160	13,200
6	3,310	3,310	3,120	3,710	5,820	10,500	4,350	3,200	3,200	3,500	5,700	13,900
7	3,310	3,500	3,120	3,710	5,240	11,100	4,020	3,200	4,020	5,470	10,200	9,000
8	3,310	3,700	3,310	3,820	5,010	9,300	3,820	4,900	4,020	5,700	9,600	6,400
9	3,310	3,700	3,310	5,470	5,240	7,480	3,920	18,100	3,920	5,470	5,820	5,700
10	3,310	3,500	3,310	6,040	6,040	6,760	3,600	12,800	3,500	6,280	5,360	6,400
11	3,120	3,500	4,310	4,570	6,160	6,520	3,500	10,200	7,850	7,000	4,350	7,240
12	3,310	4,100	3,700	3,820	16,200	7,850	3,600	7,240	8,100	7,000	3,300	5,820
13	3,310	4,100	3,700	3,500	14,200	10,500	3,500	5,580	13,500	6,400	3,200	4,900
14	6,520	3,900	7,850	3,710	10,200	8,480	5,600	4,790	26,000	6,640	3,600	4,020
15	4,810	3,700	11,700	4,020	8,100	7,240	4,570	4,350	61,100	10,800	3,300	3,920
16	4,100	3,500	10,200	3,820	8,100	6,280	4,900	3,920	49,000	17,300	3,710	3,920
17	4,810	3,500	6,880	3,600	9,600	5,930	4,460	3,710	22,300	10,800	3,300	3,500
18	4,520	3,500	5,360	3,600	18,900	5,470	8,350	3,600	13,500	7,480	3,000	3,100
19	3,900	3,510	4,520	3,600	26,000	5,470	8,730	3,500	9,000	8,220	2,800	2,900
20	3,310	3,500	4,520	4,350	14,200	5,240	7,560	3,820	7,000	7,240	3,000	2,900
21	3,310	3,310	4,310	5,360	11,700	5,120	5,700	4,130	7,720	5,580	2,700	2,900
22	3,500	3,120	4,100	17,300	13,500	5,120	5,010	4,020	7,120	4,460	2,600	2,900
23	3,700	3,310	3,700	16,600	13,500	5,010	4,570	4,130	5,930	4,020	8,100	2,800
24	3,700	3,310	3,500	10,800	11,400	5,010	4,240	4,240	5,930	3,600	7,850	2,900
25	4,100	3,310	3,500	8,350	10,200	4,790	4,130	4,240	5,360	3,500	4,570	2,800
26	4,310	3,310	3,900	8,100	9,300	4,570	4,130	4,570	5,820	3,300	3,920	2,700
27	3,700	3,310	4,400	6,640	7,980	4,570	4,130	5,360	6,160	3,300	4,240	2,700
28	3,310	3,310	4,520	6,160	7,000	4,570	4,570	4,900	6,160	5,010	4,020	2,700
29	3,310	3,120	3,700	25,000	-	4,350	4,680	4,130	4,460	4,880	3,710	2,600
30	3,310	3,310	3,310	20,600	-	4,130	4,240	3,500	3,920	3,820	3,600	2,700
31	3,310	-----	2,740	12,800	-----	4,240	-----	3,100	-----	3,000	3,400	-----
Total	114,180	105,820	136,690	217,080	283,570	298,700	138,550	157,270	308,780	179,190	138,910	199,380
Mean	3,683	3,461	4,409	7,003	10,130	9,571	4,618	5,073	10,290	5,780	4,481	6,646
Cfs/m	0.538	0.507	0.646	1.03	1.48	1.40	0.676	0.743	1.61	0.846	0.658	0.973
In.	0.62	0.57	0.74	1.18	1.54	1.62	0.75	0.86	1.68	0.98	0.76	1.09

Calendar year 1909: Max 74,000 Min 2,740 Mean 8,944 Cfs/m 1.31 In. 17.77

Water year 1909-10: Max 61,100 Min 2,600 Mean 6,231 Cfs/m 0.912 In. 12.39

Pee Dee River near Rockingham, N. C.--Continued

Discharge, in cubic feet per second, water year October 1910 to September 1911

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,900	2,800	2,800	5,930	3,820	3,820	5,400	4,790	2,510	3,500	1,510	16,200
2	2,900	3,000	2,800	6,040	3,820	3,920	5,000	4,900	2,420	2,700	1,510	7,720
3	2,900	3,000	2,800	10,800	3,820	4,130	4,790	5,010	2,330	2,420	1,580	5,820
4	2,900	3,000	2,600	40,200	3,820	4,240	4,680	4,680	2,510	1,980	2,060	4,130
5	3,000	3,100	2,600	32,500	3,500	3,920	4,460	4,240	2,600	1,980	2,900	5,580
6	3,000	3,200	3,400	18,100	3,600	3,710	5,820	4,020	2,420	2,060	2,700	10,200
7	3,100	3,100	7,850	10,500	3,920	3,920	16,600	3,920	2,700	2,330	5,470	10,200
8	5,700	3,000	9,900	7,850	3,710	3,400	15,800	3,920	5,360	2,060	4,020	7,120
9	13,500	3,000	7,000	6,760	4,240	9,600	27,000	4,130	4,790	2,150	3,820	4,900
10	25,000	3,000	5,120	6,040	19,800	9,600	18,900	3,820	5,930	2,700	2,800	3,710
11	11,100	3,000	4,130	5,360	15,800	7,480	11,400	3,920	3,200	3,000	1,820	2,600
12	8,350	3,000	3,600	5,010	11,400	6,400	8,480	3,710	3,710	2,600	1,820	2,330
13	6,280	2,900	3,710	4,790	10,200	5,820	7,480	4,020	3,300	2,330	1,820	3,000
14	5,120	2,800	3,200	4,570	8,600	9,600	7,000	4,790	3,300	2,330	1,820	3,000
15	4,460	2,700	3,200	4,460	7,120	11,400	7,360	4,790	2,800	2,510	1,740	2,510
16	3,920	2,800	3,000	4,130	6,280	10,200	19,300	5,580	2,510	7,600	3,100	2,060
17	3,820	2,900	3,200	4,020	5,700	7,120	16,200	4,750	2,150	5,240	2,510	1,980
18	3,500	2,900	3,200	3,920	5,240	6,880	10,800	4,020	2,330	3,500	1,980	1,980
19	3,400	2,800	3,000	4,020	5,010	5,240	8,480	3,710	4,460	2,900	2,240	1,820
20	4,900	2,800	3,000	4,240	4,780	4,500	7,850	3,400	4,240	2,510	2,600	1,820
21	5,700	2,700	3,300	4,240	5,120	10,200	8,480	3,100	3,710	2,330	3,500	2,420
22	5,360	2,800	3,200	4,130	5,120	7,360	8,100	3,000	3,300	2,150	2,060	4,090
23	4,790	2,900	3,000	4,130	4,790	5,820	7,000	3,200	2,900	2,150	1,660	5,290
24	3,820	2,800	3,300	4,020	4,460	5,120	6,280	3,100	2,800	1,980	1,660	10,500
25	3,600	2,800	5,470	4,130	4,130	4,680	5,820	3,200	2,700	1,900	1,660	6,160
26	3,300	2,800	7,360	4,020	4,020	4,300	5,580	3,000	2,900	1,900	1,510	4,530
27	3,200	2,800	5,930	3,920	3,920	4,900	5,240	2,700	2,900	1,900	1,660	4,130
28	3,100	2,600	5,120	3,920	3,920	8,100	5,010	2,600	2,700	1,820	1,980	3,000
29	3,100	2,700	4,130	3,820	-	8,600	4,790	2,420	2,330	1,740	3,300	2,660
30	2,900	2,800	4,240	3,710	-	7,480	4,750	2,420	3,200	1,580	4,680	2,860
31	3,000	-	5,240	3,710	-	6,640	-	2,600	-	1,580	18,900	-
Total	161,620	86,500	130,400	232,990	169,670	198,100	273,850	117,460	95,010	79,430	92,390	143,850
Mean	5,214	2,883	4,206	7,516	6,060	6,390	9,128	3,789	3,167	2,562	2,980	4,795
Cfsm	0.763	0.422	0.616	1.10	0.887	0.956	1.34	0.555	0.464	0.375	0.436	0.702
In.	0.88	0.47	0.71	1.27	0.92	1.08	1.49	0.64	0.52	0.43	0.50	0.78
Calendar year 1910: Max				61,600	Min	2,600	Mean	6,296	Cfsm	0.922	In.	12.52
Water year 1910-11: Max				40,200	Min	1,510	Mean	4,880	Cfsm	0.714	In.	9.69

Discharge, in cubic feet per second, October 1911 to January 1912

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,600	3,400	6,160	8,350								
2	2,510	3,300	5,010	12,100								
3	2,150	3,000	4,350	10,200								
4	2,240	2,900	4,130	8,900								
5	2,150	3,000	3,920	10,200								
6	2,150	3,200	3,710	8,350								
7	2,150	3,300	3,500	6,880								
8	2,060	4,680	3,200	5,930								
9	2,060	13,200	3,100	7,360								
10	2,060	25,000	3,400	8,600								
11	2,240	13,500	3,200	8,350								
12	2,330	9,900	3,200	8,600								
13	3,200	6,640	3,400	9,000								
14	3,820	6,450	3,200	7,360								
15	3,710	6,590	3,500	5,930								
16	2,700	5,750	9,000	6,400								
17	2,240	5,010	23,200	4,790								
18	8,600	4,460	18,500	5,700								
19	30,000	5,820	10,800	-								
20	24,100	7,000	7,480	-								
21	10,200	6,210	8,480	-								
22	6,400	5,120	19,300	-								
23	5,930	4,460	32,000	-								
24	18,100	4,020	49,600	-								
25	16,900	3,820	36,000	-								
26	7,850	3,920	27,000	-								
27	5,700	3,920	17,300	-								
28	4,790	3,920	13,200	-								
29	4,570	3,820	11,400	-								
30	3,710	8,220	9,000	-								
31	3,820	-	7,600	-								
Total	193,040	183,530	356,840	-								
Mean	6,227	6,118	1,510	-								
Cfsm	0.912	0.896	1.69	-								
In.	1.05	1.00	1.94	-								
Calendar year 1911: Max				49,600	Min	1,510	Mean	5,852	Cfsm	0.857	In.	11.62
Water year 1911-12: Max				-	Min	-	Mean	-	Cfsm	-	In.	-

Pee Dee River near Rockingham, N. C.--Continued

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.6	155	2.6	3,010
1.0	314	3.0	4,350
1.4	600	4.0	8,300
1.8	1,090	7.0	25,700
2.2	1,890	11.0	56,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,770	3,790	3,760	5,980	12,400	40,800	5,770	5,400	4,660	8,080	3,290	273
2	4,750	3,790	1,010	6,700	23,700	40,700	7,140	4,390	1,330	6,570	3,850	1,920
3	4,800	4,540	4,160	6,030	19,200	23,200	6,080	4,360	4,280	5,080	4,610	4,770
4	4,410	4,230	4,500	6,260	17,400	16,500	5,680	5,300	4,790	4,110	1,460	2,870
5	4,070	3,710	4,990	5,590	14,800	11,600	8,210	4,000	6,920	3,930	1,980	2,670
6	5,080	4,630	5,100	4,760	12,700	10,400	47,800	4,740	9,420	4,050	3,430	2,740
7	2,890	4,270	4,980	5,720	10,600	9,200	51,400	4,530	9,200	3,920	3,210	2,830
8	4,720	4,890	1,310	4,170	10,100	8,980	36,800	4,340	9,200	4,230	3,930	4,230
9	4,810	4,480	185	4,830	10,100	6,450	20,200	5,090	17,300	4,120	3,200	4,890
10	*3,890	4,430	2,900	5,420	12,400	4,520	20,500	5,720	19,000	4,440	3,460	2,490
11	4,260	3,140	3,690	5,950	14,600	5,400	16,800	6,490	10,600	4,160	404	2,870
12	4,150	4,630	4,240	5,940	12,700	5,090	11,100	12,200	9,650	3,220	3,190	3,300
13	1,780	4,360	4,560	5,240	10,100	6,050	9,680	6,510	7,560	4,130	3,410	2,050
14	482	4,180	5,520	5,300	9,420	5,800	8,980	6,120	7,320	915	3,280	2,830
15	3,770	4,480	5,200	5,550	9,200	6,120	5,810	5,540	6,170	3,300	3,350	372
16	3,250	4,740	7,670	5,930	6,460	6,270	5,360	5,200	5,460	2,870	3,680	2,550
17	3,150	4,160	5,510	5,930	3,800	6,980	8,090	6,720	6,180	3,270	3,220	5,390
18	2,970	810	5,170	6,280	4,950	5,720	3,340	6,610	5,970	3,840	796	9,200
19	3,110	4,200	4,970	5,830	6,580	7,220	5,910	1,450	7,830	4,400	4,110	9,200
20	3,440	4,190	5,020	5,460	9,200	7,650	5,960	4,540	5,820	4,790	2,420	11,600
21	842	3,940	4,870	4,730	7,860	9,420	6,130	4,650	5,000	374	2,970	10,800
22	4,120	3,820	4,770	5,220	5,440	9,420	5,160	4,720	4,580	3,600	3,180	6,520
23	3,950	4,520	4,910	6,090	6,660	9,420	6,780	4,920	5,400	3,640	3,230	7,380
24	4,670	3,640	10,500	5,640	6,470	9,420	8,200	4,590	9,420	3,510	3,130	9,420
25	4,330	2,850	15,000	6,500	5,130	9,420	5,050	5,120	6,520	3,070	3,720	8,520
26	3,610	3,110	10,100	5,660	8,300	14,000	5,120	4,730	9,420	3,610	4,460	6,630
27	2,860	3,590	8,160	6,230	9,420	11,100	5,250	3,130	10,600	3,840	3,090	6,460
28	1,450	4,060	6,020	4,800	10,800	9,650	5,730	4,380	9,650	362	3,860	4,450
29	4,680	3,850	6,050	5,000	-	9,420	4,980	4,610	9,650	3,570	3,570	5,580
30	4,090	4,010	5,430	9,200	-----	7,860	6,100	4,460	9,650	3,260	4,660	7,070
31	3,420	-----	5,670	9,420	-----	6,120	-----	4,750	-----	3,370	2,470	-----
Total	112,574	119,080	165,945	181,440	290,490	339,900	349,310	159,290	240,570	115,631	98,420	151,875
Mean	3,631	3,969	5,353	5,853	10,370	10,960	11,640	5,138	8,019	3,730	3,175	5,062
(†)	-690	-1,142	+611	-1,658	+3,895	-439	-101	-615	+952	-474	-985	+1,340
Observed								Adjusted				
Calendar year 1956:	Max	55,200	Min	142	Mean	4,892	Mean	5,166	Cfm	0.752	In.	10.24
Water year 1956-57:	Max	51,400	Min	185	Mean	6,369	Mean	6,393	Cfm	0.931	In.	12.64

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in High Rock and Badin Lakes, furnished by Carolina Aluminum Co., and Lake Tillery and Blewett Falls Lake, furnished by Carolina Power and Light Co.

Juniper Creek near Cheraw, S. C.

Location.--Lat 34°39', long 79°54', at left end of Eureka Lake Dam, 1½ miles upstream from mouth and 3½ miles south of Cheraw, Chesterfield County.

Drainage area.--64 sq mi, approximately.

Records available.--May 1940 to September 1957.

Gage.--Water-stage recorder and concrete spillway. Altitude of gage is 90 ft (from Corps of Engineers map).

Average discharge.--17 years, 69.3 cfs.

Extremes.--Maximum discharge during year, 316 cfs Sept. 12 (gage height, 1.20 ft); no flow Oct. 10 to Nov. 7.

1940-57: Maximum discharge, 3,910 cfs Sept. 18, 1945 (gage height, 5.71 ft), from rating curve extended above 810 cfs by logarithmic plotting and computation of peak flow over dam; no flow May 30, 1945, Oct. 10 to Nov. 7, 1956, part of May 29, 1945, May 7, 1951, and Apr. 7, 8, 1955 (water below spillway crest and gates closed).

Remarks.--Records good except those for periods of gate operation or no gage-height record, which are poor.

Rating table, water year 1956-57, except period when gates in dam were open (gage height, in feet, and discharge, in cubic feet per second)

0.0	0	0.3	33
.02	.8	.5	76
.05	2.4	.7	131
.1	6.2	1.0	235
.2	17.5	1.2	316

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e170	0	38	32	52	105	66	23.8	45	*26.2	18.2	20.9
2	e120	0	43	32	50	108	59	23.1	39	24.6	18.8	17.5
3	e80	0	43	30	48	92	56	25.4	33	23.1	16.8	17.5
4	e50	0	40	29.5	45	86	53	33	37	20.9	19.9	20.2
5	e32	0	37	33	42	*89	67	70	47	18.2	27.8	24.3
6	e34	0	34	36	41	89	81	81	63	14.3	32	57
7	e32	0	32	38	39	89	89	81	69	13.7	40	114
8	e30	6.8	32	37	37	94	92	67	70	11.9	41	119
9	e12	23.2	30	36	37	89	89	46	84	9.1	30	177
10	0	33	*27.8	31	38	81	75	33	79	8.1	20.9	243
11	0	37	27.8	a28	37	69	64	42	74	6.2	16.2	243
12	0	37	27.0	a28	36	56	55	73	68	6.2	13.7	295
13	0	33	27.0	a28	36	49	49	86	56	5.8	11.9	228
14	0	32	28.6	a28	32	53	48	99	41	7.4	11.9	174
15	0	28.6	34	a28	29.5	76	*44	127	32	10.2	18.2	134
16	*0	28.6	39	a32	29.5	89	45	147	25.4	13.7	25.4	114
17	0	27.8	42	a32	29.5	97	43	119	23.8	14.3	23.8	89
18	0	27.0	43	a32	29.5	94	43	97	23.1	35	23.8	76
19	0	25.4	41	a32	30	86	42	86	20.2	84	25.4	74
20	0	27.0	37	a34	33	73	41	86	20.2	69	*32	73
21	0	28.6	34	a34	32	64	40	*74	28.6	67	38	71
22	0	25.4	30	*a34	33	76	38	70	39	48	37	71
23	0	24.6	33	33	30	81	37	58	45	28.6	27.8	73
24	0	23.8	44	33	30	84	42	58	36	48	21.6	66
25	0	24.6	48	43	30	108	43	64	27.8	70	58	61
26	0	25.4	55	55	49	128	39	71	23.8	81	76	54
27	0	25.4	55	61	49	137	33	86	23.1	75	86	48
28	0	27.0	50	64	85	125	29.5	86	22.4	57	76	51
29	*0	26.2	43	62	-	114	27.0	79	20.9	37	43	88
30	0	34	38	59	-----	97	24.6	69	23.1	27.8	35	128
31	0	-----	36	58	-----	76	-----	55	-----	20.9	26.2	-----
Total	560	631.4	1,169.2	1,172.5	1,099.0	2,754	1,554.1	2,215.3	1,239.4	963.2	992.3	5,021.4
Mean	18.1	21.0	37.7	37.8	38.2	88.8	51.8	71.5	41.3	31.1	32.0	101
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 320

Min 0

Mean 41.9

Cfsm 0.655

In. 8.90

Water year 1956-57: Max 295

Min 0

Mean 47.6

Cfsm 0.744

In. 10.11

Peak discharge (base, 250 cfs).--Sept. 12 (5 a.m.) 316 cfs (1.20 ft).

* Discharge measurement or observation of no flow made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and weather records.

e Gates in dam open making spillway partly inoperative as control; discharge computed from flow over spillway plus computed flow through gates.

Pee Dee River at Peedee, S. C.

Location.--Lat 34°12'15", long 79°32'55", in pier of bridge on U. S. Highway 76 at Peedee, Marion County, 0.2 mile downstream from Atlantic Coast Line Railroad bridge, 8½ miles downstream from Black Creek, and at mile 102.8 upstream from Winyah Bay.

Drainage area.--8,830 sq mi, approximately.

Records available.--January 1939 to September 1957. Prior to October 1947, published as "near Mars Bluff." Gage-height records collected at practically same sites since 1923 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 24.73 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 1, 1947, at site 1.6 miles downstream at datum 1.27 ft lower.

Average discharge.--18 years, 8,350 cfs.

Extremes.--Maximum discharge during year, 30,000 cfs Apr. 13 (gage height, 21.58 ft); minimum, 1,520 cfs Dec. 11 (gage height, 2.32 ft).
1939-57: Maximum discharge, 220,000 cfs Sept. 22, 1945 (gage height, 33.30 ft, site and datum then in use), from rating curve extended above 48,000 cfs on basis of discharge measurement of 221,000 cfs at Cheraw; minimum, 700 cfs Sept. 29, 1954 (gage height, 0.60 ft, from graph based on gage readings).

Remarks.--Records good. Flow regulated by powerplants above station.

Revisions.--WSP 1233: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.5	1,640	16.0	12,300
3.0	1,950	18.0	15,200
7.0	4,640	20.0	21,000
12.0	8,460	22.0	32,600

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,900	4,430	4,360	6,360	8,950	11,100	10,800	6,220	5,760	9,490	3,730	4,570
2	7,500	4,290	4,570	6,290	9,940	15,000	9,490	6,220	5,760	9,130	3,660	3,250
3	6,220	4,290	3,940	6,740	13,000	17,200	9,040	5,920	5,090	*7,980	3,730	1,880
4	5,840	4,430	2,990	7,040	14,800	19,200	8,460	5,390	3,660	7,040	4,220	2,600
5	5,460	4,790	4,360	6,660	15,400	21,500	7,980	5,920	4,790	5,760	4,500	4,290
6	5,390	4,500	5,020	6,220	15,400	*23,000	8,620	6,290	6,520	5,090	2,660	3,800
7	5,540	4,570	5,540	5,340	15,100	22,500	13,700	5,920	8,540	4,790	2,600	3,520
8	5,840	4,790	5,320	5,920	14,200	19,600	16,800	5,990	9,580	4,720	3,520	3,800
9	5,090	4,860	4,790	5,760	13,100	16,800	18,800	5,840	10,400	4,430	3,800	4,220
10	5,390	5,240	2,860	5,090	12,200	14,900	22,000	5,760	12,300	4,640	4,010	5,840
11	5,090	5,020	1,700	5,460	12,000	12,500	25,900	6,140	14,900	4,790	3,660	5,390
12	4,720	4,640	*2,990	5,920	12,700	10,600	28,800	6,590	15,400	4,720	3,450	4,860
13	4,790	4,430	4,220	6,060	12,800	9,400	30,000	10,200	14,700	4,430	2,080	5,020
14	4,150	4,940	4,720	6,140	12,300	8,620	27,600	11,400	13,400	3,940	3,060	4,940
15	2,860	4,860	5,090	5,760	11,400	8,300	23,000	11,000	11,700	4,080	3,590	4,150
16	2,080	4,720	5,390	5,840	10,600	8,460	17,500	9,580	10,100	2,860	3,660	3,800
17	3,520	4,860	6,290	6,140	9,400	8,700	14,600	8,140	8,620	3,250	3,870	2,600
18	3,730	5,020	6,740	6,290	7,500	8,560	12,500	7,660	7,740	3,660	4,080	3,940
19	3,730	4,220	6,290	6,360	5,920	8,460	10,800	7,740	7,500	4,080	3,590	6,820
20	3,730	2,860	5,840	6,290	6,740	8,540	9,670	6,820	8,060	4,640	2,800	8,220
21	3,870	4,080	5,620	6,290	7,420	9,130	8,780	4,860	7,560	5,320	3,940	9,130
22	3,730	4,430	5,540	5,540	8,540	10,100	8,300	6,060	6,820	4,360	*3,380	10,100
23	2,860	4,290	5,460	5,460	7,500	10,600	7,580	*6,140	6,220	2,540	3,450	9,130
24	4,360	4,430	5,460	*5,920	7,040	11,000	7,340	6,140	5,920	3,660	3,590	7,980
25	4,940	4,500	7,340	6,220	7,040	11,500	8,220	6,060	7,560	4,150	3,730	8,380
26	4,860	3,940	10,600	6,590	6,820	12,200	7,500	5,990	8,380	4,080	4,150	6,700
27	4,640	3,520	11,400	6,660	7,660	13,200	6,590	6,590	8,780	3,940	4,720	7,820
28	4,080	3,660	10,500	6,820	9,220	14,100	6,290	5,920	9,400	4,220	4,940	7,040
29	3,450	4,010	8,780	6,520	-	13,900	6,360	5,460	9,670	3,800	4,570	6,290
30	3,060	4,290	7,500	6,140	-----	13,400	5,990	5,840	9,490	2,340	4,430	6,060
31	*4,570	-----	6,740	7,500	-----	12,500	-----	5,840	-----	3,380	4,360	-----
Total	145,990	132,910	177,960	191,840	294,690	404,870	398,910	209,640	264,360	145,310	115,330	168,140
Mean	4,709	4,430	5,741	6,168	10,520	13,060	13,300	6,763	8,812	4,687	3,720	5,605
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 21,500 Min 1,260 Mean 5,712 Cfsm - In. -
Water year 1956-57: Max 30,000 Min 1,700 Mean 7,260 Cfsm - In. -

* Discharge measurement made on this day.

Lynches River near Bishopville, S. C.

Location.--Lat 34°15', long 80°13', near center of span on downstream side of bridge on U. S. Highway 15, 1 mile upstream from Seaboard Air Line Railroad bridge, 2.9 miles northeast of Bishopville, Lee County, and 3.3 miles downstream from Bells Branch.

Drainage area.--675 sq mi.

Records available.--May 1942 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 161 ft (by barometer). Prior to June 11, 1948, wire-weight gage at site 100 ft upstream at same datum. June 11, 1948, to Dec. 15, 1954, wire-weight gage at present site and datum.

Average discharge.--15 years, 671 cfs.

Extremes.--Maximum discharge during year, 4,520 cfs May 15 (gage height, 13.97 ft); minimum, 128 cfs Sept. 4.

1942-57: Maximum discharge, 29,400 cfs Sept. 19, 1945 (gage height, 22.35 ft, from floodmark), from rating curve extended above 12,000 cfs by velocity-area studies; minimum, 125 cfs Sept. 16, Oct. 8, 1954, Sept. 21, 1956.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

4.6	121	10.0	1,060
5.0	166	12.0	1,870
6.0	290	13.0	2,970
8.0	618	14.0	4,520

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	349	*297	326	368	636	990	676	276	656	250	148	139
2	283	312	412	364	656	1,020	600	276	618	226	143	135
3	244	304	388	349	780	1,170	582	270	444	*202	141	133
4	256	290	342	334	636	940	564	276	364	190	166	129
5	256	283	319	342	512	736	546	426	356	178	226	134
6	270	276	304	396	478	870	656	600	512	172	256	160
7	276	270	290	444	444	*942	736	495	636	166	263	160
8	312	263	290	412	428	802	736	380	636	160	208	184
9	334	270	283	368	412	676	582	319	618	148	172	202
10	270	312	283	364	412	656	785	283	564	148	154	226
11	238	372	276	349	412	582	1,080	276	636	142	143	320
12	220	356	*276	334	412	512	1,360	475	564	139	138	444
13	208	312	276	319	396	478	1,630	955	444	134	136	546
14	202	297	276	312	372	461	913	1,580	364	132	135	472
15	202	276	276	312	356	583	564	4,180	312	148	133	283
16	196	270	297	312	342	942	512	2,920	297	178	136	226
17	196	263	372	312	349	1,090	*478	1,830	349	202	166	238
18	208	270	412	319	356	1,040	461	1,460	380	244	208	232
19	238	270	364	319	342	870	444	1,420	380	220	190	244
20	263	263	326	312	342	870	461	1,240	342	250	196	256
21	263	263	312	297	356	1,090	444	660	342	290	244	263
22	297	263	304	297	364	1,200	428	656	326	238	*232	263
23	538	263	326	319	349	1,060	388	*546	283	196	196	270
24	824	263	444	*349	334	1,120	372	546	244	172	172	244
25	619	263	708	396	326	1,350	349	696	232	166	166	220
26	412	263	918	495	368	1,380	326	636	226	190	184	202
27	349	263	763	716	612	1,380	312	600	220	220	232	190
28	312	270	512	716	942	1,610	297	546	226	202	226	178
29	304	263	444	546	-	1,920	283	478	238	184	190	220
30	290	276	412	495	-----	1,610	270	396	238	172	166	312
31	290	-----	412	546	-----	974	-----	412	-----	160	148	-----
Total	9,519	8,476	11,943	12,153	12,744	30,934	17,845	26,107	12,047	5,619	5,614	7,165
Mean	307	283	385	392	455	998	595	842	402	188	181	239
Cfsm	0.455	0.419	0.570	0.581	0.674	1.48	0.881	1.25	0.596	0.279	0.268	0.354
In.	0.52	0.47	0.66	0.67	0.70	1.71	0.98	1.44	0.66	0.32	0.31	0.40
Calendar year 1956: Max	4,690			Min 126		Mean 474		Cfsm 0.702		In. 9.56		
Water year 1956-57: Max	4,180			Min 129		Mean 439		Cfsm 0.650		In. 8.84		

Peak discharge (base, 3,000 cfs).--May 15 (10 a.m.) 4,520 cfs (13.97 ft).

* Discharge measurement made on this day.

Lynches River at Effingham, S. C.

Location.--Lat 34°03'05", long 79°45'15", on left bank at downstream side of bridge on U. S. Highway 52, 75 ft upstream from Atlantic Coast Line Railroad bridge and 1 mile south of Effingham, Florence County.

Drainage area.--1,030 sq mi, approximately.

Records available.--August 1929 to September 1957. Gage-height records collected at same site since 1891 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 58.49 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Sept. 7, 1934, staff gage at same site and datum.

Average discharge.--28 years, 896 cfs.

Extremes.--Maximum discharge during year, 2,260 cfs May 21 (gage height, 10.09 ft); minimum, 124 cfs July 15.

1929-57: Maximum discharge, 25,000 cfs Sept. 22, 1945 (gage height, 21.21 ft), from rating curve extended above 17,000 cfs by logarithmic plotting; minimum, 94 cfs Oct. 10, 1954.

Remarks.--Records good.

Cooperation.--Gage-height record collected in cooperation with U. S. Weather Bureau.

Revisions.--WSP 952: Drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 31 to Nov. 17, Apr. 3 to May 21, July 17 to Sept. 30)

Oct. 1 to Nov. 17		Nov. 18 to Jan. 30		Jan. 31 to Sept. 30			
2.0	205	2.5	235	1.5	115	5.0	685
3.0	358	3.0	305	2.0	190	7.0	1,180
5.0	715	4.0	461	3.0	340	9.0	1,840
		5.0	654	4.0	505	11.0	2,610
		6.0	894				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*490	*366	277	698	761	667	*1,800	*340	577	250	*190	205
2	579	366	277	552	722	722	1,770	325	505	250	186	181
3	636	350	291	478	685	801	1,880	310	487	250	175	164
4	561	350	326	444	703	921	1,840	332	541	250	166	151
5	422	350	372	427	722	1,180	1,660	378	613	235	168	152
6	390	334	379	403	761	1,340	1,370	401	613	212	157	152
7	390	326	356	387	801	1,400	1,060	451	523	205	180	145
8	374	318	334	395	761	1,460	1,040	505	469	187	220	148
9	366	310	319	427	667	1,460	1,100	577	523	174	250	168
10	358	302	305	444	595	1,400	1,060	595	631	160	250	180
11	374	295	298	444	559	1,300	1,040	523	667	151	212	205
12	366	302	298	427	523	1,240	1,000	469	722	145	188	228
13	326	334	291	395	505	1,120	921	434	741	138	172	242
14	302	366	284	379	487	976	921	417	703	130	166	302
15	288	358	284	364	487	868	976	505	667	130	166	355
16	265	326	305	356	469	781	1,060	703	649	198	198	401
17	258	302	305	349	451	722	1,180	781	505	295	228	401
18	250	277	305	349	434	703	1,280	868	417	295	205	318
19	242	263	312	342	417	781	1,240	1,250	385	295	182	272
20	242	263	356	342	434	868	921	2,100	505	302	198	258
21	250	256	387	342	434	948	703	2,190	541	280	235	258
22	280	263	372	342	417	1,100	631	1,910	487	250	235	272
23	295	256	349	342	401	1,220	595	1,660	417	272	242	302
24	302	256	395	334	417	1,180	559	1,490	378	280	265	295
25	334	249	427	349	417	1,520	523	1,360	340	250	280	280
26	406	249	461	387	487	1,840	487	1,120	310	220	258	265
27	490	249	496	427	541	1,910	451	822	*288	198	228	250
28	579	249	572	478	*577	1,940	417	703	280	190	205	235
29	579	249	654	514	-	1,940	385	703	280	212	212	235
30	456	*263	721	592	-----	1,910	362	685	265	220	235	250
31	374	-----	*792	*722	-----	1,880	-----	*649	-----	205	*228	-----
Total	11,824	8,997	11,900	13,231	15,635	38,098	30,232	25,556	15,029	6,829	6,480	7,270
Mean	381	300	384	427	558	1,229	1,008	824	501	220	209	242
Cfs/m	0.370	0.291	0.373	0.415	0.542	1.19	0.979	0.800	0.486	0.214	0.203	0.235
In.	0.43	0.32	0.43	0.48	0.56	1.37	1.09	0.92	0.54	0.25	0.23	0.26

Calendar year 1956: Max 2,840 Min 130 Mean 578 Cfs/m 0.561 In. 7.63
Water year 1956-57: Max 2,190 Min 130 Mean 524 Cfs/m 0.509 In. 6.88

* Discharge measurement made on this day.

Little Pee Dee River near Dillon, S. C.

Location.--Lat 34°24', long 79°20', near center of span on downstream side of bridge on State Highway 9, 1.1 miles east of Dillon, Dillon County, and 3 miles upstream from Maple Swamp.

Drainage area.--524 sq mi.

Records available.--March 1939 to September 1957.

Gage.--Wire-weight gage and crest-stage indicator; gage read twice daily. Datum of gage is 75.14 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by South Carolina Highway Department).

Average discharge.--18 years, 474 cfs.

Extremes.--Maximum discharge during year, 1,200 cfs June 12, 13; maximum gage height, 8.51 ft Mar. 8; minimum discharge, 100 cfs Aug. 15 (gage height, 4.24 ft).
1939-57: Maximum discharge, 9,810 cfs Sept. 20, 1945 (gage height, 14.64 ft), from rating curve extended above 2,800 cfs by velocity-area studies and logarithmic plotting; minimum, 24 cfs Sept. 17, 23, 1954.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 27 to Feb. 24, May 5-25, June 20 to Aug. 17, Sept. 26-30)

4.1	100	7.5	575
6.0	232	8.0	850
6.5	276	8.5	1,200
7.0	378		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	432	348	288	396	490	598	850	266	a248	*196	161	a432
2	490	348	a288	363	510	645	755	240	a248	182	154	378
3	490	363	303	363	a510	a670	670	224	a248	175	147	378
4	552	a363	303	363	510	670	620	240	a256	168	a147	396
5	645	378	323	363	490	755	620	276	a256	168	154	470
6	818	378	323	a323	490	*850	620	323	a266	168	154	413
7	a850	378	323	323	450	985	a620	323	a288	a168	147	363
8	755	378	348	323	432	1,130	670	323	a323	161	133	a323
9	985	363	a348	323	396	1,130	670	323	a278	161	119	288
10	1,060	378	348	303	378	a1,060	598	288	510	154	119	276
11	915	a378	*348	288	363	915	575	288	748	147	a119	276
12	785	396	363	288	348	850	552	a288	1,200	140	119	288
13	698	378	378	a276	348	755	552	288	1,200	133	106	303
14	a620	378	413	276	323	725	a552	288	1,130	a133	106	348
15	510	396	470	276	303	670	575	276	1,130	140	100	a413
16	450	378	a510	276	303	645	*598	276	915	133	119	470
17	432	348	552	276	a303	a620	620	288	850	119	168	530
18	413	a348	598	276	303	598	620	a266	698	112	a205	530
19	363	323	698	a276	303	575	620	a266	645	106	a248	552
20	348	323	755	276	303	530	552	a266	530	119	a268	510
21	a348	303	725	276	288	510	a490	a303	450	a133	*363	432
22	363	303	698	276	288	552	432	*363	363	133	363	a396
23	378	288	a698	*276	288	598	378	a378	a323	126	288	378
24	396	a288	670	266	a288	a620	348	a323	276	133	266	a363
25	a378	a276	645	276	288	725	323	a276	248	147	a268	a348
26	a378	276	620	303	363	915	288	a256	224	161	413	a303
27	363	276	575	348	413	985	266	a266	203	168	725	288
28	a348	266	530	413	490	1,060	a276	a276	189	a168	a850	a288
29	363	266	a510	432	-	1,060	276	a266	196	168	620	a323
30	*348	276	a490	450	-----	985	276	a256	a203	161	510	413
31	348	-----	450	490	-----	a915	-----	a256	-----	161	470	-----
Total	16,622	10,139	14,891	10,033	10,562	24,301	15,862	8,835	14,742	4,642	8,167	11,469
Mean	536	338	480	324	377	764	529	285	491	150	263	362
Cfsm	1.02	0.645	0.816	0.618	0.719	1.50	1.01	0.544	0.937	0.286	0.502	0.729
In.	1.18	0.72	1.06	0.71	0.75	1.73	1.13	0.63	1.05	0.33	0.58	0.81
Calendar year 1956: Max		1,820			Min 94	Mean 445	Cfsm 0.849	In. 11.56				
Water year 1956-57: Max		1,200			Min 100	Mean 412	Cfsm 0.786	In. 10.68				

* Discharge measurement made on this day.

a Doubtful or no gage-height record; discharge estimated on basis of weather records and records for station at Gallivants Ferry.

Drowning Creek near Hoffman, N. C.

Location.--Lat 35°03'38", long 79°29'39", on right bank 10 ft downstream from bridge on U. S. Highway 1, three-quarters of a mile downstream from Deep Creek, 1 mile upstream from Seaboard Air Line Railroad bridge, and 4 miles northeast of Hoffman, Richmond County.

Drainage area.--178 sq mi.

Records available.--October 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 270 ft (from topographic map).

Average discharge.--18 years, 250 cfs.

Extremes.--Maximum discharge during year, 1,310 cfs May 13 (gage height, 6.69 ft); minimum daily, 53 cfs Aug. 14.

1939-57: Maximum discharge, 10,900 cfs Sept. 18, 1945 (gage height, 10.29 ft), from rating curve extended above 5,600 cfs by logarithmic plotting; minimum, 28 cfs Aug. 4, 1940 (gage height, 1.32 ft).

Remarks.--Records fair.

Revisions (water years).--WSP 972: 1941(M).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 10-15, Sept. 1-5)

Oct. 1-15		Oct. 16 to July 13		July 14 to Sept. 30	
2.9	119	1.7	48	5.0	290
3.0	125	2.0	65	5.5	440
4.0	187	4.0	175	6.0	652
4.5	230	4.5	216	7.0	1,310
5.0	302	5.0	290	Note.--Same as preceding table below 5.0 ft.	
5.5	460				

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	369	172	226	207	357	443	195	164	179	130	64	147
2	246	183	245	*187	374	469	191	147	147	110	84	136
3	176	187	195	172	337	469	191	136	128	94	84	133
4	167	164	161	168	309	438	183	190	158	92	71	*128
5	194	153	153	179	269	377	*183	269	385	90	104	150
6	202	147	147	199	232	350	232	314	560	82	130	186
7	206	144	144	203	216	350	*289	584	595	76	92	455
8	206	144	141	187	216	346	260	164	565	71	74	506
9	*167	179	138	175	232	317	245	128	527	68	68	436
10	137	216	136	168	260	294	245	114	532	66	63	391
11	131	238	136	168	280	260	232	178	527	64	60	384
12	122	203	136	164	269	232	179	607	482	82	57	416
13	122	161	136	158	232	216	164	1,190	367	61	54	370
14	125	150	138	153	199	212	161	1,020	252	82	53	295
15	122	144	196	153	183	216	158	595	216	66	62	224
16	117	144	280	156	179	221	150	405	187	102	138	172
17	123	147	331	158	183	212	147	290	179	136	155	199
18	150	147	353	158	183	195	147	232	195	100	92	252
19	164	147	320	150	172	226	158	203	179	92	133	312
20	172	144	232	144	203	301	179	302	183	94	187	345
21	183	141	187	147	232	337	187	482	195	82	221	334
22	207	141	175	153	226	314	156	482	152	71	130	248
23	232	141	191	158	187	290	136	389	128	65	97	187
24	238	138	245	175	168	295	126	238	117	92	87	172
25	191	158	343	195	164	323	117	216	110	133	320	164
26	156	*141	385	221	222	357	112	203	117	107	628	138
27	147	141	350	245	309	374	107	245	133	90	970	136
28	150	141	260	226	346	360	102	360	123	84	552	136
29	147	138	212	207	385	290	97	290	141	76	412	204
30	147	175	212	221	232	232	120	183	168	*70	260	432
31	158	-----	221	280	207	207	-----	172	-----	65	168	-----
Total	5,374	4,749	6,725	5,635	6,778	9,509	5,129	10,167	7,927	2,653	5,770	7,788
Mean	173	158	217	182	242	307	171	328	264	85.6	186	260
Cfsm	0.972	0.888	1.22	1.02	1.36	1.72	0.961	1.84	1.48	0.481	1.04	1.46
In.	1.12	0.99	1.41	1.18	1.42	1.99	1.07	2.12	1.66	0.55	1.21	1.63

Calendar year 1956: Max 5,290 Min 58 Mean 237 Cfsm 1.33 In. 18.09
Water year 1956-57: Max 1,190 Min 53 Mean 214 Cfsm 1.20 In. 16.35

Peak discharge (base, 850 cfs).--May 13 (10 p.m.) 1,310 cfs (6.69 ft); Aug. 27 (10 a.m.) 1,070 cfs (6.69 ft).

* Discharge measurement made on this day.

Lumber River at Boardman, N. C.

Location--Lat 34°26', long 78°58', on right bank 15 ft downstream from bridge on U. S. Highway 74, 1 mile downstream from Atlantic Coast Line Railroad bridge at Boardman, Columbus County, and 1½ miles downstream from Big Swamp.

Drainage area--1,220 sq mi, approximately.

Records available--September 1929 to September 1957.

Gage--Water-stage recorder. Datum of gage is 72.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Sept. 30, 1936, staff gage at site 100 ft downstream at same datum. Sept. 30, 1936, to June 8, 1943, wire-weight gage at present site and datum.

Average discharge--28 years, 1,197 cfs.

Extremes--Maximum discharge during year, 4,180 cfs June 17 (gage height, 8.04 ft); minimum, 205 cfs Aug. 13-15; minimum gage height, 1.28 ft Aug. 13, 14.
1929-57: Maximum discharge, 13,400 cfs Sept. 24, 1945 (gage height, 10.64 ft); minimum, 87 cfs Oct. 14, 1954 (gage height, -0.03 ft).
Maximum stage known, 11.8 ft in August 1928, from floodmark witnessed by local resident (discharge, 25,000 cfs).

Remarks--Records good except those for period of no gage-height record, which are poor. Records of chemical analyses for the water year 1957 are given in WSP 1520.

Revisions--WSP 892: Drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 5-13; rate of change in stage used as a factor Oct. 4, Feb. 26, 28, Apr. 30, May 1, 20, 21, June 10-13, July 8-11, 18, 20, Sept. 2, 3, 8-10, 15-17)

Oct. 1 to Feb. 4				Feb. 5 to Sept. 30			
4.0	640			1.3	205	6.0	1,520
5.0	898			2.0	304	7.0	2,500
6.0	1,450			3.0	484	8.0	4,080
7.0	2,500			4.0	715	9.0	6,230
				5.0	1,000		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	692	1,070	681	1,100	1,100	1,490	2,320	*607	935	a1,410	370	702
2	728	1,070	681	1,100	1,120	1,700	2,200	569	935	a1,370	328	854
3	753	1,070	681	1,100	1,150	1,980	2,040	514	904	a1,280	289	966
4	1,000	1,040	681	1,100	1,180	2,320	1,980	514	*904	a1,220	268	1,020
5	1,180	1,020	681	1,100	1,170	2,700	1,880	580	1,000	a1,120	261	1,080
6	1,370	998	692	1,100	1,140	2,900	1,780	604	1,060	a980	261	1,060
7	1,490	975	704	1,070	1,140	3,040	1,700	652	1,000	a830	268	983
8	1,580	955	704	1,020	1,140	3,190	1,660	689	935	*a745	268	944
9	1,620	935	716	975	1,140	3,350	1,590	702	935	648	261	745
10	1,580	935	728	935	1,140	3,440	1,520	715	1,140	562	254	648
11	1,530	935	740	898	1,140	3,440	1,490	702	1,380	488	254	592
12	1,450	955	740	864	1,120	3,350	1,430	715	1,650	444	240	547
13	1,300	935	*728	849	1,100	3,190	1,370	702	2,140	388	212	547
14	1,180	916	704	834	1,080	3,040	1,370	702	3,080	353	*205	580
15	1,070	*881	692	820	1,060	2,830	1,400	676	3,790	328	205	685
16	955	864	716	806	1,040	2,630	1,430	627	3,980	304	219	821
17	898	864	704	806	1,020	2,380	1,400	592	4,180	304	219	*949
18	881	864	692	792	*1,020	2,200	1,370	604	4,080	341	219	983
19	864	849	681	766	1,000	2,040	1,340	664	3,700	397	233	983
20	849	849	670	753	983	1,880	1,250	842	a3,520	456	*268	983
21	849	834	704	740	966	1,740	1,170	1,030	a3,350	504	312	966
22	864	820	753	728	950	1,740	1,100	1,140	a3,200	536	362	950
23	881	792	820	753	920	1,740	1,040	1,220	a3,000	536	397	935
24	916	753	835	704	888	1,740	983	1,200	a2,750	494	424	935
25	935	728	1,040	728	859	1,680	935	1,080	a2,450	444	464	888
26	935	704	1,120	792	1,020	*2,040	888	1,020	a2,200	397	474	873
27	975	681	1,180	834	1,060	2,150	845	983	a1,950	379	494	888
28	998	660	1,210	*864	1,310	2,320	819	950	a1,700	397	514	888
29	998	550	1,180	916	-	2,440	806	904	a1,560	415	547	935
30	1,020	670	1,150	975	-----	2,440	704	888	a1,470	434	615	1,000
31	1,040	-----	1,120	1,070	-----	2,380	-----	920	-----	415	652	-----
Total	33,381	26,272	25,228	27,867	29,956	75,700	41,810	24,307	64,878	18,919	10,357	25,830
Mean	1,077	876	814	899	1,070	2,442	1,394	784	2,163	610	334	861
Cfsm	0.883	0.718	0.667	0.737	0.877	2.00	1.14	0.643	1.77	0.500	0.274	0.706
In.	1.02	0.80	0.77	0.85	0.91	2.31	1.27	0.74	1.98	0.58	0.32	0.79

Calendar year 1956: Max 3,190 Min 238 Mean 1,016 Cfsm 0.833 In. 11.34
Water year 1956-57: Max 4,180 Min 205 Mean 1,108 Cfsm 0.908 In. 12.34

* Discharge measurement made on this day.
A no gage-height record; discharge estimated on basis of recorded range in stage and records for Lumberton Steam Plant.

Little Pee Dee River at Galivants Ferry, S. C.

Location.--Lat 34°03'25", long 79°14'50", near left bank on downstream side of bridge on U. S. Highway 501, at Galivants Ferry, Horry County, 1.0 mile downstream from Lake Swamp.

Drainage area.--2,790 sq mi, approximately.

Records available.--January 1942 to September 1957.

Gage.--Wire-weight gage and crest-stage indicator; gage read twice daily. Datum of gage is 23.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years, 2,707 cfs.

Extremes.--Maximum discharge during year, 7,510 cfs Mar. 12-14; maximum gage height, 8.98 ft Mar. 13; minimum discharge, 452 cfs Aug. 15.
1942-57: Maximum discharge, 26,800 cfs Sept. 23, 1945 (gage height, 13.23 ft), from graph based on gage readings; minimum, 156 cfs Oct. 12, 13, 1954.
Maximum stage known, 16.0 ft in September 1928, from floodmark set by local resident.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Feb. 5, June 26 to July 24)

3.3	452	7.0	2,230
4.0	690	8.0	4,050
6.0	1,390	9.0	7,510

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,100	1,440	1,210	1,890	1,720	3,190	6,290	1,320	1,640	2,370	622	1,000
2	1,160	1,440	1,210	1,990	1,800	3,390	6,290	1,240	1,570	*2,230	656	1,040
3	1,210	1,500	1,210	1,990	1,890	3,590	5,910	1,210	1,440	1,990	656	1,040
4	1,240	1,500	1,180	1,990	1,990	4,050	5,550	1,210	1,390	1,800	622	1,070
5	1,240	1,500	1,180	1,990	2,110	4,310	5,550	1,210	1,440	1,640	588	1,100
6	1,320	1,570	1,180	1,990	2,230	4,590	5,210	1,210	1,500	1,570	554	1,210
7	1,390	1,570	1,180	1,990	2,230	5,210	4,590	1,180	1,640	1,390	520	1,280
8	1,500	1,640	1,180	1,890	2,370	5,910	4,310	1,180	1,720	1,320	520	1,280
9	1,640	1,640	1,180	1,890	2,370	6,290	4,050	1,240	1,990	1,240	520	1,320
10	1,800	1,500	1,210	1,890	2,230	6,690	3,810	1,140	2,230	1,180	486	1,350
11	1,890	1,500	1,210	1,800	2,230	7,090	3,590	1,180	2,510	1,070	486	1,350
12	1,990	1,500	*1,210	1,800	2,230	*7,510	3,390	1,240	2,670	1,000	486	1,320
13	2,110	1,500	1,210	1,720	2,230	7,510	3,390	1,280	2,830	895	486	1,240
14	2,230	1,440	1,210	1,720	2,110	7,510	3,190	1,320	2,830	792	486	1,140
15	2,230	1,390	1,210	1,640	1,990	7,090	3,010	1,320	2,830	724	452	1,040
16	2,230	1,390	1,210	1,640	1,990	7,090	2,830	1,320	2,830	690	486	1,040
17	2,230	1,390	1,210	1,570	1,990	6,690	2,670	1,240	3,010	656	486	1,040
18	2,230	1,390	1,210	1,500	1,890	5,910	2,510	1,210	3,190	622	486	1,070
19	2,110	1,350	1,210	1,500	1,800	5,910	2,370	1,240	3,390	588	486	1,140
20	1,990	1,350	1,210	1,440	1,800	5,210	2,370	1,210	3,810	554	486	1,210
21	1,800	1,350	1,210	1,440	1,720	4,890	2,370	1,210	4,310	588	*520	1,280
22	1,720	1,320	1,210	1,390	1,720	4,890	2,230	*1,210	4,890	588	520	1,320
23	1,640	1,320	1,210	*1,390	1,640	4,590	2,230	1,210	4,890	622	588	1,350
24	1,570	1,320	1,280	1,390	1,570	4,310	2,230	1,240	4,890	656	656	1,390
25	1,500	1,280	1,320	1,390	1,570	4,590	1,990	1,280	4,590	690	724	1,390
26	1,440	1,280	1,390	1,440	1,920	4,890	1,890	1,320	4,050	690	758	1,390
27	1,440	1,280	1,500	1,440	2,370	5,210	1,800	1,390	3,590	690	792	1,350
28	1,390	1,240	1,640	1,500	2,670	5,910	1,640	1,500	3,190	656	826	1,390
29	1,390	1,210	1,720	1,500	-	5,910	1,500	1,500	3,010	656	826	1,440
30	1,390	1,210	1,800	1,640	-----	6,290	1,390	1,640	2,670	622	895	1,440
31	*1,440	-----	1,800	1,720	-----	6,290	-----	1,640	-----	622	950	-----
Total	51,580	42,310	40,100	52,070	56,380	172,510	100,150	39,740	86,540	31,401	18,605	37,020
Mean	1,664	1,410	1,294	1,680	2,014	5,565	3,338	1,282	2,885	1,013	600	1,234
Cfam	0.596	0.505	0.464	0.602	0.722	1.99	1.20	0.459	1.03	0.363	0.215	0.442
In.	0.69	0.58	0.53	0.69	0.75	2.29	1.34	0.53	1.15	0.42	0.25	0.49

Calendar year 1956: Max 9,270 Min 520 Mean 2,102 Cfam 0.753 In. 10.25
Water year 1956-57: Max 7,510 Min 452 Mean 1,996 Cfam 0.715 In. 9.69

* Discharge measurement made on this day.

Black River near Gable, S. C.

Location.--Lat 33°54'00", long 80°09'55", near left bank on downstream side of McBride Crossing on U. S. Highway 378, 1 mile downstream from Church Branch and 6.3 miles north-west of Gable, Clarendon County.

Drainage area.--401 sq mi.

Records available.--June 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 95 ft (from topographic map). Prior to Dec. 9, 1955, wire-weight gage at same site and datum.

Average discharge.--6 years, 243 cfs.

Extremes.--Maximum discharge during year, 713 cfs Mar. 28 (gage height, 3.77 ft); no flow Aug. 9-15, Sept. 6, 7.

1951-57: Maximum discharge, 4,150 cfs Sept. 3, 1952 (gage height, 5.22 ft, from graph based on gage readings); no flow July 10-17, Aug. 2 to Oct. 17, 1954, July 17, 18, 1956, Aug. 9-15, Sept. 6, 7, 1957.

Remarks.--Records good except those between 15 and 100 cfs, which are fair, and those below 15 cfs, which are poor.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*251	218	163	298	288	304	*411	*54	288	117	2	3
2	241	222	195	277	293	315	367	48	262	108	3	2
3	232	227	204	272	304	321	344	45	227	100	2	2
4	232	227	204	256	309	344	309	64	204	97	2	1
5	232	227	204	256	304	405	309	92	178	82	2	1
6	241	227	208	251	293	424	380	120	158	87	2	0
7	251	222	208	251	288	430	443	137	158	75	1	0
8	262	218	204	246	282	457	497	144	162	62	1	1
9	321	213	204	232	277	463	437	148	199	45	0	2
10	358	208	199	227	272	463	355	144	195	30	0	4
11	326	204	195	222	267	437	304	140	178	18	0	6
12	309	199	195	218	256	417	277	162	178	10	0	6
13	293	191	195	208	251	374	251	166	183	8	0	6
14	277	183	191	204	241	355	227	162	178	8	0	7
15	262	183	195	199	232	338	208	154	178	9	0	13
16	246	174	213	204	222	326	195	158	183	*8	1	20
17	232	170	222	208	218	304	174	183	178	7	1	21
18	218	166	218	213	213	282	170	191	158	6	1	24
19	208	166	204	213	213	267	166	174	130	6	2	21
20	195	162	199	213	208	251	158	178	114	4	3	18
21	187	158	195	208	204	227	154	178	123	3	4	15
22	178	154	195	204	199	237	148	158	130	2	5	14
23	174	154	213	204	195	237	134	154	106	2	4	13
24	178	151	262	199	191	246	120	148	80	5	5	11
25	183	151	293	208	195	374	108	174	64	8	6	11
26	187	151	298	227	232	470	97	208	60	8	7	14
27	187	148	304	241	262	591	87	227	*58	8	6	15
28	191	148	315	246	*293	705	77	222	75	7	5	20
29	199	148	315	251	-	654	68	227	92	6	5	34
30	208	*170	315	267	-----	583	50	251	103	5	4	44
31	218	-----	*309	277	-----	483	-----	*282	-----	4	4	-----
Total	7,257	5,540	7,054	7,200	7,002	12,064	7,035	4,893	4,580	945	78	349
Mean	234	185	228	232	250	390	234	158	153	30.5	2.52	11.6
Cfsm	0.584	0.461	0.569	0.579	0.623	0.973	0.584	0.394	0.382	0.076	0.0063	0.029
In.	0.67	0.51	0.66	0.67	0.65	1.12	0.65	0.45	0.43	0.09	0.007	0.03
Calendar year 1956: Max 796 Min 0 Mean 236 Cfsm 0.589 In. 8.00												
Water year 1956-57: Max 705 Min 0 Mean 175 Cfsm 0.436 In. 5.94												

* Discharge measurement made on this day.

Black River at Kingstree, S. C.

Location.--Lat 33°39'40", long 79°50'10", on left bank at downstream side of bridge on U. S. Highway 52 at Kingstree, Williamsburg County, 1.0 mile downstream from Kingstree Swamp Canal.

Drainage area.--1,260 sq mi, approximately.

Records available.--August 1929 to September 1957. Gage-height records collected at same site since 1893 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 25.66 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 7, 1934, tape gage at same site and datum.

Average discharge.--28 years, 730 cfs.

Extremes.--Maximum discharge during year, 1,590 cfs Mar. 28-30; maximum gage height, 8.92 ft Mar. 29; minimum discharge, 17 cfs Aug. 15.
1929-57: Maximum discharge, 29,100 cfs Sept. 20, 1945 (gage height, 16.07 ft); minimum, 2 cfs Sept. 12-15, Oct. 7, 8, 1954.
Maximum stage known, 18.0 ft Sept. 21, 1928 (discharge, 41,600 cfs, from rating curve extended above 27,000 cfs).

Remarks.--Records good.

Cooperation.--Gage-height record collected in cooperation with U. S. Weather Bureau.

Revisions (water years).--WSP 1032: 1928(M), drainage area. WSP 1333: 1930(M), 1931, 1936.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	132	97	469	371	638	1,420	124	190	212	35	51
2	168	132	107	435	378	726	1,360	107	185	335	38	46
3	163	128	115	410	386	774	1,360	92	180	418	34	42
4	168	132	*119	394	394	774	1,360	89	180	486	34	38
5	168	142	119	394	410	824	1,310	97	195	435	46	34
6	173	165	124	394	418	904	1,260	115	228	349	43	31
7	199	175	124	394	426	*1,020	1,170	137	245	257	36	29
8	232	190	124	394	426	1,090	1,090	132	251	195	32	29
9	268	185	124	386	426	1,130	990	115	257	195	29	29
10	286	180	124	378	426	1,130	932	103	263	222	26	29
11	269	170	128	364	426	1,130	850	101	263	*206	24	31
12	257	165	128	342	418	1,090	798	152	251	180	21	31
13	239	155	132	328	410	1,020	774	276	228	107	20	26
14	217	146	132	308	394	960	774	371	217	72	19	25
15	200	137	137	294	386	932	798	378	212	54	18	23
16	190	132	146	294	371	904	798	335	206	62	46	23
17	206	124	160	288	356	876	*798	328	195	85	54	25
18	234	124	180	282	342	850	750	386	190	170	77	29
19	257	115	200	282	335	824	726	452	206	239	132	37
20	269	115	222	269	328	798	660	452	195	200	119	49
21	282	111	234	269	321	774	598	418	264	126	*101	62
22	282	107	239	263	321	774	504	378	342	82	87	73
23	275	103	245	257	314	824	452	321	386	59	70	81
24	*245	100	288	*257	301	876	378	282	371	56	60	89
25	222	97	356	257	286	990	328	257	294	96	60	97
26	206	93	435	269	356	1,170	282	234	228	102	94	93
27	190	91	504	294	486	1,420	239	212	175	82	119	79
28	175	89	540	321	578	1,590	200	*190	142	72	107	70
29	160	87	540	335	-	1,590	175	180	124	59	83	75
30	146	93	540	349	-----	1,590	146	195	119	49	67	89
31	142	-----	522	364	-----	1,530	-----	195	-----	42	59	-----
Total	6,661	3,915	7,185	10,334	10,792	31,522	23,280	7,204	6,792	5,284	1,790	1,465
Mean	215	130	232	333	385	1,017	776	232	226	170	57.7	48.8
Cfsm	0.171	0.103	0.184	0.264	0.306	0.807	0.616	0.184	0.179	0.135	0.046	0.039
In.	0.20	0.11	0.21	0.30	0.32	0.93	0.69	0.21	0.20	0.16	0.05	0.04
Calendar year 1956: Max	2,550					Min 8	Mean 439	Cfsm 0.348	In. 4.74			
Water year 1956-57: Max	1,590					Min 18	Mean 318	Cfsm 0.252	In. 3.42			

* Discharge measurement made on this day.

Linville River at Branch, N. C.

Location.--Lat 35°47'50", long 81°53'20", on right bank 20 ft downstream from bridge on State Highway 126 at Branch, Burke County, and 0.2 mile upstream from Lake James.

Drainage area.--65 sq mi, approximately.

Records available.--May 1907 to August 1908 (fragmentary, published as "at Fonta Flora"), June 1922 to September 1957. Records for October to December 1908, "at Fonta Flora," published in WSP 242 have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 1,205.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. May 1907 to August 1908 staff gage 1.2 miles downstream at different datum. June 1922 to Aug. 12, 1937 (corrected), staff gage at present site and datum.

Average discharge.--35 years (1922-57), 139 cfs.

Extremes.--Maximum discharge during year, 5,750 cfs Apr. 5 (gage height, 6.68 ft, from floodmark); minimum, 25 cfs Sept. 3, 4; minimum daily, 27 cfs Sept. 3. 1907-8, 1922-57: Maximum discharge, 39,500 cfs Aug. 13, 1940 (gage height, 11.4 ft), from rating curve extended above 6,400 cfs on basis of slope-area determination of peak flow; minimum, 2 cfs Jan. 9, 1956 (result of freezeup); minimum daily, 8 cfs Sept. 7-9, 1925.

Flood in July 1916 reached a stage about 0.4 ft lower than that of Aug. 13, 1940.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
562	1923	May 29, 1923	3,380	+5.5
582	1924	Jan. 11, 1924	5,790	+6.7
602	1925	Dec. 8, 1924	2,180	+4.7
622	1926	Jan. 18, 1926	2,180	+4.7
697	1930	Oct. 22, 1929	3,550	+5.6
727	1932	May 1, 1932	1,470	+4.1
742	1933	Oct. 16, 1932	6,910	+7.1
852	1938	Oct. 19, 1937	4,090	5.92
872	1939	July 9, 1939	4,380	6.07

† From graph based on gage readings.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor.

Revisions (water years).--WSP 892: 1929, 1935, 1937. See also Records available.

Revised figures of discharge, in cubic feet per second, for periods in the water years 1924-28, and 1930, and revised figures of peak discharge for the water year 1939, superseding those published in WSP 582, 602, 622, 642, 662, 697, and 872, are given herewith:

1924		1928	
Sept. 28.....	3,340	Aug. 15.....	2,850
29.....	1,750	16.....	5,000
Dec. 8.....	1,080	Sept. 5.....	959
		6.....	1,440
1926		1929	
July 29.....	283	Oct. 21.....	468
30.....	1,010	22.....	2,230
1927			
Jan. 11.....	105		
12.....	100		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
September 1924.....	3,340	26	263	4.05	4.51
Water year 1923-24.....	3,340	26	163	2.51	34.03
December 1924.....	1,090	41	173	2.66	3.07
Calendar year 1924.....	3,340	26	174	2.68	35.41
Water year 1924-25.....	1,090	8	92.3	1.42	19.29
July 1926.....	1,010	10	77.6	1.19	1.38
Water year 1925-26.....	1,260	10	94.9	1.46	19.80
Calendar year 1926.....	1,260	10	118	1.82	24.55
January 1927.....	247	91	123	1.89	2.18
Water year 1926-27.....	1,020	23	117	1.80	24.41
Calendar year 1927.....	1,780	23	123	1.89	25.71
August 1928.....	5,000	84	524	8.06	9.29
September.....	1,440	102	321	4.94	5.51
Water year 1927-28.....	5,000	23	200	3.08	41.98
Calendar year 1928.....	5,000	50	189	2.91	39.82
October 1929.....	2,230	83	372	5.72	6.60
Calendar year 1929.....	2,940	28	198	3.05	41.37
Water year 1929-30.....	2,230	13	119	1.83	24.93

Revised peak discharge.--1938-39: July 9 (1 a.m.) 4,380 cfs; Aug. 18 (2 p.m.) 4,090 cfs.

Linville River at Branch, N. C.--Continued

Rating table, water year 1956-57, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	27	3.0	550
1.7	49	4.0	1,490
1.9	82	5.0	2,740
2.2	155	6.0	4,300
2.5	283		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	679	69	113	1,120	845	172	a140	113	272	60	29
2	45	438	68	97	658	508	1,560	a130	105	219	56	28
3	42	286	64	69	434	369	494	a130	141	*191	54	27
4	42	223	64	92	375	299	a900	a120	149	171	49	28
5	181	184	64	110	323	251	a3,400	a120	1,780	152	60	35
6	405	155	61	108	323	219	a1,100	a110	814	135	58	36
7	135	141	61	97	290	205	a900	a110	348	125	*48	42
8	82	133	80	90	268	*201	a700	a100	296	115	45	44
9	66	122	58	86	402	181	a500	a95	428	105	43	123
10	56	108	58	88	428	161	a400	a95	369	99	42	110
11	50	101	56	88	348	155	a320	a110	290	92	39	92
12	47	95	60	82	286	149	a270	a100	239	86	38	73
13	45	88	*90	82	243	141	a240	a95	201	82	*38	54
14	43	82	139	80	212	135	a220	a140	201	77	39	47
15	41	*78	286	77	187	133	a210	*a160	191	86	43	44
16	39	78	268	75	177	122	a200	110	165	117	71	66
17	37	146	201	69	165	115	a200	95	147	99	50	459
18	37	198	161	b44	147	115	a190	90	194	115	49	268
19	39	133	138	b55	144	122	a210	138	222	144	49	177
20	64	115	125	b70	161	115	a190	135	155	103	50	141
21	92	110	115	75	141	108	a180	110	135	82	47	115
22	1,740	103	115	105	130	113	a170	95	127	77	42	113
23	577	97	130	642	125	120	a180	99	375	100	39	127
24	281	90	363	*333	117	110	a250	103	212	122	36	103
25	198	86	272	219	117	127	a200	115	204	103	35	86
26	161	84	201	181	1,930	165	a180	125	201	82	35	77
27	187	82	171	161	732	144	a180	337	549	73	34	69
28	152	71	152	177	836	133	a150	243	435	69	32	88
29	133	82	138	201	-	125	a150	181	613	64	30	456
30	138	73	122	201	-----	120	a140	135	348	88	30	1,080
31	216	-----	115	755	-----	115	-----	122	-----	64	30	-----
Total	5,425	4,461	4,043	4,722	10,817	5,921	14,136	3,968	9,547	3,489	1,371	4,217
Mean	175	149	130	152	386	191	471	128	318	113	44.2	141
Cfsm	2.69	2.29	2.00	2.34	5.94	2.94	7.25	1.97	4.89	1.74	0.680	2.17
In.	3.10	2.55	2.31	2.70	6.19	3.39	8.09	2.27	5.46	2.00	0.78	2.41
Calendar year 1956: Max	1,740				Min	10	Mean	105	Cfsm	1.62	In.	22.02
Water year 1956-57: Max	3,400				Min	27	Mean	198	Cfsm	3.05	In.	41.25

Peak discharge (base, 1,600 cfs).--Oct. 5 (11 p.m.) 1,990 cfs (4.43 ft); Oct. 22 (2 p.m.) 2,920 cfs (5.13 ft); Jan. 31 (11 p.m.) 1,680 cfs (4.17 ft); Feb. 26 (10 a.m.) 3,160 cfs (5.29 ft); Apr. 2 (3 a.m.) 2,660 cfs (4.94 ft); Apr. 5 (about 3 a.m.) 5,750 cfs (8.68 ft); June 5 (7 a.m.) 3,040 cfs (5.21 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for Catawba River near Marion.

b Stage-discharge relation affected by ice.

Lower Little River near All Healing Springs, N. C.

Location.--Lat 35°57', long 81°14', on left bank 0.3 mile downstream from Grassy Creek, 0.4 mile upstream from Lambert Creek, 2.2 miles northeast of All Healing Springs, and 4 miles northwest of Taylorsville, Alexander County.

Drainage area.--31.2 sq mi.

Records available.--January 1953 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 1,070 ft (by barometer).

Extremes.--Maximum discharge during year, 1,160 cfs June 22 (gage height, 11.2 ft, from Floodmark), from rating curve extended above 540 cfs by logarithmic plotting and shape of previous ratings; minimum, 6.7 cfs Oct. 16, 17 (gage height, 0.79 ft).
1953-57: Maximum discharge, that of June 22, 1957; maximum gage height, 11.80 ft Jan. 22, 1954; minimum, 2.9 cfs Sept. 20, 21, 1955.

Remarks.--Records fair.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 6

Nov. 6 to Sept. 30

0.8	7.5	1.5	32	1.07	9.8	2.0	61
1.0	13	1.8	48	1.1	11	3.0	154
1.2	19	2.0	60	1.4	24	5.0	380
				1.7	41	7.0	632

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	17	11	19	245	108	37	31	18	*52	30	14
2	14	16	11	*17	154	67	*126	28	20	44	25	14
3	13	15	11	17	83	51	67	30	23	40	21	15
4	13	14	11	17	60	43	69	28	30	36	26	*15
5	12	14	10	19	50	39	583	26	*200	35	22	14
6	17	13	10	17	45	36	184	25	91	30	18	18
7	12	*12	10	16	42	36	98	24	55	28	*15	26
8	11	12	10	15	39	39	95	23	42	27	15	35
9	10	12	10	15	*45	34	88	22	56	26	14	*149
10	9.2	11	9.8	15	47	33	70	21	47	25	14	41
11	*8.5	11	9.8	14	43	31	60	*24	*40	23	20	43
12	8.5	11	11	14	38	30	53	23	34	23	25	33
13	8.5	10	11	14	36	28	47	20	28	22	17	27
14	8.2	10	9.1	13	34	39	45	28	36	21	29	24
15	8.0	10	*8.1	13	31	39	41	*32	36	23	41	22
16	7.8	10	46	13	30	40	40	24	32	21	27	29
17	7.5	17	35	13	28	34	38	22	46	26	21	*322
18	7.8	17	28	13	26	33	37	21	40	34	91	*96
19	8.8	14	24	14	35	33	37	25	31	30	42	63
20	9.5	13	22	13	36	30	34	28	26	23	32	50
21	14	13	20	12	31	28	33	22	39	22	26	44
22	50	14	30	19	29	*30	50	22	*522	*21	22	36
23	27	13	42	*95	*27	28	42	23	170	22	20	36
24	19	12	*71	49	25	27	38	22	179	25	19	30
25	16	12	50	36	26	33	34	21	109	22	19	27
26	19	12	39	30	58	31	31	22	*88	21	18	26
27	32	12	32	28	47	30	30	28	77	20	17	24
28	22	*11	26	26	114	28	28	22	90	20	16	25
29	18	11	25	26	-	27	44	20	89	19	16	42
30	17	11	22	25	-----	26	39	19	63	19	15	99
31	17	---	20	*161	-----	25	-----	19	-----	18	14	-----
Total	461.3	380	643.6	806	1,504	1,136	2,216	745	2,357	616	747	1,439
Mean	14.9	12.7	27.2	26.1	53.7	36.6	73.9	24.0	78.6	28.3	24.1	48.0
Cfsm	0.478	0.407	0.672	0.837	1.72	1.17	2.37	0.769	2.52	0.843	0.772	1.54
In.	0.55	0.45	1.01	0.96	1.79	1.35	2.64	0.89	2.81	0.97	0.89	1.72

Calendar year 1956: Max 305

Min 3.3

Mean 17.7

Cfsm 0.567

In. 7.72

Water year 1956-57: Max 583

Min 7.5

Mean 36.9

Cfsm 1.18

In. 16.03

Peak discharge (base, 550 cfs).--Apr. 5 (11 a.m.) 940 cfs (9.48 ft); June 22 (about 7 a.m.) 1,160 cfs (11.2 ft); Sept. 17 (12 m.) 657 cfs (7.16 ft).

* Discharge measurement made on this day.

Catawba River at Catawba, N. C.

Location.--Lat 35°43', long 81°04', on right bank at downstream side of bridge on U. S. Highways 64 and 70, half a mile upstream from Lyle Creek, five-eighths of a mile upstream from Southern Railway bridge, and 1 mile northeast of Catawba, Catawba County. Records include flow of Lyle Creek.

Drainage area.--1,535 sq mi, includes that of Lyle Creek.

Records available.--July 1896 to December 1899; June 1900 to April 1902 (gage heights only); November 1934 to September 1957. Gage heights for July 2, Aug. 14, Sept. 3-15, Sept. 18 to Oct. 22, and Oct. 27 to Nov. 2, 1900, published in WSP 48 have been found unreliable and should not be used. Records of discharge for April to December 1901, published in WSP 65 and 75, have been found unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 746.49 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 1896 to April 1902, wire-weight gage at bridge five-eighths of a mile downstream at different datum.

Average discharge.--25 years (1896-99, 1935-57), 2,257 cfs (unadjusted).

Extremes.--Maximum and minimum discharges for the water years 1896-1901, and 1957 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1896†	July 10, 1896	16,100	†7.72	Aug. 30, 31, Sept. 1, 4, 1896	732	1.45
1897	Apr. 5, 1897	65,000	†19.0	Oct. 17-20, 1896	773	1.48
1898	Sept. 23, 1898	79,000	21.5	Oct. 1-9, 1897, June 13, 14, 1898	800	1.6
1899	Mar. 19, 1899	89,200	†23.2	Sept. 26, 27, 30, 1899	1,120	1.95
1900††	Dec. 12, 1899	23,200	†9.8	Oct. 4, 5, 1899	1,050	1.90
1957	Apr. 6, 1957	36,700	19.74	Sept. 15, 1957	85	2.10

† Period July to September.

‡ From graph based on gage readings.

†† Period October to December.

‡‡ Observed.

1896-1901, 1934-57: Maximum discharge, 177,000 cfs Aug. 14, 1940 (gage height, 36.8 ft, from floodmarks), from rating curve extended above 24,000 cfs on basis of computation by Duke Power Co. of peak flow over dam; minimum, 85 cfs Sept. 15, 1957; minimum daily, 89 cfs Sept. 15, 1957.

Maximum stage known, 44.1 ft July 16, 1916, affected by failure of earth dike at Lookout Shoals Dam, 4 miles above station, from information furnished by State Highway and Public Works Commission.

Remarks.--Records fair. Flow regulated by four lakes above station which have a combined usable capacity of 14,975,000,000 cu ft. Flow regulated since 1915.

Revisions (water years).--WSP 892: 1936-38. WSP 952: Drainage area. See also Records available. Revised figures of discharge for the water years 1896-1900, superseding figures published in the 18th to 21st Annual Reports and WSP 11, 27, 39, are given herein.

Discharge, in cubic feet per second, July to September 1896

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1		1,960	732	9	12,000	1,400	940	17	3,400	1,720	1,240	25	2,410	1,020	828
2	1,200	1,960	1,320	10	16,100	1,480	828	18	3,200	1,400	940	26	2,410	940	773
3		1,860	773	11	15,500	1,560	828	19	3,000	1,240	828	27	2,230	940	773
4	*2,260	2,050	732	12	11,000	1,560	1,090	20	3,000	1,090	912	28	3,200	828	828
5	2,080	1,800	4,030	13	8,820	1,400	1,480	21	2,600	1,090	828	29	2,410	828	870
6	5,260	1,640	2,050	14	6,740	1,400	1,090	22	2,800	940	870	30	2,140	*732	5,700
7	3,920	1,560	2,050	15	4,740	1,560	940	23	2,800	1,020	828	31	2,050	732	-
8	9,920	1,400	1,090	16	4,030	1,800	940	24	2,600	1,090	828				
Total.....													146,220	42,020	37,959
Mean.....													4,717	1,355	1,265
Cubic feet per second per square mile.....													3.07	0.883	0.824
Runoff in inches.....													3.54	1.02	0.92

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of discharge measurements and records for other streams.

Catawba River at Catawba, N. C.--Continued

Discharge, in cubic feet per second, water year October 1896 to September 1897

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,320	1,090	9,880	1,240	1,980	3,000	3,000	11,000	1,800	1,560	1,480	940
2	1,980	1,020	9,080	1,320	5,700	2,320	3,200	6,740	1,720	1,560	1,320	940
3	1,400	912	4,030	1,400	4,740	2,140	5,700	5,460	1,640	1,560	*1,240	870
4	1,020	1,400	2,600	1,240	3,600	2,050	8,110	4,260	1,560	1,560	2,050	870
5	828	15,200	2,600	1,880	2,600	1,960	50,000	3,810	3,000	1,640	3,200	940
6	912	5,460	2,050	1,560	31,900	17,800	17,600	3,200	2,410	2,050	3,400	940
7	912	4,260	2,050	1,480	27,800	7,000	10,400	3,000	3,200	1,880	3,200	940
8	870	2,050	1,880	1,400	*10,400	3,200	5,460	2,800	4,260	4,030	3,000	940
9	828	1,720	1,720	1,400	5,460	9,600	5,700	2,800	4,260	3,000	2,410	940
10	828	1,480	1,720	1,480	4,740	11,000	5,220	3,000	3,200	2,410	2,600	940
11	828	1,400	1,560	1,480	4,260	9,600	4,740	3,000	2,600	2,050	2,320	940
12	870	1,400	1,560	1,480	7,260	8,300	3,810	3,000	2,230	1,960	2,140	940
13	870	1,320	1,560	1,400	5,960	11,600	3,400	6,220	2,140	2,230	1,880	940
14	1,090	1,240	1,480	1,480	4,500	11,000	3,400	4,030	2,050	2,050	1,640	940
15	940	1,400	5,220	1,480	4,260	10,700	3,400	3,200	1,960	1,960	1,480	940
16	828	1,400	4,980	1,560	6,220	10,400	3,400	2,410	1,880	1,960	1,240	940
17	773	1,400	4,030	1,560	5,220	9,600	3,400	2,320	2,140	2,050	1,160	940
18	773	1,400	3,400	1,880	3,000	6,740	3,400	2,230	2,230	2,050	1,090	940
19	773	1,400	3,400	1,560	3,000	5,700	3,000	2,230	2,410	1,960	1,090	940
20	773	1,400	2,230	1,880	3,000	7,780	3,000	2,230	2,050	2,050	1,090	940
21	912	1,400	1,880	6,740	3,810	6,480	3,000	2,230	1,880	3,200	1,090	940
22	800	1,400	1,640	5,220	3,600	4,980	3,000	2,050	1,800	3,000	1,020	1,090
23	828	1,320	1,560	3,810	19,900	4,260	3,000	1,960	1,720	3,000	1,020	1,560
24	912	1,320	1,720	2,320	23,000	3,810	3,000	1,880	1,720	3,000	1,020	1,480
25	912	1,240	1,560	2,050	6,220	3,400	3,000	1,880	1,720	3,000	1,020	1,400
26	828	1,160	1,480	1,880	4,740	3,400	3,000	2,410	1,640	2,600	940	1,400
27	828	1,090	1,320	1,800	3,400	3,000	3,000	2,050	1,840	2,800	940	1,320
28	828	1,090	1,400	1,560	3,200	3,000	3,000	1,960	1,560	2,800	940	1,240
29	870	3,400	1,400	1,320	3,000	3,000	1,880	1,560	2,410	1,560	940	1,090
30	870	15,200	1,400	b1,500	-----	3,000	5,460	1,880	1,560	2,140	940	940
31	1,090	-----	1,400	b1,500	-----	3,000	-----	1,800	-----	1,800	940	-----
Total	30,074	76,972	83,790	59,660	213,450	192,920	181,800	99,010	65,540	71,120	49,840	31,120
Mean	970	2,566	2,703	1,925	7,623	6,223	6,060	3,194	2,185	2,294	1,608	1,037
Cfsm	0.632	1.67	1.76	1.25	4.97	4.05	3.95	2.08	1.42	1.49	1.05	0.676
In.	0.73	1.86	2.03	1.45	5.17	4.67	4.40	2.40	1.59	1.72	1.21	0.75

Calendar year 1896: Max - Min - Mean - Cfsm - In. -
 Water year 1896-97: Max 50,000 Min 773 Mean 3,165 Cfsm 2.06 In. 27.98

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Discharge, in cubic feet per second, water year October 1897 to September 1898

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	800	1,560	1,400	1,190	1,470	1,120	3,690	1,330	1,050	920	3,940	2,750
2	800	3,400	1,330	1,190	1,330	1,120	2,970	1,330	1,050	920	3,940	2,150
3	800	2,410	1,260	1,190	1,260	1,050	2,150	1,330	920	920	2,970	3,690
4	800	1,560	1,260	1,120	1,190	1,050	1,790	1,260	920	920	2,440	9,600
5	*800	1,400	1,190	1,190	1,190	1,050	2,970	1,540	920	1,190	22,400	9,880
6	800	1,320	1,190	1,050	1,190	1,050	2,750	2,150	920	1,970	6,830	6,290
7	800	1,320	1,120	1,190	1,190	1,050	2,150	1,970	920	1,700	6,290	7,920
8	800	1,320	1,050	1,260	1,190	1,050	1,620	1,700	860	1,970	4,190	5,220
9	800	1,160	1,050	1,190	1,190	1,050	1,470	1,540	860	2,540	4,440	4,440
10	940	1,160	1,050	1,120	1,190	1,050	1,400	1,400	860	1,700	4,700	3,440
11	3,400	1,090	1,050	1,120	1,190	1,050	1,400	1,260	860	1,190	7,100	2,150
12	17,000	1,090	1,050	1,190	1,190	1,050	1,330	1,190	860	1,190	12,500	1,790
13	7,100	1,090	985	1,190	1,190	1,050	1,330	1,190	800	985	7,640	1,700
14	3,000	1,090	985	*1,190	1,190	1,050	1,330	1,120	800	6,020	4,190	1,620
15	1,560	1,090	985	1,190	1,190	1,050	1,330	1,050	1,050	14,000	3,440	1,620
16	1,400	1,090	985	1,120	1,120	1,050	1,790	1,050	1,190	5,750	3,200	1,470
17	1,400	1,090	985	1,120	1,120	1,190	1,620	1,050	4,190	5,480	2,750	1,330
18	2,410	1,090	985	1,120	1,120	1,330	1,540	1,050	1,970	4,700	2,750	1,330
19	2,230	1,090	985	1,120	1,120	1,260	1,470	985	1,190	3,200	6,290	1,330
20	1,960	1,090	1,050	1,540	1,120	1,260	1,470	985	1,120	1,970	6,290	1,330
21	1,560	1,090	1,970	2,970	1,190	1,190	1,470	985	1,120	1,790	5,480	1,260
22	1,400	1,090	1,970	2,970	1,190	1,190	1,470	985	920	1,790	3,440	2,320
23	1,240	1,090	1,790	2,400	1,190	1,190	1,620	4,190	920	2,970	2,970	57,700
24	1,160	1,090	1,620	1,970	1,120	1,190	1,540	2,560	920	6,830	1,970	30,400
25	1,160	1,090	1,540	2,970	1,120	1,120	1,470	1,470	920	5,220	1,970	10,200
26	*1,240	2,410	1,540	9,600	1,120	1,120	1,400	1,190	920	3,690	2,150	9,320
27	1,240	3,400	1,470	3,940	1,120	2,750	1,330	1,050	920	2,540	2,060	8,760
28	1,240	1,970	1,470	2,970	1,120	2,970	1,330	1,050	985	3,940	1,880	5,750
29	1,240	1,540	1,400	2,440	-	4,190	1,330	1,120	920	4,190	7,830	3,940
30	1,160	1,470	1,400	1,790	-----	13,000	1,330	1,120	920	3,200	3,690	3,690
31	1,090	-----	1,190	1,620	-----	10,800	-----	1,120	-----	4,190	3,200	-----
Total	63,330	43,750	59,305	59,130	33,110	62,690	51,860	43,320	32,775	99,585	154,930	204,390
Mean	2,043	1,458	1,268	1,907	1,182	2,022	1,729	1,397	1,092	3,212	4,998	6,813
Cfsm	1.33	0.950	0.826	1.24	0.770	1.32	1.13	0.910	0.711	2.09	3.26	4.44
In.	1.53	1.06	0.95	1.43	0.80	1.52	1.26	1.05	0.79	2.41	3.75	4.95

Calendar year 1897: Max 50,000 Min 800 Mean 3,043 Cfsm 1.98 In. 26.90
 Water year 1897-98: Max 57,700 Min 800 Mean 2,433 Cfsm 1.59 In. 21.50

* Discharge measurement made on this day.

Catawba River at Catawba, N. C.--Continued

Discharge, in cubic feet per second, water year October 1898 to September 1899

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,440	3,200	2,150	4,190	2,340	9,320	7,100	3,940	2,970	1,790	1,620	3,940
2	2,970	2,970	2,150	3,200	2,340	6,290	6,560	3,940	2,970	1,700	1,540	2,750
3	4,190	2,540	2,150	2,970	2,540	5,480	5,220	3,690	2,750	1,620	1,470	2,440
4	22,800	2,540	6,830	2,540	18,800	5,480	5,480	3,690	2,540	1,620	1,400	2,150
5	30,000	2,540	9,880	2,540	18,800	15,200	7,100	3,690	2,440	1,700	1,330	1,790
6	14,600	2,440	5,220	6,740	22,400	10,700	6,560	3,440	2,340	1,790	1,330	1,470
7	11,300	2,340	3,940	19,000	20,400	6,290	10,200	7,920	2,240	1,970	1,330	1,470
8	8,200	2,240	2,970	7,370	14,600	6,020	19,700	7,370	2,150	2,150	1,620	1,470
9	5,750	2,150	2,750	6,560	9,880	5,480	10,400	6,020	3,940	1,970	1,790	1,620
10	4,960	2,150	2,640	5,480	6,290	4,960	8,480	4,960	2,750	1,790	1,700	1,970
11	4,440	2,150	2,540	5,220	4,440	4,700	6,830	4,440	2,750	1,790	2,540	1,790
12	3,940	2,150	2,340	5,220	b3,000	4,440	6,290	4,960	3,940	1,700	2,150	1,470
13	3,440	2,150	2,340	4,960	b2,400	4,440	5,750	8,480	3,440	1,620	1,790	1,190
14	3,200	2,340	2,240	4,190	b2,200	9,600	5,480	4,960	3,440	1,470	1,470	1,190
15	2,970	2,440	1,970	4,960	b2,200	39,000	5,220	4,440	2,970	1,470	1,190	1,190
16	2,540	2,440	1,970	4,440	6,020	33,300	4,960	3,940	2,970	1,470	1,330	1,190
17	2,540	2,540	1,970	3,690	14,900	14,400	4,700	3,440	2,750	1,470	1,260	1,190
18	3,940	2,970	1,970	3,200	8,200	15,000	4,440	2,970	2,750	1,540	1,190	1,190
19	3,440	3,690	1,970	2,970	6,290	73,100	4,190	2,970	2,540	1,470	1,190	2,640
20	4,190	3,440	1,970	2,750	5,480	52,700	4,190	2,970	2,340	1,400	1,190	1,620
21	17,900	2,970	2,750	2,540	4,960	14,600	4,190	2,750	2,150	1,400	1,190	1,400
22	15,200	2,540	2,970	2,340	4,190	13,700	4,190	2,970	1,970	1,400	1,190	1,190
23	12,800	2,970	3,440	2,340	3,940	10,700	4,190	2,970	1,790	1,400	1,190	1,190
24	8,200	3,200	3,440	2,340	3,440	9,040	4,190	2,750	1,620	1,400	1,190	1,190
25	5,750	2,970	3,200	2,970	3,440	7,640	4,700	2,640	1,620	1,400	1,260	1,190
26	4,960	2,640	2,970	2,640	4,700	7,370	6,830	2,540	2,150	4,700	1,260	1,120
27	4,190	2,340	2,970	2,340	37,200	12,500	6,830	2,540	1,970	3,690	1,260	1,120
28	3,690	2,340	2,750	2,340	12,800	12,500	6,020	2,540	1,790	2,340	1,330	1,190
29	3,690	2,340	2,640	2,340	-	11,000	4,440	2,540	1,790	1,790	1,540	1,190
30	3,690	2,240	2,640	2,340	-----	9,600	3,940	2,540	1,790	1,700	1,700	1,120
31	3,440	-----	2,750	2,340	-----	8,200	-----	2,540	-----	1,620	5,480	-----
Total	226,360	77,970	94,480	129,060	248,190	442,750	188,370	121,550	75,620	56,340	49,020	47,630
Mean	7,302	2,599	3,048	4,163	8,864	14,280	6,279	3,921	2,521	1,817	1,581	1,588
Cfsm	4.76	1.69	1.99	2.71	5.77	9.30	4.09	2.55	1.64	1.18	1.03	1.03
In.	5.48	1.89	2.29	3.13	6.01	10.73	4.56	2.94	1.83	1.37	1.19	1.15

Calendar year 1898: Max 57,700 Min 800 Mean 3,125 Cfsm 2.04 In. 27.62

Water year 1898-99: Max 73,100 Min 1,120 Mean 4,815 Cfsm 3.14 In. 42.57

b Stage-discharge relation affected by ice.

Discharge, in cubic feet per second, October to December 1899

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,120	1,330	1,330									
2	1,120	1,400	1,400									
3	1,120	1,330	1,400									
4	1,050	1,400	1,400									
5	1,050	1,470	1,400									
6	1,190	1,470	1,400									
7	1,330	1,470	1,330									
8	1,470	1,400	1,330									
9	*1,700	1,330	1,330									
10	1,620	1,330	1,330									
11	1,540	1,330	1,400									
12	1,470	1,330	12,500									
13	1,470	1,330	11,300									
14	1,400	1,330	3,690									
15	1,330	1,330	2,750									
16	1,260	1,330	*2,150									
17	1,260	1,260	2,060									
18	1,260	1,260	1,970									
19	1,330	1,260	1,970									
20	1,330	1,260	1,880									
21	1,330	1,190	1,700									
22	1,330	1,190	1,540									
23	1,330	*1,190	2,970									
24	1,330	1,190	3,200									
25	1,330	1,190	3,200									
26	1,330	1,260	d2,800									
27	1,260	1,260	d2,500									
28	1,260	1,260	d2,100									
29	1,260	1,330	b1,800									
30	1,190	1,330	b1,700		-----							
31	1,260	-----	b1,600		-----							
Total	40,630	39,340	80,430									
Mean	1,311	1,311	2,595									
Cfsm	0.854	0.854	1.69									
In.	0.98	0.95	1.95									

Calendar year 1899: Max 73,100 Min 1,050 Mean 4,161 Cfsm 2.71 In. 36.79

Water year : Max Min Mean Cfsm In.

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge estimated by hydrographic comparison with other streams.

Catawba River at Catawba, N. C.--Continued

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.1	85	4.0	1,900
2.2	107	5.0	3,480
2.3	137	7.0	6,850
2.5	221	10.0	12,300
2.8	408	13.0	18,400
3.3	910	17.0	27,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	3,090	145	1,610	3,650	5,150	2,980	3,310	156	4,980	2,650	152
2	638	2,900	219	2,170	9,140	4,690	4,980	2,420	167	3,750	1,210	310
3	883	1,470	1,630	2,190	3,150	2,910	4,980	3,140	2,850	3,750	674	2,540
4	632	137	1,280	2,450	3,200	4,410	4,980	617	3,550	1,640	125	2,440
5	432	2,920	1,440	238	4,270	4,980	17,500	226	9,300	1,650	2,130	2,570
6	248	2,850	1,400	268	3,640	4,980	*26,300	2,220	16,000	1,650	*2,100	1,590
7	167	3,110	1,090	2,350	3,460	4,980	12,100	2,540	10,200	137	1,900	709
8	2,000	3,140	*332	2,350	3,270	4,980	9,860	2,100	5,490	3,160	2,240	142
9	1,860	2,930	296	1,970	3,050	3,730	7,530	2,670	9,860	3,070	1,590	2,530
10	2,260	418	2,040	2,650	492	722	7,530	1,680	7,020	2,410	792	2,860
11	2,420	145	2,020	2,490	3,220	3,000	5,320	348	5,490	3,010	110	2,800
12	1,550	2,880	1,750	238	3,260	3,420	5,150	216	5,150	2,490	1,720	2,590
13	167	2,670	2,130	240	4,980	2,990	5,150	2,520	5,150	568	1,850	982
14	152	2,980	*2,200	2,260	4,980	2,820	5,150	2,130	5,150	804	1,830	504
15	1,640	2,450	619	2,760	3,640	2,790	5,150	2,440	5,150	1,920	1,710	89
16	1,890	2,550	275	2,350	1,670	1,040	5,150	2,530	5,150	2,680	958	2,610
17	1,660	556	2,830	2,540	969	310	4,980	2,400	5,150	1,960	402	4,610
18	1,610	189	3,000	2,500	3,210	2,510	4,980	498	5,150	2,620	119	4,810
19	1,760	1,660	2,600	443	3,070	2,560	4,980	167	5,150	1,880	1,810	4,980
20	156	2,170	2,540	252	2,910	2,740	2,150	2,200	5,150	198	1,840	4,470
21	167	2,670	1,010	2,320	3,100	2,650	582	2,410	4,680	137	824	504
22	1,830	334	734	2,250	2,870	2,640	2,670	2,100	3,470	986	1,500	105
23	2,190	1,500	430	2,410	1,210	573	4,740	2,170	221	2,000	986	2,690
24	2,070	430	526	2,510	708	207	*3,200	1,980	3,540	2,290	116	3,180
25	2,260	137	243	2,420	2,560	2,750	3,120	1,330	4,640	2,030	98	3,090
26	2,800	1,650	1,320	180	3,350	2,920	3,020	333	5,150	1,520	1,970	3,030
27	1,580	728	1,540	225	3,530	2,880	1,290	2,120	5,150	418	2,310	2,920
28	849	1,520	1,150	2,620	5,150	2,810	199	2,440	4,980	125	2,460	808
29	2,910	1,070	592	1,790	-	*2,840	2,630	2,500	4,640	2,300	2,550	390
30	3,050	1,340	568	1,320	-	396	3,260	3,080	4,470	2,510	2,490	3,390
31	2,800	-	1,550	3,910	-	296	-	1,390	-	2,000	367	-
Total	45,451	52,594	39,679	56,267	91,709	86,674	171,610	58,225	157,374	60,643	43,431	64,205
(+)	1,466	1,753	1,260	1,615	3,275	2,796	5,720	1,878	5,246	1,958	1,401	2,140
(-)	-76	-351	+475	+159	+637	-85	+50	+4	+44	-285	-519	+340

		Observed			Adjusted			
Calendar year 1956:	Max	5,180	Min	105	Mean	1,273	Mean	1,356
Water year 1956-57:	Max	26,300	Min	89	Mean	2,542	Mean	2,570
							Cfsm	0.883 In.
							Cfsm	1.67 In.
								12.02
								22.73

* Discharge measurement made on this day.

† Observed mean.

* Change in contents, equivalent in cubic feet per second, in Lake James, Rhodhiss Lake, Lake Hickory, and Lookout Shoals Lake; furnished by Duke Power Co.

Henry Fork near Henry River, N. C.

Location.--Lat 35°41', long 81°24', on left bank 450 ft downstream from highway bridge, at site of old Link Ford, 1½ miles downstream from Burke-Catawba County line, and 2 miles southeast of village of Henry River, Burke County.

Drainage area.--80 sq mi, approximately.

Records available.--July 1925 to November 1931, December 1941 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 890.99 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 1, 1931, at site 450 ft upstream at same datum.

Average discharge.--21 years (1925-31, 1942-57), 120 cfs.

Extremes.--Maximum discharge during year, 3,360 cfs Apr. 5 (gage height, 8.17 ft), minimum, 7.8 cfs Dec. 8; minimum daily, 8.7 cfs Dec. 9.
1925-31, 1941-57: Maximum discharge, 15,300 cfs Oct. 2, 1929 (gage height, 18.40 ft, site then in use), from rating curve extended above 2,300 cfs on basis of computation of peak flow over dam at Henry River, at gage height 29.2 ft; minimum, 3 cfs Dec. 20, 1942; minimum daily, 4 cfs Nov. 15, Dec. 20, 1942.
Maximum stage known, 29.2 ft Aug. 13, 1940, at former site, from floodmarks (discharge, 31,300 cfs).

Remarks.--Records good except those for periods of doubtful gage-height record, which are fair. Considerable diurnal fluctuation and some regulation caused by mill above station. An average of about 2.1 cfs was diverted for water supply by city of Morganton and Morganton State Hospital and discharged into Catawba River.

Revisions (water years).--WSP 952: 1928, 1930.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.6	7.0	2.0	241
.7	12	3.0	615
.8	19	4.0	1,070
1.0	41	5.0	1,520
1.2	70	7.0	2,600
1.6	141		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	89	49	86	1,210	722	150	131	77	d135	61	13
2	49	100	14	89	789	*327	400	125	93	d117	89	58
3	47	81	48	74	320	d235	241	125	108	d110	56	86
4	46	70	64	71	146	d200	225	127	207	d103	68	54
5	45	73	66	49	160	d175	2,350	117	630	d89	89	30
6	67	61	68	28	161	d161	951	119	277	d94	*78	50
7	17	58	30	83	148	d152	373	110	175	d93	80	46
8	25	58	27	81	141	d168	230	107	161	d94	49	*16
9	44	56	8.7	83	187	d148	265	107	310	d83	64	292
10	43	45	44	45	192	d137	227	101	238	*d86	63	218
11	*45	*44	43	59	163	d137	203	108	*180	89	13	103
12	44	58	44	48	141	d129	190	110	152	86	61	86
13	11	54	48	17	127	d125	254	108	131	73	83	86
14	19	54	71	65	119	d129	170	204	125	31	50	73
15	54	55	187	55	114	d139	120	*293	112	109	66	15
16	27	54	129	64	108	d135	108	161	107	105	84	102
17	45	49	103	46	100	d125	150	131	112	*89	62	1,100
18	44	101	83	66	108	d125	148	119	145	89	42	282
19	47	84	73	*62	144	d137	148	135	110	89	116	177
20	56	67	67	10	192	d129	137	154	103	63	89	139
21	37	64	64	64	152	d117	137	125	126	75	84	117
22	256	62	70	94	131	*127	156	125	241	86	86	98
23	142	62	152	*373	117	121	192	119	390	84	77	98
24	89	42	392	224	108	114	185	114	319	83	41	89
25	73	44	210	143	121	154	163	108	192	59	14	83
26	73	67	135	114	334	180	148	107	233	60	65	86
27	67	62	108	101	287	163	*139	123	175	57	62	88
28	72	60	98	105	773	145	139	114	161	58	65	74
29	73	48	86	94	-	135	135	114	213	78	67	335
30	62	64	73	103	-----	123	137	101	161	81	51	1,100
31	73	-----	86	861	-----	117	-----	101	-----	79	30	-----
Total	1,853	1,886	2,740.7	3,457	6,793	5,229	8,601	3,943	5,764	2,627	2,005	5,194
Mean	59.8	62.9	88.4	112	243	169	287	127	192	84.7	64.7	173
Cfsm	0.748	0.786	1.10	1.40	3.04	2.11	3.59	1.59	2.40	1.06	0.809	2.16
In.	0.86	0.88	1.27	1.61	3.16	2.43	4.00	1.83	2.68	1.22	0.93	2.41
Calendar year 1956: Max 1,300 Min 4.9 Mean 83.7 Cfsm 1.05 In. 14.24												
Water year 1956-57: Max 2,380 Min 8.7 Mean 137 Cfsm 1.71 In. 23.28												

* Peak discharge (base, 2,800 cfs).--Apr. 5 (9 a.m.) 3,360 cfs (8.17 ft).

* Discharge measurement made on this day.

d Doubtful gage-height record; discharge computed from doubtful gage heights.

Indian Creek near Laboratory, N. C.

Location.--Lat 35°25'20", long 81°15'50", on left bank 250 ft upstream from remains of Rudisill Mill dam, half a mile upstream from highway bridge, 1½ miles upstream from mouth, 1½ miles south of Laboratory, Lincoln County, and 3½ miles south of Lincolnton.

Drainage area.--68.4 sq mi.

Records available.--August 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 736 ft (by barometer).

Average discharge.--6 years, 69.3 cfs.

Extremes.--Maximum discharge during year, 2,220 cfs Feb. 1 (gage height, 5.73 ft); minimum, 20 cfs Aug. 13, 14, Sept. 3-6 (gage height, 0.82 ft).

1951-57: Maximum discharge, 5,030 cfs Mar. 4, 1952 (gage height, 8.74 ft), from rating curve extended above 2,300 cfs on basis of computation of peak flow over dam at gage heights 6.27 and 8.74 ft; minimum, 4.6 cfs Oct. 8, 1954.

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	18	2.5	362
.9	30	3.0	444
1.0	49	3.5	564
1.2	101	4.0	750
1.4	156	4.5	1,090
1.7	231	5.0	1,540
2.0	289		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	a40	36	51	*1,460	787	73	51	45	54	25	23
2	34	a38	36	47	625	188	128	51	43	51	30	23
3	30	a36	34	45	208	132	87	51	45	49	25	23
4	29	a36	34	45	148	109	81	54	417	45	115	20
5	29	a36	34	56	123	98	432	49	*506	43	64	22
6		a36	34	49	109	95	304	47	332	41	32	23
7	*222	a36	34	47	107	93	137	45	259	40	28	23
8	87	a34	34	45	98	126	125	43	133	38	*26	29
9	54	a34	34	45	123	95	120	43	1,200	36	25	105
10	45	a34	34	43	118	84	98	43	182	34	24	80
11	40	a34	32	41	95	81	93	49	87	*32	23	40
12	38	a32	34	41	90	79	87	49	75	32	22	30
13	36	*30	41	41	84	73	*81	43	59	30	22	29
14	36	29	43	41	76	79	76	43	51	29	87	26
15	34	29	138	41	71	79	71	184	47	30	98	26
16	32	30	104	41	68	71	68	84	43	40	41	58
17	30	128	71	41	66	68	68	54	41	*30	29	391
18	34	101	59	40	53	68	68	49	*68	91	38	170
19	36	63	*51	40	128	84	71	47	191	45	98	90
20	36	54	47	40	115	68	66	59	79	36	47	71
21	40	47	45	40	87	66	63	*45	61	34	*36	61
22	108	45	66	45	73	104	70	47	92	29	32	51
23	68	41	142	95	66	81	202	51	63	26	30	322
24	49	40	270	59	63	76	84	93	63	45	30	101
25	43	40	134	54	71	150	68	83	159	34	30	71
26	41	40	95	51	115	115	63	51	253	29	29	59
27	a55	38	81	*54	115	98	59	54	87	28	26	51
28	a46	36	68	51	409	87	56	45	81	28	*26	54
29	a42	36	63	79	-	81	54	43	93	26	26	188
30	a40	36	56	161	-----	76	54	56	61	26	25	297
31	a44	-----	54	327	-----	71	-----	49	-----	26	24	-----
Total	1,537	1,289	2,036	1,896	4,974	3,562	3,107	1,755	4,914	1,157	1,213	2,557
Mean	49.6	43.0	65.7	61.2	178	115	104	56.6	164	37.3	39.1	85.2
Cfsm	0.725	0.629	0.961	0.895	2.60	1.68	1.52	0.827	2.40	0.545	0.572	1.25
In.	0.84	0.70	1.11	1.03	2.70	1.94	1.69	0.95	2.67	0.63	0.66	1.39

Calendar year 1956: Max 1,140 Min 6.4 Mean 61.3 Cfsm 0.896 In. 12.19

Water year 1956-57: Max 1,460 Min 20 Mean 82.2 Cfsm 1.20 In. 16.31

Peak discharge (base, 1,500 cfs).--Feb. 1 (3 p.m.) 2,220 cfs (5.73 ft); June 9 (2 p.m.) 1,580 cfs (5.07 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations.

Long Creek near Bessemer City, N. C.

Location.--Lat 35°18'20", long 81°14'05", on right bank 700 ft upstream from highway bridge (relocated), 2 miles northeast of Bessemer City limits, Gaston County, and 8½ miles upstream from mouth.

Drainage area.--31.4 sq mi.

Records available.--December 1952 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 706.1 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 722 cfs Jan. 31 (gage height, 4.66 ft); minimum, 1.9 cfs Aug. 4 (gage height, 1.08 ft); minimum daily, 2.9 cfs Aug. 13.
1952-57: Maximum discharge, 1,040 cfs May 21, 1955 (gage height, 5.33 ft); minimum, 0.4 cfs Oct. 7, 1954; minimum daily, 0.8 cfs Oct. 7, 1954.

Remarks.--Records good except those below 4 cfs, which are poor. Bessemer City diverts out of basin approximately 1.3 cfs for water supply, causing diurnal fluctuation at low flow.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 25

Mar. 26 to Sept. 30

1.2	7.2	2.4	76	1.1	2.1	1.8	21
1.4	11	3.0	175	1.2	3.3	2.0	34
1.7	21	3.5	296	1.4	6.6	2.4	76
2.0	36	4.0	462	1.6	12	2.7	120

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	11	12	17	322	115	33	17	16	9.6	4.2	5.9
2	12	11	13	16	106	55	50	16	15	9.3	4.2	5.2
3	11	9.8	12	16	55	43	33	91	14	8.8	4.6	4.4
4	11	10	13	16	43	37	32	28	*14	8.8	12	3.9
5	11	11	12	22	52	33	106	22	33	8.3	12	3.1
6	*16	11	12	18	67	31	56	19	25	9.9	6.2	3.9
7	13	11	13	18	78	33	40	18	18	8.3	5.2	4.0
8	10	11	12	18	171	46	59	16	15	7.6	*5.2	4.2
9	10	14	12	16	102	33	40	16	40	6.6	5.2	20
10	8.4	10	12	15	74	29	33	16	23	*5.5	3.3	7.8
11	9.4	*11	12	15	49	29	31	31	18	5.9	3.3	5.7
12	8.2	9.6	12	13	37	27	30	28	16	5.3	3.6	*6.1
13	7.2	10	13	15	34	27	*28	19	14	5.5	2.9	4.6
14	9.2	9.0	15	15	31	33	27	17	12	5.0	60	5.5
15	8.8	11	19	14	28	29	26	19	13	9.6	*27	5.5
16	8.6	9.4	17	14	28	27	25	27	13	9.3	17	7.1
17	7.8	141	15	13	26	26	25	18	16	*4.8	5.7	29
18	10	56	13	13	25	26	25	17	18	11	55	50
19	9.8	28	13	*13	78	33	26	20	14	12	21	13
20	10	22	12	13	53	27	24	58	14	8.3	11	15
21	12	19	13	13	34	25	23	*17	12	6.4	9.6	16
22	24	18	*19	17	31	82	22	16	11	5.9	6.6	10
23	14	17	49	30	29	41	23	16	11	5.3	7.3	11
24	13	16	118	19	27	35	23	16	10	9.0	5.7	8.3
25	11	16	40	18	30	124	21	20	13	7.1	7.3	8.3
26	11	14	28	18	59	57	20	16	16	5.5	7.1	7.1
27	12	14	23	18	55	43	19	18	14	5.9	*5.2	8.3
28	12	13	22	18	285	38	20	14	12	6.2	5.9	11
29	9.8	15	20	24	-	38	20	13	13	5.7	4.5	38
30	11	14	17	42	-----	34	17	33	10	5.2	5.9	39
31	11	-----	18	110	-----	33	-----	20	-----	4.8	4.0	-----
Total	346.2	572.8	631	637	2,009	1,289	957	692	483	226.4	337.7	360.9
Mean	11.2	19.1	20.4	20.5	71.8	41.6	31.9	22.3	16.1	7.30	10.9	12.0
Cfsm	0.357	0.606	0.650	0.653	2.29	1.32	1.02	0.710	0.513	0.232	0.347	0.382
In.	0.41	0.68	0.75	0.75	2.38	1.53	1.13	0.82	0.57	0.27	0.40	0.43
Calendar year 1956:	Max	612		Min	1.2	Mean	25.0	Cfsm	0.796	In.	10.84	
Water year 1956-57:	Max	322		Min	2.9	Mean	23.4	Cfsm	0.745	In.	10.12	

Peak discharge (base, 650 cfs).--Jan. 31 (12 p.m.) 722 cfs (4.66 ft).

* Discharge measurement made on this day.

South Fork Catawba River at Lowell, N. C.

Location.--Lat 35°17'09", long 81°06'04", on right bank 50 ft north of private mill road, 120 ft downstream from Housers Creek, 1 mile north of Lowell, Gaston County, and 3 miles downstream from Long Creek.

Drainage area.--630 sq mi.

Records available.--January 1942 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 603.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--15 years, 752 cfs.

Extremes.--Maximum discharge during year, 8,800 cfs Feb. 2 (gage height, 11.04 ft); minimum, 97 cfs July 16 (gage height, 1.42 ft); minimum daily, 198 cfs Aug. 13. 1942-57: Maximum discharge, 22,000 cfs Sept. 19, 1945 (gage height, 16.98 ft); minimum, 25 cfs Sept. 27, Oct. 4, 1954 (gage height, 0.75 ft); minimum daily, 31 cfs Oct. 8, 1954.

Maximum stage known, 21.33 ft in August 1940, from floodmarks (discharge, 34,000 cfs).

Remarks.--Records good except those for periods of no gage-height record, which are poor. Considerable diurnal fluctuation and slight regulation for short periods at low flow caused by powerplant above station. City of Gastonia diverted for water supply an average of 5.6 cfs from Long Creek and 2.6 cfs from South Fork Catawba River. A part of the diversion is returned to Long Creek as sewage. For diversion by town of Morganton see Henry Fork near Henry River, and by Bessemer City see Long Creek near Bessemer City.

Revisions (water years).--WSP 1002: 1943(m).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-23		Oct. 24 to Sept. 30	
2.0	230	1.9	189
2.5	379	2.2	260
3.0	550	2.5	349
4.0	1,040	3.0	522
		3.5	750
		4.0	1,040
		5.0	1,700
		7.0	3,240
		9.0	5,380
		11.0	8,800

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	515	359	309	484	7,000	5,050	675	542	448	650	312	247
2	436	365	309	448	*7,740	3,240	980	522	424	562	280	213
3	392	362	312	451	4,810	*2,280	1,220	605	*448	522	321	234
4	363	362	277	414	2,600	1,280	1,010	562	914	484	274	202
5	363	362	282	484	1,460	1,040	2,390	542	2,390	468	489	242
6	662	327	306	441	1,320	920	3,510	542	2,440	377	318	222
7	623	337	309	421	1,220	860	3,780	503	2,020	398	275	213
8	429	321	309	391	1,130	1,040	2,600	484	980	374	*263	227
9	347	327	280	398	1,280	950	1,650	484	4,020	*361	248	414
10	325	312	294	401	1,250	800	1,280	466	5,780	365	248	700
11	284	*294	271	404	1,130	750	1,070	503	1,350	352	243	725
12	314	309	252	357	920	725	980	522	980	297	247	*428
13	299	277	308	371	800	675	*920	503	830	343	198	321
14	282	294	340	371	750	725	920	466	725	299	a360	297
15	252	282	512	318	675	750	800	1,230	605	388	a400	263
16	274	308	1,280	346	650	725	750	2,290	562	561	337	a300
17	268	748	800	355	605	675	650	1,740	576	503	a280	a2,000
18	271	1,090	584	349	605	675	725	750	755	725	a340	a2,400
19	271	628	466	*330	830	725	725	605	725	725	a480	a1,400
20	*282	503	445	344	1,350	700	700	750	650	484	a580	a800
21	309	417	398	368	1,010	628	650	*725	542	391	*a360	a600
22	553	431	434	286	800	920	650	584	663	375	291	a600
23	838	732	928	648	725	800	1,380	584	1,100	503	271	a900
24	700	330	2,300	1,070	675	700	920	584	935	368	300	a700
25	448	343	1,910	950	675	1,270	750	584	1,190	311	268	a600
26	234	355	1,190	628	920	1,100	675	503	1,410	334	260	a500
27	407	320	800	542	1,350	1,010	628	522	1,100	288	*257	a460
28	426	327	675	542	2,350	920	584	484	890	288	257	a500
29	368	327	605	503	-----	775	605	466	860	284	250	a1,600
30	349	330	509	1,070	-----	725	584	484	775	282	252	a2,200
31	371	-----	484	1,230	-----	675	-----	503	-----	295	242	-----
Total	12,245	11,719	18,476	15,675	46,630	34,108	34,761	20,634	35,087	12,955	9,281	20,508
Mean	395	391	596	506	1,665	1,100	1,159	666	1,170	418	299	684
Cfs/m	0.627	0.621	0.946	0.803	2.64	1.75	1.84	1.06	1.86	0.663	0.475	1.09
In.	0.72	0.69	1.09	0.93	2.75	2.01	2.05	1.22	2.07	0.76	0.55	1.21
Calendar year 1956: Max	5,800	Min	43	Mean	553	Cfs/m	0.878	In.	11.94			
Water year 1956-57: Max	7,740	Min	198	Mean	745	Cfs/m	1.18	In.	16.05			

Peak discharge (base, 8,000 cfs).--Feb. 2 (2 a.m.) 8,800 cfs (11.04 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records, recorded range in stage, and records for nearby streams.

Catawba River near Rock Hill, S. C.

Location.--Lat 34°59', long 80°58', on right bank at downstream side of bridge on U. S. Highway 21, 3½ miles downstream from Catawba Dam, 5 miles northeast of Rock Hill, York County, and 7½ miles upstream from Sugar Creek.

Drainage area.--3,050 sq mi, approximately.

Records available.--September 1895 to July 1903, April 1942 to September 1957. Revised records for period September 1895 to July 1903 published in North Carolina Department of Conservation and Development Bulletin 34 and South Carolina Research, Planning and Development Board Bulletin 17.

Gage.--Water-stage recorder. Altitude of gage is 492 ft (by barometer). Sept. 23, 1895, to July 31, 1903, chain gage at Southern Railway bridge, 2 miles downstream at different datum.

Average discharge.--22 years (1895-1902, 1942-57), 4,396 cfs.

Extremes.--Maximum discharge during year, 36,100 cfs Apr. 7 (gage height, 12.93 ft); minimum, 241 cfs Aug. 2 (gage height, 2.71 ft); minimum daily, 535 cfs Aug. 17, 1895-1903, 1942-57. Maximum discharge, 151,000 cfs May 23, 1901 (gage height, 24.15 ft, site and datum then in use); minimum, 143 cfs Apr. 25, 1943 (gage height, 2.59 ft); minimum daily, 490 cfs Oct. 21, 1954.

Remarks.--Records good. Flow regulated by Catawba Lake (usable capacity, 6,542,000,000 cu ft) and by other powerplants above station.

Revisions (water years).--WSP 1333: 1942-43(m), 1953(m). See also Records available.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

3.0	534	5.0	4,670
3.5	1,210	7.0	11,500
4.0	2,120	12.0	32,000

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,580	3,820	657	1,620	9,580	10,400	4,860	5,340	1,130	4,580	3,090	602
2	3,640	3,990	961	3,120	15,300	9,330	6,680	4,280	734	3,390	1,120	606
3	3,540	2,560	3,110	4,560	16,500	8,430	5,900	2,680	4,890	3,690	1,060	1,590
4	4,110	892	*2,960	4,800	9,520	8,970	7,160	572	5,510	2,090	981	1,810
5	3,000	3,570	2,710	1,080	*10,800	10,000	13,800	1,230	7,650	2,730	2,490	2,190
6	581	3,710	2,630	926	10,800	10,400	14,200	3,240	13,400	1,530	1,830	912
7	754	3,750	1,980	4,270	10,800	10,000	29,200	2,820	11,500	822	1,130	628
8	2,000	5,150	706	4,330	10,800	10,000	*15,200	1,020	7,410	3,770	2,290	708
9	2,150	2,580	690	3,010	7,460	6,530	14,200	1,940	11,500	3,380	1,920	2,390
10	2,250	955	2,930	3,190	721	784	12,600	1,970	10,000	2,350	1,220	3,940
11	2,300	698	2,290	3,100	5,740	6,180	10,000	3,520	8,970	3,180	668	4,330
12	2,520	4,190	1,690	1,590	8,790	4,770	9,330	2,220	8,970	2,240	2,850	4,320
13	828	4,590	1,460	920	7,850	5,480	9,150	4,660	11,500	1,080	2,070	1,870
14	786	4,450	1,120	4,340	8,250	4,480	8,100	6,330	10,000	1,220	1,650	1,910
15	2,840	2,810	622	4,600	6,270	2,490	9,330	6,000	5,600	3,200	1,870	726
16	1,800	2,330	702	3,350	2,080	953	9,150	2,560	4,730	2,790	1,560	3,890
17	2,340	676	2,400	3,380	2,170	896	9,330	2,500	6,430	2,040	555	4,870
18	2,400	622	1,830	2,250	5,760	4,570	9,320	2,180	5,460	1,490	724	6,850
19	2,430	2,750	3,220	851	4,770	4,790	7,730	1,780	4,400	2,560	2,350	8,700
20	806	3,160	2,660	1,180	5,610	4,550	1,290	2,770	7,260	1,090	2,300	6,380
21	1,140	3,070	2,890	3,760	5,360	4,540	1,040	3,050	4,650	617	2,920	926
22	1,960	706	1,460	2,760	3,720	3,290	3,160	4,310	1,340	4,260	2,650	608
23	2,980	1,650	948	1,920	1,710	1,210	3,010	4,620	1,990	2,630	1,320	5,430
24	3,050	838	774	2,010	798	812	4,330	4,310	5,850	2,140	657	5,770
25	3,290	665	890	1,780	3,280	5,510	4,510	898	8,640	2,120	664	5,760
26	3,460	4,560	5,490	610	4,780	6,430	4,670	1,220	7,020	1,360	2,410	5,000
27	2,370	2,360	6,000	782	5,260	9,150	761	4,150	10,400	782	2,770	3,660
28	816	3,330	5,220	3,270	6,220	8,970	667	4,470	10,800	616	2,450	1,130
29	5,160	3,360	1,260	3,390	-	3,920	4,550	4,700	6,220	2,680	2,080	1,110
30	4,180	2,190	961	5,450	-----	662	5,490	3,340	4,250	3,050	1,460	6,580
31	3,660	-----	3,500	5,610	-----	826	-----	2,580	-----	3,150	602	-----
Total	75,521	79,882	66,741	87,809	190,499	169,323	238,718	97,260	208,204	72,427	53,701	94,996
Mean	2,436	2,663	2,153	2,833	6,804	5,462	7,957	3,137	6,940	2,336	1,732	3,167
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	11,100	Min	528	Mean	2,479	Cfsm	-	In.	-	-	-	-
Water year 1956-57: Max	29,200	Min	535	Mean	3,932	Cfsm	-	In.	-	-	-	-

* Discharge measurement made on this day.

Little Sugar Creek near Charlotte, N. C.

Location.--Lat 35°09'20", long 80°51'10", on right bank 50 ft downstream from tributary on right, 500 ft downstream from Briar Creek, 600 ft upstream from sewage-disposal plant of city of Charlotte, and 4.7 miles south of city hall in Charlotte, Mecklenburg County.

Drainage area.--41.4 sq mi.

Records available.--July 1924 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 571.6 ft above mean sea level (city of Charlotte datum). Prior to Apr. 28, 1927 (corrected) staff gage at same site and datum.

Average discharge.--33 years, 43.9 cfs.

Extremes.--Maximum discharge during year, 2,780 cfs Apr. 5 (gage height, 9.64 ft); minimum, 1.8 cfs Sept. 1, 2, 4 (gage height, 1.48 ft).
1924-57: Maximum discharge, 3,370 cfs Apr. 6, 1936 (gage height, 16.2 ft, from flood-marks), from rating curve extended above 2,600 cfs on basis of slope-area determination of peak flow at gage at heights 10.42, 11.47, and 12.00 ft; minimum, 1.2 cfs Sept. 27, 1954.
Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
602	1924†	Sept. 29, 1924	3,310	10.6
602	1925	Aug. 5, 6, 1925	4,760	12.5
622	1926	Jan. 18, 1926	3,240	10.5
642	1927	Feb. 23, 1927	2,980	10.1
697	1930	Oct. 2, 1929	3,160	10.40
712	1931	Aug. 6, 1931	2,630	9.60

† Period July to September.

‡ From graph based on gage readings.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Records of chemical analyses for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 1052: 1939-44. The 1940 calendar year runoff is corrected from 0.996 to 9.96 inches. Revised figures of discharge, in cubic feet per second, for the water years 1928-30, 1932-34, superseding those published in WSP 662, 682, 697, 727, 742 and 757, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1927		1928-Con.		1932	
Dec. 2	435	Sept. 5	556	Mar. 6	1,360
3	889	6	605	28	1,050
4	841	18	2,100	Oct. 16	720
15	591	19	1,940	17	1,110
16	583				
1928		1929		1933	
Aug. 11	1,430	Feb. 27	1,040	Sept. 13	2,260
16	3,010	28	2,070		
17	500	Oct. 1	733	1934	
Sept. 2	468	2	1,310	Sept. 7	377
				13	459

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1927.....	889	17	142	3.43	3.95
August 1928.....	3,010	6.9	200	4.83	5.58
September.....	2,100	18	248	5.99	6.68
Water year 1927-28.....	3,010	3.2	80.1	1.95	26.37
Calendar year 1928.....	3,010	6.9	69.2	1.67	22.78
February 1929.....	2,070	14	191	4.61	4.81
Water year 1928-29.....	2,070	7.9	54.5	1.32	17.87
October 1929.....	1,310	11	94.8	2.29	2.64
Calendar year 1929.....	2,070	7.9	68.2	1.65	22.39
Water year 1929-30.....	1,310	5.3	41.5	1.00	13.61
March 1932.....	1,360	22	116	2.80	3.22
Water year 1931-32.....	1,360	4.6	51.6	1.25	16.95
October 1932.....	1,110	5.6	75.7	1.83	2.11
Calendar year 1932.....	1,360	5.0	60.4	1.46	19.85
September 1933.....	2,260	7.0	128	3.09	3.44
Water year 1932-33.....	2,260	5.6	52.8	1.28	17.31
Calendar year 1933.....	2,260	6.3	37.8	0.913	12.39
September 1934.....	459	6.6	45.5	1.10	1.23
Water year 1933-34.....	1,080	6.3	34.9	0.843	11.46
Calendar year 1934.....	1,080	6.3	38.4	0.928	12.63

Little Sugar Creek near Charlotte, N. C.--Continued

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.4	0.7	2.2	62
1.5	2.2	2.5	126
1.6	4.6	3.0	277
1.7	9.0	4.0	570
1.8	16	5.0	691
2.0	35		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	9.0	8.1	12	295	122	25	15	18	11	a5.5	2.2
2	12	8.6	8.1	11	117	48	37	131	15	9.0	5.5	2.0
3	9.7	8.6	8.1	11	46	35	22	44	13	9.0	6.4	2.7
4	19	8.1	8.6	25	41	30	20	47	12	9.0	11	2.4
5	11	7.7	8.6	19	139	28	<u>838</u>	21	118	15	14	2.9
6	42	8.6	8.6	13	76	26	76	20	44	17	5.9	2.4
7	12	8.6	9.0	12	72	31	37	15	30	8.1	5.5	3.4
8	8.6	21	9.7	11	152	33	33	14	20	7.7	4.6	3.4
9	11	22	8.6	11	117	23	30	12	<u>239</u>	*8.1	5.5	4.5
10	9.0	8.6	9.0	10	102	20	29	12	37	8.1	4.4	6.8
11	9.7	7.7	9.0	9.7	47	19	22	<u>168</u>	26	*7.2	4.4	5.9
12	8.1	7.2	10	9.7	37	19	22	34	22	7.2	4.1	*5.0
13	7.2	7.2	9.7	9.0	29	19	20	19	19	6.8	4.6	3.6
14	6.8	*7.7	189	9.7	24	48	19	62	21	6.4	4.4	3.2
15	<u>6.4</u>	9.0	78	9.7	22	53	18	107	20	8.1	9.9	2.7
16	6.8	9.7	26	9.0	23	27	19	58	13	a7	8.1	<u>103</u>
17	9.0	34	15	11	19	20	18	22	223	a6	a5	88
18	9.0	14	13	8.6	18	22	23	19	70	a15	a60	56
19	9.0	9.7	*12	9.0	130	126	24	36	51	a8	a70	8.1
20	*7.2	11	10	8.6	52	32	20	46	21	a7	a9	19
21	45	12	11	9.0	26	24	18	18	15	a6	a5	14
22	<u>136</u>	11	103	32	23	179	188	15	13	a6	a4.5	5.5
23	20	8.1	203	20	21	41	48	15	12	a6	*4.1	4.6
24	14	8.1	<u>216</u>	16	20	85	22	77	12	a40	4.1	4.4
25	9.0	8.1	42	25	23	<u>327</u>	19	44	16	a15	3.9	4.1
26	9.0	8.1	25	15	230	59	18	20	18	a9	3.9	3.9
27	9.0	8.6	20	*22	56	37	*16	21	14	a7	3.6	3.9
28	8.1	8.1	18	17	<u>678</u>	50	15	15	96	a6	*3.4	16
29	8.1	8.6	19	43	—	27	15	14	26	a5.5	2.9	39
30	9.0	8.6	19	45	—	24	18	123	20	a5.5	2.7	18
31	13	—	18	<u>175</u>	—	22	—	25	—	a5.5	<u>2.4</u>	—
Total	505.7	317.3	1,152.1	648.0	2,635	1,636	1,729	1,289	1,274	293.2	288.3	481.1
Mean	16.3	10.6	37.2	20.9	94.1	52.8	57.6	41.6	42.5	9.46	9.30	16.0
Cfsm	0.394	0.256	0.899	0.506	2.27	1.28	1.39	1.00	1.03	0.229	0.225	0.386
In.	0.45	0.29	1.03	0.58	2.37	1.47	1.55	1.16	1.14	0.26	0.26	0.43
Calendar year 1956: Max			1,130		Min 3.4	Mean 36.6	Cfsm 0.894	In. 12.03				
Water year 1956-57: Max			638		Min 2.0	Mean 33.6	Cfsm 0.812	In. 10.99				

Peak discharge (base, 2,100 cfs).--Apr. 5 (10 a.m.) 2,780 cfs (9.64 ft); June 17 (10 p.m.) 2,120 cfs (8.25 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.

Rocky Creek at Great Falls, S. C.

Location.--Lat 34°34', long 80°55', on left bank 350 ft downstream from Turkey Branch, 1 mile west of Great Falls, Chester County, and 1.6 miles upstream from mouth.

Drainage area.--194 sq mi.

Records available.--February 1951 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 299 ft (by barometer).

Average discharge.--6 years, 132 cfs.

Extremes.--Maximum discharge during year, 4,290 cfs Apr. 6 (gage height, 7.04 ft); minimum, 0.07 cfs Sept. 2.

1951-57: Maximum discharge, 8,880 cfs Mar. 4, 1952 (gage height, 9.77 ft); minimum, 0.04 cfs Oct. 6-13, 1954.

Remarks.--Records good.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 5

Apr. 6 to Sept. 30

0.8	6.5	-0.10	0.06	1.0	18
.9	11	0.0	.12	1.2	32
1.1	24	.1	.22	1.5	63
1.4	51	.2	.40	1.9	128
1.8	109	.3	.70	2.4	254
2.3	224	.4	1.3	3.0	477
3.0	477	.5	2.3	4.0	1,080
4.0	1,080	.6	3.8	5.0	1,930
5.0	1,880	.7	6.0	6.0	3,020
		.8	9.0		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	15	26	30	350	600	83	35	110	22	6.0	0.10
2	9.2	15	20	27	380	231	82	34	67	19	5.1	.08
3	7.8	15	*18	25	158	132	73	35	50	17	5.1	1.7
4	9.2	14	17	26	113	100	66	71	43	16	5.5	4.3
5	19	14	16	48	94	159	764	88	76	16	1.9	1.5
6	43	15	16	57	88	134	2,920	48	154	14	17	1.1
7	39	15	16	42	74	104	403	38	69	12	7.5	7.2
8	22	16	16	36	67	106	*473	34	46	*11	5.1	6.7
9	13	30	16	32	62	95	2,700	31	51	9.8	4.0	28
10	10	31	16	31	61	77	505	30	59	8.7	3.5	47
11	8.8	27	16	28	56	67	246	560	45	8.1	3.0	17
12	7.4	16	16	26	48	63	177	1,130	39	7.2	2.3	9.4
13	7.4	15	16	26	45	59	141	202	34	7.2	*1.9	7.2
14	7.8	13	16	*27	43	94	115	111	31	6.9	1.4	5.8
15	7.8	13	18	26	40	134	99	89	31	6.6	1.6	4.9
16	7.8	13	23	26	39	126	88	70	28	6.3	2.8	4.7
17	7.8	15	21	26	38	88	80	57	122	9.9	3.4	14
18	9.6	17	18	25	36	74	80	53	53	43	4.1	247
19	12	18	18	20	42	299	92	50	35	54	6.0	69
20	12	16	17	21	112	213	86	*49	462	22	8.1	29
21	13	15	18	26	71	117	71	39	69	13	6.9	30
22	45	16	22	26	52	510	63	35	39	9.8	5.3	22
23	*42	15	67	43	46	374	77	34	30	8.1	3.5	*16
24	35	15	323	66	43	180	64	49	26	25	2.2	12
25	20	15	213	79	*44	1,250	53	72	41	41	2.0	9.8
26	15	15	68	312	135	594	48	41	54	15	1.7	9.0
27	14	15	48	177	217	253	44	35	36	11	1.7	8.7
28	14	15	41	97	162	165	42	29	30	9.8	1.2	13
29	13	15	38	77	-	130	39	26	43	9.4	.72	50
30	13	24	34	218	-----	107	38	302	33	8.1	.41	167
31	14	-----	30	187	-----	92	-----	628	-----	6.9	.20	-----
Total	509.6	503	1,258	1,853	2,716	6,727	9,812	4,105	2,006	473.8	138.23	843.16
Mean	16.4	16.8	40.6	59.8	97.0	217	327	132	66.9	15.3	4.46	26.1
Cfsm	0.085	0.087	0.209	0.308	0.500	1.12	1.69	0.680	0.345	0.079	0.023	0.145
In.	0.10	0.10	0.24	0.36	0.52	1.29	1.89	0.78	0.38	0.09	0.03	0.16

Calendar year 1956: Max 3,340 Min 0.12 Mean 114 Cfsm 0.588 In. 7.99
 Water year 1956-57: Max 2,920 Min 0.08 Mean 84.8 Cfsm 0.437 In. 5.94

Peak discharge (base, 2,600 cfs).--Apr. 6 (8 a.m.) 4,290 cfs (7.04 ft); Apr. 9 (5 p.m.) 3,380 cfs (6.30 ft).

* Discharge measurement made on this day.

Wateree River near Camden, S. C.

Location.--Lat 34°14'40", long 80°39'15", in pier of bridge on U. S. Highway 1, 1,500 ft downstream from Twentyfive-mile Creek, 4,000 ft upstream from Seaboard Air Line Railroad bridge, 2.2 miles west of Camden, Kershaw County, and 7.4 miles downstream from Wateree Dam.

Drainage area.--5,070 sq mi, approximately.

Records available.--January to December 1903 (gage heights only), September 1904 to June 1910, October 1929 to September 1957. Gage-height records collected at site 1½ miles 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 U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 119.36 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. January 1903 to June 1910 staff or chain gage at site 1½ miles downstream at different datum. Oct. 1, 1929, to Sept. 1, 1942, water-stage recorder at site 830 ft upstream at present datum.

Average discharge.--28 years (1929-57), 5,645 cfs.

Extremes.--Maximum discharge during year, 22,200 cfs Apr. 10 (gage height, 19.63 ft); minimum daily, 230 cfs Sept. 1, 2.

1904-10, 1929-57: Maximum discharge, 366,000 cfs Aug. 26, 1908 (gage height, 39.7 ft, site and datum then in use, from records of U. S. Weather Bureau), from rating curve extended above 122,000 cfs as described in following paragraph; minimum daily, 170 cfs June 3, 1941.

Maximum stage known, 40.4 ft July 18, 1916, at site 1½ miles downstream, from records of U. S. Weather Bureau (discharge, 400,000 cfs, from rating curve extended above 122,000 cfs on basis of computation, by Duke Power Co., of peak flow of 382,000 cfs over dam at Rocky Creek Reservoir).

Remarks.--Records fair. Flow regulated at Wateree Reservoir (capacity, 7,626,000,000 cu ft) and by other powerplants above station.

Cooperation.--Gage-height record collected in cooperation with U. S. Weather Bureau.

Revisions (water years).--WSP 802: 1930. WSP 952: Drainage area. WSP 1082: 1934(m).

WSP 1433: 1905-10.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Feb. 2)

1.0	209	13.0	13,000
1.5	465	18.0	21,100
2.0	840	20.0	23,000
6.0	5,180		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,740	3,800	1,280	4,320	10,500	14,400	5,790	6,060	3,930	4,920	2,850	230
2	4,740	3,870	520	3,770	15,500	14,500	9,130	4,060	928	3,540	1,280	230
3	4,290	1,500	2,960	6,400	12,700	9,920	9,460	3,190	5,150	2,880	1,770	2,410
4	4,790	354	2,980	5,700	*15,400	13,000	8,340	2,620	7,050	682	386	1,930
5	4,470	3,860	2,900	2,050	14,900	13,500	13,300	895	9,060	2,590	2,430	1,810
6	1,130	5,120	3,230	610	15,000	12,800	15,800	3,260	15,100	623	1,860	790
7	340	5,170	3,240	4,210	10,900	10,900	12,300	5,740	12,800	345	2,820	343
8	3,440	5,800	1,560	5,360	11,000	10,800	18,800	6,940	15,200	3,580	2,820	309
9	4,100	6,410	1,550	6,210	11,200	9,190	*21,500	6,520	10,500	3,470	1,450	2,900
10	3,110	4,370	3,210	4,870	3,040	2,800	21,500	5,310	13,500	2,060	943	*5,140
11	3,760	891	2,790	4,170	6,070	4,620	18,900	4,630	14,500	2,450	299	5,080
12	3,940	3,770	1,740	3,160	11,600	4,780	17,000	4,940	13,000	2,450	2,790	4,810
13	1,260	5,720	2,070	1,790	9,950	5,240	18,400	6,580	12,300	1,990	2,390	5,540
14	368	4,320	1,550	4,340	10,600	6,220	16,000	8,160	12,200	432	1,700	5,110
15	1,720	3,170	596	5,780	8,740	7,700	13,700	8,410	11,800	4,120	1,300	606
16	3,510	3,700	444	5,720	4,420	6,000	13,000	11,500	4,170	4,280	2,210	3,850
17	4,110	2,920	1,450	4,790	878	1,330	12,600	8,280	5,180	3,160	722	5,560
18	4,710	578	2,640	3,290	4,810	4,860	12,600	4,980	5,770	2,260	294	7,460
19	4,580	2,820	2,520	1,480	7,030	6,940	12,600	1,410	6,220	3,200	1,400	9,390
20	1,610	3,650	1,850	557	7,780	7,830	4,200	4,760	6,740	1,740	2,850	6,530
21	470	3,440	2,530	3,270	6,790	7,190	625	6,430	6,330	422	3,580	1,840
22	3,460	2,420	2,500	3,960	5,110	7,570	2,810	6,270	3,500	3,540	4,110	308
23	4,080	1,670	588	2,880	2,780	6,680	5,500	5,370	*1,030	3,120	2,900	4,810
24	3,530	2,280	778	2,790	696	2,110	5,090	4,460	3,370	3,300	1,160	4,720
25	4,550	779	721	2,280	4,020	7,690	6,050	1,350	6,240	3,290	294	5,440
26	5,980	4,870	4,140	1,110	7,770	13,000	4,290	797	7,660	2,370	2,810	6,170
27	3,990	4,240	5,380	565	7,950	13,400	706	4,700	11,500	953	3,200	5,520
28	*786	5,200	5,680	3,530	10,500	13,100	405	5,110	11,900	330	2,240	2,680
29	4,360	4,960	5,400	4,930	-	9,090	4,070	5,920	11,900	3,320	2,380	1,210
30	5,570	3,950	1,770	6,650	-----	6,150	5,320	7,900	6,790	3,820	1,760	5,890
31	5,100	-----	4,370	8,160	-----	1,850	-----	8,230	-----	3,130	442	-----
Total	105,594	105,582	74,917	118,702	241,634	255,160	307,786	164,762	256,318	78,347	59,020	108,616
Mean	3,406	3,519	2,417	3,829	8,630	8,231	10,260	5,315	8,544	2,527	1,904	3,621
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 16,600 Min 302 Mean 3,786 Cfsm - In. -
Water year 1956-57: Max 21,500 Min 230 Mean 5,141 Cfsm - In. -

* Discharge measurement made on this day.

Broad River near Chimney Rock, N. C.

Location.--Lat 35°25'35", long 82°10'45", 1,000 ft downstream from Lake Lure Dam, 1.5 miles downstream from Buffalo Creek, and 3 miles east of Chimney Rock, Rutherford County.

Drainage area.--97 sq mi, approximately.

Records available.--May 1907 to June 1909 (fragmentary, published as "at Uree"), March 1927 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 860 ft (from topographic map). May 17, 1907, to June 30, 1909, staff gage at site 1 1/8 miles downstream at different datum.

Average discharge.--30 years (1927-57), 168 cfs.

Extremes.--Maximum discharge during year, 4,500 cfs Apr. 5 (gage height, 5.17 ft); minimum, 4.7 cfs Mar. 14 (gage height, 0.56 ft); minimum daily, 5.0 cfs Feb. 24, Mar. 17, 1907-9, 1927-57; Maximum discharge, 26,000 cfs Aug. 15, 1928 (gage height, 16.8 ft), from rating curve extended above 4,200 cfs on basis of computation of peak flow over Lake Lure Dam at gage heights 12.2 and 16.8 ft; minimum, 0.7 cfs Sept. 13, 1928 (gage height, 0.26 ft); minimum daily, 0.8 cfs Sept. 13, 14, 24, 26, 1928 (corrected).

Remarks.--Records good. Large diurnal fluctuation and complete regulation at low flow caused by powerplant above station.

Revisions (water years).--WSP 892: 1927-28(M), 1929-30, 1933, 1935-39(M). Revised figures of discharge, in cubic feet per second, for the water years 1928 and 1939, superseding those published in WSP 662 and 872, are given herewith:

1928	
Feb. 7.....	89
Mar. 16.....	133
Aug. 15.....	6,550
16.....	12,000
17.....	3,800

1928-Con.	
Sept. 18.....	1,010
19.....	907

1939	
July 18.....	85

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
February 1928.....	-	275	6.7	120	1.24	1.33
March.....	-	282	6.7	131	1.35	1.55
August.....	-	12,000	98	1,073	11.1	12.75
September.....	-	1,360	.8	311	3.21	3.58
Water year 1927-28.....	-	12,000	.8	232	2.39	32.56
Calendar year 1928.....	-	12,000	.8	243	2.51	34.14
July 1939.....	3,157.2	251	2.8	102	1.05	1.21
Water year 1938-39.....	56,576.6	1,490	2.3	155	1.60	21.66
Calendar year 1939.....	52,413.9	1,490	2.3	144	1.48	20.07

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.5	2.9	0.9	30	2.0	420
.6	5.9	1.1	64	2.5	750
.7	10	1.3	115	3.0	1,240
.8	18	1.5	183	4.0	2,540

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	77	5.9	84	574	554	223	223	87	85	90	80
2	80	77	5.9	83	498	378	222	222	8.7	*91	87	76
3	77	76	75	83	27	436	373	227	56	124	75	92
4	76	6.8	77	82	341	378	*457	212	236	151	86	92
5	78	142	75	84	423	346	2,530	8.2	1,580	102	89	18
6	5.3	147	78	10	345	306	858	228	544	70	89	18
7	5.3	144	75	82	264	300	702	228	511	67	88	12
8	73	149	5.6	84	226	306	568	222	459	80	90	7.5
9	78	142	5.6	87	235	261	499	226	350	89	88	145
10	74	78	76	82	10	5.3	493	152	377	86	71	147
11	77	7.3	77	85	216	214	487	164	332	88	16	84
12	75	144	75	9.6	156	310	487	8.2	194	85	15	85
13	5.3	80	75	9.6	155	240	254	155	112	105	16	83
14	5.3	*76	115	84	147	144	34	152	114	74	17	83
15	77	76	121	85	151	87	321	156	114	87	91	9.1
16	75	75	5.3	83	78	84	402	149	40	87	88	154
17	77	76	74	85	9.1	5.0	402	154	327	87	109	427
18	5.3	6.4	78	82	148	230	328	150	310	165	77	425
19	5.3	76	82	82	235	315	170	9.1	155	316	158	314
20	5.6	80	83	9.1	233	232	84	225	152	276	161	235
21	5.9	75	79	78	80	83	5.9	159	156	75	*98	84
22	77	77	85	121	79	85	221	165	193	156	94	8.7
23	76	76	10	*125	81	87	217	150	72	86	94	148
24	144	5.9	303	156	5.0	5.6	300	159	149	156	75	81
25	142	6.4	320	158	118	261	315	159	280	14	18	81
26	148	74	315	157	397	271	300	10	315	88	91	74
27	77	75	280	11	554	225	229	337	309	104	83	80
28	7.7	78	172	158	554	149	6.8	345	268	76	93	80
29	75	78	122	233	-	149	223	100	104	86	18	49
30	78	76	9.1	235	40	223	88	69	88	18	386	
31	78	-----	5.0	413	-----	5.9	-----	56	-----	*92	76	-----
Total	1,942.0	2,356.8	3,106.4	3,220.3	6,339.1	6,649.8	12,088.7	4,998.5	7,973.7	3,336	2,369	3,660.1
Mean	62.6	78.6	100	104	226	215	403	161	266	108	76.4	122
Cfsm	0.645	0.810	1.03	1.07	2.33	2.22	4.15	1.66	2.74	1.11	0.788	1.26
In.	0.74	0.90	1.19	1.23	2.43	2.55	4.63	1.92	3.06	1.28	0.91	1.40

Calendar year 1956: Max 458 Min 4.1 Mean 100 Cfsm 1.03 In. 14.02
 Water year 1956-57: Max 2,530 Min 5.0 Mean 159 Cfsm 1.64 In. 22.24

* Discharge measurement made on this day.

Cove Creek near Lake Lure, N. C.

Location--Lat 35°25'30", long 82°06'35", on left bank 40 ft upstream from bridge on U. S. Highways 64 and 74, 1 mile upstream from mouth, and 5 miles east of town of Lake Lure, Rutherford County, N. C.

Drainage area--77.0 sq mi.

Records available--January 1951 to September 1957.

Gage--Water-stage recorder. Altitude of gage is 850 ft (from topographic map). Prior to Dec. 20, 1954, wire-weight gage at same site and datum.

Average discharge--6 years, 89.9 cfs.

Extremes--Maximum discharge during year, 7,050 cfs June 5 (gage height, 18.53 ft), from rating curve extended above 4,100 cfs by logarithmic plotting; minimum, 33 cfs Oct. 17 (gage height, 1.93 ft).

1951-57: Maximum discharge, that of June 5, 1957; minimum, 21 cfs Sept. 8, 9, 28, 30, Oct. 1-3, 5-7, 11-13, 1954.

Flood in 1916 reached a stage of about 23 ft, from records of State Highway and Public Works Commission.

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

Rating table, water year 1956-57 (gage height, in feet, and
discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 20)

1.9	31	4.0	446
2.0	39	6.0	970
2.3	78	8.0	1,620
2.7	157	10.0	2,390
3.0	220	12.0	3,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	100	40	57	505	364	190	132	75	153	62	46
2	38	76	40	54	247	214	707	115	72	*132	68	80
3	37	61	40	53	176	163	*254	109	102	121	59	70
4	48	56	40	53	144	140	652	106	365	111	67	52
5	42	50	39	58	121	126	*2,480	100	3,110	106	72	50
6	47	49	39	53	109	109	626	96	428	98	58	48
7	43	45	39	53	107	113	338	92	262	92	56	109
8	38	48	39	49	98	136	283	89	207	89	56	75
9	37	44	40	49	113	115	245	87	237	87	54	213
10	36	44	39	54	111	104	210	87	193	83	53	113
11	35	41	39	56	98	96	193	98	170	80	52	83
12	35	41	48	56	91	96	178	89	153	78	49	70
13	35	39	*52	56	85	*91	165	85	138	75	49	65
14	35	*39	90	54	78	91	153	95	161	78	97	61
15	35	40	113	53	75	94	146	140	136	109	58	59
16	34	39	83	56	76	83	140	92	126	83	54	154
17	33	59	70	56	70	80	136	83	138	75	57	408
18	36	57	62	52	67	80	144	82	136	119	57	161
19	41	48	58	50	91	91	157	87	121	*98	153	119
20	80	45	56	50	92	80	140	89	111	82	75	104
21	64	45	54	53	82	76	140	75	102	75	*59	98
22	140	45	64	100	75	85	161	*75	102	70	58	91
23	82	44	98	*203	70	80	161	a90	137	83	54	102
24	61	44	212	121	67	78	174	a160	188	89	53	83
25	54	43	136	91	76	111	142	a140	163	78	53	75
26	56	43	98	76	274	111	130	129	346	70	53	72
27	61	42	83	73	188	102	119	130	230	68	50	70
28	53	41	73	68	380	92	113	94	286	68	49	78
29	49	41	67	68	-	87	164	85	273	64	49	210
30	49	41	61	73	-	83	172	85	184	62	47	305
31	52	-	58	362	-	78	-	82	-	64	46	-
Total	1,527	1,452	2,070	2,360	3,766	3,451	9,013	3,098	8,452	2,740	1,877	3,324
Mean	49.3	48.4	66.8	76.1	134	111	300	99.9	282	88.4	60.5	111
Cfsm	0.640	0.629	0.868	0.988	1.74	1.44	3.90	1.30	3.66	1.15	0.786	1.44
In.	0.74	0.70	1.00	1.14	1.82	1.67	4.35	1.50	4.08	1.32	0.91	1.61
Calendar year 1956: Max	622			Min 25		Mean 67.3	Cfsm 0.874	In. 11.89				
Water year 1956-57: Max	3,110			Min 33		Mean 118	Cfsm 1.53	In. 20.84				

Peak discharge (base, 700 cfs)--Feb. 1 (1 a.m.) 835 cfs (5.46 ft); Feb. 28 (7 p.m.) 705 cfs (5.00 ft); Apr. 2 (5 a.m.) 1,270 cfs (7.05 ft); Apr. 5 (2 a.m.) 4,080 cfs (13.65 ft); June 5 (5:30 a.m.) 7,050 cfs (18.53 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for Catawba River near Marion.

Second Broad River at Cliffside, N. C.

Location.--Lat 35°14', long 81°46', on left bank a quarter of a mile downstream from dam at Cliffside Mills, at Cliffside, Rutherford County, and 1½ miles upstream from mouth.

Drainage area.--211 sq mi.

Records available.--June 1925 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 670 ft (by barometer).

Average discharge.--32 years, 282 cfs.

Extremes.--Maximum discharge during year, 6,120 cfs June 6 (gage height, 8.50 ft); minimum, 7.9 cfs May 25 (gage height, 0.53 ft); minimum daily, 34 cfs Nov. 11.

1925-57: Maximum discharge, 15,000 cfs Aug. 14, 1940 (gage height, 17.93 ft), from rating curve extended above 9,100 cfs on basis of computation of peak flow over Cliffside Mills dam; minimum, 4 cfs July 24, 1943; minimum daily, 6 cfs June 9, 1940.

Remarks.--Records good. Considerable diurnal fluctuation and some regulation caused by mills above station. Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 892: 1928(M), drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	27	2.5	735
1.0	59	3.0	1,110
1.2	107	4.0	1,930
1.5	208	5.0	2,830
2.0	445	7.0	4,630

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	110	125	155	2,640	1,590	250	193	137	229	*132	88
2	113	97	59	57	1,870	702	748	190	113	*208	119	119
3	73	98	88	137	749	430	*622	212	171	197	94	88
4	85	70	94	116	555	395	420	161	344	182	102	105
5	74	119	147	140	395	310	*2,040	178	1,100	168	216	83
6	107	116	100	144	360	272	3,700	201	4,440	164	144	134
7	59	66	91	128	320	237	1,130	161	1,170	154	113	65
8	117	115	76	119	305	355	628	154	500	171	107	50
9	70	70	91	122	259	335	555	140	1,200	134	113	486
10	65	119	94	124	286	204	435	182	976	125	80	417
11	63	34	94	102	268	237	380	137	516	134	73	197
12	74	89	46	122	272	229	340	161	380	107	122	140
13	52	99	91	94	201	193	325	193	320	145	107	150
14	44	*102	144	97	212	237	246	122	305	59	441	129
15	95	72	193	128	216	193	286	313	310	178	263	133
16	85	99	225	99	*181	201	250	221	173	134	149	138
17	54	140	212	79	182	190	246	178	360	94	102	1,480
18	72	197	140	110	208	225	268	*119	490	212	241	754
19	77	182	130	110	246	197	264	156	360	221	400	380
20	48	143	132	55	295	208	242	305	250	112	257	361
21	97	99	122	131	242	197	216	197	232	102	164	242
22	125	86	107	111	197	178	310	171	181	157	137	268
23	204	116	205	*386	250	233	430	161	204	116	147	423
24	122	99	514	361	137	161	259	182	332	119	119	197
25	99	79	432	259	246	320	277	292	511	168	107	201
26	86	128	305	157	254	286	246	178	291	119	147	182
27	81	97	208	182	365	264	201	246	325	122	125	193
28	97	97	178	225	558	272	178	175	286	84	86	165
29	97	86	171	157	-	201	242	175	406	144	110	539
30	110	86	137	193	-----	208	237	144	282	110	94	1,070
31	59	-----	233	388	-----	208	-----	178	-----	107	127	-----
Total	2,672	3,111	4,984	4,788	12,269	9,468	15,971	5,776	16,665	4,476	4,738	8,977
Mean	86.2	104	161	154	438	305	532	186	556	144	153	299
Cfsm	0.409	0.493	0.763	0.730	2.08	1.45	2.52	0.882	2.64	0.682	0.725	1.42
In.	0.47	0.55	0.88	0.84	2.16	1.67	2.81	1.02	2.94	0.79	0.84	1.58

Calendar year 1956: Max 2,160 Min 12 Mean 158 Cfsm 0.749 In. 10.21
Water year 1956-57: Max 4,440 Min 34 Mean 257 Cfsm 1.22 In. 16.55

Peak discharge (base, 3,000 cfs).--Feb. 1 (8 p.m.) 3,190 cfs (5.40 ft); Apr. 6 (8 a.m.) 4,540 cfs (6.88 ft); June 6 (10:30 a.m.) 6,120 cfs (8.50 ft).

* Discharge measurement made on this day.

Broad River near Boiling Springs, N. C.

Location.--Lat 35°12'35", long 81°41'50", on right bank half a mile upstream from Sandy Run Creek, 3 miles downstream from Second Broad River, and 3½ miles southwest of Boiling Springs, Cleveland County.

Drainage area.--864 sq mi.

Records available.--June 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 639.92 ft above mean sea level (Duke Power Co. benchmark). Prior to July 20, 1934, at site 500 ft upstream at datum 1.00 ft higher.

Average discharge.--32 years, 1,366 cfs.

Extremes.--Maximum discharge during year, 16,900 cfs Apr. 6 (gage height, 11.02 ft); minimum, 257 cfs Dec. 3 (gage height, 1.48 ft); minimum daily, 316 cfs Dec. 3.
1925-57: Maximum discharge, 73,300 cfs Aug. 16, 1928 (gage height, 24.3 ft, former site, present datum); minimum, 40 cfs Oct. 17, 1954 (gage height, 1.02 ft); minimum daily, 105 cfs Oct. 10, 1954.

Remarks.--Records good except those above 1,000 cfs and those for period of doubtful gage-height record, which are fair. Considerable diurnal fluctuation and some regulation caused by powerplants above station. Records of chemical analyses and water temperatures for the water year 1957 are given in WSP 1520.

Revisions (water years).--WSP 892: 1928, drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.5	271	3.0	1,990
1.6	346	5.0	4,790
1.8	514	6.0	6,240
2.0	705	8.0	9,800
2.5	1,310	10.0	14,400

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	403	607	607	796	8,100	5,980	815	1,400	990	*1,170	727	354
2	479	758	596	750	5,280	5,180	*3,580	1,400	858	1,190	676	419
3	436	705	316	790	3,180	2,270	3,000	1,350	827	1,300	607	567
4	505	840	568	705	2,060	1,740	2,270	1,410	1,450	1,150	497	620
5	497	636	658	828	1,990	1,780	9,650	1,340	4,960	804	738	588
6	636	696	588	627	2,060	1,920	*14,300	896	10,100	954	755	488
7	427	710	470	514	1,920	1,740	5,320	1,160	3,880	884	688	354
8	378	730	586	617	1,740	1,990	3,810	1,180	2,620	666	678	*395
9	370	685	562	627	1,550	1,920	3,530	1,180	4,410	760	560	1,140
10	403	695	324	704	1,580	1,360	2,970	1,150	3,250	896	599	1,620
11	411	419	419	699	1,010	896	2,480	1,090	2,200	861	374	1,090
12	427	411	*378	627	1,370	1,140	2,480	1,130	1,990	760	395	804
13	427	597	436	462	1,190	1,350	2,200	738	1,810	793	403	749
14	427	588	572	403	1,150	1,480	1,850	954	1,920	497	2,100	716
15	411	479	1,040	615	1,150	1,350	1,480	1,310	1,540	636	1,120	505
16	386	560	1,310	607	1,100	1,140	1,690	1,380	942	861	731	560
17	419	622	771	656	861	1,060	1,710	1,170	1,120	804	579	4,440
18	436	990	738	694	705	793	1,780	1,170	1,700	1,120	1,270	5,340
19	488	627	705	607	1,210	1,280	1,850	1,100	1,740	1,080	1,500	2,270
20	462	636	765	444	1,920	1,450	1,680	1,000	1,340	1,080	1,500	1,920
21	419	635	774	479	1,480	1,280	1,400	*1,160	1,260	884	1,080	1,670
22	718	607	749	*552	1,180	1,180	1,300	1,150	1,190	607	815	1,470
23	1,080	497	815	1,520	1,140	1,340	1,810	1,100	1,090	992	804	1,500
24	1,100	579	1,540	1,900	850	1,030	1,680	1,390	1,040	826	738	1,190
25	804	366	1,960	1,470	782	1,220	1,750	1,590	1,810	873	479	918
26	727	411	1,440	1,310	1,400	1,620	1,660	1,000	1,920	716	497	771
27	760	528	1,310	1,260	2,620	1,850	1,580	850	1,850	705	666	815
28	551	656	1,210	896	3,990	1,590	1,590	1,350	1,520	560	617	850
29	470	598	1,080	988	-	1,220	838	1,350	1,920	532	593	1,670
30	605	579	727	1,190	-	1,270	1,370	1,130	1,410	636	860	4,080
31	607	-----	626	1,540	-----	907	-----	1,090	-----	646	514	-----
Total	16,647	18,648	24,030	25,887	55,548	50,326	83,013	36,648	84,447	26,244	23,866	40,083
Mean	537	622	775	835	1,984	1,623	2,767	1,182	2,148	847	770	1,336
Cfsm	0.622	0.720	0.897	0.966	2.30	1.88	3.20	1.37	2.49	0.980	0.891	1.55
In.	0.72	0.80	1.03	1.11	2.39	2.17	3.57	1.58	2.77	1.13	1.03	1.73

Calendar year 1956: Max 8,500 Min - Mean 815 Cfsm 0.943 In. 12.81
Water year 1956-57: Max 14,300 Min 316 Mean 1,275 Cfsm 1.48 In. 20.03

Peak discharge (base, 9,000 cfs).--Feb. 1 (11 a.m.) 9,600 cfs (7.87 ft); Apr. 6 (9 a.m.) 16,900 cfs (11.02 ft); June 6 (9 a.m.) 13,600 cfs (9.70 ft); Sept. 18 (2 a.m.) 9,400 cfs (7.85 ft).

* Discharge measurement made on this day.

Note.--Discharge computed from doubtful gage-height record Oct. 1 to Dec. 12.

First Broad River near Lawndale, N. C.

Location.--Lat 35°22'50", long 81°32'40", on left bank 0.2 mile upstream from Shoal Rock Creek, 0.4 mile downstream from highway bridge at Double Shoals, and 2½ miles southeast of Lawndale, Cleveland County.

Drainage area.--198 sq mi.

Records available.--February 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 735.94 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--17 years, 253 cfs.

Extremes.--Maximum discharge during year, 6,600 cfs Jan. 31 (gage height, 15.05 ft); minimum, 20 cfs Jan. 13; minimum daily, 43 cfs Oct. 7.

1940-57: Maximum discharge, 32,500 cfs Aug. 14, 1940 (gage height, 37.8 ft), from rating curve extended above 12,000 cfs on basis of records for nearby streams; minimum, 13 cfs Sept. 18, 1955; minimum daily, 17 cfs Aug. 11, 1956.

Flood in July 1916 reached a stage of 37.8 ft, from floodmark established by local resident.

Remarks.--Records good. Considerable diurnal fluctuation and slight regulation at low flow caused by powerplants and mills above station.

Revisions (water years).--WSP 952: Drainage area. WSP 1142: 1945-46(M).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.5	35	4.0	1,240
1.7	65	6.0	2,040
2.0	148	8.0	2,950
2.5	360	12.0	4,950
3.0	625		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	85	80	135	4,760	1,410	221	189	163	*205	*115	69
2	72	101	68	128	1,540	605	525	189	124	189	188	87
3	72	104	82	128	757	420	*365	185	159	189	118	98
4	72	57	80	122	415	346	313	185	2,350	162	180	93
5	76	80	76	141	375	300	2,140	157	3,740	145	209	87
6	183	76	83	100	332	277	1,590	170	1,350	140	122	95
7	43	78	80	112	318	272	700	159	855	111	107	101
8	65	80	80	109	268	300	551	163	651	128	109	*135
9	65	93	65	115	268	246	488	195	1,090	132	107	532
10	63	74	80	119	264	190	370	155	554	132	101	754
11	65	48	74	113	258	209	346	163	390	132	71	246
12	62	72	*87	107	242	213	327	121	313	132	80	185
13	56	*72	128	76	225	205	308	148	277	104	90	159
14	58	74	149	95	221	201	230	190	264	77	643	138
15	62	76	374	98	209	217	259	643	242	107	464	93
16	65	78	302	104	193	217	246	269	173	196	193	172
17	62	190	190	101	147	165	246	213	201	166	120	1,310
18	60	204	163	101	174	242	246	*185	242	465	251	717
19	80	141	145	87	346	201	246	241	246	201	336	346
20	75	112	132	68	268	189	242	309	221	141	201	300
21	67	107	122	98	234	181	183	197	185	98	152	255
22	168	98	161	*118	229	209	274	195	209	122	141	188
23	141	98	326	419	213	197	317	181	196	145	128	336
24	101	92	731	368	142	155	277	239	280	125	128	213
25	87	79	461	246	178	302	246	308	509	138	94	197
26	98	87	251	200	246	246	234	189	310	125	121	185
27	87	87	225	139	405	246	213	225	238	115	122	181
28	65	83	209	155	841	242	166	197	221	87	115	185
29	79	85	178	160	-	242	197	166	197	107	104	300
30	78	87	111	291	-	225	193	174	225	122	104	603
31	83	-----	128	1,090	-----	167	-----	174	-----	104	101	-----
Total	2,490	2,798	5,421	5,463	14,048	8,835	12,277	6,470	16,256	4,542	5,115	8,340
Mean	80.3	93.3	175	176	502	285	409	209	542	147	165	278
Cfs/m	0.406	0.471	0.884	0.889	2.54	1.44	2.07	1.06	2.74	0.742	0.833	1.40
In.	0.47	0.53	1.02	1.03	2.64	1.66	2.31	1.22	3.05	0.85	0.96	1.57

Calendar year 1956: Max 2,810 Min 17 Mean 153 Cfs/m 0.773 In. 10.54
 Water year 1956-57: Max 4,760 Min 43 Mean 252 Cfs/m 1.27 In. 17.31

Peak discharge (base, 5,000 cfs).--Jan. 31 (12 p.m.) 6,600 cfs (15.05 ft).

* Discharge measurement made on this day.

Broad River near Gaffney, S. C.

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

Drainage area.--1,490 sq mi, approximately.

Records available.--July 1896 to December 1899 (gage heights and discharge measurements only), December 1938 to September 1957. Discharges for July 12, 1896, to Dec. 31, 1899, published in the 18th, 19th, and 21st Annual Reports, Part 4, have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 539.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. July 12, 1896, to Dec. 31, 1899, chain or staff gages at sites 1.1 miles upstream at different datum.

Average discharge.--18 years (1939-57), 2,251 cfs.

Extremes.--Maximum discharge during year, 23,400 cfs Apr. 6 (gage height, 10.40 ft); minimum, 155 cfs Aug. 4; minimum daily, 381 cfs Sept. 8.

1938-57: Maximum discharge, 119,000 cfs Aug. 14, 1940 (gage height, 19.78 ft), by computation of flow over Gaston Shoals Dam; minimum, 140 cfs Oct. 24, 1954; minimum daily, 224 cfs Oct. 24, 1954.

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

Revisions.--WSP 972: Drainage area. See also Records available.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.7	358	6.0	6,400
3.0	594	8.0	12,800
3.5	1,120	10.0	21,400
4.0	1,890		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	941	908	1,150	1,200	15,800	12,700	1,560	1,930	1,470	1,660	900	642
2	741	1,020	896	1,220	12,900	6,520	3,480	2,010	1,280	1,590	1,000	722
3	755	1,050	898	1,250	6,460	4,180	5,310	2,080	982	1,710	1,040	722
4	760	1,070	921	1,200	4,050	3,290	3,620	2,040	2,510	1,700	530	720
5	826	894	1,050	1,320	3,400	2,870	10,400	1,910	10,600	1,230	1,460	851
6	1,670	904	*1,040	1,180	3,620	2,980	21,500	1,510	16,500	1,180	1,090	703
7	1,090	1,040	992	1,040	3,510	2,770	9,130	1,500	7,150	1,150	975	823
8	750	946	893	911	3,080	3,180	5,620	1,620	4,410	1,150	890	381
9	697	978	819	1,120	3,180	2,980	5,240	1,460	6,780	962	739	1,810
10	696	981	746	1,030	2,770	2,290	*4,520	1,690	5,480	*1,090	850	3,590
11	692	801	819	1,100	2,180	1,770	3,730	3,700	1,180	1,180	590	2,090
12	732	740	840	1,040	2,170	1,670	3,620	1,550	3,070	1,020	688	1,290
13	702	674	806	835	2,040	2,100	3,290	1,360	2,510	1,090	585	1,080
14	642	914	1,000	*832	1,970	2,240	3,080	1,250	2,920	656	3,080	1,090
15	776	798	1,860	821	1,850	2,090	2,210	1,930	2,670	924	*3,880	786
16	576	824	2,780	1,050	1,850	1,930	2,410	2,710	1,540	1,040	1,520	1,010
17	752	1,980	1,670	1,030	1,610	1,730	2,670	1,640	1,600	1,120	964	5,140
18	654	2,670	1,240	1,010	1,310	1,480	2,470	1,690	2,070	1,840	2,150	10,900
19	872	1,490	1,190	1,070	1,950	1,880	2,770	1,540	2,630	1,640	2,740	4,090
20	826	1,270	1,200	850	3,180	2,230	2,570	2,000	1,930	1,610	2,580	2,980
21	720	1,320	1,320	860	2,670	1,980	2,230	1,600	1,760	1,110	1,650	2,980
22	1,230	1,150	1,300	900	2,100	2,150	1,850	1,610	1,640	948	1,230	2,210
23	*1,540	1,060	1,750	1,860	2,060	2,180	2,680	*1,470	1,640	1,170	1,140	*2,440
24	1,560	999	1,910	2,980	1,710	1,770	2,650	1,820	1,430	1,140	1,090	2,270
25	1,110	998	3,980	2,310	*1,560	2,870	2,430	2,720	2,460	1,150	833	1,460
26	1,000	913	2,580	1,980	2,020	2,870	2,330	1,530	2,990	1,020	864	1,290
27	1,120	863	2,280	1,860	3,620	2,980	2,230	1,490	2,860	1,100	818	1,260
28	918	1,120	1,970	1,470	5,860	2,620	2,080	1,560	2,140	665	932	1,340
29	802	1,070	1,700	1,420	-	2,210	1,550	1,860	2,610	861	770	2,430
30	778	1,050	1,320	2,120	-----	2,050	1,600	1,750	2,190	762	888	5,750
31	908	-----	1,180	2,450	-----	1,800	-----	1,480	-----	886	714	-----
Total	27,856	32,495	45,800	41,299	100,460	88,360	120,630	55,950	103,522	36,374	39,181	64,850
Mean	898	1,083	1,477	1,332	3,588	2,850	4,021	1,740	3,451	1,173	1,264	2,162
Cfs/m	0.603	0.727	0.991	0.894	2.41	1.91	2.70	1.17	2.32	0.787	0.848	1.45
In.	0.70	0.81	1.14	1.03	2.51	2.20	3.01	1.35	2.59	0.91	0.98	1.62

Calendar year 1956: Max 19,500 Min 300 Mean 1,510 Cfs/m 1.01 In. 13.78
 Water year 1956-57: Max 21,300 Mean 381 Mean 2,068 Cfs/m 1.39 In. 18.85

Peak discharge (base, 16,000 cfs).--Feb. 1 (6:30 p.m.) 20,400 cfs (9.76 ft); Apr. 6 (10:45 a.m.) 23,400 cfs (10.40 ft); June 6 (10:45 a.m.) 19,500 cfs (9.62 ft).

* Discharge measurement made on this day.

North Pacolet River at Fingerville, S. C.

Location.--Lat 35°07', long 81°59', on right bank at McMillin Mill, about 400 ft downstream from Obed Creek and 1 mile south of Fingerville, Spartanburg County.

Drainage area.--116 sq mi.

Records available.--November 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 715.56 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 24, 1933, at site about 400 ft downstream at datum 5.60 ft higher.

Average discharge.--27 years (1930-57), 195 cfs.

Extremes.--Maximum discharge during year, 2,620 cfs Apr. 6 (gage height, 10.28 ft); minimum, 48 cfs Oct. 17, Aug. 13; minimum daily, 48 cfs Oct. 17.

1929-57: Maximum discharge, 12,500 cfs Aug. 14, 1940 (gage height, 27.13 ft), from rating curve extended above 1,400 cfs on basis of computation of peak flow over dam 2 miles above station; minimum, 9 cfs Oct. 6, 1954; minimum daily, 28 cfs Oct. 6, 7, 1954.

Remarks.--Records fair. Some diurnal fluctuation at low and medium flow caused by mill above station.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 25, 26, Jan. 31 to Feb. 5, Apr. 6-9, May 3, 4, June 7-11)

2.9	41	4.0	265
3.2	80	7.0	1,330
3.5	134	9.0	2,130

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	79	70	103	842	1,040	166	134	112	140	60	60
2	72	110	70	98	1,070	702	346	146	105	130	58	57
3	70	88	70	93	562	318	346	126	109	118	56	56
4	76	80	68	91	349	250	248	124	138	112	55	55
5	76	76	*68	96	279	217	950	128	304	107	61	55
6	78	72	68	100	234	198	1,960	128	321	112	64	55
7	79	71	68	96	228	190	598	120	307	112	62	52
8	66	76	68	91	214	265	310	118	207	103	60	53
9	57	77	68	88	209	217	363	122	217	*94	57	180
10	55	70	66	86	203	193	*304	120	352	*90	56	170
11	53	66	66	83	188	188	265	130	208	88	53	110
12	52	66	66	82	173	163	234	128	178	85	51	90
13	52	65	74	82	166	158	217	118	154	80	49	85
14	52	64	82	80	156	158	203	110	201	78	*80	80
15	51	61	136	*78	152	170	193	118	183	77	83	76
16	50	61	143	77	147	156	185	126	154	77	62	88
17	48	150	110	77	145	143	183	112	141	80	53	584
18	49	240	96	76	136	138	180	112	163	109	460	1,110
19	58	140	90	72	180	178	239	146	156	107	380	329
20	61	105	83	72	260	166	198	193	132	105	221	223
21	67	96	82	71	180	147	178	130	130	93	126	194
22	121	88	92	77	163	158	173	*132	124	83	103	162
23	135	82	152	360	152	158	168	134	150	77	90	167
24	*94	78	336	380	145	147	156	133	240	74	83	134
25	74	78	307	220	149	273	152	155	185	74	76	*118
26	74	78	197	170	*260	253	145	118	163	72	74	112
27	86	77	149	156	286	206	141	122	143	71	72	110
28	78	74	134	143	458	183	138	112	130	71	68	116
29	72	72	120	149	-	168	132	107	220	68	65	394
30	72	72	110	178	-----	158	134	124	170	65	64	562
31	72	-----	109	207	-----	161	-----	130	-----	62	62	-----
Total	2,182	2,612	3,418	3,832	7,686	7,200	9,205	3,956	5,497	2,814	2,964	5,637
Mean	70.4	87.1	110	124	274	232	307	128	183	90.8	95.6	188
Cfsm	0.607	0.751	0.948	1.07	2.36	2.00	2.65	1.10	1.58	0.783	0.824	1.62
In.	0.70	0.84	1.09	1.23	2.46	2.31	2.96	1.27	1.76	0.90	0.95	1.81

Calendar year 1956: Max 1,250 Min 29 Mean 119 Cfsm 1.03 In. 14.00
Water year 1956-57: Max 1,960 Min 48 Mean 156 Cfsm 1.34 In. 18.28

Peak discharge (base, 1,600 cfs)--Apr. 6 (7 a.m.) 2,620 cfs (10.28 ft); Sept. 18 (12:30 a.m.) 1,890 cfs (8.38 ft).

* Discharge measurement made on this day.

South Pacolet River Reservoir near Fingerville, S. C.

Location.--Lat 35°07', long 81°59', on downstream side of right pier of highway bridge, 1 mile upstream from dam and 1½ miles south of Fingerville, Spartanburg County.

Drainage area.--92 sq mi, approximately.

Records available.--March 1930 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 761.18 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Extremes.--Maximum gage height during year, 18.01 ft Apr. 6; minimum, 8.15 ft Jan. 19. 1930-57: Maximum gage height, that of Apr. 6, 1957; minimum, 2.76 ft Oct. 8, 1930.

Remarks.--Reservoir is formed by concrete dam completed in 1926. Capacity, 1,104,000,000 gal between gage heights, 0.0 ft (limit of drawdown) and 17.0 ft (top of new gates completed in August 1956). Dead storage is about 350,000,000 gal. Figures given herein represent usable contents. Spillway crest is at gage height 12.0 ft. City of Spartanburg diverted about 10,734,000 gal per day (16.6 cfs) from reservoir for municipal supply during water year 1957. Surplus water is used for generation of power.

Revisions (water years).--WSP 1383: 1933, 1947-48.

Capacity table, water year 1956-57 (gage height, in feet, and usable contents,

(Prepared by engineers for the Board of Water Commissioners, city of Spartanburg, S. C., in 1929, from contour survey)

8.0 340
10.0 465
15.0 879
17.5 1,168

Mean gage height, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14.57	12.23	10.85	15.20	16.41	16.60	15.67	16.73	16.82	16.50	15.54	16.04
2	13.90	12.09	11.00	14.76	17.66	16.92	15.70	16.82	16.82	16.50	15.41	15.99
3	13.49	11.97	11.17	14.26	17.40	17.16	16.13	16.96	16.83	16.48	15.25	15.90
4	13.18	11.89	11.29	13.75	17.22	16.90	16.29	16.97	16.88	16.46	15.13	15.79
5	12.94	11.81	11.38	13.32	16.98	16.27	16.91	16.89	16.94	16.41	15.02	15.75
6	12.77	11.60	11.38	12.90	16.62	16.10	17.33	16.79	16.89	16.57	14.84	15.69
7	12.73	10.97	11.38	12.48	16.14	15.95	16.85	16.79	16.70	16.32	14.69	15.65
8	12.62	10.74	11.36	11.97	15.79	15.94	17.07	16.85	16.64	16.83	14.52	15.64
9	12.52	10.67	11.33	11.31	15.84	16.11	16.87	16.89	16.68	16.67	14.36	15.89
10	12.47	10.57	11.28	10.65	15.95	16.10	17.00	16.97	16.76	16.57	14.15	16.37
11	12.01	10.48	11.05	10.32	16.02	16.00	16.83	16.98	16.83	16.48	13.85	16.59
12	12.22	10.38	10.91	9.96	15.80	15.73	16.76	16.92	16.91	16.49	13.59	16.46
13	11.87	10.41	11.00	9.67	15.48	15.49	16.62	16.75	17.00	16.48	13.40	16.37
14	11.75	10.46	11.09	9.63	15.17	15.41	16.52	16.68	16.91	16.45	13.58	16.30
15	11.65	10.50	11.31	8.98	15.24	15.28	16.48	16.68	16.79	16.42	13.92	16.29
16	11.66	10.58	11.94	8.55	15.29	15.27	16.56	16.81	16.71	16.39	14.19	16.42
17	11.66	10.95	12.47	8.50	15.35	15.27	16.66	16.91	16.67	16.46	14.20	16.87
18	11.71	11.72	12.67	8.40	15.35	15.38	16.82	16.99	16.60	16.58	14.40	17.33
19	11.78	12.68	12.75	8.28	15.38	15.54	16.87	16.96	16.65	16.14	15.84	16.95
20	11.86	12.85	12.80	8.68	15.39	15.74	16.96	16.85	16.74	16.16	17.30	16.79
21	11.93	12.39	12.84	9.14	15.22	15.73	16.92	16.93	16.81	16.16	17.13	16.74
22	12.19	11.81	12.97	9.65	15.09	15.83	16.91	16.68	16.77	16.16	16.78	16.69
23	12.45	11.32	13.35	10.70	15.16	15.88	16.83	16.60	16.78	16.11	16.51	16.64
24	12.59	11.07	14.31	12.51	15.24	15.87	16.68	16.63	16.90	16.08	16.42	16.66
25	12.65	11.08	15.78	13.97	15.39	16.04	16.73	16.75	16.81	16.17	16.36	16.47
26	12.58	11.09	16.70	14.51	15.46	16.56	16.85	16.96	16.57	16.19	16.34	16.00
27	12.56	11.08	16.68	14.71	15.50	16.71	16.93	17.00	16.36	16.22	16.31	15.53
28	12.54	11.03	16.48	14.67	15.86	16.63	16.80	17.05	16.30	16.12	16.26	15.35
29	12.48	10.96	16.20	14.65	-	16.42	16.64	17.09	16.28	16.02	16.24	15.74
30	12.39	10.88	15.88	14.80	-	16.18	16.65	17.01	16.47	15.89	16.20	16.87
31	12.32	-	15.59	15.12	-	15.92	-	16.82	-	15.67	16.11	-
(†)	632	523	921	937	1,002	965	1,067	1,081	1,043	943	995	1,144
(*)	-12.8	-5.6	+19.9	+0.8	+3.6	-1.8	+5.3	+0.7	-2.0	-5.0	+2.6	+7.7

Calendar year 1956..... * +1.4

Water year 1956-57..... * +1.1

† Contents, in millions of gallons, at 12 p.m. on last day of month.

* Change in contents, equivalent in cubic feet per second.

Note.--No gage-height record June 4-26; computed from several gage readings at powerhouse and weather records.

Pacolet River near Fingerville, S. C.

Location.--Lat 35°07', long 81°58', on right bank 100 ft upstream from highway bridge, a quarter of a mile downstream from confluence of North Pacolet and South Pacolet Rivers, and 2½ miles southeast of Fingerville, Spartanburg County.

Drainage area.--212 sq mi.

Records available.--November 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 706.33 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--27 years (1930-57), 321 cfs.

Extremes.--Maximum discharge during year, 4,570 cfs Apr. 6 (gage height, 7.33 ft); minimum daily, 72 cfs Oct. 17.

1929-57: Maximum discharge, 22,800 cfs Aug. 14, 1940 (gage height, 22.43 ft), from rating curve extended above 9,600 cfs by velocity-area studies; minimum daily, 32 cfs Oct. 6, 7, 1954.

Maximum stage known, 46 ft in June 1903, from floodmark (discharge not determined).

Remarks.--Records good. Some regulation by South Pacolet River Reservoir (see preceding page). Some diurnal fluctuation caused by mill on North Pacolet River. About 10,734,000 gal per day (16.6 cfs) diverted above station for city of Spartanburg water supply during the water year 1957.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.3	72	1.5	446
.5	111	2.0	697
1.0	248	6.0	3,470

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	131	100	229	1,200	1,620	295	192	167	192	94	91
2	179	162	92	222	2,000	1,200	474	221	162	175	94	88
3	152	129	94	216	1,280	550	406	262	154	170	90	88
4	156	125	92	216	554	541	377	272	190	162	90	82
5	137	122	*100	226	486	414	1,500	242	422	165	111	80
6	135	154	107	222	506	340	3,310	210	695	178	93	79
7	127	155	107	201	487	340	1,080	186	537	198	85	78
8	116	125	105	204	380	415	709	178	316	189	83	82
9	96	122	105	204	336	344	*557	170	438	*154	81	221
10	92	118	116	187	305	298	499	164	445	142	89	217
11	90	116	120	150	316	309	444	212	255	117	95	193
12	131	99	103	159	313	305	389	238	226	111	76	158
13	96	88	107	139	305	255	373	204	250	105	73	129
14	96	88	128	151	247	280	336	173	333	109	*176	111
15	81	88	181	*180	216	272	294	176	290	109	108	109
16	76	88	183	125	219	248	267	178	238	109	88	148
17	72	235	154	125	216	216	258	156	235	177	100	1,030
18	77	317	142	126	210	216	272	159	246	281	542	2,030
19	86	208	132	107	283	289	368	210	207	170	445	699
20	96	212	127	79	398	255	340	346	186	127	469	441
21	105	222	127	86	324	222	294	*277	175	118	334	332
22	162	201	134	99	237	258	302	236	172	105	216	276
23	169	182	190	380	222	266	289	200	240	103	158	306
24	*122	129	413	422	210	255	270	193	372	102	127	*280
25	115	127	373	258	219	441	229	237	336	107	118	272
26	120	125	316	232	*390	389	213	201	292	92	118	258
27	134	122	283	245	402	380	222	178	235	99	100	222
28	122	120	262	241	783	313	248	156	218	122	100	202
29	118	120	245	238	-	309	232	147	300	107	96	513
30	116	118	222	262	-	290	198	235	216	113	94	813
31	118	-	225	395	-	280	-	208	-	104	92	-
Total	3,748	4,348	5,185	6,326	13,044	12,090	15,045	6,417	8,548	4,312	4,635	9,628
Mean	121	145	167	204	466	390	502	207	285	139	150	321
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 2,320 Min 38 Mean 200 Cfsm - In. -
 Water year 1956-57: Max 3,310 Min 72 Mean 256 Cfsm - In. -

* Discharge measurement made on this day.

Pacolet River near Clifton, S. C.

Location--Lat 34°58'10", long 81°48'05", on left bank 1.2 miles downstream from dam at Clifton Mill 2, 1.3 miles southeast of Clifton, Spartanburg County, 2.7 miles upstream from Lawson Fork, and 2.7 miles northeast of Glendale.

Drainage area--320 sq mi.

Records available--November 1939 to September 1957.

Gage--Water-stage recorder. Altitude of gage is 540 ft (from topographic map).

Average discharge--17 years (1940-57), 452 cfs.

Extremes--Maximum discharge during year, 6,480 cfs Aug. 14 (gage height, 7.51 ft), from rating curve extended above 4,400 cfs as explained below; minimum daily, 94 cfs July 14.

1939-57: Maximum discharge, 26,800 cfs Aug. 14, 1940 (gage height, 21.19 ft), from rating curve extended above 4,400 cfs on basis of computation of peak flow over dam at Clifton Mill 2; minimum daily, 17 cfs Oct. 19, 1941.

Remarks--Records fair. Some regulation at low and medium flow by powerplants above station and by South Pacolet River Reservoir (see p. 218). City of Spartanburg diverts water above station from South Pacolet River Reservoir for municipal supply.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.9	71	2.0	706
1.2	164	4.0	2,560
1.5	306	6.0	4,690

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	352	186	188	318	1,990	1,750	a480	289	234	303	131	122
2	280	232	127	312	2,250	1,720	a650	470	231	238	158	164
3	205	222	168	302	1,660	847	a600	454	264	234	111	138
4	226	143	*163	312	814	785	a550	397	235	202	141	141
5	226	201	162	321	662	662	a2,000	366	602	246	192	128
6	226	189	178	300	732	500	a3,600	370	840	241	153	127
7	190	234	181	316	741	519	a2,400	290	784	217	130	138
8	204	184	158	289	608	671	a1,000	280	503	263	121	103
9	180	186	146	298	502	534	*829	268	399	*219	120	477
10	154	175	179	284	483	454	644	274	686	195	112	389
11	146	145	173	233	492	489	697	329	406	190	108	268
12	153	181	177	240	460	452	574	348	306	164	145	240
13	180	152	158	219	438	429	506	354	288	187	*103	200
14	108	143	179	229	408	418	476	282	526	94	2,340	210
15	154	153	292	*270	356	415	495	262	362	184	464	102
16	117	147	267	222	321	398	398	302	378	156	178	224
17	118	427	259	208	292	319	378	262	454	162	140	790
18	125	521	211	210	344	374	397	242	368	692	670	2,480
19	138	361	196	226	414	440	468	294	325	381	784	1,160
20	157	276	189	121	583	412	517	539	269	214	614	688
21	153	306	195	186	470	363	412	*422	245	138	557	509
22	326	290	227	186	396	a420	459	350	248	184	330	363
23	280	266	334	400	344	a440	502	322	212	164	274	487
24	*206	226	750	592	280	a420	431	271	449	192	206	*388
25	184	174	682	404	354	a700	338	336	544	176	202	348
26	196	222	521	306	476	a600	332	313	444	157	188	339
27	197	192	429	315	*618	a550	304	334	344	128	170	313
28	189	183	381	361	1,040	a500	314	257	272	171	162	302
29	180	184	351	358	---	a480	373	229	398	164	160	722
30	162	184	308	412	---	a480	331	338	294	153	154	1,150
31	167	---	340	484	---	a440	---	324	---	160	157	---
Total	5,819	6,689	8,269	9,212	18,509	17,961	21,435	10,168	11,950	6,574	9,475	13,210
Mean	188	223	267	297	661	579	714	328	398	212	306	440
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 5,290

Min 42

Mean 332

Cfsm -

In. -

Water year 1956-57: Max 3,600

Min 94

Mean 382

Cfsm -

In. -

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for station near Fingerville.

Broad River near Carlisle, S. C.

Location.--Lat 34°36', long 81°25', on right bank at downstream side of bridge on State Highway 72, 2 miles upstream from Sandy River, 2 miles downstream from Seaboard Air Line Railroad bridge, 2½ miles east of Carlisle, Union County, and 5 miles downstream from Neals Shoals Dam.

Drainage area.--2,790 sq mi, approximately.

Records available.--November 1938 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 290.70 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--18 years (1939-57), 3,531 cfs.

Extremes.--Maximum discharge during year 25,900 cfs Apr. 7 (gage height, 13.24 ft); minimum, 44 cfs Oct. 14, 15; minimum daily, 57 cfs Oct. 14, 1938-57; Maximum discharge, 103,000 cfs Aug. 15, 1940 (gage height, 29.41 ft), from rating curve extended above 52,000 cfs on basis of computation of peak flow over Neals Shoals Dam; minimum, 37 cfs Aug. 29, 1955; minimum daily, 44 cfs Sept. 2, 1956.

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

Revisions (water years).--WSP 892: 1939(m), drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 1, June 7 to Sept. 30				Mar. 2 to June 6			
1.0	35	3.0	1,630	3.0	1,770		
1.3	112	5.0	5,220	5.0	5,640		
1.5	189	9.0	14,800	9.0	14,900		
1.9	444	12.0	22,600	12.0	22,600		
2.5	1,010						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,110	1,210	1,470	1,900	11,400	13,300	3,540	2,610	4,240	2,920	1,110	228
2	2,080	1,900	441	1,770	22,600	13,400	3,340	3,200	2,130	2,400	1,790	682
3	1,280	1,340	1,740	1,990	13,600	8,070	4,390	2,940	1,880	1,950	1,510	1,570
4	1,630	583	1,820	2,370	*8,130	6,080	6,080	3,080	2,160	2,400	925	1,210
5	1,670	1,580	1,040	2,700	6,070	4,980	6,980	2,600	4,600	2,210	1,100	1,160
6	1,120	1,820	1,380	1,330	5,010	4,440	22,100	2,940	15,400	2,010	1,120	1,200
7	2,200	1,440	1,110	2,150	5,010	4,240	21,200	2,600	15,200	678	1,250	1,540
8	1,890	1,520	1,840	1,840	5,010	4,140	10,600	2,160	7,930	1,430	1,290	1,450
9	1,080	1,610	275	1,770	4,610	4,650	8,720	2,580	5,120	1,600	1,760	1,460
10	1,110	2,080	1,300	1,810	3,640	3,640	7,180	2,490	*6,960	1,370	1,340	2,670
11	1,690	384	1,500	2,080	4,020	3,640	5,640	2,580	5,850	1,260	392	*3,740
12	1,570	1,330	1,130	2,260	3,270	3,030	5,200	2,730	4,210	2,120	618	2,280
13	718	1,600	1,110	1,220	2,820	2,530	4,760	2,580	3,450	1,860	905	2,120
14	57	1,110	1,770	1,390	2,890	3,440	4,140	2,580	3,270	611	1,510	926
15	1,180	1,100	2,570	1,820	3,270	3,640	4,140	1,790	3,090	1,080	5,470	548
16	2,040	1,700	2,220	1,660	2,440	3,340	3,640	3,460	2,390	1,180	4,710	1,630
17	1,140	1,770	3,360	1,730	1,980	2,510	3,210	3,640	3,180	1,210	2,770	2,650
18	977	2,740	1,800	1,670	2,650	2,720	3,340	2,500	2,660	1,590	1,030	9,500
19	1,570	3,640	1,700	2,170	2,530	3,140	3,440	1,800	2,820	3,360	2,660	9,770
20	1,510	2,120	*1,960	824	3,740	*3,340	3,640	2,820	3,450	2,740	3,830	5,320
21	655	*1,850	2,090	1,710	4,210	3,640	3,420	3,320	2,570	878	3,450	4,310
22	1,170	1,960	2,480	1,360	3,450	4,240	3,270	2,520	1,740	1,180	2,140	2,710
23	2,480	1,630	2,490	2,370	3,270	4,650	3,640	2,840	1,855	1,940	2,060	2,960
24	2,150	6,280	2,980	1,930	3,540	3,640	3,770	2,200	1,770	1,530	3,130	3,150
25	2,080	624	7,650	4,210	2,550	7,170	3,640	4,340	2,430	1,780	995	2,460
26	2,060	1,390	5,220	3,640	3,090	7,400	3,540	3,340	3,000	1,810	1,500	2,400
27	1,780	1,760	3,640	2,680	3,360	5,200	3,240	3,240	3,540	1,940	898	1,580
28	826	1,180	3,090	3,450	4,820	4,440	1,990	2,670	3,450	710	1,170	2,090
29	1,270	1,820	3,090	2,460	-	3,940	3,240	2,040	3,000	1,070	1,570	2,050
30	1,520	1,900	1,690	3,360	-----	3,740	2,370	6,120	2,400	1,180	1,520	5,040
31	1,370	-----	2,400	4,020	-----	2,860	-----	6,650	-----	1,120	1,110	-----
Total	45,993	48,471	71,456	68,704	141,350	149,490	167,470	94,730	126,150	51,237	55,253	80,364
Mean	1,484	1,616	2,305	2,216	5,048	4,822	5,582	3,056	4,205	1,653	1,782	2,679
Cfsm	0.532	0.579	0.826	0.794	1.81	1.73	2.00	1.10	1.51	0.592	0.639	0.960
In.	0.61	0.65	0.95	0.92	1.88	1.99	2.23	1.27	1.68	0.68	0.74	1.07

Calendar year 1956: Max 28,900 Min 44 Mean 2,681 Cfsm 0.961 In. 13.07
 Water year 1956-57: Max 22,600 Min 57 Mean 3,016 Cfsm 1.08 In. 14.67

Peak discharge (base, 25,000 cfs).--Apr. 7 (2:45 a.m.) 25,900 cfs (13.24 ft).

* Discharge measurement made on this day.

North Tyger River near Fairmont, S. C.

Location.--Lat 34°55'45", long 82°02'40", on left bank 80 ft downstream from Frey Creek and 2.2 miles north of Fairmont, Spartanburg County.

Drainage area.--44 sq mi, approximately.

Records available.--October 1950 to September 1957.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 680 ft (from topographic map).

Average discharge.--7 years, 49.7 cfs.

Extremes.--Maximum discharge during year, 466 cfs Apr. 5 (gage height, 3.06 ft); minimum, 10 cfs Aug. 13; minimum daily, 11 cfs Aug. 10-13.
1950-57: Maximum discharge, 2,280 cfs Mar. 4, 1952 (gage height, 10.56 ft); minimum, 6.0 cfs Sept. 19, 20, 1954; minimum daily, 7.0 cfs Sept. 19, 1954.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Feb. 1 to June 25,
Aug. 21 to Sept. 8)

0.3	10	1.5	89
.6	18	2.0	172
.9	33	3.0	418
1.2	54		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	30	30	37	337	238	58	34	32	21	13	12
2	34	29	30	35	157	99	74	32	30	19	13	14
3	31	28	29	34	98	77	57	34	28	18	13	13
4	39	28	29	36	82	88	60	35	29	18	13	12
5	35	28	29	46	*76	84	385	33	59	17	13	12
6	38	27	29	38	76	60	170	32	51	29	12	13
7	37	27	29	37	76	82	86	31	48	18	12	13
8	31	29	28	35	65	102	78	31	36	17	12	13
9	29	28	28	35	65	66	68	29	36	16	12	33
10	28	27	28	34	63	59	60	29	35	16	11	*28
11	*26	27	28	33	56	56	57	50	*33	15	11	21
12	26	26	29	33	52	55	54	39	31	14	11	19
13	26	27	29	33	51	52	52	33	28	14	11	17
14	26	26	31	32	48	56	49	31	29	14	34	16
15	26	*26	42	31	47	54	48	31	28	14	21	16
16	25	26	38	32	47	50	47	31	27	14	15	39
17	24	125	34	31	45	48	*45	29	33	14	13	188
18	26	78	32	31	44	48	48	30	28	22	38	82
19	30	48	*30	30	72	*88	52	39	25	19	58	45
20	29	41	29	31	63	52	45	46	24	17	41	40
21	33	39	30	32	52	46	42	32	22	15	27	48
22	43	38	43	36	48	78	43	31	23	14	22	35
23	34	35	85	64	47	60	41	31	21	*14	18	60
24	31	34	113	42	45	60	39	38	29	16	16	44
25	29	33	63	44	48	153	37	40	38	17	15	34
26	30	33	51	42	60	89	37	43	31	16	14	29
27	34	32	45	42	60	74	35	41	27	14	14	26
28	30	31	42	40	175	65	34	33	28	15	14	22
29	29	31	40	49	-	60	32	32	34	14	14	88
30	29	31	38	63	-----	57	33	42	24	14	14	112
31	29	-----	38	86	-----	54	-----	37	-----	15	12	-----
Total	954	1,068	1,199	1,224	2,153	2,232	1,942	1,079	947	510	557	1,144
Mean	30.8	35.6	38.7	39.5	78.9	72.0	64.7	34.8	31.6	16.5	18.0	38.1
Cfsm	0.700	0.809	0.860	0.898	1.75	1.64	1.47	0.791	0.718	0.375	0.409	0.866
In.	0.81	0.90	1.01	1.04	1.82	1.89	1.64	0.91	0.80	0.43	0.47	0.97

Calendar year 1956: Max 1,210 Min 9.8 Mean 55.1 Cfsm 1.25 In. 17.00
Water year 1956-57: Max 365 Min 11 Mean 41.1 Cfsm 0.934 In. 12.69

Peak discharge (base, 700 cfs).--No peak above base.

* Discharge measurement made on this day.

Middle Tyger River at Lyman, S. C.

Location.--Lat 34°56'35", long 82°08'00", on left bank 200 ft upstream from bridge on State Highway 292 at Lyman, Spartanburg County, 600 ft downstream from Southern Railway bridge, and 0.8 mile northeast of Duncan.

Drainage area.--68.3 sq mi.

Records available.--January 1938 to September 1957.

Gage.--Water-stage recorder and masonry control. Datum of gage is 776.05 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--19 years, 91.7 cfs.

Extremes.--Maximum discharge during year, 1,710 cfs Apr. 6 (gage height, 6.58 ft); minimum, 3 cfs Nov. 15; minimum daily, 14 cfs Nov. 9.

1938-57: Maximum discharge, 4,800 cfs Aug. 14, 1940 (gage height, 16.16 ft), from rating curve extended above 2,900 cfs on basis of computation of peak flow over dam; minimum, 1 cfs Sept. 25, 1940, Oct. 3, 1954, Aug. 30, 1956; minimum daily, 5 cfs Sept. 24, 1955.

Remarks.--Records good. Flow regulated by reservoir 3 miles above station.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 13, Feb. 1 to Sept. 30				Nov. 14 to Jan. 31			
1.1	14	2.5	192	1.2	16		
1.2	19	3.0	300	1.5	37		
1.4	31	4.0	594	1.8	72		
1.7	61	5.0	990	2.0	102		
2.0	102	6.0	1,440	2.6	212		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	20	35	52	595	246	83	68	54	49	33	44
2	18	21	36	51	702	256	120	62	49	43	33	43
3	16	20	34	45	308	163	108	65	46	40	33	43
4	22	20	34	46	176	94	100	65	45	37	33	42
5	18	24	35	64	*140	68	685	62	52	36	33	42
6	17	20	34	60	131	77	1,230	61	69	47	32	41
7	18	20	35	53	123	89	157	59	81	42	31	41
8	16	20	36	51	123	154	158	51	64	37	33	44
9	16	14	36	47	115	123	143	49	57	33	39	51
10	*20	19	34	47	113	86	116	50	53	32	39	*62
11	20	19	33	43	112	84	105	66	*49	30	38	51
12	20	19	34	42	105	83	100	71	48	29	37	46
13	20	18	39	42	104	82	90	61	46	28	36	45
14	20	20	43	43	102	79	84	54	50	27	41	44
15	20	*16	71	41	88	74	80	51	54	26	44	45
16	19	16	104	41	73	77	75	60	45	35	45	54
17	18	46	85	42	71	74	*75	57	44	33	41	108
18	19	64	*60	39	71	74	79	54	56	36	51	349
19	20	69	51	38	79	*96	102	63	57	37	110	142
20	21	53	45	38	84	92	105	77	48	35	188	75
21	23	47	44	40	77	77	87	80	41	33	81	66
22	28	47	55	47	83	103	88	53	38	33	56	66
23	30	42	96	146	94	98	86	48	39	33	50	147
24	26	40	190	174	94	83	80	51	104	*36	48	170
25	22	38	194	116	99	176	77	65	106	35	47	90
26	22	37	118	96	113	186	74	64	75	34	47	69
27	23	35	85	82	118	109	66	60	53	34	46	61
28	22	35	71	75	115	83	65	50	47	34	46	61
29	18	35	66	85	-	83	57	48	61	34	45	148
30	20	35	62	115	-	82	66	64	55	31	45	222
31	18	-	53	150	-	80	-	62	-	34	44	-
Total	632	929	1,948	2,051	4,206	3,331	4,521	1,831	1,686	1,083	1,525	2,512
Mean	20.4	31.0	62.8	66.2	150	107	151	59.1	56.2	34.9	49.2	83.7
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 1,260 Min 12 Mean 68.4 Cfsm - In. -

Water year 1956-57: Max 1,230 Min 14 Mean 71.9 Cfsm - In. -

Peak discharge (base, 1,000 cfs).--Feb. 2 (12:15 a.m.) 1,080 cfs (5.21 ft); Apr. 6 (3:30 a.m.) 1,710 cfs (6.58 ft).

* Discharge measurement made on this day.

North Tyger River near Moore, S. C.

Location.--Lat 34°48'10", long 81°57'57", on right bank at Ott Shoals, 2.0 miles upstream from Wards Creek, 2.6 miles southeast of Moore, Spartanburg County, and 5.3 miles upstream from confluence with South Tyger River.

Drainage area.--162 sq mi.

Records available.--April 1934 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 564.79 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--23 years, 217 cfs.

Extremes.--Maximum discharge during year, 1,460 cfs Apr. 7 (gage height, 2.92 ft); minimum, 39 cfs Aug. 2; minimum daily, 42 cfs Aug. 1.
1934-57: Maximum discharge, 12,300 cfs Aug. 14, 1940 (gage height, 7.15 ft), from rating curve extended above 7,800 cfs by velocity-area studies; minimum, 13 cfs Dec. 29, 1935; minimum daily, 16 cfs Oct. 3, 1954.

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

Revisions (water years).--WSP 1333: 1936(m), 1940(m).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	34	1.8	443
1.0	71	2.0	604
1.2	129	3.0	1,580
1.5	256		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		81	79	172	661	582	196	176	135	76	42	52
2	107	76	79	87	1,010	505	236	108	103	84	67	50
3	92	74	92	155	978	361	218	173	81	84	72	54
4	97	69	65	92	559	261	250	107	121	81	58	90
5	103	67	65	199	337	234	482	113	137	84	56	72
6	97	69	67	113	317	151	1,100	147	180	81	58	52
7	97	69	71	94	292	206	1,140	103	141	84	63	93
8	81	74	71	192	270	280	564	168	185	84	56	65
9	79	76	76	110	249	305	308	94	100	119	56	123
10	*74	65	89	94	224	178	267	113	103	84	54	*150
11	74	63	165	92	224	183	240	172	170	81	50	93
12	74	60	76	172	258	219	243	145	94	81	47	71
13	74	63	74	94	176	138	205	128	87	76	79	88
14	71	*63	79	87	236	239	159	109	116	65	101	110
15	69	165	202	87	160	129	193	113	136	63	74	58
16	71	88	103	94	224	236	*200	130	98	67	60	76
17	71	251	188	178	113	119	129	122	89	69	91	374
18	74	237	*166	89	133	*122	209	120	87	77	115	398
19	79	123	79	110	264	273	199	103	*131	79	150	337
20	76	119	165	96	233	155	226	190	99	52	272	268
21	81	84	81	79	173	197	138	164	76	47	208	188
22	116	79	115	87	185	292	162	100	111	56	71	97
23	89	69	215	219	200	234	212	185	80	*88	96	191
24	81	173	391	228	137	171	143	204	74	79	105	256
25	79	81	366	305	173	497	160	94	203	69	67	232
26	87	108	266	150	279	429	127	71	171	71	65	155
27	97	184	234	161	221	302	177	116	200	74	60	89
28	81	175	131	202	329	264	107	110	123	84	98	101
29	79	89	223	206	-	162	140	94	94	79	80	283
30	79	81	111	220	241	113	192	79	67	67	92	422
31	81	-----	97	269	-----	140	-----	110	-----	46	72	-----
Total	2,610	3,075	4,281	4,533	8,615	7,805	8,083	4,054	3,604	2,311	2,635	4,688
Mean	84.2	102	138	146	308	252	269	131	120	74.5	85.0	156
Cfs/m	0.520	0.630	0.852	0.901	1.90	1.56	1.66	0.809	0.741	0.460	0.525	0.963
In.	0.60	0.70	0.98	1.04	1.98	1.80	1.85	0.93	0.83	0.53	0.61	1.07
Calendar year 1956: Max	2,200											
Min	32											
Mean	183											
Water year 1956-57: Max	1,140											
Min	42											
Mean	154											
Cfs/m	1.13											
In.	15.37											
Cfs/m	0.951											
In.	12.92											

Peak discharge (base, 1,800 cfs).--No peak above base.

* Discharge measurement made on this day.

South Tyger River near Reidville, S. C.

Location.--Lat 34°52'35", long 82°05'10", on left bank 0.4 mile upstream from bridge on State Highway 296, 1.2 miles downstream from Berry Shoals, 1.8 miles northeast of Reidville, Spartanburg County, and 4 miles upstream from Bens Creek.

Drainage area.--106 sq mi.

Records available.--April 1934 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 626.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--23 years, 149 cfs.

Extremes.--Maximum discharge during year, 1,020 cfs Apr. 6 (gage height, 4.28 ft); minimum, 3.7 cfs July 20 (gage height, 0.57 ft); minimum daily, 6.9 cfs July 21.
1934-57: Maximum discharge, 6,420 cfs Oct. 7, 1949 (gage height, 14.23 ft); minimum, that of July 20, 1957; minimum daily, 5.5 cfs June 6, 1941.

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

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.6	4.5	1.5	97
.7	8.5	2.0	202
.8	14	3.0	497
1.0	30	4.0	890
1.2	53		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	43	16	259	344	403	187	121	20	32	38	18
2	17	86	16	247	301	137	222	56	20	36	37	17
3	45	16	84	226	423	85	154	145	129	36	20	58
4	48	16	113	84	405	340	72	25	41	27	19	74
5	115	48	63	18	311	223	509	25	67	26	34	69
6	48	38	50	18	*320	338	818	137	119	25	34	63
7	42	152	126	46	260	304	440	214	147	34	37	61
8	126	136	19	52	392	226	392	78	20	232	111	61
9	35	95	19	45	325	143	373	42	27	153	88	87
10	*36	13	82	44	144	57	340	40	198	153	20	248
11	36	13	83	133	156	143	111	50	149	69	20	*116
12	39	63	51	26	296	199	153	54	*85	112	37	85
13	16	37	41	26	85	85	70	193	63	21	33	110
14	16	*31	76	144	56	84	20	51	71	21	33	51
15	72	30	23	59	155	133	115	120	18	61	33	46
16	46	32	22	49	84	20	*266	101	25	42	33	74
17	45	44	83	45	48	20	252	76	149	74	17	242
18	47	108	46	87	144	*84	85	20	66	49	19	286
19	83	213	*43	23	253	85	207	47	66	33	49	95
20	41	40	43	23	212	258	55	166	135	19	120	195
21	58	276	129	125	143	69	53	184	326	6.9	351	56
22	133	240	24	44	88	88	141	151	20	34	275	150
23	95	164	63	270	65	69	258	93	25	23	402	357
24	56	16	79	91	49	62	147	34	220	*38	31	369
25	114	16	57	86	150	269	62	20	335	124	16	303
26	75	50	217	19	301	297	155	33	317	44	54	292
27	62	84	236	39	140	149	24	236	263	20	285	230
28	56	45	249	157	91	265	43	147	271	20	125	25
29	76	47	20	366	-	93	138	84	42	40	27	28
30	105	46	90	312	-----	54	253	41	36	46	172	119
31	46	-----	331	255	-----	53	-----	144	-----	40	18	-----
Total	1,941	2,238	2,594	3,418	5,741	4,835	6,115	2,928	3,470	1,690.9	2,588	3,985
Mean	62.6	74.6	83.7	110	205	156	204	94.5	116	54.5	83.5	133
Cfsm	0.591	0.704	0.790	1.04	1.93	1.47	1.92	0.892	1.09	0.514	0.788	1.25
In.	0.68	0.79	0.91	1.20	2.01	1.70	2.14	1.03	1.22	0.58	0.91	1.40
Calendar year 1956: Max	1,420				Min 8.5	Mean 117		Cfsm 1.10	In. 15.09			
Water year 1956-57: Max	818				Min 6.9	Mean 114		Cfsm 1.08	In. 14.58			

Peak discharge (base, 1,400 cfs).--No peak above base.

* Discharge measurement made on this day.

South Tyger River near Woodruff, S. C.

Location.--Lat 34°45'21", long 81°56'19", on left bank at Chesnee Shoals, 0.5 mile upstream from confluence with North Tyger River and $5\frac{1}{2}$ miles east of Woodruff, Spartanburg County.

Drainage area.--174 sq mi.

Records available.--March 1934 to September 1957.

Gage.--Water-stage recorder and concrete control. Datum of gage is 508.35 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--23 years, 219 cfs.

Extremes.--Maximum discharge during year, 950 cfs Apr. 7 (gage height, 3.80 ft); minimum, 21 cfs July 22, 23 (gage height, 1.49 ft); minimum daily, 21 cfs July 22.

1934-57: Maximum discharge, 9,510 cfs Apr. 6, 1936 (gage height, 9.78 ft), from rating curve extended above 7,700 cfs by velocity-area studies; minimum, 11 cfs Sept. 23, 1955 (gage height, 1.37 ft); minimum daily, 12 cfs Sept. 23, 1955.

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

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 8, Apr. 17 to Sept. 30				Nov. 9 to Apr. 16			
1.4	13	2.1	111	1.7	40	3.0	423
1.6	33	2.5	221	1.9	65	3.5	717
1.8	59	3.0	431	2.2	125	4.0	1,120
				2.5	213		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	80	77	304	610	502	179	281	162	65	47	a34
2	114	76	49	288	510	386	261	128	65	59	46	a30
3	48	100	56	271	497	184	337	123	75	66	45	a26
4	75	49	121	233	466	299	149	176	138	59	35	a120
5	106	49	120	126	391	356	521	80	99	52	32	a120
6	104	80	91	70	417	350	868	138	130	49	42	a100
7	77	91	101	67	397	368	340	169	169	46	41	a70
8	81	192	129	86	384	430	520	213	159	98	43	a70
9	111	124	57	92	431	263	507	105	69	200	129	a90
10	*57	76	57	82	332	143	444	85	119	165	68	*180
11	61	46	111	126	211	180	346	118	*203	142	31	192
12	56	43	105	116	227	206	173	133	180	92	29	109
13	62	80	83	65	264	212	246	146	117	112	43	108
14	43	*159	76	119	119	152	96	180	104	39	43	95
15	41	55	110	126	166	179	131	108	105	34	43	62
16	90	54	65	87	161	133	*234	167	59	72	43	70
17	69	98	60	83	102	77	308	120	83	64	42	229
18	70	198	*95	97	144	*104	266	94	154	81	37	394
19	92	156	78	94	220	195	183	72	99	68	55	190
20	94	176	72	59	336	198	232	181	103	46	70	199
21	82	129	118	101	261	263	129	196	263	33	257	160
22	126	287	123	113	153	257	184	197	224	21	264	90
23	158	246	162	162	122	177	219	214	56	*42	354	303
24	103	162	274	257	111	154	271	110	105	37	214	394
25	113	55	171	134	164	552	175	75	297	79	57	321
26	107	a50	178	112	249	406	137	62	427	98	38	286
27	104	a85	261	77	352	383	187	133	257	55	162	241
28	102	a100	285	152	264	248	90	213	294	35	253	183
29	72	75	229	294	-	302	157	167	231	32	66	194
30	119	78	70	382	-----	137	191	226	82	49	88	184
31	104	-----	253	364	-----	141	-----	126	-----	55	125	-----
Total	2,728	3,249	3,835	4,739	8,061	7,937	8,079	4,536	4,628	2,145	2,822	4,846
Mean	88.0	108	124	153	258	256	269	146	154	69.2	91.0	162
Cfs/m	0.506	0.621	0.713	0.679	1.66	1.47	1.55	0.839	0.885	0.398	0.523	0.931
In.	0.58	0.69	0.82	1.01	1.73	1.70	1.75	0.97	0.99	0.46	0.60	1.04
Calendar year 1956: Max	1,740				Min 18	Mean 173	Cfs/m 0.994	In. 13.52				
Water year 1956-57: Max	868				Min 21	Mean 158	Cfs/m 0.908	In. 12.32				

Peak discharge (base, 1,800 cfs).--No peak above base.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated from recorded range in stage and records for station near Reidville.

Fairforest Creek near Union, S. C.

Location.--Lat 34°41', long 81°41', on right bank at downstream side of bridge on State Highway 92, 0.3 mile downstream from Buffalo Creek and 4.3 miles southwest of Union, Union County.

Drainage area.--183 sq mi.

Records available.--June 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 393.91 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--17 years, 188 cfs.

Extremes.--Maximum discharge during year, 1,010 cfs Apr. 9 (gage height, 3.77 ft); minimum, 17 cfs Aug. 13 (gage height, 1.91 ft).
1940-57: Maximum discharge, 8,690 cfs Nov. 29, 1948 (gage height, 7.61 ft), from rating curve extended above 4,300 cfs by velocity-area studies and logarithmic plotting; minimum, 4.5 cfs Oct. 8, 1954 (gage height, 1.65 ft).

Remarks.--Records good. Discharge includes some water diverted from South Pacolet River Reservoir (see p. 218) which is discharged into this stream after use.

Revisions (water years).--WSP 1383: 1947.

Rating table, water year 1956-57 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Mar. 3-21)

1.8	15	2.4	124
1.9	23	2.7	264
2.0	34	3.0	458
2.2	68	3.5	830

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	58	62	93	667	358	147	88	224	62	32	21
2	85	58	60	88	790	472	158	83	112	57	30	19
3	70	58	60	85	608	281	167	86	90	53	28	22
4	66	57	58	83	*332	186	143	93	80	53	27	20
5	64	55	58	112	253	176	322	90	115	49	26	19
6	64	55	58	124	214	154	424	86	195	53	25	20
7	64	57	58	105	209	143	391	80	167	57	23	40
8	60	60	58	96	195	195	384	78	138	46	22	28
9	*57	66	62	88	171	195	623	76	124	42	21	*76
10	53	70	60	98	167	147	288	73	*121	42	22	103
11	51	62	60	80	162	128	200	152	102	40	21	72
12	51	60	60	80	143	121	171	186	90	37	19	49
13	51	57	62	78	128	115	158	124	80	37	17	40
14	49	57	62	78	118	139	143	114	101	36	20	36
15	49	57	109	76	112	143	132	101	107	34	33	33
16	48	*57	139	76	108	128	124	96	80	33	59	34
17	48	80	124	76	108	115	*121	96	68	36	34	44
18	51	109	93	70	99	112	124	83	73	47	34	92
19	75	209	*80	68	157	*255	139	78	70	78	44	90
20	90	150	80	68	231	253	135	95	66	57	48	64
21	73	99	80	68	221	171	121	148	62	43	40	102
22	96	86	94	73	147	377	118	90	58	38	33	84
23	124	80	231	109	121	417	121	128	57	34	31	57
24	97	73	620	115	115	315	112	206	55	41	28	74
25	73	68	727	194	115	814	105	444	101	*93	28	55
26	64	66	406	195	143	750	99	162	122	54	27	44
27	62	64	199	176	204	487	93	108	102	44	34	43
28	64	64	147	162	263	270	90	93	102	43	27	52
29	62	64	124	155	-	209	88	98	88	38	25	196
30	58	64	108	346	-----	176	86	415	73	34	24	226
31	58	-----	99	297	-----	154	-----	424	-----	33	22	-----
Total	2,077	2,200	4,298	3,598	6,301	7,956	5,529	4,274	3,023	1,434	954	1,855
Mean	67.0	73.3	139	116	225	257	184	138	101	46.3	30.8	61.8
Cfsm	0.366	0.401	0.760	0.634	1.23	1.40	1.01	0.754	0.552	0.253	0.168	0.338
In.	0.42	0.45	0.88	0.73	1.28	1.61	1.13	0.87	0.62	0.29	0.19	0.38

Calendar year 1956: Max 3,310 Min 12 Mean 184 Cfsm 1.01 In. 13.65
Water year 1956-57: Max 814 Min 17 Mean 119 Cfsm 0.650 In. 8.85

Peak discharge (base, 2,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Enoree River near Enoree, S. C.

Location.--Lat 34°36', long 81°54', on left bank at upstream side of bridge on State Highway 49, three-quarters of a mile upstream from Warrior Creek and 4 miles southeast of Enoree, Spartanburg County.

Drainage area.--307 sq mi.

Records available.--August 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 448.07 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 20, 1929, staff gage at same site and datum.

Average discharge.--28 years, 396 cfs.

Extremes.--Maximum discharge during year, 2,350 cfs Mar. 1 (gage height, 3.53 ft); minimum, 17 cfs Sept. 8; minimum daily, 47 cfs Sept. 8.

1929-57: Maximum discharge, 30,000 cfs Oct. 2, 1929 (gage height, 10.5 ft, from floodmark), from rating curve extended above 17,000 cfs by logarithmic plotting; minimum, 8 cfs Oct. 5, 1941; minimum daily, 20 cfs Oct. 2-4, 7, 1954.

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

Revisions (water years).--WSP 802: 1930(M). WSP 892: 1929-30, 1931(M), 1932-33, 1935. WSP 1112: 1934(M). WSP 1383: 1935-36(m), 1941(m), 1951-52(m).

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 9

Apr. 10 to Sept. 30

1.7	48	2.2	308	1.7	47	2.2	275
1.8	69	2.5	610	1.8	66	2.6	655
1.9	105	3.0	1,340	1.9	97	3.0	1,200
2.0	160	3.5	2,290	2.0	144		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	180	117	208	1,310	2,030	353	310	240	193	76	78
2	201	104	187	201	1,420	945	407	272	226	193	77	68
3	180	184	111	194	988	588	418	254	212	156	70	72
4	174	92	187	187	*660	468	371	268	205	156	76	66
5	208	178	140	276	532	448	888	275	233	139	91	64
6	176	100	121	284	478	408	1,710	291	301	135	72	64
7	178	170	183	244	468	380	1,150	220	277	120	69	69
8	187	109	142	221	428	466	652	251	233	120	54	47
9	135	181	120	208	398	502	1,510	237	263	86	61	*124
10	137	157	188	214	389	408	589	208	*233	132	70	180
11	131	98	151	214	380	371	465	348	212	99	62	189
12	114	140	112	199	353	353	418	440	205	102	55	134
13	168	182	194	172	293	326	391	307	193	90	52	88
14	67	107	158	210	302	363	364	283	178	94	48	102
15	142	*126	201	185	278	362	343	266	205	96	155	94
16	93	150	260	185	277	326	326	200	174	85	162	106
17	132	158	257	182	272	300	331	247	174	85	109	216
18	154	499	160	176	256	321	336	240	162	106	56	554
19	69	386	208	167	297	*488	352	242	174	252	299	393
20	150	300	*146	160	428	448	382	350	174	171	400	246
21	112	183	176	185	371	380	328	291	156	133	319	288
22	228	205	187	179	293	580	322	247	156	106	162	307
23	150	213	388	240	278	565	315	233	150	100	127	210
24	201	176	765	344	267	453	315	219	180	*75	120	263
25	133	168	803	398	279	1,310	298	219	431	97	91	227
26	156	148	438	380	362	902	293	240	532	94	97	181
27	117	193	344	321	512	610	294	233	282	88	121	162
28	187	147	267	292	639	498	281	219	219	94	49	174
29	103	145	251	329	-	418	268	444	205	69	85	437
30	177	180	204	565	-----	389	277	702	212	82	89	495
31	104	-----	221	544	-----	353	-----	327	-----	85	78	-----
Total	4,700	5,359	7,187	7,864	13,206	16,749	14,746	8,883	6,777	3,633	3,452	5,698
Mean	152	179	232	254	472	540	492	287	226	117	111	190
Cfsm	0.495	0.583	0.756	0.827	1.54	1.76	1.60	0.955	0.756	0.381	0.362	0.619
In.	0.57	0.65	0.87	0.95	1.60	2.03	1.78	1.08	0.82	0.44	0.42	0.69

Calendar year 1956: Max 4,500 Min 32 Mean 327 Cfsm 1.07 In. 14.49
 Water year 1956-57: Max 2,030 Min 47 Mean 269 Cfsm 0.876 In. 11.90

Peak discharge (base, 3,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Broad River at Richtex, S. C.

Location.--Lat 34°11'05", long 81°11'48", on right bank 0.8 mile west of Richtex, Fair-Field County, 1.2 miles upstream from Little River, and 11 miles downstream from Parr Shoals Dam.

Drainage area.--4,850 sq mi, approximately.

Records available.--November 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 184.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--29 years (1926-27, 1929-57), 5,625 cfs.

Extremes.--Maximum discharge during year, 31,800 cfs Apr. 7 (gage height, 9.35 ft); minimum daily, 149 cfs Sept. 2, from rating curve extended below 320 cfs.

1925-57: Maximum discharge, 228,000 cfs Oct. 3, 1929 (gage height, 30.7 ft, from floodmarks), on basis of computation of flow over Parr Shoals Dam; minimum daily, 149 cfs Oct. 13, 1935, Sept. 2, 1957, from rating curve extended below 320 cfs.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Some regulation at low and medium flow by powerplants above station. Capacity of reservoirs insufficient to affect monthly figures of runoff.

Revisions (water years).--WSP 757: 1930(M). WSP 972: Drainage area. WSP 1383: 1929(M), 1933.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.1	112	2.0	2,940
.3	267	3.0	5,650
.5	450	6.0	16,000
1.0	1,040	10.0	35,000
1.5	1,870		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,190	2,240	2,810	2,930	8,490	9,530	5,200	2,970	12,600	4,500	1,390	784
2	3,020	1,970	1,180	2,970	24,000	18,900	5,240	3,960	6,620	3,520	1,980	149
3	2,410	2,410	1,550	2,980	23,200	13,700	5,340	4,170	3,490	2,580	2,220	1,710
4	1,970	780	2,820	3,160	14,900	9,360	6,660	4,250	3,320	2,560	955	1,720
5	1,880	2,420	2,030	3,970	10,400	7,700	8,540	3,100	3,740	3,080	2,240	1,350
6	2,200	2,410	1,670	2,300	8,020	7,100	21,500	4,910	9,860	2,970	1,210	1,420
7	1,270	1,880	2,070	3,650	7,550	6,080	30,100	2,890	18,500	910	1,320	1,500
8	4,350	1,920	2,250	2,910	7,250	6,520	19,400	3,400	11,500	2,110	1,600	1,680
9	1,710	2,290	866	*2,440	7,100	6,660	15,300	*3,160	9,700	1,930	1,730	2,670
10	1,660	2,940	2,160	2,660	6,230	5,940	14,100	3,260	7,550	2,180	2,170	2,740
11	1,750	976	1,750	2,670	5,940	5,270	10,400	6,100	8,020	1,820	924	3,970
12	2,340	1,920	2,140	2,400	5,500	5,260	8,020	9,700	6,660	a2,200	900	4,160
13	1,560	2,010	1,900	2,540	5,030	4,030	7,100	7,100	5,300	a3,000	784	2,510
14	462	1,770	2,150	2,740	4,290	4,350	6,080	4,940	4,630	a850	1,310	2,400
15	1,660	1,630	2,780	2,110	4,320	5,500	5,660	4,210	4,310	a1,700	4,350	547
16	2,210	1,800	2,220	2,850	4,680	5,360	5,470	4,010	2,600	a1,600	4,890	1,940
17	1,980	2,590	4,550	2,340	2,710	4,440	4,940	4,560	4,960	a1,700	5,140	3,120
18	1,610	2,290	3,830	2,300	4,100	4,170	4,720	4,620	4,400	a1,600	1,980	4,600
19	1,860	4,580	2,620	2,800	3,820	4,940	4,980	2,230	3,490	4,080	4,520	12,800
20	2,280	4,980	2,520	1,380	*3,970	4,720	5,510	3,880	*3,520	4,030	4,500	9,020
21	1,580	2,710	2,940	2,700	6,380	5,540	5,160	3,750	4,420	a1,400	3,980	6,380
22	2,030	3,040	2,890	2,240	5,600	6,660	5,110	4,210	3,020	1,740	3,980	5,210
23	3,050	2,390	3,610	2,950	5,140	7,700	4,640	3,720	1,690	1,950	3,000	4,050
24	3,170	3,070	5,600	3,800	3,480	7,400	5,200	3,770	3,420	2,210	1,890	3,930
25	3,010	1,430	10,800	5,550	4,190	10,100	4,970	5,560	3,070	2,160	1,440	4,150
26	2,790	2,370	9,360	5,270	4,100	16,400	4,900	4,630	3,570	2,130	2,310	3,560
27	2,660	2,240	6,960	5,220	4,730	*11,500	4,530	4,660	4,750	2,780	1,770	3,030
28	1,270	2,280	5,160	4,780	6,230	8,680	2,850	3,980	5,280	1,040	1,180	3,050
29	2,410	1,880	4,910	4,880	-	6,960	4,280	3,020	4,870	1,930	1,520	2,650
30	2,140	2,730	3,430	3,980	-----	5,800	3,850	6,660	2,950	1,530	2,230	4,490
31	1,880	-----	3,430	6,350	-----	5,110	-----	18,500	-----	1,220	1,840	-----
Total	67,562	69,936	104,816	101,680	201,350	231,280	239,750	149,680	171,810	68,690	71,133	101,100
Mean	2,179	2,133	3,381	3,280	7,191	7,461	7,992	4,828	5,727	2,216	2,295	3,370
Cfsm	0.449	0.481	0.697	0.676	1.48	1.54	1.65	0.995	1.18	0.457	0.473	0.695
In.	0.52	0.54	0.80	0.78	1.54	1.78	1.84	1.15	1.32	0.53	0.55	0.78
Calendar year 1956: Max	39,000				Min 269		Mean 4,378	Cfsm 0.903	In. 12.29			
Water year 1956-57: Max	30,100				Min 149		Mean 4,325	Cfsm 0.892	In. 12.13			

Peak discharge (base, 35,000 cfs).--No peak above base.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and tailrace records at Parr Shoals powerplant.

Saluda River near Greenville, S. C.

Location.--Lat 34°50'30", long 82°28'50", on right bank 500 ft upstream from bridge on U. S. Highway 123 alternate, 1.5 miles downstream from Saluda Lake Dam, 2.5 miles upstream from George Creek, and 4.6 miles west of county courthouse in Greenville, Greenville County.

Drainage area.--293 sq mi.

Records available.--January 1942 to September 1957. Prior to October 1948, published as "near West Greenville."

Gage.--Water-stage recorder. Altitude of gage is 810 ft (from topographic map).

Average discharge.--15 years, 574 cfs.

Extremes.--Maximum discharge during year, 4,780 cfs Apr. 6 (gage height, 9.62 ft); minimum, 39 cfs June 20 (gage height, 1.76 ft); minimum daily, 111 cfs Oct. 13, 16-18, 1942-57; Maximum discharge, 11,000 cfs Oct. 7, 1949 (gage height, 19.38 ft), from rating curve extended above 7,500 cfs on basis of computation of peak flow over dam at Saluda Lake; minimum, 28 cfs Feb. 1, 1956 (gage height, 1.65 ft); minimum daily, 70 cfs Oct. 16, 1954.

Remarks.--Records good. Some regulation at low and medium flow by powerplant at Saluda Lake. Capacity of reservoir insufficient to affect monthly figures of runoff. About 16,414,000 gal per day (25.4 cfs) diverted above station for city of Greenville water supply during water year. Sewage effluent discharged into Reedy River below station near Greenville.

Revisions (water years).--WSP 1383: 1944(m), 1946-49(m), 1954.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.2	105	4.0	1,020
2.4	147	5.0	1,810
2.7	246	7.0	3,220
3.0	397	9.0	4,420
3.5	674		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	170	270	270	1,790	1,190	548	641	340	776	182	178
2	160	257	210	328	2,050	1,170	814	662	340	600	201	162
3	157	329	132	298	1,570	1,010	1,120	595	340	476	188	162
4	154	279	129	265	1,410	1,110	848	619	329	434	178	164
5	152	265	205	357	*959	656	2,460	530	484	418	294	164
6	152	176	212	370	602	740	4,180	548	741	429	234	162
7	149	162	129	208	548	649	2,510	523	613	350	164	162
8	152	197	172	265	855	763	1,800	476	466	361	160	164
9	152	203	251	265	748	776	1,520	476	424	366	160	328
10	*150	193	201	265	744	687	1,420	476	461	329	160	599
11	134	186	127	270	656	642	1,030	455	*408	279	162	*308
12	113	218	127	270	664	579	1,030	553	408	279	162	235
13	111	181	200	228	*572	633	994	461	424	284	162	255
14	113	234	265	191	621	507	928	466	355	270	167	238
15	113	*182	503	270	540	602	894	381	397	270	164	236
16	111	132	447	265	476	639	*1,010	505	368	270	172	396
17	111	418	350	237	524	476	743	432	404	274	164	1,680
18	111	778	*350	154	534	531	750	415	455	435	179	2,330
19	128	461	318	127	545	645	744	369	373	492	772	1,430
20	147	350	270	239	763	*665	809	490	346	355	876	822
21	147	270	270	335	651	570	760	455	471	309	475	720
22	218	274	223	293	581	670	959	392	707	192	297	693
23	442	279	419	1,030	482	476	729	470	519	170	209	812
24	355	189	849	1,740	476	546	710	455	550	*265	876	822
25	227	134	1,060	1,070	564	748	660	450	869	274	253	595
26	184	215	749	487	633	981	555	392	744	251	188	529
27	220	270	514	656	1,120	556	493	375	905	229	165	427
28	134	220	433	535	1,070	619	402	415	604	229	200	462
29	134	152	434	535		562	340	818	235	199	464	
30	187	214	298	736		536	418	397	1,000	213	194	822
31	233	-----	270	760	-----	552	-----	402	-----	167	191	-----
Total	5,193	7,568	10,367	13,315	22,728	21,506	32,240	14,616	15,663	10,299	7,548	16,523
Mean	168	252	335	430	812	694	1,075	471	522	332	243	551
Cfs/m	0.573	0.860	1.14	1.47	2.77	2.37	3.67	1.61	1.78	1.13	0.829	1.88
In.	0.66	0.96	1.31	1.70	2.88	2.73	4.10	1.86	1.99	1.30	0.96	2.10

Calendar year 1956: Max 2,790 Min 97 Mean 362 Cfs/m 1.24 In. 16.80
Water year 1956-57: Max 4,180 Min 111 Mean 487 Cfs/m 1.66 In. 22.55

Peak discharge (base, 2,800 cfs).--Apr. 6 (9:30 a.m.) 4,780 cfs (9.62 ft); Sept. 18 (9:15 a.m.) 2,800 cfs (6.46 ft).

* Discharge measurement made on this day.

Saluda River near Pelzer, S. C.

Location.--Lat 34°40', long 82°28', on right bank half a mile downstream from Hurricane Creek and 2 miles north of Pelzer, Anderson County.

Drainage area.--405 sq mi.

Records available.--September 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 727.75 ft above mean sea level, unadjusted. Prior to Sept. 25, 1929, staff gage at same site and datum.

Average discharge.--28 years, 752 cfs.

Extremes.--Maximum discharge during year, 5,720 cfs Apr. 6 (gage height, 5.75 ft); minimum, 21 cfs Sept. 7 (gage height, 0.79 ft); minimum daily, 151 cfs July 23, 1929-57; Maximum discharge, 13,600 cfs Oct. 7, 1949 (gage height, 10.53 ft); minimum, 2 cfs Sept. 2, 1956 (gage height, 0.53 ft); minimum daily, 57 cfs Oct. 17, 1954.

Remarks.--Records good. Some regulation at low and medium flow by powerplants above station. Capacity of reservoirs insufficient to affect monthly figures of runoff. For diversion by city of Greenville see station near Greenville.

Revisions.--WSP 872: Drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 18

Nov. 19 to Sept. 30

1.2	134	1.2	124	3.0	1,480
1.5	265	1.5	250	4.0	2,860
2.0	565	2.0	546	6.0	6,040
2.6	1,100	2.5	960		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	225	296	320	366	2,100	1,340	698	654	422	965	200	218
2	236	246	322	360	2,370	1,510	776	728	366	772	220	222
3	236	393	219	430	2,100	1,230	1,210	657	427	444	260	194
4	246	364	192	340	1,720	1,050	1,140	681	378	505	193	191
5	251	333	197	464	*1,460	1,010	2,750	640	500	419	250	170
6	216	334	316	528	760	838	5,240	630	734	457	354	207
7	291	193	213	395	738	796	4,440	600	727	389	173	167
8	209	276	192	326	930	977	2,410	556	553	397	182	196
9	*236	262	284	343	886	912	1,940	539	506	396	186	358
10	217	255	308	366	858	826	1,710	532	476	395	187	610
11	208	271	198	354	813	788	1,480	622	*558	292	200	450
12	208	250	202	349	778	702	1,220	621	399	303	159	*276
13	154	285	208	360	681	734	1,160	598	529	305	171	305
14	195	*250	327	252	704	686	1,080	532	432	295	270	270
15	169	334	513	349	736	644	1,060	505	426	299	334	275
16	161	201	576	354	576	728	*978	512	464	311	226	413
17	170	469	474	343	590	806	1,060	527	458	281	210	1,280
18	183	1,020	*401	304	618	822	861	486	576	340	292	2,620
19	193	691	401	230	698	*790	910	474	430	552	666	1,930
20	227	525	354	191	838	784	890	550	378	395	1,040	1,240
21	248	360	349	394	790	706	868	552	476	354	560	848
22	303	366	352	426	677	817	908	505	714	328	415	854
23	452	354	476	728	576	658	974	495	610	151	268	770
24	523	343	990	1,900	568	654	868	544	552	*223	270	974
25	345	232	1,350	1,410	660	1,090	740	520	1,010	309	327	669
26	256	187	998	916	770	1,070	700	505	796	306	246	588
27	325	327	675	761	965	972	570	438	980	550	211	504
28	231	322	550	704	1,260	752	498	508	752	275	218	491
29	218	221	531	719	-	754	526	406	742	241	241	561
30	209	205	456	1,070	-----	650	477	414	1,120	271	217	814
31	299	-----	385	1,060	-----	670	-----	498	-----	217	219	-----
Total	7,640	10,163	13,329	17,092	27,820	26,568	40,162	17,029	17,551	11,337	8,975	18,865
Mean	246	339	430	551	994	851	1,339	549	585	366	290	629
Cfsm	0.607	0.837	1.06	1.36	2.45	2.10	3.31	1.36	1.44	0.904	0.716	1.55
In.	0.70	0.93	1.22	1.57	2.55	2.42	3.69	1.57	1.61	1.04	0.83	1.73

Calendar year 1956: Max 5,020 Min 96 Mean 504 Cfsm 1.24 In. 16.90
 Water year 1956-57: Max 5,240 Min 151 Mean 593 Cfsm 1.46 In. 19.86

Peak discharge (base, 3,000 cfs).--Feb. 2 (3:30 a.m.) 3,320 cfs (4.29 ft); Apr. 6 (8:30 p.m.) 5,720 cfs (5.75 ft); Sept. 18 (6:30 p.m.) 3,160 cfs (4.16 ft).

* Discharge measurement made on this day.

Saluda River near Ware Shoals, S. C.

Location.--Lat 34°23', long 82°14', on right bank 2 miles southeast of Ware Shoals, Greenwood County, 2½ miles downstream from Ware Shoals Dam, and 5 miles upstream from Turkey Creek.

Drainage area.--569 sq mi.

Records available.--March 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 448 ft (by barometer).

Average discharge.--18 years, 921 cfs.

Extremes.--Maximum discharge during year, 5,830 cfs Apr. 7 (gage height, 11.27 ft); minimum, 36 cfs Oct. 25; minimum daily, 171 cfs Aug. 11.

1939-57: Maximum discharge, 20,600 cfs Aug. 13, 1940 (gage height, 20.48 ft), from rating curve extended above 6,300 cfs on basis of computation of peak flow over dam; minimum, 3 cfs Sept. 18, 1939; minimum daily, 11 cfs Oct. 12, 19, 1941.

Remarks.--Records good. Some regulation at low and medium flow by powerplants above station. Capacity of reservoirs insufficient to affect monthly figures of runoff. For diversion by city of Greenville see station near Greenville.

Revisions (water years).--WSP 892: 1939. WSP 1433: 1940-41, 1943-45.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	278	242	463	1,700	1,860	859	582	582	1,480	305	252
2	309	579	258	471	3,300	1,750	706	582	540	1,040	277	252
3	305	331	291	424	3,000	1,530	867	796	508	808	214	286
4	429	224	266	359	*2,300	1,580	1,320	927	424	424	272	252
5	453	644	256	752	1,920	1,530	2,230	540	511	313	284	270
6	326	280	259	616	1,530	1,320	5,070	863	688	609	410	277
7	352	249	529	753	930	975	5,550	852	930	479	514	256
8	266	640	266	511	558	998	3,700	862	952	327	284	224
9	*262	283	242	334	1,060	1,020	3,630	624	521	646	273	308
10	280	277	493	270	930	952	2,410	667	*732	500	277	424
11	273	270	242	553	998	838	2,190	943	646	270	171	*635
12	270	287	270	554	998	962	1,800	753	646	554	270	573
13	280	*248	262	245	908	1,080	1,430	797	323	259	259	256
14	270	367	280	440	561	908	1,200	744	562	183	273	266
15	284	534	646	594	561	678	1,480	309	875	241	319	262
16	280	253	608	273	692	763	*1,240	710	419	274	437	277
17	266	495	*667	252	716	631	1,140	688	540	582	238	687
18	280	796	477	393	579	707	1,320	646	483	332	342	2,500
19	262	1,400	259	667	759	*1,020	1,200	603	688	393	478	3,180
20	187	757	576	253	998	934	747	624	688	624	846	2,080
21	273	646	583	281	1,020	898	975	688	502	465	1,330	1,390
22	545	328	392	273	859	934	1,050	646	391	287	422	646
23	344	242	894	728	561	1,020	1,480	646	614	364	262	1,080
24	584	459	1,720	1,430	513	701	1,170	369	814	386	259	1,040
25	321	576	1,640	2,360	667	1,680	1,100	459	748	*280	262	1,040
26	557	320	1,640	1,750	962	1,640	645	603	1,280	287	470	631
27	284	273	1,200	1,080	1,300	1,480	927	665	766	295	515	824
28	248	266	667	876	1,340	1,200	824	824	1,340	270	268	582
29	262	283	753	952	561	867	436	910	273	282	705	
30	287	550	446	1,010	-----	850	797	524	597	287	256	794
31	266	-----	512	1,480	-----	850	-----	467	-----	298	256	-----
Total	9,875	13,135	17,834	21,397	32,020	33,850	49,524	20,239	20,240	13,830	11,305	22,049
Mean	319	438	575	690	1,144	1,092	1,651	653	675	446	365	735
Cfsm	0.561	0.770	1.01	1.21	2.01	1.92	2.90	1.15	1.19	0.784	0.641	1.29
In.	0.65	0.86	1.16	1.40	2.09	2.21	3.24	1.33	1.33	0.90	0.74	1.44

Calendar year 1956: Max 6,230

Water year 1956-57: Max 5,550

Min 61

Min 171

Mean 704

Mean 727

Cfsm 1.24

Cfsm 1.28

In. 16.84

In. 17.35

* Peak discharge (base, 4,000 cfs).--Apr. 7 (12 m.) 5,830 cfs (11.27 ft).

* Discharge measurement made on this day.

Reedy River near Greenville, S. C.

Location--Lat 34°48'00", long 82°21'55", on right bank 200 ft upstream from State highway bridge, 0.5 mile upstream from Brushy Creek, 2.5 miles upstream from dam at Cones-tee, and 3.9 miles southeast of county courthouse in Greenville, Greenville County.

Drainage area--48.6 sq mi.

Records available--November 1941 to September 1957.

Gage--Water-stage recorder. Altitude of gage is 800 ft (from topographic map).

Average discharge--15 years (1942-57), 77.0 cfs.

Extremes--Maximum discharge during year, 1,340 cfs Apr. 5 (gage height, 4.11 ft); minimum, 9 cfs Aug. 11.

1941-57: Maximum discharge, 3,590 cfs Oct. 7, 1949 (gage height, 7.88 ft), from rating curve extended above 2,000 cfs by velocity-area studies; minimum, 7 cfs Aug. 17, 1953, Aug. 16, Oct. 4, 1954.

Remarks--Records good.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Feb. 1, June 22 to Sept. 30				Feb. 2 to June 21			
0.6	8	1.5	242	0.7	20	1.5	242
.7	22	2.0	426	.8	37	2.0	426
.9	61	3.0	845	1.0	82	3.0	845
1.2	142						

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	40	40	40	601	142	72	60	34	50	18	19
2	46	33	33	36	327	116	110	50	30	40	18	16
3	44	38	29	33	184	87	70	48	28	36	18	19
4	65	35	26	58	133	75	216	48	30	31	91	16
5	40	37	26	66	*115	75	707	41	87	51	45	19
6	48	29	26	53	115	68	342	41	66	29	29	19
7	46	26	27	46	96	111	160	43	50	27	22	19
8	29	36	36	42	99	120	131	43	41	27	19	46
9	24	29	31	40	87	93	104	43	35	24	18	111
10	*22	36	29	40	80	72	85	43	35	27	15	61
11	27	33	26	38	70	68	77	113	*37	29	11	*33
12	22	29	32	36	65	65	72	50	40	36	22	24
13	34	31	33	35	60	63	68	39	44	35	21	22
14	26	*26	76	33	58	70	63	37	49	22	99	21
15	21	26	157	31	56	65	60	34	37	19	63	32
16	19	26	78	33	58	58	63	32	30	19	27	112
17	21	245	50	36	50	52	*58	30	78	39	21	400
18	24	121	36	36	48	69	70	28	64	76	188	325
19	34	92	*35	36	108	94	87	64	41	90	99	120
20	33	50	33	31	82	*70	68	48	35	31	95	107
21	43	44	33	35	65	60	56	39	220	27	48	190
22	62	40	77	106	56	122	56	45	168	22	29	98
23	35	35	158	148	54	75	58	39	104	35	24	83
24	31	44	201	127	50	92	56	44	93	*31	21	114
25	33	36	142	125	82	185	52	50	102	26	22	72
26	36	33	91	85	102	135	50	37	101	18	24	50
27	40	31	61	75	90	93	48	42	68	16	27	50
28	33	29	53	79	189	75	45	37	59	19	22	80
29	29	29	50	191	-	70	44	32	66	26	22	114
30	29	29	42	145	-----	65	67	30	61	24	29	80
31	29	-----	40	268	-----	56	-----	32	-----	21	27	-----
Total	1,057	1,368	1,807	2,201	3,180	2,661	3,215	1,362	1,933	973	1,234	2,472
Mean	34.1	45.6	58.3	71.0	114	85.8	107	43.9	64.4	31.4	39.8	82.4
Cfsm	0.702	0.938	1.20	1.46	2.35	1.77	2.20	0.903	1.33	0.646	0.819	1.70
In.	0.81	1.05	1.38	1.68	2.45	2.04	2.46	1.04	1.48	0.74	0.94	1.90

Calendar year 1956: Max 1,470 Min 15 Mean 74.5 Cfsm 1.53 In. 20.85

Water year 1956-57: Max 707 Min 11 Mean 64.3 Cfsm 1.32 In. 17.97

Peak discharge (base, 1,000 cfs).--Jan. 31 (11:45 p.m.) 1,120 cfs (3.62 ft); Apr. 5 (9:45 a.m.) 1,340 cfs (4.11 ft); June 21 (7:15 p.m.) 1,120 cfs (3.59 ft).

* Discharge measurement made on this day.

Reedy River near Ware Shoals, S. C.

Location.--Lat 34°27', long 82°12', on left bank $1\frac{3}{4}$ miles downstream from dam at Boyd's mill, 4.5 miles northeast of Ware Shoals, Greenwood County, and 10.5 miles upstream from Redburn Creek.

Drainage area.--228 sq mi.

Records available.--March 1939 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 489 ft (by barometer).

Average discharge.--18 years, 281 cfs.

Extremes.--Maximum discharge during year, 1,830 cfs Apr. 6 (gage height, 3.87 ft); minimum, 11 cfs Sept. 2 (gage height, 0.70 ft); minimum daily, 11 cfs Sept. 2.
1939-57: Maximum discharge, 7,750 cfs Aug. 14, 1940 (gage height, 13.32 ft), by computation of peak flow over dam at Boyd's mill; minimum, 6 cfs Nov. 11, 1948 (gage height, 0.54 ft); minimum daily, 9 cfs July 1, Aug. 23, 1956.

Remarks.--Records good. Some regulation at low and medium flow by powerplants above station. Capacity of reservoirs insufficient to affect monthly figures of runoff. For diversion into basin by city of Greenville see Saluda River near Greenville.

Revisions (water years).--WSP 892: 1939. WSP 922: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.7	11	1.9	202
.8	16	2.2	332
1.0	30	2.5	516
1.2	52	3.0	960
1.6	120	4.0	1,980

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	138	156	164	737	1,010	353	181	221	225	77	50
2	131	135	64	162	1,280	795	279	138	87	199	147	11
3	153	139	95	164	978	468	279	224	150	199	147	12
4	179	70	127	187	600	399	445	253	202	167	60	12
5	145	112	127	210	462	387	619	245	213	85	16	12
6	159	138	129	464	*399	338	1,680	244	217	74	16	92
7	173	135	131	342	387	308	1,270	190	213	203	132	127
8	195	138	129	167	348	343	670	135	217	192	67	54
9	*162	140	134	118	303	462	1,230	162	244	123	69	97
10	169	138	131	154	338	348	817	195	241	13	88	133
11	146	138	143	149	311	308	531	241	235	77	33	133
12	127	138	135	184	244	308	524	518	*293	153	359	*163
13	127	135	135	166	262	288	352	412	330	150	214	147
14	127	*135	140	166	257	293	279	288	270	88	12	178
15	124	133	140	166	244	317	279	180	369	109	12	68
16	129	135	165	166	240	303	*279	135	268	145	14	14
17	131	138	299	166	240	262	279	133	177	147	113	137
18	134	268	*187	164	240	*254	283	138	55	150	129	397
19	95	379	150	164	240	396	382	212	15	150	241	516
20	26	268	145	164	244	502	400	217	239	153	361	300
21	178	240	168	164	299	379	279	288	218	68	178	12
22	169	195	206	164	249	288	283	230	283	14	131	354
23	131	163	316	164	262	543	283	306	412	14	131	305
24	133	138	651	451	253	403	454	244	312	109	131	148
25	129	138	738	418	244	776	352	217	283	*150	52	131
26	145	137	524	394	240	1,010	283	216	448	150	88	131
27	140	145	340	411	353	600	102	272	455	94	124	131
28	131	176	262	274	462	524	103	240	277	101	127	222
29	138	169	194	211	-	352	279	225	202	147	127	274
30	138	161	161	443	-----	283	279	225	220	95	124	190
31	142	-----	164	617	-----	447	-----	221	-----	16	124	-----
Total	4,382	4,812	6,586	7,498	10,716	13,694	13,927	7,125	7,366	3,760	3,644	4,571
Mean	141	160	212	242	383	442	464	230	246	121	118	152
Cfs/m	0.618	0.702	0.930	1.06	1.68	1.94	2.04	1.01	1.08	0.531	0.518	0.687
In.	0.71	0.78	1.07	1.22	1.75	2.24	2.28	1.16	1.20	0.61	0.60	0.74

Calendar year 1956: Max 3,310 Min 9 Mean 274 Cfs/m 1.20 In. 16.33
Water year 1956-57: Max 1,680 Min 11 Mean 241 Cfs/m 1.06 In. 14.36

* Peak discharge (base, 2,200 cfs).--No peak above base.

* Discharge measurement made on this day.

Lake Greenwood near Chappells, S. C.

Location.--Lat 34°10', long 81°54', at left upstream end of dam on Saluda River, 0.7 mile upstream from Wilson Creek and 2.4 miles west of Chappells, Newberry County.

Drainage area.--1,150 sq mi, approximately.

Records available.--May 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 400.00 ft above mean sea level, datum of 1929 (levels by Dan T. Duncan Engineering Co.); gage readings have been reduced to elevations above mean sea level. Prior to June 11, 1940, staff gage at same site and datum.

Extremes.--Maximum elevation during year, 439.86 ft Apr. 11; minimum, 431.56 ft Jan. 22. 1940-57: Maximum elevation, 442.02 ft Mar. 5, 1952; minimum elevation since normal reservoir level was first reached, 424.42 ft Oct. 16, 1947.

Remarks (revised).--Lake is formed by earth dam; storage began in May 1940; dam completed in 1940. Usable capacity, about 7,640,000,000 cu ft between elevations 420.0 ft (limit of drawdown) and 440.0 ft (normal operating level) above mean sea level. Dead storage is about 3,500,000,000 cu ft. Figures given herein represent usable contents. Elevation of spillway crest is 415.0 ft and elevation of top of 1½ ft flashboards on top of spillway gates is 441.5 ft above mean sea level.

Revisions (water years).--WSP 972: Drainage area. WSP 1383: 1942.

Capacity table, water year 1956-57 (elevation, in feet, and usable contents, in billions of cubic feet)

430.0	3.31
435.0	5.38
440.0	7.64

Mean elevation, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36.06	35.32	33.62	34.20	34.03	36.56	37.92	37.56	38.51	38.92	37.34	36.71
2	36.07	35.31	33.54	34.18	34.59	36.81	37.76	37.55	38.49	38.97	37.28	36.67
3	36.07	35.23	33.45	33.99	35.41	37.04	37.48	37.57	38.39	38.93	37.19	36.62
4	36.11	35.06	33.58	33.82	36.01	37.28	37.28	37.65	38.34	38.88	37.21	36.54
5	36.19	34.98	33.32	33.72	36.37	37.51	37.32	37.63	38.35	38.78	37.22	36.44
6	36.17	34.95	33.28	33.72	36.62	37.66	37.57	37.72	38.33	38.62	37.13	36.33
7	36.17	34.89	33.24	33.80	36.73	37.72	38.39	37.76	38.34	38.52	37.09	36.28
8	36.07	34.86	33.20	33.69	36.51	37.70	39.00	37.80	38.43	38.50	37.04	36.30
9	36.09	34.87	33.16	33.48	36.50	37.55	39.44	37.80	38.51	38.50	36.98	36.42
10	36.08	34.73	33.17	33.30	36.64	37.40	39.83	37.77	38.48	38.51	36.90	36.46
11	36.07	34.54	33.13	33.00	36.54	37.30	39.81	37.91	38.47	38.47	36.89	36.50
12	36.07	34.42	33.06	32.89	36.32	37.14	39.72	38.19	38.47	38.42	36.87	36.54
13	36.05	34.36	33.00	32.78	36.20	37.04	39.55	38.37	38.45	38.39	36.88	36.54
14	36.05	34.27	32.94	32.50	36.05	36.92	39.28	38.41	38.47	38.28	36.98	36.50
15	36.10	34.28	32.94	32.41	35.66	36.81	39.10	38.33	38.54	38.13	36.92	36.51
16	36.05	34.25	32.99	32.31	35.73	36.82	38.90	38.25	38.52	37.99	36.89	36.55
17	36.00	34.15	33.10	32.16	35.68	36.83	38.70	38.20	38.46	37.95	36.82	36.56
18	35.93	34.11	33.16	32.07	35.69	36.90	38.60	38.19	38.42	37.92	36.79	36.84
19	35.90	34.13	33.15	31.99	35.75	36.97	38.47	38.12	38.36	37.87	36.79	37.31
20	35.81	34.29	33.10	31.90	35.84	37.03	38.38	38.15	38.32	37.67	36.82	37.71
21	35.76	34.35	33.16	31.74	35.93	37.09	38.28	38.08	38.30	37.91	36.98	37.85
22	35.77	34.39	33.07	31.61	36.05	37.24	38.17	38.08	38.26	37.90	37.04	37.92
23	35.81	34.21	33.20	31.62	36.01	37.47	38.13	38.05	38.28	37.80	36.98	37.99
24	35.81	34.05	33.59	31.67	35.87	37.67	38.14	38.09	38.36	37.71	36.95	37.82
25	35.78	34.06	34.08	32.03	35.81	37.92	38.13	38.07	38.43	37.65	36.94	37.69
26	35.80	33.92	34.41	32.44	35.89	38.14	38.03	38.04	38.60	37.55	36.91	37.51
27	35.72	33.84	34.58	32.79	36.00	38.20	37.96	38.09	38.80	37.48	36.90	37.32
28	35.58	33.77	34.59	32.97	36.22	38.17	37.82	38.12	38.92	37.46	36.88	37.34
29	35.47	33.72	34.47	33.09	-	38.05	37.58	38.18	39.04	37.49	36.82	37.45
30	35.42	33.70	34.17	33.28	-	37.88	37.57	38.33	38.96	37.45	36.77	37.45
31	35.37	-	34.17	33.59	-	37.87	-	38.46	-	37.40	36.71	-
(†)	5.52	4.80	5.02	4.85	5.96	6.69	6.53	6.94	7.14	6.44	6.14	6.44
(*)	-116	-278	+82	-63	+467	+265	-62	+153	+77	-261	-112	+116

Calendar year 1956..... * -7

Water year 1956-57..... * +19

† Contents, in billions of cubic feet, at 12 p.m. on last day of month.

* Change in contents, equivalent in cubic feet per second.

Note.--Add 400 ft to obtain elevation above mean sea level.

Saluda River at Chappells, S. C.

Location.--Lat 34°11', long 81°52', on left bank at downstream side of bridge on State Highway 39 at Chappells, Newberry County, 7 miles downstream from dam at Lake Greenwood and 8½ miles upstream from Little River.

Drainage area.--1,350 sq mi, approximately.

Records available.--May 1927 to September 1957. Gage-height records collected at practically same site since 1905 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 363.89 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 1, 1939, at site 300 ft downstream at datum 0.10 ft lower.

Average discharge.--30 years, 1,883 cfs.

Extremes.--Maximum discharge during year, 5,590 cfs Apr. 5 (gage height, 12.48 ft); minimum, 15 cfs Sept. 16; minimum daily, 122 cfs Sept. 8.

1927-57: Maximum discharge, 63,700 cfs Oct. 2, 1929 (gage height, 31.5 ft), from rating curve extended above 27,000 cfs on basis of velocity-area studies; minimum, 8 cfs Oct. 29, 1939; minimum daily, 8 cfs Oct. 29, 1939, caused by construction work above station.

Maximum stage known, 35.7 ft Aug. 26, 1908 (present datum), from reports of U. S. Weather Bureau.

Remarks.--Records good. Flow regulated by Lake Greenwood (see preceding page).

Revisions.--WSP 972: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 8 to Nov. 10)

0.3	119	6.0	2,120
1.0	268	9.0	3,640
2.0	542	12.0	5,290
4.0	1,260		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	719	1,230	714	902	1,500	2,070	1,100	785	1,260	684	298
2	558	734	892	1,190	1,370	2,560	2,910	986	1,360	1,270	717	493
3	426	1,140	769	1,740	1,080	1,100	2,860	1,020	1,050	1,220	553	526
4	426	1,060	792	1,820	*1,080	1,510	2,860	1,700	1,080	1,250	133	700
5	566	1,120	754	1,900	1,380	1,760	4,020	1,480	1,110	1,200	554	636
6	792	758	754	1,180	1,300	1,670	4,800	942	1,140	1,320	684	652
7	1,000	802	798	1,430	2,070	1,620	2,860	1,020	1,110	1,190	604	493
8	*701	716	1,080	1,830	2,760	2,610	3,160	1,020	700	766	604	122
9	454	732	437	1,750	986	3,060	2,340	1,140	1,220	636	804	294
10	540	1,110	768	1,800	1,480	2,100	2,960	1,400	*984	620	604	*668
11	433	1,250	860	1,940	2,610	2,310	3,420	3,140	1,140	604	186	668
12	420	1,190	754	1,100	2,310	2,360	3,310	2,400	1,030	620	467	668
13	518	*797	846	1,520	2,120	2,470	3,480	1,300	1,090	872	636	636
14	253	791	768	1,840	2,120	3,530	2,980	1,440	668	1,000	788	572
15	467	736	1,070	1,360	1,770	2,280	*3,010	1,360	844	1,140	636	166
16	682	744	334	1,300	2,260	1,680	2,940	1,350	1,440	1,180	652	291
17	723	1,250	*732	1,220	988	1,100	2,810	1,340	1,040	806	636	636
18	671	1,040	826	1,120	1,200	*1,340	2,860	1,060	1,130	854	994	668
19	684	1,340	854	1,050	1,100	*2,030	3,010	1,170	1,130	717	589	1,050
20	810	906	842	1,650	1,140	1,840	2,200	997	1,100	636	652	888
21	795	844	978	1,180	1,020	1,720	2,130	1,230	1,080	307	652	1,590
22	975	931	1,520	1,220	848	2,230	2,560	1,190	856	709	652	565
23	688	1,580	1,200	1,130	1,930	1,440	1,980	1,130	745	*931	636	1,580
24	682	819	1,500	1,300	1,720	1,680	1,940	1,200	798	802	422	1,920
25	666	907	1,500	1,140	1,210	4,850	1,900	1,550	768	768	272	1,930
26	711	1,410	1,420	1,220	1,100	4,360	2,070	1,340	768	764	504	2,030
27	1,100	867	1,540	913	1,300	3,210	1,460	1,010	820	717	604	1,610
28	1,020	821	1,440	1,010	1,380	2,610	1,980	684	991	256	605	933
29	1,150	884	2,430	1,220	-	2,510	2,240	652	1,020	302	804	1,350
30	668	965	1,720	1,420	-----	2,610	1,160	920	1,580	652	604	1,860
31	687	-----	761	1,220	-----	1,130	-----	830	-----	636	511	-----
Total	20,558	28,863	31,969	42,427	42,534	68,980	80,280	39,101	30,575	26,005	18,022	26,477
Mean	663	965	1,031	1,369	1,513	2,225	2,676	1,261	1,019	839	581	883
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	10,200	Min	43	Mean	1,341	Cfsm	-	In.	-	-	-	-
Water year 1956-57: Max	4,850	Min	122	Mean	1,249	Cfsm	-	In.	-	-	-	-

* Discharge measurement made on this day.

Saluda River near Silverstreet, S. C.

Location.--Lat 34°11', long 81°44', on left bank 200 ft upstream from Higgins Ferry Bridge on State Highway 19, 1 mile downstream from Little River, and 2½ miles south of Silverstreet, Newberry County.

Drainage area.--1,620 sq mi, approximately.

Records available.--January 1927 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 345.13 ft above mean sea level, unadjusted. Prior to Oct. 15, 1929, staff gage at same site and datum. Since Mar. 8, 1939, water-stage recorder for station on Lake Murray near Columbia has been used as an auxiliary gage for this station.

Average discharge.--30 years, 2,150 cfs.

Extremes.--Maximum discharge during year, 6,620 cfs Apr. 6 (gage height, 14.21 ft); minimum daily, 163 cfs Oct. 1.

1927-57: Maximum discharge, 83,800 cfs Oct. 3, 1929 (gage height, 33.97 ft), from rating curve extended above 19,000 cfs on basis of discharge measurements made at Chappells and near Chapin; minimum daily, 49 cfs July 4, 1940.

Remarks.--Records good except those for periods of backwater from Lake Murray, which are fair. Flow regulated by Lake Greenwood (see p. 235).

Revisions.--WSP 972: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	757	1,210	818	1,080	1,520	1,740	1,220	1,110	1,170	708	414
2	533	798	994	931	1,330	2,500	3,140	989	1,180	1,270	807	525
3	447	1,060	900	1,740	1,350	1,580	3,070	1,110	1,330	1,270	735	543
4	421	1,330	900	1,620	*1,130	1,420	3,030	1,760	1,130	1,330	511	701
5	408	979	860	2,010	1,420	1,900	4,210	1,860	1,190	1,210	599	657
6	860	798	798	1,520	1,380	1,960	6,330	922	1,190	1,390	775	696
7	834	818	900	1,300	1,700	1,740	3,370	1,070	1,130	1,310	706	630
8	*1,000	798	1,040	1,840	2,880	2,500	3,310	1,080	888	821	688	501
9	487	778	757	1,840	1,420	3,040	2,670	1,190	1,100	693	619	449
10	554	1,050	675	1,790	1,130	2,420	2,870	1,410	*1,320	727	606	*802
11	507	1,380	942	1,960	2,550	2,280	3,670	4,390	1,230	716	509	754
12	455	1,040	860	1,420	2,450	2,400	3,560	4,060	1,130	798	498	702
13	591	*818	942	1,210	2,180	2,500	3,430	1,700	1,190	851	714	602
14	386	818	860	1,970	2,180	3,700	3,400	1,670	888	965	874	651
15	283	757	1,020	1,290	1,900	2,970	*3,050	1,530	950	1,130	649	458
16	716	778	716	1,340	1,990	1,760	3,010	1,450	1,230	1,090	707	362
17	757	1,110	*634	1,210	1,440	1,460	2,880	*1,510	1,360	e823	708	686
18	736	1,400	900	1,170	1,100	1,220	2,910	1,280	1,200	e922	1,030	811
19	716	1,200	900	1,080	1,080	*2,120	3,170	1,330	1,180	e943	882	1,120
20	921	900	900	1,270	1,210	2,280	2,550	978	1,170	e873	748	983
21	850	*839	942	1,320	1,170	1,960	2,250	1,310	1,180	e741	*699	1,350
22	870	942	1,420	1,210	962	2,560	2,570	1,310	992	e764	740	887
23	798	1,330	1,350	1,130	1,510	2,190	2,170	1,200	950	*e905	645	1,090
24	778	1,230	1,920	1,290	1,830	1,690	2,070	1,270	1,020	888	522	2,320
25	736	654	1,680	1,210	1,410	5,580	1,920	1,680	1,020	888	394	1,970
26	757	1,680	1,520	1,260	1,130	5,810	2,000	1,430	1,020	895	426	1,990
27	1,020	962	1,620	1,100	1,290	4,000	1,600	948	1,070	881	509	1,850
28	1,300	942	1,580	1,040	1,420	3,280	1,890	810	1,070	705	575	949
29	1,030	921	2,130	1,250	-	2,870	2,340	849	992	556	627	1,360
30	736	1,040	2,250	1,420	-----	2,700	1,170	1,270	1,390	692	645	1,670
31	736	-----	893	1,460	-----	1,760	-----	1,350	-----	615	602	-----
Total	21,386	29,907	35,013	43,019	43,622	77,670	85,350	45,946	33,800	28,832	20,457	28,483
Mean	690	997	1,129	1,388	1,558	2,505	2,845	1,482	1,127	930	660	949
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	12,600	Min	122	Mean	1,530	Cfsm	-	In.	-	-	-	-
Water year 1956-57: Max	6,330	Min	163	Mean	1,352	Cfsm	-	In.	-	-	-	-

* Discharge measurement made on this day.

e Computed on basis of estimated fall to Lake Murray.

Note.--Stage-discharge relation affected by backwater from Lake Murray Oct. 1-5, 9-15, Mar. 29 to Apr. 4, Apr. 7 to Sept. 30.

Lake Murray near Columbia, S. C.

Location.--Lat 34°03'05", long 81°13'15", in intake tower 500 ft upstream from dam on Saluda River and 10 miles upstream from confluence of Saluda and Broad Rivers at Columbia, Richland County.

Drainage area.--2,420 sq mi, approximately.

Records available.--August 1929 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 0.64 ft below mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 31, 1930, staff gage at same site and datum.

Extremes.--Maximum gage height during year, 357.75 ft June 10; minimum, 344.51 ft Dec. 14, 1929-57. Maximum gage height, 361.51 ft Apr. 10, 1936; minimum gage height since generation of power was started, 320.96 ft Dec. 23, 1941.

Remarks.--Lake is formed by earth dam; storage began Aug. 31, 1929; dam completed in 1930. Usable capacity, 70,300,000,000 cu ft between gage heights 300.0 ft (limit of drawdown) and 360.0 ft (maximum normal lake level). Dead storage, 21,800,000,000 cu ft. Figures given herein represent usable contents. Gage height of one spillway crest (completed in 1946), 330 ft with top of gates 362 ft; gage height of other spillway crest 340 ft with top of gates 365 ft. Water is used for generation of power.

Revisions.--WSP 972: Drainage area.

Capacity table, water year 1956-57 (gage height, in feet, and usable contents, in billions of cubic feet)

(Prepared in 1941 by Lexington Water Power Co. from topographic map, contour survey, and study of change in reservoir elevation due to inflow)

340.0	35.44
345.0	42.64
350.0	50.77
355.0	59.94
360.0	70.30

Mean gage height, in feet, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48.53	47.60	46.09	44.79	45.21	46.72	51.11	54.71	57.55	57.48	55.30	53.48
2	48.45	47.58	46.12	44.76	45.27	46.78	51.24	54.76	57.59	57.46	55.15	53.44
3	48.37	47.56	46.09	44.76	45.37	46.88	51.36	54.79	57.61	57.45	55.08	53.31
4	48.30	47.58	45.95	44.79	45.43	46.93	51.45	55.03	57.63	57.46	55.08	53.06
5	48.21	47.60	45.76	44.82	45.46	47.04	51.68	55.29	57.64	57.46	55.07	52.91
6	48.16	47.57	45.58	44.91	45.50	47.12	52.08	55.37	57.63	57.39	54.97	52.72
7	48.24	47.54	45.44	44.99	45.54	47.15	52.33	55.39	57.61	57.40	54.94	52.63
8	48.25	47.50	45.35	45.04	45.58	47.29	52.56	55.40	57.60	57.35	54.91	52.62
9	48.22	47.45	45.32	45.09	45.70	47.40	52.71	55.41	57.70	57.20	54.85	52.70
10	48.14	47.41	45.24	45.15	45.76	47.49	52.76	55.42	57.75	57.04	54.77	52.61
11	48.05	47.41	45.06	45.17	45.85	47.59	52.88	55.68	57.73	56.87	54.76	52.50
12	47.98	47.41	44.87	45.12	45.91	47.68	53.03	56.21	57.69	56.71	54.70	52.33
13	47.93	47.37	44.72	45.06	45.95	47.75	53.15	56.42	57.62	56.68	54.55	52.17
14	47.92	47.30	44.59	45.00	46.02	48.01	53.29	56.47	57.59	56.48	54.50	51.92
15	47.88	47.22	44.54	44.82	46.05	48.30	53.41	56.51	57.55	56.46	54.49	51.82
16	47.82	47.15	44.61	44.70	46.11	48.42	53.49	56.59	57.54	56.36	54.44	51.76
17	47.76	47.11	44.63	44.72	46.20	48.51	53.59	56.61	57.59	56.31	54.39	51.62
18	47.73	47.10	44.63	44.68	46.23	48.58	53.74	56.65	57.54	56.25	54.50	51.57
19	47.70	47.10	44.59	44.64	46.30	48.68	53.89	56.71	57.48	56.21	54.66	51.47
20	47.64	47.02	44.57	44.65	46.33	48.79	53.96	56.76	57.44	56.17	54.69	51.38
21	47.67	46.96	44.56	44.72	46.33	48.86	54.00	56.74	57.41	56.18	54.64	51.28
22	47.71	46.91	44.57	44.72	46.34	49.02	54.09	56.75	57.39	56.15	54.55	51.27
23	47.71	46.86	44.69	44.81	46.35	49.18	54.19	56.81	57.37	56.05	54.44	51.23
24	47.71	46.81	44.87	44.83	46.44	49.51	54.28	56.90	57.37	55.92	54.37	51.09
25	47.66	46.79	45.01	44.90	46.52	49.90	54.39	57.13	57.36	55.84	54.36	51.03
26	47.66	46.78	45.06	45.00	46.55	50.27	54.44	57.22	57.36	55.76	54.31	50.94
27	47.66	46.66	45.01	45.07	46.55	50.56	54.50	57.30	57.37	55.72	54.16	50.86
28	47.69	46.45	44.90	45.12	46.62	50.72	54.57	57.30	57.39	55.71	53.96	50.78
29	47.73	46.26	44.82	45.10	-	50.85	54.64	57.30	57.41	55.68	53.80	50.80
30	47.74	46.17	44.82	45.13	-----	50.95	54.70	57.40	57.45	55.57	53.68	50.83
31	47.66	-----	44.89	45.16	-----	51.05	-----	57.52	-----	55.47	53.54	-----
(†)	46.78	44.36	42.46	42.95	45.25	52.68	59.38	65.03	64.92	60.69	57.10	52.15
(*)	-568	-934	-709	+183	+951	+2,774	+2,585	+2,109	-42	-1,579	-1,340	-1,910

Calendar year 1956..... * +480
Water year 1956-57..... * +122

† Contents, in billions of cubic feet, at 12 p.m. on last day of month.

* Change in contents, equivalent in cubic feet per second.

a No gage-height record; estimated on basis of weather records and powerplant operation.

Note.--Add 300 ft to obtain gage heights.

Saluda River near Columbia, S. C.

Location.--Lat 34°00'50", long 81°05'17", on left bank 0.4 mile upstream from site of old Saluda mill, 1.6 miles upstream from confluence with Broad River, and 3.3 miles west of State Capitol in Columbia, Richland County.

Drainage area.--2,510 sq mi, approximately.

Records available.--August 1925 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 149.46 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Sept. 1, 1929, at datum 1.00 ft higher.

Average discharge.--32 years, 2,699 cfs.

Extremes.--Maximum discharge during year, 10,300 cfs Sept. 3 (gage height, 6.07 ft); minimum, 153 cfs Nov. 19; minimum daily, 161 cfs Feb. 17.

1925-57: Maximum discharge, 67,000 cfs Oct. 2, 1929 (gage height, 15.22 ft), from rating curve extended above 26,000 cfs on basis of discharge measurements made at Wise Ferry Bridge near Chapin; minimum, 11 cfs July 13, 1930; minimum daily, 12 cfs July 13, 1930, caused by construction work above station.

Remarks.--Records good. Flow regulated by Lake Murray (see preceding page) and Lake Greenwood (see p. 235).

Revisions.--WSP 972: Drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 7

July 8 to Sept. 30

1.3	155	2.5	975	1.3	155	2.5	1,030
1.5	220	3.0	1,620	1.5	220	3.0	1,700
1.7	320	4.0	3,440	1.7	320	4.0	3,680
2.0	521	5.0	6,050	2.0	540	5.0	6,580

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	1,510	966	864	528	704	531	570	482	1,430	3,940	1,110
2	1,850	1,540	274	957	299	328	570	191	216	986	3,440	1,220
3	2,170	414	3,500	668	213	264	410	238	1,220	890	1,440	*5,350
4	2,160	212	3,860	1,260	770	824	1,010	613	1,080	252	276	5,340
5	2,210	1,460	3,880	577	884	978	1,110	400	2,000	2,730	2,980	4,050
6	463	1,580	3,700	175	829	1,560	573	376	1,790	1,470	977	4,010
7	234	1,600	3,550	532	1,410	750	220	336	1,000	200	283	1,260
8	1,160	1,600	1,780	481	964	896	482	403	706	4,000	1,360	298
9	1,700	1,640	503	804	280	266	448	461	224	4,100	2,180	4,040
10	2,160	890	3,520	1,620	206	229	610	474	1,250	4,710	1,040	4,460
11	1,500	278	3,920	2,720	784	950	567	905	1,830	4,130	355	4,830
12	1,500	1,320	3,630	2,170	1,006	729	514	491	2,360	3,980	3,740	5,160
13	747	2,120	3,480	1,440	1,010	805	474	1,170	3,620	3,440	2,370	5,130
14	276	2,000	*3,070	3,640	743	650	184	1,250	2,320	1,380	2,000	3,130
15	1,500	1,840	564	5,080	810	944	312	919	1,650	3,340	1,060	460
16	1,630	1,990	202	1,180	345	426	762	636	354	2,340	2,850	4,460
17	1,730	1,360	873	1,520	161	241	610	820	2,090	1,940	1,000	2,530
18	*1,760	297	1,140	1,790	1,090	889	696	353	2,280	1,860	534	3,650
19	1,560	1,790	1,580	803	1,130	852	1,090	224	2,170	1,610	592	3,510
20	796	2,300	1,070	507	1,190	646	472	1,560	1,510	582	2,030	3,980
21	241	2,400	1,160	1,220	1,160	640	292	980	1,740	184	1,720	2,870
22	1,030	1,110	493	1,210	468	673	363	655	972	2,220	3,260	428
23	1,090	1,830	290	685	288	378	862	696	332	3,720	2,570	4,360
24	1,140	1,820	274	1,210	220	229	682	516	872	3,260	972	3,260
25	808	276	314	1,210	1,240	1,150	663	298	906	2,110	205	3,530
26	768	2,570	2,320	615	1,360	674	842	195	682	2,090	4,100	3,400
27	492	3,290	3,480	274	1,530	738	378	758	1,130	752	4,300	3,260
28	259	4,560	3,200	1,820	811	654	188	552	1,040	181	3,450	2,940
29	741	3,640	1,510	2,160	-	620	752	405	548	2,220	2,610	477
30	1,660	2,790	370	1,950	-----	360	1,030	1,170	206	3,130	4,270	3,630
31	2,030	-----	3,300	1,570	-----	216	-----	1,430	-----	3,590	2,090	-----
Total	38,785	52,027	61,853	42,312	21,723	20,263	17,697	20,065	38,580	68,827	63,994	95,993
Mean	1,250	1,734	1,995	1,365	776	654	590	647	1,286	2,220	2,064	3,200
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	4,560			Min	150	Mean	1,203	Cfsm	-	In.	-	
Water year 1956-57: Max	5,350			Min	161	Mean	1,485	Cfsm	-	In.	-	

* Discharge measurement made on this day.

Lakes Marion-Moultrie diversion canal near Pineville, S. C.

Location.--Lat 33°23'15", long 80°08'25", on right bank 0.6 mile upstream from bridge on State Highway 45 and 7.0 miles southwest of Pineville, Berkeley County.

Records available.--February 1944 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 60.0 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by South Carolina Public Service Authority). Auxiliary water-stage recorder 3.9 miles downstream from base gage.

Average discharge.--13 years, 12,950 cfs.

Extremes.--1944-57: Maximum daily discharge, 40,200 cfs Mar. 10, 1952; maximum daily reverse flow, 12,100 cfs Feb. 9, 1947.

Remarks.--Records good except those for periods of very low fall between gages, which are poor. Canal diverts water from Lake Marion to Lake Moultrie for generation of power and for navigation. Water is discharged from powerplant and navigation lock into West Branch Cooper River.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,470	9,020	10,700	7,260	9,100	13,800	13,800	11,500	11,000	11,900	9,500	8,100
2	6,760	9,560	9,610	8,710	9,750	13,800	17,000	11,400	9,030	13,100	9,500	e4,650
3	e4,600	9,480	8,260	10,200	11,000	12,900	14,600	8,900	10,100	14,100	9,410	e3,890
4	5,560	8,100	7,120	11,000	12,500	13,500	15,200	8,160	11,700	13,000	8,500	e3,850
5	5,490	8,780	7,730	10,600	13,400	16,200	16,200	e4,280	11,700	12,900	6,970	e6,160
6	e3,250	7,980	*6,350	9,610	15,400	18,100	18,900	e7,250	12,900	11,500	e5,540	e5,610
7	e2,780	8,480	7,730	9,610	16,700	18,800	16,900	e7,250	14,000	10,900	e5,490	e5,610
8	e2,810	8,480	7,730	8,410	17,500	19,900	17,500	8,220	14,000	9,740	e5,490	e3,060
9	e2,810	8,990	7,260	8,410	17,400	19,100	19,500	*e7,850	13,000	*11,200	e6,270	e4,730
10	e2,550	8,990	5,510	9,070	17,400	17,700	19,600	8,690	13,200	12,200	e6,210	e6,270
11	e2,550	7,000	6,410	7,820	*17,600	16,200	20,400	11,000	16,200	13,100	e6,210	7,260
12	e3,400	6,670	7,190	9,070	17,100	15,900	20,800	10,500	17,200	13,800	e5,560	7,320
13	e2,020	6,020	7,800	8,070	16,800	15,600	19,900	11,600	17,300	13,600	e4,810	8,210
14	e1,520	7,000	7,190	9,070	16,400	14,000	18,800	11,700	18,900	13,500	e5,510	8,280
15	e105	8,330	7,190	8,990	13,800	*13,400	17,800	12,900	19,000	11,500	7,140	8,350
16	e655	8,330	e5,170	8,500	12,200	12,200	17,900	11,700	17,500	11,400	7,210	e6,350
17	e2,010	8,830	e5,170	9,000	11,700	10,600	18,700	11,700	15,800	12,200	e6,100	e6,350
18	e4,690	7,680	8,030	7,000	11,700	11,600	19,600	11,600	16,800	11,200	6,670	e5,730
19	6,600	6,200	6,480	7,000	13,500	13,000	19,000	e7,770	17,500	11,900	7,200	e6,510
20	7,750	7,610	7,880	7,000	13,400	13,000	19,100	10,200	15,700	11,800	*e3,850	7,700
21	e5,760	8,180	7,800	6,500	14,200	12,200	18,500	e8,020	14,700	10,800	e6,180	9,100
22	6,290	8,750	7,190	4,200	14,800	12,900	17,200	10,000	14,700	10,700	7,140	9,260
23	7,350	7,540	6,500	6,500	14,900	12,900	16,300	11,700	12,200	11,400	7,680	8,490
24	*7,350	7,470	6,690	5,500	13,000	11,500	15,300	11,700	11,600	12,700	7,200	7,520
25	7,720	7,470	e4,610	5,500	12,500	12,400	14,300	9,330	13,400	12,500	e4,730	e5,940
26	8,540	6,680	5,670	5,500	12,400	15,100	14,200	e6,980	13,300	*12,900	e4,730	e6,790
27	7,720	7,330	7,540	5,500	12,400	15,200	14,100	10,000	13,200	11,500	e4,690	e6,840
28	6,640	7,680	8,330	5,000	12,300	15,700	11,400	10,500	13,100	9,880	e6,270	e6,040
29	8,700	9,710	10,100	6,000	-	16,800	11,300	10,500	14,300	9,640	7,260	e6,140
30	7,280	10,300	8,560	6,000	-----	17,000	11,600	11,000	11,200	7,650	7,280	e4,540
31	7,580	-----	8,630	*7,280	-----	14,400	-----	10,900	-----	8,420	7,680	-----
Total	154,310	242,830	226,130	238,680	390,630	455,400	505,400	304,780	424,230	360,630	203,940	194,450
Mean	4,978	8,094	7,295	7,706	13,950	14,690	16,850	9,832	14,140	11,630	6,579	6,482
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 26,900 Min 61
 Water year 1956-57: Max 20,800 Min 105

* Discharge measurement made on this day.

e Very low fall between gages.

Lake Marion near Pineville, S. C.

Location.--Lat 33°27'00", long 80°09'50", at right upstream end of spillway, 2.8 miles upstream from old Santee Canal, 5.4 miles upstream from Dead River, and 8 miles west of Pineville, Berkeley County.

Drainage area.--14,700 sq mi, approximately.

Records available.--January 1942 to September 1957. Prior to October 1942, published as Santee Reservoir near Pineville.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Harza Engineering Co.). Prior to May 6, 1942, staff gage at same site and datum.

Extremes.--Maximum elevation during year, 75.81 ft June 13; minimum, 67.69 ft Dec. 4, 5. 1942-57: Maximum elevation, 77.12 ft Mar. 11, 1952; minimum, 61.36 ft Oct. 17, 1951.

Remarks.--Lake is formed by earth dam. Storage began in November 1941; dam completed in 1941. Usable capacity, 39,640,000 cu ft between elevations 60.0 ft (limit of draw-down) and 75.0 ft (maximum normal lake elevation). Dead storage, about 15,250,000,000 cu ft. Figures given herein represent usable contents. Elevation of spillway crest, 63.0 ft; top of spillway gates, 76.8 ft. Some water used for generation of power. Major portion of water is diverted from Lake Marion through canal to Lake Moultrie (see preceding page) for generation of power and for navigation.

Capacity table, water year 1956-57 (elevation, in feet, and usable contents, in billions of cubic feet)
(Prepared from volume curve drawn by Harza Engineering Co.)

65.0	8.71
70.0	21.13
75.0	39.64
76.0	44.13

Elevation, in feet, at 12 p.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68.37	69.41	67.93	69.00	69.64	71.12	73.31	74.60	74.69	75.17	70.94	70.36
2	68.50	69.42	67.89	69.03	69.75	71.14	73.30	74.57	74.83	75.10	70.92	70.31
3	68.64	69.30	67.79	68.98	69.96	71.29	73.19	74.49	74.98	75.02	70.87	70.30
4	68.63	69.20	67.69	68.95	70.14	71.52	73.20	74.56	74.98	74.88	70.80	70.28
5	68.97	69.07	67.72	68.83	70.32	71.70	73.32	74.63	74.98	74.73	70.72	70.30
6	69.23	68.66	67.78	68.83	70.58	71.87	73.23	74.63	74.92	74.60	70.60	70.39
7	69.32	68.80	67.80	68.79	70.80	71.97	73.28	74.60	74.90	74.49	70.57	70.40
8	69.39	68.93	67.82	68.68	71.00	72.17	73.71	74.60	74.93	74.36	70.49	70.45
9	69.44	68.71	67.97	68.70	71.21	72.10	73.54	74.60	75.11	74.18	70.45	70.50
10	69.49	68.67	67.86	68.70	71.35	72.11	73.77	74.60	75.28	74.03	70.38	70.50
11	69.55	68.68	67.81	68.72	71.41	72.19	73.98	74.75	75.38	73.89	70.30	70.57
12	69.62	68.68	67.86	68.78	71.47	72.19	74.34	74.75	75.43	73.74	70.19	70.67
13	69.70	68.58	67.89	68.78	71.48	72.19	74.48	74.80	75.59	73.60	70.11	70.80
14	69.79	68.59	67.88	68.69	71.45	72.15	74.70	74.86	75.64	73.46	70.21	70.89
15	69.81	68.59	67.97	68.77	71.49	72.16	74.86	74.91	75.68	73.24	70.23	70.95
16	69.78	68.56	67.99	68.80	71.71	72.20	75.01	74.91	75.70	73.14	70.19	71.01
17	69.90	68.55	67.96	68.98	71.70	72.29	75.18	74.90	75.70	73.00	70.21	71.02
18	69.89	68.44	67.91	68.86	71.69	72.32	75.27	74.97	75.69	72.83	70.30	71.13
19	69.85	68.47	67.94	68.87	71.66	72.25	75.33	75.05	75.63	72.69	70.30	71.24
20	69.88	68.39	67.90	68.89	71.50	72.20	75.37	75.02	75.61	72.51	70.29	71.49
21	69.86	68.55	67.86	68.83	71.42	72.12	75.40	74.81	75.57	72.41	70.28	71.70
22	69.89	68.39	67.81	68.81	71.40	72.27	75.40	74.85	75.51	72.29	70.30	71.88
23	69.80	68.36	67.86	68.88	71.38	72.25	75.30	74.90	75.48	72.08	70.35	71.97
24	69.76	68.29	68.19	68.89	71.30	72.43	75.20	74.81	75.38	71.93	70.48	72.00
25	69.73	68.21	68.09	68.93	71.27	72.54	75.13	74.80	75.24	71.76	70.51	72.11
26	69.78	68.20	68.29	69.00	71.17	72.62	75.05	74.82	75.17	71.61	70.48	72.19
27	69.71	68.07	68.44	69.11	71.10	72.71	75.00	74.80	75.12	71.48	70.44	72.29
28	69.70	68.00	68.63	69.19	71.15	72.80	74.97	74.64	75.17	71.38	70.46	72.36
29	69.72	67.99	68.65	69.25	-	72.93	74.85	74.60	75.15	71.23	70.50	72.56
30	69.60	68.00	68.86	69.38	-----	73.07	74.70	74.59	75.18	71.11	70.46	72.58
31	69.55	-----	68.99	69.55	-----	73.16	-----	74.58	-----	71.02	70.45	-----
(†)	19.81	15.55	18.18	19.81	24.82	32.08	39.37	37.87	40.45	24.37	22.56	29.90
(*)	+1,460	-1,644	+982	+609	+2,071	+2,711	+2,427	-187	+995	-6,004	-676	+2,832

Calendar year 1956..... † +412

Water year 1956-57..... * +444

† Contents, in billions of cubic feet, at end of month.

* Change in contents, equivalent in cubic feet per second.

Santee River near Pineville, S. C.

Location.--Lat 33°27'15", long 80°09'25", on right bank 2.4 miles downstream from Lake Marion Dam, 3.0 miles upstream from Dead River, and 6.7 miles west of Pineville, Berkeley County.

Drainage area.--14,700 sq mi, approximately.

Records available.--April 1942 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 23.00 ft above mean sea level (levels by South Carolina Public Service Authority). Prior to Feb. 25, 1943, staff gage at site 2.2 miles upstream or temporary water-stage recorder operated by Corps of Engineers at site 200 ft upstream, at different datum.

Average discharge.--15 years, 1,918 cfs.

Extremes.--Maximum discharge during year, 989 cfs Apr. 6 (gage height, 3.12 ft); minimum daily, 294 cfs Dec. 21.

1942-57: Maximum discharge, 155,000 cfs Sept. 23, 1945 (gage height, 31.1 ft, from floodmarks), from rating curve extended above 13,000 cfs by computations of flow over spillway at Lake Marion and by logarithmic plotting; minimum daily, 9 cfs Feb. 23, 1947 (caused by repair work at spillway).

Remarks.--Records good. Flow completely regulated by Lake Marion (see preceding page). Water is diverted above station from Lake Marion through canal (see p. 240) into Lake Moultrie (see following page) for generation of power and for navigation, then discharged into Cooper River basin.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	492	492	510	492	475	492	458	528	510	510	475	492
2	492	492	510	510	492	492	492	528	457	492	475	492
3	475	492	492	510	510	492	492	528	510	510	492	510
4	458	510	475	475	492	510	492	545	528	510	510	510
5	492	510	*492	458	492	510	492	545	528	510	492	510
6	528	510	492	475	510	492	708	510	528	510	492	492
7	492	510	492	475	492	492	510	510	510	510	475	510
8	510	492	492	475	492	528	510	510	475	510	492	510
9	510	510	475	492	492	545	635	510	510	510	492	510
10	528	510	492	475	492	475	528	510	510	510	475	510
11	528	492	510	492	475	528	528	545	475	510	475	492
12	510	510	492	475	510	*510	528	528	492	*510	475	492
13	510	492	492	475	475	510	510	528	528	510	475	510
14	510	510	492	475	475	528	528	528	581	510	475	510
15	510	510	510	492	475	510	528	528	528	528	475	510
16	528	510	510	510	475	510	528	545	465	492	475	510
17	528	510	510	492	475	528	528	528	510	510	458	510
18	510	528	510	492	475	528	*528	528	528	492	492	510
19	510	528	510	475	475	528	528	528	528	492	492	510
20	528	528	510	475	492	510	528	545	528	492	492	510
21	528	510	294	475	510	492	528	510	492	492	*492	492
22	528	528	440	475	475	528	528	528	492	492	475	492
23	528	528	475	492	475	492	528	510	492	492	492	510
24	528	475	510	510	492	510	528	510	492	492	492	528
25	*528	492	492	*492	492	528	528	510	510	492	492	528
26	528	492	492	475	492	492	528	510	492	492	475	528
27	528	510	492	475	458	492	528	528	492	492	475	528
28	528	510	492	475	458	492	528	510	528	492	492	545
29	528	492	492	475	-	492	528	*510	545	492	510	563
30	528	510	433	475	-----	492	510	528	528	492	510	510
31	510	-----	475	492	-----	492	-----	510	-----	492	492	-----
Total	15,939	15,193	15,055	15,001	13,593	15,720	15,841	16,219	15,292	15,540	15,051	15,334
Mean	514	508	486	484	485	507	528	523	510	501	486	511
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max 635 Min 200 Mean 503 Cfsm - In. -												
Water year 1956-57: Max 708 Min 294 Mean 504 Cfsm - In. -												

* Discharge measurement made on this day.

Lake Moultrie near Pinopolis, S. C.

Location.--Lat 33°14'40", long 79°59'30", at powerplant 0.7 mile upstream from Atlantic Coast Line Railroad bridge and 2.8 miles northeast of Pinopolis, Berkeley County.

Records available.--January 1942 to September 1957. Prior to October 1942, published as Pinopolis Reservoir near Pinopolis.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Harza Engineering Co.). Prior to May 16, 1942, staff gage at same site and datum.

Extremes.--Maximum elevation during year, 75.46 ft June 16; minimum, 67.29 ft Nov. 30. 1942-57: Maximum elevation, 76.18 ft Feb. 24, 1946 (caused by high wind); minimum, 58.52 ft Dec. 21, 1951.

Remarks.--Lake is formed by earth dikes and dam, with concrete navigation lock; dikes and dam completed in 1941. Storage began in November 1941. Water is diverted through canal from Lake Marion (see p. 241) and discharged through tailrace canal into West Branch Cooper River. Usable capacity, 28,314,000,000 cu ft between elevations 60.0 ft (normal limit of drawdown) and 75.0 ft (maximum normal elevation). Dead storage, about 19,600,000,000 cu ft. Figures given herein represent usable contents. Water is used for generation of power and for navigation.

Capacity table, water year 1956-57 (elevation, in feet, and usable contents, in billions of cubic feet)
(Prepared from volume curve drawn by Harza Engineering Co.)

65.0	7.01
70.0	16.47
75.0	28.51
76.0	30.97

Elevation, in feet, at 12 p.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68.25	69.12	67.35	68.93	69.35	70.40	72.60	74.29	74.49	74.91	70.79	70.30
2	68.47	68.97	67.55	68.69	69.38	70.61	72.68	74.58	74.71	74.78	70.72	70.36
3	68.63	68.98	67.52	68.49	69.48	70.73	72.66	74.38	74.77	74.64	70.65	70.34
4	68.82	69.02	67.53	68.35	69.43	70.68	72.49	74.61	74.78	74.64	70.76	70.25
5	68.98	68.80	67.49	68.38	69.46	70.61	72.39	74.69	74.69	74.49	70.67	70.30
6	69.27	68.64	67.51	68.56	69.48	70.56	72.54	74.63	74.59	74.39	70.59	70.32
7	69.45	68.50	67.55	68.47	69.52	70.80	72.53	74.59	74.49	74.41	70.52	70.40
8	69.48	68.54	67.66	68.48	69.75	70.76	72.76	74.58	74.55	74.17	70.49	70.50
9	69.51	68.43	67.97	68.52	70.00	71.00	72.63	74.54	74.91	73.91	70.39	70.52
10	69.58	68.36	67.78	68.57	70.30	71.28	72.74	74.43	74.68	73.72	70.29	70.43
11	69.63	68.59	67.69	68.53	70.47	71.33	72.94	74.61	74.83	73.53	70.31	70.50
12	69.70	68.57	67.61	68.45	70.48	71.47	73.27	74.61	74.84	73.35	70.19	70.55
13	69.80	68.50	67.58	68.54	70.47	71.58	73.75	74.58	74.92	73.20	70.14	70.65
14	69.88	68.43	67.57	68.50	70.74	71.70	74.08	74.59	74.99	73.19	70.19	70.70
15	69.94	68.35	67.84	68.47	71.03	71.74	74.23	74.70	75.01	73.07	70.12	70.61
16	69.99	68.29	68.00	68.55	71.35	71.95	74.36	74.62	75.35	72.87	70.12	70.92
17	69.95	68.27	67.89	68.75	71.44	72.15	74.44	74.68	75.24	72.69	70.16	71.03
18	69.80	68.46	67.85	68.79	71.28	71.97	74.56	74.84	75.20	72.60	70.29	71.20
19	69.74	68.30	67.73	68.70	71.20	71.95	74.63	74.96	75.21	72.34	70.33	71.23
20	69.76	68.18	67.65	68.76	70.98	71.91	74.68	74.89	75.32	72.23	70.29	71.19
21	69.87	68.16	67.60	68.83	70.84	71.74	74.87	74.71	75.25	72.27	70.27	71.53
22	69.73	68.30	67.65	68.81	70.68	71.80	74.89	74.62	75.20	71.98	70.25	71.72
23	69.68	68.15	67.83	68.85	70.73	71.86	74.88	74.64	75.33	71.68	70.29	71.96
24	69.70	68.02	68.14	68.86	70.87	72.09	74.83	74.65	75.18	71.53	70.59	72.01
25	69.58	68.04	68.20	68.88	70.74	72.09	74.76	74.70	75.02	71.30	70.59	72.08
26	69.55	67.96	68.21	69.00	70.68	72.12	74.69	74.81	74.91	71.10	70.55	72.20
27	69.63	67.85	68.24	69.12	70.64	72.14	74.76	74.61	74.83	71.10	70.49	72.29
28	69.80	67.55	68.33	69.19	70.61	72.10	74.83	74.48	74.81	71.20	70.46	72.42
29	69.66	67.36	68.61	69.25	-	72.12	74.59	74.41	74.87	71.09	70.41	72.57
30	69.46	67.30	68.66	69.33	-	72.46	74.41	74.46	75.07	70.97	70.39	72.68
31	69.29	-	68.80	69.42	-	72.73	-	74.39	-	70.80	70.29	-
(*)	14.98	11.03	13.97	15.25	17.79	22.63	26.80	28.75	28.80	18.21	17.10	22.51
(*)	+989	-1,524	+1,098	+478	+1,050	+1,807	+1,609	-19	+675	-3,642	-414	+2,087
Calendar year 1956..... * +136												
Water year 1956-57..... * +149												

* Contents, in billions of cubic feet, at end of month.

* Change in contents, equivalent in cubic feet per second.

South Fork Edisto River near Montmorenci, S. C.

Location.--Lat 33°34'35", long 81°30'50", near center of span on downstream side of bridge on State Highway 215, 0.4 mile upstream from Cedar Creek, 1 mile upstream from Shaw Creek, and 7.6 miles northeast of Montmorenci, Aiken County.

Drainage area.--198 sq mi.

Records available.--April 1940 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 250.18 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers). Prior to Oct. 29, 1954, wire-weight gage at same site and datum.

Average discharge.--17 years, 219 cfs.

Extremes.--Maximum discharge during year, 750 cfs May 14 (gage height, 6.90 ft); minimum, 47 cfs Sept. 5 (gage height, 1.34 ft).
1940-57: Maximum discharge, 2,460 cfs Aug. 15, 1940, July 19, 1941 (gage height, 8.81 ft, from graph based on gage readings); minimum, 37 cfs July 4, Sept. 26, 1954 (gage height, 1.00 ft).

Remarks.--Records good except those for periods of no gage-height record, which are fair.

Revisions (water years).--WSP 952: 1941. WSP 1032: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 30 to Aug. 5)

1.3	46	5.5	249
2.0	73	6.0	334
3.0	113	6.5	502
4.0	153	7.0	820
5.0	204		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*182	111	127	149	208	161	184	*105	151	198	61	53
2	135	111	135	143	228	164	171	107	168	166	59	51
3	115	111	133	137	219	166	166	113	*141	135	59	50
4	107	109	125	135	198	157	168	141	115	115	97	48
5	105	*107	121	137	195	168	176	186	107	105	157	48
6	115	105	119	145	189	184	195	280	117	97	137	49
7	127	105	117	159	174	198	211	458	123	87	95	55
8	141	103	117	164	164	201	284	320	125	81	75	65
9	155	107	117	155	157	189	219	121	77	69	95	95
10	149	109	117	147	153	186	211	166	125	73	63	127
11	117	109	117	145	149	*178	176	165	141	69	57	153
12	105	107	117	143	145	150	159	281	137	65	53	176
13	99	105	117	137	143	140	153	451	125	65	63	162
14	95	105	117	131	143	160	151	629	133	63	67	113
15	93	105	117	131	135	180	147	366	127	*59	65	95
16	93	105	121	137	135	180	141	264	139	59	67	85
17	93	105	*129	143	131	184	137	211	141	61	71	85
18	95	107	141	149	133	166	137	195	151	67	91	101
19	95	107	137	147	135	153	157	184	145	75	113	123
20	99	107	127	139	147	155	193	159	113	87	129	137
21	103	107	123	131	155	178	362	141	105	93	133	143
22	123	111	123	131	155	201	313	129	115	77	133	139
23	137	109	149	139	143	189	232	121	107	67	103	139
24	145	107	195	153	133	202	184	119	95	63	83	127
25	139	107	251	168	133	270	159	129	89	63	75	107
26	125	107	392	192	141	277	143	133	99	69	*71	93
27	119	107	369	208	151	362	127	133	117	69	67	85
28	117	109	272	266	164	404	121	123	127	71	63	87
29	115	109	208	277	-	300	115	115	155	77	59	105
30	111	117	176	233	-----	239	109	109	186	75	57	*133
31	109	-----	169	208	-----	204	-----	125	-----	71	55	-----
Total	3,658	3,230	4,885	4,979	4,456	6,245	5,453	6,377	3,640	2,599	2,547	3,027
Mean	118	108	158	161	159	201	182	206	128	83.8	82.2	101
Cfsm	0.596	0.545	0.798	0.813	0.803	1.02	0.919	1.04	0.646	0.423	0.415	0.510
In.	0.69	0.61	0.92	0.94	0.84	1.18	1.03	1.20	0.72	0.49	0.48	0.57

Calendar year 1956: Max 635 Min 48 Mean 149 Cfsm 0.753 In. 10.20

Water year 1956-57: Max 629 Min 48 Mean 141 Cfsm 0.712 In. 9.67

Peak discharge (base, 900 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 12-16, Aug. 4-19; discharge estimated on basis of recorded range in stage and weather records.

South Fork Edisto River near Denmark, S. C.

Location.--Lat 33°23'35", long 81°08'00", on left bank at downstream side of bridge on U. S. Highway 321, 200 ft downstream from Seaboard Air Line Railroad bridge, 1.8 miles downstream from Little River, and 4.8 miles north of Denmark, Bamberg County.

Drainage area.--720 sq mi, approximately.

Records available.--August 1931 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 155.68 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers). Prior to Oct. 27, 1931, chain gage at same site and datum.

Average discharge.--26 years, 725 cfs.

Extremes.--Maximum discharge during year, 1,030 cfs Mar. 27 (gage height, 6.70 ft); minimum, 162 cfs Sept. 6.
1931-57: Maximum discharge, 13,500 cfs Apr. 11, 1936 (gage height, 10.91 ft), from rating curve extended above 4,800 cfs on basis of velocity-area studies and logarithmic plotting; minimum, 146 cfs Aug. 12, 1956.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 6)

Oct. 1-6		Oct. 7 to Sept. 30	
5.5	472	2.9	167
6.0	565	4.0	281
6.5	780	5.0	396
		5.5	464
		6.0	602
		6.4	801
		6.7	1,030

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	480	408	414	772	668	483	801	366	602	428	202	197
2	487	402	414	801	668	494	865	342	535	434	192	187
3	503	398	421	743	717	494	833	360	474	421	187	177
4	553	390	*426	691	743	506	801	421	441	421	192	172
5	648	384	428	644	743	549	743	506	448	414	207	167
6	720	378	428	602	691	602	801	549	448	396	232	167
7	833	378	421	549	691	*623	801	549	434	360	*242	182
8	691	378	421	533	668	623	743	533	390	325	254	197
9	602	384	414	506	644	623	743	520	384	298	264	222
10	533	378	408	506	644	623	743	494	408	*270	259	270
11	474	372	402	494	602	584	717	520	408	248	227	330
12	441	372	402	494	584	584	691	644	402	237	207	366
13	421	372	396	483	549	565	691	743	390	222	197	360
14	408	366	396	483	520	584	717	743	441	212	187	348
15	390	366	396	483	494	602	691	691	464	227	182	348
16	366	360	402	506	474	644	644	623	474	232	192	348
17	354	360	408	506	464	584	*565	644	533	217	192	336
18	354	360	414	506	448	533	520	743	565	222	197	348
19	354	360	421	483	448	520	506	833	506	242	254	360
20	348	360	428	483	448	506	506	772	448	242	303	348
21	360	360	428	474	448	506	506	691	434	232	325	348
22	434	360	434	474	448	533	506	623	421	227	336	360
23	*474	360	448	474	441	584	506	602	408	227	336	366
24	464	366	549	483	448	602	483	584	384	222	314	a390
25	448	366	644	483	448	717	483	549	348	222	303	a380
26	441	372	691	520	464	902	494	602	336	212	276	a360
27	441	366	691	549	474	1,020	520	*644	325	212	254	a340
28	434	366	717	565	474	*1,010	533	533	325	227	237	a320
29	434	366	717	*584	-	958	494	464	364	237	*222	a340
30	421	384	691	602	-----	865	428	464	421	227	207	a360
31	421	-----	717	644	-----	833	-----	565	-----	217	202	-----
Total	14,732	11,190	14,989	17,120	15,553	19,856	19,075	17,917	12,979	8,530	7,581	6,984
Mean	475	373	484	552	555	641	636	578	433	275	238	239
Cfsm	0.660	0.518	0.672	0.767	0.771	0.890	0.883	0.803	0.601	0.362	0.331	0.415
In.	0.76	0.58	0.77	0.88	0.80	1.03	0.99	0.93	0.67	0.44	0.38	0.46

Calendar year 1956: Max 1,320 Min 156 Mean 483 Cfsm 0.671 In. 9.11
Water year 1956-57: Max 1,020 Min 167 Mean 461 Cfsm 0.640 In. 8.69

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 gage reading by observer, recorded range in stage, and weather records.

North Fork Edisto River at Orangeburg, S. C.

Location--Lat 33°29'00", long 80°52'25", on left bank under bridge on U. S. Highway 301 at Orangeburg, Orangeburg County, 0.5 mile upstream from Atlantic Coast Line Railroad bridge and 1½ miles downstream from Caw Caw Swamp.

Drainage area--683 sq mi.

Records available--December 1938 to September 1957.

Gage--Water-stage recorder. Datum of gage is 149.02 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers). Prior to Feb. 23, 1939, wire-weight gage at same site and datum.

Average discharge--18 years (1939-57), 679 cfs.

Extremes--Maximum discharge during year, 1,250 cfs June 17 (gage height, 7.62 ft); minimum, 203 cfs Aug. 13.
1938-57: Maximum discharge, 9,500 cfs Sept. 18, 1945 (gage height, 14.28 ft), from rating curve extended above 3,900 cfs on basis of velocity-area studies and logarithmic plotting; minimum, 190 cfs Sept. 13, 14, 1954.

Remarks--Records good.

Revisions--WSP 1032: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

2.6	203	6.0	664
3.0	240	7.0	974
4.0	340	7.6	1,250
5.0	462		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	478	462	402	626	579	502	791	390	854	511	235	245
2	486	447	414	638	579	502	776	362	870	502	230	235
3	511	433	414	626	614	502	761	356	761	511	216	226
4	568	426	*414	602	638	511	746	384	664	502	221	221
5	626	414	408	579	638	568	746	433	602	454	240	216
6	677	408	402	558	626	614	791	478	568	420	250	212
7	690	396	396	529	614	*664	791	486	548	378	250	216
8	677	396	396	502	590	664	791	470	538	346	240	221
9	626	396	390	486	590	651	746	462	548	335	235	260
10	548	390	390	470	568	638	704	447	520	*310	230	305
11	478	384	384	462	558	614	664	494	494	290	221	346
12	433	384	378	454	529	602	651	568	470	275	208	340
13	414	378	373	447	511	579	651	651	456	260	208	346
14	396	373	373	447	486	568	664	690	664	255	221	351
15	384	368	390	447	470	614	651	690	808	270	230	351
16	373	368	414	447	454	638	626	732	1,140	270	245	351
17	373	368	408	462	447	638	*579	776	1,220	260	255	351
18	378	368	408	454	433	602	548	746	1,070	255	280	351
19	364	373	408	447	426	579	529	690	921	265	310	356
20	378	368	408	440	426	568	511	704	838	285	362	351
21	390	368	402	433	426	538	494	677	776	290	408	356
22	486	368	402	*433	420	558	478	614	677	295	420	351
23	*686	362	420	433	420	579	470	548	579	285	420	351
24	870	362	494	440	420	602	462	529	529	275	420	351
25	870	368	579	462	426	746	454	538	511	265	408	340
26	732	368	677	494	454	897	454	529	511	250	390	325
27	638	368	677	538	486	*1,010	454	*502	478	245	351	315
28	579	368	651	548	502	992	462	494	447	245	305	315
29	529	362	626	*548	-	938	447	502	486	245	*280	351
30	494	364	602	558	-----	870	426	568	511	240	260	378
31	470	-----	602	568	-----	822	-----	690	-----	240	250	-----
Total	16,622	11,578	14,102	15,578	14,330	20,360	18,318	17,200	20,059	9,829	8,799	9,284
Mean	536	366	455	503	512	657	611	555	669	317	284	309
Cfsm	0.785	0.565	0.666	0.736	0.750	0.962	0.895	0.813	0.980	0.464	0.416	0.452
In.	0.90	0.63	0.77	0.85	0.78	1.11	1.00	0.94	1.09	0.53	0.48	0.50
Calendar year 1956: Max	1,140			Min	208	Mean	458	Cfsm	0.671	In.	9.12	
Water year 1956-57: Max	1,220			Min	208	Mean	482	Cfsm	0.706	In.	9.58	

* Discharge measurement made on this day.

Edisto River near Branchville, S. C.

Location.--Lat 33°10'35", long 80°48'05", on right bank 400 ft downstream from bridge on U. S. Highway 21, 4.7 miles downstream from Brier Branch, and 5.2 miles south of Branchville, Orangeburg County.

Drainage area.--1,720 sq mi, approximately.

Records available.--November 1945 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 80.02 ft above mean sea level (levels by Corps of Engineers). Prior to May 19, 1949, at datum 1.00 ft higher.

Average discharge.--11 years (1946-57), 1,617 cfs.

Extremes.--Maximum discharge during year, 2,200 cfs Mar. 30 to Apr. 1; maximum gage height, 5.63 ft Mar. 31; minimum discharge, 402 cfs Sept. 5-7.

1945-57: Maximum discharge, 10,000 cfs Oct. 6, 1948 (gage height, 10.21 ft, present datum); minimum, 323 cfs Aug. 14, 1956.

Remarks.--Records good.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 6

Jan. 7 to Sept. 30

1.0 658
2.0 943
4.0 1,570

-0.2 369
0.0 440
1.0 713
2.0 998
4.0 1,590
5.0 1,950
6.0 2,420

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	769	1,030	713	1,330	1,260	1,080	2,200	998	1,230	940	479	479
2	769	972	741	1,330	1,290	1,080	2,110	998	1,260	940	g466	g440
3	769	943	769	1,300	1,320	1,110	1,990	969	1,320	940	g466	g414
4	827	885	798	1,300	1,350	1,140	1,910	998	1,380	940	466	g414
5	885	885	827	1,330	1,390	1,230	1,870	1,170	1,410	911	479	g402
6	1,090	856	798	1,400	1,410	*1,290	1,950	1,170	1,380	911	479	g402
7	1,360	827	827	1,440	1,440	1,380	2,030	1,170	1,290	911	*479	g402
8	1,430	798	798	1,410	1,470	1,410	2,070	1,170	1,170	853	492	g414
9	1,400	798	798	1,380	1,440	1,440	2,070	1,140	1,140	797	492	g440
10	1,400	769	798	1,320	1,440	1,440	1,950	1,110	1,110	*741	492	g453
11	1,400	769	798	1,230	1,410	1,410	1,840	1,140	1,060	685	479	519
12	1,360	769	769	1,170	1,390	1,410	1,760	1,380	1,060	629	466	573
13	1,240	741	769	1,110	1,350	1,380	1,660	1,470	998	567	466	629
14	1,090	741	769	1,080	1,290	1,380	1,590	1,470	969	546	466	671
15	943	*741	769	1,080	1,260	1,530	1,560	1,440	940	519	479	685
16	885	741	827	1,080	1,200	1,700	*1,530	1,440	940	519	479	685
17	827	713	856	1,080	1,170	1,730	1,470	1,470	1,060	532	466	685
18	798	713	856	1,110	1,110	1,730	1,470	1,530	1,140	532	479	699
19	798	699	856	1,110	1,080	1,700	1,470	1,560	1,260	519	479	713
20	769	699	827	1,080	1,060	1,590	1,410	1,530	1,410	506	492	713
21	769	699	827	1,080	1,030	1,500	1,350	1,500	1,470	519	532	713
22	856	699	827	*1,060	998	1,470	1,290	1,470	1,470	532	*587	713
23	972	699	827	1,060	998	1,530	1,200	1,500	1,350	519	629	713
24	1,030	685	914	1,060	969	1,560	1,140	1,530	1,230	519	657	741
25	1,090	685	1,060	1,060	959	1,760	1,080	1,530	1,140	532	685	741
26	1,120	685	1,150	1,060	998	1,950	1,060	1,500	1,080	519	685	741
27	1,180	699	1,180	1,080	1,030	2,030	1,030	1,440	998	506	685	713
28	1,210	699	1,240	1,110	1,060	2,110	998	*1,380	940	492	657	713
29	1,210	699	1,300	1,140	-	2,150	998	1,290	998	492	615	713
30	1,150	713	1,330	1,200	-----	2,200	998	1,260	969	492	560	741
31	1,090	-----	1,330	1,230	-----	2,200	-----	1,260	-----	492	519	-----
Total	32,486	23,051	27,948	36,810	34,162	48,620	47,054	40,983	35,172	20,072	16,352	18,074
Mean	1,048	766	902	1,187	1,220	1,568	1,566	1,322	1,172	647	527	602
Cfsm	0.609	0.447	0.524	0.690	0.709	0.912	0.912	0.769	0.681	0.376	0.306	0.350
In.	0.70	0.50	0.60	0.80	0.74	1.05	1.02	0.89	0.76	0.43	0.35	0.39

Calendar year 1956: Max 3,030 Min 334 Mean 1,079 Cfsm 0.627 In. 8.52
 Water year 1956-57: Max 2,200 Min 402 Mean 1,043 Cfsm 0.606 In. 8.23

* Discharge measurement made on this day.
 g Computed from once-daily staff-gage readings.

Edisto River near Givhans, S. C.

Location.--Lat 33°01'40", long 80°23'30", on left bank at downstream side of bridge on State Highway 61, 2.3 miles downstream from Four Hole Swamp and 2.8 miles west of Givhans, Dorchester County.

Drainage area.--2,730 sq mi, approximately.

Records available.--January 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 20.46 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--18 years, 2,254 cfs.

Extremes.--Maximum discharge during year, 3,610 cfs May 21 (gage height, 7.89 ft); minimum, 352 cfs Sept. 6, 7; minimum gage height, 0.78 ft Sept. 6.
1939-57: Maximum discharge, 24,300 cfs Sept. 21, 1945 (gage height, 17.28 ft), from rating curve extended above 14,000 cfs by logarithmic plotting; minimum, 290 cfs Aug. 16, 1956 (gage height, 0.51 ft).

Remarks.--Records good. About 53,675,000 gal per day (83.0 cfs) diverted above station for Charleston water supply during year.

Revisions.--WSP 1032: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge,
in cubic feet per second)
(Shifting-control method used Oct. 1-31, Mar. 21 to May 19)

0.8	352	4.0	1,420
1.0	406	6.0	2,380
2.0	690	8.0	3,700

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	720	1,160	690	1,420	1,240	1,120	3,210	814	2,540	1,080	434	448
2	720	d1,060	705	1,420	1,280	1,160	3,210	814	2,480	980	434	420
3	720	d1,020	*720	1,460	1,320	1,160	3,140	846	2,330	945	434	406
4	735	d945	750	1,460	1,420	1,160	3,070	910	2,280	910	448	378
5	750	d910	766	1,460	1,460	1,240	3,000	1,200	2,330	878	462	365
6	846	d846	798	1,500	1,500	*1,420	2,820	1,500	2,380	846	448	352
7	1,200	846	782	1,550	1,500	1,550	2,680	1,680	2,330	846	434	352
8	1,730	814	782	1,600	1,550	1,640	2,540	1,730	2,180	814	434	378
9	1,930	814	782	1,640	1,600	1,750	2,480	1,640	2,330	798	434	392
10	1,930	798	782	1,640	1,600	1,780	2,480	1,460	2,280	798	434	406
11	1,880	798	766	1,550	1,640	1,830	2,430	1,320	2,330	*766	434	420
12	1,730	782	766	1,460	1,600	1,830	2,430	1,640	2,180	705	420	434
13	1,600	766	766	1,370	1,600	1,630	2,330	2,420	1,830	660	406	462
14	1,500	750	750	1,240	1,550	1,630	2,230	3,000	1,680	630	392	504
15	1,320	750	750	1,200	1,460	1,880	2,080	3,360	1,640	574	392	532
16	1,160	735	750	1,160	1,420	1,980	*1,980	3,360	1,500	546	378	546
17	1,020	735	766	1,160	1,370	2,130	1,880	3,140	1,320	588	365	574
18	945	735	798	1,160	1,280	2,280	1,780	3,070	1,200	574	378	574
19	878	720	814	1,160	1,240	2,380	1,730	3,140	1,160	532	378	588
20	846	705	814	1,160	1,160	2,380	1,680	3,520	1,200	532	406	602
21	814	705	814	1,160	1,120	2,330	1,640	3,520	1,320	490	420	602
22	814	705	814	1,120	1,080	2,250	1,550	3,360	1,420	490	*448	616
23	846	705	814	*1,120	1,050	2,180	1,460	3,000	1,500	476	490	630
24	*910	690	846	1,080	1,020	2,130	1,280	2,700	1,500	476	504	616
25	1,020	690	910	1,080	1,020	2,380	1,160	2,540	1,420	490	532	630
26	1,050	690	1,020	1,080	1,020	2,760	1,080	2,480	1,280	490	546	630
27	1,120	675	1,120	1,080	1,050	3,070	980	2,540	1,200	490	560	616
28	1,160	675	1,200	1,080	1,080	3,360	945	*2,600	1,160	490	560	616
29	1,160	675	1,280	1,120	-	3,440	878	2,600	1,120	476	546	630
30	1,200	690	1,320	1,160	-----	3,520	846	2,540	1,120	448	518	660
31	1,200	-----	1,370	1,200	-----	3,360	-----	2,540	-----	434	490	-----
Total	35,454	23,609	26,805	40,050	37,230	65,070	60,969	70,984	52,440	20,252	13,959	15,379
Mean	1,144	787	865	1,292	1,330	2,099	2,032	2,290	1,748	653	450	513
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956 : Max 5,440 Min 292 Mean 1,462 Cfsm - In. -

Water year 1956-57 : Max 3,520 Min 352 Mean 1,266 Cfsm - In. -

* Discharge measurement made on this day.

d Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorded graph and records for station near Branchville.

Salkehatchie River near Miley, S. C.

Location.--Lat 32°59'20", long 81°03'10", near right bank at downstream side of bridge on U. S. Highway 601, 2.6 miles downstream from Savannah Creek, 3.1 miles upstream from Hampton and Branchville Railroad bridge, and 3.1 miles northwest of Miley, Hampton County.

Drainage area.--341 sq mi.

Records available.--February 1951 to September 1957.

Gage.--Staff gage read twice daily. Datum of gage is 64.35 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--6 years, 223 cfs.

Extremes.--Maximum discharge during year, 732 cfs Mar. 26 (gage height, 3.68 ft); minimum, 37 cfs Sept. 6.

1951-57: Maximum discharge, 950 cfs Sept. 30, 1953, Apr. 15, 1955; maximum gage height, 4.04 ft Sept. 30, 1953, from graph based on gage readings; minimum discharge, 17 cfs Sept. 13, 1954.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 25 to Apr. 3, May 17 to June 15, Sept. 16-30)

1.2	36	3.0	262
1.5	54	3.4	422
2.0	98	3.8	691
2.5	163		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	262	171	179	329	236	196	*479	*78	422	156	98	45
2	262	171	188	329	249	196	397	83	311	141	93	42
3	249	163	188	293	262	196	293	123	236	128	93	39
4	236	156	196	262	262	196	236	227	262	121	83	38
5	214	156	196	225	262	249	249	397	278	109	83	38
6	236	156	205	205	249	293	350	479	329	98	104	42
7	262	156	205	205	225	311	450	479	372	93	74	89
8	293	156	205	205	225	329	397	543	372	78	65	128
9	329	156	196	214	214	350	397	543	450	65	58	141
10	397	156	188	225	205	350	397	479	479	72	51	148
11	422	156	179	225	196	329	372	511	479	104	48	148
12	372	156	179	214	188	311	329	479	397	104	45	148
13	293	156	179	214	179	249	278	397	372	88	42	156
14	236	163	179	196	171	214	236	329	350	78	40	156
15	179	163	179	196	163	264	196	293	350	78	40	156
16	156	163	214	196	163	350	188	311	262	69	45	148
17	141	156	249	205	163	350	179	454	249	78	51	141
18	148	156	236	205	156	278	179	543	293	88	61	134
19	148	156	236	196	163	236	179	479	329	98	89	134
20	156	156	214	205	171	236	171	296	249	104	168	141
21	179	148	196	205	171	196	163	214	225	104	164	148
22	214	156	188	205	163	225	163	188	262	88	115	156
23	249	156	188	205	163	278	163	219	171	74	104	141
24	249	156	257	205	163	350	156	293	148	86	109	134
25	236	156	311	205	*163	511	148	329	128	141	115	128
26	236	156	329	205	179	691	121	350	134	163	88	115
27	236	156	329	205	188	691	104	*397	*134	171	*74	109
28	225	163	329	*205	188	614	93	422	134	171	61	115
29	214	*163	329	214	-	614	88	397	163	141	51	171
30	205	171	329	225	-	578	88	422	179	121	51	205
31	188	-	329	236	-	543	-	450	-	109	48	-
Total	7,422	4,759	7,104	6,859	5,480	10,774	7,239	11,204	8,519	3,319	2,411	3,634
Mean	239	159	229	221	196	348	241	361	284	107	77.8	121
Cfsm	0.701	0.466	0.672	0.648	0.575	1.02	0.707	1.06	0.833	0.314	0.228	0.355
In.	0.81	0.52	0.77	0.75	0.60	1.18	0.79	1.22	0.93	0.36	0.26	0.40
Calendar year 1956: Max	732			Min	38	Mean	210	Cfsm	0.616	In.	8.38	
Water year 1956-57: Max	691			Min	38	Mean	216	Cfsm	0.633	In.	8.59	

* Discharge measurement made on this day.

COMBAHEE RIVER BASIN

Combahee River near Yemassee, S. C.

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

Drainage area.--1,100 sq mi, approximately.

Records available.--June 1951 to June 1957 (discontinued).

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936. Auxiliary water-stage recorder 10.2 miles downstream from base gage.

Average discharge.--5 years (1951-56), 483 cfs.

Extremes.--Maximum discharge during period October to June, 2,150 cfs June 6 (gage height, 6.71 ft); minimum daily, 164 cfs Nov. 29.
1951-57: Maximum discharge, 5,330 cfs Apr. 18, 1955 (gage height, 8.18 ft); minimum daily, 9 cfs July 7, 1954.

Remarks.--Records fair.

Discharge, in cubic feet per second, October 1956 to June 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	394	173	387	508	240	1,490	*173	922			
2	297	408	186	418	316	260	1,450	182	900			
3	297	399	187	429	358	240	1,300	196	900			
4	282	388	182	440	355	280	1,120	268	1,200			
5	280	376	180	440	339	383	1,000	422	1,600			
6	291	348	180	440	354	431	905	479	2,000			
7	317	318	184	429	365	432	830	423	2,000			
8	309	287	187	408	373	418	744	407	1,800			
9	294	258	184	385	391	387	651	499	1,700			
10	263	227	178	323	397	427	*589	679	1,700			
11	239	210	192	302	440	474	627	858	1,700			
12	214	199	199	296	469	510	706	1,090	1,570			
13	214	184	203	297	486	520	757	1,330	1,490			
14	243	192	206	297	458	555	768	1,440	1,410			
15	318	197	218	322	420	572	753	1,540	1,500			
16	394	204	239	348	401	608	722	1,500	1,450			
17	482	203	250	369	369	633	678	1,450	1,130			
18	485	198	248	346	337	609	622	1,400	871			
19	459	220	273	335	326	569	563	1,290	722			
20	432	240	291	332	285	550	483	1,110	609			
21	392	240	288	323	275	573	405	940	536			
22	371	200	280	311	272	626	345	788	476			
23	331	190	283	309	261	631	299	705	499			
24	298	180	286	297	247	620	263	626	543			
25	251	190	282	313	237	671	238	579	495			
26	243	200	320	294	260	785	222	579	491			
27	273	178	323	294	260	*830	216	553	542			
28	258	*165	323	295	260	861	210	536	500			
29	293	164	314	295	-	984	200	589	480			
30	352	171	332	288	-----	1,130	178	725	420			
31	*385	-----	368	305	-----	1,370	-----	832	-----			
Total	9,857	7,328	7,539	10,667	9,639	18,159	19,314	24,188	32,156			
Mean	318	244	243	344	344	586	644	780	1,072			
Cfsm	0.289	0.222	0.221	0.313	0.313	0.533	0.585	0.709	0.975			
In.	0.53	0.25	0.25	0.36	0.33	0.61	0.65	0.82	1.09			

Calendar year 1956: Max 4,680 Min 14 Mean 485 Cfsm 0.441 In. 5.99

Water year 1956-57: Max - Min - Mean - Cfsm - In. -

* Discharge measurement made on this day.

Coosawhatchie River near Hampton, S. C.

Location.--Lat 32°50'10", long 81°07'55", near left bank on downstream side of bridge on U. S. Highway 601, 1.6 miles downstream from Black Creek and 2.5 miles southwest of Hampton, Hampton County.

Drainage area.--203 sq mi.

Records available.--February 1951 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 50.30 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Oct. 26, 1954, wire-weight gage at same site and datum.

Average discharge.--6 years, 113 cfs.

Extremes.--Maximum discharge during year, 649 cfs May 31 (gage height, 4.26 ft); no flow Sept. 5, 6.

1951-57: Maximum discharge, 2,750 cfs Mar. 24, 1953 (gage height, 5.78 ft, from graph based on gage readings), from rating curve extended above 800 cfs by velocity-area studies; no flow Aug. 31, Sept. 1, 1951, for many days during summer and fall months of 1954, Aug. 12-30, 1956, Sept. 5, 6, 1957.

Remarks.--Records fair except those below 10 cfs, which are poor.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 30 to Apr. 4, July 28-31)

1.5	0	2.4	11
1.6	.2	2.5	16
1.7	.6	2.6	23
1.8	1.0	2.8	41
1.9	1.5	3.1	88
2.0	2.0	3.4	163
2.1	2.8	3.7	275
2.2	4.5	4.0	433
2.3	7.2	4.5	829

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	9.9	8.0	26	22	35	*57	*3.5	482	122	117	0.6
2	*11	9.9	9.9	23	24	29	57	6.4	321	84	72	.4
3	7.2	9.5	11	21	28	26	57	54	231	59	53	.2
4	5.6	8.7	12	19	32	29	54	116	206	49	59	.1
5	4.8	7.2	12	19	34	48	65	307	220	49	79	0
6	12	6.7	12	19	35	65	107	328	189	35	55	0
7	25	5.6	11	19	33	77	157	256	154	25	54	.3
8	28	6.9	9.9	20	29	79	173	170	116	21	53	2.6
9	24	6.9	10	19	26	65	143	92	236	16	29	12
10	a17	6.7	9.5	19	25	54	90	56	417	10	15	24
11	a12	6.4	9.1	17	38	40	62	101	416	5.8	8.3	29
12	a9	6.1	9.1	16	46	33	64	243	332	3.1	4.4	28
13	a6	5.8	9.1	15	53	32	67	353	235	2.2	2.3	22
14	a4	5.6	9.5	13	50	32	68	248	307	2.0	1.7	15
15	2.6	5.0	9.9	15	33	51	60	152	305	33	1.6	8.0
16	4.3	4.8	12	16	26	65	50	86	174	88	1.2	4.5
17	a5	4.5	12	20	23	68	40	72	116	80	.8	6.2
18	a8	4.3	14	23	20	65	36	92	68	200	1.0	16
19	a8	4.2	16	25	21	53	42	90	41	431	10	27
20	a9	4.0	14	24	21	40	48	84	148	274	44	58
21	11	4.2	15	22	21	35	48	57	512	160	54	32
22	14	4.0	16	21	21	38	39	39	230	91	40	37
23	22	3.8	17	22	20	41	29	26	110	44	25	29
24	25	3.8	33	24	17	64	22	24	56	36	14	25
25	28	3.8	41	25	20	170	16	32	38	124	6.7	28
26	28	4.3	56	25	25	273	12	42	44	148	3.5	18
27	22	*4.8	60	24	33	297	9.5	131	75	119	*2.3	11
28	16	5.0	57	*22	38	256	6.7	202	162	261	1.8	12
29	12	5.8	45	22	-	160	5.0	148	217	472	1.4	31
30	*11	7.6	35	22	-----	101	4.0	267	189	*327	1.1	70
31	10	-----	29	22	-----	70	-----	573	-----	201	.9	-----
Total	418.5	175.8	624.0	641	814	2,491	1,688.2	4,428.9	6,347	3,572.1	812.0	524.9
Mean	13.5	5.86	20.1	20.7	29.1	80.4	56.3	143	212	115	26.2	17.5
Cfs/m	0.067	0.029	0.099	0.102	0.143	0.396	0.277	0.704	1.04	0.567	0.129	0.086
In.	0.08	0.03	0.11	0.12	0.15	0.46	0.31	0.81	1.16	0.65	0.15	0.10

Calendar year 1956: Max 1,280 Min 0 Mean 93.5 Cfs/m 0.461 In. 6.27

Water year 1956-57: Max 573 Min 0 Mean 61.7 Cfs/m 0.304 In. 4.13

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and weather records.

SAVANNAH RIVER BASIN

Chattooga River near Clayton, Ga.

Location.--Lat 34°49', long 83°18', on left bank 150 ft downstream from new bridge on U. S. Highway 76, 2½ miles upstream from Stekoa Creek, 7 miles southeast of Clayton, Rabun County, 9 miles downstream from War Woman Creek, and 9 miles upstream from confluence with Tallulah River.

Drainage area.--207 sq mi.

Records available.--May 1907 to June 1908, November 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 1,165.6 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by State Highway Department of Georgia). May 1907 to June 1908 staff gage at site 400 ft upstream at different datum.

Average discharge.--18 years (1939-57), 583 cfs.

Extremes.--Maximum discharge during year, 5,820 cfs Apr. 5 (gage height, 5.34 ft); minimum, 120 cfs Oct. 16, 17.

1907-8, 1939-57: Maximum discharge, 29,000 cfs Aug. 30, 1940 (gage height, 13.8 ft), from rating curve extended above 4,700 cfs on basis of slope-area determinations at gage heights 9.9 and 13.8 ft; minimum, 88 cfs Oct. 8, 12, 13, 1954.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Revisions (water years).--WSP 1383: 1940-41, drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.8	102	2.5	1,260
1.0	160	3.0	1,900
1.4	338	4.0	3,410
2.0	760	4.5	4,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*157	*537	185	386	*2,930	*1,830	*850	*859	423	*796	*290	182
2	150	429	182	*362	1,900	1,310	1,830	752	404	680	338	178
3	147	322	*182	350	1,400	1,110	1,100	712	398	616	290	*174
4	157	276	185	356	1,540	990	1,780	712	448	572	276	174
5	167	247	182	544	1,280	940	4,280	680	2,110	537	296	171
6	171	230	182	429	1,140	877	2,250	640	1,000	502	266	164
7	150	221	178	410	1,160	877	1,630	600	728	474	252	160
8	138	247	174	374	1,050	940	1,560	579	616	454	238	189
9	131	230	171	362	1,020	850	1,530	572	600	429	238	404
10	128	204	171	356	950	787	1,280	558	558	410	234	467
11	128	200	164	333	868	752	1,170	624	530	398	225	356
12	128	196	217	327	805	728	1,100	624	502	386	217	262
13	125	189	488	317	760	696	1,020	600	488	374	209	234
14	125	182	874	312	720	696	970	544	448	362	247	217
15	123	178	1,330	306	688	680	930	523	429	362	262	221
16	120	182	1,070	306	704	640	910	509	429	410	234	516
17	120	257	696	296	656	624	890	481	435	380	225	672
18	128	296	537	271	624	632	a890	467	530	374	317	726
19	230	238	448	238	736	814	a860	474	429	410	386	454
20	196	221	410	280	769	680	a850	488	417	362	448	537
21	178	213	380	290	664	640	a850	441	392	327	296	481
22	817	217	435	586	624	656	a910	460	695	317	262	374
23	648	213	980	2,470	600	632	a920	460	586	312	238	333
24	368	200	1,550	1,100	579	616	830	448	680	380	225	301
25	271	196	922	868	664	769	780	509	680	714	221	262
26	238	192	696	760	2,180	720	730	435	940	356	217	247
27	217	192	586	696	1,400	664	700	454	648	322	204	238
28	200	204	530	640	1,700	616	680	423	988	317	200	247
29	189	209	474	787	-	600	680	417	1,830	301	196	410
30	185	196	435	805	-----	579	712	537	950	290	192	448
31	185	-----	417	1,360	-----	565	-----	*460	-----	290	185	-----
Total	6,415	7,114	15,431	17,277	30,111	24,510	35,472	17,042	20,311	13,214	7,924	9,801
Mean	207	237	498	557	1,075	791	1,182	550	677	426	256	327
Cfs/m	1.00	1.14	2.41	2.69	5.19	3.82	5.71	2.66	3.27	2.06	1.24	1.59
In.	1.15	1.27	2.78	3.10	5.40	4.40	6.37	3.07	3.65	2.38	1.43	1.76
Calendar year 1956:	Max	3,540	Min	110	Mean	410	Cfs/m	1.98	In.	26.97		
Water year 1956-57:	Max	4,280	Min	120	Mean	561	Cfs/m	2.71	In.	36.76		

Peak discharge (base, 3,400 cfs).--Feb. 1 (2 a.m.) 4,190 cfs (4.47 ft); Apr. 5 (2 a.m.) 5,820 cfs (5.34 ft); June 28 (12 p.m.) 3,570 cfs (4.20 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Panther Creek near Toccoa.

Panther Creek near Toccoa, Ga.

Location.--Lat 34°41', long 83°21', on left bank at Yonah Dam settlement, a quarter of a mile upstream from mouth and 7 miles north of Toccoa, Stephens (corrected) County.

Drainage area.--32.5 sq mi.

Records available.--January 1943 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 673.53 ft above mean sea level, datum of 1929 (levels by Georgia Power Co.).

Average discharge.--14 years, 67.7 cfs (adjusted for diversion).

Extremes.--Maximum discharge during year, 810 cfs Apr. 4 (gage height, 4.20 ft); minimum, 14 cfs Sept. 7.

1943-57: Maximum discharge, 15,100 cfs June 16, 1949 (gage height, 18.0 ft, from floodmark), from rating curve extended above 800 cfs on basis of slope-area determination of peak flow; minimum, 10 cfs Sept. 30, 1954, Sept. 23, 24, 1955.

Remarks.--Records good. Diversion at point 2.0 miles above station for water supply by city of Toccoa as shown in monthly table.

Revisions.--WSP 1433: Drainage area.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.4	10	2.0	77
1.6	23	2.3	140
1.8	45	3.3	470

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	33	18	32	296	109	85	85	50	40	27	17
2	25	23	18	31	149	85	122	75	48	37	27	17
3	23	21	18	30	115	75	85	75	*48	37	27	19
4	24	20	17	37	100	70	246	75	48	35	26	15
5	25	20	17	67	88	67	449	72	60	34	24	16
6	25	20	17	45	81	65	194	68	51	32	22	15
7	24	20	17	41	75	68	135	67	50	31	20	15
8	22	25	18	39	70	77	143	65	50	31	20	26
9	22	25	18	37	68	67	*133	65	50	29	20	46
10	22	24	17	38	65	63	*115	63	48	26	19	38
11	22	24	17	34	62	62	106	65	48	*25	17	29
12	22	23	20	34	57	60	102	70	46	24	17	26
13	21	23	29	33	56	57	96	65	43	23	17	25
14	21	22	43	32	52	58	92	63	41	22	20	25
15	21	22	50	31	52	58	88	63	41	25	23	26
16	*19	23	44	31	56	54	86	58	40	26	19	41
17	17	57	34	30	51	54	85	57	43	29	18	39
18	19	40	30	*32	50	62	94	57	40	31	81	39
19	18	32	28	40	58	72	86	60	40	31	*41	31
20	17	29	28	35	56	62	85	58	38	31	50	37
21	27	28	27	29	51	58	83	54	32	29	33	43
22	56	27	41	56	48	63	104	57	30	24	29	31
23	31	26	128	117	46	58	98	57	37	20	27	29
24	27	25	206	67	46	60	86	52	44	27	27	26
25	25	24	77	77	67	94	83	51	44	77	24	23
26	25	24	54	74	*188	75	79	52	37	31	22	22
27	24	*23	45	63	100	67	77	54	33	31	21	23
28	23	23	40	62	113	62	75	50	52	31	21	30
29	23	22	37	150	-	60	83	57	56	29	21	77
30	19	20	35	146	-----	57	85	58	41	28	20	50
31	18	-----	33	163	-----	56	-----	54	-----	27	19	-----
Total	729	768	1,221	1,733	2,314	2,055	3,480	1,942	1,329	953	799	896
Mean	23.5	25.6	39.4	55.9	82.6	66.3	116	62.6	44.3	30.7	25.8	29.9
(\bar{x})	1.3	1.5	1.9	0	0	0	0	0	1.0	2.0	1.6	1.4

Adjusted for diversion by city of Toccoa

Mean	24.8	27.1	41.3	55.9	82.6	66.3	116	62.6	45.3	32.7	27.4	31.3
Cfsm	0.763	0.834	1.27	1.72	2.54	2.04	3.57	1.93	1.39	1.01	0.843	0.963
In.	0.88	0.93	1.46	1.98	2.64	2.35	3.98	2.22	1.55	1.16	0.97	1.07

Observed

Adjusted

Calendar year 1956:	Max	374	Min	14	Mean	44.0	Mean	45.3	Cfsm	1.39	In.	19.01
Water year 1956-57:	Max	449	Min	15	Mean	49.9	Mean	50.8	Cfsm	1.56	In.	21.19

Peak discharge (base, 900 cfs).--No peak above base.

* Discharge measurement made on this day.

† Diversion, in cubic feet per second, by city of Toccoa; furnished by city of Toccoa Water Department.

Tugaloo River near Hartwell, Ga.

Location.--Lat 34°29', long 82°55', on right bank three-quarters of a mile upstream from Beaverdam Creek, 5 miles upstream from confluence with Seneca River, and 10 miles north of Hartwell, Hart County.

Drainage area.--909 sq mi.

Records available.--April 1925 to September 1927, February 1940 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 570 ft (by barometer). April 1925 to September 1927 at datum about 1 ft higher.

Average discharge.--19 years (1925-27, 1940-57), 1,908 cfs (unadjusted).

Extremes.--Maximum discharge during year, 16,700 cfs Apr. 5 (gage height, 8.5 ft); minimum daily, 248 cfs Sept. 2.
1925-27, 1940-57: Maximum discharge, 28,600 cfs Aug. 31, 1940 (gage height, 10.8 ft); minimum daily, 188 cfs Oct. 18, 1954.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by powerplants above station and by Burton and Mathis Reservoirs on Tallulah River. Burton Reservoir, completed in 1920, and Mathis Reservoir, completed in 1914, have combined usable capacity of 129,000 acre-ft and regulate the flow from 150 sq mi of Tallulah River basin.

Revisions (water years).--WSP 1142: 1926. WSP 1383: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.6	236	4.0	2,630
2.0	370	5.0	4,740
2.5	652	8.0	14,400
3.0	1,180		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	368	1,120	958	1,910	7,980	4,370	1,430	2,700	1,030	684	1,150	300
2	1,290	1,510	386	828	6,520	3,670	3,680	2,780	1,270	1,950	1,730	248
3	1,120	1,180	362	1,640	3,760	2,340	3,620	*2,150	616	1,350	1,650	256
4	1,200	360	450	2,220	4,370	2,270	3,600	1,700	1,800	2,160	332	2,490
5	*914	340	738	1,950	3,540	3,460	14,000	680	2,250	427	300	1,220
6	844	1,420	776	1,890	3,230	3,470	9,240	1,050	4,080	1,800	922	804
7	652	506	1,010	*768	3,630	3,060	5,660	2,880	1,960	404	690	332
8	344	1,360	690	1,750	3,450	3,250	3,860	2,000	1,860	352	862	276
9	758	1,060	338	1,810	2,900	2,370	4,620	1,960	548	1,500	961	357
10	899	1,200	328	1,900	1,190	764	4,020	2,020	784	*1,820	1,410	1,080
11	886	415	519	1,680	1,280	850	3,900	2,990	1,590	1,600	298	1,080
12	1,050	328	767	1,570	*3,180	2,890	3,920	2,440	1,860	1,160	314	*852
13	884	726	552	522	2,300	*2,080	3,880	710	2,190	1,850	2,400	1,060
14	344	1,280	1,110	450	2,770	2,170	3,260	1,640	2,080	362	2,950	1,030
15	316	1,120	2,130	1,220	2,480	2,190	2,400	1,530	754	313	2,120	332
16	590	*1,040	2,510	1,260	1,780	1,730	2,440	2,130	493	1,400	1,850	365
17	1,130	1,170	1,450	1,580	634	824	1,890	1,430	676	1,510	1,230	1,680
18	908	1,050	1,320	1,230	1,400	857	2,940	1,760	2,480	1,950	372	2,430
19	954	638	878	1,280	2,520	2,870	3,420	568	2,190	1,390	548	2,660
20	952	1,170	2,330	416	2,180	1,960	2,850	921	1,610	a1,100	782	1,050
21	369	1,150	1,940	396	2,090	1,750	1,320	1,740	1,430	a350	616	1,080
22	774	1,040	2,010	880	2,020	2,610	1,210	2,020	1,630	319	934	478
23	2,040	428	1,500	4,760	2,160	2,460	3,010	1,500	477	615	600	501
24	2,340	750	4,740	4,200	562	754	2,520	1,390	808	1,630	570	721
25	1,940	597	2,960	3,250	1,040	2,490	1,910	1,650	1,970	a1,400	316	768
26	1,500	482	1,310	2,640	4,060	3,040	2,600	549	2,240	a1,700	322	802
27	902	1,770	2,900	898	5,510	2,080	2,470	528	1,700	a900	761	1,510
28	370	1,560	2,190	1,060	4,390	1,770	688	1,450	1,390	a360	794	934
29	565	1,270	1,800	3,040	-	1,930	1,280	1,460	3,440	340	1,060	457
30	1,450	1,100	598	3,640	-----	1,530	2,880	2,100	2,720	1,050	1,250	577
31	1,270	-----	868	3,700	-----	688	-----	1,730	-----	1,720	553	-----
Total	29,983	29,630	42,418	56,398	83,506	68,427	104,516	52,156	49,926	35,466	30,647	27,730
Mean	967	968	1,368	1,819	2,982	2,207	3,494	1,682	1,664	1,144	989	924
(†)	-244	-188	+125	+104	+139	+174	+279	+23	-12	-18	-229	+40

Adjusted for change in contents in Burton and Mathis Reservoirs

Mean	723	800	1,493	1,923	3,121	2,381	3,763	1,705	1,652	1,126	760	964
Cfsm	0.795	0.880	1.64	2.12	3.43	2.62	4.14	1.88	1.82	1.24	0.836	1.06
In.	0.92	0.98	1.89	2.44	3.87	3.02	4.62	2.17	2.03	1.43	0.96	1.18

	Observed					Adjusted						
Calendar year 1956:	Max	10,600	Min	236	Mean	1,338	Mean	1,382	Cfsm	1.52	In.	20.70
Water year 1956-57:	Max	14,000	Min	248	Mean	1,673	Mean	1,678	Cfsm	1.85	In.	25.21

Peak discharge (base, 10,000 cfs).--Apr. 5 (6 p.m.) 16,700 cfs (8.5 ft).

* Discharge measurement made on this day.

† Change in contents, equivalent in cubic feet per second, in Burton and Mathis Reservoirs; furnished by Georgia Power Co.

a No gage-height record; discharge estimated on basis of power output at Yonah Dam.

Whitewater River at Jocassee, S. C.

Location.--Lat 34°58', long 82°56', on right bank at highway bridge at Jocassee, Oconee County, 0.6 mile upstream from confluence with Toxaway River.

Drainage area.--47.3 sq mi.

Records available.--January 1951 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 777.79 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--6 years, 153 cfs.

Extremes.--Maximum discharge during year, 3,120 cfs Apr. 4 (gage height, 6.31 ft), from rating curve extended above 1,600 cfs on basis of velocity-area studies; minimum, 37 cfs Sept. 7 (gage height, 1.78 ft).
1951-57: Maximum discharge, 7,120 cfs Mar. 11, 1952 (gage height, 11.17 ft), from rating curve extended above 1,600 cfs on basis of velocity-area studies; minimum, 22 cfs Dec. 17, 1955; gage height, 1.40 ft Oct. 20, 1951.

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.8	37	3.0	405
2.0	64	3.5	710
2.3	128	4.0	1,080
2.6	221	5.0	1,930

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	300	60	128	762	505	460	230	106	184	60	41
2	54	139	60	120	500	372	680	184	101	159	74	56
3	52	113	60	116	405	316	331	194	99	148	64	49
4	60	103	58	130	449	285	1,010	187	161	136	58	44
5	55	95	56	169	361	263	1,680	175	396	126	66	43
6	52	88	56	134	321	248	784	165	187	118	55	39
7	52	86	55	128	336	259	550	156	145	110	50	43
8	45	*101	55	120	293	263	550	153	128	106	49	71
9	45	82	54	118	307	236	466	148	136	101	47	198
10	44	78	52	118	272	218	405	145	123	99	45	152
11	*43	77	52	110	244	211	361	168	118	95	44	83
12	43	75	120	108	232	201	336	153	113	90	43	71
13	43	71	139	106	221	194	302	148	*108	88	42	60
14	43	69	491	103	207	*197	285	139	97	84	44	58
15	42	68	349	101	197	184	272	142	96	82	45	55
16	41	68	246	99	201	175	259	131	101	86	44	247
17	39	110	175	97	187	168	251	126	146	*80	39	251
18	44	90	145	89	178	185	276	123	141	89	75	178
19	89	78	*128	97	250	222	248	131	108	99	133	150
20	58	75	120	97	225	181	232	126	99	82	101	159
21	78	75	113	101	204	172	236	116	82	77	*60	134
22	630	75	143	*435	190	175	249	110	183	71	52	108
23	226	68	361	825	181	165	*236	110	143	68	48	97
24	131	66	478	301	175	169	225	130	142	69	47	86
25	106	66	256	251	266	240	207	132	176	80	47	80
26	92	64	204	218	943	204	201	118	200	69	47	75
27	86	62	178	204	416	184	194	118	136	66	45	71
28	80	61	165	194	543	172	187	106	421	66	44	84
29	75	61	148	221	-	165	194	104	366	61	44	253
30	73	61	139	207	-----	159	202	172	214	60	43	175
31	73	-----	134	559	-----	150	-----	118	-----	60	42	-----
Total	2,652	2,625	4,850	5,804	9,066	6,838	11,649	4,458	4,782	2,909	1,697	3,209
Mean	85.5	87.5	156	187	324	221	395	144	159	93.8	54.7	107
Cfsm	1.81	1.85	3.30	3.95	6.85	4.67	8.35	3.04	3.36	1.98	1.16	2.26
In.	2.39	2.06	3.80	4.55	7.13	5.38	9.32	3.50	3.75	2.28	1.34	2.52

Calendar year 1956: Max 755 Min 34 Mean 118 Cfsm 2.49 In. 33.88
Water year 1956-57: Max 1,680 Min 39 Mean 166 Cfsm 3.51 In. 47.72

Peak discharge (base, 2,000 cfs).--Apr. 4 (8:45 p.m.) 3,120 cfs (6.31 ft).

* Discharge measurement made on this day.

Keowee River near Jocassee, S. C.

Location.--Lat 34°57', long 82°55', on right bank 390 ft upstream from Chapmans Bridge on State Highway 288, 1½ miles southeast of Jocassee, Oconee County, and 2½ miles upstream from Eastatoe Creek.

Drainage area.--148 sq mi.

Records available.--December 1949 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 737.43 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--7 years (1950-57), 415 cfs.

Extremes.--Maximum discharge during year, 8,540 cfs Apr. 4 (gage height, 9.03 ft); minimum, 96 cfs Oct. 17 (gage height, 1.08 ft).
1949-57: Maximum discharge, 18,400 cfs Mar. 11, 1952 (gage height, 16.23 ft), from rating curve extended above 8,500 cfs on basis of velocity-area studies and logarithmic plotting; minimum, 57 cfs Oct. 7, 1954.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.0	76	2.5	980
1.3	166	3.0	1,500
1.7	362	5.0	3,900
2.0	585	7.0	6,140

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	695	152	321	2,320	1,470	1,020	565	304	543	a170	122
2	128	388	152	304	1,440	1,030	2,070	479	294	452	a240	137
3	125	298	149	283	1,080	854	862	486	233	412	a200	138
4	138	224	148	304	1,120	760	1,770	493	440	387	a180	119
5	138	247	145	440	925	703	5,680	445	1,230	356	a190	119
6	128	229	145	339	828	672	2,260	425	648	327	166	110
7	128	220	145	321	872	680	1,480	406	486	316	159	118
8	119	*247	145	294	769	727	1,400	394	400	299	152	152
9	116	211	145	283	785	632	1,280	381	406	288	148	461
10	113	198	142	278	703	588	1,070	368	375	278	145	406
11	*110	190	138	262	640	558	953	432	362	273	142	258
12	110	186	270	257	580	543	880	425	377	257	138	220
13	107	166	393	252	558	515	837	394	*368	247	138	190
14	104	159	1,270	247	522	*522	777	368	304	243	145	178
15	101	156	1,120	243	493	493	711	381	288	238	148	170
16	101	159	600	243	515	459	680	362	299	243	142	774
17	98	273	543	234	466	445	632	339	350	*229	134	770
18	107	246	419	212	445	472	680	321	383	251	235	568
19	188	202	*362	210	651	654	656	350	319	257	490	445
20	148	190	333	228	602	500	640	345	300	224	290	486
21	156	190	316	238	515	466	648	299	299	211	*194	406
22	1,490	194	402	*1,040	473	479	588	304	674	202	170	321
23	620	178	808	*2,350	452	452	*625	304	494	198	156	333
24	345	174	1,410	843	432	452	602	331	737	202	148	262
25	268	170	752	687	576	664	551	350	580	229	148	234
26	229	170	572	588	2,250	572	522	321	642	202	145	215
27	215	166	479	536	1,120	507	507	333	425	186	138	206
28	198	159	432	500	1,420	466	486	299	1,070	186	131	235
29	186	156	394	595	-	445	507	283	1,190	178	131	658
30	202	156	356	580	-----	425	515	501	656	174	125	529
31	208	-----	339	1,490	-----	406	-----	345	-----	178	122	-----
Total	6,566	6,587	13,475	15,032	23,552	18,611	31,989	11,829	14,983	8,266	5,360	9,340
Mean	212	220	435	485	841	600	1,066	382	499	267	173	311
Cfsm	1.43	1.49	2.94	3.28	5.68	4.05	7.20	2.58	3.37	1.80	1.17	2.10
In.	1.65	1.66	3.39	3.78	5.92	4.67	8.03	2.97	3.76	2.08	1.35	2.34

Calendar year 1956: Max 2,790 Min 84 Mean 325 Cfsm 2.20 In. 29.86
Water year 1956-57: Max 5,680 Min 98 Mean 454 Cfsm 3.07 In. 41.60

Peak discharge (base, 4,000 cfs).--Jan. 31 (10:15 p.m.) 4,100 cfs (5.16 ft); Apr. 4 (11:30 p.m.) 8,540 cfs (9.03 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Whitewater River at Jocassee.

Keowee River near Newry, S. C.

Location.--Lat 34°44'09", long 82°52'19", on left bank 800 ft downstream from Lawrence Bridge, 0.7 mile upstream from Sixmile Creek, and 2½ miles east of Newry, Oconee County.

Drainage area.--455 sq mi.

Records available.--December 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 625.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--17 years (1940-57), 1,125 cfs.

Extremes.--Maximum discharge during year, 18,300 cfs Apr. 5; maximum gage height, 20.32 ft Apr. 5; minimum discharge, 161 cfs Sept. 7; minimum daily, 202 cfs Sept. 7.
1939-57: Maximum discharge, 25,200 cfs Aug. 13, 1940; maximum gage height, 24.60 ft Aug. 13, 1940; minimum discharge, 120 cfs Oct. 8, 1954; minimum daily, 152 cfs Oct. 8, 14, 1954.

Remarks.--Records good. Some regulation at low flow by powerplant above station.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	396	1,050	304	791	7,390	4,310	1,290	1,210	664	1,380	344	245
2	356	978	298	723	4,080	2,610	4,160	1,076	622	1,160	474	241
3	344	622	304	664	2,780	2,100	2,180	1,030	606	1,060	422	262
4	344	466	293	672	2,610	1,640	2,900	1,160	655	961	369	216
5	369	451	288	1,160	2,270	1,680	15,900	1,050	1,930	902	389	228
6	356	444	288	876	1,970	1,550	6,230	1,010	1,500	834	344	224
7	376	422	288	791	2,020	1,500	3,540	902	1,160	774	304	202
8	315	*466	278	706	1,600	1,600	3,040	876	893	740	293	268
9	298	429	283	672	1,800	1,460	3,120	850	842	680	288	864
10	293	363	288	655	1,680	1,340	2,520	834	800	647	283	808
11	*288	344	278	614	1,500	1,250	2,270	961	757	647	258	706
12	288	344	283	565	1,380	1,160	2,100	995	*757	598	230	444
13	293	321	707	565	1,290	1,080	1,930	902	986	565	242	382
14	274	298	1,030	557	1,210	1,120	1,840	825	664	550	258	445
15	278	298	2,360	534	1,120	*1,080	1,720	800	565	534	262	291
16	274	288	1,550	526	1,160	995	1,630	808	581	542	269	1,000
17	269	1,380	1,080	511	1,080	936	1,550	732	647	*534	265	2,360
18	269	1,030	850	473	1,030	952	1,590	689	868	565	418	2,540
19	482	565	698	422	1,250	1,500	1,630	740	589	806	952	1,120
20	429	458	*622	466	1,590	1,160	1,550	834	630	550	766	1,160
21	569	415	589	480	1,250	1,050	1,420	630	606	480	488	1,050
22	2,120	415	689	*910	1,120	1,120	1,480	630	1,160	458	*396	655
23	1,760	376	2,020	6,180	1,080	1,050	1,550	680	2,100	444	333	689
24	668	356	3,970	2,700	1,020	1,020	*1,380	622	1,930	415	321	581
25	630	339	2,270	1,840	1,120	1,760	1,280	884	1,460	589	298	444
26	526	339	1,590	1,590	3,380	1,500	1,210	680	2,270	495	304	415
27	480	327	1,340	1,420	2,950	1,290	1,250	706	1,380	422	288	396
28	422	321	1,120	1,290	2,880	1,160	1,000	655	1,340	429	278	462
29	396	315	1,020	1,590	-	1,080	1,080	599	3,200	402	264	1,210
30	369	315	910	1,970	-	1,030	1,250	1,050	1,720	376	248	1,460
31	429	-	850	1,390	-	978	-	850	-	389	248	-
Total	14,960	14,579	28,738	34,903	55,750	44,461	75,340	26,254	33,882	19,728	10,896	21,368
Mean	483	466	927	1,126	1,991	1,434	2,511	847	1,129	636	351	712
Cfsm	1.06	1.07	2.04	2.47	4.38	3.15	5.52	1.86	2.48	1.40	0.771	1.56
In.	1.22	1.19	2.35	2.85	4.56	3.63	6.16	2.14	2.77	1.61	0.89	1.74

Calendar year 1956: Max 10,200 Min 178 Mean 840 Cfsm 1.85 In. 25.13
Water year 1956-57: Max 15,900 Min 202 Mean 1,043 Cfsm 2.29 In. 31.11

Peak discharge (base, 10,000 cfs).--Feb. 1 (5:45 a.m.) 10,200 cfs (13.33 ft at 7:15 a.m.); Apr. 5 (1:15 p.m.) 18,300 cfs (20.32 ft at 3:15 p.m.).

* Discharge measurement made on this day.

Twelvemile Creek near Liberty, S. C.

Location.--Lat 34°48', long 82°45', on left bank 40 ft downstream from State highway bridge, three-quarters of a mile downstream from Rice Creek, and $3\frac{1}{4}$ miles west of Liberty, Pickens County.

Drainage area.- 106 sq mi.

Records available.--July 1954 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 822.195 ft above mean sea level (levels by Soil Conservation Service).

Extremes.--Maximum discharge during year, 2,930 cfs Apr. 5 (gage height, 9.80 ft); minimum, 37 cfs Aug. 14 (gage height, 1.89 ft).
1954-57: Maximum discharge, that of Apr. 5, 1957; minimum, 30 cfs Sept. 23, 1955 (gage height, 1.79 ft).

Remarks.--Records good.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 24 to Feb. 2)

1.9	38	4.0	493
2.2	72	6.0	1,140
2.5	124	9.0	2,540
3.0	243		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	91	74	116	1,570	418	161	124	93	95	55	45
2	64	77	72	109	676	270	296	120	91	85	51	44
3	59	66	71	103	418	210	193	118	88	82	47	43
4	65	64	69	110	343	180	390	114	90	75	60	42
5	62	64	71	214	296	168	2,530	113	151	72	122	43
6	59	64	72	152	268	154	1,140	114	137	69	57	41
7	64	64	72	141	265	186	406	107	120	68	49	40
8	55	78	71	126	228	268	318	102	103	85	47	48
9	54	*69	69	122	218	178	270	100	100	61	46	146
10	54	62	69	120	198	156	*226	96	100	59	43	106
11	52	62	68	113	180	145	206	116	100	58	42	82
12	*52	62	*74	113	163	139	193	111	*95	57	42	65
13	52	61	66	111	152	134	180	98	88	57	39	57
14	52	59	100	109	145	141	170	95	101	57	52	57
15	50	59	146	109	139	*156	161	94	63	55	74	56
16	49	65	143	109	141	134	154	105	147	56	51	136
17	47	564	114	107	130	126	152	93	173	60	45	586
18	51	390	102	100	124	132	161	91	119	*109	136	381
19	62	186	93	98	218	228	173	158	91	82	187	186
20	56	130	91	96	216	163	152	152	83	69	108	159
21	64	118	91	103	161	147	145	102	92	64	*75	175
22	231	109	120	176	143	178	145	99	88	61	68	120
23	186	90	410	*908	137	156	150	144	191	61	58	148
24	98	83	618	393	132	150	134	123	214	75	56	100
25	82	80	330	330	159	356	124	128	124	80	56	83
26	75	78	233	273	213	260	120	109	111	65	56	77
27	74	77	190	256	308	208	116	105	102	65	51	75
28	66	77	166	228	343	176	111	96	120	65	49	75
29	64	*77	143	356	-	159	111	95	161	59	49	138
30	64	77	128	443	-----	147	175	98	103	57	48	130
31	65	-----	122	580	-----	141	-----	98	-----	59	46	-----
Total	2,196	3,203	4,278	6,424	7,680	5,742	8,963	3,420	3,459	2,102	1,965	3,486
Mean	70.8	107	138	207	274	185	299	110	115	67.8	63.4	116
Cfsm	0.668	1.01	1.30	1.95	2.58	1.75	2.82	1.04	1.08	0.640	0.598	1.09
In.	0.77	1.13	1.50	2.25	2.69	2.02	3.15	1.20	1.20	0.74	0.69	1.22

Calendar year 1956: Max 2,140 Min 35 Mean 136 Cfsm 1.28 In. 17.45
Water year 1956-57: Max 2,530 Min 39 Mean 145 Cfsm 1.37 In. 18.56

Peak discharge (base, 1,400 cfs).--Feb. 1 (12 m.) 1,920 cfs (7.66 ft); Apr. 5 (9:30 p.m.) 2,930 cfs (9.80 ft).

* Discharge measurement made on this day.

Seneca River near Anderson, S. C.

Location.--Lat 34°29'10", long 82°49'45", on right bank 0.25 mile downstream from bridge on State Highway 80, 1.9 miles downstream from Deep Creek, 4.2 miles upstream from confluence with Tugaloo River, and 10 miles west of Anderson, Anderson County.

Drainage area.--1,026 sq mi.

Records available.--October 1931 to September 1957 in reports of Geological Survey. May 1928 to September 1931 in House Document 64, 74th Congress, 1st session.

Gage.--Water-stage recorder. Altitude of gage is 520 ft (from Corps of Engineers profile). Prior to Oct. 13, 1933, water-stage recorder at site 15 ft downstream at same datum.

Average discharge.--26 years (1931-57), 1,966 cfs.

Extremes.--Maximum discharge during year, 22,200 cfs Apr. 6 (gage height, 12.89 ft), from rating curve extended above 18,000 cfs by logarithmic plotting; minimum, 149 cfs Sept. 8; minimum daily, 320 cfs Sept. 8.

1931-57: Maximum discharge, 55,200 cfs Oct. 1, 1936 (gage height, 20.07 ft), from rating curve extended above 18,000 cfs by logarithmic plotting; minimum, 105 cfs Sept. 17, 1939; minimum daily, 215 cfs Sept. 27, 1954.

Flood of Aug. 17, 18, 1928, reached a stage of 25.73 ft, from graph based on gage readings (discharge, 81,100 cfs, from rating curve extended above 18,000 cfs by logarithmic plotting).

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

Revisions (water years).--WSP 757: Drainage area. WSP 1433: 1932, 1933-36(m), 1942.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 7 to May 24)

Oct. 1 to Nov. 17,
Jan. 24 to Sept. 30

Nov. 18 to Jan. 23

2.6	269	5.0	2,870	3.1	645
3.0	536	7.0	6,170	3.5	1,060
3.5	980	10.0	13,000	4.0	1,680
4.0	1,540	13.0	22,600	5.0	3,030
				7.0	6,170

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	726	827	798	1,340	7,940	5,990	1,780	1,910	1,400	1,980	674	432
2	752	1,490	828	1,230	9,190	4,120	4,350	1,790	1,210	1,650	613	455
3	674	1,010	758	1,040	5,530	3,170	3,930	1,660	1,170	1,460	761	449
4	649	982	788	1,140	4,280	2,720	2,900	1,790	1,200	1,350	582	477
5	665	761	778	1,940	3,900	2,580	12,600	1,750	1,840	936	594	434
6	691	916	748	1,800	3,400	2,440	19,800	1,660	2,800	1,030	807	414
7	761	*788	758	1,480	3,020	2,300	8,510	1,570	2,040	968	752	475
8	632	807	758	1,360	2,940	2,870	5,460	1,540	1,650	1,020	591	320
9	623	892	768	1,250	2,800	2,650	6,170	1,520	1,430	1,010	521	737
10	*560	798	726	1,240	2,720	2,370	4,280	1,500	1,420	921	544	1,310
11	568	761	738	1,180	2,510	2,240	3,560	1,780	*1,400	911	362	1,120
12	560	699	748	1,140	2,370	2,100	3,170	1,930	1,320	902	468	799
13	552	752	949	1,100	2,100	1,980	2,940	1,680	1,610	921	450	699
14	576	682	1,200	1,120	2,100	*1,850	2,650	1,520	1,320	806	462	787
15	514	674	2,570	1,110	1,980	1,910	2,580	1,460	1,210	726	650	566
16	552	674	2,340	1,050	1,910	1,850	2,370	1,480	1,320	*807	657	650
17	521	1,680	2,000	1,050	1,980	1,660	2,300	1,400	1,990	779	583	3,070
18	529	3,740	*1,440	1,010	1,780	1,660	2,300	1,370	1,560	835	886	4,440
19	591	1,870	1,240	891	1,780	2,370	2,510	1,230	1,580	902	1,850	2,340
20	735	1,300	1,120	913	2,510	2,240	2,370	1,780	1,580	902	*1,510	1,780
21	682	1,140	1,090	*973	2,240	1,910	2,180	1,450	1,200	756	1,020	1,860
22	1,090	1,060	1,190	1,090	1,910	2,040	*2,170	1,290	1,340	632	788	1,280
23	3,110	991	1,990	3,970	1,850	2,040	*2,720	1,420	2,520	659	717	1,120
24	1,420	924	5,930	*5,140	1,720	1,850	2,240	1,350	2,800	674	688	1,200
25	980	913	4,780	2,940	1,720	3,560	2,100	1,980	2,510	826	519	931
26	855	870	2,750	2,870	2,650	3,240	1,910	1,460	2,390	863	591	863
27	797	870	2,200	2,370	4,780	2,510	1,910	1,470	2,460	770	607	854
28	788	838	1,870	2,170	3,720	2,100	1,860	1,350	1,850	668	560	1,000
29	717	828	1,680	2,240	-	1,980	1,660	1,260	3,730	640	560	1,060
30	717	818	1,610	3,720	-----	1,910	1,850	1,550	2,770	665	573	2,300
31	717	-----	1,520	3,240	-----	1,780	-----	1,780	-----	816	483	-----
Total	24,304	31,145	48,543	55,107	87,130	75,990	117,020	48,640	54,220	28,825	21,423	34,221
Mean	784	1,038	1,566	1,778	3,112	2,451	3,901	1,569	1,807	930	691	1,141
Cfs/m	0.764	1.01	1.53	1.73	3.03	2.39	3.80	1.53	1.76	0.906	0.673	1.11
In.	0.88	1.13	1.76	1.99	3.16	2.76	4.24	1.76	1.96	1.04	0.78	1.24

Calendar year 1956: Max 15,000 Min 342 Mean 1,518 Cfs/m 1.48 In. 20.15
Water year 1956-57: Max 19,800 Min 320 Mean 1,717 Cfs/m 1.67 In. 22.70

Peak discharge (base, 13,000 cfs).--Apr. 6 (8:15 a.m.) 22,200 cfs (12.89 ft).

* Discharge measurement made on this day.

Savannah River near Iva, S. C.

Location.--Lat 34°15', long 82°45', on left bank at downstream side of bridge on State Highway 184, half a mile upstream from Little Generostee Creek, 5.8 miles southwest of Iva, Anderson County, and at mile 281.5 upstream from Savannah, Ga.

Drainage area.--2,231 sq mi.

Records available.--May 1950 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 432.255 ft above mean sea level (levels by Corps of Engineers).

Average discharge.--7 years, 3,649 cfs.

Extremes.--Maximum discharge during year, 34,800 cfs Apr. 6 (gage height, 10.08 ft); minimum, 598 cfs Sept. 1; minimum daily, 760 cfs Sept. 3.
1950-57: Maximum discharge, 54,400 cfs Mar. 12, 1952 (gage height, 12.74 ft); minimum, 477 cfs Oct. 12, 1954; minimum daily, 540 cfs Oct. 12, 1954.

Remarks.--Records good. Some regulation by Burton and Mathis Reservoirs (see p. 254). for monthly change in contents) and powerplants above station.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 23)

Oct. 1 to Jan. 23,
Apr. 6 to Sept. 30

Jan. 24 to Apr. 5

2.1	724	5.0	7,850	3.3	2,200
2.5	1,140	6.0	12,000	4.0	3,740
3.0	1,910	8.0	21,800	5.0	6,710
3.5	2,970	10.0	34,000	8.0	20,800
4.0	4,350			9.0	27,200

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,490	2,080	1,870	4,110	14,400	9,690	2,630	5,170	2,690	2,880	2,120	1,050
2	2,210	3,050	1,510	2,300	16,100	8,250	6,580	4,570	2,630	3,960	2,420	788
3	2,200	2,590	1,260	3,250	9,380	6,110	8,120	4,240	1,990	3,120	2,670	760
4	2,240	1,670	1,250	3,930	8,050	4,430	6,070	4,290	3,120	3,690	1,410	2,610
5	1,900	1,280	1,580	4,710	6,990	6,020	22,800	2,870	3,340	2,150	1,000	1,860
6	1,920	2,150	1,690	4,250	6,560	5,900	30,800	2,550	6,670	2,450	1,560	1,340
7	1,970	*2,490	1,730	2,750	6,530	5,490	16,600	4,720	4,960	1,830	1,630	1,040
8	1,410	2,470	1,720	3,540	5,990	5,940	9,910	4,140	4,120	1,490	1,630	864
9	1,380	2,110	1,290	3,810	6,130	5,810	11,700	3,490	2,610	2,420	1,590	866
10	*1,840	2,210	1,140	3,540	4,090	3,250	9,050	3,860	2,060	2,930	1,980	2,380
11	1,630	1,450	1,210	3,620	3,250	3,020	8,180	5,960	*3,310	2,920	1,180	2,480
12	1,850	1,220	1,610	3,330	5,170	4,450	7,760	5,390	3,440	2,160	778	1,990
13	1,640	1,390	1,560	2,100	4,970	*4,270	7,540	2,730	3,740	2,900	2,570	1,970
14	1,320	1,930	2,200	1,870	4,900	4,110	6,720	3,140	3,940	1,690	3,310	1,840
15	1,060	2,020	4,120	2,420	4,350	4,400	5,570	3,320	2,230	1,180	3,160	1,370
16	1,100	1,870	5,440	2,710	4,050	4,000	5,550	3,620	1,810	*2,040	2,790	1,080
17	1,820	2,990	3,820	2,940	2,670	2,650	4,740	3,500	2,940	2,200	2,060	3,320
18	1,770	5,750	*3,030	2,620	2,740	2,410	5,510	3,530	4,020	2,900	1,810	6,900
19	1,620	3,090	2,320	2,600	4,170	5,130	6,780	2,290	4,020	2,640	2,360	5,760
20	1,870	2,780	3,460	1,890	4,620	4,910	6,360	2,320	3,150	2,360	*2,430	3,290
21	1,580	2,570	3,460	*1,650	4,280	3,900	4,200	3,570	2,910	1,630	2,120	3,000
22	1,650	2,440	3,450	1,990	3,670	4,380	*3,330	3,720	2,960	1,140	1,860	2,300
23	5,350	1,770	3,730	7,480	4,420	5,330	6,120	3,100	2,540	1,490	1,430	1,950
24	4,260	1,770	11,100	*10,200	2,530	3,020	5,590	3,180	3,220	2,530	1,400	2,050
25	3,350	1,630	9,970	6,710	2,300	5,530	4,550	3,350	4,420	2,670	1,180	1,890
26	2,990	1,390	4,650	6,300	5,280	7,240	4,870	2,500	4,270	3,600	970	1,900
27	1,970	2,660	5,880	3,740	10,000	5,360	5,480	2,100	4,880	2,280	1,360	2,420
28	1,480	2,690	5,000	3,250	7,910	4,300	3,070	2,820	3,590	1,550	1,320	2,220
29	1,200	2,400	4,300	4,330	-	4,250	2,660	2,880	6,020	1,160	1,700	1,700
30	2,200	2,110	2,620	7,210	-----	3,700	5,000	3,590	6,750	1,560	2,030	2,550
31	2,280	-----	2,260	7,210	-----	2,910	-----	3,870	-----	2,720	1,160	-----
Total	62,550	68,020	100,230	122,960	165,500	150,140	233,840	110,110	108,350	72,240	56,988	65,538
Mean	2,018	2,267	3,233	3,966	5,911	4,843	7,795	3,552	3,612	2,330	1,838	2,185
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 25,400 Min 733 Mean 3,192 Cfsm 1.43 In. 19.47
Water year 1956-57: Max 30,800 Min 760 Mean 3,607 Cfsm 1.62 In. 21.93

Peak discharge (base, 22,000 cfs).--Apr. 6 (3 a.m.) 34,800 cfs (10.08 ft).

* Discharge measurement made on this day.

Rocky River near Calhoun Falls, S. C.

Location.--Lat 34°08', long 82°38', on right bank 2,000 ft upstream from Swanigan Mill bridge on county road, $3\frac{1}{4}$ miles northwest of Calhoun Falls, Abbeville County, and $3\frac{1}{4}$ miles upstream from mouth.

Drainage area.--267 sq mi.

Records available.--February 1950 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 403.04 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--7 years, 220 cfs.

Extremes.--Maximum discharge during year, 1,260 cfs Apr. 5 (gage height, 3.60 ft); minimum daily, 18 cfs Sept. 2.

1950-57: Maximum discharge, 9,450 cfs Mar. 25, 1952 (gage height, 9.44 ft), from rating curve extended above 3,300 cfs by velocity-area studies and logarithmic plotting; minimum daily, 9 cfs Sept. 21, 22, 1954.

Remarks.--Records fair. Flow regulated by Lake Secession (usable capacity, about 1,742,000,000 cu ft). City of Abbeville diverted a small amount of water during latter part of year for municipal supply.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 6 to Sept. 30)

0.6	18	1.5	159
.8	36	2.0	321
1.0	60	3.0	840
1.2	92	4.0	1,590

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	404	179	184	209	438	399	154	347	221	137	151	82
2	540	181	113	206	398	382	216	350	133	196	146	18
3	*525	179	120	208	204	191	206	358	136	207	154	90
4	520	92	180	215	279	268	407	373	219	98	96	182
5	515	116	186	325	384	441	965	158	254	116	74	182
6	510	181	184	146	370	380	602	157	*230	153	149	181
7	360	177	182	159	363	365	180	208	225	61	162	130
8	356	192	184	223	358	366	273	210	229	72	159	69
9	495	*183	101	213	319	353	486	208	127	116	162	108
10	433	180	114	213	194	178	447	209	139	117	142	161
11	475	96	183	215	245	251	447	586	209	133	69	159
12	470	116	183	215	345	345	446	219	212	173	69	157
13	455	177	187	122	360	345	441	177	214	174	a150	158
14	141	181	189	143	362	360	188	225	210	105	a170	129
15	118	183	190	221	356	*351	256	219	212	115	a170	66
16	182	181	102	253	339	252	426	222	103	177	a160	68
17	175	195	126	298	148	129	423	212	122	185	a140	152
18	175	131	192	293	244	162	442	213	203	*182	a100	166
19	173	131	*192	299	360	312	459	128	195	192	a120	147
20	96	184	188	143	355	245	435	146	197	193	a190	149
21	48	181	199	205	354	228	173	209	204	121	a180	118
22	155	104	210	296	349	316	258	207	206	102	175	58
23	193	125	279	362	348	257	359	213	96	174	170	70
24	184	179	483	316	159	165	357	224	120	178	135	108
25	182	107	214	356	234	559	*340	239	214	184	70	96
26	197	112	179	356	360	319	354	120	213	166	87	107
27	181	184	218	181	365	268	360	150	222	154	183	116
28	95	184	210	238	406	242	162	211	196	91	161	115
29	123	184	221	340	-	229	245	218	214	77	*172	81
30	182	182	125	405	-----	222	352	226	109	155	180	63
31	181	---	150	*371	-----	135	-----	222	-----	159	151	-----
Total	8,829	4,777	5,768	7,745	8,996	9,015	10,859	7,164	5,584	4,463	4,397	3,484
Mean	285	159	186	250	321	291	362	231	186	144	142	116
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1956: Max 2,340 Min 26 Mean 234 Cfsm - In. -

Water year 1956-57: Max 965 Min 18 Mean 222 Cfsm - In. -

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records of powerplant operation at Lake Secession.

South Beaverdam Creek at Dewy Rose, Ga.

Location.--Lat 34°11', long 82°57', on left bank 50 ft upstream from highway bridge, 1 mile northeast of Dewy Rose, Elbert County, and 3 miles upstream from confluence with North Beaverdam Creek.

Drainage area.--35.8 sq mi.

Records available.--October 1942 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 581.07 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to Nov. 20, 1952, staff gage at same site and datum.

Average discharge.--15 years, 47.6 cfs.

Extremes.--Maximum discharge during year, 948 cfs Apr. 6 (gage height, 8.97 ft), from rating curve extended above 170 cfs on basis of slope-area determination of peak flow; minimum, 5.1 cfs Aug. 14, 17, Sept. 4-8.
1942-57: Maximum discharge, 2,600 cfs Jan. 18, 1943 (gage height, 13.4 ft, from graph based on gage readings); minimum, 0.80 cfs Sept. 22, 1954.

Remarks.--Records fair prior to Apr. 5, good thereafter.

Revisions.--WSP 1383: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	18	22	35	82	57	38	29	25	49	9.2	6.6
2	31	18	21	34	74	46	44	30	24	29	8.6	6.0
3	28	17	21	33	65	42	38	31	23	25	8.2	6.0
4	25	16	21	35	69	42	40	36	24	23	7.9	5.4
5	*23	16	21	74	53	67	317	34	26	21	8.6	5.1
6	30	16	21	49	*51	50	*545	31	25	19	7.9	5.1
7	29	15	21	*44	48	48	103	31	25	17	7.0	5.1
8	24	25	21	42	44	67	74	30	23	16	7.0	6.0
9	22	25	20	40	42	52	82	29	47	16	6.6	10
10	20	20	20	39	41	46	62	28	28	15	6.3	11
11	19	20	20	37	38	44	57	88	27	14	6.0	14
12	*18	20	20	35	*35	41	55	68	25	13	5.7	*9.2
13	17	19	20	34	34	*40	54	45	22	12	*5.4	8.6
14	16	19	20	34	32	44	49	39	21	12	5.7	8.6
15	16	18	20	33	31	41	43	36	20	18	6.3	8.2
16	15	*18	25	34	31	38	*41	35	20	25	6.3	9.2
17	14	36	23	32	30	38	40	*32	39	15	9.6	29
18	16	49	21	31	28	37	44	31	26	19	41	89
19	19	32	21	30	32	63	50	29	22	21	18	32
20	21	29	20	29	32	45	43	29	27	16	13	24
21	25	26	29	29	28	39	40	26	173	14	11	20
22	36	26	32	34	26	61	40	26	52	13	11	16
23	28	25	81	52	26	49	39	26	34	12	10	16
24	25	23	97	43	25	44	37	25	28	11	10	15
25	23	23	77	50	30	146	35	25	27	18	9.6	14
26	22	23	48	59	49	86	34	25	*25	12	9.2	13
27	20	23	*43	53	43	58	33	25	24	11	8.6	13
28	19	22	41	48	51	48	31	25	23	12	8.2	16
29	18	22	38	57	-	44	31	26	36	11	7.9	23
30	18	22	36	81	-----	41	30	31	23	10	7.6	20
31	*18	-----	36	62	-----	38	-----	27	-----	*10	7.3	-----
Total	691	681	977	1,322	1,159	1,600	2,169	1,030	964	529	294.7	464.1
Mean	22.3	22.7	31.5	42.6	41.4	51.6	72.3	33.2	32.1	17.1	9.51	15.5
Cfsm	0.623	0.634	0.880	1.19	1.16	1.44	2.02	0.927	0.897	0.478	0.266	0.433
In.	0.72	0.71	1.01	1.37	1.21	1.66	2.25	1.07	1.00	0.55	0.31	0.48

Calendar year 1956: Max 688 Min 4.0 Mean 33.4 Cfsm 0.933 In. 12.67

Water year 1956-57: Max 545 Min 5.1 Mean 32.6 Cfsm 0.911 In. 12.34

Peak discharge (base, 700 cfs).--Apr. 6 (5 a.m.) 948 cfs (8.97 ft).

* Discharge measurement made on this day.

Savannah River near Calhoun Falls, S. C.

Location.--Lat 34°04', long 82°38', on left bank 150 ft upstream from bridge on State Highway 72, 1 mile downstream from Seaboard Air Line Railroad bridge, 1½ miles downstream from Rocky River, 3 miles southwest of Calhoun Falls, Abbeville County, and at mile 264.7 upstream from Savannah, Ga.

Drainage area.--2,876 sq mi.

Records available.--August 1896 to December 1900 (fragmentary), January to December 1903, March 1930 to July 1932, April 1938 to September 1957. Records for January 1901 to December 1902, published in WSP 65, 75, and 83 have been found to be unreliable, and should not be used. Gage-height records collected at original site 1 mile upstream during 1899-1928 and at present site since 1928 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 363.53 ft above mean sea level, datum of 1929, supplementary of 1936. Prior to March 1930, chain gage at railroad bridge 1 mile upstream at different datum.

Average discharge.--21 years (1896-97, 1930-31, 1938-57), 4,774 cfs.

Extremes.--Maximum discharge during year, 38,100 cfs Apr. 6 (gage height, 6.79 ft); minimum, 866 cfs Aug. 12; minimum daily, 959 cfs Aug. 12.

1896-1900, 1903 1930-32; 1938-57: Maximum discharge, 96,500 cfs Aug. 13, 1940 (gage height, 11.52 ft), from rating curve extended above 50,000 cfs on basis of velocity-area studies and logarithmic plotting; minimum, 492 cfs Sept. 21, 1954; minimum daily, 636 cfs Oct. 12, 1954.

Maximum stage known, 28.2 ft Aug. 25, 1908, original site and datum, from records of U. S. Weather Bureau.

Remarks.--Records good. Some regulation by Burton and Mathis Reservoirs (see p. 254) for monthly change in contents) and powerplants above station.

Revisions (water years).--WSP 1433: 1899 calendar year, 1932, 1940(m), 1942(m), 1946.

See also Records available.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-24

Oct. 25 to Sept. 30

1.0	1,310	0.7	866	3.0	7,550
1.5	2,340	1.0	1,260	4.0	13,000
2.0	3,690	1.5	2,100	5.0	20,500
2.5	5,740	2.0	3,490	7.0	40,200
		2.5	5,350		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,150	2,390	2,200	3,660	13,000	10,500	3,260	5,740	3,400	4,020	2,440	1,370
2	2,430	2,890	2,100	2,750	18,300	9,820	6,640	5,420	2,740	4,100	2,390	1,040
3	2,930	2,920	1,630	3,000	11,200	7,210	9,760	4,840	2,620	3,770	2,850	970
4	*2,770	2,190	1,660	3,810	8,960	5,300	7,390	5,100	3,110	4,030	2,090	2,090
5	2,690	1,630	1,800	4,940	8,100	7,500	22,900	3,660	3,640	3,000	1,280	2,220
6	2,500	2,040	2,010	4,450	7,470	7,060	35,000	3,080	*6,240	2,460	1,340	1,780
7	2,650	2,680	1,980	3,050	7,390	6,620	19,800	4,980	5,960	2,750	1,910	1,520
8	2,120	*2,730	2,210	3,320	6,860	6,900	10,500	4,820	4,350	1,800	1,790	1,180
9	1,940	2,430	1,810	3,760	6,830	6,990	11,600	4,030	3,440	2,320	1,740	1,110
10	2,340	2,530	1,550	3,550	4,940	4,370	9,570	4,400	2,420	3,330	1,950	1,910
11	2,240	1,980	1,580	3,690	3,920	3,640	8,590	7,540	3,460	3,310	1,940	2,760
12	2,380	1,580	1,840	3,360	5,680	5,020	8,140	6,820	3,700	2,450	959	2,370
13	2,380	1,620	2,000	2,700	5,780	5,500	7,850	3,890	4,020	2,960	2,060	2,060
14	1,990	2,030	2,320	2,120	5,720	*5,100	7,020	3,640	4,350	2,630	3,390	2,060
15	1,430	2,400	3,460	2,410	5,070	5,250	6,000	4,100	2,880	1,550	3,380	1,970
16	1,410	2,190	5,450	2,960	4,820	4,910	5,880	4,170	2,220	2,010	2,900	1,300
17	1,850	2,560	4,030	3,150	3,440	3,480	5,340	4,480	3,000	2,640	2,430	2,510
18	2,320	5,710	3,190	2,970	3,180	2,980	5,990	3,840	4,100	*2,930	2,210	6,760
19	1,990	3,810	2,750	2,820	4,750	5,790	7,140	3,310	4,460	3,130	2,600	6,590
20	2,030	2,920	*3,370	2,440	5,280	6,170	6,900	2,640	3,600	2,650	2,680	3,850
21	2,320	2,860	3,700	1,870	5,180	4,920	4,780	3,980	3,330	2,370	2,490	2,980
22	2,030	2,670	3,510	2,140	4,550	5,530	3,880	4,260	3,440	1,510	2,030	2,690
23	4,620	2,210	4,520	5,460	5,110	6,520	6,200	3,670	2,800	1,470	1,840	2,110
24	4,640	1,960	10,500	11,800	3,350	4,240	6,250	3,860	3,420	2,630	1,640	2,000
25	3,510	2,070	10,500	7,800	2,770	7,200	*5,060	3,690	4,500	2,760	1,600	2,020
26	3,110	1,730	5,240	7,380	5,300	9,340	5,410	3,390	4,800	4,000	1,180	2,010
27	2,420	2,450	5,540	4,960	10,300	6,950	5,940	2,560	5,480	2,530	1,400	2,300
28	1,960	2,910	4,860	3,510	9,680	5,490	3,840	2,950	4,200	2,200	1,560	2,510
29	1,550	2,700	4,290	5,290	-	5,140	3,210	3,360	5,620	1,460	*1,720	2,100
30	2,060	2,400	2,970	7,830	-----	4,660	5,100	3,820	7,780	1,520	2,130	2,230
31	2,500	-----	2,440	*8,240	-----	3,850	-----	4,440	-----	2,670	1,810	-----
Total	75,260	75,200	107,010	131,190	186,910	183,950	254,740	130,410	119,080	82,960	63,729	70,390
Mean	2,428	2,507	3,452	4,232	6,675	5,934	8,491	4,207	3,969	2,676	2,056	2,346
Cfs/m	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	30,600	Min	842	Mean	3,756	Cfs/m	1.31	In.	17.77			
Water year 1956-57: Max	35,000	Min	959	Mean	4,057	Cfs/m	1.41	In.	19.13			

Peak discharge (base, 25,000 cfs).--Apr. 6 (4 a.m.) 38,100 cfs (6.79 ft).

* Discharge measurement made on this day.

North Fork Broad River subwatershed No. 2 (Denmans Creek), near Toccoa, Ga.

Location.--Lat 34°33', long 83°22', at edge of pool near right end of earthfill dam, 0.5 mile upstream from mouth and 3 miles west of Toccoa, Stephens County.

Drainage area.--0.96 sq mi.

Records available.--April 1956 to September 1957.

Gage.--Water-stage recorder and sharp-crested V-notch weir on concrete drop inlet. Datum of gage is 846.26 ft above mean sea level (levels by Soil Conservation Service).

Extremes.--1956: Maximum discharge during period April to September, 31 cfs Apr. 15 (gage height, 6.77 ft); minimum, 0.15 cfs Sept. 21, 22 (gage height, 5.45 ft).

1956-57: Maximum discharge during water year, 35 cfs Apr. 5 (gage height, 6.79 ft); minimum, 0.21 cfs Sept. 8 (gage height, 5.51 ft); minimum gage height, 5.50 ft Aug. 14, 15, 17.

Remarks.--Records good except those for period of no gage-height record, which are fair. Records are outflow from reservoir, determined from stage-discharge relation for outlet structure. Reservoir is formed by earth dam; dam completed and storage began in April 1956. Outlet structure is 3 x 3 x 9-foot concrete drop inlet connected to a 20-inch concrete outlet pipe. Top of drop inlet is at gage height 5.87 ft. A 120° V-notch, sharp-crested weir is set on one side of the drop inlet with notch at gage height 5.20 ft. Emergency spillway is at gage height 25.9 ft. There is an 18-inch diameter cleanout gate at gage height -2.6 ft at bottom of drop inlet. Capacity at emergency spillway level, 180 acre-ft. In addition, about 0.8 sq mi of drainage area above station is partly controlled by abandoned railroad embankment which in effect acts as a flood-detention dam.

Rating table, Apr. 15, 1956, to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 3-6, 19, 20, May 22, 23, June 8-12, Sept. 20-30, 1957)

5.5	0.23	5.9	2.7
5.6	.47	6.0	4.7
5.7	.92	6.1	7.6
5.8	1.6	6.3	15

Discharge, in cubic feet per second, April to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0.92	0.50	0.33	0.71	0.24
2							-	.92	.50	.56	.75	.23
3							-	2.0	.67	.38	.71	.21
4							-	4.3	.54	3.5	.71	.23
5							-	1.9	.54	1.5	.86	.33
6							-	1.5	.47	.92	1.3	*.67
7							-	1.7	.41	.98	.80	.80
8							-	1.3	.38	1.6	.67	.63
9							-	1.2	.38	2.2	.63	.38
10							-	*1.0	.41	1.2	.58	.33
11							-	.98	*.38	.71	.58	.28
12							-	.92	a.40	.54	.50	.26
13							-	.92	a.40	.54	.50	.24
14							-	*.86	a.50	.58	.50	.23
15							6.0	.80	a.60	.92	.50	.21
16							*8.2	.71	a.50	1.3	.50	.19
17							*2.5	.71	a.40	.80	.44	.19
18							1.9	.71	*a.40	.63	.41	*.18
19							1.5	.71	.38	.75	.63	.18
20							1.4	.67	.41	.92	.92	.16
21							1.2	.67	.41	.98	.86	.15
22							1.2	*.63	.38	.98	.75	.16
23							1.0	.63	.36	.75	.44	.16
24							.98	.58	.36	.54	.38	.19
25							.92	.58	.33	.67	.36	2.4
26							.92	.63	.33	*.75	.30	2.1
27							.92	.71	.30	.54	.28	.63
28							.92	.63	.28	.58	.28	.44
29							.86	.58	.28	.63	.28	.38
30							.80	.58	.28	.63	.26	.36
31								.54		.67		
Total							-	31.49	12.44	28.38	17.65	13.12
Mean							-	1.02	0.415	0.915	0.569	0.437
Cfsm							-	-	-	-	-	-
In.							-	-	-	-	-	-
Calendar year	: Max			Min	Mean			Cfsm	In.			
Water year	: Max			Min	Mean			Cfsm	In.			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for stations on nearby streams.

North Fork Broad River subwatershed No. 2 (Denmans Creek), near Toccoa, Ga.--Continued

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.30	0.47	0.30	0.38	6.0	3.1	1.4	1.0	0.98	1.0	0.38	0.26
2	.28	.38	.30	.36	2.9	2.1	*2.2	*.92	.92	*.80	.38	.26
3	.28	.41	.30	.36	2.4	1.7	1.7	1.0	*.92	.67	.36	.30
4	.33	.44	.30	1.1	1.9	1.4	*9.2	1.0	.80	.63	.38	.28
5	.30	.44	.30	2.7	*1.5	*1.2	*15	.92	.75	.58	.44	.30
6	.48	.44	.33	1.3	1.8	*1.3	3.9	.86	.71	.50	.41	.26
7	.47	.47	.33	1.1	1.4	1.1	2.7	.80	.71	.47	*.36	.24
8	.33	.63	.33	.86	1.2	1.5	3.8	.80	.67	.47	.36	.26
9	.28	.38	.33	*.75	1.1	1.0	3.3	.80	.67	.44	*.33	.54
10	.28	.33	.30	.63	.98	1.2	2.8	.80	.67	.41	.33	.50
11	.26	.33	.30	.50	.86	1.3	2.2	1.6	.67	.41	.30	.36
12	.26	.33	.38	.47	.75	1.2	2.0	1.0	.78	.38	.28	.30
13	.26	.30	.50	.44	.75	1.2	1.8	.92	.71	.38	.28	*.30
14	.26	.30	.54	.41	.71	1.2	1.7	.92	.63	.38	.26	.33
15	.26	*.30	.58	.44	.67	1.2	*1.5	.86	.54	.58	.30	.36
16	.24	.33	.50	.44	.75	1.0	1.4	.80	.84	.92	.30	.58
17	.24	1.3	.44	.41	.67	.92	1.4	.71	.98	.80	.28	2.1
18	.28	.80	.41	.38	.63	1.0	2.1	.71	.63	.58	1.1	1.4
19	.28	.47	.38	.36	.92	1.5	1.8	.80	1.8	.71	.75	.92
20	.28	.41	.38	.36	.86	*1.2	1.5	.80	1.3	.54	.80	.71
21	.47	.38	.38	.41	.75	.92	1.4	.71	.86	.47	.50	.67
22	1.0	.36	.67	1.4	.67	1.1	1.5	.70	.67	.41	.41	.54
23	.50	.33	2.9	3.3	.67	.86	1.7	*.75	.80	.41	.38	.44
24	.36	.33	3.3	1.4	.67	.98	1.4	.94	1.6	.50	.36	.41
25	.33	.33	1.2	2.4	1.1	2.4	1.3	.80	.98	.63	.36	.36
26	.30	.33	.75	2.1	3.9	1.8	1.3	.80	.75	.47	.33	.36
27	.30	.33	.63	1.6	2.5	1.4	1.2	.80	2.2	.41	.33	.41
28	.30	.30	.54	1.4	6.7	1.1	1.2	.75	2.2	.41	*.33	.47
29	.28	.33	.47	2.1	-	1.0	1.1	1.1	1.7	.38	.28	.98
30	.28	.30	.44	2.5	-	.98	1.4	1.4	1.1	.44	.28	.63
31	.30	-	.44	3.2	-	.86	1.0	1.0	-	.41	.30	-
Total	10.37	12.58	19.25	35.56	45.71	40.72	76.3	27.77	29.54	16.59	12.24	15.83
Mean	0.335	0.419	0.621	1.15	1.63	1.31	2.54	0.896	0.985	0.535	0.395	0.528
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	-	-	-	-	Min	-	Mean	-	Cfsm	-	In.	-
Water year 1956-57: Max	15	-	-	-	Min	0.24	Mean	0.938	Cfsm	-	In.	-

* Discharge measurement made on this day.

North Fork Broad River near Toccoa, Ga.

Location.--Lat 34°31', long 83°19', on right bank 150 ft upstream from bridge on State Highway 106, 1 mile downstream from Carnes Creek, and 5 miles south of Toccoa, Stephens County.

Drainage area.--19.3 sq mi.

Records available.--May 1954 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 750.41 ft above mean sea level (levels by U. S. Soil Conservation Service).

Extremes.--Maximum discharge during year, 640 cfs Apr. 5 (gage height, 6.42 ft); minimum, 5.9 cfs Aug. 13, Sept. 3, 4, 7, 8.
1954-57: Maximum discharge, 1,060 cfs Feb. 6, 1955 (gage height, 8.33 ft); minimum, 4.6 cfs Sept. 2, 3, 21, 1956.

Remarks.--Records good. Storm runoff at gage affected during short periods by two small flood-detention reservoirs (combined capacity, 470 acre-ft). Records of suspended sediment loads for the water year 1957 are given in WSP 1520.

Rating tables, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 8-21, July 13-16, Aug. 17-31)

Oct. 1 to Aug. 7				Aug. 8 to Sept. 30			
1.1	5.0	2.4	78	1.4	4.8		
1.2	8.0	3.0	190	1.5	7.5		
1.6	23	4.0	360	1.8	19		
2.0	45	4.5	420	2.1	37		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	13	11	16	109	38	30	19	15	20	8.4	7.2
2	*10	*10	11	15	47	28	*35	*19	14	*14	8.4	6.9
3	10	9.6	11	15	39	24	27	21	*14	14	8.0	7.0
4	11	9.2	*11	42	35	22	171	21	14	13	8.8	7.0
5	10	9.2	11	52	*30	22	416	20	15	12	9.6	8.9
6	16	8.8	11	26	36	*21	73	20	15	11	7.7	6.7
7	11	9.2	11	21	29	30	44	19	14	10	*7.1	6.4
8	8.4	12	11	17	26	33	92	19	14	9.6	*7.5	8.2
9	7.7	9.2	11	16	26	26	49	18	14	9.2	7.8	15
10	7.4	8.4	10	*15	24	23	*37	18	14	8.8	7.5	*12
11	7.4	8.0	11	15	24	21	32	28	14	8.4	7.2	10
12	7.1	8.0	13	14	23	21	30	19	14	8.4	*7.2	9.2
13	7.1	8.0	14	14	22	21	28	18	*13	8.4	6.4	8.9
14	7.1	8.0	14	14	21	22	26	*17	13	8.8	6.4	8.9
15	7.1	*8.4	17	14	21	*22	24	17	12	13	7.5	9.2
16	6.8	8.8	15	13	21	21	24	16	14	15	7.2	15
17	6.8	42	13	13	20	20	24	15	14	14	8.2	36
18	7.7	20	13	12	19	26	29	15	11	12	20	22
19	7.4	15	12	12	21	32	28	17	22	13	*15	15
20	7.4	14	*12	12	21	24	24	17	16	12	17	14
21	12	14	12	12	19	22	24	17	14	10	11	14
22	22	13	18	36	19	28	24	18	12	8.4	9.2	14
23	11	13	51	48	19	24	26	17	12	8.0	8.2	13
24	9.6	13	70	30	18	31	23	16	19	26	8.2	11
25	8.8	12	28	45	24	*51	22	16	15	15	8.2	10
26	8.8	12	*21	36	58	33	22	17	14	10	7.8	10
27	8.8	12	19	32	32	29	21	16	27	9.6	7.8	10
28	8.4	12	17	30	71	27	21	16	26	9.2	*7.5	13
29	8.4	12	17	40	-	25	20	21	20	8.8	7.5	24
30	8.8	11	16	38	-----	23	20	21	20	8.8	7.5	17
31	9.6	-----	16	50	-----	23	-----	17	-----	8.4	7.2	-----
Total	289.2	362.8	528	765	874	813	1,466	565	465	356.8	273.0	369.5
Mean	9.33	12.1	17.0	24.7	31.2	26.2	48.9	18.2	15.5	11.5	8.81	12.3
Cfsm	0.483	0.627	0.881	1.28	1.62	1.36	2.53	0.943	0.803	0.596	0.456	0.637
In.	0.56	0.70	1.02	1.48	1.69	1.57	2.82	1.09	0.90	0.69	0.53	0.71
Calendar year 1956: Max 365 Min 5.1 Mean 20.0 Cfsm 1.04 In. 14.10												
Water year 1956-57: Max 416 Min 6.4 Mean 19.5 Cfsm 1.01 In. 13.76												

* Discharge measurement made on this day.

North Fork Broad River subwatershed No. 6 (Bear Creek) near Mize, Ga.

Location.--Lat 34°29', long 83°19', at edge of pool, 255 ft upstream from left end of earth-fill dam on Bear Creek, 1 mile upstream from mouth, and 2 miles east of Mize, Stephens County.

Drainage area.--3.62 sq mi.

Records available.--December 1956 to September 1957.

Gage.--Water-stage recorder and V-notch sharp-crested weir on concrete drop inlet. Datum of gage is 743.13 ft above mean sea level, datum of 1929 (levels by Soil Conservation Service).

Extremes.--Maximum discharge during period, 38 cfs Apr. 5 (gage height, 12.1 ft); minimum, 0.88 cfs Aug. 14 (gage height, 7.64 ft). Maximum inflow, 287 cfs (average for 15-minute period) Apr. 5.

Remarks.--Records good. Records of daily discharge are outflow from reservoir, determined from stage-discharge relation for outlet structure. Peak inflow rates are determined for short intervals of time on basis of change in reservoir contents and outflow. Reservoir is formed by earth dam; dam completed and storage began in November 1956. Outlet structure is a 3-foot square concrete drop inlet connected to a 20-inch concrete outlet pipe. Two 120° V-notch sharp-crested weirs are set on opposite sides of the drop inlet, with notches at gage height 7.33 ft. Top of drop inlet is at gage height 8.00 ft; emergency spillway at gage height 21.0 ft. There is an 18-inch diameter cleanout gate at bottom of drop inlet at gage height 0.50 ft. Reservoir capacity at top of drop inlet, 118 acre-ft. Capacity at emergency spillway level, 920 acre-ft.

Rating table, period Dec. 1, 1956, to Sept. 30, 1957 (gage height, in feet, and discharge, in cubic feet per second)

7.6	0.65	8.1	6.4
7.7	1.1	8.3	13
7.8	1.8	8.6	31
7.9	2.8	9.0	34
8.0	4.3	11.0	37

Discharge, in cubic feet per second, December 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			2.0	3.0	19	5.8	4.5	3.7	3.0	4.7	1.6	1.2
2			1.9	2.8	9.3	4.7	*5.8	3.7	2.7	*3.6	1.5	1.2
3			1.9	2.7	7.3	4.3	4.7	3.8	2.6	2.7	1.4	1.1
4			1.8	3.6	6.2	4.2	12	4.5	*2.6	2.5	1.4	1.0
5			1.8	6.4	*5.6	4.3	*37	3.8	2.7	2.2	1.4	1.0
6			1.8	5.8	6.4	*4.0	*37	3.7	2.7	2.0	1.2	1.0
7			1.9	4.2	5.6	4.9	*35	*3.4	2.7	1.8	1.2	.96
8			1.9	*3.8	4.9	7.0	*26	3.2	2.6	1.6	1.2	1.0
9			1.9	3.7	4.7	5.1	13	3.2	2.7	1.5	1.1	2.0
10			*1.8	3.6	4.5	4.3	7.0	3.1	2.6	1.4	1.0	3.4
11			1.8	3.1	4.2	4.0	6.0	6.0	2.6	1.4	1.0	2.6
12			2.2	2.8	3.7	4.0	5.4	5.6	2.5	1.3	.96	2.1
13			2.8	2.7	3.6	3.8	4.7	4.7	2.4	1.2	.92	1.8
14			3.0	2.7	3.4	4.0	4.5	4.0	2.4	1.2	.88	1.7
15			4.7	2.7	3.2	4.0	4.3	3.6	2.2	1.5	1.4	1.7
16			4.7	2.8	4.0	3.7	4.2	3.2	2.1	4.7	1.5	2.1
17			3.7	2.6	3.7	3.4	4.2	3.1	2.1	7.3	1.4	3.6
18			3.1	2.4	3.4	4.0	6.0	3.0	2.0	4.3	3.2	3.2
19			2.7	2.3	3.8	6.7	5.6	2.8	2.3	3.7	3.6	2.7
20			2.5	2.3	4.0	4.9	4.7	2.8	3.0	3.1	6.0	2.7
21			*2.5	2.4	3.7	4.3	4.5	2.6	2.6	2.6	3.7	2.7
22			3.7	3.4	3.4	5.8	4.7	2.7	2.3	2.3	2.7	2.6
23			8.1	7.6	3.1	5.1	5.6	2.8	2.2	2.1	2.2	3.7
24			16	5.1	3.1	4.9	4.7	2.7	2.1	2.2	1.9	3.0
25			7.6	7.3	4.0	*11	4.3	2.6	2.4	2.5	1.7	2.4
26			5.4	7.0	9.0	*6.4	4.2	2.6	2.3	2.2	1.6	2.2
27			4.5	5.3	7.6	5.1	4.0	2.6	2.5	2.1	1.5	2.0
28			4.0	5.1	6.4	4.5	3.8	2.4	3.1	2.1	1.4	2.2
29			3.6	7.6	-	4.3	3.7	2.6	3.2	2.0	*1.4	3.1
30			3.1	10	-----	4.0	3.6	3.2	3.1	*1.9	1.3	3.1
31			-----	3.1	8.1	-----	3.8	-----	3.1	-----	1.7	1.3
Total	-	-	111.5	135.4	150.8	150.3	274.7	104.8	76.3	77.4	54.56	65.06
Mean	-	-	3.60	4.37	5.39	4.85	9.16	3.38	2.54	2.50	1.76	2.17
(†)	-	-	113.1	115.7	129.2	120.8	116.8	115.1	118.6	111.0	109.9	115.7
(*)	-	-	+0.04	+0.22	-0.15	-0.06	0	-0.03	+0.06	-0.12	-0.02	+0.10

Adjusted for change in contents in subwatershed reservoir No. 6

Mean Cfsm In.			3.64	4.59	5.24	4.79	9.16	3.35	2.60	2.38	1.74	2.27
			1.01	1.27	1.45	1.32	2.53	0.925	0.718	0.657	0.481	0.627
			1.16	1.46	1.51	1.52	2.82	1.07	0.80	0.76	0.55	0.70

Observed				Adjusted			
Calendar year	Max	Min	Mean	Mean	Cfsm	In.	
Water year	Max	Min	Mean	Mean	Cfsm	In.	

Peak inflow, average for interval shown (base, 240 cfs).--Apr. 5 (6:45 to 7 a.m.) 287 cfs.

* Discharge measurement made on this day.

† Contents, in acre-feet, at end of month in subwatershed reservoir No. 6.

* Change in contents, equivalent in cubic feet per second, in subwatershed reservoir No. 6.

North Fork Broad River near Lavonia, Ga.

Location.--Lat 34°27', long 83°14', on right bank at bridge on county road 2.1 miles upstream from Toms Creek and 7.8 miles west of Lavonia, Franklin County.

Drainage area.--42.0 sq mi.

Records available.--May 1954 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 680.36 ft above mean sea level, datum of 1929 (levels by U. S. Soil Conservation Service).

Extremes.--Maximum discharge during year, 950 cfs Apr. 5 (gage height, 10.73 ft); minimum, 11 cfs Aug. 14, Sept. 4, 6, 7.

1954-57: Maximum discharge, 1,500 cfs Feb. 7, 1955 (gage height, 11.80 ft); minimum, 7.2 cfs Sept. 22-24, 1955.

Flood in 1933 reached a stage of 17.5 ft, and flood in 1950 reached a stage of 15.5 ft, from information by local residents.

Remarks.--Records good. Storm runoff at gage affected by four small flood-detention reservoirs (combined capacity of reservoirs, 1,600 acre-ft).

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 5-8)

5.6	10	8.0	290
5.8	22	9.0	450
6.0	37	10.4	815
7.0	150		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	28	24	32	217	95	58	39	30	58	18	13
2	23	26	24	30	124	67	73	39	29	32	17	12
3	*21	22	24	29	95	59	*54	44	29	*30	15	12
4	23	23	25	42	82	54	168	48	*29	28	15	11
5	21	22	25	137	*67	54	798	40	31	26	17	13
6	24	22	24	62	83	*50	305	*40	31	24	15	11
7	29	23	23	51	64	64	144	40	31	23	14	11
8	21	29	23	43	57	94	165	39	31	23	14	14
9	21	23	24	42	54	62	140	38	30	21	13	26
10	20	21	23	*40	51	52	*88	36	28	20	13	29
11	20	21	23	35	46	50	73	77	30	19	12	20
12	19	21	26	34	42	49	65	49	29	19	12	18
13	19	20	30	34	40	46	60	41	28	18	12	17
14	18	19	32	32	38	49	56	39	27	18	11	18
15	18	*19	46	31	38	48	50	39	26	20	18	19
16	18	20	42	29	41	43	48	38	24	31	14	23
17	18	146	33	28	37	42	47	35	29	42	14	76
18	20	65	31	26	35	50	70	34	26	27	45	55
19	21	42	30	26	43	88	62	34	36	28	*30	31
20	21	35	29	26	43	55	51	33	40	25	47	36
21	30	33	*30	26	36	50	48	30	29	21	24	32
22	54	31	46	42	35	72	49	31	26	20	21	29
23	31	28	108	110	35	54	58	35	24	19	18	45
24	26	27	171	58	36	58	49	31	32	37	17	27
25	23	28	82	92	50	136	43	31	34	42	16	24
26	24	28	58	80	146	80	42	31	28	22	16	23
27	25	26	49	70	97	64	42	31	38	21	16	23
28	23	26	45	59	130	56	41	29	49	21	15	26
29	23	26	40	100	-	51	39	33	45	20	15	41
30	23	26	36	108	-----	48	39	43	40	19	14	35
31	23	-----	35	98	-----	46	-----	35	-----	18	14	-----
Total	725	926	1,261	1,652	1,862	1,886	3,025	1,182	939	792	552	770
Mean	25.4	30.9	40.7	53.3	66.5	60.8	101	38.1	31.3	25.5	17.8	25.7
Cfs/m	0.857	0.736	0.969	1.27	1.58	1.45	2.40	0.907	0.745	0.607	0.424	0.612
In.	0.64	0.82	1.12	1.46	1.64	1.67	2.68	1.05	0.83	0.70	0.49	0.68
Calendar year 1956: Max	731				Min 9.3	Mean 44.0	Cfs/m 1.05	In. 14.25				
Water year 1956-57: Max	798				Min 11	Mean 42.7	Cfs/m 1.02	In. 13.78				

* Discharge measurement made on this day.

North Fork Broad River subwatershed No. 11 (Toms Creek) near Eastanollee, Ga.

Location.--Lat 34°29', long 83°15', at edge of reservoir, about 750 ft upstream from left end of earth-fill dam, 2 miles south of Eastanollee, Stephens County, and about 4 miles upstream from mouth.

Drainage area.--3.79 sq mi.

Records available.--October 1956 to September 1957.

Gage.--Water-stage recorder and sharp-crested V-notch weir on concrete drop inlet. Datum of gage is 730.60 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Soil Conservation Service).

Extremes.--Maximum discharge during year, 29 cfs Apr. 11 (gage height, 10.64 ft); maximum gage height, 13.30 ft Apr. 5 (backwater from debris); minimum discharge, 0.95 cfs about Sept. 7 (gage height, 8.67 ft). Maximum inflow, 335 cfs (average for 15-minute period) Apr. 5.

Remarks.--Records good except those for periods of backwater and no gage-height record, which are fair. Records of daily discharge are outflow from reservoir, determined from stage-discharge relation for outlet structure. Peak inflow rates are determined for short intervals of time on basis of change in reservoir contents and outflow. Reservoir is formed by earth dam; dam completed and storage began in September 1956. Outlet structure is a 3-foot square concrete drop inlet connected to a 20-inch concrete outlet pipe. Two 120° V-notch sharp-crested weirs are set on opposite sides of the drop inlet, with notches at gage height 8.33 ft. Top of drop inlet is at gage height 9.00 ft; emergency spillway at gage height 21.2 ft. There is an 18-inch diameter cleanout gate at bottom of drop inlet. Reservoir capacity at top of drop inlet, 115 acre-ft. Capacity at emergency spillway level 860 acre-ft.

Rating table, water year 1956-57, except period of backwater from debris (gage height, in feet, and discharge, in cubic feet per second)

8.6	0.65	9.1	6.6
8.7	1.1	9.2	10
8.8	1.8	9.3	15
8.9	2.8	9.4	22
9.0	4.4		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	2.4	2.2	2.7	21	6.0	4.5	3.4	2.7	5.8	1.5	1.1
2	2.1	2.2	2.6	2.6	10	4.7	5.8	3.4	2.6	3.7	1.4	1.0
3	*2.0	2.1	2.2	2.5	7.2	4.5	*4.5	3.9	2.4	*3.0	1.4	1.0
4	2.2	2.0	2.2	3.3	5.8	4.5	c8.6	4.5	*2.3	2.8	1.3	1.0
5	2.2	2.0	2.2	9.4	4.8	4.5	*c21	3.7	2.4	2.6	1.4	.98
6	2.1	2.0	2.2	4.8	6.6	4.4	*c21	*3.4	2.5	2.3	1.2	.96
7	2.1	2.1	2.2	4.1	5.6	*4.7	c20	3.2	2.4	2.2	1.2	.95
8	1.8	2.9	2.2	*3.6	4.7	6.9	*c20	3.0	2.4	2.0	1.1	.98
9	1.7	2.6	2.2	3.3	4.6	4.7	c20	3.0	2.4	1.9	1.1	2.2
10	1.7	2.3	2.2	3.2	4.4	4.4	c20	3.0	2.4	1.9	1.1	3.5
11	1.6	2.2	2.2	3.0	3.9	4.1	*c22	5.6	2.5	1.7	1.0	2.8
12	1.6	2.1	2.5	2.9	3.6	3.9	21	4.4	2.5	1.6	1.0	2.0
13	1.6	2.1	2.8	2.8	3.6	3.9	6.6	3.6	2.4	1.5	1.0	1.7
14	1.6	2.0	2.9	2.7	3.4	4.1	5.4	3.2	2.3	1.4	1.0	1.6
15	1.6	2.0	3.6	2.8	3.3	4.1	4.8	3.0	2.2	1.4	1.3	2.2
16	1.6	2.2	3.9	2.9	3.6	3.7	4.7	2.9	2.2	1.8	1.4	3.0
17	1.6	20	3.2	2.7	3.3	3.4	4.7	2.8	2.8	2.0	1.4	6.0
18	1.7	15	2.8	2.5	3.3	3.9	6.9	2.7	2.5	2.2	3.9	4.0
19	1.8	4.6	2.7	2.4	3.9	6.6	*6.3	2.8	3.2	2.1	3.6	3.2
20	1.8	3.7	*2.6	2.5	4.4	4.6	5.4	2.8	4.5	2.0	3.2	4.0
21	2.6	3.3	2.6	2.6	3.6	4.4	4.8	2.6	3.4	1.8	2.5	3.0
22	4.8	3.0	3.9	3.9	3.3	5.8	4.8	2.6	2.8	1.8	2.1	2.5
23	3.4	2.7	7.2	7.2	3.3	4.7	5.4	2.6	2.5	1.5	1.8	3.8
24	2.7	2.6	13	4.7	3.2	4.6	4.5	2.5	2.5	3.2	1.6	3.1
25	2.4	2.5	6.3	6.9	4.5	9.8	4.4	2.4	4.4	3.7	1.5	2.4
26	2.2	2.4	4.5	6.9	*11	6.0	4.1	2.4	3.6	2.7	1.4	2.1
27	2.1	2.3	3.7	5.6	9.4	4.7	3.9	2.5	3.0	2.4	1.4	2.0
28	2.0	2.3	3.4	4.7	7.5	4.5	3.7	2.3	3.4	2.3	1.3	2.2
29	1.9	2.3	3.2	7.2	---	4.1	3.6	2.5	3.4	2.1	1.2	3.0
30	1.9	2.3	2.9	*7.8	---	3.9	3.4	3.2	3.4	1.9	*1.2	3.1
31	2.0	---	2.8	7.6	---	3.7	---	2.9	---	*1.8	1.2	---
Total	64.7	104.3	104.7	131.8	156.8	147.8	275.6	96.8	84.0	70.9	48.7	71.37
Mean	2.09	3.48	3.38	4.25	5.60	4.77	9.19	3.12	2.80	2.29	1.57	2.38
(+)	110.6	110.8	112.4	124.6	118.7	114.0	114.0	113.2	118.1	109.0	107.7	112.9
(*)	-0.01	0	+0.03	+0.20	-0.11	-0.08	0	-0.01	+0.08	-0.15	-0.02	+0.01

Adjusted for change in contents in subwatershed reservoir No. 11

	Mean	Cfsm	In.
Observed	2.08	3.48	3.41
Adjusted	0.549	0.918	0.900
In.	0.63	1.02	1.04
			1.35
			1.51
			1.43
			2.70
			0.95
			0.85
			0.65
			0.47
			0.73

Observed				Adjusted			
Calendar year 1956:	Max	-	Min	-	Mean	-	In.
Water year 1956-57:	Max	22	Min	0.95	Mean	3.72	In.
							13.33

Peak inflow, average for interval shown (base, 250 cfs).--Apr. 5 (5 to 5:15 a.m.) 335 cfs.

* Discharge measurement made on this day.

c Backwater from debris; discharge computed on basis of recorded graph and 5 discharge measurements.

+ Contents, in acre-feet, at end of month in subwatershed reservoir No. 11.

* Note.--No gage-height record Sept. 1-30; discharge estimated on basis of recorded range in stage and records for stations on nearby streams.

North Fork Broad River subwatershed No. 14 near Avalon, Ga.

Location.--Lat 34°30', long 83°13', at upstream edge of earth-fill dam on unnamed tributary to Toms Creek, 0.8 mile upstream from mouth and 1.6 miles southwest of Avalon, Stephens County.

Drainage area.--1.20 sq mi.

Records available.--November 1954 to September 1957.

Gage.--Water-stage recorder and V-notch sharp-crested weir on concrete drop inlet. Datum of gage is 735.33 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Soil Conservation Service).

Extremes.--1954-55: Maximum discharge during period November to September, 67 cfs Feb. 6 (gage height, 7.56 ft); no flow Dec. 24-28, caused by closing of reservoir drain valve. Maximum inflow, 128 cfs (average for 15-minute period) Feb. 6.

1955-56: Maximum discharge during water year, 30 cfs Mar. 16 (gage height, 11.3 ft); no flow Nov. 22-26, caused by closing of reservoir drain valve. Maximum inflow, 628 cfs (average for 15-minute period) July 5.

1956-57: Maximum discharge during water year, 28 cfs Apr. 5 (gage height, 8.74 ft); minimum, 0.36 cfs Sept. 6 (gage height, 5.36 ft). Maximum inflow, 166 cfs (average for 15-minute period) July 24.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records of daily discharge are outflow from reservoir, determined from stage-discharge relation for outlet structure. Peak inflow rates are determined for short intervals of time on basis of change in reservoir contents and outflow. Reservoir is formed by earth dam; dam completed and storage began in October 1954. Outlet structure is a 3-foot square concrete drop inlet connected to a 30-inch concrete outlet pipe. In November 1955, an 18-inch orifice was installed at the upstream end of the outlet pipe to reduce the fixed outlet capacity. A 120° V-notch sharp-crested weir is set on one side of the drop inlet with notch at gage height 5.00 ft. Top of drop inlet is at gage height 5.74 ft; emergency spillway at gage height 22.2 ft. There is a 24-inch diameter drain gate at bottom of drop inlet. Reservoir capacity at emergency spillway level, 240 acre-ft. Outflow affected by draining of reservoir and subsequent filling to drop-inlet level during periods Nov. 10-13, Dec. 22-29, 1954, and Nov. 20-29, 1955. Records of suspended sediment loads for water year 1957 are given in WSP 1520.

Discharge, in cubic feet per second, November 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.56	1.0	1.0	0.82	1.2	.99	0.78	0.65	*0.56	2.4	0.50
2		.56	.78	1.7	.90	1.2	1.1	.74	.65	.62	1.6	.50
3		.53	.68	2.5	.90	1.0	2.0	.74	.65	.56	.94	.50
4		.50	.68	1.5	.82	.94	1.3	.74	.65	.56	.86	.50
5		*.62	4.2	*.9	.78	.94	1.2	.74	.62	.56	.86	.53
6		.59	2.3	.94	28	1.0	2.2	.71	.62	.56	.71	.53
7		.56	1.2	.90	9.2	1.1	2.8	.71	.62	.56	.62	.50
8		.59	1.1	.86	3.6	.99	1.5	.68	.62	.59	.62	.48
9		.62	1.1	.82	2.2	.94	1.3	*.68	.62	.71	.59	.45
10		2.0	1.1	1.1	1.6	1.1	1.2	.68	.62	.65	.59	.45
11		.11	.99	2.0	1.2	1.1	1.7	.65	1.3	1.8	*.56	.45
12		.34	.99	1.4	1.2	4.0	1.2	.65	.90	1.6	.59	.48
13		.65	1.2	1.1	1.2	2.8	1.2	1.1	.74	3.6	.62	.48
14		.7	1.2	1.0	1.2	1.6	1.3	1.5	.71	5.0	.59	.48
15		.7	*.99	.94	1.2	1.4	1.2	.94	.65	1.2	.78	.45
16		1.0	.86	.94	1.1	1.3	1.1	.90	.65	.99	1.2	.45
17		.8	.78	.90	*1.2	1.2	1.1	.90	.65	.82	.78	.42
18		.7	.86	.94	1.1	1.1	1.1	.86	.62	.68	.65	.42
19		.7	.78	1.7	1.2	1.1	1.0	.78	.71	.68	.59	.42
20		1.3	.74	1.2	1.1	1.1	1.0	.78	.71	.62	.94	.42
21		.8	.74	1.1	1.1	1.1	1.1	1.1	.68	1.2	1.1	*.40
22		.7	2.4	1.2	1.1	2.5	1.1	1.5	.68	.94	.74	.40
23		.9	5.3	1.1	1.1	1.5	1.0	1.1	4.5	.78	.65	.40
24		.7	0	1.0	1.2	1.2	.99	.99	1.7	.68	.59	.40
25	(*)	.7	0	.90	1.2	1.2	.99	1.2	.90	.86	.56	.45
26		.7	0	.90	1.1	1.2	.86	.94	.68	1.1	.53	.42
27	(*)	.8	0	.90	1.1	1.1	.82	.82	.56	.78	.53	.42
28	(*)	1.0	0	.86	*1.4	1.1	.82	.78	.50	.68	.53	.45
29		1.5	.6	.86		1.0	.82	.74	.45	.68	.50	.45
30		1.2	1.0	.86		1.0	.78	.71	.42	.74	.50	.50
31			1.5	.82		.99		.68		.78	.50	
Total	-	23.13	35.07	34.84	69.82	41.00	36.77	26.82	25.03	32.14	23.82	13.70
Mean	-	0.771	1.13	1.12	2.49	1.32	1.23	0.865	0.834	1.04	0.768	0.457
(†)	24.1	25.6	25.8	26.3	25.2	24.9	24.8	24.7	24.9	24.4	24.4	
(‡)	-	+0.025	0	-0.01	+0.02	-0.02	-0.01	-0.002	-0.002	0	-0.008	0

Adjusted for change in contents in subwatershed reservoir No. 14

Mean	-	0.796	1.13	1.11	2.51	1.30	1.22	0.863	0.832	1.04	0.760	0.457
Cfs/m	-	0.663	0.942	0.925	2.09	1.08	1.02	0.719	0.693	0.867	0.633	0.381
In.	-	0.74	1.09	1.07	2.18	1.24	1.14	0.83	0.77	1.00	0.73	0.45

Observed				Adjusted			
Calendar year	: Max	Min	Mean	Mean	Cfs/m	In.	
Water year	: Max	Min	Mean	Mean	Cfs/m	In.	

Peak inflow, average for interval shown (base, 80 cfs).--Feb. 6 (1:45 to 2 p.m.) 128 cfs.

* Discharge measurement made on this day.

† Contents in acre-feet, at end of month in subwatershed reservoir No. 14.

‡ Change in contents, equivalent in cubic feet per second, in subwatershed reservoir No. 14.

Note.--No gage-height record Nov. 14-30, Dec. 25 to Jan. 5; discharge estimated on basis of 1 discharge measurement and records for Toms Creek near Martin.

North Fork Broad River subwatershed No. 14 near Avalon, Ga.--Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.74	0.53	0.38	0.62	0.71	1.2	0.99	1.7	0.73	0.65	0.93	0.56
2	.71	.53	.40	.62	1.1	1.5	.94	1.8	.69	.77	.85	.53
3	.59	*.53	.45	.62	1.2	1.4	.94	1.9	.69	.69	.77	.53
4	.53	.53	.65	.62	2.0	1.2	.99	1.8	.69	8.2	.73	.53
5	.50	.53	.82	.59	2.4	1.2	1.0	1.4	.73	7.5	.73	*.63
6	.53	.56	.74	*.59	*23	1.2	1.3	1.4	.73	24	.69	.81
7	.56	.56	.68	.59	*10	1.1	1.2	1.8	.73	2.5	.65	13
8	.68	.56	.71	.59	2.6	1.1	1.0	2.1	.73	6.2	.65	2.1
9	.62	.56	.86	.59	2.0	.99	.99	1.6	.73	18	.62	1.1
10	.53	.68	.74	.59	1.6	.99	1.1	1.4	.73	2.5	.62	*.88
11	.50	.68	.68	.59	1.6	.99	8.9	1.2	*.69	1.6	.59	.81
12	.48	.62	.68	.59	1.5	.99	3.0	1.2	.65	1.2	.56	.77
13	.48	.62	.65	.59	1.3	1.1	2.0	1.2	.77	*1.2	.56	.73
14	.48	.62	.65	.59	1.2	1.2	1.6	1.1	1.1	1.1	.56	.69
15	.48	.59	.62	.59	1.1	2.3	6.7	.98	1.5	1.0	.56	.65
16	.48	.59	.62	.59	1.1	*26	*27	.93	1.1	*1.1	.56	.65
17	.48	.59	.62	.59	*2.1	*19	4.8	.89	.89	*.93	.62	.62
18	.50	.56	.71	.59	1.8	2.8	2.8	.85	.81	.81	.65	.62
19	.50	.74	.74	.99	1.5	2.1	2.3	.89	.77	.77	.62	.62
20	.50	3.7	.68	.90	3.0	1.6	2.0	.89	.81	.77	.62	.59
21	.50	3.5	.65	.71	2.0	1.4	1.8	.81	.77	.77	.62	*.53
22	.50	0	.65	.68	1.6	1.4	1.8	.81	.77	5.0	.62	.56
23	.48	0	.62	.74	1.3	1.2	1.8	*.73	.73	4.8	.56	.59
24	.48	0	.62	.90	1.2	1.2	1.8	.73	.69	1.3	*.64	.69
25	.45	0	.62	.78	1.2	1.2	1.8	.73	.65	1.1	.65	10
26	.45	0	.62	.74	1.2	1.1	1.8	.77	.65	*1.0	.62	15
27	.45	.01	.62	.71	1.6	1.1	*1.7	.85	.62	.89	.62	2.6
28	.48	.13	.62	.71	1.8	1.1	1.7	.81	.59	.81	.62	1.6
29	.65	.24	.62	.68	1.4	1.2	1.7	.77	.56	1.4	.62	1.2
30	.59	.32	.62	.71	1.1	1.1	1.7	.73	.56	1.6	.59	1.1
31	.53	-----	.62	.68	-----	1.0	-----	.77	-----	1.0	.59	-----
Total	16.43	19.08	19.96	20.67	76.11	82.96	89.15	35.54	22.86	101.16	19.89	61.29
Mean	0.530	0.636	0.644	0.667	2.62	2.68	2.97	1.15	0.762	3.26	0.642	2.04
(†)	24.5	23.9	24.6	24.8	25.8	25.3	25.4	24.9	24.3	25.1	24.4	25.2
(*)	+0.002	-0.010	+0.011	+0.003	+0.02	-0.01	0	-0.01	-0.010	+0.01	-0.011	+0.01

Adjusted for change in contents in subwatershed reservoir No. 14

	Mean	0.532	0.626	0.655	0.670	2.64	2.67	2.97	1.14	0.752	3.27	0.631	2.05
Cfsm	0.443	0.522	0.546	0.558	2.20	2.22	2.48	0.950	0.627	2.72	0.526	1.71	
In.	0.51	0.58	0.63	0.64	2.37	2.56	2.77	1.10	0.70	3.14	0.61	1.91	
Observed								Adjusted					
Calendar year 1955:	Max	28		Min	0	Mean	0.985	Mean	0.983	Cfsm	0.819	In.	11.11
Water year 1955-56:	Max	27		Min	0	Mean	1.54	Mean	1.54	Cfsm	1.28	In.	17.52

Peak inflow, average for interval shown (base, 80 cfs).--Feb. 6 (5:45 to 6 a.m.) 123 cfs; Mar. 16 (7 to 7:15 a.m.) 264 cfs; Apr. 15 (8:45 to 9 a.m.) 314 cfs; July 4 (2:30 to 2:45 p.m.) 152 cfs; July 5 (8 to 8:15 p.m.) 628 cfs; July 8 (9:45 to 10 p.m.) 175 cfs; July 22 (8:15 to 8:30 p.m.) 147 cfs.

* Discharge measurement made on this day.

† Contents, in acre-feet, at end of month in subwatershed reservoir No. 14.

* Change in contents, equivalent in cubic feet per second, in subwatershed reservoir No. 14.

North Ford Broad River subwatershed No. 14 near Avalon, Ga.--Continued

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0.89	0.81	0.99	9.2	2.1	1.5	1.2	0.99	1.8	0.68	0.43
2	.98	.81	.81	.94	3.4	1.6	1.7	1.2	.99	1.2	.65	.42
3	*.93	.81	.77	.90	2.6	1.5	*1.4	1.3	.94	*1.0	.62	.41
4	.98	.77	.77	1.2	2.1	1.4	6.9	1.4	*.94	.94	.62	.40
5	.98	.77	.77	2.5	1.8	1.4	22	1.4	.99	.90	.65	*.39
6	.93	.77	.77	1.4	*2.3	1.4	5.5	*1.3	.99	.82	.62	.38
7	.89	.81	.77	1.2	1.8	1.6	2.6	1.3	.94	.78	.59	.38
8	.85	.98	.77	*1.2	1.8	2.1	4.8	*1.6	.90	.78	.59	.48
9	.81	.85	.77	1.2	1.8	1.5	4.0	1.2	.94	.74	.59	.90
10	.81	.77	.77	1.1	1.4	1.4	2.5	1.2	.94	.74	.56	.90
11	.77	.77	.77	1.1	1.3	1.3	1.3	1.8	.94	.71	.56	.65
12	.77	.77	.89	1.0	1.2	1.3	1.3	1.4	.90	.68	.53	.56
13	.77	.73	.93	1.0	1.2	1.3	1.3	1.2	.82	.68	.53	.59
14	.77	.73	.93	.99	1.2	1.3	1.3	1.2	.86	.65	.50	.59
15	.77	.73	1.1	1.0	1.2	1.2	1.2	1.1	.82	.65	.62	.62
16	.77	1.0	1.1	1.0	1.2	1.2	1.2	1.1	.82	.74	.59	.90
17	.77	5.0	.93	.99	1.2	1.2	1.2	1.1	1.0	.94	.56	1.7
18	.85	4.5	.89	.90	1.2	1.3	2.3	1.0	.86	.82	1.2	1.6
19	.85	1.6	.85	.90	1.3	1.7	1.3	1.0	.86	.82	.94	.99
20	.85	1.3	.85	.90	1.2	1.4	1.2	1.0	.86	.74	.74	.94
21	1.1	1.1	*.89	.94	1.2	1.3	1.2	.99	.90	.68	.68	.86
22	1.4	1.0	1.2	1.2	1.2	2.1	1.3	1.0	.82	.65	.64	.82
23	1.0	.98	2.2	1.6	1.1	1.6	1.3	1.0	.74	.65	.60	.94
24	.93	.93	4.0	1.2	1.1	1.9	1.2	.99	1.0	.98	.56	.78
25	.85	.93	2.2	2.2	1.3	3.6	1.2	.99	1.2	*3.0	.52	.68
26	.85	.89	1.6	2.2	2.5	2.3	1.2	.99	.99	1.1	.50	.68
27	.85	.89	1.3	1.8	2.3	1.8	1.2	.99	.94	.90	.48	.68
28	.81	.85	1.2	1.6	*2.6	1.6	1.2	.94	1.2	.82	.46	.82
29	.81	.85	1.1	3.3	-	1.4	1.2	1.0	1.2	.74	.45	1.0
30	.81	*.85	1.1	3.4	-	1.4	1.2	1.1	1.2	.74	.44	.94
31	.81	-----	1.0	5.0	-	1.3	-----	1.1	-----	.71	.44	-----
Total	27.32	34.63	34.81	46.85	53.3	49.5	78.7	56.09	28.49	36.92	18.71	22.43
Mean	0.881	1.15	1.12	1.51	1.90	1.60	2.62	1.16	0.950	1.19	0.604	0.748
(†)	24.9	25.0	25.2	28.4	26.6	25.7	26.8	25.3	26.8	24.8	24.3	25.3
(*)	-0.005	0	0	+0.05	-0.03	-0.01	+0.02	-0.02	+0.025	-0.03	-0.008	+0.017

Adjusted for change in contents in subwatershed reservoir No. 14

	Mean	0.876	1.15	1.12	1.56	1.87	1.59	2.64	1.14	0.975	1.16	0.596	0.765
Cfem	0.730	0.958	0.933	1.30	1.56	1.32	2.20	0.950	0.812	0.967	0.497	0.638	
In.	0.84	1.07	1.08	1.50	1.62	1.52	2.46	1.10	0.91	1.11	0.57	0.71	

	Observed						Adjusted					
Calendar year 1956:	Max	27	Min	0.53	Mean	1.66	Mean	1.66	Cfem	1.38	In.	18.79
Water year 1956-57:	Max	22	Min	0.38	Mean	1.28	Mean	1.28	Cfem	1.07	In.	14.49

Peak inflow, average for interval shown (base, 80 cfs).--Apr. 5 (6 to 6:15 a.m.) 104 cfs; July 24 (3:30 to 3:45 p.m.) 166 cfs.

* Discharge measurement made on this day.

† Contents, in acre-feet, at end of month in subwatershed reservoir No. 14.

* Change in contents, equivalent in cubic feet per second, in subwatershed reservoir No. 14.

Note.--No gage-height record Nov. 11-20, Aug. 22 to Sept. 5; discharge estimated on basis of recorded range in stage and records for stations on nearby streams.

Toms Creek near Martin, Ga.

Location.--Lat 34°28', long 83°13', on left bank 30 ft (revised) downstream from highway bridge on county road, 1.2 miles upstream from mouth, and 3 miles southwest of Martin, Stephens County.

Drainage area.--10.3 sq mi.

Records available.--June 1954 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 681.66 ft above mean sea level (levels by Soil Conservation Service).

Extremes.--Maximum discharge during year, 304 cfs Apr. 5 (gage height, 7.88 ft); minimum, 2.2 cfs Sept. 5-8.

1954-57: Maximum discharge, 726 cfs Mar. 16, 1956 (gage height, 8.41 ft); minimum, 1.2 cfs Aug. 14, Sept. 2, 1956, caused by storage in small flood-detention reservoir upstream.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair. Natural flow of stream affected by storage, approximately 30 acre-ft, in small flood-detention reservoir upstream during period Oct. 25 to Nov. 16. Storm runoff at gage affected by three small flood-detention reservoirs (combined capacity of reservoirs, 1,150 acre-ft) Oct. 1-24 and by four reservoirs (combined capacity of reservoirs, 1,350 acre-ft) Oct. 25 to Sept. 30.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	7.1	6.7	7.6	66	21	16	7.3	8.3	22	4.6	2.8
2	6.4	6.0	6.5	7.3	29	18	20	7.8	6.9	11	*3.7	2.8
3	*5.2	5.6	6.5	7.0	22	16	*15	*12	6.9	*7.8	3.4	2.6
4	*5.2	5.6	*6.2	16	18	16	59	15	*6.1	6.1	3.7	2.4
5	5.2	5.6	5.9	32	*15	17	*175	11	6.9	5.7	3.7	*2.4
6	5.2	5.6	6.2	15	21	15	44	8.8	6.9	4.9	3.2	2.2
7	5.2	6.4	6.2	12	16	32	32	8.8	6.5	4.3	3.2	2.2
8	4.9	9.4	5.6	10	15	*20	43	10	6.5	4.3	3.2	3.4
9	4.6	6.8	5.6	9.7	14	15	36	8.8	7.3	4.3	3.2	11
10	4.6	6.0	5.6	*9.4	13	13	*33	8.8	7.3	4.0	3.2	8.8
11	4.6	6.0	5.6	7.9	12	12	32	25	7.8	3.7	2.8	5.7
12	4.6	6.0	7.3	7.6	11	12	33	15	6.9	3.4	2.6	4.9
13	4.6	5.6	8.8	8.2	11	12	d20	12	*8.1	4.0	2.6	4.9
14	4.3	5.6	8.5	7.9	10	13	d15	9.4	5.7	3.4	2.6	4.6
15	4.3	5.2	14	8.5	9.8	*11	d14	8.8	5.3	3.2	4.0	6.1
16	4.3	6.4	12	8.8	12	10	*d14	8.3	7.8	4.3	3.4	11
17	4.6	6.0	8.8	8.2	9.8	10	d14	7.8	10	4.9	3.7	4.1
18	*5.2	26	8.2	7.6	*9.4	16	d21	8.3	6.5	4.9	20	23
19	4.6	*12	7.6	7.6	15	23	d19	8.3	12	5.7	13	8.7
20	4.9	9.7	*7.6	7.9	14	16	d15	7.8	14	4.9	11	13
21	9.0	9.4	8.2	8.2	11	14	d12	7.3	11	4.3	*6.9	10
22	15	9.4	16	20	11	25	d13	7.3	7.8	3.7	5.3	7.4
23	9.4	8.2	28	a27	10	17	d17	7.3	6.5	3.7	4.6	*14
24	7.1	8.2	47	a19	11	20	d11	6.9	11	33	4.3	7.4
25	6.0	8.2	20	a28	17	44	d9.0	7.3	16	*17	4.3	5.3
26	5.2	8.2	14	a23	39	*20	7.8	7.3	12	8.8	4.0	4.6
27	4.9	7.9	11	a21	28	14	7.8	7.3	11	6.5	4.0	4.6
28	4.6	7.6	*9.7	a22	50	12	7.3	6.9	14	6.1	3.4	7.4
29	4.6	7.8	8.8	a36	-	10	7.3	8.8	13	5.7	3.2	12
30	4.6	7.0	8.2	a32	-	8.8	7.3	12	17	4.9	3.2	9.8
31	*5.2	-	7.9	*36	-	8.3	-	10	-	4.6	3.0	-
Total	174.9	288.3	328.2	478.4	500.0	511.1	769.5	297.4	271.0	215.1	147.0	246.0
Mean	5.64	9.61	10.6	15.4	17.9	16.5	25.6	9.59	9.03	6.94	4.74	8.20
Cfsm	0.548	0.933	1.03	1.50	1.74	1.60	2.49	0.951	0.877	0.674	0.460	0.796
In.	0.63	1.04	1.19	1.75	1.81	1.84	2.78	1.07	0.98	0.78	0.53	0.89
Calendar year 1956: Max	290				Min 1.5	Mean 11.9		Cfsm 1.16	In. 15.77			
Water year 1956-57: Max	175				Min 2.2	Mean 11.6		Cfsm 1.13	In. 15.27			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorder graph, high-water marks from crest-stage indicator, and records for nearby stations.

d Doubtful gage-height record; discharge computed on basis of recorder graph, 1 discharge measurement, and records for nearby stations.

North Fork Broad River near Carnesville, Ga.

Location.--Lat 34°19', long 83°11', at bridge on State Highway 51, 1 mile downstream from Unawatt Creek, 3 miles upstream from confluence with Middle Fork Broad River, and 4½ miles southeast of Carnesville, Franklin County.

Drainage area.--119 sq mi.

Records available.--October 1942 to December 1944, April 1954 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 600.33 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Oct. 1, 1942, to Dec. 31, 1944, wire-weight gage at same site and datum.

Average discharge.--5 years (1942-44, 1954-57), 139 cfs.

Extremes.--Maximum discharge during year, 2,060 cfs Apr. 5 (gage height, 5.95 ft); minimum, 21 cfs Sept. 7, 8.
1942-44, 1954-57: Maximum discharge, 4,700 cfs Jan. 18, 1943 (gage height, 7.6 ft, from graph based on gage readings); minimum, 16 cfs Oct. 5, 1954.

Remarks.--Records good. Storm runoff at gage affected for short periods by eight small flood-detention reservoirs (combined capacity of reservoirs, 2,950 acre-ft).

Revisions (water years).--WSP 1383: 1943-44.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

1.9	17	3.0	205
2.0	23	3.5	370
2.1	31	4.0	575
2.3	57	5.0	1,170
2.5	91	5.4	1,500

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	65	68	87	422	252	134	95	73	239	38	27
2	60	63	67	84	406	180	182	93	68	111	37	25
3	59	57	67	78	282	150	146	97	65	84	36	25
4	*62	56	65	86	219	141	194	124	63	73	35	23
5	60	56	65	276	180	155	1,460	105	*70	67	37	25
6	59	54	63	192	182	134	1,330	95	73	60	32	24
7	67	56	63	141	168	139	539	89	70	56	29	22
8	56	82	63	119	150	225	286	87	82	53	29	25
9	53	68	63	107	139	168	290	86	84	50	29	47
10	50	60	63	*107	130	141	249	84	73	49	28	68
11	49	59	80	97	124	130	195	198	75	*44	27	54
12	49	57	67	83	113	124	185	158	70	42	25	43
13	47	56	77	89	111	122	168	115	63	41	25	39
14	47	54	80	86	105	132	148	103	60	41	24	41
15	46	56	101	87	101	126	*132	93	57	37	26	42
16	46	57	111	89	103	119	126	91	60	49	30	60
17	46	304	91	86	101	111	124	84	73	63	25	130
18	49	335	82	78	95	115	160	82	65	60	67	222
19	53	*172	77	77	111	239	165	82	54	62	75	105
20	51	117	73	77	*119	168	141	80	95	57	68	93
21	68	99	75	78	105	137	128	75	113	47	*59	86
22	119	95	117	97	99	205	124	73	67	43	49	73
23	91	84	239	246	93	168	134	73	59	42	42	101
24	70	78	356	162	91	158	124	71	59	65	39	77
25	63	77	265	222	113	506	115	75	75	122	38	63
26	60	77	165	233	255	290	111	71	68	67	37	59
27	60	73	130	192	268	192	107	73	107	54	33	57
28	57	70	115	172	259	168	97	67	175	53	32	65
29	54	70	105	265	-	150	95	67	132	46	30	95
30	56	68	95	398	-----	139	93	86	107	42	29	95
31	57	-----	91	265	-----	132	-----	82	-----	41	29	-----
Total	1,829	2,675	3,219	4,466	4,644	5,316	7,482	2,854	2,353	1,960	1,139	1,911
Mean	59.0	89.2	104	144	166	171	249	92.1	78.4	63.2	36.7	63.7
Cfs/m	0.496	0.750	0.874	1.21	1.39	1.44	2.09	0.774	0.659	0.531	0.308	0.535
In.	0.57	0.84	1.01	1.40	1.45	1.66	2.33	0.89	0.74	0.61	0.36	0.60

Calendar year 1956: Max 1,880 Min 19 Mean 116 Cfs/m 0.975 In. 13.23
Water year 1956-57: Max 1,460 Min 22 Mean 109 Cfs/m 0.916 In. 12.46

Peak discharge (base, 1,500 cfs).--Apr. 5 (1 p.m.) 2,060 cfs (5.95 ft).

* Discharge measurement made this day.

Broad River near Bell, Ga.

Location.--Lat 33°58', long 82°46', at downstream side of main channel pier of bridge on State Highway 17, half a mile downstream from Long Creek, 1 mile south of Bell's Cross-roads, and 12 miles southeast of Elberton, Elbert County.

Drainage area.--1,430 sq mi.

Records available.--November 1926 to July 1932, August 1937 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 357.16 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to October 1928, staff gage at railroad bridge about 1 mile downstream at datum 1.12 ft lower. October 1928 to July 1932 staff gage and August 1937 to January 1939 wire-weight gage, at present site and datum.

Average discharge.--23 years (1928-31, 1937-57), 1,629 cfs.

Extremes.--Maximum discharge during year, 11,900 cfs Apr. 7 (gage height, 16.1 ft); minimum, 165 cfs Sept. 7, 8, 1926-32, 1937-57; Maximum discharge, 79,400 cfs Oct. 2, 1929 (gage height, 34.8 ft), from rating curve extended above 27,000 cfs on basis of slope-conveyance studies; minimum, 108 cfs Oct. 8, 1954.

Remarks.--Records good.

Revisions (water years).--WSP 1172: 1928-30. WSP 1383: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 19 to Dec. 22, May 14 to Aug. 18, Sept. 17-30)

2.4	165	6.0	1,820
3.0	337	10.0	5,180
4.0	720	15.6	11,300

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	680	452	540	845	2,940	2,780	1,310	895	1,200	1,120	351	221
2	800	468	520	795	3,330	2,060	1,430	895	920	1,280	334	210
3	540	480	508	*745	2,700	1,520	1,580	920	795	845	325	196
4	520	468	500	720	2,300	1,340	1,370	1,400	745	680	316	190
5	520	444	488	2,220	1,980	2,220	4,890	2,460	*870	600	408	176
6	560	448	484	2,940	1,640	1,980	11,200	1,640	845	560	398	168
7	820	448	480	1,820	1,580	1,580	11,300	1,070	870	520	331	165
8	660	476	480	1,340	1,460	1,580	4,600	945	770	484	298	165
9	520	620	472	1,140	1,340	1,820	2,780	895	895	460	280	193
10	472	600	476	1,040	1,250	1,460	2,380	845	995	440	274	246
11	*440	516	480	970	1,170	1,280	1,900	3,860	820	419	263	374
12	422	488	476	895	1,100	1,200	1,700	6,850	770	405	252	354
13	412	484	472	845	*1,020	1,140	1,580	3,640	720	391	249	310
14	408	480	520	820	995	*1,340	1,480	1,640	640	374	277	286
15	405	476	560	795	945	1,400	1,370	1,280	620	371	269	274
16	398	472	620	845	920	1,200	1,310	1,640	600	402	269	286
17	385	500	680	845	920	1,100	1,250	1,490	640	*620	286	426
18	378	2,070	600	770	870	1,040	1,340	1,120	720	540	709	*700
19	395	1,700	560	745	870	1,640	1,700	995	600	520	745	945
20	402	1,020	540	720	970	1,900	1,520	945	560	520	600	720
21	476	*795	580	700	970	1,430	1,310	870	745	484	460	795
22	720	700	600	700	870	2,780	1,250	820	720	422	391	600
23	970	660	2,110	970	820	2,940	*1,340	770	560	388	340	520
24	770	620	5,460	1,750	795	2,140	1,400	870	520	388	313	488
25	600	600	4,800	1,640	820	6,350	1,170	1,020	680	600	292	476
26	520	580	2,700	2,860	1,040	6,650	1,100	945	820	600	283	456
27	504	560	1,580	2,540	1,980	3,640	1,020	920	680	488	274	444
28	484	540	1,280	1,820	2,220	2,060	995	820	770	440	*230	504
29	476	540	1,100	1,640	-	1,700	945	745	1,100	422	246	680
30	448	540	970	2,940	-----	1,520	920	1,140	920	388	241	770
31	452	-----	895	3,400	-----	1,370	-----	1,700	-----	371	229	-----
Total	16,357	19,245	32,531	42,825	39,815	64,160	69,420	46,045	23,110	16,542	10,563	12,338
Mean	528	642	1,049	1,381	1,422	2,070	2,314	1,485	770	534	341	411
Cfs/m	0.369	0.449	0.734	0.956	0.994	1.45	1.62	1.04	0.538	0.373	0.238	0.287
In.	0.43	0.50	0.85	1.11	1.04	1.67	1.81	1.20	0.60	0.43	0.27	0.32

Calendar year 1956: Max 16,500 Min 128 Mean 1,149 Cfs/m 0.803 In. 10.94
Water year 1956-57: Max 11,300 Min 165 Mean 1,077 Cfs/m 0.753 In. 10.23

Peak discharge (base, 14,000 cfs).--No peak above base.

* Discharge measurement made on this day.

Little River near Mount Carmel, S. C.

Location.--Lat 34°04', long 82°30', on right bank 480 ft downstream from Island Ford Bridge, 2.8 miles upstream from Calhoun Creek, and 4.5 miles north of Mount Carmel, McCormick County.

Drainage area.--217 sq mi.

Records available.--December 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 353.97 ft above mean sea level, datum of 1929, supplementary adjustment of 1936.

Average discharge.--17 years (1940-57), 195 cfs.

Extremes.--Maximum discharge during year, 1,900 cfs Apr. 5 (gage height, 9.23 ft); minimum, 2.5 cfs Sept. 6.

1939-57: Maximum discharge, 20,800 cfs Aug. 14, 1940 (gage height, 29.60 ft, from high-water mark), from rating curve extended above 13,000 cfs by logarithmic plotting; minimum, 0.7 cfs Oct. 9, 1954.

Remarks.--Records good.

Revisions (water years).--WSP 1433: 1948.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

0.4	0	1.5	99
.5	3.6	2.0	179
.7	13	4.0	554
.9	26	6.0	1,020
1.2	56	7.0	1,280

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	46	52	80	340	446	166	83	86	140	17	5.8
2	66	46	50	77	358	285	187	83	72	55	18	4.9
3	57	44	49	70	270	189	166	85	66	151	18	4.0
4	*54	44	48	70	227	170	149	105	68	56	16	3.6
5	55	44	48	506	193	466	1,130	123	*120	54	15	3.2
6	54	44	48	219	166	499	1,210	99	101	45	14	2.9
7	60	45	49	137	150	209	527	85	137	42	12	3.2
8	60	*46	48	110	139	211	278	80	91	38	11	5.6
9	41	55	48	99	133	190	304	77	75	36	11	15
10	42	60	48	96	128	158	313	75	77	34	9.9	26
11	39	52	49	89	121	142	209	582	72	32	8.9	33
12	38	49	49	83	112	134	182	721	70	30	8.4	25
13	38	48	49	82	104	138	186	262	66	29	15	20
14	38	47	52	82	101	*227	150	149	59	27	18	18
15	46	47	53	80	99	219	142	115	56	26	15	20
16	37	47	60	82	96	166	131	102	54	25	9.9	22
17	36	50	60	80	96	145	128	91	92	*25	8.9	22
18	36	71	53	75	89	139	162	83	137	25	17	39
19	38	92	*50	70	97	342	281	80	75	25	18	64
20	42	65	49	69	128	313	174	76	66	26	25	44
21	46	57	55	70	113	201	139	72	73	27	20	34
22	132	57	79	72	97	570	128	66	56	23	17	32
23	112	57	246	169	93	377	136	65	50	21	14	32
24	65	54	691	219	91	304	*144	132	49	20	13	31
25	54	54	554	197	94	1,280	117	185	65	19	12	24
26	48	53	260	304	121	854	107	149	64	23	11	20
27	47	53	163	211	134	393	99	113	81	22	10	20
28	47	52	128	171	295	270	96	86	87	22	*9.4	28
29	46	50	110	157	-	219	91	70	77	22	8.4	50
30	45	52	94	*349	-----	193	86	75	70	20	7.0	70
31	45	-----	85	304	-----	174	-----	117	-----	18	5.6	-----
Total	1,644	1,585	3,477	4,279	4,185	9,623	7,278	4,286	2,332	1,138	414.4	722.2
Mean	53.0	52.8	112	138	149	310	243	138	77.1	36.7	13.4	24.1
Cfsm	0.244	0.243	0.516	0.636	0.687	1.43	1.12	0.636	0.355	0.169	0.062	0.111
In.	0.28	0.27	0.59	0.73	0.72	1.65	1.25	0.73	0.40	0.19	0.07	0.12
Calendar year 1956: Max	3,170	Min	2.8	Mean	147	Cfsm	0.677	In.	9.20			
Water year 1956-57: Max	1,280	Min	2.9	Mean	112	Cfsm	0.516	In.	7.00			

Peak discharge (base, 2,500 cfs).--No peak above base.

* Discharge measurement made on this day.

Little River near Washington, Ga.

Location.--Lat 33°36'40", long 82°44'40", near left bank on downstream side of highway bridge pier, 700 ft downstream from Reedy Creek, 4 miles downstream from Georgia Railroad bridge, 6 miles upstream from Williams Creek, and 9 miles south of Washington, Wilkes County.

Drainage area.--291 sq mi.

Records available.--October 1949 to September 1957.

Gage.--Water-stage recorder. Altitude of gage is 360 ft (by barometer).

Average discharge.--8 years, 185 cfs.

Extremes.--Maximum discharge during year, 3,480 cfs Mar. 26 (gage height, 17.0 ft); minimum, 8.8 cfs Sept. 8.

1949-57: Maximum discharge, 13,100 cfs Mar. 4, 1952 (gage height, 27.6 ft); minimum, 0.32 cfs Oct. 12-16, 1954.

Remarks.--Records good.

Revisions.--WSF 1383: Drainage area.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	32	41	103	630	570	239	90	150	70	29	13
2	49	31	38	94	346	314	253	91	117	67	27	12
3	45	31	36	*84	298	211	246	113	102	57	25	11
4	45	30	34	80	274	190	232	1,140	*94	73	23	11
5	45	29	34	397	225	550	746	3,020	109	54	21	10
6	40	29	34	496	197	460	1,240	1,580	104	45	21	9.3
7	42	30	34	253	183	282	850	314	100	38	18	9.0
8	38	30	34	176	162	253	388	183	85	34	16	9.3
9	*33	31	34	143	150	225	274	147	85	32	15	15
10	*30	30	35	129	142	197	225	127	91	30	14	33
11	27	29	35	113	132	169	211	530	83	27	13	41
12	25	29	35	103	119	146	204	1,840	78	25	12	31
13	24	28	35	99	*113	*188	190	1,870	74	23	12	19
14	24	28	35	95	108	690	176	578	70	22	12	16
15	23	28	42	98	103	532	162	204	62	23	12	15
16	22	29	46	125	102	290	156	274	57	23	31	18
17	22	31	45	115	100	218	150	282	54	*22	22	25
18	22	37	42	98	94	183	150	424	50	24	36	*43
19	23	39	39	86	99	218	162	211	46	43	99	73
20	23	*39	38	82	108	211	156	143	44	48	290	434
21	44	35	43	83	98	169	140	118	44	39	107	438
22	115	34	58	84	88	734	139	*101	43	28	48	98
23	74	34	796	109	84	850	*298	102	41	24	33	59
24	50	32	2,190	142	85	460	314	650	39	21	27	48
25	40	32	2,660	442	93	2,190	141	750	103	25	24	36
26	36	32	1,080	1,320	137	2,980	120	293	710	37	22	31
27	34	32	260	1,150	156	1,390	110	197	102	47	19	29
28	33	32	176	433	306	460	102	139	67	113	*17	58
29	32	32	146	267	-	322	95	114	123	74	15	225
30	32	39	123	1,040	-----	274	88	274	78	48	14	149
31	32	-----	109	1,130	-----	246	-----	290	-----	36	13	-----
Total	1,181	954	8,387	9,169	4,732	16,172	7,957	16,189	3,005	1,272	1,067	2,018.6
Mean	38.1	31.8	271	296	169	522	265	522	100	41.0	35.1	67.3
Cfsm	0.131	0.109	0.931	1.02	0.581	1.79	0.911	1.79	0.344	0.141	0.121	0.231
In.	0.15	0.12	1.07	1.18	0.60	2.06	1.02	2.06	0.38	0.16	0.14	0.26

Calendar year 1956: Max 5,200 Min 3.7 Mean 208 Cfsm 0.715 In. 9.75
 Water year 1956-57: Max 3,020 Min 9.0 Mean 198 Cfsm 0.680 In. 9.20

Peak discharge (base, 3,000 cfs).--Dec. 25 (3 a.m.) 3,060 cfs (16.0 ft); Mar. 26 (1 a.m.) 3,480 cfs (17.0 ft); May 5 (9 a.m.) 3,440 cfs (16.9 ft).

* Discharge measurement made on this day.

Clark Hill Reservoir near Clarks Hill, S. C.

Location.--Lat 33°39'40", long 82°12'00", in left spillway elevator tower of dam on Savannah River, 1.6 miles west of Clarks Hill, McCormick County, 3.7 miles upstream from Kiokee Creek, and at mile 222.3 upstream from Savannah, Ga.

Drainage area.--6,150 sq mi, approximately.

Records available.--October 1951 to September 1952 (elevations and contents at end of month), October 1952 to September 1957.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers). Prior to Oct. 1, 1952, staff gage at same site and datum.

Extremes.--Maximum elevation during year, 331.19 ft May 13; minimum, 312.02 ft Dec. 21. 1952-57: Maximum elevation, 333.20 ft May 7, 1953; minimum, 296.48 ft Feb. 1, 1956.

Remarks.--Lake is formed by concrete dam with earth dam at each end; dam completed in 1952. Storage began in December 1951. Usable capacity, 75,360,000,000 cu ft between elevations 305.0 ft (normal limit of drawdown) and 335.0 ft (top of spillway gates). Dead storage below 305.0 ft, 50,960,000,000 cu ft. Figures given herein represent usable contents. Elevation of spillway crest, 300.0 ft. Reservoir is used for flood control, generation of power, and navigation.

Capacity table, water year 1956-57 (elevation, in feet, and
usable contents, in billions of cubic feet)
(Computed from table prepared by Corps of Engineers)

310.0	8.93	325.0	43.12
315.0	18.75	330.0	58.37
320.0	30.06	335.0	75.36

Elevation, in feet, at 12 p.m., water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19.36	16.69	14.02	14.34	16.74	20.51	26.16	30.46	29.91	29.46	26.48	23.15
2	19.27	16.59	14.08	14.24	17.51	20.78	26.24	30.44	29.98	29.39	26.33	22.98
3	19.18	16.56	13.90	14.13	18.05	21.08	26.38	30.46	29.88	29.33	26.29	22.75
4	19.10	16.61	13.72	14.12	18.29	21.16	26.56	30.91	29.84	29.29	26.35	22.54
5	19.00	16.45	13.54	14.32	18.47	21.38	27.67	31.06	29.80	29.19	26.17	22.33
6	19.00	16.29	13.37	14.62	18.61	21.55	28.94	30.90	29.83	29.14	25.97	22.15
7	19.07	16.17	13.21	14.62	18.75	21.66	29.77	30.70	29.84	29.15	25.81	22.06
8	18.94	16.13	13.15	14.55	18.84	21.84	30.01	30.49	29.87	28.99	25.64	22.13
9	18.80	15.93	13.21	14.53	18.99	21.92	30.01	30.26	30.00	28.85	25.49	22.00
10	18.66	15.86	13.00	14.49	19.21	22.06	30.01	30.18	29.89	28.75	25.40	21.87
11	18.52	15.68	12.78	14.43	19.18	22.05	29.95	30.67	29.82	28.62	25.41	21.75
12	18.38	15.73	12.60	14.43	19.19	22.09	29.87	31.08	29.75	28.48	25.24	21.58
13	18.31	15.54	12.43	14.54	19.23	22.43	29.94	31.07	29.70	28.42	25.18	21.43
14	18.33	15.38	12.30	14.42	19.24	22.68	30.14	30.96	29.64	28.43	25.00	21.33
15	18.16	15.24	12.31	14.37	19.23	22.82	30.11	30.82	29.62	28.30	24.89	21.36
16	18.00	15.12	12.52	14.28	19.34	22.92	30.07	30.67	29.65	28.18	24.75	21.19
17	17.84	15.09	12.47	14.24	19.42	23.06	30.03	30.60	29.56	28.06	24.81	21.10
18	17.69	15.30	12.36	14.09	19.34	23.07	30.11	30.57	29.49	27.97	24.85	21.09
19	17.56	15.28	12.24	14.04	19.37	23.17	30.17	30.63	29.43	27.86	24.87	21.07
20	17.50	15.17	12.13	14.12	19.37	23.25	30.27	30.44	29.38	27.78	24.76	21.10
21	17.56	15.08	12.04	13.98	19.37	23.38	30.43	30.28	29.26	27.82	24.64	21.08
22	17.48	14.95	12.18	13.87	19.34	23.59	30.42	30.15	29.24	27.64	24.48	21.22
23	17.46	14.78	12.74	13.92	19.39	23.84	30.44	30.02	29.29	27.48	24.33	21.07
24	17.42	14.72	13.44	14.21	19.53	24.26	30.47	30.03	29.21	27.33	24.22	20.87
25	17.35	14.73	14.05	14.62	19.43	25.00	30.46	30.06	29.23	27.21	24.21	20.69
26	17.27	14.61	14.24	15.01	19.48	25.54	30.47	30.17	29.22	27.12	24.04	20.51
27	17.23	14.43	14.31	15.35	19.69	25.81	30.48	30.10	29.20	27.11	23.85	20.40
28	17.25	14.30	14.37	15.42	20.18	25.90	30.56	30.03	29.19	27.14	23.65	20.44
29	17.08	14.22	14.44	15.58	-	25.94	30.48	29.95	29.24	26.95	23.45	20.50
30	16.93	14.10	14.52	15.98	-	26.00	30.47	29.93	29.47	26.78	23.26	20.46
31	16.81	-	14.40	16.32	-	26.10	-	29.91	-	26.64	23.17	-
(+)	22.83	16.97	17.56	21.72	30.53	46.48	59.97	58.10	56.75	48.12	38.34	31.26
(*)	-2,266	-2,261	+220	+1,553	+3,642	+5,965	+5,204	-698	-521	-3,222	-3,651	-2,731

Calendar year 1956..... + 798

Water year 1956-57..... + 75

† Contents, in billions of cubic feet, at end of month.

* Change in contents, equivalent in cubic feet per second.

Note.--Add 300 ft to obtain elevation above mean sea level.

Savannah River near Clarks Hill, S. C.

Location.--Lat 33°38'40", long 82°12'05", on right bank 1.2 miles downstream from Clark Hill Reservoir dam, 2.4 miles southwest of Clarks Hill, McCormick County, 2.5 miles upstream from Kiokee Creek, and at mile 221.1 upstream from Savannah, Ga.

Records available.--May 1940 to June 1954 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 182.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers). Auxiliary water-stage recorder 6.3 miles downstream from base gage.

Average discharge.--13 years (1940-53), 8,479 cfs.

Extremes.--Maximum discharges and minimum daily discharges for the water years 1940-54 are contained in the following table:

Water year	Maximum			Minimum daily	
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)
1940†	Aug. 14, 1940	196,000	29.34	June 24, July 7, 9, 1940	1,630
1941	July 8, 1941	54,900	14.12	June 11, 1941	1,120
1942	Mar. 23, 1942	99,300	20.77	Nov. 29, 1941	1,450
1943	Jan. 20, 1943	111,000	22.16	Oct. 20, 1942	1,530
1944	Mar. 21, 1944	111,000	22.31	Aug. 28, 1944	1,930
1945	Apr. 26, 1945	61,200	15.72	Sept. 11, 1945	1,800
1946	Jan. 8, 1946	110,000	22.11	Aug. 20, 1946	2,460
1947	Jan. 21, 1947	87,000	19.99	July 29, 1947	1,960
1948	Feb. 10, 1948	63,600	16.61	Oct. 7, 8, 1947	2,200
1949	Nov. 30, 1948	154,000	26.35	Nov. 2, 1948	2,920
1950	Oct. 9, 1949	36,800	11.61	Sept. 27, 1950	2,570
1951	Oct. 22, 1950	48,700	14.54	Aug. 29, 1951	1,990
1952	Mar. 7, 1952	35,400	11.56	Oct. 4, 1951	1,830
1953	May 7, 1953	30,000	10.52	Jan. 11, 1953	2,740
1954††	Mar. 30, 1954	30,000	10.67	Jan. 17, 1954	1,730

† Period May to September.

‡ Occurred Mar. 25, 1952.

†† Period October to June.

1940-54: Maximum discharge, 196,000 cfs Aug. 14, 1940 (gage height, 29.34 ft); minimum daily, 1,120 cfs June 11, 1941.

Remarks.--Records fair. Prior to December 1951 some regulation by Burton and Mathis Reservoirs and powerplants above station. From December 1951 flow completely regulated by Clark Hill Reservoir.

Discharge, in cubic feet per second, May to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	5,290	3,170	2,370	54,300
2								-	3,280	2,440	2,340	16,700
3								-	4,360	2,490	2,340	9,210
4								-	2,900	3,250	2,030	7,860
5								-	3,230	3,580	2,900	6,660
6								-	3,230	3,640	2,400	6,660
7								-	3,660	1,630	2,080	6,220
8								-	3,620	2,000	2,910	5,580
9								-	3,580	1,630	4,480	5,360
10								-	3,600	3,640	3,650	*4,600
11								-	5,630	9,020	2,640	a5,000
12								-	8,370	4,130	5,460	a5,500
13								-	8,040	5,210	117,000	a5,500
14								3,520	4,090	6,950	*185,000	a5,000
15								3,800	4,500	4,810	167,000	a4,400
16								3,870	5,450	3,720	80,400	a3,600
17								3,870	4,340	7,350	17,800	a3,000
18								4,480	4,540	9,900	11,400	a3,200
19								3,560	4,690	12,300	9,120	a3,800
20								2,690	3,550	7,920	6,130	a3,600
21								2,690	3,180	5,260	6,180	a4,200
22								2,050	2,780	3,450	5,340	4,040
23								5,070	2,390	*2,830	4,820	a3,600
24								4,880	1,630	2,940	4,670	a2,800
25								3,580	*6,200	3,510	4,650	a2,800
26								3,900	4,250	2,940	a3,600	a3,000
27								3,260	4,780	2,990	a3,200	a3,400
28								3,260	3,610	3,760	a3,400	3,620
29								*4,020	2,830	3,210	a4,000	a3,800
30								5,790	2,870	2,270	10,500	a3,200
31								6,250	-----	1,880	46,300	-----
Total								-	122,270	133,800	726,110	200,210
Mean Cfs								-	4,076	4,316	23,420	6,674
In.								-	-	-	-	-
Calendar year	: Max			Min	Mean			Cfs	In.			
Water year	: Max			Min	Mean			Cfs	In.			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for other stations in same drainage basin.

Savannah River near Clarks Hill, S. C.--Continued

Discharge, in cubic feet per second, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,400	3,950	5,640	8,330	5,320	4,670	8,240	4,140	3,550	4,220	4,460	4,000
2	2,200	4,040	4,180	9,190	5,020	4,270	8,580	3,910	2,070	4,390	4,100	2,800
3	*3,200	10,200	4,260	13,600	4,380	5,270	8,160	4,390	1,140	4,310	5,250	1,800
4	2,800	4,690	4,910	14,600	4,170	2,360	7,790	5,090	1,700	4,280	5,000	*2,000
5	2,600	3,000	4,920	12,200	4,680	4,510	10,400	3,070	3,300	5,680	12,300	3,170
6	3,200	2,960	5,210	7,610	4,650	5,290	14,000	3,350	3,550	11,400	14,400	3,170
7	3,000	3,880	5,000	*6,300	4,650	7,590	10,700	4,590	2,970	41,900	10,300	2,840
8	2,400	3,250	4,880	7,350	4,900	17,900	7,720	*3,960	2,970	53,800	8,840	3,140
9	2,400	2,920	5,290	7,300	5,390	18,400	7,590	5,440	2,680	35,500	6,950	2,040
10	3,200	3,560	3,290	6,600	4,150	11,200	*7,910	4,590	1,140	*13,800	6,080	2,040
11	2,800	3,670	3,630	6,610	*3,560	*7,540	7,900	4,190	1,120	12,100	3,920	3,070
12	3,000	3,110	4,800	6,070	3,930	7,940	7,070	3,170	3,000	15,800	*2,690	3,390
13	3,400	6,510	4,740	4,490	4,380	6,840	5,990	1,820	3,270	12,500	3,920	3,610
14	3,400	17,400	5,680	4,250	5,080	6,330	5,140	2,470	4,420	12,400	4,310	3,120
15	2,400	14,200	7,020	5,630	5,980	5,750	4,900	3,450	3,100	10,300	4,100	2,480
16	2,400	8,190	8,960	5,920	7,060	6,410	4,830	3,460	1,570	14,100	3,770	1,840
17	2,600	8,840	*11,900	6,950	4,700	5,780	4,950	3,720	1,480	34,700	4,130	1,840
18	2,400	4,080	18,000	8,900	4,140	5,240	4,780	3,020	1,480	*36,800	2,890	2,130
19	2,800	3,700	11,800	6,700	4,140	5,110	5,240	3,060	*1,780	18,200	2,890	1,840
20	2,400	3,920	8,610	5,490	4,930	5,660	5,230	2,440	1,720	10,800	2,090	2,450
21	3,200	4,780	7,720	4,890	4,580	5,410	4,000	2,420	1,510	8,600	3,270	1,840
22	2,000	5,010	6,570	5,280	4,110	5,890	4,000	3,610	1,840	7,510	4,590	2,170
23	2,400	4,000	4,640	6,350	5,000	5,760	4,420	3,820	3,890	6,880	4,980	2,050
24	2,800	4,400	3,990	6,030	3,550	8,630	4,420	3,840	7,810	6,350	4,200	1,930
25	2,600	4,010	6,880	5,530	2,670	14,400	4,190	3,020	18,200	7,500	2,800	1,950
26	2,800	*4,210	7,140	6,070	3,840	14,500	5,290	3,020	18,500	6,580	1,800	3,380
27	3,200	7,000	5,640	4,800	4,670	13,100	5,170	1,730	*12,800	5,800	2,600	2,860
28	*3,000	7,280	8,180	4,140	4,850	24,900	4,130	1,420	9,500	4,750	3,600	3,360
29	2,000	6,160	13,300	5,580	---	23,500	3,090	2,930	8,000	3,640	4,800	2,440
30	2,200	5,340	15,400	5,580	---	14,400	5,630	3,300	6,000	4,400	3,200	2,010
31	3,000	---	9,380	4,870	---	10,100	---	2,970	---	4,400	5,400	---
Total	84,200	165,460	217,660	213,150	128,460	283,250	189,460	105,510	136,060	424,190	152,540	76,760
Mean	2,716	5,315	7,021	6,876	4,588	9,137	6,315	3,404	4,535	13,680	4,921	2,559
Cfsm	---	---	---	---	---	---	---	---	---	---	---	---
In.	---	---	---	---	---	---	---	---	---	---	---	---

Calendar year 1940: Max - Min - Mean - Cfsm - In. -
 Water year 1940-41: Max 53,800 Min 1,120 Mean 5,964 Cfsm 0.970 In. 13.16

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1-31, June 29, 30, Aug. 24 to Sept. 4; discharge estimated on basis of records for other stations in same drainage basin.

Discharge, in cubic feet per second, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,270	2,980	2,250	5,780	6,810	7,280	11,700	4,700	5,170	8,090	4,360	2,710
2	2,790	5,710	1,880	7,790	6,910	9,200	10,500	4,730	4,240	7,240	4,110	4,070
3	2,280	4,700	2,220	12,800	5,280	18,900	9,970	5,190	4,770	7,300	2,500	4,490
4	2,740	3,130	3,710	16,600	6,110	17,500	9,340	3,550	4,780	7,000	1,750	4,560
5	2,260	2,550	23,900	14,600	5,470	12,300	9,070	3,500	4,250	4,880	2,620	4,150
6	1,980	2,750	22,400	9,470	6,230	10,300	7,910	5,530	4,280	4,150	3,920	5,610
7	2,280	2,980	11,800	7,060	8,460	11,000	6,850	6,030	5,250	3,000	3,440	8,790
8	1,750	2,640	6,190	8,040	13,400	9,900	7,880	5,940	8,110	3,000	2,980	2,130
9	3,200	3,170	4,480	*8,070	9,840	22,400	8,270	4,390	6,080	3,780	4,650	6,250
10	2,270	2,690	4,620	5,170	6,750	27,100	11,500	4,360	6,050	5,160	2,170	7,190
11	2,760	2,310	4,170	5,360	*7,350	17,400	11,500	3,670	7,330	*3,700	3,120	6,540
12	2,280	2,250	3,770	4,430	8,690	11,300	9,210	3,700	9,690	4,930	3,210	5,480
13	2,260	2,250	4,060	4,630	7,280	9,480	7,620	6,860	9,430	3,690	8,070	5,220
14	1,750	1,840	4,500	5,170	6,510	9,110	7,200	4,740	8,060	3,740	6,810	4,230
15	1,460	2,220	5,210	5,090	6,050	8,900	7,770	6,940	6,420	3,610	5,920	2,850
16	2,000	2,250	4,120	4,620	6,080	10,600	7,510	14,800	4,060	5,410	4,770	5,250
17	2,240	3,070	*3,710	4,990	21,400	21,300	7,140	13,300	3,730	3,020	5,100	3,270
18	2,270	2,260	3,690	5,000	*59,800	18,700	7,660	7,760	4,860	3,370	6,790	3,990
19	2,530	2,690	3,570	4,150	*42,000	*15,600	6,360	4,740	4,980	2,920	12,000	2,890
20	2,010	2,260	3,780	4,450	15,400	9,720	5,790	4,960	5,370	3,370	19,300	3,240
21	1,500	1,680	3,510	6,650	9,300	29,900	*4,810	12,000	4,810	2,590	22,700	3,280
22	2,020	3,440	3,020	8,060	8,060	84,900	5,880	*25,100	4,170	3,390	*18,300	1,570
23	*2,000	1,840	6,020	5,420	6,990	88,400	6,570	20,100	3,480	5,970	11,900	2,950
24	2,010	2,260	30,400	4,870	6,870	49,000	5,250	12,500	3,860	6,260	7,490	2,890
25	1,730	*2,310	35,000	5,150	11,600	23,200	5,720	10,200	4,530	11,200	5,520	3,250
26	2,530	1,810	27,900	4,110	9,910	13,100	5,090	7,330	4,470	10,400	5,270	*3,600
27	2,270	2,640	27,900	4,210	7,200	11,500	3,950	7,090	4,150	4,390	4,900	4,490
28	1,510	2,680	16,700	5,210	6,920	20,700	3,660	6,700	4,190	7,100	4,670	6,310
29	3,660	1,450	10,100	6,590	---	20,100	4,230	7,300	5,570	7,760	4,500	6,500
30	3,380	1,840	6,580	6,450	---	13,900	5,270	6,880	7,380	5,410	4,970	6,000
31	2,810	---	6,170	5,470	---	10,500	---	6,310	---	3,030	3,480	---
Total	70,800	76,830	296,530	200,240	322,470	640,990	221,180	240,760	163,520	159,560	201,290	141,730
Mean	2,284	2,561	9,565	6,459	11,520	20,680	7,373	7,766	5,451	5,147	6,493	4,724
Cfsm	---	---	---	---	---	---	---	---	---	---	---	---
In.	---	---	---	---	---	---	---	---	---	---	---	---

Calendar year 1941: Max 53,800 Min 1,120 Mean 5,900 Cfsm 0.959 In. 13.03
 Water year 1941-42: Max 88,400 Min 1,450 Mean 7,496 Cfsm 1.22 In. 16.54

* Discharge measurement made on this day.

Savannah River near Clarks Hill, S. C.--Continued

Discharge, in cubic feet per second, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a4,800	3,390	4,940	34,600	12,100	7,370	9,970	9,240	4,730	25,900	7,400	5,200
2	a4,000	4,230	6,350	14,200	9,540	6,780	9,660	10,400	5,410	27,900	*5,350	5,200
3	a3,400	3,350	7,390	11,000	10,700	8,850	9,740	8,450	6,560	25,600	4,050	5,440
4	a3,600	3,390	7,280	9,310	10,400	9,420	9,860	5,710	5,470	19,000	5,350	4,910
5	a3,200	3,350	6,630	7,310	14,400	7,240	8,950	8,330	5,720	14,100	5,050	3,340
6	a2,400	3,670	7,430	7,980	36,800	15,100	7,330	7,870	6,540	10,800	5,090	3,700
7	a2,600	3,670	7,360	7,910	37,200	23,900	8,580	7,390	5,700	15,200	6,370	2,130
8	a3,400	3,700	9,290	9,380	22,000	17,000	8,520	7,240	5,900	10,600	7,700	3,340
9	3,250	*4,300	13,600	10,700	14,100	10,400	8,270	7,610	5,820	12,900	8,740	3,660
10	2,590	3,000	11,300	9,550	11,500	9,120	8,400	6,530	7,190	19,800	6,370	3,700
11	3,210	2,690	8,620	7,660	11,900	8,900	7,990	5,580	6,730	16,800	5,210	4,170
12	3,520	4,590	7,610	5,930	*11,800	8,150	9,410	9,820	8,040	11,200	6,230	2,530
13	2,600	4,260	7,020	7,570	10,900	9,680	16,200	18,600	7,900	11,700	9,590	4,170
14	2,240	4,160	6,300	7,530	11,000	11,300	12,600	*12,300	7,740	21,400	14,100	2,130
15	2,880	4,950	4,130	7,410	9,100	9,900	9,110	8,410	4,640	16,400	9,230	2,520
16	3,270	4,040	5,750	7,110	7,490	7,790	8,540	8,240	5,830	11,600	9,120	3,280
17	3,890	2,250	6,400	7,650	9,490	8,970	8,180	7,190	5,310	9,540	5,120	4,120
18	3,540	3,130	*6,090	19,500	9,100	17,300	8,630	6,050	5,010	9,190	5,380	3,780
19	2,550	3,960	5,240	90,500	8,900	20,800	16,400	6,740	6,100	7,240	5,120	4,560
20	1,530	3,030	5,150	105,000	8,960	15,500	41,700	6,830	5,460	5,990	5,350	4,700
21	4,200	3,520	4,970	60,700	8,720	36,700	36,600	6,500	*5,290	6,940	5,660	11,000
22	7,070	4,340	4,280	21,200	8,610	63,000	20,000	5,990	4,010	7,070	6,040	*13,700
23	5,200	5,250	5,620	13,100	8,880	51,200	12,300	6,690	5,490	7,090	4,130	9,120
24	4,190	7,340	5,480	10,800	8,180	25,600	16,700	6,270	5,730	6,380	2,750	5,790
25	3,580	5,280	5,110	12,100	7,650	15,800	19,200	7,780	7,550	6,890	4,600	5,250
26	4,900	5,450	5,610	7,890	7,390	12,100	14,500	13,100	6,000	5,980	3,500	4,430
27	8,250	5,210	5,040	9,630	7,530	13,200	10,100	8,450	4,390	6,820	5,200	3,120
28	7,660	3,210	6,650	38,400	8,610	12,300	10,700	6,500	6,040	9,230	5,200	2,790
29	3,990	3,980	24,700	65,000	-	12,100	10,400	6,300	11,600	7,090	5,280	3,520
30	4,030	3,620	54,000	44,200	-	10,500	9,510	6,830	22,700	6,530	5,260	3,480
31	2,960	-	60,600	17,600	-	9,440	-	6,540	-	6,540	3,940	-
Total	118,500	120,300	325,940	698,480	340,950	495,410	387,850	249,480	200,600	379,420	187,280	138,780
Mean	3,823	4,010	10,510	22,210	12,180	15,980	12,930	8,048	6,687	12,240	6,041	4,626
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1942: Max 88,400 Min 1,530 Mean 7,826 Cfsm 1.27 In. 17.27
 Water year 1942-43: Max 105,000 Min 1,530 Mean 9,953 Cfsm 1.62 In. 21.97

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for other stations in same drain-age basin.

Discharge, in cubic feet per second, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,430	4,300	4,190	6,300	4,300	13,900	38,000	12,600	6,240	4,710	3,700	4,360
2	3,350	3,680	4,370	6,100	4,540	10,800	19,800	10,300	6,140	6,040	4,200	5,400
3	3,350	3,720	4,200	11,800	4,700	9,780	14,700	12,200	6,310	5,100	5,510	4,420
4	3,700	4,600	4,370	25,900	5,100	9,860	12,100	18,800	7,320	5,100	5,270	2,730
5	2,680	2,400	3,320	19,900	5,320	10,200	12,300	11,300	*5,810	3,930	4,700	2,730
6	3,350	3,120	4,970	11,400	4,530	9,760	11,800	10,400	5,700	3,180	4,640	2,410
7	3,370	2,460	3,580	8,470	4,460	19,500	12,500	14,200	6,620	2,730	5,680	4,010
8	3,310	5,300	4,190	8,400	4,210	32,700	11,900	11,300	6,310	2,690	5,860	4,250
9	3,980	8,560	4,570	8,640	6,250	20,300	11,100	9,810	6,350	4,650	5,500	4,200
10	3,640	9,160	3,870	8,080	15,400	*13,100	14,700	9,490	6,610	3,770	4,000	3,300
11	2,930	6,470	3,870	6,960	17,700	12,200	12,900	9,690	5,890	*3,920	3,500	3,660
12	2,650	4,880	4,130	6,430	15,800	12,000	9,440	8,890	5,860	3,920	4,250	2,750
13	3,040	3,860	3,440	6,580	16,600	15,300	21,900	8,630	5,570	3,920	4,060	4,750
14	3,920	3,630	*3,160	6,920	14,300	12,700	15,400	9,690	6,970	4,650	*3,630	5,560
15	a4,800	3,610	4,310	14,900	27,600	10,400	13,600	7,360	5,800	6,090	2,880	2,710
16	a4,000	2,740	4,830	18,700	28,400	8,950	22,400	6,490	8,330	7,660	4,010	2,980
17	a3,800	3,030	4,590	14,400	28,400	8,800	20,400	6,080	7,660	6,830	5,340	2,440
18	a4,200	3,670	3,840	9,880	33,600	8,790	15,600	8,040	7,140	3,350	5,310	*2,710
19	a3,000	3,870	2,880	8,890	29,100	9,110	12,800	8,120	5,310	5,890	4,970	2,160
20	*a3,200	5,550	3,870	7,330	26,300	67,500	12,800	8,060	4,320	5,270	4,160	3,480
21	a3,600	5,730	3,210	7,150	20,800	107,000	*12,300	11,500	4,560	4,400	3,060	4,610
22	a3,000	5,000	3,490	6,390	15,300	75,000	12,300	8,770	4,830	4,540	2,730	3,840
23	a3,200	2,440	4,320	5,820	12,100	61,100	12,100	5,970	4,950	4,460	3,150	5,720
24	a3,200	3,350	4,510	*5,270	13,900	67,600	12,800	7,410	4,830	3,970	3,130	4,530
25	a3,800	3,870	5,560	6,640	12,300	41,100	13,600	7,190	5,180	3,420	2,730	3,200
26	a3,200	5,560	8,910	5,030	10,800	21,900	14,400	7,560	4,300	2,970	3,110	2,530
27	a3,000	3,000	22,200	6,090	18,800	14,800	24,400	7,330	4,610	3,550	3,900	3,520
28	a4,000	5,490	17,300	5,890	29,600	11,300	34,500	9,080	3,490	3,790	1,930	3,560
29	a4,600	4,220	9,190	5,180	21,200	22,600	23,500	6,550	4,100	3,790	2,680	3,600
30	a4,200	3,440	7,820	5,290	-	63,100	15,800	5,860	4,200	3,790	3,390	2,720
31	a4,000	-	7,150	4,420	-	63,900	-	6,960	-	3,520	3,690	-
Total	110,500	130,710	174,010	279,150	448,710	865,050	489,740	280,590	167,730	135,600	123,370	108,840
Mean	3,565	4,357	5,613	9,005	15,470	27,900	16,320	9,051	5,591	4,374	3,980	3,628
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-

Calendar year 1943: Max 105,000 Min 2,130 Mean 9,544 Cfsm 1.55 In. 21.06
 Water year 1943-44: Max 107,000 Min 1,930 Mean 9,055 Cfsm 1.47 In. 20.04

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for other stations in same drain-age basin.

Savannah River near Clarks Hill, S. C.--Continued

Discharge, in cubic feet per second, water year October 1944 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,380	2,510	*a6,000	3,400	4,670	11,300	7,860	9,780	3,940	2,690	6,900	3,420
2	6,190	2,670	5,590	6,610	4,960	11,100	6,660	9,160	4,550	*3,150	5,590	4,320
3	2,970	3,870	5,230	7,670	5,110	9,550	6,870	8,730	4,530	2,940	5,280	2,930
4	2,970	3,770	4,360	5,840	5,230	9,500	8,750	9,350	3,710	2,960	5,030	2,120
5	3,280	3,090	3,760	5,250	4,830	*11,300	7,140	9,060	3,100	3,740	5,310	2,160
6	3,950	3,140	3,350	5,610	6,770	12,300	6,390	8,110	4,320	4,440	5,340	2,160
7	3,320	2,760	4,620	5,250	7,910	10,700	6,040	6,680	3,870	5,130	6,620	3,680
8	2,970	2,510	6,280	6,710	6,340	9,190	6,150	5,890	4,280	4,600	6,840	3,930
9	2,270	3,450	10,200	8,940	5,810	8,680	5,520	6,860	5,860	2,850	5,700	3,700
10	2,650	4,080	6,190	6,810	5,310	7,980	4,930	6,030	5,810	2,890	4,990	2,440
11	2,650	4,130	5,700	5,780	4,700	6,780	5,000	6,590	8,360	2,440	4,340	1,800
12	2,940	3,290	3,860	4,840	4,810	6,410	5,160	8,090	4,900	3,350	4,580	1,820
13	2,980	3,130	6,700	5,780	7,940	5,830	5,070	10,000	5,500	3,690	2,930	3,120
14	2,920	2,520	5,800	6,700	30,500	6,760	5,660	9,080	6,140	3,440	*3,460	21,200
15	4,520	2,870	4,970	5,840	26,000	6,780	5,220	6,920	3,780	5,690	3,540	21,700
16	3,270	3,770	4,660	4,510	13,600	6,300	*5,080	6,320	5,560	5,260	4,030	16,400
17	2,560	4,000	4,130	4,660	10,500	6,600	4,600	6,110	6,740	6,540	3,360	15,000
18	2,380	4,530	4,430	5,230	16,600	6,250	10,400	5,790	4,210	4,640	3,420	20,600
19	2,690	3,770	2,950	*5,040	19,900	5,540	14,300	6,310	3,230	2,970	5,470	13,500
20	3,480	3,790	3,360	7,080	14,200	5,070	9,030	5,780	3,270	3,370	3,850	9,110
21	5,600	3,430	3,700	7,790	12,100	7,290	6,000	4,810	5,280	3,640	2,850	6,510
22	6,010	5,200	4,280	6,450	22,100	12,200	6,330	4,680	4,700	5,650	2,430	6,380
23	*4,800	a4,400	4,980	5,230	26,400	9,320	6,500	5,750	3,960	3,680	3,490	6,580
24	3,790	a3,800	4,260	4,840	28,000	7,980	6,900	*5,470	3,190	3,330	2,840	*8,400
25	3,680	a3,600	3,000	5,140	17,600	6,640	30,500	5,030	2,520	2,680	7,080	4,250
26	3,430	a3,200	3,010	5,080	12,600	6,370	59,400	4,490	1,830	4,020	11,900	4,400
27	3,430	a3,600	2,310	4,730	9,670	12,500	52,700	5,000	3,390	18,600	6,830	4,640
28	3,770	a7,000	2,270	4,770	10,500	25,500	22,700	6,040	2,810	12,300	3,860	4,620
29	3,770	a10,000	2,810	3,950	-	14,600	13,900	4,000	1,960	8,800	2,760	5,260
30	3,200	a8,000	2,800	5,220	-	9,300	12,800	4,530	3,100	7,560	3,060	4,620
31	2,540	-	4,990	4,480	-	8,970	-	4,130	-	8,390	3,070	-
Total	111,360	119,880	142,440	171,230	334,660	284,590	353,560	204,670	128,300	155,210	146,690	210,550
Mean	3,592	3,996	4,595	5,524	11,950	9,180	11,790	6,602	4,277	5,007	4,732	7,018
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1944: Max	107,000				1,930	Mean	8,941	Cfsm	1.45	In.	19.79	
Water year 1944-45: Max	59,400				1,800	Mean	6,474	Cfsm	1.05	In.	14.29	

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for other stations in same drainage basin.

Discharge, in cubic feet per second, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,510	4,130	4,870	20,700	17,400	12,400	17,700	10,500	9,690	4,190	10,100	4,690
2	2,830	4,400	5,320	15,500	18,500	11,600	12,800	10,400	12,400	4,970	7,370	2,940
3	2,830	4,520	*3,850	11,800	14,000	11,400	12,100	9,860	10,300	6,100	5,100	2,650
4	4,320	4,600	4,060	10,000	10,700	10,500	11,300	25,300	6,570	7,150	10,700	3,790
5	3,170	4,270	15,500	10,600	8,730	8,620	10,800	29,100	8,610	6,400	7,330	4,960
6	3,120	3,740	27,100	14,800	12,100	9,420	11,800	19,200	8,850	4,670	4,920	3,600
7	3,210	3,230	17,700	53,300	12,500	9,820	11,800	12,100	6,880	6,420	5,080	3,110
8	2,820	4,060	10,500	95,600	13,800	10,700	*10,600	12,100	7,590	4,440	4,800	3,880
9	2,510	3,740	8,580	93,500	16,200	11,500	12,200	11,800	7,340	3,820	4,660	3,110
10	3,120	4,010	7,530	53,600	38,600	15,400	16,300	10,600	5,550	5,310	4,150	2,780
11	3,800	4,050	5,860	26,400	46,700	12,200	16,100	10,100	5,100	5,630	4,030	3,380
12	3,510	3,820	7,280	19,300	50,200	8,640	15,300	8,480	6,190	5,790	3,670	4,560
13	2,910	3,540	6,710	17,200	24,100	10,200	14,100	*7,240	7,040	6,500	3,010	4,050
14	3,450	4,270	6,590	*12,800	15,800	11,000	12,300	7,170	6,260	6,490	3,390	3,410
15	3,180	3,540	7,110	14,100	14,400	12,000	10,700	9,220	7,320	6,480	4,130	3,610
16	2,850	4,480	8,060	28,200	12,600	19,300	8,860	14,100	7,550	5,980	3,720	3,110
17	3,420	4,520	7,820	37,600	11,800	22,200	22,900	14,300	*7,470	7,050	3,870	2,480
18	3,890	4,800	6,520	27,900	10,800	27,800	33,600	15,200	7,120	6,070	3,820	4,170
19	3,160	3,770	8,050	19,600	17,000	18,800	16,000	11,300	5,990	5,140	2,950	4,070
20	3,900	2,880	8,890	15,500	39,000	14,100	14,100	9,780	6,870	5,370	2,460	3,210
21	3,900	4,500	8,230	13,600	32,700	12,600	12,100	12,100	6,430	5,510	3,820	2,690
22	4,250	4,590	7,220	12,300	19,400	11,500	10,800	14,500	5,420	*3,930	4,330	2,730
23	4,150	8,380	7,290	12,600	14,400	12,800	10,300	10,800	6,150	5,510	11,000	3,310
24	5,810	8,080	6,210	11,000	13,400	12,300	12,200	9,030	4,730	5,140	7,170	4,050
25	*8,600	6,090	21,400	10,500	*12,600	9,910	10,600	8,520	3,950	4,910	6,300	5,850
26	6,270	4,460	48,700	11,000	11,500	9,300	12,300	8,400	4,860	4,300	*5,390	6,520
27	5,990	47,700	11,700	14,100	14,100	11,800	15,000	13,300	5,410	3,990	4,480	4,660
28	4,750	4,290	26,800	9,910	13,100	12,400	11,600	12,500	6,520	4,030	4,040	4,070
29	3,760	5,200	24,000	8,840	-	26,600	8,700	10,600	6,090	4,180	4,310	3,300
30	3,820	5,470	32,200	10,400	-	38,600	7,700	8,900	5,710	4,220	4,080	2,720
31	3,240	-	25,100	11,500	-	32,200	-	8,360	-	4,410	5,660	-
Total	120,040	133,920	431,950	723,350	536,130	457,610	402,660	375,910	205,960	164,100	159,840	111,660
Mean	3,872	4,464	13,930	23,330	19,150	14,760	13,420	12,130	6,865	5,294	5,156	3,722
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1945: Max	59,400				1,800	Mean	7,530	Cfsm	1.19	In.	16.19	
Water year 1945-46: Max	95,600				2,460	Mean	10,470	Cfsm	1.70	In.	23.13	

* Discharge measurement made on this day.

Savannah River near Clarks Hill, S. C. --Continued

Discharge, in cubic feet per second, water year October 1946 to September 1947

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,130	4,450	4,780	4,820	11,500	7,000	7,150	6,950	5,230	5,560	2,370	2,680
2	2,450	4,080	4,340	6,880	10,000	7,620	8,350	7,490	2,770	6,660	3,400	1,980
3	2,100	4,160	3,710	9,060	7,820	7,480	11,700	9,120	2,490	5,660	5,020	1,980
4	2,130	*4,460	4,670	16,700	6,770	6,400	10,200	6,950	3,330	5,110	*3,970	2,180
5	2,070	4,000	5,240	14,200	7,030	5,780	8,320	5,840	4,630	3,930	3,070	2,260
6	2,730	4,600	5,040	11,200	7,760	8,580	8,810	5,050	4,360	3,900	3,720	2,900
7	*3,210	5,100	5,240	7,980	7,050	15,100	6,840	5,130	4,770	3,870	5,700	3,310
8	5,260	4,600	4,790	8,440	7,240	40,100	*6,080	6,410	4,050	5,150	5,590	*2,670
9	*23,300	4,690	4,190	9,330	8,040	47,700	7,530	5,920	3,140	6,390	3,450	2,120
10	*28,700	4,870	3,850	8,520	6,660	29,300	8,190	5,470	2,860	7,280	4,020	2,040
11	18,000	4,280	4,750	7,350	6,130	15,700	7,340	5,720	4,040	5,130	3,740	3,930
12	10,500	3,920	5,010	7,450	7,810	10,300	7,760	5,030	3,930	4,550	4,260	4,000
13	8,690	4,280	4,730	8,130	7,480	9,710	11,100	4,620	4,130	4,380	4,590	3,800
14	6,730	4,870	5,080	22,000	6,720	20,800	23,800	*4,550	4,310	3,770	3,710	3,600
15	5,110	4,630	4,870	23,900	6,450	22,200	35,800	5,520	9,940	2,670	4,050	5,000
16	4,350	4,760	*4,190	17,300	6,960	15,200	33,200	5,410	12,700	3,380	2,970	2,600
17	4,140	4,710	4,130	17,600	5,780	10,000	27,500	4,680	5,070	3,950	3,230	3,200
18	4,530	6,090	4,400	20,000	5,320	8,680	21,600	4,670	5,280	3,800	4,380	4,200
19	4,850	10,400	5,240	24,700	5,300	8,690	15,800	3,670	4,530	4,730	2,920	3,800
20	4,610	8,060	5,790	*55,800	7,160	12,900	13,100	3,520	4,840	4,380	3,800	3,600
21	4,140	6,330	5,810	82,200	14,100	12,900	11,300	4,640	6,280	3,300	4,180	3,000
22	3,810	6,070	6,880	77,800	16,200	10,800	9,000	5,350	7,150	2,770	3,460	2,600
23	3,900	5,880	5,480	41,200	11,500	8,670	11,000	6,750	3,860	2,760	3,680	2,400
24	4,590	5,920	4,360	*16,000	7,470	6,670	9,750	6,290	12,000	2,810	3,870	3,200
25	4,840	5,260	5,320	12,100	*6,950	6,950	9,200	7,190	7,020	3,050	2,880	5,000
26	5,430	4,760	4,360	11,000	8,050	7,820	9,040	6,150	6,450	2,740	2,710	4,600
27	8,410	4,980	3,900	10,000	7,740	8,250	7,980	5,620	5,960	3,290	2,900	3,200
28	5,980	6,530	4,340	8,580	7,370	7,870	6,520	6,110	6,060	2,820	2,880	2,600
29	4,420	6,550	5,080	9,060	-----	8,990	5,700	5,460	5,070	1,960	3,530	2,800
30	4,250	4,480	4,170	9,760	-----	8,620	6,140	5,860	4,160	2,500	2,980	2,400
31	4,050	-----	3,920	11,700	-----	7,060	-----	6,090	-----	3,610	3,390	-----
Total	199,410	158,570	147,840	590,840	224,960	403,540	365,800	177,190	166,790	125,860	114,220	92,160
Mean	6,433	5,286	4,769	19,060	8,034	13,030	12,190	5,716	5,560	4,060	3,685	3,072
Cfsm	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
In.	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Calendar year 1946: Max 95,600 Min 2,070 Mean 9,981 Cfsm 1.62 In. 22.03
 Water year 1946-47: Max 82,200 Min 1,960 Mean 7,582 Cfsm 1.23 In. 16.75

* Discharge measurement made on this day.
 Note.--No gage-height record Sept. 12-30; discharge estimated on basis of records for other stations in same drainage basin.

Discharge, in cubic feet per second, water year October 1947 to September 1948

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a2,400	5,410	5,690	7,340	21,400	8,100	38,300	a7,000	11,900	13,500	6,520	4,240
2	a2,600	18,600	*5,770	9,430	14,400	8,290	46,700	a6,000	10,700	9,970	5,460	5,220
3	a3,800	30,900	7,070	9,160	10,000	15,100	30,400	a6,000	8,870	5,990	*9,720	5,430
4	a3,200	27,600	6,310	9,190	8,340	15,500	21,000	a6,500	6,340	5,320	15,500	5,430
5	a2,600	16,000	6,860	6,030	8,970	13,800	15,000	8,440	7,460	3,800	*24,700	5,480
6	a2,800	11,500	6,510	6,040	8,960	11,900	*13,900	9,420	7,080	3,120	23,600	6,420
7	a2,200	10,300	6,560	6,300	11,900	39,200	16,700	8,950	4,590	3,140	11,700	16,300
8	a2,200	19,500	5,670	6,100	36,900	60,600	16,700	8,940	5,480	3,560	8,580	18,100
9	a3,000	20,100	5,300	5,450	59,600	46,000	20,000	7,700	5,500	3,640	7,620	11,800
10	a5,000	11,500	7,240	6,240	82,400	26,700	17,800	5,920	5,690	4,030	5,750	8,440
11	a4,800	19,200	11,300	6,870	52,700	16,700	14,400	5,780	5,450	4,940	7,280	7,100
12	a4,400	51,700	13,600	5,300	37,200	14,700	13,900	6,760	6,430	9,840	6,570	7,090
13	a4,800	42,200	13,700	*7,720	49,700	13,100	12,100	7,820	4,660	28,400	6,390	4,360
14	a3,800	22,100	14,600	15,700	50,700	11,800	12,600	7,920	3,760	25,500	7,200	*3,900
15	a3,400	15,600	11,200	13,400	37,600	9,780	12,100	7,140	4,570	18,400	7,350	4,780
16	a2,800	25,100	17,800	8,820	24,100	10,400	11,300	7,790	6,770	16,700	5,440	5,870
17	a4,600	19,100	22,400	6,840	15,500	25,300	10,000	5,250	6,800	28,500	5,160	5,740
18	a6,000	12,800	16,100	6,900	13,600	30,400	10,400	*4,750	5,660	21,900	5,900	5,740
19	a8,500	15,800	11,500	6,810	12,100	19,600	8,790	5,360	5,360	13,200	6,510	5,410
20	a8,000	15,300	10,300	6,070	11,800	15,300	7,910	5,700	6,170	8,120	5,390	4,060
21	a4,400	10,500	14,000	7,440	12,800	13,600	8,720	5,520	5,250	8,350	6,250	3,030
22	*a5,000	9,340	18,800	8,360	15,500	11,300	8,840	5,520	*5,470	7,020	5,780	5,000
23	2,940	8,340	14,200	7,060	15,800	13,600	9,310	5,380	5,640	4,400	4,000	5,320
24	4,210	9,300	12,100	6,620	12,600	35,000	8,930	4,100	6,800	6,220	3,970	5,850
25	5,370	13,600	11,500	7,030	11,200	30,400	7,990	4,100	5,080	6,640	5,490	5,640
26	7,820	11,900	16,600	6,410	11,500	19,600	a6,500	7,170	4,850	4,380	5,500	4,220
27	5,210	8,550	13,800	7,480	*10,700	14,400	a7,500	7,600	4,400	4,550	5,590	3,540
28	4,200	8,990	10,200	10,500	9,860	20,100	a7,000	7,920	3,440	4,620	5,360	3,650
29	6,480	9,920	7,720	13,100	10,000	19,400	a7,500	11,900	4,400	5,480	5,390	5,330
30	9,680	7,690	7,780	13,400	-----	13,900	a8,000	19,700	12,200	5,800	3,740	5,330
31	5,820	-----	6,940	24,700	-----	13,900	-----	18,600	-----	6,970	3,220	-----
Total	142,010	504,340	339,220	267,810	657,830	619,670	430,290	236,650	184,490	298,030	236,610	187,620
Mean	4,581	16,810	10,940	8,639	22,680	19,990	14,340	7,634	6,150	9,614	7,633	6,261
Cfsm	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
In.	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Calendar year 1947: Max 82,200 Min 1,960 Mean 8,897 Cfsm 1.45 In. 19.63
 Water year 1947-48: Max 62,400 Min 2,200 Mean 11,220 Cfsm 1.82 In. 24.82

* Discharge measurement made on this day.
 a No gage-height record; discharge estimated on basis of records for other stations in same drainage basin.

Savannah River near Clarks Hill, S. C.--Continued

Discharge, in cubic feet per second, water year October 1948 to September 1949

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,920	3,470	97,500	28,800	19,800	*15,000	12,600	55,400	13,600	8,720	8,520	10,800
2	4,560	2,920	47,600	18,600	22,100	12,800	13,600	60,600	15,300	9,100	6,160	9,540
3	4,600	4,350	24,300	13,100	15,800	12,300	12,300	*54,100	12,300	8,630	7,860	8,580
4	4,180	16,400	25,900	12,100	20,000	9,000	11,500	28,700	10,600	6,880	8,580	11,000
5	3,510	22,000	17,200	16,200	27,900	9,780	10,500	15,700	8,340	*5,430	9,540	12,800
6	4,250	12,500	14,100	40,600	23,800	10,400	17,200	12,600	5,740	6,070	10,400	8,010
7	5,050	10,000	*13,400	68,200	16,400	10,600	17,300	11,300	5,740	6,460	9,240	24,900
8	4,910	18,000	15,500	49,900	13,400	10,000	13,800	13,000	7,720	7,550	8,960	46,200
9	5,240	12,300	15,000	22,900	17,300	9,600	12,100	15,600	7,980	7,510	5,970	40,400
10	5,320	8,100	13,400	15,000	43,200	11,200	11,500	14,700	9,080	7,190	7,870	30,200
11	3,900	7,740	11,800	13,400	39,900	15,000	8,820	18,700	8,720	8,060	7,490	13,900
12	3,910	7,200	11,300	13,100	25,400	12,800	*13,200	20,300	10,200	10,600	6,770	10,800
13	4,880	7,150	9,780	12,800	16,700	10,700	*23,400	17,600	7,520	19,200	6,430	10,500
14	4,730	7,650	8,820	11,800	12,800	8,550	*26,700	14,400	7,150	29,100	7,330	10,900
15	4,890	4,930	9,060	10,800	11,300	8,590	20,600	12,800	9,600	20,500	*5,670	10,700
16	a4,600	5,130	9,420	10,000	13,400	10,500	14,200	10,500	10,400	14,700	5,320	9,700
17	a4,400	5,210	9,780	8,820	22,100	10,000	12,100	9,800	19,600	16,400	9,020	9,690
18	a3,900	6,790	9,500	*9,820	23,200	9,840	10,500	12,200	38,600	19,700	26,600	9,690
19	a3,600	6,640	11,800	10,000	18,600	10,200	8,820	11,100	22,000	35,600	18,800	8,910
20	a4,400	6,350	13,300	10,200	35,000	11,200	10,000	10,700	12,300	41,700	12,600	8,560
21	a5,500	14,400	11,300	10,500	38,100	8,310	10,400	10,500	10,300	27,200	8,580	9,490
22	a4,400	12,000	10,100	10,300	21,800	7,970	10,700	9,150	10,300	17,600	10,800	7,790
23	a4,400	13,700	9,480	10,400	15,800	10,200	11,000	7,700	10,100	13,900	16,200	7,890
24	a5,000	27,200	9,020	9,510	13,600	23,600	10,600	7,050	9,360	11,500	13,600	8,050
25	a4,200	27,900	9,930	9,120	12,600	17,900	8,560	*9,850	9,740	10,000	11,000	7,060
26	a3,200	17,500	9,840	9,970	12,100	14,100	6,460	9,420	12,000	9,610	8,340	5,890
27	*a4,600	30,600	11,200	10,300	13,800	14,400	7,980	9,170	12,300	9,450	8,380	5,320
28	5,090	68,600	10,000	9,760	17,300	13,600	7,770	8,340	8,020	8,460	11,200	*7,860
29	5,150	126,000	9,850	10,500	-	12,100	13,200	7,750	8,580	8,690	22,000	9,200
30	4,790	*146,000	32,300	11,300	-	12,300	40,200	6,680	8,600	7,760	23,200	7,620
31	4,130	-----	43,200	10,600	-----	11,500	-----	7,910	-----	8,490	14,800	-----
Total	140,310	658,720	552,640	507,700	583,200	366,040	407,610	513,300	341,790	421,760	337,230	382,630
Mean	4,526	21,960	17,850	16,380	20,830	11,810	13,590	16,560	11,390	13,610	10,880	12,750
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1948: Max	-	-	146,000	Min	2,920	Mean	12,220	Cfsm	1.99	In.	27.03	
Water year 1948-49: Max	-	-	146,000	Min	2,920	Mean	14,280	Cfsm	2.32	In.	51.51	

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for other stations in same drainage basin.

Discharge, in cubic feet per second, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,420	18,900	6,890	8,210	9,490	6,880	8,340	4,680	11,000	4,130	4,480	5,500
2	6,510	*19,300	6,580	8,620	8,970	7,990	9,310	4,140	10,900	4,270	4,500	12,800
3	6,850	17,200	6,110	6,600	8,270	8,310	7,590	6,110	6,770	3,630	4,960	14,600
4	5,000	12,300	6,840	8,030	8,470	7,500	7,240	11,400	6,990	3,340	4,150	8,700
5	6,190	10,000	5,710	7,530	8,880	6,440	7,570	8,930	8,750	4,020	5,010	5,270
6	6,840	9,060	5,190	7,410	7,590	6,220	10,800	6,250	14,100	3,470	5,170	6,100
7	8,530	9,600	6,370	7,490	6,340	8,770	13,300	5,930	8,370	4,690	4,190	7,470
8	24,500	7,890	6,890	7,720	8,320	16,400	10,000	4,580	6,430	5,070	*2,690	8,580
9	32,700	8,970	6,840	7,410	8,800	15,500	9,980	4,420	9,540	4,790	3,000	26,300
10	15,700	8,890	6,130	5,910	8,640	12,600	6,990	5,270	20,300	3,590	4,170	26,800
11	8,340	8,410	6,370	6,980	9,480	9,780	6,400	5,050	16,300	2,960	3,590	14,100
12	9,540	8,760	6,170	7,730	9,720	9,600	7,620	5,120	12,100	3,760	3,560	9,300
13	8,490	7,690	5,890	8,340	8,150	9,310	7,490	4,870	6,750	6,600	4,250	8,580
14	8,270	7,800	7,870	8,710	7,140	*16,200	7,170	5,760	8,440	8,610	3,030	9,020
15	7,520	6,390	8,580	8,320	8,590	*21,400	7,200	4,820	*6,510	6,440	3,090	7,330
16	7,690	7,740	9,060	7,550	11,400	13,400	7,720	5,450	5,570	17,900	4,910	6,440
17	7,200	8,000	8,340	7,700	10,600	10,500	5,760	5,820	5,740	14,900	3,350	5,800
18	8,740	7,370	8,810	10,000	9,660	9,060	5,730	5,170	4,980	8,470	5,390	4,750
19	9,100	7,780	7,050	12,200	8,270	9,300	*6,520	5,090	4,280	8,410	4,620	3,730
20	8,790	7,700	*7,720	12,700	7,300	9,320	6,950	5,270	3,320	7,200	5,970	*5,100
21	8,020	6,520	8,850	15,100	7,290	8,950	6,330	5,820	4,730	5,450	4,600	5,750
22	7,800	5,280	7,910	12,900	8,180	9,710	6,920	4,320	4,450	4,940	3,780	5,520
23	7,530	7,140	7,560	10,100	8,900	9,420	6,070	4,270	4,320	5,170	3,880	4,630
24	7,920	7,870	7,870	6,660	8,360	8,470	5,340	5,050	4,800	5,910	5,840	5,200
25	5,930	6,710	7,960	*8,750	8,580	8,230	4,840	*5,180	4,290	6,550	4,110	4,210
26	7,210	8,310	7,050	9,040	8,450	7,960	5,400	5,340	2,960	9,250	4,190	2,840
27	7,860	9,380	11,400	8,800	6,600	6,770	6,660	5,630	2,790	8,620	4,690	2,570
28	7,990	7,690	18,700	7,990	5,970	8,590	5,330	5,710	3,390	7,970	4,780	3,760
29	8,050	5,900	13,900	10,900	-	16,400	5,910	4,520	3,990	8,540	3,400	3,990
30	8,920	7,140	9,760	11,000	-----	13,400	5,230	5,330	4,140	9,170	4,190	4,630
31	9,940	-----	7,860	8,520	-----	9,540	-----	8,720	-----	6,510	4,530	-----
Total	289,170	270,540	248,250	274,920	237,850	321,920	216,560	174,520	217,000	204,130	130,880	239,370
Mean	9,328	9,018	8,008	8,868	8,495	10,380	7,219	5,630	7,233	6,585	4,222	7,979
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1949: Max	-	-	68,200	Min	5,000	Mean	12,790	Cfsm	2.08	In.	28.23	
Water year 1949-50: Max	-	-	32,700	Min	2,570	Mean	7,740	Cfsm	1.26	In.	17.08	

* Discharge measurement made on this day.

Savannah River near Clarks Hill, S. C.--Continued

Discharge, in cubic feet per second, water year October 1950 to September 1951

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,130	4,700	5,090	7,250	5,220	5,920	10,900	8,480	3,970	5,700	3,720	2,600
2	3,090	5,300	5,220	6,840	5,570	5,580	10,300	8,410	4,420	5,750	3,040	3,210
3	2,570	5,290	5,310	6,410	6,600	5,330	9,860	8,490	4,270	5,500	3,450	2,880
4	3,330	5,550	4,270	5,830	6,760	4,810	10,500	9,550	4,210	5,470	4,190	2,280
5	4,260	5,620	4,000	5,680	6,580	5,250	11,500	9,420	3,790	5,440	4,600	2,620
6	4,340	*5,450	4,920	5,520	5,960	5,220	11,000	9,000	3,790	5,590	4,100	1,710
7	4,590	4,550	6,510	5,380	5,830	*5,870	10,500	8,580	4,520	5,220	3,390	1,990
8	4,690	4,460	17,600	6,390	7,480	7,140	11,000	8,150	4,650	5,230	2,470	3,200
9	3,060	4,680	31,700	5,900	8,320	8,710	11,900	7,770	5,320	4,710	2,770	3,240
10	2,820	5,060	18,200	6,020	8,240	9,060	11,500	7,860	5,920	3,680	3,110	2,920
11	2,510	5,390	11,500	6,190	8,480	9,060	11,000	7,430	7,020	3,020	2,780	1,670
12	3,060	5,330	7,860	6,070	8,970	9,780	10,800	7,240	*7,160	3,960	3,120	1,970
13	3,360	5,020	7,800	5,820	7,870	10,400	10,500	7,220	6,380	3,990	3,660	1,670
14	4,040	4,330	7,450	5,960	7,600	8,200	10,300	6,450	5,120	5,710	3,840	2,310
15	3,720	4,230	7,470	5,990	7,340	10,600	10,300	6,240	7,070	2,990	3,540	2,270
16	3,100	4,730	7,380	6,010	6,860	10,700	10,000	5,680	6,840	3,650	3,520	3,270
17	2,510	4,920	7,200	6,680	6,730	10,700	10,500	5,480	7,020	3,580	4,130	3,840
18	3,180	5,090	*6,560	7,150	6,190	10,600	10,500	5,380	6,350	3,380	4,300	3,740
19	3,910	4,990	5,920	6,970	6,580	10,600	10,400	5,390	6,810	3,070	4,220	*2,750
20	14,600	4,820	6,090	6,300	6,400	10,400	10,400	5,190	7,280	4,510	5,950	2,490
21	39,100	4,520	6,190	6,090	5,810	9,630	9,970	4,920	6,960	3,930	3,610	2,440
22	46,700	4,480	6,090	*6,160	5,930	9,910	9,780	4,960	7,110	4,510	3,320	2,140
23	27,600	4,680	6,300	5,690	6,040	10,200	*9,540	4,840	6,830	4,320	2,690	3,540
24	10,900	5,170	5,810	5,210	6,560	10,200	9,780	5,100	6,810	3,120	2,950	3,310
25	7,380	4,340	5,460	5,410	5,990	10,100	9,540	5,050	6,370	2,700	3,290	4,750
26	7,440	4,860	4,320	5,510	5,930	9,690	9,060	4,820	5,970	3,110	2,610	5,180
27	6,940	4,540	5,140	5,600	5,270	9,060	9,840	4,320	5,590	3,220	3,000	5,270
28	6,510	4,190	4,290	5,840	5,840	8,900	10,000	4,590	5,580	4,080	1,700	6,050
29	6,210	3,950	5,510	5,400	6,810	9,410	4,150	5,540	4,270	1,390	5,260	4,970
30	5,130	4,920	6,430	5,150	-----	8,580	8,600	4,170	5,050	*4,400	2,020	4,170
31	5,190	-----	7,030	4,820	-----	10,200	-----	4,240	-----	4,040	2,280	-----
Total	249,970	145,160	240,630	185,240	187,150	272,210	309,180	198,770	174,720	129,850	100,420	95,520
Mean	8,064	4,839	7,762	5,975	6,684	8,781	10,310	6,412	5,824	4,189	3,239	3,184
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1950: Max	46,700	Min	2,510	Mean	7,268	Cfsm	1.18	In.	16.03			
Water year 1950-51: Max	46,700	Min	1,390	Mean	6,271	Cfsm	1.02	In.	13.86			

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1951 to September 1952

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,270	2,920	3,310	13,900	4,910	9,800	30,900	11,000	4,050	3,640	3,050	3,550
2	3,140	3,680	3,590	13,500	5,150	9,780	30,000	9,300	*3,970	*3,720	2,840	3,300
3	2,130	5,660	3,610	12,300	5,150	11,200	28,300	9,780	4,050	4,090	2,990	3,560
4	1,630	5,720	3,500	9,970	5,380	16,900	27,100	9,780	4,160	3,860	2,990	3,390
5	2,170	*5,060	3,950	9,780	4,680	19,600	28,700	9,780	4,180	3,680	3,850	3,710
6	1,680	3,880	5,180	11,400	4,650	30,900	26,700	*9,540	4,160	3,940	4,210	3,300
7	2,570	2,400	5,970	13,400	4,550	34,500	27,900	10,300	4,050	3,940	4,250	3,830
8	1,850	3,690	6,170	12,400	4,650	30,400	30,000	10,600	4,050	3,500	4,580	3,660
9	2,170	5,450	5,960	10,700	4,330	25,500	*30,000	9,170	4,160	3,210	4,580	3,400
10	2,570	5,860	5,820	9,420	4,520	*21,700	29,600	7,610	4,050	2,830	4,450	3,220
11	1,850	4,910	5,660	9,360	4,310	22,400	28,300	7,720	3,840	3,210	4,580	*2,680
12	1,850	3,620	5,490	8,340	*4,630	25,900	25,100	7,730	4,140	3,550	3,990	2,950
13	2,570	2,920	5,630	12,600	4,750	30,000	22,100	7,520	4,250	3,180	3,360	2,100
14	2,170	2,960	5,540	15,500	4,590	27,500	19,700	6,790	4,130	3,340	*3,310	2,680
15	1,880	4,700	6,880	9,140	4,470	29,100	18,100	4,740	4,000	3,800	3,010	2,160
16	2,570	5,250	7,470	4,770	4,590	32,200	16,700	4,080	4,000	3,130	2,730	2,410
17	1,850	5,150	8,250	4,660	4,430	31,400	15,800	3,970	*3,650	*3,530	2,560	2,130
18	1,880	4,950	7,980	4,400	4,250	28,700	14,700	4,080	3,870	2,990	2,940	2,950
19	1,850	4,700	7,370	4,780	4,060	28,300	14,100	4,160	4,260	2,990	3,340	2,640
20	2,210	3,140	*5,940	4,560	4,290	24,300	13,600	4,190	4,030	2,830	2,880	3,220
21	2,570	2,840	6,530	4,670	4,080	21,300	*12,800	*4,160	4,000	3,160	3,330	3,470
22	2,570	3,120	12,000	4,550	4,090	16,900	10,800	3,970	3,390	3,500	3,610	3,220
23	2,570	3,890	14,000	4,600	4,110	19,200	9,540	4,080	3,850	3,130	3,560	3,280
24	a2,200	3,530	14,600	4,830	4,280	26,300	8,050	3,840	4,090	2,990	3,510	3,280
25	a2,400	3,720	14,700	4,760	4,300	27,900	10,000	3,970	3,940	3,050	*3,540	*3,700
26	a3,200	3,230	14,700	4,760	*4,540	26,300	13,700	4,080	3,420	3,500	3,540	3,540
27	a3,600	3,480	14,700	4,520	4,450	*27,900	15,600	3,970	3,750	3,230	3,050	3,700
28	a4,000	2,940	12,200	*4,670	5,730	27,900	15,600	3,950	3,360	3,360	3,400	3,060
29	a3,200	3,270	9,060	4,640	8,890	27,900	15,300	4,050	3,640	*3,360	3,380	3,380
30	a2,800	3,720	8,100	4,790	-----	27,100	14,400	3,860	3,550	3,010	3,750	3,350
31	2,240	-----	13,700	4,990	-----	29,100	-----	4,180	-----	2,640	3,170	-----
Total	76,610	120,560	247,560	246,660	137,010	767,880	603,190	195,590	118,840	103,770	108,340	97,820
Mean	2,471	4,019	7,986	7,957	4,724	24,770	20,110	6,309	3,961	3,347	3,495	3,261
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1951: Max	14,700	Min	1,390	Mean	5,747	Cfsm	0.954	In.	12.71			
Water year 1951-52: Max	34,500	Min	1,830	Mean	7,715	Cfsm	1.25	In.	17.09			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for other stations in same drainage basin.

SAVANNAH RIVER BASIN

Savannah River near Clarks Hill, S. C.--Continued

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,350	3,480	3,480	3,410	3,330	8,140	7,250	5,560	5,220	4,790	4,340	7,240
2	3,440	3,480	3,340	3,460	3,140	7,420	6,580	11,400	5,850	4,990	4,140	8,360
3	3,380	*3,520	3,420	3,180	3,100	7,920	3,860	15,600	5,810	5,510	*6,060	7,840
4	3,730	3,480	*3,540	3,370	3,260	7,440	3,720	15,300	5,850	4,880	6,300	8,190
5	3,730	3,480	3,310	3,980	3,520	7,200	4,400	14,600	5,820	4,210	6,510	4,890
6	*3,740	3,380	3,210	3,730	3,390	7,340	5,570	19,700	5,980	5,930	6,410	3,910
7	3,840	3,380	3,850	3,650	3,480	7,120	5,150	28,300	5,900	7,290	5,970	7,400
8	3,760	4,750	3,820	3,910	3,460	6,890	5,330	28,300	6,300	5,160	4,520	8,240
9	3,260	5,120	3,690	3,940	3,770	7,190	6,250	27,900	6,170	5,570	3,450	8,080
10	3,130	5,230	3,720	3,660	*3,760	7,730	5,080	27,500	5,720	5,250	5,550	8,330
11	3,250	4,910	3,430	2,740	3,880	8,100	6,420	27,500	6,100	3,830	5,720	8,380
12	3,380	5,190	3,410	2,990	3,620	*5,500	5,810	*27,900	5,450	3,740	6,030	5,530
13	3,260	5,100	3,480	3,360	3,540	7,820	4,050	16,900	5,020	5,500	4,710	
14	3,360	4,890	3,650	*3,650	3,540	10,700	4,550	7,200	3,200	5,780	6,170	8,490
15	3,200	4,980	3,650	3,390	3,540	11,400	5,390	7,430	4,810	7,260	4,760	8,240
16	3,130	4,290	4,120	3,520	4,000	10,200	4,930	7,020	4,410	5,730	3,620	8,280
17	3,260	*3,390	3,910	3,730	3,650	10,600	5,550	6,920	5,000	5,810	6,620	8,120
18	3,380	3,400	*3,820	3,520	3,340	11,300	6,420	7,220	4,900	4,630	6,780	8,160
19	3,250	3,600	3,930	3,840	3,230	9,510	6,950	6,950	5,130	3,640	6,780	5,430
20	3,130	3,760	3,770	4,450	3,390	9,220	6,070	6,810	6,430	5,210	6,240	4,260
21	3,380	3,670	3,890	4,350	3,220	9,110	5,710	8,210	7,650	5,620	6,410	8,580
22	*3,150	3,800	3,890	4,260	3,510	10,400	6,030	12,000	*6,420	5,550	3,840	6,860
23	3,310	3,800	3,670	4,790	3,480	13,300	6,400	9,170	5,510	5,620	3,260	7,820
24	3,320	3,460	3,750	3,600	3,580	20,300	6,590	14,700	5,580	5,620	5,570	7,790
25	3,220	*3,310	3,590	3,330	5,320	20,000	5,430	14,600	5,330	3,980	6,410	7,840
26	3,060	3,550	3,670	3,510	*7,640	18,700	*8,720	14,800	5,240	3,320	6,810	4,550
27	3,180	3,440	3,750	3,360	7,640	15,500	8,270	12,600	5,430	4,320	7,220	4,220
28	2,850	3,310	3,750	3,540	7,920	11,000	6,670	7,170	5,260	5,700	6,790	*8,000
29	3,430	3,680	3,770	*2,910	8,100	6,170	5,860	5,070	6,530	4,160	7,870	
30	3,280	3,460	3,670	3,330	-----	*9,880	5,900	5,760	5,210	6,460	3,310	7,810
31	3,520	-----	*3,290	3,290	-----	8,320	-----	5,710	-----	7,970	6,180	-----
Total	103,660	118,300	113,240	111,750	112,250	313,350	175,420	426,590	166,330	165,400	171,860	213,420
Mean	3,344	3,943	3,653	3,605	4,009	10,110	5,847	13,760	5,444	5,335	5,544	7,114
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1952: Max	34,500				Min 2,100	Mean 7,416	Cfsm 1.21	In. 16.43				
Water year 1952-53: Max	28,300				Min 2,740	Mean 6,004	Cfsm 0.976	In. 13.26				

* Discharge measurement made on this day.

Discharge, in cubic feet per second, October 1953 to June 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,440	3,910	7,010	6,580	6,100	7,310	17,800	5,340	*7,500			
2	5,850	6,530	6,870	6,870	7,030	11,000	17,300	7,930				
3	4,540	7,300	7,270	2,810	7,280	10,500	12,600	7,280	8,000			
4	4,400	7,600	7,230	*6,770	7,600	9,400	9,420	7,370	7,630			
5	8,020	7,540	4,610	7,520	7,840	6,300	17,600	7,520	4,780			
6	8,220	7,340	3,730	7,240	5,090	5,430	14,100	7,340	5,610			
7	7,910	4,670	6,690	7,490	3,670	4,130	9,390	6,970	6,580			
8	8,190	3,910	7,480	7,500	6,710	7,200	10,600	5,340	6,700			
9	6,210	6,740	7,260	5,270	7,310	6,240	10,800	4,170	6,560			
10	4,370	7,710	6,940	3,770	7,470	6,770	4,200	6,530	6,440			
11	3,760	7,730	6,920	6,780	7,510	6,980	6,530	7,320	6,140			
12	7,900	7,800	4,710	7,180	7,490	6,790	*10,200	7,370	5,660			
13	8,710	7,560	3,480	7,730	5,030	4,450	11,700	7,380	5,280			
14	8,790	4,500	6,650	7,540	4,210	3,210	12,000	7,340	6,080			
15	8,690	3,920	7,120	7,350	6,500	6,880	12,000	5,240	6,620			
16	8,900	6,660	7,260	4,670	7,230	10,500	10,800	4,000	6,490			
17	4,410	*7,440	7,350	1,730	7,630	10,600	5,730	7,200	6,300			
18	4,130	7,730	7,420	6,210	7,720	11,100	7,070	7,360	6,000			
19	8,090	7,830	5,110	6,550	7,730	9,710	11,300	7,250	5,760	+10,700		
20	8,920	7,790	3,540	6,610	5,410	8,450	12,600	7,050	3,880			
21	8,870	4,870	6,540	6,200	3,790	7,390	13,400	7,180	5,930			
22	8,820	4,260	7,380	6,010	6,910	11,600	12,000	5,200	6,170			
23	8,270	6,810	7,250	2,100	*8,990	11,800	11,100	6,590	6,140			
24	3,820	7,810	6,140	2,620	10,400	10,600	6,080	10,500	6,100			
25	3,350	7,730	5,660	6,950	9,950	9,860	5,790	9,510	6,300			
26	7,680	7,270	4,380	7,860	9,160	9,820	11,400	9,740	6,050			
27	8,500	7,910	3,510	7,430	7,180	4,650	12,100	8,200	5,020			
28	8,730	5,020	6,560	6,580	5,070	3,210	8,530	7,180	6,440			
29	9,330	4,220	6,980	7,960	-----	13,200	7,970	4,840	8,740			
30	8,590	7,120	7,500	4,550	-----	22,700	7,500	3,130	5,570			
31	5,560	-----	7,340	3,490	-----	18,300	-----	6,430	-----			
Total	219,270	195,230	193,890	183,400	194,020	274,880	319,610	208,360	189,400			
Mean	7,073	6,508	6,255	5,916	6,929	8,867	10,650	6,721	6,313			
Cfsm	-	-	-	-	-	-	-	-	-			
In.	-	-	-	-	-	-	-	-	-			
Calendar year 1953: Max	28,300				Min 2,740	Mean 6,753	Cfsm 1.10	In. 14.92				
Water year 1953-54: Max	-				Min -	Mean -	Cfsm -	In. -				

* Discharge measurement made on this day.

† Result of discharge measurement.

Stevens Creek near Modoc, S. C.

Location.--Lat 33°43'45", long 82°10'55", on left bank at bridge on State Highway 23, 1.4 miles east of Modoc, McCormick County, and 3.2 miles downstream from Turkey Creek.

Drainage area.--545 sq mi.

Records available.--February 1940 to September 1957 in reports of Geological Survey. October 1929 to September 1931 in House Document 64, 74th Congress, 1st session.

Gage.--Water-stage recorder. Datum of gage is 197.34 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Southeastern Power Administration).

Average discharge.--17 years, 336 cfs.

Extremes.--Maximum discharge during year, 7,330 cfs May 5; maximum gage height, 20.32 ft May 5; minimum discharge, 2.1 cfs Sept. 7, 8.
1940-57: Maximum discharge, 35,100 cfs Aug. 14, 1940; maximum gage height, 41.08 ft Aug. 14, 1940; no flow Sept. 14, 15, Sept. 24 to Nov. 16, Nov. 22, 1954.

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

Revisions.--WSP 1032: Drainage area.

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)

(Rate of change in stage used as a factor Dec. 23, Jan. 25, 26, Mar. 13-15, 22, 25, 26, Apr. 5, 6, May 4, 5, 11, 12, Aug. 18, 19; shifting-control method used Aug. 20 to Sept. 8)

0.3	0.5	1.3	96
.4	2.5	1.6	170
.5	6.0	2.0	275
.6	10	7.0	1,620
.8	23	14.0	3,850
1.0	45	19.0	6,210

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*59	14	18	59	586	558	201	78	149	1,250	5.3	9.2
2	45	20	20	55	370	297	230	64	110	178	4.6	10
3	39	15	31	52	450	180	227	70	*68	78	4.2	5.0
4	30	15	20	49	302	147	186	4,000	83	53	3.9	3.9
5	33	20	27	71	235	297	1,920	3,810	160	44	5.6	2.5
6	40	18	18	240	193	450	2,580	626	122	34	4.2	2.3
7	82	*16	16	170	167	282	815	321	114	24	3.6	2.1
8	88	15	13	112	152	287	340	258	84	29	7.3	2.9
9	55	10	15	88	139	302	370	196	76	22	6.8	19
10	40	10	19	73	129	206	280	167	80	22	5.6	107
11	24	9.6	24	68	119	*154	204	3,050	88	22	4.6	145
12	22	12	20	61	110	134	178	4,140	74	24	3.9	63
13	15	18	18	58	94	206	160	1,070	66	16	3.6	49
14	17	19	15	51	88	4,500	142	370	59	12	3.6	26
15	19	15	16	55	80	1,410	124	251	81	*9.6	4.6	22
16	23	9.0	20	56	76	572	110	243	62	8.0	7.6	29
17	22	16	*26	58	80	337	103	204	49	*61	7.2	30
18	16	11	21	59	73	245	108	235	47	50	1,460	35
19	14	8.2	27	55	73	235	317	147	43	50	1,050	21
20	11	20	20	55	90	599	291	122	34	29	640	28
21	10	17	25	45	112	310	183	105	37	20	106	59
22	18	17	22	44	92	1,410	*134	92	38	20	50	28
23	27	16	458	56	78	1,270	134	94	32	25	38	50
24	45	13	1,880	187	74	653	110	195	37	17	26	45
25	36	14	1,080	462	69	5,650	90	355	32	12	22	35
26	32	18	353	1,590	74	3,050	80	450	36	9.2	*19	22
27	20	19	167	558	92	923	71	410	29	8.8	16	19
28	20	17	*294	212	437	64	183	47	8.0	15	35	
29	20	12	92	222	318	59	122	45	7.2	12	170	
30	22	18	78	1,140	259	55	869	49	6.4	10	*266	
31	19	---	68	1,140	222	---	212	---	6.0	8.0	---	---
Total	961	449.8	4,744	7,283	4,409	25,660	9,866	22,489	2,045	2,155.2	3,558.2	1,320.9
Mean	31.0	15.0	153	235	157	828	329	725	68.2	69.5	115	44.0
Cfsm	0.057	0.028	0.281	0.431	0.268	1.52	0.604	1.33	0.125	0.128	0.211	0.081
In.	0.07	0.03	0.32	0.50	0.30	1.75	0.67	1.53	0.14	0.15	0.24	0.09

Calendar year 1956: Max 6,060 Min 2.3 Mean 208 Cfsm 0.382 In. 5.18
Water year 1956-57: Max 5,650 Min 2.1 Mean 235 Cfsm 0.428 In. 5.79

Peak discharge (base, 6,000 cfs).--Mar. 25 (4 p.m.) 7,080 cfs (20.05 ft at 5 p.m.); May 5 (2:30 a.m.) 7,330 cfs (20.32 ft at 3:30 a.m.); May 12 (12:30 a.m.) 6,650 cfs (19.45 ft at 2:45 a.m.).

* Discharge measurement made on this day.

Augusta Canal near Augusta, Ga.

Location.--Lat 33°30'50", long 82°00'15", on left bank 2.7 miles northwest of Thirteenth Street Bridge in Augusta, Richmond County, and 4.6 miles downstream from Stevens Creek power dam.

Records available.--November 1930 to September 1957 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 46.58 ft above city of Augusta datum or 148.92 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Auxiliary water-stage recorder 3.4 miles upstream from base gage.

Average discharge.--26 years (1931-57), 2,737 cfs.

Extremes.--1930-57: Maximum daily discharge, 4,380 cfs Jan. 2, 28, 1948; no flow Apr. 8 to May 10, 1936.

Remarks.--Records good except those for period of no gage-height record, which are fair. Canal diverts water from Savannah River for power and municipal supply at dam 1 mile downstream from Stevens Creek Dam. Waste water from powerhouses is returned to river below station by three channels above Thirteenth Street Bridge, and a small amount entering Beaverdam ditch is discharged into river about 13 miles below Augusta. Water diverted from canal for municipal supply of Augusta and for operation of pumps is included in record since Oct. 1, 1933.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,470	3,240	2,450	2,790	3,210	3,230	2,770	3,310	2,240	1,780	3,180	1,620
2	*2,850	3,350	1,700	2,650	2,350	2,440	3,120	3,340	1,410	1,750	3,190	1,670
3	2,890	2,450	2,890	2,850	1,500	1,660	3,190	3,320	2,630	1,610	2,230	3,050
4	3,080	1,590	3,100	2,820	3,120	3,000	3,270	1,910	*2,990	1,370	1,820	3,580
5	2,900	2,890	3,150	2,340	3,250	3,130	3,140	1,480	2,950	1,730	2,820	3,620
6	1,820	*3,070	3,350	1,630	3,120	3,180	2,460	3,070	3,150	1,740	2,920	3,600
7	1,540	3,270	3,320	2,830	3,190	3,200	1,550	3,080	3,120	1,790	3,260	2,210
8	2,560	3,400	2,530	3,100	3,020	3,080	2,710	3,330	2,160	3,120	3,410	1,610
9	2,790	3,340	1,410	3,130	2,200	2,300	3,300	3,340	1,500	3,140	3,470	2,740
10	2,820	2,190	2,790	3,070	1,420	1,610	3,270	3,240	2,610	3,260	2,630	2,720
11	3,220	1,640	3,120	3,170	2,950	2,790	3,370	2,050	3,180	3,490	1,540	3,040
12	3,500	2,900	3,210	2,500	3,270	*3,160	3,140	1,590	3,210	3,470	2,900	3,260
13	2,050	3,140	3,180	1,640	3,180	3,260	2,140	2,700	3,200	2,510	3,490	3,350
14	1,500	3,300	3,340	2,950	2,980	3,130	1,240	2,990	2,940	1,770	3,630	2,280
15	2,790	3,420	2,550	3,070	2,980	3,050	2,740	3,100	2,110	2,920	3,520	1,580
16	3,130	3,210	1,530	3,150	2,300	2,300	3,070	3,370	1,610	*3,160	3,380	2,850
17	3,270	2,350	2,970	3,160	1,580	1,700	3,240	3,280	2,800	3,130	2,410	3,200
18	3,390	1,620	*3,180	3,220	2,920	3,020	3,310	1,980	3,040	3,280	1,760	a3,400
19	3,350	3,090	3,200	2,690	3,180	2,950	3,200	1,530	3,150	3,170	2,690	a3,400
20	2,190	3,270	3,100	1,590	3,240	3,210	2,180	2,800	3,110	2,320	3,100	a3,400
21	1,460	3,200	3,140	2,900	3,350	3,250	1,370	2,970	3,120	1,690	3,400	a2,400
22	2,710	3,280	1,820	3,100	3,280	3,280	2,820	3,180	2,380	2,890	3,310	a1,700
23	3,160	3,320	1,370	3,160	2,450	2,310	*3,220	3,060	1,660	3,140	3,270	a2,800
24	3,270	2,520	1,440	3,200	1,650	1,540	3,410	3,150	2,750	3,390	2,360	a3,200
25	3,350	1,650	1,170	3,150	2,920	2,900	3,340	2,290	3,220	3,400	1,840	a3,400
26	3,100	3,050	1,610	2,390	3,070	2,950	3,320	1,510	3,110	3,000	2,750	a3,400
27	2,310	3,160	1,850	1,520	3,210	3,090	2,170	2,600	3,240	2,110	*3,310	a3,400
28	1,610	3,230	1,980	3,030	3,170	3,370	1,560	2,890	3,020	1,550	3,500	a2,400
29	2,810	3,200	1,630	*3,150	-	3,150	3,040	2,820	1,670	2,800	3,510	a1,700
30	3,200	3,160	1,700	3,100	-----	2,320	3,380	2,990	1,570	3,200	3,420	a2,800
31	3,170	-----	2,980	3,130	-----	1,540	-----	3,050	-----	3,230	2,170	-----
Total	84,060	86,500	76,740	86,180	78,060	85,100	84,040	85,320	78,850	80,910	90,390	83,380
Mean	2,712	2,883	2,475	2,780	2,788	2,745	2,801	2,752	2,628	2,610	2,916	2,779
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	3,650			Min	200	Mean	2,707	Cfsm	-	In.	-	
Water year 1956-57: Max	3,630			Min	1,170	Mean	2,738	Cfsm	-	In.	-	

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of normal canal operation.

Savannah River at Augusta, Ga.

Location.--Lat 33°22'25", long 81°56'35", at New Savannah Bluff lock and dam, 0.2 mile upstream from Butler Creek, 12 miles downstream from Augusta, Richmond County, and at mile 188.2 upstream from Savannah.

Drainage area.--7,508 sq mi, including that of Butler Creek.

Records available.--January 1884 to December 1891, January 1896 to December 1906, June 1927 to July 1932, and October 1938 to September 1957 in reports of Geological Survey. January 1925 to June 1933 in House Document 64, 74th Congress, 1st session. January 1884 to December 1891, January 1896 to December 1906, and January 1925 to September 1946 in report of South Carolina Research, Planning, and Development Board. Gage-height records collected at site of Fifth Street gage since 1875 and at New Savannah Bluff lock and dam sites since 1937 are contained in reports of U. S. Weather Bureau.

Gage.--Water-stage recorder. Datum of gage is 97.00 ft above mean sea level (Corps of Engineers benchmark). January 1884 to December 1891, January 1896 to December 1906, and June 1927 to July 1932, staff gage or water-stage recorder at Fifth Street Bridge at datum 102.06 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Southeastern Engineering Co.). Oct. 1, 1938, to Nov. 10, 1948, water-stage recorder at site 0.2 mile downstream from present site and at present datum.

Average discharge.--40 years (1884-91, 1896-1906, 1927-31, 1938-57), 10,270 cfs.

Extremes.--Maximum discharge during year, 18,000 cfs May 7 (gage height, 14.08 ft); minimum, 4,180 cfs July 10; minimum daily, 5,170 cfs Oct. 28, Nov. 6, 11, Sept. 1-3, 8.

1884-91, 1896-1906, 1925-57: Maximum discharge, 350,000 cfs Oct. 3, 1929; maximum gage height, 46.3 ft Sept. 27, 1929 (at site and datum then in use); minimum discharge, 648 cfs Sept. 24, 1939, from rating curve extended below 1,400 cfs; minimum daily, 1,040 cfs Oct. 2, 1927.

Maximum flood known occurred in 1796, discharge, 360,000 cfs (gage height, 40 ft, marked by local residents, at site and datum of Fifth Street gage) by conveyance-slope study.

Remarks.--Records good. Flow regulated by Clark Hill Reservoir (see p. 278) for monthly change in contents), Stevens Creek powerplant, and New Savannah Bluff lock and dam above station.

Revisions (water years).--WSP 1433: 1888, 1896-98, 1902-3, and 1906 calendar years, 1932.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,360	5,930	5,550	5,460	8,470	6,830	5,460	7,480	5,640	6,110	7,260	5,170
2	*5,460	6,230	5,260	5,460	6,410	5,930	5,550	7,700	5,550	6,930	7,590	5,170
3	5,640	5,640	5,260	6,330	5,550	5,260	6,330	7,480	5,840	6,530	6,030	5,170
4	5,890	5,360	5,260	6,330	5,550	5,260	6,730	8,470	*5,740	6,330	5,550	6,430
5	6,330	5,360	5,260	6,030	6,030	5,360	7,560	11,100	6,730	6,430	5,640	7,590
6	5,740	*5,170	6,430	5,550	7,150	6,430	9,990	12,300	7,260	6,330	5,550	7,700
7	5,360	6,230	6,730	5,460	7,040	7,150	10,700	15,200	6,830	5,460	5,640	5,970
8	5,260	5,640	5,740	5,550	6,730	6,930	9,390	14,600	5,550	7,040	6,130	5,170
9	5,260	6,130	5,360	6,130	5,640	5,840	12,800	14,000	5,460	7,160	6,330	6,090
10	5,260	5,360	5,260	6,630	5,360	5,460	13,800	12,600	5,460	5,330	5,640	6,270
11	5,360	5,170	5,360	6,730	5,360	5,460	14,000	7,840	5,740	5,460	5,360	6,930
12	5,550	5,260	5,460	5,550	5,360	*5,460	14,300	9,510	7,040	6,330	5,460	7,810
13	5,360	5,360	6,830	5,460	6,030	5,640	13,800	11,100	7,040	5,740	5,360	7,480
14	5,260	5,360	6,730	5,460	6,530	7,370	6,400	12,100	7,260	5,550	5,550	5,730
15	5,260	5,840	5,740	5,460	6,530	11,100	5,740	12,600	5,840	5,930	6,630	5,460
16	5,260	6,630	5,460	5,550	5,460	6,120	8,830	13,000	5,550	*6,830	7,700	6,030
17	5,260	5,550	5,360	6,230	5,360	5,550	8,250	11,600	5,930	5,640	5,640	6,630
18	5,360	5,260	*5,460	6,630	5,360	5,360	9,510	9,070	6,230	6,130	5,460	6,530
19	5,740	5,260	6,330	5,930	5,460	5,930	9,030	6,650	6,330	6,830	5,740	7,700
20	5,640	5,260	7,040	5,460	5,930	6,830	6,730	8,020	7,040	5,740	8,360	9,030
21	5,360	5,360	6,830	5,460	6,130	7,150	6,130	10,400	6,530	5,640	7,370	6,290
22	5,460	5,930	5,840	5,460	6,430	6,930	5,740	9,870	5,740	5,740	6,630	5,550
23	5,260	6,230	5,460	5,740	5,840	7,210	*6,230	10,400	5,460	5,930	6,730	6,630
24	5,260	5,930	5,550	6,330	5,260	5,840	7,040	10,500	5,460	6,130	5,460	7,480
25	5,360	5,260	7,610	6,730	5,260	7,660	7,040	7,000	6,830	7,040	5,460	6,330
26	5,840	5,260	6,930	7,260	5,260	12,600	6,930	5,640	6,030	6,730	5,360	6,930
27	5,460	5,260	6,630	6,530	5,550	11,700	8,030	5,840	5,930	5,740	*5,360	7,370
28	5,170	5,260	7,150	5,740	6,630	6,830	6,630	7,810	6,530	5,640	5,740	6,330
29	5,260	5,550	6,130	*6,330	-	7,260	5,640	7,370	5,640	5,740	6,830	5,550
30	5,260	6,630	5,360	7,700	-----	5,930	6,630	8,030	5,930	5,740	7,480	6,050
31	5,260	-----	5,460	8,580	-----	5,550	-----	8,580	-----	6,530	6,250	-----
Total	168,560	168,670	184,830	189,250	167,670	209,930	246,740	303,860	184,140	190,430	191,290	193,570
Mean	5,437	5,622	5,962	6,105	5,988	6,772	8,225	9,802	6,158	6,143	6,171	6,452
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	14,600											
Water year 1956-57: Max	15,200											
Min	5,170											
Mean	5,550											
Cfsm	-											
In.	-											

* Discharge measurement made on this day.

Savannah River at Burtons Ferry Bridge, near Millhaven, Ga.

Location.--Lat 32°56'20", long 81°30'10", on downstream side of left pier of drawspan of bridge on U. S. Highway 301, 2 miles downstream from Rocky Creek, 9 miles east of Millhaven, Screven County, and at mile 114.5 upstream from Savannah.

Drainage area.--8,650 sq mi, approximately.

Records available.--October 1939 to September 1957.

Gage.--Water-stage recorder. Datum of gage is 52.42 ft above mean sea level, datum of 1929, supplementary adjustment of 1936 (levels by Corps of Engineers).

Average discharge.--18 years, 9,729 cfs.

Extremes.--Maximum discharge during year, 13,900 cfs Apr. 14, May 11; maximum gage height, 12.27 ft May 11; minimum daily discharge, 5,500 cfs Oct. 11, 12, 15, 19, 30, 1939-57; Maximum discharge, 141,000 cfs Aug. 18, 1940 (gage height, 27.0 ft); minimum daily, 2,120 cfs Sept. 9, 1951.

Flood in October 1929 reached a stage of 30.8 ft, from information by Corps of Engineers.

Remarks.--Records good. Considerable regulation by Clark Hill Reservoir (see p. 278) for monthly change in contents), Stevens Creek powerplant, and New Savannah Bluff lock and dam above station.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*6,440	5,590	6,540	5,970	8,930	6,840	6,940	6,440	9,590	6,440	6,540	7,140
2	5,970	5,880	6,640	5,970	9,150	7,340	*6,540	7,440	8,050	6,440	7,040	6,060
3	5,780	6,350	6,060	5,880	8,160	7,240	6,540	7,840	6,640	7,040	7,340	5,680
4	5,970	5,970	5,970	6,260	6,940	6,260	6,840	8,490	6,540	7,240	7,140	5,680
5	6,060	5,780	5,970	6,840	6,440	6,260	7,440	9,480	6,540	7,040	6,260	6,060
6	6,740	5,680	5,780	6,540	6,640	6,540	8,270	11,200	6,740	6,740	5,780	7,340
7	6,540	5,590	6,260	6,060	7,340	7,040	10,100	12,100	7,640	6,840	5,590	7,840
8	6,160	5,590	7,140	5,970	7,840	7,740	11,300	12,800	7,540	6,160	5,590	7,340
9	5,970	5,680	6,740	5,970	7,640	7,840	11,100	13,200	7,040	6,440	5,970	6,350
10	5,680	6,060	5,970	6,260	6,940	7,140	11,700	13,600	6,640	7,040	6,440	6,540
11	5,500	5,780	5,780	6,640	6,350	6,440	12,600	13,700	6,940	6,540	6,350	7,440
12	5,500	5,590	5,780	7,040	6,160	6,260	13,100	12,900	6,640	5,780	5,880	7,540
13	5,590	5,590	5,780	6,540	5,970	6,160	13,600	11,700	7,140	6,060	5,680	8,380
14	5,590	5,680	6,440	6,060	6,260	6,260	13,900	11,700	7,640	6,350	5,590	8,160
15	5,500	5,680	7,040	5,970	6,840	7,340	12,200	12,000	7,740	6,060	5,680	7,340
16	5,590	5,680	6,640	5,970	7,140	9,590	9,150	12,200	7,340	6,060	6,260	6,350
17	5,590	6,440	5,970	6,060	6,640	9,040	7,940	12,500	6,540	6,740	7,340	6,260
18	5,590	6,350	5,880	6,350	6,160	7,140	8,600	12,500	6,350	6,640	6,840	6,940
19	5,500	5,880	5,970	7,040	6,060	6,350	9,590	11,700	6,740	6,540	6,060	7,140
20	5,780	5,780	6,260	6,940	6,060	6,350	10,000	9,920	6,640	7,140	6,160	7,840
21	5,970	5,780	7,040	6,260	6,350	7,140	8,820	8,490	7,140	6,640	7,540	8,710
22	5,880	5,780	7,140	5,970	6,540	7,740	7,440	9,700	7,340	6,060	8,050	8,160
23	6,060	5,880	6,740	5,970	6,940	7,940	6,640	10,100	6,740	5,970	7,440	6,940
24	6,060	6,640	6,350	6,160	6,740	8,050	6,640	10,400	6,160	5,880	7,140	6,940
25	5,880	6,540	6,540	6,640	6,260	8,270	7,140	10,800	5,970	5,970	6,540	7,740
26	5,680	6,060	7,440	7,140	*6,160	8,710	7,240	10,000	6,840	6,840	5,970	7,340
27	5,880	5,880	7,840	7,640	6,160	11,100	7,340	7,940	*6,940	6,940	*5,880	7,240
28	5,970	5,780	*7,640	7,840	6,160	12,400	6,740	*7,140	6,440	6,740	5,780	7,540
29	5,590	*5,780	7,540	*7,140	-	10,700	6,840	7,740	6,940	6,350	5,780	7,440
30	*5,500	5,880	7,240	7,140	-----	9,260	*6,440	9,150	6,840	*6,350	6,540	6,640
31	5,590	-----	6,260	7,940	-----	8,050	-----	9,150	-----	6,350	7,240	-----
Total	181,100	176,620	202,380	202,170	190,970	240,330	268,730	324,020	210,020	201,420	199,430	214,110
Mean	5,842	5,887	6,528	6,522	6,820	7,753	8,958	10,450	7,001	6,497	6,433	7,137
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	13,600				Min 4,590		Mean 6,309	Cfsm -		In. -		
Water year 1956-57: Max	13,900				Min 5,500		Mean 7,154	Cfsm -		In. -		

* Discharge measurement made on this day.

Note.--Discharge for Nov. 3-28, June 4-13 computed from once-daily staff-gage readings by U. S. Weather Bureau.

Brier Creek at Millhaven, Ga.

Location--Lat 32°56'00", long 81°39'05", near right bank on downstream side of pier of highway bridge at Millhaven, Screven County, 8½ miles upstream from Beaver Dam Creek.

Drainage area--646 sq mi.

Records available--April 1937 to September 1957.

Gage--Water-stage recorder. Datum of gage is 95.88 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 7, 1950, staff gage at site 200 ft downstream at same datum. June 7, 1950, to Apr. 30, 1951, wire-weight gage at present site and datum.

Average discharge--20 years, 603 cfs.

Extremes--Maximum discharge during year, 1,140 cfs Apr. 1 (gage height, 6.4 ft); minimum, 111 cfs Aug. 14.

1937-57: Maximum discharge, 25,400 cfs Aug. 16, 1940 (gage height, 17.4 ft, from graph based on gage readings); minimum daily, 64 cfs Sept. 5-11, 1954.

Maximum stage known, 25.1 ft in September or October 1929, from information by Georgia State Highway Department.

Remarks--Records good. Slight diurnal fluctuation at low flow caused by gristmills above station.

Revisions--WSP 1383: Drainage area. Revised figures of discharge, in cubic feet per second, for the water year 1956, superseding those published in WSP 1433, are given herewith:

1956	
Sept. 28.....	368
29.....	581
30.....	595

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
September 1956.....	6,231	395	123	208	0.322	0.56
Water year 1955-56.....	-	2,760	107	435	.670	9.13

Rating table, water year 1956-57 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 6 to Dec. 31,
May 16-24, Aug. 27 to Sept. 9)

0.7	107	6.0	997
3.0	342	6.5	1,180
4.0	491		

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	409	278	256	789	491	409	1,140	250	381	456	308	136
2	456	261	266	789	589	409	1,060	300	440	440	283	132
3	548	250	278	685	762	409	903	368	456	368	281	128
4	710	244	278	569	845	424	762	395	409	318	234	123
5	736	239	278	509	762	509	762	591	381	300	213	119
6	591	234	283	456	685	569	845	685	342	278	239	115
7	473	228	283	440	685	637	789	817	306	244	234	123
8	381	228	283	440	736	685	817	873	278	223	188	141
9	330	239	283	456	710	736	903	817	355	213	154	208
10	306	239	283	440	637	685	873	710	440	203	141	294
11	278	239	278	424	637	637	789	710	456	183	123	318
12	266	234	272	424	637	614	736	873	528	168	119	330
13	261	228	272	424	591	661	817	817	591	154	115	318
14	244	228	272	440	528	661	817	614	591	146	111	300
15	228	228	272	456	491	661	710	509	614	150	132	288
16	213	234	278	440	473	637	591	473	528	146	128	306
17	208	234	278	424	440	614	*528	473	409	132	123	306
18	203	234	283	409	424	569	491	491	*355	128	128	306
19	198	228	*288	381	409	548	473	548	306	150	154	294
20	198	223	300	381	*409	*528	456	548	318	173	244	288
21	208	223	300	368	395	591	440	548	395	173	288	342
22	239	223	318	*368	381	762	424	*456	424	188	300	456
23	266	223	342	381	381	817	409	630	330	195	300	456
24	288	228	409	424	368	762	395	440	278	*188	261	395
25	288	228	473	440	368	903	395	491	261	223	261	*342
26	278	223	509	440	395	903	368	456	256	239	261	330
27	272	*228	528	424	409	845	355	409	261	256	*234	318
28	272	228	548	424	424	903	330	355	272	318	188	318
29	272	228	548	424	-	933	294	300	318	342	168	318
30	*278	239	591	440	-----	933	272	318	440	318	154	306
31	278	-----	561	456	-----	965	-----	342	-----	318	146	-----
Total	10,176	7,021	10,791	14,365	15,042	20,919	18,944	16,401	11,719	7,329	6,191	8,154
Mean	328	234	348	463	537	675	631	529	391	236	200	272
Cfsm	0.508	0.362	0.539	0.717	0.831	1.04	0.977	0.819	0.605	0.365	0.310	0.421
In.	0.59	0.40	0.62	0.83	0.87	1.20	1.09	0.94	0.68	0.42	0.36	0.47

Calendar year 1956: Max 2,760 Min 107 Mean 435 Cfsm 0.674 In. 9.16

Water year 1956-57: Max 1,140 Min 111 Mean 403 Cfsm 0.624 In. 8.47

Peak discharge (base, 2,000 cfs)--No peak above base.

* Discharge measurement made on this day.

Savannah River near Clio, Ga.

Location.--Lat 32°31'30", long 81°15'45", on downstream side of center pier of drawspan of bridge on Seaboard Air Line Railroad, 3 miles north of Clio, Effingham County, and at mile 50.1 upstream from Savannah.

Drainage area.--9,850 sq mi, approximately.

Records available.--October 1937 to September 1957 in reports of Geological Survey. April 1930 to June 1933 (below 12,000 cfs only) in House Document 64, 74th Congress, 1st session. Gage-height records collected at same site 1921-43 by U. S. Weather Bureau (unpublished prior to 1933).

Gage.--Water-stage recorder. Datum of gage is 13.41 ft above mean sea level, datum of 1929, supplementary adjustment of 1936. Prior to June 12, 1945, staff gage at same site and datum.

Average discharge.--20 years, 10,690 cfs.

Extremes.--Maximum discharge during year, 15,000 cfs May 15 (gage height, 11.15 ft); minimum daily, 5,760 cfs Aug. 15, 16.

1937-57: Maximum discharge observed, 128,000 cfs Aug. 21, 22, 1940 (gage height,

23.6 ft); minimum daily discharge, 2,830 cfs Oct. 19, 25-28, 1941.

1921-57: Maximum gage height, 29.7 ft Oct. 6, 1929; minimum, 1.21 ft Sept. 11, 1951.

Remarks.--Records good. Considerable regulation by Clark Hill Reservoir (see p. 278) for monthly change in contents), Stevens Creek powerplant, and New Savannah Bluff lock and dam above station.

Revisions (water years).--WSP 1112: 1940.

Discharge, in cubic feet per second, water year October 1956 to September 1957

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*9,340	6,480	6,360	8,150	8,380	6,760	11,100	7,080	10,700	*7,270	7,270	6,860
2	8,150	6,480	6,760	7,600	9,220	7,080	9,480	6,960	10,900	7,060	7,060	7,270
3	7,160	6,560	7,060	7,380	9,760	7,600	8,380	7,710	10,300	6,960	7,160	6,660
4	6,760	6,960	6,860	7,380	9,480	7,930	*7,930	8,500	8,980	7,380	7,490	6,160
5	6,760	7,060	6,660	7,600	8,500	7,490	7,930	9,220	8,260	7,710	7,820	<u>9,960</u>
6	6,960	6,760	6,560	8,040	7,820	7,160	8,380	10,000	8,040	7,710	7,270	6,160
7	7,490	6,660	6,460	8,040	7,710	7,270	8,860	11,100	8,040	7,490	6,660	6,960
8	7,820	6,560	6,560	7,710	8,150	7,600	9,760	11,900	8,380	7,270	6,160	7,930
9	7,600	6,460	7,160	7,380	8,620	8,150	10,700	12,300	8,620	6,960	5,960	8,040
10	7,270	6,460	7,600	7,160	8,740	8,500	11,400	12,900	8,620	6,660	6,060	7,490
11	6,960	6,760	7,160	7,270	8,380	8,380	11,900	13,500	8,380	6,960	6,360	7,270
12	6,660	6,860	6,760	7,600	7,820	7,820	12,200	14,100	8,260	6,960	6,460	7,710
13	6,560	6,560	6,660	7,930	7,270	7,380	12,500	14,500	8,040	6,360	6,260	8,040
14	6,460	6,460	6,660	7,820	7,060	7,160	13,100	<u>14,800</u>	8,150	6,160	5,960	8,500
15	6,560	6,560	6,960	7,380	7,060	7,060	13,500	<u>14,800</u>	8,500	6,460	<u>5,760</u>	8,740
16	6,460	6,560	7,490	7,160	7,380	7,600	<u>13,700</u>	14,800	8,620	6,360	5,760	8,260
17	6,460	6,560	7,490	7,060	7,710	8,980	<u>13,700</u>	14,500	8,500	6,360	6,060	7,380
18	6,460	6,860	7,060	7,060	7,600	9,760	12,500	14,500	7,930	6,660	6,760	6,960
19	6,460	7,060	6,760	7,270	7,060	9,100	11,400	14,500	7,380	6,960	7,060	7,270
20	<u>6,360</u>	6,660	6,760	7,710	6,760	7,930	10,700	14,500	7,270	6,960	6,660	7,490
21	6,460	6,360	6,860	7,930	6,660	7,380	10,700	14,100	7,160	7,160	6,460	8,040
22	6,780	6,260	7,380	7,490	6,860	7,710	10,600	13,100	7,380	7,160	6,960	8,620
23	6,780	6,260	7,820	7,160	7,060	8,150	9,480	12,200	7,600	6,560	7,820	9,860
24	6,860	6,460	7,930	6,960	7,270	8,620	8,260	11,900	7,380	6,160	<u>7,930</u>	8,150
25	6,960	6,760	7,710	6,960	7,380	9,220	7,600	11,900	6,960	<u>5,960</u>	7,600	7,600
26	6,760	6,960	7,600	7,270	*7,160	9,620	7,600	11,900	6,760	5,960	7,160	8,040
27	6,660	*6,760	*8,150	7,710	6,860	10,000	7,820	*12,200	6,960	6,460	6,560	8,040
28	6,780	6,560	8,740	8,150	6,860	10,700	7,820	11,700	7,270	7,380	*6,160	7,930
29	6,780	6,460	8,980	*8,500	-----	-----	11,700	7,600	10,200	7,060	7,820	8,040
30	6,360	6,360	8,660	8,260	-----	-----	<u>12,300</u>	*7,380	9,820	7,160	7,820	8,150
31	6,460	-----	8,740	8,040	-----	-----	12,000	-----	10,300	-----	*7,600	6,360
Total	214,470	198,500	226,570	235,150	216,590	264,090	303,980	371,270	243,560	214,610	207,040	228,580
Mean	6,918	6,617	7,309	7,585	7,735	8,519	10,130	11,980	8,119	6,923	6,679	7,619
Cfsm	-	-	-	-	-	-	-	-	-	-	-	-
In.	-	-	-	-	-	-	-	-	-	-	-	-
Calendar year 1956: Max	14,100	Min	5,400	Mean	7,145	Cfsm	-	In.	-	-	-	-
Water year 1956-57: Max	14,900	Min	5,760	Mean	8,012	Cfsm	-	In.	-	-	-	-

* Discharge measurement made on this day.

Mill Creek at Old Fort, N. C.

Location--Lat 35°38'10", long 82°11'10", at bridge on county highway, half a mile upstream from mouth at Old Fort, McDowell County.

Drainage area--20.7 sq mi.

Records available--May to December 1907 (gage heights and discharge measurements only), August 1930 to July 1931 (discontinued). Records of discharge for 1907, published in WSP 242, have been found to be unreliable and should not be used.

Gage--Staff gage. Altitude of gage is 1,450 ft (from topographic map). May to December 1907, staff gage at different site and datum.

Extremes--1930-31: Maximum discharge observed, 248 cfs Apr. 4, 1931 (gage height, 3.08 ft); minimum, 4.7 cfs Sept. 3, 4, 1930 (gage height, 1.08 ft).

Revisions--See Records available. Revised figures of discharge, in cubic feet per second, for periods in the water year 1931, superseding those published in WSP 712, are given herewith:

1930		1931	
Dec. 25.....	14	June 15.....	48
26.....	18	22.....	46
27.....	20		

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1930.....	79	10.2	18.5	0.894	1.03
June 1931.....	48	12.0	18.6	.899	1.01

Catawba River near Old Fort, N. C.

Location--Lat 35°38'20", long 82°08'10", at highway bridge a quarter of a mile upstream from Brevard Creek, 1 mile downstream from Curtis Creek, and 2 miles east of Old Fort, McDowell County.

Drainage area--57.1 sq mi.

Records available--August 1930 to July 1931 (discontinued).

Gage--Staff gage. Altitude of gage is 1,350 ft (from topographic map).

Extremes--1930-31: Maximum discharge observed, 870 cfs Apr. 4, 1931 (gage height, 3.40 ft); minimum, 16 cfs Sept. 3, Oct. 20, 1930 (gage height, 0.64 ft).

Revisions--Revised figures of discharge, in cubic feet per second, for ice affected periods in the water year 1931, superseding those published in WSP 712, are given herewith:

1930	
Dec. 17.....	40
18.....	40
25.....	40
26.....	50

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
December 1930.....	270	31	55.2	0.967	1.11

Catawba River near Morganton, N. C.

Location (revised).--Lat 35°46'20", long 81°41'20", at bridge on highway from Morganton to Hartland, about 600 ft downstream from Warrior Fork, 2 miles upstream from Johns River, and 2 miles north of Morganton, Burke County.

Drainage area.--677 sq mi (revised).

Records available.--June to December 1900, May 1903 to June 1909 (discontinued). Monthly discharge only for some periods, published in WSP 1303. Records of daily gage height and discharge for Sept. 1-30 and Oct. 11 to Nov. 13, 1908, Feb. 16 to Mar. 6 and Apr. 16 to May 10, 1909, published in WSP 242 and 262, have been found to be unreliable and should not be used.

Gage.--Chain gage. Altitude of gage was about 980 ft (from river-profile map). Prior to May 6, 1903, wire-weight gage at same site with altitude about 0.5 ft higher.

Average discharge.--5 years (1903-8), 1,631 cfs.

Extremes.--1903-8: Maximum gage height, 23.0 ft Aug. 26, 1908, from graph based on gage readings (discharge not determined); minimum daily discharge, 280 cfs Oct. 17, 1904. Flood in May 1901 is reported to have reached a stage from 8 to 15 ft higher than a flood which occurred sometime prior to June 1900, which reached a stage of about 28 ft.

Revisions.--See Records available. Revised figures of discharge, in cubic feet per second, for the water years 1903-6, 1908, superseding those published in WSP 98, 127, 168, 204, and 242 are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1903		1904		1905-Con.		1905-Con.		1905-Con.	
June 1	3,670	May 3	3,430	Feb. 26	2,050	July 6	3,430	Aug. 14	3,750
2	3,510	4	2,350	27	1,760	7	1,900	15	3,910
3	3,350	8	3,750	May 6	3,430	9	2,880	16	2,800
4	2,120	9	4,720	7	2,350	11	2,950	17	2,200
5	2,950	10	3,030	8	1,830	12	17,800	18	1,900
6	16,800	11	2,050	9	2,050	13	14,800	19	1,760
7	6,680	16	1,900	10	2,200	14	8,400	25	1,830
8	3,910	19	2,800	11	1,830	15	4,550	Dec. 3	5,060
9	2,120	31	6,680	12	1,760	16	3,590	9	5,910
10	8,900			14	5,400	17	2,350	10	2,350
11	4,550	1905		15	5,570	18	2,050	16	1,980
12	3,510	Jan. 7	1,760	16	5,910	19	1,630	21	5,910
13	2,800	11	1,900	17	3,270	20	1,690	22	2,650
14	2,350	12	10,400	18	2,500	22	2,350	23	1,900
15	2,120	13	4,230	19	2,120	23	2,120		
16	1,980	Feb. 14	2,420	24	3,430	24	2,050	1906	
17	1,900	13	2,350	25	2,280	25	1,900	Jan. 22	3,820
18	2,350	20	1,800	26	1,690	26	1,690	23	22,200
19	1,830	21	4,070	June 16	1,900	Aug. 9	2,500	Apr. 15	4,100
20	1,760	22	4,230	17	7,280	10	4,720	1908	
23	2,650	23	3,910	18	5,740	11	8,400	Aug. 28	4,700
Aug. 28	580	24	2,800	19	3,270	12	4,890	29	3,700
		25	2,350	20	2,350	13	4,550	30	3,000
								31	2,600

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
June 1903.....	16,600	1,156	3,170	4.68	5.22
August.....	2,902	526	1,035	1.53	1.76
May 1904.....	6,680	657	1,734	2.56	2.95
Water year 1903-4.....	15,480	339	990	1.46	19.91
Calendar year 1904.....	15,480	280	952	1.41	19.15
January 1905.....	10,400	470	1,361	2.01	2.32
February.....	4,230	550	1,497	2.21	2.30
May.....	5,910	690	2,112	3.12	3.80
June.....	7,280	470	1,373	2.03	2.26
July.....	17,800	950	3,070	4.53	5.23
August.....	8,400	740	2,060	3.04	3.51
Water year 1904-5.....	17,800	280	1,313	1.94	26.34
December 1905.....	5,910	470	1,692	2.50	2.88
Calendar year 1905.....	17,800	435	1,425	2.10	28.58
January 1906.....	22,200	1,000	3,358	4.96	5.72
April.....	4,100	1,180	1,768	2.61	2.91
Water year 1905-6.....	-	435	2,091	3.09	41.92
Calendar year 1906.....	-	740	2,791	4.12	55.97
August 1908.....	28,400	1,180	3,820	5.64	6.51
Water year 1907-8.....	28,400	510	1,658	2.71	36.96
Calendar year 1908.....	28,400	740	1,927	2.65	38.76

Johns River near Morganton, N. C.
(Formerly published as John River near Morganton)

Location (revised).--Lat 35°47'30", long 81°40'30", at bridge on highway from Morganton to Lenoir, 1½ miles upstream from mouth and 3¼ miles north of Morganton, Burke County.

Drainage area.--213 sq mi.

Records available.--June 1900 to December 1901 (discontinued). All figures of discharge above 4,500 cfs have been found to be unreliable and should not be used.

Gage.--Wire-weight gage. Altitude of gage is about 990 ft (from topographic map).

Extremes.--1900-1901: Maximum stage recorded, 20.5 ft May 22, 1901 (discharge not determined; previously published discharge is unreliable and should not be used); minimum daily discharge recorded, 80 cfs Sept. 10-13, 1900.

Revisions.--See Records available. Revised figures of discharge, in cubic feet per second, for a period in the water year 1901, superseding those published in WSP 83, are given herewith:

1901	
July 28.....	800
29.....	680
30.....	620

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
July 1901.....	985	450	689	3.23	3.73

Green River near Mill Spring, N. C.

Location.--Lat 35°20'10", long 82°04'50", on right bank at abandoned ford, 1.5 miles north-east of Pea Ridge Church, 2 miles downstream from Walnut Creek, 5.2 miles northeast of Mill Spring, Polk County, and 9 miles downstream from Turner Shoals Dam.

Drainage area.--174 sq mi.

Records available.--December 1933 to December 1954 (discontinued). All figures of discharge above 1,500 cfs prior to the water year 1949 except the 1946 maximum discharge, and Nov. 28, 29, 1948, Aug. 23, 29, Oct. 7, 1949, have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Altitude of gage is 770 ft (by barometer).

Average discharge.--14 years (1940-54), 387.4 cfs (revised).

Extremes.--1939-54: Maximum gage height, 22.15 ft Aug. 13, 1940 (maximum discharge at gage not determined; figure previously published is unreliable); maximum discharge at Turner Shoals Dam (drainage area, 135 sq mi), 12,000 cfs Aug. 28, 1949, by computation of peak flow over dam; minimum, 25 cfs July 6, 1940 (gage height, 1.42 ft); minimum daily, 25 cfs July 6, 1940.

Maximum stage known, 24.2 ft in July 1916, from flood-crest reference mark placed by local resident.

Remarks.--Large diurnal fluctuation caused by powerplants above station; considerable regulation by Lake Summit and Turner Shoals Reservoirs (combined usable storage, 338,875,000 cu ft).

Revisions (water years).--WSP 1233: 1940(M). See also Records available. Revised figures of discharge, in cubic feet per second, for a period in the water year 1948, superseding those published in WSP 1112, are given herewith:

1948		1948-Con.	
Sept. 17.....	405	Sept. 22.....	300
18.....	405	23.....	335
19.....	118	24.....	332
20.....	287	25.....	278
21.....	297	26.....	68

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
September 1948.....	11,717	1,130	66	391	-	-
Water year 1947-48.....	171,485	-	30	469	2.70	36.65
Calendar year 1948.....	176,653	4,000	52	483	2.78	37.76

Measurements of streamflow in the South Atlantic slope basins, James River to Savannah River made at points other than regular gaging stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. Measurements believed to have been made under base-flow conditions are identified by an asterisk (*) to the left of the discharge figure. These measurements when correlated with the simultaneous discharge of a nearby stream where continuous records are available will give a picture of the low-flow potentiality of stream. The column headed, "Measured previously" shows the water years in which measurements were made at the same, or practically the same, site.

Determinations of peak flow at points other than regular gaging stations are given in a separate table on page 316.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
James River basin, Va.						
St. Marys River.	South River..	Lat 37°55'49", long 79°09'52", at bridge on State Highway 608, 2.5 miles northeast of Vesuvius.	15.7		May 14	9.00
Little Willis River.	Willis River.	Lat 37°25', long 78°28', at culvert on U. S. Highway 15, 0.4 mile southeast of Curdsville.	7.1		May 16	2.08
Dismal Swamp basin, N. C.						
Polly Swamp..	Dismal Swamp.	Lat 36°29'25", long 76°34'30", at culvert on State Highway 32, 1.5 miles upstream from Dismal Swamp and 4.0 miles north of Sunbury, Gates County.	3.43		Aug. 6	*0.002
Pasquotank River basin, N. C.						
Newland drainage canal.	Pasquotank River.	Lat 36°25'24", long 76°25'15", at highway at Lynchs Corner, Pasquotank County, 5.3 miles west of South Mills, Camden County, and 4 miles above mouth.	(a)		July 23	*0.06
Joyce Creek..	Inland waterway.	Lat 36°29'07", long 76°19'13", at secondary paved road, 1.1 miles west of Lilly, 2.6 miles north of South Mills, Camden County, and 6.4 miles above mouth.	4.50		July 23 Aug. 6	*0 *0
Unnamed tributary.	Joyce Creek..	Lat 36°28'50", long 76°18'50", at highway culvert 0.2 mile north of Tar Corner, Camden County, and 1.0 mile above mouth.	(a)		July 23	*0
Do.....	Pasquotank River.	Lat 36°22'15", long 76°17'37", at culvert on U. S. Highway 17, 2.0 miles above mouth and 6.3 miles northwest of Elizabeth City, Pasquotank County.	1.80		June 18 June 24 July 17 July 23 Aug. 6 Aug. 26	*.002 *.001 *0 *0 *0 *.71
Sawyers Creek	....do.....	Lat 36°22'39", long 76°11'03", at highway culvert, 1.3 miles northwest of Hastings Corner, Camden County, and 5.6 miles above mouth.	1.43		July 23 Aug. 6	*0 *0
Do.....	....do.....	Lat 36°21'30", long 76°10'40", at highway 1 mile southwest of Hastings Corner, Camden County, and 3.5 miles above mouth.	4.96		Aug. 6	*0
Little River basin, N. C.						
Little River.	Albemarle Sound.	Lat 36°16'07", long 76°22'42", 1 mile above Norfolk Southern Ry. bridge and 3.7 miles northwest of Woodville, Perquimans County.	25.1		July 23 Aug. 6	*0 *0
Do.....	....do.....	Lat 36°14'25", long 76°19'30", at U. S. Highway 17, 0.4 mile north of Woodville, Perquimans County, and 3½ miles above Halls Creek.	47.5		July 23	*0
Perquimans River basin, N. C.						
Unnamed tributary.	Perquimans River.	Lat 36°18'25", long 76°30'00", 1.0 mile above mouth and 1.6 miles south of Whiteston, Perquimans County.	(a)		July 24 Aug. 6	*0 *0
Do.....	....do.....	Lat 36°16'15", long 76°32'48", at culvert on State Highway 37, 0.1 mile above mouth and 0.5 mile west of Belvidere, Perquimans County.	1.01		June 25 July 24 Aug. 8 Aug. 14 Sept. 6 Sept.13 Sept.24	*0 *0 *0 *0 *.08 *.17 *.70

* Base flow.
a Indeterminate.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Perquimans River basin, N. C.--Continued						
Sutton Creek.	Perquimans River.	Lat 36°12'42", long 76°23'06", at highway bridge, 1½ miles northwest of Newhope Proper, 3.8 miles above mouth, and 5 miles east-northeast of Hertford, Perquimans County.	6.48		July 23	*0
Yeopim River basin, N. C.						
Bethel Creek.	Yeopim River.	Lat 36°06'44", long 76°29'05", at highway, 1.6 miles above mouth and C.3 mile southwest of Bethel, Perquimans County.	11.2		July 23	*0
Pembroke Creek basin, N. C.						
Pollock Swamp	Pembroke Creek.	Lat 36°07'00", long 76°37'41", at highway 3½ miles above mouth and 2½ miles southeast of Vahalla, Chowan County.	12.2		July 23	*0
Chowan River basin						
Buckhorn Creek.	Chowan River.	Lat 36°30'55", long 76°59'06", at highway, ½ mile below Beaman Branch and 1½ miles northeast of Como, Hertford County, N. C.	7.34	1953	Aug. 5	*0
Somerton Creek.	....do.....	Lat 36°33'30", long 76°49'10", at highway bridge, 1 mile below Mill Swamp, 2½ miles northwest of Reynoldson, Gates County, N. C., and 2½ miles southeast of Cleopuss, Va.	87.2	1953	Aug. 5	*0
Jacks Swamp..	Fontaine Creek.	Lat 36°31'18", long 77°32'04", at highway, 3.8 miles above mouth and 0.8 mile south-southeast of Pleasant Hill, Northampton County, N. C.	8.64		Aug. 5	*0
Cypress Creek	Meherrrin River.	Lat 36°30'59", long 77°27'14", at highway, 1.0 mile above Jordans Mill Pond and 1.8 miles north of Seaboard, Northampton County, N. C.	5.60		Aug. 5	*0
Unnamed tributary.	....do.....	Lat 36°31'25", long 77°04'32", at highway bridge, 1.1 miles above mouth and 4.1 miles northwest of Como, Hertford County, N. C.	.68		Aug. 5	*0
Rogers Swamp.	Kirbys Creek.	Lat 36°29'58", long 77°15'42", at highway, 1.7 miles above mouth and 3.0 miles northeast of Galatia, Northampton County, N. C.	12.2		Aug. 5	*0
Liverman Creek.	Meherrrin River.	Lat 36°28'14", long 76°59'47", at highway, 2.7 miles above mouth and 2.3 miles south-southeast of Como, Hertford County, N. C.	10.3		Aug. 5	*0
Unnamed tributary.	Potocasi Creek.	Lat 36°24'15", long 77°22'34", at highway, 1.9 miles above mouth and 2.9 miles east of Jackson, Northampton County, N. C.	5.33		July 22 Aug. 5	*.03 *.008
Ramsey Creek.	....do.....	Lat 36°23'31", long 77°24'16", at U. S. Highway 158, 3.1 miles above mouth and 1.1 miles east of Jackson, Northampton County, N. C.	10.0		July 22 Aug. 5	*.17 *0
Wildcat Swamp.	....do.....	Lat 36°26', long 77°22', at culvert on U. S. Highway 158, 4.1 miles northeast of center of Jackson, Northampton County, N. C. and 8½ miles above mouth.	.7	1954	July 22	*0
Do.....	....do.....	Lat 36°23'48", long 77°16'45", at highway, 1½ miles above mouth and 1.5 miles east of Creeksville, Northampton County, N. C.	11.1		Aug. 5	*0
Potocasi Creek.	Meherrrin River.	Lat 36°22', long 77°14', at State Highway 35, ½ mile north of Potocasi, Northampton County, N. C. and 2½ miles above Urahaw Swamp.	53.2	1949-50, 1954	Aug. 5	*0
Urahaw Swamp.	Potocasi Creek.	Lat 36°18', long 77°18', at State Highway 305, 2½ miles downstream from quarter Swamp and 2½ miles northwest of Rich Square, Northampton County, N. C.	20.4	1954	Aug. 5	*0
Do.....	....do.....	Lat 36°20', long 77°13', at State Highway 35, 1 mile northwest of Woodland, Northampton County, N. C. and 2 miles above mouth.	51.9	1954	Aug. 8	*0
Potocasi Creek.	Meherrrin River.	Lat 36°22'15", long 77°01'40", at highway, 2½ miles north of Union, Hertford County, N. C. and 3¼ miles upstream from Bells Branch,	191	1953-56	Apr. 11 July 17	*453 *.18

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Chowan River basin--Continued						
Cutawhiskie Creek.	Potocas Creek.	Lat 36°18'00", long 77°12'00", at State Highway 35, 2.5 miles south of Woodland, Northampton County, N. C. and 5½ miles upstream from Chapel Branch.	11.8		Aug. 5	*0
Unnamed tributary.	Chowan River.	Lat 36°25'30", long 76°54'06", at U. S. Highway 158, 3.6 miles above mouth and 2.8 miles west of Eure, Gates County, N. C.	8.72		Aug. 5	*0
Cole Creek...	Sarem Creek..	Lat 36°26'30", long 76°46'30", at U. S. Highway 158, 3 miles northwest of Gatesville, Gates County, N. C.	30.9	1953, 1955-56,	Apr. 12 July 17 Aug. 6	*32.8 *.19 *.16
Loosing Swamp. .	Stony Creek..	Lat 36°11'18", long 76°59'20", at highway, 1 mile below Wild Cat Swamp and 4 miles southwest of Powellsville, Bertie County, N. C.	19.8		July 23 Aug. 6	*0 *0
Beaverdam Swamp.	Loosing Swamp.	Lat 36°12'00", long 77°01'46", at highway, 2.2 miles above mouth and 2.5 miles east of Connaritsa, Bertie County, N. C.	5.01		July 23	*0
Unnamed tributary.	Beaverdam Swamp.	Lat 36°12'27", long 77°01'25", at highway, 0.5 mile above mouth and 3.1 miles east-northeast of Connaritsa, Bertie County, N. C.	3.58		July 23	*0
Wicocason Swamp.	Stony Creek..	Lat 36°12'06", long 76°57'05", at highway, 1.7 miles above mouth and 2 miles south of Powellsville, Bertie County, N. C.	10.8		July 23	*0
Ahoskie Creek.	Wicocason Creek.	Lat 36°14'45", long 76°56'50", at State Highway 350, 1.2 miles north of Powellsville, Bertie County, N. C. and 7 miles above mouth.	134	1953-54	July 23	*.02
Do.....	....do.....	Lat 36°16'35", long 76°54'00", at highway, 1.5 miles above Whiteoak Swamp and 0.9 mile west of Bethlehem, Hertford County, N. C.	144		July 23	*0
Whiteoak Swamp.	Ahoskie Creek.	Lat 36°17'19", long 76°54'52", at highway, 0.7 mile above mouth and 1.8 miles northwest of Bethlehem, Hertford County, N. C.	5.30		July 23	*.02
Horse Swamp..	Bear Swamp...	Lat 36°18'38", long 76°56'41", at highway, 0.4 mile above mouth and 2.7 miles northeast of Ahoskie, Hertford County, N. C.	7.37		July 23 Aug. 5	*.005 *.01
Flat Swamp...	....do.....	Lat 36°18'55", long 76°55'57", at highway, 0.2 mile above mouth and 3.2 miles south of Corfield, Hertford County, N. C.	4.50		July 23	*.04
Chinkapin Swamp.	Chinkapin Creek.	Lat 36°12', long 76°47', at culvert on State Highway 350, 0.8 mile upstream from Peele Branch and 1.0 mile west of Colerain, Bertie County, N. C.	8.89	1954	July 23	*0
Do.....	....do.....	Lat 36°14'08", long 76°50'15", at highway, 0.8 mile below Cypress Swamp and 2.6 miles northeast of Trap, Bertie County, N. C.	31.2		July 23	*.01
Duke Swamp...	Bennett Creek.	Lat 36°28'10", long 76°36'10", at highway, 1½ miles below Middle Swamp and 2½ miles northwest of Sunbury, Gates County, N. C.	36.2	1949 1951-56	Apr. 12 June 18 June 25 July 24 Aug. 5 Aug. 6 Aug. 14 Aug. 19 Aug. 26 Sept. 6 Sept. 23	*92.3 *0 *0 *0 *0 *0 *0 *5.39 *1.24 *.58 *5.65
Warwick Creek.	Catherine Creek.	Lat 36°19'40", long 76°38'05", at State Highway 32, 0.9 miles south of Mintonville, Gates County, N. C. and 3.0 miles above mouth.	9.05		Aug. 6	*0
Indian Creek.	Chowan River.	Lat 36°14'39", long 76°39'16", at State Highway 32, 3.1 miles above mouth and 1.3 miles north of Small's Crossroads, Chowan County, N. C.	16.2		Aug. 6	*0
Rockyhock Creek.	....do.....	Lat 36°10'39", long 76°40'11", at highway, 1.2 miles northeast of Rockyhock, 5.9 miles above mouth, and 1.7 miles west of Mavaton, Chowan County, N. C.	12.3		July 23	*0

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Chowan River basin--Continued						
Eastmost Swamp.	Salmon Creek.	Lat 36°03'40", long 76°46'15", at highway, 0.75 mile above mouth and 3.6 miles northwest of Edenhous, Bertie County, N. C.	12.9		July 23	*0
Cricket Swamp	....do.....	Lat 36°03'40", long 76°47'11", at State Highway 45, 1½ miles above mouth and 4.5 miles northwest of Edenhous, Bertie County, N. C.	12.4		July 23 Aug. 6	*0 *0
Roanoke River basin, N. C.						
Town Fork Creek.	Dan River....	Lat 36°17', long 80°09', at U. S. Highway 311, at Walnut Cove, Stokes County, 4 miles above mouth.	114	1949-55	Aug. 29	*24.8
Belews Creek.	....do.....	Lat 36°19', long 79°13', at highway, 1½ miles east of Pine Hall, Stokes County, 1½ miles above mouth.	79.3	1954-56	Mar. 13 July 8	*57.0 *27.1
Big Beaver Island Creek.	....do.....	Lat 36°22'56", long 79°59'01", at U. S. Highway 311, ½ mile above mouth and 1 mile southwest of Madison, Rockingham County.	23.7	1954-56	Mar. 13 July 8	*19.0 *5.36
Hogan Creek..	....do.....	Lat 36°23', long 79°55', at highway, ½ mile above mouth and 3½ miles east of Madison, Rockingham County.	23.0	1954-56	Mar. 13 July 8	*16.4 *6.23
Wolf Island Creek.	....do.....	Lat 36°31'56", long 79°30'07", at State Highway 700, ½ mile above mouth and 2½ miles northwest of Pelham, Caswell County.	68.7	1954-56	Mar. 13 July 8	*49.4 *15.9
Hogan Creek..	....do.....	Lat 36°31', long 79°23', at State Highway 86, 1 mile northwest of Providence, 3½ miles above mouth, and 8 miles northwest of Yanceyville, Caswell County.	96.1	1954-56	Mar. 13 July 9	*76.1 *11.0
Moon Creek...	....do.....	Lat 36°29', long 79°22', at State Highway 86, 1 mile southeast of Providence, 2 miles below East Prong Moon Creek, and 6 miles northwest of Yanceyville, Caswell County.	37.8	1954-56	Mar. 13 July 9	*22.5 *4.39
Country Line Creek.	....do.....	Lat 36°23'20", long 79°20'10", at highway, 1 mile south of Yanceyville, Caswell County, and 1½ miles above South Country Line Creek.	47.8	1954-56	Mar. 14 July 9	*31.8 *4.76
South Country Line Creek.	Country Line Creek.	Lat 36°21'48", long 79°17'04", at highway, 1½ miles below Person Creek and 4½ miles southeast of Yanceyville, Caswell County.	34.8	1954-56	Mar. 14 July 9	*12.4 *1.04
Country Line Creek.	Dan River....	Lat 36°30', long 79°13', at highway, at Yarbro, 4½ miles above mouth and 3 miles west of Semora, Caswell County.	123	1956	Mar. 14 July 9	*74.1 *5.72
Hycro River...	....do.....	Lat 36°28', long 79°07', at State Highway 57, 1 mile above South Hycro Creek, 2½ miles southeast of Semora, and 9 miles northwest of Roxboro, Person County.	78.0	1949-56	Apr. 1 July 9	*37.8 *1.29
South Hycro Creek.	Hycro River...	Lat 36°28', long 79°06', at State Highway 57, 1 mile above mouth and 2.0 miles northwest of Concord, Person County.	76.6	1953-56	Mar. 14 July 9	*71.0 *2.02
Maho Creek...	Dan River....	Lat 36°31'50", long 78°52'50", at highway, 0.1 mile above unnamed tributary, 1½ miles northeast of Bethal Hill, 4 miles downstream from Spoonwater Creek, and 5½ miles northeast of Woodsdale, Person County.	51.2	1956	Mar. 14 July 10	*43.7 *1.86
Aarons Creek.	....do.....	Lat 36°32', long 78°44', at highway, ½ mile above Southern Ry. bridge, 2 miles east of Virgilia, and 6½ miles north of Oak Hill, Granville County.	27.6	1956	Mar. 14 July 10	*23.6 *1.12
Little Grass Creek.	Grass Creek..	Lat 36°28'34", long 78°36'16", at highway, 1½ miles above mouth and 2½ miles northwest of Stovall, Granville County.	22.9	1956	Mar. 14	*15.8 *1.60
Smith Creek..	Roanoke River	Lat 36°31'30", long 78°14'22", at highway, 0.2 mile below Ellington Creek, 4½ miles west of Paschall, and 6 miles northwest of Norlina, Warren County.	30.7	1954-56	Mar. 13 July 11	*30.3 *3.59
Six Pound Creek.	....do.....	Lat 36°32', long 78°04', at highway bridge, 1½ miles above mouth and 2½ miles northeast of Oakville, Warren County.	11.6	1954-56	July 11	*2.89

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Roanoke River basin, N. C.--Continued						
Stonehouse Creek.	Roanoke River	Lat 36°29'09", long 77°57'13", at highway bridge, 3½ miles above mouth and 4½ miles northwest of Littleton, Warren County.	15.8	1956	Mar. 30 July 19	*10.3 *1.27
Lukes Creek..	....do.....	Lat 36°29'35", long 77°39'04", at State Highway 46, ¼ mile above mouth and 0.75 mile west of Gaston, Northampton County.	4.66		Aug. 5	*.006
Oconeechee Creek.	....do.....	Lat 36°22'08", long 77°51'26", at highway, 4½ miles above mouth and 5.7 miles southwest of Jackson, Northampton County.	15.5		Aug. 5	*0
Gumberry Swamp.	Wheeler Creek.	Lat 36°21'23", long 77°28'08", at highway, ¼ mile above mouth and 5.5 miles southwest of Jackson, Northampton County.	19.7		Aug. 5	*1.58
Ready Branch.	Sweetwater Creek.	Lat 35°47'21", long 77°03'36", at U. S. Highway 17, just below Dog Branch, 4½ miles south of Williamston, Martin County.	15.5	1949-54	Apr. 11 July 16	*12.7 *1.65
Whiteoak Swamp.	Cashie River.	Lat 36°04'30", long 76°58'40", at bridge on U. S. Highway 13, ¼ mile above mouth and 6.0 miles north of center of Windsor, Bertie County.	17.1		Aug. 6	*0
Roquist Creek	....do.....	Lat 35°56'22", long 76°56'44", just below end of dirt road, 0.9 mile downstream from U. S. Highway 17, 0.15 mile downstream from Mill Swamp, and 3.5 miles southwest of Bertie, Bertie County.	60.1	1951-53, 1954,1956	July 17 July 23 Aug. 6	*.13 *0 *0
Do.....	....do.....	Lat 35°56'50", long 76°55'56", at highway, 1½ miles below Mill Swamp and 3½ miles south of Windsor, Bertie County.	62.2	1949-51, 1954	July 23	*.02
Pamlico River basin, N. C.						
Shelton Creek	Tar River....	Lat 36°18'47", long 78°43'16", at U. S. Highway 158, 1 mile east of Berea, 1½ miles above mouth, and 7½ miles west of Oxford, Granville County.	22.6	1949-56	Apr. 1 Apr. 4 July 10	*12.3 *9.89 *.35
Tabbs Creek..	....do.....	Lat 36°10'50", long 78°27'20", at highway, 1½ miles above mouth and 2½ miles south of Kittrell, Vance County.	69.8	1949-56	July 11	*2.60
Crooked Creek	....do.....	Lat 35°56', long 78°15', at State Highway 39, ½ mile above Norris Creek and 2½ miles south of Bunn, Franklin County.	30.6	1954-56	Mar. 12 July 16	*45.7 *4.94
Cypress Creek	....do.....	Lat 35°56', long 78°11', at highway bridge, ¼ mile above mouth and 4 miles southeast of Bunn, Franklin County.	30.2	1954-56	Mar. 12 July 16	*43.2 *.56
Sandy Creek..	Swift Creek..	Lat 36°12'35", long 78°13'43", at highway bridge, 1½ miles above Devil's Cradle Creek and 1½ miles south of Alert, Franklin County.	53.7	1954-56	Mar. 13 July 11	*52.9 *6.14
Shocco Creek.	Fishing Creek	Lat 36°17'33", long 78°13'10", at bridge on unpaved road, 1½ miles south of Elberon, 1½ miles above Buffalo Branch, and 8.4 miles southwest of Warrenton, Warrenton County.	17.7	1954-56	Mar. 13 July 11	*20.0 *2.91
Town Creek...	Tar River....	Lat 33°48'00", long 77°35'22", at U. S. Highway 258, ¼ mile below Bynum Mill Creek and 2½ miles east of Pinetops, Edgecombe County.	192	1949-54	July 16	*6.53
Hunting Creek	Grindle Creek	Lat 35°40'08", long 77°15'42", at highway, 2.0 miles above mouth and 3½ miles northwest of Pactolus, Pitt County.	8.88		Aug. 14	*0
Grindle Creek	Tar River....	Lat 35°39'21", long 77°16'15", at highway, 1.7 miles above Hunting Run and 3½ miles northeast of Pactolus, Pitt County.	54.7	1953-56	Apr. 11 July 17 Aug. 14	*34.8 *3.86 *.93
Durham Creek.	Pamlico River	Lat 35°19', long 76°53', at State Highway 33, at Edward Beaufort County, 6½ miles above mouth.	20.9	1950-56	July 17	*.02
Neuse River basin, N. C.						
Little River.	Eno River....	Lat 36°08'20", long 78°54'24", at U. S. Highway 501, 1 mile above Mountain Creek and 1½ miles northwest of Orange Factory, Durham County.	81.6	1930, 1954-56	Mar. 30	*60.4

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Neuse River basin, N. C.--Continued						
Beaverdam Creek.	Neuse River..	Lat 36°03'20", long 78°40'40", at highway, 2½ miles above mouth and 4½ miles south of Creedmoor, Granville County.	44.1	1953-55	Apr. 18	*11.0
Newlight Creek.	....do.....	Lat 36°00'48", long 78°37'43", at highway, 1.5 miles above mouth and 4.2 miles west of Purnell, Wake County.	19.3	1954-56	Mar. 11	*17.5
Upper Barton Creek.	....do.....	Lat 35°58'22", long 78°39'18", at highway, 1 mile above mouth and 2 miles northwest of Bayleaf, Wake County.	12.2	1952, 1954-56	Mar. 11	*11.3
Peoples Creek	....do.....	Lat 35°51'55", long 78°30'53", at highway, ½ mile above Hodges Creek and 1½ miles south of Wake Crossroads, Wake County.	9.86	1954-56	Mar. 11	*19.7
Big Branch...	Walnut Creek.	Lat 35°44'28", long 78°34'06", at highway, 1 mile above mouth and 3 miles northeast of Garner, Wake County.	12.1	1953-56	Mar. 29	*11.1
Poplar Creek.	Neuse River..	Lat 35°44'11", long 78°29', at highway, ½ mile above mouth, 2 miles west of Shotwell, and 4 miles south of Knightdale, Wake County.	8.67	1954-56	Mar. 16	*10.8
Hannah Creek.	Mill Creek...	Lat 35°23'45", long 78°25'55", at highway, 0.1 mile above Rock Branch and 2.1 miles north of Blackman, Johnston County.	33.6		May 10	*4.97
Buck Swamp...	Thoroughfare Swamp.	Lat 35°15'40", long 78°05'15", at highway bridge, 1½ miles above mouth and 2½ miles west of Dudley, Wayne County.	17.0	1949-56	Aug. 12	*.26
Unnamed tributary.	Neuse River..	Lat 35°19'33", long 78°01'25", at highway bridge, ½ mile east of Genoa, 1.0 mile above mouth, and 4½ miles southwest of Goldsboro, Wayne County.	4.67	1954-55	Aug. 12	*.68
Stony Creek...	....do.....	Lat 35°22'33", long 77°57'30", at U. S. Highway 70, 2 miles east of Goldsboro, Wayne County, and 3½ miles above mouth.	21.0	1949-55	Aug. 12	*.20
Sleepy Creek.	....do.....	Lat 35°15'00", long 77°57'10", at highway bridge, 1½ miles above mouth and 5 miles east of Dudley, Wayne County.	9.79	1955	Aug. 12	*5.01
Walnut Creek.	....do.....	Lat 35°18'54", long 77°52'51", at highway bridge, 2.7 miles southwest of Best, Wayne County, and 4½ miles above mouth.	9.14	1955-56	Mar. 16 Aug. 12	*12.6 *.58
West Bear Creek.	Bear Creek...	Lat 35°22'50", long 77°52'06", at highway, 0.7 mile north of New Hope, Wayne County, and 3½ miles above mouth.	13.9		Aug. 13	*.35
Bear Creek...	Neuse River..	Lat 35°18'53", long 77°48'56", at U. S. Highway 70, 1½ miles northwest of La Grange, Lenoir County, and 6½ miles above mouth.	52.2	1954-56	Mar. 16 Aug. 13	*50.6 *6.99
Do.....	....do.....	Lat 35°14'56", long 77°47'04", at highway, 1½ miles above mouth, 2 miles south of Mayo's Store, and 4 miles south of La Grange, Lenoir County.	64.1	1955	Aug. 12	*7.11
Gum Swamp....	Falling Creek	Lat 35°18'05", long 77°41'48", at highway, 0.4 mile above mouth and 2.8 miles north of Falling Creek, Lenoir County.	6.12		Aug. 12	*.04
Falling Creek	Neuse River..	Lat 35°15'39", long 77°41'32", at U. S. Highway 70, at Falling Creek, Lenoir County, 4 miles above mouth and 6½ miles west of Kinston.	45.4	1949-55	Aug. 13	*1.43
Deep Run.....	Southwest Creek.	Lat 35°08'00", long 77°42'00", at highway bridge, ½ mile above mouth, 0.7 mile east of Deep Run, Lenoir County, and 11½ miles southwest of Kinston.	6.10	1949-56	Aug. 12	*.53
Southwest Creek.	Neuse River..	Lat 35°11'25", long 77°37'20", at U. S. Highway 258, ½ mile north-northwest of Woodington, 4½ miles below Horse Branch, and 5½ miles south-southwest of Kinston, Lenoir County.	38.5	1956	Mar. 14 Aug. 12	*42.6 *0
Do.....	....do.....	Lat 35°13'15", long 77°34'32", at State Highway 12, 3½ miles south of intersection of U. S. Highways 70 and 258, 1½ miles above head of Kelly's Pond, and 3½ miles south of Kinston, Lenoir County.	50.7		Aug. 12	*0

* Base flow.

DISCHARGE MEASUREMENTS AT POINTS OTHER THAN GAGING STATIONS

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Neuse River basin, N. C.--Continued						
Briery Run...	Stonyton Creek.	Lat 35°18'22", long 77°36'47", at highway bridge, 3 miles north-west center of Kinston, Lenoir County, and 4½ miles above mouth.	4.05	1955	Aug. 12	*0
Stonyton Creek.	Neuse River..	Lat 35°19'05", long 77°29'44", at highway bridge ½ mile east of Grainger, Lenoir County, and 1 mile above mouth.	36.1	1954-55	Aug. 12	*0
Mosley Creek. ....do.....	....do.....	Lat 35°19'51", long 77°25'39", at highway bridge, 1 mile above mouth and 3 miles southeast of Grifton, Pitt County.	45.7	1954-55	Aug. 12	*0
Mocoasir Creek. ....do.....	....do.....	Lat 35°49', long 78°15', at U. S. Highway 264, 3½ miles northwest of Middlesex, Nash County, and 9 miles above Turkey Creek.	28.2	1950-54	Mar. 12 Aug. 6	*39.0 *1.62
Contentnea Creek. ....do.....	....do.....	Lat 35°41'10", long 78°05'38", at highway, 500 ft below Buckhorn Branch, 1 mile northeast of Buckhorn Crossroads, and 6.8 miles north of Kenly, Wilson County.	166		Aug. 12	*2.64
Black Creek..	Contentnea Creek.	Lat 35°58'15", long 77°58'12", at highway bridge, just below unnamed tributary, 2.3 miles west of Black Creek, Wilson County, and 2.5 miles above Great Swamp.	30.9	1955-56	Apr. 19 Aug. 6 Aug. 12	*11.4 *0 *0
Toisnot Swamp ....do.....	....do.....	Lat 35°49'20", long 77°59'50", at highway bridge, ¼ mile below Little Swamp, 3 miles northwest of New Hope, and 7½ miles north-east of Bailey, Nash County.	29.6	1932, 1954	May 10 Aug. 6	*8.37 *3.77
Do.....	....do.....	Lat 35°36'03", long 77°47'55", at bridge on State Highway 58, 1.3 miles above mouth, 1½ miles east of Stantonburg, and 4 miles south-southwest of Saratoga, Wilson County.	112	1956	Aug. 12	*2.07
Beamans Run.. ....do.....	....do.....	Lat 35°32'52", long 77°44'27", at highway, 1.1 miles above mouth and 4.1 miles southwest of Walstonburg, Green County.	7.92		Aug. 12	*.08
Nahunta Swamp ....do.....	....do.....	Lat 35°30'40", long 77°59'00", at U. S. Highway 117, 100 ft below Atlantic Coast Line RR. and 1 mile north of Pikeville, Wayne County.	18.6		Aug. 12	*.67
The Slough... Nahunta Swamp	Nahunta Swamp	Lat 35°28'13", long 77°51'22", at highway, 0.4 mile above mouth, 0.5 mile below Exum Mill Branch, and 2.9 miles northeast of Saulston, Wayne County.	21.3		Aug. 12	*.68
Nahunta Swamp	Contentnea Creek.	Lat 35°30'27", long 77°44'21", at State Highway 58, ½ mile above mouth and 5½ miles northwest of Snow Hill, Greene County.	97.1	1949-54	Aug. 12	*2.45
Fort Run..... ....do.....	....do.....	Lat 35°29'50", long 77°43'30", at highway bridge, ½ mile above mouth and ½ mile south of Contentnea, Greene County.	10.5	1954	Aug. 12	*.03
Shepherd Run. ....do.....	....do.....	Lat 35°26'08", long 77°38'41", at culvert on U. S. Highway 258, 2.0 miles south of Snow Hill, Greene County.	1.47		Aug. 12	*.87
Rainbow Creek ....do.....	....do.....	Lat 35°25'29", long 77°35'39", at highway bridge, ½ mile above mouth, at Hookerton, Greene County.	15.3	1954-56	Aug. 12	*1.79
Mussell Run.. ....do.....	....do.....	Lat 35°26'24", long 77°34'03", at highway bridge, 1 mile above mouth and 2 miles northeast of Hookerton, Greene County.	11.2	1954-55	Aug. 12	*.42
Wheat Swamp.. ....do.....	....do.....	Lat 35°24'40", long 77°33'31", at highway bridge, 2½ miles above mouth and 3 miles southeast of Hookerton, Greene County.	27.3	1956	Aug. 12	*0
Folecat Branch. ....do.....	....do.....	Lat 35°26'01", long 77°32'39", at highway bridge, 1 mile above mouth and 3 miles east of Hookerton, Greene County.	3.25	1954-55	Aug. 13	*.14
Contentnea Creek.	Neuse River..	Lat 35°24'46", long 77°29'51", at highway bridge, 1.9 miles above Little Contentnea Creek and 4 miles west-northwest of Hanrahan's, Pitt County.	790	1956	Aug. 12	*31.4
Black Swamp..	Little Contentnea Creek.	Lat 35°37'28", long 77°35'33", at highway, 1.0 mile above mouth and 2.0 miles north of Farmville, Pitt County.	12.0		Aug. 12	*0
Middle Swamp. ....do.....	....do.....	Lat 35°32'30", long 77°34'05", at highway, 1 mile above Sandy Run and 4 miles northeast of Lizzie, Greene County.	20.0	1954	Aug. 13	*0

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Neuse River basin, N. C.--Continued						
Sandy Run...	Little Contentnea Creek.	Lat 35°31'53", long 77°33'24", at highway bridge, 1 mile above mouth and 4 miles northeast of Lizzie, Green County.	28.6	1954	Aug. 13	*0
Little Contentnea Creek.	Contentnea Creek.	Lat 35°27'24", long 77°29'09", at State Highway 102, 1.6 miles south-southwest of Roundtree, 2.6 miles above mouth, and 4 miles west-southwest of Ayden, Pitt County.	172	1956-57	Aug. 13	*3.00
Eagle Swamp...	....do.....	Lat 35°21'58", long 77°26'27", at highway bridge, 1 mile above mouth and 1 mile south of Grifton, Pitt County.	9.68	1954-55	Aug. 12	*.19
Core Creek...	Neuse River..	Lat 35°15'10", long 77°17'08", at State Highway 55, 3½ miles southeast of Fort Barnwell, Craven County, and about 7 miles from mouth.	59.2	1949-56	May 16 Aug. 13	*7.25 *.52
Unnamed tributary.	Core Creek...	Lat 35°16'37", long 77°18'09", at State Highway 55, 1.3 miles above mouth and 2 miles south-east of Fort Barnwell, Craven County.	8.06	1954	Aug. 13	*.03
Swift Creek..	Neuse River..	Lat 35°28'13", long 77°24'02", at State Highway 102, 1 mile east of Ayden and 4½ miles above Fork Swamp, Pitt County.	25.1	1956	Aug. 12	*0
Fork Swamp...	Swift Creek..	Lat 35°29'23", long 77°21'58", at highway, 3.2 miles east-northeast of Ayden, Pitt County, and 4.3 miles above mouth.	16.8		Aug. 12	*0
Swift Creek..	Neuse River..	Lat 35°24'07", long 77°19'54", at highway bridge, ½ mile south of Coxville, 2½ miles northwest of Gardnerville, Pitt County, and 2.7 miles below Fork Swamp.	78.2	1956	Aug. 12	*.1
Clayroot Swamp.	Swift Creek..	Lat 35°23'36", long 77°15'54", at highway, 1½ miles northwest of Clayroot, 2 miles east-northeast of Gardnerville, Pitt County, and 4.9 miles downstream from Indian Well Swamp.	45.9		Aug. 12	*0
Palmetto Swamp.	....do.....	Lat 35°20'10", long 77°10'30", at State Highway 43, 1.3 miles above mouth and 2.5 miles northwest of Vanceboro, Craven County.	24.2	1956	Aug. 13	*0
Unnamed tributary.	....do.....	Lat 35°16'13", long 77°08'55", at highway, 0.9 mile above mouth and 2.8 miles south of Vanceboro, Craven County.	3.58		Aug. 13	*0
Little Swift Creek.	....do.....	Lat 35°15'06", long 77°00'14", at highway, above Pine Tree Swamp, 1.1 miles west of Cayton, Craven County.	25.8		Aug. 13	*.001
Pine Tree Swamp.	Little Swift River.	Lat 35°14'56", long 77°00'04", at highway, 0.2 mile above mouth and 1.2 miles southwest of Cayton, Craven County.	1.80		Aug. 13	*0
Unnamed tributary.	....do.....	Lat 35°14'04", long 77°02'25", at highway, 0.4 mile above mouth and 0.8 mile northeast of Askin, Craven County.	1.23		Aug. 13	*0
Batchelders Creek.	Neuse River..	Lat 35°09'00", long 77°10'20", at U. S. Highway 70, 2.1 miles below Rollover Creek and 6.7 miles northwest of New Bern, Craven County.	33.6	1941, 1956	Aug. 13	*.09
Beaverdam Swamp.	Trent River..	Lat 35°04'48", long 77°38'35", at U. S. Highway 258, 1¼ miles above mouth and 2.9 miles west of Pleasant Hill, Jones County.	7.46		Aug. 12	*0
Tuckahoe Swamp.	....do.....	Lat 34°59'30", long 77°40'01", at highway bridge, 2 miles southwest of Hargett Store, 7½ miles above mouth, and 18 miles southwest of Trenton, Jones County.	21.5	1954	Aug. 13	*0
Unnamed tributary.	Tuckahoe Swamp.	Lat 35°00'30", long 77°35'40", at culvert on State Highway 41, 1½ miles above mouth and 5 miles west of Comfort, Jones County.	3.35	1954	Aug. 13	*0
Tuckahoe Swamp.	Trent River..	Lat 35°01'53", long 77°34'46", at highway, 1 mile above mouth and 2.6 miles south of Pleasant Hill, Jones County.	49.6		Aug. 13	*.10

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Neuse River basin, N. C.--Continued						
Big Chin- quapin Branch.	Trent River..	Lat 35°04'53", long 77°25'06", at highway, $\frac{1}{2}$ mile above mouth and $\frac{1}{4}$ mile north of Phillips Crossroads, Jones County.	16.1		Aug. 13	*0.02
Beaver Creek.	.....do.....	Lat 35°08'00", long 77°26'58", at highway bridge, 0.4 mile below Trace Branch and 6.2 miles northwest of Trenton, Jones County.	32.8	1956	Aug. 13	*.21
Mussel- shell Creek.	.....do.....	Lat 35°04'58", long 77°21'11", at highway, $\frac{1}{2}$ mile above mouth and 1 mile north of Trenton, Jones County.	9.69	1954	Aug. 13	*0
Mill Run....	.....do.....	Lat 35°00'31", long 77°16'50", at State Highway 12, $\frac{1}{2}$ mile above mouth and $\frac{3}{4}$ miles west of Pollocksville, Jones County.	21.0		Aug. 13	*2.24
Brice Creek..	.....do.....	Lat 34°59'44", long 77°00'16", at highway, 12 miles above mouth and 1.0 mile northwest of Riverdale, Craven County.	20.4	1941	Aug. 13	*0
Unnamed tributary.	Upper Broad Creek.	Lat 35°08'00", long 76°56'30", at State Highway 55, 1 mile above mouth and $\frac{5}{8}$ miles west of Grantsboro, Pamlico County.	3.31		Aug. 14	*0
Upper Broad Creek.	Neuse River..	Lat 35°10'35", long 76°57'55", at highway bridge, $1\frac{1}{2}$ miles southeast of Springhope, 8.7 miles above mouth, and 3 miles north of Olympia, Pamlico County.	22.0	1950-56	Aug. 13	*0
Goose Creek..	.....do.....	Lat 35°06'12", long 76°53'33", at highway, 1.0 mile northwest of Scotts Store, Pamlico County, and $\frac{5}{8}$ miles above mouth.	25.5		Aug. 14	*0
Newport River basin, N. C.						
Southwest Prong Newport River.	Newport River	Lat 34°46'45", long 76°56'00", at county road bridge, 1.6 miles above mouth and 4.3 miles west of Newport, Carteret County.	16.4	1953-54	Aug. 13	*0
Northwest Prong Newport River.	.....do.....	Lat 34°47'50", long 76°54'50", at county road bridge, 0.4 mile above mouth and 3.2 miles west-northwest of Newport, Carteret County.	11.3	1954	Aug. 13	*0
Shoe Branch..	.....do.....	Lat 34°47'35", long 76°53'30", at county road bridge, $\frac{1}{2}$ mile above mouth and 1.8 miles west of Newport, Carteret County.	4.11	1954	Aug. 13	*.15
Cedar Swamp Creek.	.....do.....	Lat 34°46'35", long 76°53'00", at highway bridge, 0.4 mile above mouth and 1.5 miles southwest of Newport, Carteret County.	2.22	1953	Aug. 14	*0
Broad Creek basin, N. C.						
East Prong Broad Creek.	Broad Creek..	Lat 34°43'50", long 76°56'10", at highway bridge, $\frac{1}{2}$ mile above mouth and 6 miles southwest of Newport, Carteret County.	1.72	1953	Aug. 13	*0
Grape Branch.	Whiteoak River.	Lat 34°56'32", long 77°19'55", at highway, $\frac{1}{2}$ mile above mouth and $\frac{6}{8}$ miles northwest of Maysville, Jones County.	1.95		Aug. 13	*0
Whiteoak River basin, N. C.						
Whiteoak River.	Atlantic Ocean.	Lat 34°53'30", long 77°14'00", at U. S. Highway 17 at Jones-Onslow County line, 1.1 miles upstream from Mirey Branch, 0.8 mile north of Belgrade, Onslow County, and 1 mile south of Maysville, Jones County.	53.3	1941, 1947, 1950-54, 1956	Aug. 13	*0.64
Starkey Creek	Whiteoak River.	Lat 34°50'10", long 77°13'45", at highway bridge, $1\frac{1}{4}$ miles above mouth and 3.2 miles south of Belgrade, Onslow County.	14.1	1953	Aug. 13	*.002
New River basin, N. C.						
New River....	Atlantic Ocean.	Lat 34°52'33", long 77°33'03", at U. S. Highway 258, 1 mile above Mill Swamp and $1\frac{1}{2}$ miles south of Richlands, Onslow County.	40.0	1941	Aug. 13	*0
Jenkins Swamp	New River....	Lat 34°52'46", long 77°31'16", at highway, 1.5 miles northwest of Gum Branch, Onslow County, and $1\frac{1}{4}$ miles above mouth.	5.62		Aug. 13	*.69

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
New River basin, N. C.--Continued						
Unnamed tributary.	New River....	Lat 34°48'55", long 77°30'54", at U. S. Highway 258, 2.4 miles above mouth and 3 miles east of Catharine Lake, Onslow County.	2.41	1941	Aug. 13	*0
Southwest Creek.	....do.....	Lat 34°44'00", long 77°31'53", at State Highway 53, 0.5 mile above Harris Creek and 4.5 miles southwest of Jacksonville, Onslow County.	26.9	1954	Aug. 13	*.63
Do.....	....do.....	Lat 34°43'10", long 77°31'20", at highway bridge, 1 mile below Harris Creek and 6 miles southwest of Jacksonville, Onslow County.	35.2	1941, 1953-54, 1956	Aug. 14	*.66
Northeast Creek.	....do.....	Lat 34°46'25", long 77°21'40", at highway bridge, 1.6 miles below Wolf Swamp and 2.1 miles south of Kellum, Onslow County.	28.3	1941, 1953-54, 1956	Apr. 17 Aug. 13	*3.71 *.91
Cape Fear River basin, N. C.						
Haw River....	Cape Fear River.	Lat 36°13'40", long 79°54'55", at U. S. Highway 220, 2½ miles north of Summerfield, Guilford County, and 2½ miles below Rocky Branch.	20.2	1951-56	Mar. 13	*15.3
Buttermilk Creek.	Stony Creek..	Lat 36°22'11", long 79°26', at highway bridge, 1.6 miles above mouth, 2 miles southwest of Union Ridge, and 7½ miles northwest of Burlington, Alamance County.	15.4	1952-56	Oct. 4 Nov. 13 Mar. 18 May 1 Sept. 6	*1.69 *3.20 *.596 *2.62 *.59
Jordan Creek.	....do.....	Lat 36°11'08", long 79°24'05", at highway bridge, 1 mile south of Union Ridge, Alamance County, 2 miles above mouth, and 7 miles north of Burlington, Alamance County.	21.6	1941, 1949-56	Oct. 4 Nov. 13 Mar. 18 May 1 Sept. 6	*3.68 *7.40 *12.3 *4.28 *.34
Little Alamance Creek.	Alamance Creek.	Lat 36°03'15", long 79°38'14", at highway bridge, 2½ miles above Rock Creek, 4½ miles west of Whitsett, Guilford County, and 3½ miles east of Greensboro.	38.4	1950-56	Apr. 11	*42.7
Alamance Creek.	Haw River....	Lat 36°02'25", long 79°29'22", at State Highway 62, at Alamance, 0.7 mile below Little Creek and 4 miles south of Burlington, Alamance County.	144	1949-56	Mar. 12	*128
South Prong Stinking Creek.	Stinking Creek.	Lat 35°59'25", long 79°29'40", at highway bridge, 1.4 miles above mouth and 4 miles southwest of Bellemont, Alamance County.	33.3	1956	Mar. 12	*34.3
Cane Creek...	Haw River....	Lat 35°55'42", long 79°15'02", at highway bridge, 1 mile above mouth, 3 miles southwest of Teer, and 10 miles west of Carrboro, Orange County.	35.8	1954-56	Mar. 12	*43.0
New Hope River.	....do.....	Lat 35°57'34", long 78°58'55", at U. S. Highways 15, 501, 2½ miles southwest of intersection of State Highway 751 and U. S. Highways 15, 501, in Durham, Durham County, and 1 mile below Sandy Creek.	36.4	1954-56	Mar. 30	*27.7
Richland Creek.	Deep River...	Lat 35°56'28", long 79°55'56", at highway bridge, 2.3 miles above mouth, 3 miles northeast of Archdale, and 4 miles southeast of Railroad Station in High Point, Guilford County.	12.7	1954-56	Oct. 15	*3.65
Polecat Creek	....do.....	Lat 35°53', long 79°46', at highway bridge, 1 mile below unnamed tributary, 2 miles east of Level Cross, and 4 miles southwest of Climax, Guilford County.	28.4	1954-56	Apr. 11	*26.8
Richland Creek.	....do.....	Lat 35°38'25", long 79°42'50", at highway, 3½ miles above Bachelors Creek and 8 miles southeast of Asheboro, Randolph County.	34.0	1949-56	Aug. 29	*4.76
Brush Creek...	....do.....	Lat 35°36', long 79°35', at State Highways 22, 302, 1.4 miles above mouth, 1.5 miles northeast of Cheeks, and 3 miles southeast of Coleridge, Randolph County.	66.9	1954-56	Apr. 11	*30.1

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Cape Fear River basin, N. C.--Continued						
Fork Creek...	Deep River...	Lat 35°32', long 79°39', at highway, 3 miles above mouth, 7½ miles east of Seagrove, and 8 miles south of Coleridge, Randolph County.	36.5	1954-56	Apr. 11 Aug. 29	*11.3 *5.70
Tick Creek...	Rocky River..	Lat 35°40'33", long 79°22'03", at highway, 1½ miles above mouth, 3½ miles northeast of Bonlee, and 5½ miles east of Mount Vernon Springs, Chatham County.	19.3	1954-56	Aug. 12	*6.93
Bear Creek....	....do.....	Lat 35°37'35", long 79°17'56", at highway, 3 miles northeast of Goldston, Chatham County, 4½ miles below Atlantic and Yadkin Rv., and 6½ miles from mouth.	43.2	1949-56	Apr. 12	*8.54
Neill Creek..	Cape Fear River.	Lat 35°25'38", long 78°49'18", at U. S. Highway 401, ½ mile above mouth and 2 miles north of Lillington, Harnett County.	37.6	1954-56	Apr. 12	*30.5
Stewarts Creek.	Little River.	Lat 35°16'12", long 78°45'29", at highway, 0.4 mile above mouth and 1 mile north of Linden, Cumberland County.	10.1	1955	Aug. 8	*.08
Turnbull Creek.	Cape Fear River.	Lat 34°41'29", long 78°35'00", at highway, 1½ miles above Jones Lake Outlet, 4½ miles northeast of Elizabethtown, Bladen County, and 6 miles above mouth.	65.2	1949-56	Apr. 2 Aug. 7	113 *1.28
Hammond Creek	....do.....	Lat 34°35'57", long 78°33'03", at highway, 2½ miles above Whites Creek, 4 miles north of Lisbon, and 5 miles southeast of Elizabethtown, Bladen County.	17.1	1955	Aug. 7	*.53
Livingston Creek.	....do.....	Lat 34°21'05", long 78°12'06", just above mouth at Cape Fear River, 1.7 miles north of Acme, Columbus County.	130	1950-56	Apr. 4 Aug. 7	*217 *.85
Six Runs Creek.	Black River..	Lat 34°59'15", long 78°14'00", at State Highway 24, 1/8 mile above Atlantic Coast Line RR., ¼ mile below Turkey Creek, and 5 miles east of Clinton, Sampson County.	110	1950-54	Apr. 3 Aug. 8	*113 *.88
Mingo Swamp..	South River..	Lat 35°16'10", long 78°35'18", at U. S. Highway 421, 1 mile below Stony Run and 2.7 miles south-east of Dunn, Harnett County.	50.2	1955	Aug. 8	*.08
Moores Creek.	Black River..	Lat 34°33'15", long 78°07'30", at highway, 2½ miles below Tuckahoe Creek and 3 miles northeast of Atkinson, Pender County.	51.9	1949-52, 1956	Apr. 3 Aug. 8	*45.0 *0
Allen Creek..	Cape Fear River.	Lat 34°02'46", long 78°02'12", at unpaved road, 400 ft above Bouncing Log Spring run, 5½ miles below Wilmington, Brunswick and Southern RR., and 8½ miles northeast of Southport, Brunswick County.	9.97	1956	Apr. 4 Aug. 7	*12.3 *1.87
Do.....	....do.....	Below Bouncing Log Spring.		1956	Apr. 4 Aug. 7	*.97 *.99
Lockwoods Folly River basin, N. C.						
Pinch Gut Creek.	Lockwoods Folly River.	Lat 34°02'50", long 78°10'45", at U. S. Highway 17, 1½ miles above mouth and 2 miles southwest of Bolivia, Brunswick County.	20.3	1950-54	Apr. 3 Aug. 7	*14.6 *.63
Pee Dee River basin						
Yadkin River.	Atlantic Ocean.	Lat 36°00'30", long 81°30'30", below mouth of Buffalo Creek, ½ mile below State Highway 268 and 4 miles northeast of Patterson, Caldwell County, N. C.	72.4	1954-56	Apr. 29 Aug. 8	*117 *47.4
Stony Creek..	Yadkin River.	Lat 36°06'50", long 81°20'55", at highway, 1 mile above mouth and 1½ miles north of Ferguson, Wilkes County, N. C.	35.1	1954-56	Mar. 18 Aug. 9	*41.8 *30.4
North Prong Lewis Fork Creek.	Lewis Fork Creek.	Lat 36°09'20", long 81°19'10", at highway, ½ mile above South Prong and 1 mile east of Champion, Wilkes County, N. C.	33.6	1954-56	Mar. 18 Aug. 9	*45.4 *27.4
South Prong Lewis Fork Creek.	....do.....	Lat 36°09'10", long 81°19'20", at highway, ½ mile above North Prong and 0.6 mile east of Champion, Wilkes County, N. C.	31.2	1954-56	Aug. 9	*31.2
Mulberry Creek.	Yadkin River.	Lat 36°12', long 81°07', at State Highway 268, 1.1 miles above mouth and 1½ miles east of city limits of North Wilkesboro, Wilkes County, N. C.	43.0	1952-56	Aug. 9	*28.6

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Fée Dee River basin--Continued						
Bugaboo Creek	Yadkin River.	Lat 36°15'25", long 80°57'15", at State Highway 268, $\frac{1}{2}$ mile above mouth, 1 mile west of Rhonda, and $2\frac{1}{2}$ miles east of Roaring River, Wilkes County, N. C.	17.8	1954-56	Mar. 18 Aug. 9	*16.9 *9.44
Mitchell River.	....do.....	Lat 36°19'00", long 80°48'40", at Guyer Ford road, 2 miles above Grass Creek and $3\frac{1}{2}$ miles east of State Road, Surry County, N. C.	80.4	1952-57	Oct. 17 Mar. 18 Aug. 10	*33.0 *112 *61.4
Ararat River.	....do.....	Lat 36°30'00", long 80°35'40", at State Highway 103, at Mount Airy, Surry County, N. C., 2.3 miles above Lovels Creek.	66.6	1947, 1952-56	Oct. 16 Mar. 13 Aug. 9	*19.3 *60.8 *34.2
Toms Creek...	Ararat River.	Lat 36°23'50", long 80°29'20", at U. S. Highway 52, $1\frac{1}{2}$ miles below Chinquapin Creek and 1.4 miles northwest of Pilot Mountain, Surry County, N. C.	29.9	1952-56	Nov. 20 Mar. 13 Aug. 9	*15.6 *21.9 *9.42
West Prong Little Yadkin River.	Little Yadkin River.	Lat 36°19'51", long 80°24'40", at highway, 1.0 mile above mouth and 1.5 miles east of Pinnacle, Stokes County, N. C.	15.8		Aug. 29	*2.12
East Prong Little Yadkin River.	....do.....	Lat 36°19'38", long 80°24'09", at highway, 0.4 mile above mouth and 0.9 mile west of Chestnut Grove, Stokes County, N. C.	14.6		Aug. 29	*4.27
Danbury Creek	....do.....	Lat 36°18'30", long 80°23'50", at highway, 0.3 mile above mouth and 0.4 mile east of Dalton, Stokes County, N. C.	8.57		Aug. 29	*1.74
Little Yadkin River.	Yadkin River.	Lat 36°15'25", long 80°27'10", at highway, 1.2 miles above mouth and 1.5 miles northwest of Donnah, Forsyth County, N. C.	59.7	1941-42, 1955-56	Mar. 13 Aug. 9 Aug. 29	*42.0 *12.8 *13.8
North Deep Creek.	Deep Creek...	Lat 36°08'00", long 80°36'50", at U. S. Highway 421, $1\frac{1}{2}$ miles east of Yadkinville, Yadkin County, N. C. and $1\frac{1}{2}$ miles below Town Branch.	34.8	1954, 1956	Mar. 12	*29.1
Deep Creek...	Yadkin River.	Lat 36°06'35", long 80°32'24", at highway, 0.5 mile below North Deep Creek, 2.3 miles east of Shacktown, and 6.3 miles east of Yadkinville, Yadkin County, N. C.	122	1952-56	Mar. 12 Aug. 9	*55.4 *26.5
Ellison Creek	....do.....	Lat 36°02'54", long 80°27'23", at highway, 0.6 mile above mouth and 3.7 miles south-southwest of Lewisville, Forsyth County, N. C.	3.81		Aug. 29	*.81
Muddy Creek...	....do.....	Lat 36°10'11", long 80°21'00", at State Highway 67, $3\frac{1}{2}$ miles above Mild Creek and 8 miles northwest of intersection of U. S. Highways 52, 421, in Winston-Salem, Forsyth County, N. C.	25.0	1954, 1956	Aug. 29	*7.75
Mill Creek...	Muddy Creek...	Lat 36°10'50", long 80°13'22", at highway, 0.2 mile above Fivemile Branch and 3.9 miles west of Walkertown, Forsyth County, N. C.	3.74		Aug. 29	*1.06
...Do.....	....do.....	Lat 36°09'02", long 80°18'43", at highway at intersection of U. S. Highway 421 and State Highway 67 at Winston-Salem, Forsyth County, N. C., about 3 miles above mouth.	26.6	1954, 1956	Aug. 29	*8.20
Little Creek.	....do.....	Lat 36°02'19", long 80°21'46", at highway, 0.9 mile above mouth and 1.9 miles northeast of Clemmons, Forsyth County, N. C.	6.78	1956	Aug. 29	*1.79
Muddy Creek..	Yadkin River.	Lat 36°01'28", long 80°21'16", at U. S. Highway 158, $1\frac{1}{2}$ miles east of Clemmons, Forsyth County, N. C. and 2 miles above Middle Fork.	111	1949-56	Aug. 29	*26.0
Salem Creek..	Kerners Mill Creek.	Lat 36°06'20", long 80°06'25", at culvert on State Highway 150, 2 miles above mouth and 2.1 miles southwest of Kernersville, Forsyth County, N. C.	b2		Aug. 29	*.58
Kerners Mill Creek.	Salem Lake...	Lat 36°07'00", long 80°08'45", at highway, 0.9 mile above Salem Lake and 4 miles west of Kernersville, Forsyth County, N. C.	8.50	1954	Aug. 29	*3.30
Fiddlers Creek.	South Fork Muddy Creek	Lat 36°02'46", long 80°11'46", at State Highway 109, 1.5 miles above mouth and 4.6 miles south-east of Winston-Salem Post Office, Forsyth County, N. C.	9.72		Aug. 29	*3.34

* Base flow.

b Approximate.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Fee Dee River basin--Continued						
South Fork Muddy Creek	Muddy Creek..	Lat 36°00'40", long 80°16'20", at State Highway 150, 3 miles above mouth and 5 miles south of Winston-Salem, Forsyth County, N. C.	38.5	1955-56	Mar. 13 Aug. 9 Aug. 29	*27.0 *11.0 *10.0
Reedy Creek..	Yadkin River.	Lat 35°54'30", long 80°21'50", at highway, 1½ miles above mouth and 1.6 miles west of Reedy Creek, Davidson County, N. C.	21.1	1954	Aug. 28	*6.32
South Yadkin River.	....do.....	Lat 35°53'10", long 80°56'50", at bridge on State Highway 115, 3 miles upstream from Rocky River and 7 miles north of Statesville, Iredell County, N. C.	77.0	1955-56	Mar. 12 Aug. 12	*71.2 *35.3
Fifth Creek..	South Yadkin River.	Lat 35°51', long 80°44', at highway, 0.8 mile west of Cool-spring, 2 miles above mouth, and 9.0 miles northeast of Statesville, Iredell County, N. C.	27.0	1953-56	Nov. 14 Mar. 12 Aug. 8	*12.0 *24.6 *11.0
Bear Creek...	....do.....	Lat 35°53'20", long 80°35'09", at highway, 1.2 miles west of Mocksville, Davie County, N. C. and 4 miles above Baxter Creek.	21.2	1952-56	Mar. 12 Aug. 8	*13.7 *2.44
Second Creek.	....do.....	Lat 35°43'00", long 80°35'45", at U. S. Highway 70, 1.3 miles below confluence of Withrow and Carrell Creeks and 2.7 miles east of Barber, Rowan County, N. C.	119	1949-56	Mar. 12	*91.2
Grants Creek.	Yadkin River.	Lat 35°40'00", long 80°30'30", at State Highway 150, 2 miles west of Salisbury, Rowan County, N. C. and 7½ miles above mouth.	38.8	1949-56	Aug. 29	*4.91
South Potts Creek.	Potts Creek..	Lat 35°44'56", long 80°21'11", at U. S. Highways 29, 52, 70, 1 mile above mouth and 2.0 miles southwest of Linwood, Davidson County, N. C.	13.4		Aug. 28	*2.60
Swearing Creek.	Yadkin River.	Lat 35°50'14", long 80°17'28", at highway, 0.7 mile above Indian Grove Creek and 1.3 miles west of Lexington, Davidson County, N. C.	11.5	1952-54	Aug. 28	*2.78
Do.....	....do.....	Lat 35°45'19", long 80°18'22", at highway, 0.6 mile east of Linwood, Davidson County, N. C. and 2 miles above mouth.	34.9	1948-56	Mar. 12 Aug. 29	*23.5 *8.19
Second Creek.	....do.....	Lat 35°33'50", long 80°22'00", at highway, 2.1 miles southwest of Liberty, Rowan County, N. C. and 4½ miles above Reedy Creek.	32.6	1955-56	Mar. 13 Aug. 8	*18.1 *2.23
Abbotts Creek	....do.....	Lat 35°54'42", long 80°09'56", at highway, 1.5 miles above Brushy Fork, 5 miles west-northwest of Thomasville, Davidson County, N. C.	37.0		Aug. 29	*6.11
Brushy Fork..	Abbotts Creek	Lat 35°55'30", long 80°10'48", at highway, 1½ miles above mouth, 3.2 miles southeast of Eller, Davidson County, N. C. and 4.3 miles northeast of Welcome.	24.2	1954, 1956	Aug. 28	*4.38
Rich Fork Creek.	....do.....	Lat 35°58'40", long 80°03'40", at highway, 2.7 miles below Davidson-Forsyth County line, 3.6 miles northwest of High Point Post Office, Guilford County, N. C., and 5 miles southeast of Wallburg, Davidson County.	6.40		Aug. 28	*.26
Do.....	....do.....	Lat 35°51'15", long 80°10'57", at former U. S. Highways 29, 70, 1½ miles above Hamby Creek, 2½ miles north of Holly Grove, and 4½ miles northeast of Lexington, Davidson County, N. C.	47.3	1948, 1952-56	Mar. 12 Aug. 8 Aug. 29	*31.2 *3.51 *4.22
Unnamed tributary.	Leonard Creek	Lat 35°52'00", long 80°13'54", at highway, 1.2 miles above mouth and 3.4 miles northeast of Lexington, Davidson County, N. C.	6.00	1955	Aug. 28	*1.16
Flat Swamp Creek.	High Rock Lake.	Lat 35°41'12", long 80°09'06", 1.5 miles above Dry Branch and 3.4 miles southwest of Silver Hill, Davidson County, N. C.	14.7	1954	Aug. 28	*.08
Lick Creek...	Yadkin River.	Lat 35°56'59", long 80°10'33", at highway, 0.1 mile east of Healing Springs, Davidson County, N. C. and 3 miles above mouth.	26.5	1955-56	Mar. 13 Aug. 8 Aug. 28	*9.12 *1.38 *4.48

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Fee Dee River basin--Continued						
Cabin Creek..	Yadkin River.	Lat 35°34'57", long 80°09'10", at concrete box culvert on State Highway 8, 0.8 mile north of Jackson Hill, Davidson County, N. C. and 4 miles above mouth.	10.8	1955	Aug. 28	*0.36
Uwharrie River.	Fee Dee River	Lat 35°47'30", long 80°00'00", at highway, 3 miles above Little Uwharrie River and 12 miles northwest of Asheboro, Randolph County, N. C.	31.9	1949-53	Aug. 29	*.92
Little Uwharrie River.	Uwharrie River.	Lat 35°45'50", long 80°00'12", at highway, 1 mile above mouth and 5 miles southwest of Flint Hill, Randolph County, N. C.	43.6		Aug. 29	*1.01
Brier Creek..	Little Uwharrie River.	Lat 35°46'20", long 80°03'48", at highway, 2 miles above mouth and 7½ miles east-southeast of Holly Grove, Davidson County, N. C.	8.55		Aug. 28	*.06
Uwharrie River.	Fee Dee River	Lat 35°40'34", long 79°58'03", 0.9 mile north of Farmer, Randolph County, N. C. and 1 mile above Caraway Creek.	120		Aug. 29	*9.01
Back Creek...	Caraway Creek	Lat 35°41'55", long 79°55'33", at highway, ½ mile above mouth, 0.2 mile below Cable Creek, and 6 miles west of Asheboro, Randolph County, N. C.	32.9		Aug. 29	*1.65
Caraway Creek	Uwharrie River.	Lat 35°40'20", long 79°57'10", at State Highway 49, 1 mile above Taylors Creek and 1.9 miles northeast of Farmer, Randolph County, N. C.	79.3	1955	Aug. 29	*.42
Toms Creek...	....do.....	Lat 35°49', long 79°57', at highway, 1.7 miles above mouth and 0.9 mile south of Farmer, Randolph County, N. C.	16.9		Aug. 29	*.15
Clarks Creek.	Fee Dee River	Lat 35°14'06", long 80°01'18", at highway, 1½ miles northwest of Mount Gilead, Montgomery County, N. C. and 3½ miles above mouth.	22.7	1955	Aug. 29	*.60
Do.....	Rocky River..	Lat 35°24'50", long 80°45'08", at highway, 3.0 miles above mouth and 8½ miles northwest of Harrisburg, Cabarrus County, N. C.	21.8	1952-56	Mar. 13 Aug. 9	*13.2 *1.41
Rocky River..	Fee Dee River	Lat 35°21'33", long 80°40'31", at U. S. Highway 29, 3.6 miles above Mallard Creek, 2½ miles west of Roberta Mills, and 6½ miles southwest of Concord, Cabarrus County, N. C.	87.9	1952-56	Mar. 13 Aug. 9	*52.4 *10.2
Mallard Creek	Rocky River..	Lat 35°20'01", long 80°40'06", at highway, ½ mile above mouth and 1.3 miles northwest of Harrisburg, Cabarrus County, N. C.	41.2	1955-56	Mar. 13 Aug. 9	*21.4 *1.12
Coddle Creek.	....do.....	Lat 35°24'29", long 80°40'29", at highway, below Afton Run, 2½ miles below State Highway 73 and 5 miles west of Concord, Cabarrus County, N. C.	56.6	1949-56	Mar. 13 Aug. 9	*34.2 *6.72
Reedy Creek..	....do.....	Lat 35°18'10", long 81°35'40", at highway, 0.3 mile southeast of Rocky River, Cabarrus County, N. C. and 0.4 mile above Caldwell Creek.	30.8	1955-56	Mar. 13 Aug. 9	*15.9 *2.42
Richardson Creek.	....do.....	Lat 35°02'00", long 80°28'20", at highway, ½ mile above Stuarts Creek and 3½ miles north of Wingate, Union County, N. C.	98.2	1952-56	Aug. 6	*2.27
Thickety Creek.	Little River.	Lat 35°13'42", long 79°54'02", at highway, 1.1 miles above mouth and 5.3 miles west of Mount Gilead, Montgomery County, N. C.	9.13		Aug. 29	*.35
Big Town Creek.	....do.....	Lat 35°10'47", long 79°55'50", at highway, 0.7 mile above mouth and 4.6 miles southwest of Mount Gilead, Montgomery County, N. C.	9.70		Aug. 29	*0
Cheek Creek..	....do.....	Lat 35°09'50", long 79°54'03", at highway, ½ mile above mouth and 3 miles northwest of Covington, Richmond County, N. C.	32.8	1955	Aug. 29	*4.24
Hamer Creek..	....do.....	Lat 35°08'03", long 79°55'11", at highway, 0.5 mile above mouth and 4.0 miles west of Covington, Richmond County, N. C.	22.6		Aug. 29	*.13
Buffalo Creek	....do.....	Lat 35°08'27", long 79°53'29", at State Highway 73, 1.3 miles above mouth and 2.1 miles west of Covington, Richmond County, N. C.	10.9		Aug. 29	*1.37

* Base flow.

DISCHARGE MEASUREMENTS AT POINTS OTHER THAN GAGING STATIONS

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Pee Dee River basin--Continued						
Cartledge Creek.	Pee Dee River.	Lat 34°58'35", long 79°51'30", at highway, $\frac{1}{2}$ mile above mouth, $1\frac{1}{2}$ miles southeast of Blewett Falls Dam, and $5\frac{1}{2}$ miles northwest of Rockingham, Richmond County, N. C.	31.4	1949-54	Apr. 1 Aug. 7	*26.0 *1.47
Falling Creek	Hitchcock Creek.	Lat 34°57'40", long 79°42'15", at highway, $\frac{1}{2}$ mile east of Rockingham, Richmond County, N. C. and 5 miles above mouth.	6.50	1930 1950-54, 1956	Aug. 7 Aug. 29	*2.73 *4.63
South Fork Jones Creek	Jones Creek..	Lat 34°51'20", long 80°05'40", at State Highway 742, 3.5 miles north of State line, 6.8 miles south of Wadesboro, 5.3 miles west of Morven, Anson County, N. C., and $\frac{3}{4}$ miles above Jones Creek.	17.3	1949-54, 1956	Apr. 1 Aug. 7	*35.9 *1.77
Marks Creek..	Pee Dee River.	Lat 34°49'40", long 79°48'00", at highway, $\frac{3}{4}$ miles northwest of Osborne, Richmond County, N. C. and 9 miles above mouth.	29.2	1952-54, 1956	Aug. 7 Aug. 29	*8.89 *16.1
Thompson Creek.	....do.....	Lat 34°40', long 79°56', at bridge on county road, $\frac{1}{2}$ mile below Seaboard Air Line RR. bridge and 4 miles southwest of Cheraw, S. C.	266	1948, 1950-56	Sept. 4	46.0
Cedar Creek..	....do.....	Lat 34°31', long 79°51', at bridge on U. S. Highway 52, at Society Hill, S. C.	55	1949-56	June 20 Sept. 4	43.2 *22.3
Pee Dee River.	Atlantic Ocean.	Lat 34°32', long 79°50', at bridge on U. S. Highway 15, $\frac{1}{4}$ mile below Cedar Creek and $1\frac{1}{2}$ miles northeast of Society Hill, S. C.	7,980	1950-56	June 20	7,410
Big Black Creek.	Pee Dee River.	Lat 34°31', long 80°11', at bridge on U. S. Highway 1, $\frac{1}{4}$ mile above Little Alligator Creek and $5\frac{1}{2}$ miles northeast of McBee, S. C.	108	1956	June 18	93.6
Black Creek..	....do.....	Lat 34°23'15", long 80°03'50", at bridge on State road at Hartsaville, S. C., 0.1 mile below Seaboard Air Line RR. bridge.	-		Mar. 28 Apr. 17 Aug. 12 Sept. 18 Sept. 30	366 304 160 160 198
Do.....	....do.....	Lat 34°23', long 79°54', at bridge on county road, $\frac{1}{4}$ mile above U. S. Highway 52 and $1\frac{1}{4}$ miles southwest of Dovesville, S. C.	-		Mar. 28 Apr. 17 Aug. 12 Sept. 18	543 481 148 323
Do.....	....do.....	Lat 34°16', long 79°47', at bridge on State road, $\frac{1}{4}$ mile above High Hill Creek and 5 miles southeast of Darlington, S. C.	-		Mar. 28 Apr. 17 Aug. 12 Sept. 18	644 456 165 398
Catfish Canal	....do.....	Lat 34°10'20", long 79°25'00", at bridge on U. S. Highway 76, at Marion, S. C., 1.0 mile below Atlantic Coast Line RR. bridge.	-		Aug. 12 Aug. 22 Sept. 18 Sept. 30	*.14 *.74 16.1 79.0
Lynches River	....do.....	Lat 34°26', long 80°19', at bridge on U. S. Highway 1, 1.9 miles northeast of Bethune, S. C. and $2\frac{1}{2}$ miles downstream from Cedar Creek.	380	1953-56	Oct. 16 June 18 Sept. 4	67.7 88.9 74.3
Little Lynches River.	Lynches River	Lat 34°24', long 80°23', at bridge on U. S. Highway 1, $2\frac{1}{2}$ miles southwest of Bethune, S. C. and 3 miles above Bell Branch.	163	1951-56	Oct. 16 June 18 Sept. 4	*45.9 42.5 32.6
Gum Swamp Creek.	Little Pee Dee River.	Lat 34°51'14", long 79°31'30", at highway, 2 miles northwest of Sneeds Grove and $3\frac{1}{2}$ miles north of Laurel Hill, Scotland County, N. C.	42.4	1949-54, 1956	Aug. 8	*26.3
Drowning Creek.	Lumber River.	Lat 35°11'35", long 79°38'50", at State Highway 75, 2 miles southwest of Jackson Springs, Moore County, N. C. and 3 miles above Jackson Creek.	30.5	1949-54	Aug. 6 Aug. 29	*16.9 *34.0
Lumber River.	Little Pee Dee River.	Lat 34°42', long 79°15', at highway, $\frac{1}{2}$ mile below Gum Swamp, $\frac{1}{4}$ mile above U. S. Highway 74 and $5\frac{1}{2}$ miles west of Pembroke, Robeson County, N. C.	421	1949-54	Apr. 1 Aug. 8	*689 *273
Raft Swamp...	Lumber River.	Lat 34°43', long 79°05', at State Highway 211, $1\frac{1}{2}$ miles above Richland Swamp and 6 miles northwest of Lumberton, Robeson County, N. C.	107	1949-54	Apr. 2 Aug. 8	*166 *5.88

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Pee Dee River basin--Continued						
Big Swamp....	Lumber River.	Lat 35°45', long 78°50', at highway, $\frac{1}{2}$ mile south of Robeson-Bladen County line, $2\frac{1}{2}$ miles above Goodman Swamp, and $2\frac{1}{2}$ miles southwest of Tarheel, Bladen County, N. C.	225	1949-54	Apr. 3 Aug. 8	*311 *17.2
Santee River basin						
North Fork Catawba River.	Catawba River	Lat 35°50'00", long 82°00'05", at highway, $3\frac{1}{2}$ miles northeast of Woodlawn and $\frac{1}{2}$ mile downstream from Honeycut Creek, at Pitts, McDowell County, N. C.	33.0	1949-54, 1956	Oct. 16	*9.54
Armstrong Creek.	....do.....	Lat 35°37'48", long 82°01'24", 0.2 mile above mouth and 1 mile southwest of Sevier, McDowell County, N. C.	29.7	1956	Apr. 30 Aug. 14	*73.2 *31.6
North Muddy Creek.	Muddy Creek..	Lat 35°40'22", long 81°54'54", at highway, 1.2 miles below Caleb Branch, 3 miles southeast of Nebo, and $4\frac{1}{2}$ miles southwest of Bridgewater, Burke County, N. C.	42.9	1956	Apr. 30	*51.0
Muddy Creek..	Catawba River	Lat 35°42'50", long 81°51'36", at U. S. Highways 64, 70, $\frac{1}{2}$ mile above mouth and $\frac{1}{2}$ mile south of Bridgewater, Burke County, N. C.	99.1	1949-56	Oct. 1	*42.2
Mill Timber Creek.	Linville River.	Lat 35°01'28", long 81°55'18", at Crossnore, Avery County, N. C., $\frac{1}{2}$ mile above mouth.	3.84	1956	Apr. 30 Aug. 10	*9.48 *3.48
Warrior Fork.	Catawba River	Lat 35°47'50", long 81°43'00", at highway, $2\frac{1}{2}$ miles above mouth, $2\frac{1}{2}$ miles east of Gold, and 4 miles northwest of Morganton, Burke County, N. C.	81.9	1954-56	Mar. 13 Aug. 12	*108 *47.1
Wilson Creek.	Johns River..	Lat 35°55'50", long 81°42'50", at highway, below Brown Mountain Beach, $\frac{1}{2}$ mile west of Adako, Caldwell County, N. C. and $1\frac{1}{2}$ miles above mouth.	69.7	1956	Mar. 13 Aug. 8	*140 *50.8
Drowning Creek.	Catawba River	Lat 35°44'50", long 81°24'50", at highway, 1.1 miles above mouth and 4 miles northwest of Hickory, Catawba County, N. C.	14.7		Apr. 29 Aug. 12	*18.8 *10.5
Middle Little River.	....do.....	Lat 35°02'10", long 81°17'00", at highway, $1\frac{1}{2}$ miles above mouth and 6.3 miles southwest of Taylorsville, Alexander County, N. C.	46.3	1955-56	Mar. 19 Aug. 8	*52.0 *27.0
Glade Creek..	Lower Little River.	Lat 35°51'20", long 81°10'51", 0.1 mile above mouth and $\frac{1}{2}$ mile east of Millersville, Alexander County, N. C.	12.6	1956	Oct. 3 Apr. 29 Aug. 8	*10.1 *11.6 *9.66
Lyle Creek...	Catawba River	Lat 35°42'40", long 81°04'53", at State Highway 10, $\frac{1}{2}$ mile north of Catawba, Catawba County, N. C. and 1 mile above mouth.	70.7	1948-56	Oct. 1 Oct. 15	*61.9 *34.1
South Fork Mountain Creek.	Mountain Creek.	Lat 35°36'30", long 81°03'54", at highway, $1\frac{1}{2}$ miles above mouth and 6.8 miles south of Catawba, Catawba County, N. C.	7.20		Aug. 28	*1.88
North Fork Mountain Creek.	....do.....	Lat 35°37'18", long 81°02'50", at highway, 1.0 mile above South Fork and 6 miles south of Catawba, Catawba County, N. C.	8.05		Aug. 28	*3.23
Little Creek	Catawba River	Lat 35°32'40", long 80°59'00", at highway, 2.0 miles above mouth and 3.5 miles northeast of Denver, Lincoln County, N. C.	3.76		Aug. 28	*.53
Davidson Creek.	....do.....	Lat 35°31'30", long 80°54'12", at highway, 1 mile above Mecklenburg County line and 3 miles southwest of Mount Mourne, Iredell County, N. C.	21.6		Aug. 28	*2.09
Do.....	....do.....	Lat 35°29'22", long 80°56'04", at State Highway 73, 0.7 mile above mouth and $4\frac{1}{2}$ miles west of Cornelius, Mecklenburg County, N. C.	37.6	1949-56	Mar. 12 Apr. 25 Apr. 25 Aug. 27	*22.7 *17.5 *18.9 *3.81
Ramsey Creek.	....do.....	Lat 35°26'46", long 80°55'37", at highway, $1\frac{1}{2}$ miles above mouth and $5\frac{1}{2}$ miles west of Caldwell, Mecklenburg County, N. C.	5.28		Aug. 27	*.40
McDowell Creek.	....do.....	Lat 35°24'26", long 80°53'26", at highway, 0.2 mile above Terrence Creek and 2.7 miles west of Huntersville, Mecklenburg County, N. C.	10.1	1950	Aug. 27	*.76

* Base flow.

DISCHARGE MEASUREMENTS AT POINTS OTHER THAN GAGING STATIONS

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Santee River basin--Continued						
Buffalo Creek	Broad River..	Lat 35°08', long 81°33', at bridge on State Highway 5, 1½ miles above mouth and 2 miles west of Blacksburg, S. C.	176	1947, 1949-56	Dec. 6 May 22 Sept. 4	*79.3 *116 *36.0
Cherokee Creek.	....do.....	Lat 35°06', long 81°37', 1,000 ft above waterworks dam and 3.1 miles northeast of Gaffney, S. C.	15.9	1947, 1950, 1955-56	Dec. 5 Apr. 11 Sept. 6	*9.44 *20.3 *3.84
Kings Creek..	....do.....	Lat 35°04', long 81°27', at bridge on State Highway 5 at Kings Creek, S. C., 3½ miles below Jumping Branch.	47.6	1947, 1949-52, 1954-56	Dec. 6 May 23 Sept. 4	*12.4 *19.9 *2.51
Thicketty Creek.	....do.....	Lat 35°01', long 81°43', at bridge on U. S. Highway 29, at Thicketty, S. C., 2 miles above Livingston Creek.	39	1949-52, 1954-56	Dec. 3 Sept. 6	*21.5 *16.0
Bullock Creek.	....do.....	Lat 34°57', long 81°23', at bridge on State Highway 211, 0.7 mile below Clarks Creek and 2½ miles west of Sharon, S. C.	-	1947-54, 1956	Dec. 4 May 23 Sept. 4	*17.5 29.8 *0
Lawson Fork Creek.	Pacolet River	Lat 34°57'35", long 81°54'40", at bridge on State road at Spartanburg, S. C., 0.1 mile below Chingquepin Creek.	70	1952, 1954-55	Sept. 5	*24.8
Turkey Creek.	Broad River..	Lat 34°46'35", long 81°25'55", at bridge on State Highway 9, 1.7 miles southeast of Lockhart, S. C. and 1.8 miles above mouth.	-		Sept. 6	*0
Sandy River..	....do.....	Lat 34°37', long 81°22', at bridge on State Highway 72, 3/8 mile above Little Sandy River and 2 miles southeast of Leeds, S. C.	104	1950-54, 1956	Oct. 11 June 12 Sept. 4	*6.23 *49.6 *0.03
Tyger River..	....do.....	Lat 34°32', long 81°33', at bridge on State Highway 72, 0.3 mile below Padgeta Creek and ¼ mile southeast of Delta, S. C.	759	1903-4, 1950-56	June 19	440
Enoree River.	....do.....	Lat 34°55'25", long 82°17'40", at bridge on county road, at Taylors, S. C., 0.6 mile below Mountain Creek.	-	1952, 1954-55	Sept. 5	*45.5
Warrior Creek	Enoree River.	Lat 34°37', long 81°59", at bridge on U. S. Highway 221, at Lanford, S. C., 4½ miles above mouth.	23	1953-55	Sept. 4	.06
Duncan Creek.	....do.....	Lat 34°29', long 81°36', at bridge on U. S. Highway 176, 1¼ miles above mouth and 1½ miles southeast of Whitmire, S. C.	-		Sept. 4	*.56
Indian Creek.	....do.....	Lat 34°25', long 81°35", at bridge on U. S. Highway 176, 2 mile below Gilders Creek and 5½ miles south of Whitmire, S. C.	-		Sept. 4	*0
Little River.	Broad River..	Lat 34°11'45", long 81°10'05", at Ashley Bridge on State Highway 215 at Richtex, S. C., 1.7 miles above mouth.	237		Sept. 4	*3.19
Cedar Creek..	....do.....	Lat 34°09'45", long 81°06'55", at bridge on State Highway 215, 3.3 miles above mouth and 4.1 miles southeast of Richtex, S. C.	-		Sept. 4	*2.27
North Saluda River.	Saluda River.	Lat 35°01', long 82°30', at bridge on U. S. Highway 276, at Marietta, S. C., ¼ mile below Greenville and Northern Ry. bridge.	66.4	1900-1901, 1947, 1949, 1955	Sept. 5	*45.7
Grove Creek..	....do.....	Lat 34°42', long 82°26', at bridge on State road, 1.5 miles east of Piedmont, S. C. and 7½ miles above mouth.	14.6	1949, 1955	Sept. 5	*4.25
Redburn Creek	Reedy River..	Lat 34°28', long 82°09', at bridge on State Highway 252, 2½ miles above Dirty Creek and 7½ miles west of Laurens, S. C.	-	1955-56	Sept. 4	*5.44
Wilson Creek.	Ninety-Six Creek.	Lat 34°10', long 81°57', at bridge on State Highway 34, 1½ miles above mouth and 4 miles east of Ninety-Six, S. C.	76	1950-54, 1956	Apr. 15 Sept. 4	*28.1 *1.27
Little River.	Saluda River.	Lat 34°13', long 81°46', at bridge on State Highway 34, 1.25 miles above Southern Ry. bridge and 3 miles west of Silverstreet, S. C.	230	1953-56	Apr. 15 Sept. 4	*94.1 *5.55
Little Saluda River.	....do.....	Lat 34°01', long 81°44', at bridge on U. S. Highway 378, at Saluda, S. C., 1½ miles above Burnets Creek.	90		Sept. 4	*.38

* Base flow.

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Santee River basin--Continued						
Kinley Creek.	Saluda River.	Lat 34°04'15", long 81°09'45", just below unnamed tributary at bridge on county road at Irmo, S. C., 2 miles above Columbia, Newberry & Laurens RR. bridge.	3.1		Apr. 2	*0.19
First Creek.	Congaree Creek.	Lat 33°51'00", long 81°07'20", just below Urquhart Pond, 2.5 miles northwest of Gaston, S. C. and 3.4 miles above Second Creek.	9.1		Apr. 2	*4.48
Congaree Creek.	.....do.....	Lat 34°56'15", long 81°04'40", at bridge on U. S. Highway 21, at Cayce, S. C., 2 miles above Six-mile Creek.	136	1925, 1944, 1949-56	May 17 June 17 Sept. 5	116 103 *96.7
Sandy Run....	.....do.....	Lat 33°48'00", long 80°58'15", at bridge on U. S. Highway 21, 3.9 miles above mouth and 7.6 miles east of Gaston, S. C.	-	1955	Sept. 5	*27.9
Little River.	Santee River.	Lat 33°29', long 80°11', just below Lake Marion Dam, 9½ miles northwest of Pineville, S. C.	-	1944-56	Oct. 25 Mar. 12 Apr. 9 July 12 Aug. 21	22.0 23.9 26.3 28.2 23.9
Edisto River basin, S. C.						
Shaw Creek...	South Fork Edisto River.	Lat 33°42', long 81°46', at bridge on State Highway 191, at Eureka.	38	1952, 1954, 1956	Nov. 21	*14.4
Do.....	.....do.....	Lat 33°39'30", long 81°43'05", at bridge on State road, 0.3 mile above Southern Ry. bridge and 3.7 miles southeast of Eureka.	50	1946, 1949-54, 1956	Nov. 20 May 1 Sept. 5	*20.6 *24.7 *11.5
Do.....	.....do.....	Lat 33°34', long 81°36', at bridge on State Highway 215, 1¼ miles below Clearwater Branch and 3½ miles north of Montmorenci.	103	1952-54, 1956	Nov. 20 Sept. 5	*57.7 *25.9
Black Creek..	North Fork Edisto River.	Lat 33°45'15", long 81°19'10", at bridge on U. S. Highway 178, 0.35 mile below Smith Branch and 4.3 miles west of Pelion.	-	1956	Nov. 20	*48.9
North Fork Edisto River.	Edisto River.	Lat 33°35'25", long 81°06'20", at bridge on U. S. Highway 321, 0.9 mile below Big Beaver Creek and 1½ miles south of North.	396	1950-56	June 19	422
Savannah River basin, S. C.						
Chauga River.	Tugaloo River	Lat 34°39'50", long 83°09'40", at bridge on State road, 3.9 miles above Toxaway Creek and 3½ miles west of Westminster.	85	1955-56	May 23 Sept. 4	119 *51.2
Cane Creek...	Little River.	Lat 34°45', long 83°00', at bridge on State road, 2.6 miles below Little Cane Creek and 3 miles southeast of West Union.	35	1950, 1952-54, 1956	May 23 Sept. 5	42.9 *13.7
Rice Creek...	Twelve Mile Creek.	Lat 34°52', long 82°38', at Soil Conservation Service Dam 12, 4½ miles east of Pickens.	.72	1955-56	Dec. 11 Feb. 27 June 26 Aug. 7	.36 1.57 .57 .14
Do.....	.....do.....	Lat 34°50', long 82°41', at Soil Conservation Service Dam 16, 3 miles south of Pickens.	8.4	1956	Dec. 11 Jan. 23 Feb. 27 June 26 Aug. 7	4.61 45.6 18.6 6.79 2.64
Do.....	.....do.....	Lat 34°49', long 82°44', at bridge on county road, 1.1 miles above mouth and 3 miles northwest of Liberty.	-	1954-56	Dec. 12 Feb. 26 June 26 Aug. 8	10.8 33.7 12.3 5.59
Golden Creek.	.....do.....	Lat 34°48', long 82°44', at bridge on State road, 2 miles northwest of Liberty and 2½ miles above mouth.	-	1953-56	Dec. 12 Feb. 28 June 26 Aug. 8	7.94 45.4 9.70 4.16
Conneross Creek.	Seneca River.	Lat 34°41', long 83°02', at bridge on U. S. Highway 76, at Richland, 1¼ miles above Richland Creek.	40.6	1949-52, 1954, 1956	May 23 Sept. 5	46.9 *19.1
Big Generos-tee Creek.	Savannah River.	Lat 34°20'30", long 82°47'40", 300 ft above mouth and 6¼ miles southwest of Starr.	83	1951-52, 1954, 1956	May 24 Sept. 4	51.5 *23.9
Long Cane Creek.	Little River.	Lat 34°11'05", long 82°18'15", at bridge on State Highway 72, 3.4 miles above McCord Creek and 4.3 miles east of Abbeville.	68.6	1949-56	Nov. 9 Apr. 26 Sept. 4	*14.7 *29.8 *21.8
Horse Creek.	Savannah River.	Lat 33°34'00", long 81°48'45", at bridge on Powell Street at Graniteville, 1.1 miles above Wilkerson Creek.	-		May 8 May 17 May 31	50.5 57.1 48.0

* Base flow.

DISCHARGE MEASUREMENTS AT POINTS OTHER THAN GAGING STATIONS

Discharge measurements made at points other than gaging stations in the South Atlantic slope basins, James River to Savannah River during the water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Savannah River basin--Continued						
Wilkerson Creek.	Horse Creek..	Lat 33°33'10", long 81°48'40", at bridge on State Highway 191 at Warrenville, 0.3 mile above mouth.	-		May 8 May 17 May 31	*19.6 *22.3 20.3
Little Horse Creek.	....do.....	Lat 33°29'55", long 81°53'20", at bridge on State Highway 421 at Clearwater, 0.1 mile above mouth.	-		May 7 May 17 May 31	33.4 39.3 94.7
Horse Creek..	Savannah River.	Lat 33°29'05", long 81°53'50", at bridge on State road at Clearwater, 0.3 mile above Storm Branch.	-		May 7 May 17 May 31	148 191 207
Holley Creek.	....do.....	Lat 33°21'35", long 81°48'40", at bridge on State Highway 125, 1 mile below Town Creek and 2.2 miles northeast of Kathwood.	87	1952-54, 1956	Nov. 8	58.4

* Base flow.

The following table contains determinations of peak discharge made at crest stage by indirect methods or by current meter or computed from rating curve at points other than regular gaging stations.

Determinations of peak discharge at points other than gaging stations during water year 1957

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Little Snow Creek.	Snow Creek...	Lat 36°28', long 80°11' (revised), at highway bridge, 5.0 miles north of Hartman and 5.0 miles southeast of Lawsonville, Stokes County, N. C.	5.42		1955 Apr. 14 1957 Apr. 5	*467 626
Unnamed tributary.	Hycro Creek...	Lat 36°23', long 79°10', at culvert on secondary road, 3 miles above mouth and 1.3 miles south of Leasburg, Caswell County, N. C.	†1		March	91.5
Do.....	North Fork Little River.	Lat 36°12', long 79°01', at culvert on State Highway 57, 0.5 mile northeast of junction with State Highway 157, 1½ miles above mouth, and 6 miles west of Rougemont, Orange County, N. C.	1.43		June 5	207
Do.....	Lower Bartons Creek.	Lat 35°54'44", long 78°40'55", at culvert on State Highway 50, 1½ miles above mouth, 4.6 miles north of intersection of U. S. Highway 70 and State Highway 50, and 7 miles north of Raleigh, Wake County, N. C.	.63		May 11	248
Long Creek...	Little River.	Lat 35°38', long 78°15', at culvert on State Highway 39, 2.4 miles south of junction of State Highways 39 and 42, 3 miles above mouth, and 7 miles northeast of Selma, Johnston County, N. C.	6.87		June 9	1,180
Unnamed tributary.	Tuckahoe Swamp.	Lat 35°00', long 77°36', at culvert on State Highway 41, 1 mile above mouth, 0.2 mile west of Taylors Corner, 2.3 miles east of Hargett, and 5 miles west of Comfort, Jones County, N. C.	3.35		Mar. 8	73.8
Vine Swamp...	Beaver Creek.	Lat 35°09', long 77°03', at bridge on State Highway 12, 2 miles above mouth, 1.2 miles northeast of Elm Grove, and 7 miles west of Kingston, Lenoir County, N. C.	5.64		Mar. 8	63.4
South Frong Lewis Fork Creek.	Lewis Fork Creek.	Lat 36°11'50", long 81°24'30", at culvert on U. S. Highway 421, 10 miles above mouth, 2.7 miles west of Maple Springs School, 3.8 miles west of Watauga County line, and 15 miles west of North Wilkesboro, Wilkes County, N. C.	†15		Apr. 5	560
Fisher River.	Yadkin River.	Lat 36°26'30", long 80°46'10", at bridge on secondary road, 3 miles south of Bottom Post Office, Surry County, N. C.	44.7		Feb. 26 Apr. 5	403 1,690
Logan Creek...	....do.....	Lat 36°12'50", long 80°33'50", at culvert on State Highway 67, 9½ miles above Spillman Creek, 7.7 miles east of Booneville, and 1 mile south of Smithtown, Yadkin County, N. C.	1.08		Apr. 8 June 22	280 496

* Revised.

† About.

Determinations of peak discharge at points other than gaging stations
during water year 1957--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
South Deep Creek.	Deep Creek...	Lat 36°06'30", long 80°45'55", at bridge and milldam (Longtown Milling Co.), 6½ miles west of Yadkinville, Yadkin County, N. C.	19.5		July 16	2,750
Unnamed tributary.	Patterson Creek.	Lat 35°55'15", long 80°47'50", at culvert on State Highway 115, 2 miles above mouth, 6.1 miles south of junction of State High- ways 115 and 901, and 13.3 miles north of center of Statesville, Iredell County, N. C.	1.6		Sept. 17	435
South Fork Jones Creek.	Jones Creek..	Lat 34°51'20", long 80°05'40", at bridge on State Highway 742, 3.5 miles north of South Caro- lina State line, 6 miles above mouth, 6.8 miles south of Wades- boro, and 5.3 miles west of Mervin, Anson County, N. C.	17.3		May 11	1,060
Beaver Dam Creek.	Drowning Creek.	Lat 35°00'22", long 79°26'48", at culvert on U. S. Highways 15 and 501 in Scotland County, 0.8 mile south of Lumber River bridge and 8 miles south of Aberdeen, Moore County, N. C.	4.66		Sept. 30	24.7
Duck Creek...	Middle Little River.	Lat 35°53'35", long 81°18'10", at bridge on State Highway 127, 1 mile above mouth, 3.2 miles southwest of junction of State Highways 90 and 127, and 8 miles west of Taylorsville, Alexander County, N. C.	18.6		Apr. 5 June 5	756 634
Unnamed tributary.	Caleb Branch.	Lat 35°39', long 81°55', at cul- vert on State Highway 26, 0.9 mile above mouth and 3.7 miles east of junction of State High- way 26 and U. S. Highway 221 near Marion, McDowell County, N. C.	†1		June 4	147
Cold Spring Creek.	Carroll Branch.	Lat 35°53'15", long 81°44'10", at bridge on Collettsville Rd., 10 miles north of Morganton, Burke County, N. C.	2.76		June 5	397
Hagan Creek..	McLin Creek..	Lat 35°40'25", long 81°08'10", at culvert on State Highway 10, 1½ miles above mouth, 5 miles east of Newton, and 4.5 miles south- west of Catawba, Catawba County, N. C.	7.80		Jan. 31 June 26	1,060 2,120
Camp Creek...	Second Broad River.	Lat 35°27'50", long 81°54'30", at bridge on secondary road, 1.2 miles above Little Camp Creek, 1.2 miles northwest of West- minster, and 7 miles northeast of Rutherfordton, Rutherford County, N. C.	13.1		Apr. 4	460
Sugar Branch.	Beaverdam Creek.	Lat 35°14'50", long 81°37'20", at culvert on State Highway 150, 3.3 miles west of State Highway 18 and 2.7 miles east of Boil- ing Springs, Cleveland County, N. C.	1.42		Sept. 17	398

† About.

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